

# Menstrual Hygiene Management Impacts Girls' School Experience in the Bolivian Amazon



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# ACRONYMS

DHS	Demographic and health survey
FGD	Focus group discussion
HIV/AIDS	Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome
IDI	In-depth interview
KII	Key informant interview
MHM	Menstrual hygiene management
NGO	Non-governmental organization
WASH	Water, sanitation and hygiene
STI	Sexually transmitted infections
UDD	Urine diverting dry toilet

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## A. EXECUTIVE SUMMARY

The purpose of this study on menstrual hygiene management (MHM) in the Beni department of Bolivia was to better understand the challenges girls face due to menstruation; describe factors which influence girls' experiences during menstruation; and present recommendations to create a supportive school environment for adolescent girls in Bolivia. This study complements the findings of the first MHM study undertaken in Cochabamba, Bolivia in 2012<sup>1</sup>, by providing information specific to the Amazonian population of the eastern lowlands of Bolivia. These two studies together provide evidence, along with recommendations for change, to national decisions makers to safeguard schoolgirls' overall health and wellbeing.

Within Beni, the study took place in the rural municipalities of San Javier and San Ignacio de Moxos, between April and September 2015. A total of 171 participants from eight primary and secondary schools were engaged in research activities. A variety of qualitative methods were used to gather information on MHM, including: focus group discussions (FGDs) with girls, boys, mothers, fathers and teachers; in-depth interviews (IDIs) with girls and one mother; and key informant interviews (KIIs) with teachers and directors. Water, sanitation and hygiene facility observations were conducted in all eight schools.

In rural Beni, adolescent girls face many challenges when managing their menstruation. Menstruation resulted for girls in reduced school participation, distraction and stress, including concern that someone would know they were menstruating; fear about bloodstaining accidents and being bullied by classmates. In school toilets, there was a lack of privacy, cleanliness, water for hand washing, soap, toilet paper and absorbent materials. Knowledge about menstruation was insufficient, creating fear, anxiety and misconceptions about fertility as well. Although most girls did receive some orientation about MHM at school from female teachers, this was not systematically incorporated into lesson plans. Though girls had heard about menstruation from their mothers, aunts or older sisters, girls' limited knowledge led to anxiety about perceived dangers of menstruation and the need to avoid certain activities and foods to prevent illness. The information girls received at home from female family members centered on traditional beliefs. Mothers described that menarche signified the beginning of their daughters' reproductive years and could lead to increased risk of unplanned pregnancy, sexually transmitted infections, and school drop out for childcare and early marriage.

Specific recommendations to address these challenges include: 1) Advocacy and policy initiative for MHM, including strengthening of WASH in schools; 2) Institutionalize MHM in the formal school curriculum; 3) "Boys as Friends": a peer communication strategy clearly directed to adolescent boys to improve current unfair, conflicting and potential social gender norms; 4) "Clinic to School": improve linkages between the education and the health sector; 5) Behavior change communication through mass and social media; and 6) access to reusable absorbent MHM material to decrease the waste disposal problem.

Currently, national policies have not incorporated MHM into the education, WASH, health or protection sectors. Given the clear intersection of all challenges faced by girls that are presented in this report, engagement from a wide range of community, civil society, the government of the Plurinational State of Bolivia and its Ministries of Education, Environment and Water, Health and Justice at multiple levels will be required to create an impactful change in the lives and wellbeing of girls.

# B. PROGRAM BACKGROUND AND OVERVIEW

## B.1. Assessment Background

Menstrual Hygiene Management (MHM) is defined as: “Women and adolescent girls are using clean menstrual management material to absorb or collect menstrual blood, that can be changed in privacy as often as necessary for the duration of the menstruation period, using soap and water for washing the body as required, and having access to facilities to dispose of used menstrual management materials. They understand the basic facts linked to the menstrual cycle and how to manage it with dignity and without discomfort or fear.”<sup>2,3</sup> MHM research focuses on finding realistic solutions for handling monthly periods with discretion and dignity.

An initial assessment on MHM in schools was undertaken in Bolivia in 2012 in ten schools in rural Cochabamba (figure 1). Results from this study showed that schoolgirls were fearful and ashamed during their menstrual cycle due to a lack of privacy when managing menses; they worried that peers and teachers would know they are menstruating; and they were fearful of being exposed by bloodstains and odor leading to teasing by classmates. Pregnancy, absenteeism and reduced school participation were among the many challenges that schoolgirls faced. These challenges were tied to “lack of practical guidance on MHM and a biological understanding of menstruation, inadequate school facilities and limited access to absorbent materials.”<sup>1</sup> Key recommendations from this 2012 study included improved menstruation education for schoolgirls and community members, provision of adequate WASH facilities and maintenance, and availability and access to absorbent materials for girls, considering both their affordability and acceptability among girls.

Previous research has documented how the advent of menarche can be a psychologically traumatizing experience when girls are not informed beforehand.<sup>4,5</sup> A project baseline study was undertaken by Save the Children in Caracollo, Bolivia in 2005<sup>6</sup> showing that among 279 children aged eight to 14 years, only 42% affirm having heard about menstruation (29% of the boys and 54% of the girls). It was alarming that almost half the girls near the age of menstruation had not heard of the subject before.

A more recent 2014 survey by Save the Children Bolivia<sup>7</sup> shed further light on MHM practices. The survey took place in eight schools in La Paz, El Alto, Potosí and Cochabamba with a total of 420 participants (212 boys and 208 girls). Findings showed that none of the schools provided guidance for girls on MHM, and no education materials were available. During research with girls, they suggested three criteria for bathroom stalls to classify as “girl-friendly;” each stall would have: 1) a toilet with a lid; 2) a garbage can with lid, in the stall; and 3) a door with a lock on the inside. None of the stalls fulfilled all three criteria. Another key finding of the research was that the respective districts of education did not include classes preparing students for puberty and the management of menstruation in annual planning and supervision activities.

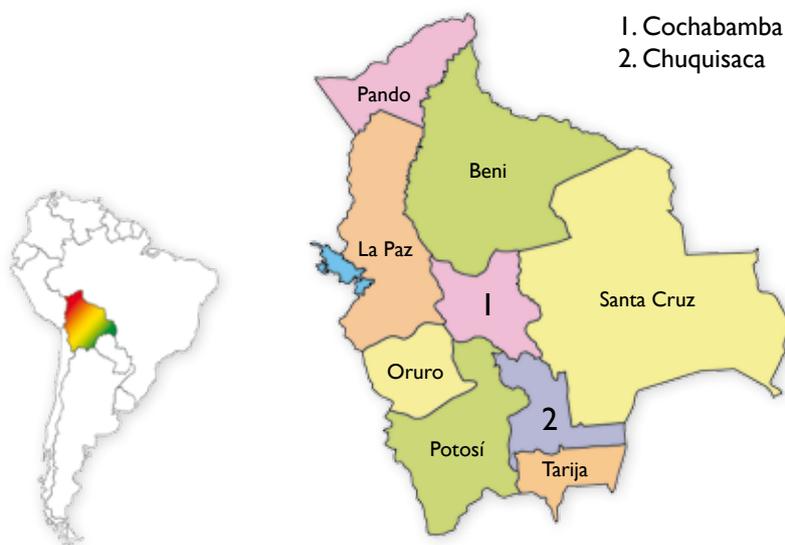
Although these studies highlight MHM issues in both rural and urban Bolivia, there continues to be limited understanding about the challenges girls face at the onset of menstruation, what girls require to handle monthly periods with discretion and dignity, and how these challenges vary across different cultures. Evidence based programmatic recommendations are more likely with a thorough knowledge of girls’ experiences during menstruation.

To complement the operational research conducted in 2012 in the Andean high valley regions of the Department of Cochabamba, this second study supplies information from the Amazonian population of the eastern lowlands of Bolivia, where customs, lifestyle and environment are different.

## B.2. Country Context

Bolivia is land-locked and relatively sparsely populated with an estimated 10.8 million inhabitants<sup>8</sup>, divided into nine departments (see map below) and 337 municipalities.

Figure 1: Map of Bolivia<sup>a</sup>



Bolivia is home to a culturally diverse population, with over 36 distinct indigenous nations<sup>9</sup> living in varied climate and terrain conditions. Approximately 62% of the population over 15 years of age is of indigenous origin.<sup>10</sup> The largest groups, the Aymara (29%), the Quechua (22%), and the Guarani (1.5%) make up the majority of the indigenous population.

Since 2006, when President Evo Morales was elected, profound changes have taken place. The passing of a new political constitution on February 7, 2009 established the primary role of the State in the economy and the determination of a pluralistic economy comprised of four parts: state, private, social-cooperative and community. Additionally, a broad declaration of rights was created that increased recognition and inclusion of the indigenous populations, and the foundation of four types of autonomous territorial administrative entities: departmental, regional, municipal and indigenous.

The current constitution of Bolivia is the 17th constitution in the country's history. The constitution defines Bolivia as a unitary, plurinational and secular state (rather than a Catholic, as before), formally known as the Plurinational State of Bolivia. It calls for a mixed economy of state, private, and communal ownership; and recognizes a variety of autonomies at the local and departmental level. It declares natural resources to be

<sup>a</sup> «Bolivia departments named» de User:Golbez - Self-made, traced from public domain UN or CIA maps.. Disponible bajo la licencia CC BY-SA 3.0 vía Wikimedia Commons - [https://commons.wikimedia.org/wiki/File:Bolivia\\_departments\\_named.png#/media/File:Bolivia\\_departments\\_named.png](https://commons.wikimedia.org/wiki/File:Bolivia_departments_named.png#/media/File:Bolivia_departments_named.png)

the exclusive dominion of the Bolivian people, administered by the state.<sup>11</sup> The incorporation of indigenous peoples' rights in the Constitution of the Plurinational State of Bolivia and the ratification of the United Nations Declaration of Indigenous Peoples' Rights mark two fundamental milestones for Bolivia and indicate a clear direction for the future.

While poverty has been reduced in recent years, Bolivia remains one of the poorest countries in the Western Hemisphere with 39% of the population living below the national poverty lines. Since 2006 the economic growth rate has been 5% on average and the gross national income has continued to rise, yielding approximately US \$2,870 per capita.<sup>12</sup> Although extreme poverty is gradually decreasing, inequalities among geographic areas persist. In 2009, extreme poverty among Bolivia's indigenous population was approximately twice that of non-indigenous people, and within this group, there is a higher level of poverty among indigenous women than men. To respond to this situation, the government has made poverty reduction programs a priority.<sup>13</sup>

The Human Development Indicators have improved significantly between 1980 and 2012: Bolivia's life expectancy at birth increased by 14.9 years, and expected years of schooling<sup>b</sup> increased from 9.4 to 13.5. Despite of these advances, there is still much disparity in social indicators based on geographic regions, ethnic groups and income. Families in the highest 20% earn 24 times higher incomes than those in the lowest. Among ethnic groups, the indigenous peoples of the Amazonian region suffer the utmost rates of poverty and socio-economic exclusion.<sup>14</sup>

Bolivia is a rapidly urbanizing country. Between 1950 and 2012, its urban population grew at an annual rate of 3.7%, almost five times faster than population growth in rural areas. In 1990, just over half of the population lived in cities, but in 2012, two thirds of Bolivians lived in an urban areas. According to UN estimates, nearly 75% of the population will be urban by 2025.<sup>15</sup>

#### *Education Sector*

According to national level indicators, access to primary education is high: primary (1<sup>st</sup> to 6<sup>th</sup> grade) school enrollment is 91% and secondary (7<sup>th</sup> to 12<sup>th</sup> grade) school enrollment is 80%, with a ratio of 98 girls to 100 boys in primary and secondary education. Bolivia extended compulsory school attendance to secondary school in 2010 through the Education Law 070. The literacy rate of the population aged 15 to 24 has reached 99 %, ranking Bolivia in the second place after Cuba among Latin American countries. This increase is credited to the "Yes I Can" Literacy Program, developed with Cuba's support during the period of 2006-2010. In spite of this success, attending rural schools is still a challenge for Bolivian children due to the many remote communities with limited road access.<sup>16</sup>

Within the new constitutional framework, emphasizing plurinational and intercultural principles, a new education law was established called "Law 070: Avelino Siñani Elizardo Pérez". This law calls for the implementation of 4 key principles: (1) an intercultural curriculum; (2) the provision of teacher training in public colleges; (3) the application of educational standards to all schools; and (4) elimination of differences between urban and rural education. A five-year training program was established for teachers, culminating in a university degree. The

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<sup>b</sup> The total number of years of schooling a child of school-entrance age can expect to receive if prevailing patterns of age-specific enrolment rates stay the same throughout the child's life.

law prioritizes education for the country’s productive development, information and computer technology and conserving the knowledge of indigenous and native people.<sup>17</sup>

Together with the Law 070 “Avelino Siñani Elizardo Pérez”, the Ministry of Education issued a new mandatory curriculum<sup>18</sup> for all pre-primary, primary and secondary schools, including private and religious schools. In terms of health and gender content in primary school, the curriculum mentions the following items:

**Table 1: Health and gender related primary school curriculum**

1 <sup>st</sup> year	Health, food and nutrition, boys’ and girls’ growth. Responsibilities and duties of girls and boys in family and school life. Physical activity and play, personal hygiene. Body scheme, body control and measurement.
2 <sup>nd</sup> year	Life cycle and needs of living beings. Human body and senses in relation to nature. Rights and duties of a girl and a boy in the community.
3 <sup>rd</sup> year	Duties and rights of girls and boys.
4 <sup>th</sup> year	Physical development, organs and apparatus of the human being and hygiene.
5 <sup>th</sup> year	General human body and comprehensive health. Community health: nutrition, body hygiene and first aid.
6 <sup>th</sup> year	Health education: body hygiene, environment, body posture, breathing, relaxing and first aid. Human reproduction: sex and sexuality.

In the health and gender primary school curriculum (Table 1), menstruation, puberty and fertility are not explicitly mentioned, but could be implied by “physical development, organs and apparatus of the human being”.

*Water and Sanitation*

Articles 16 and 20 in the Bolivian Constitution established that all people should have access to quality water in sufficient quantity, and local governments are responsible to guarantee that right. However, access to water and sanitation for all continues to be a challenge:

**Table 2: General data on WASH in Bolivia**

All household access to an improved drinking water source <sup>19</sup>	88%
All household access to improved sanitation facilities <sup>17</sup>	46%
Rural households with no sanitation facilities whatsoever <sup>20</sup>	47%

The table below highlights the large disparity in WASH provisions between urban and rural Bolivian schools:

**Table 3: Data on WASH in Schools<sup>21</sup>**

Rural schools with pit latrines	63.7%
Average number of latrine stalls per school	1
Rural schools with open defecation	10.8%
Schools with hand-washing basins	32%
Schools with showers on the school premises	29%
Schools with NO access to a water system <sup>22</sup>	13%

The National Sanitary Education Program was established in 2010 to promote improved water sources and sanitation facilities at schools<sup>23</sup>, but many rural schools have yet to receive these much needed services.

#### *School-age and adolescent health*

Children and adolescents 10 to 19 years represent 23% of the total Bolivian population<sup>24</sup>. Adolescent fertility is defined as the proportion of girls 15-19 who are mothers or pregnant. According to the 2008 Demographic Health Survey (DHS)<sup>25</sup>, it has increased from 13.7% in 1998 to 15.7% in 2003 to 17.9% in 2008, according to the DHS. However this figure hides great disparities, with adolescent fertility being much higher among girls with primary education only (31.9%) and among the poorest quintile (31.3%). In the Beni Department, adolescent fertility was 31.7% in 2008 independent of the educational and income levels.

Periodic abstinence, which is based on fertility awareness, is the most popular contraception method among women in Bolivia with 35.8% of all sexually active women using it according to the same 2008 DHS. However, correct knowledge regarding fertility during the menstrual cycle was found to be low (39%).<sup>25</sup>

Compared to pregnancies in adult Bolivian women, adolescent pregnancies have a higher rate of terminating in miscarriage or induced abortion<sup>26</sup>, reported at 38% for girls 10-14 years of age, 28% for girls 15-19 years, and 19% in women 20-30 years old. The same study reported a higher prevalence of syphilis, anemia and low birth-weight babies among adolescent mothers.<sup>26</sup>

These negative reproductive health outcomes reflect existing gender inequalities in the Bolivian society.<sup>27</sup> Intimate partner and sexual violence against women is common; the 2008 DHS revealed that 47% of all married Bolivian women are victims of some kind of violence by their partner or another person. Furthermore, Bolivian female adolescents are eight times more likely to be victims of violent sexual crimes than males.<sup>25</sup>

### **B.3. The Beni Department of Bolivia**

The research presented in this report takes place in Beni, located in northeastern Bolivia in the lowlands region of the country. Beni borders Brazil to the northeast, and the departments of Santa Cruz to the southeast, La Paz to the west, Pando to the northwest, and Cochabamba to the south. Beni's territory is mainly covered by rainforest and savanna, located at about 155 meters above sea level. Beni is hot and humid during most of the year with an annual rainfall average between 39–157 inches. In late 2013 and early 2014, Bolivia was severely hit by drought and floods affecting an estimated 60,000 families in the Department of Beni. According to the Ministry of Education, the floods put more than 250,000 children at risk, and affected approximately 1,000 schools.<sup>28</sup>

**Figure 2: Map of the Beni Department**



Although Beni is rich in natural resources, the poverty level of its inhabitants is slightly higher than the national Bolivian mean with 41% living in extreme poverty<sup>29</sup>, mainly as a result of the absence of adequate roads linking the department to the rest of country. The main economic activities are agriculture, timber and cattle. A main export is the Brazil nut, which is gathered in the Amazon forest. The importance of cattle ranching is prominent in the regional culture, and cowboys still play an important role in the Beni society, comprising a large portion of the working class. Other industries significant to the region include small-scale fishing and hunting, and tourism in recent years. 32% of the population identified themselves as native or indigenous, less than the national Bolivian average.<sup>13</sup>



Young girls in their traditional style house in San Ignacio, Beni

#### **B.4. MHM Programming**

In response to global, regional and national contexts, UNICEF Bolivia aligns its programs with national and sub-national policies, as well as with international commitments including the Sustainable Development Goals. Globally, UNICEF aims to reduce maternal, infant and neonatal mortality through an integrated approach including safe water, sanitation and hygiene (WASH) in schools with particular attention to girls. During 2014, UNICEF supported a first MHM intervention in alliance with the NGO “Water for People” in 13 schools in the Cochabamba department, where the first MHM study had taken place. This experience reached 1.279 children and adolescents. UNICEF Bolivia also participated in a WASH education

working group between the Ministry of Education and the Ministry of Environment and Water, advocating for the inclusion of hygiene promotion issues at national and subnational levels.

Save the Children has worked in Bolivia with adolescent sexual and reproductive health programs since 1998 and with school health programs since 2005. MHM and puberty education are recent additions to adolescent and school health programming portfolio; including a “puberty book” as an information resource to explain the physical, social and emotional transition through adolescence. The book explores MHM in detail.

Save the Children and UNICEF are currently implementing MHM interventions in the Beni Department based on the recommendations of this present study.

## C. PURPOSE AND OBJECTIVES

This research is part of a global UNICEF project to improve “WASH in Schools for Girls”, which aims to build local advocacy and technical capacity for MHM through WASH in Schools Program in 14 countries, with support from the Government of Canada. The ultimate outcome of this project are more MHM supportive schools with increased attendance of girls, while the intermediate outcome is to decrease social and physical barriers to safe and stigma-free MHM in schools.

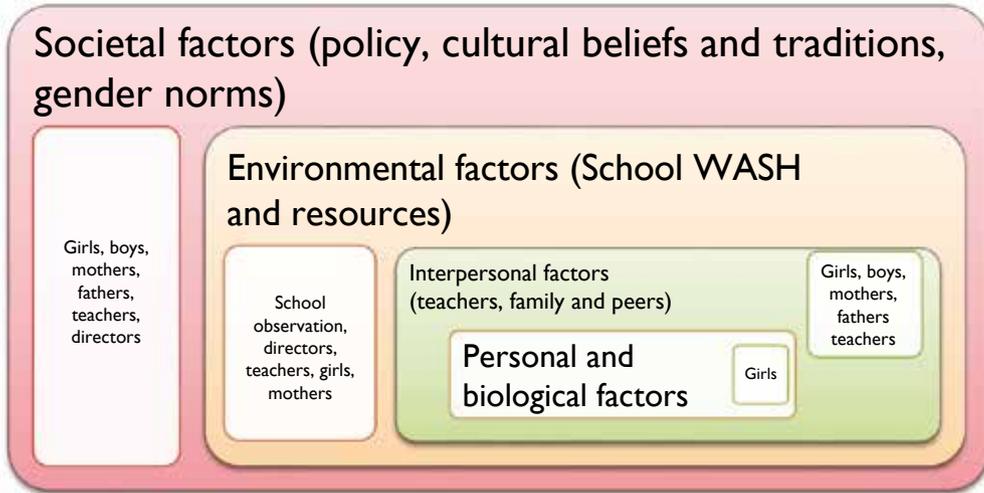
The program supports formative research to understand the challenges girls face when managing menstruation in schools. The research component proposes the following outcomes:

**Figure 3: Research component of the WASH in Schools for Girls project**



Research activities and corresponding themes were based on the original theoretical ecological framework from the first 2012 Bolivian MHM study<sup>1</sup> (Figure 4), ensuring that researchers examined the social and environmental factors that may influence girls’ MHM experiences in and out of school.

**Figure 4: Theoretical Ecological Framework**



Typical traditional house with palm roof in San Ignacio, Beni.

## D. METHODS

### D.1. School Selection

The study took place in two rural municipalities located in the Beni Department: San Javier and San Ignacio de Moxos. These municipalities were chosen because they are predominantly inhabited by original Amazon indigenous populations. San Javier is the traditional home of the Canichana people, who are fishermen, hunters, gatherers and cattle handlers. San Ignacio de Moxos is the home to Moxeños, known as “the water people” whose livelihood depends on a vast network of waterways in the region.

In the same municipalities, some communities and towns have a mixed (mestizo) population or a population from highland indigenous migrants (Quechuas or Aymaras). As the study sought to describe specific Amazonian cultural aspects of MHM, we asked the Beni departmental education bureau to purposively select four schools from each municipality with 7<sup>th</sup> and 8<sup>th</sup> grades (called 1<sup>st</sup> and 2<sup>nd</sup> of secondary level in Bolivia), in communities with a majority of original Amazon indigenous population. The first six schools were located in small rural communities, and the last two larger schools were from a town. All selected schools contained grades one to 12.

**Table 4: Number of students per school**

N	Number of Students		
	Boys	Girls	Total
1	82	72	154
2	61	45	106
3	78	97	175
4	73	62	135
5	27	26	53
6	30	27	57
7	147	121	268
8	174	147	321
All	672	597	1269
	53%	47%	

For discussion about the gender imbalance in student enrollment, see the impact chapter of findings.

### D.2. Data Collection

The purpose of the research was to increase the understanding of current MHM practices and barriers which girls face in schools. The activities aimed to obtain information through different vantage points in order to fully comprehend schoolgirls' MHM challenges and their determinants. The tool guides and research activities conducted in Beni were adapted from the original 2012 MHM study “WASH in Schools Empowers Girls' Education in Rural Cochabamba, Bolivia: An assessment of menstrual hygiene management in schools”.<sup>1,30</sup>

Four types of activities were carried out in all eight schools: focus group discussions (FGDs), in-depth interviews (IDIs), key informant interviews (KIIs), and WASH facility observations (see Table 5). Participating students were ages 13-19, selected irrespective of their grade level.

In this study, the activities were tailored to the local context and culture. In the 2012 Cochabamba study, the research activities were conducted in Quechua, whereas in Beni, the interviews and focus groups were not translated into the indigenous languages because children and adults primarily spoke Spanish and indigenous languages are not used in class. The facilities observation checklist and key informant interview guides were adapted after field-testing. In this study, two FGDs with teachers were organized spontaneously at the request of school principals. In one school the principal also participated in the FGD with teachers. In these two instances, the KII instrument was used to facilitate discussion. In Beni, the original Girls FGD interview guide was used and not altered to the board game method from the Cochabamba Study. The Mothers FGD instrument was used for one interview with one woman who was the only participant to appear for the FGD planned with mothers at one of the schools.

At the end of every IDI or FGD with girls, the facilitators passed out pieces of paper and asked participants to write down any questions, without indicating her name so she could express herself anonymously. These questions were part of the “notes” from the interview. The facilitators responded to questions related to puberty, adolescence, menstruation, sexuality and reproductive health. If the topic of abuse or violence was brought up, the facilitators were trained to refer them to the public child protection agency<sup>c</sup> in the municipality. At each school, contact information for referral was provided to the school director, teachers, and mothers prior to the interviews.

At the end of each FGD, IDI or KII, all participants had the opportunity to make recommendations about how to improve MHM at school.

### *Training*

Two levels of training were carried out: beginning in December 2014, representatives from UNICEF Bolivia and Save the Children Bolivia participated in a webinar course organized by Emory University and UNICEF titled “Advocacy and Capacity Building for Menstrual Hygiene Management through Water, Sanitation and Hygiene in School Programs”.<sup>31</sup> Most modules from this program were then translated and adapted into Spanish to be used in the training program for the local research assistants. Box 5 summarizes the topics covered in the sessions.

### **Figure 5: Training Topics**

In addition, a two-week training workshop was held at the state university: Universidad Autónoma del Beni Mariscal José Ballivián, from May 4-15, 2015. The nursing school was invited to assist with the research, as both professors and students were actively involved in public health outreach services to rural communities. A group of five 4<sup>th</sup>-year nursing students and five professors participated in the workshop. Jeanne Long from Save the Children USA, the original research fellow of the 2012 Bolivia study, facilitated the sessions, along with representatives from Save the Children Bolivia and UNICEF Bolivia. The two-week workshop provided a basic

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<sup>c</sup> called “Defensoría de la Niñez” in Bolivia

- Research protocol
- Menstrual Hygiene Management
- Introduction to qualitative research and methods: focus group discussions, individual in-depth interviews, key informant interviews
- Gender, child protection, sensitive topics for adolescents
- Demographic information, observations of water and sanitation systems
- Research ethics and informed consent
- Practice and use of voice recorders
- Transcription and de-identification
- Note taking
- Data Management
- Review and validation of instruments

understanding of WASH and MHM, research ethics and qualitative research methods. The research protocol was presented during the workshop and the participants had the opportunity to make comments that enhanced the quality of the final protocol.

During the training, all qualitative guides were reviewed, practiced, field-tested and adapted for the Beni context. Field-testing included practicing with voice recorders to hear the quality of FGD and IDI discussions, in order to reinforce the importance of good facilitation techniques and the need for private and quiet environments. Field-testing occurred in two schools in Trinidad, Beni; data from pilots were not used in this study but were used to refine research tools. After the training, four professors and two students (four women and two men), were selected as research assistants.

#### Activities

Research start-up and data collection activities occurred between April and September 2015, with school visits conducted in May and June. The research assistants trained in May 2015 facilitated activities with girls, boys, mothers, fathers, teachers and school principals. Participants in research activities included adolescent boys and girls, mothers, teachers and school principals. The table below shows the number of activities and participants that participated in the research activities.

**Table 5: Activities and research themes completed by participant type during MHM research**

Activity	Themes	Population	No. of activities	No. of Participants
Focus group discussions	<ul style="list-style-type: none"> <li>• Typical menstruation experiences at school</li> <li>• Common practices and beliefs</li> <li>• Outsider perspectives of girls experiences, knowledge and behaviors</li> </ul>	Girls	8	48
		Boys	8	48
		Mothers	7	37
		Teachers	2	12
		Fathers	1	3
In-depth Interview	<ul style="list-style-type: none"> <li>• Personal experiences with menstruation</li> <li>• Knowledge about menstruation</li> <li>• Source of menstruation information</li> <li>• MHM in school and at home</li> <li>• Questions about menstruation</li> </ul>	Mothers	1	1
		Girls	8	8

Key informant interviews	<ul style="list-style-type: none"> <li>• WASH operations and maintenance</li> <li>• Menstrual hygiene in puberty education</li> <li>• Menstruation-related challenges experienced at school</li> </ul>	Teachers	6	6
		Directors	8	8
Observations	Adapted UNICEFWASH in Schools monitoring tool from the Cochabamba Study	Unidades educativas	8	
Totals			55	171

Participants in the girl IDIs were aged 14 to 15; and the girls and boys who participated in the FGDs were between 13 and 16 years old. There were two older school girls, ages 17 and 19, who had returned to study after dropping out of school during pregnancy and childbirth.

The idea to hold an FGD with fathers of adolescent girls from San Ignacio de Moxos came up during the final days of data collection, however, no fathers appeared for the meeting. In an effort to hear father's opinions, the research team gathered fathers in Trinidad, the capital city of the Beni Department, in one of the schools where tools had been piloted. The father's FGD guide was adapted from the mother's FGD.

All activities were voice recorded. Three transcriptionists with specific experience transcribed the recordings verbatim into Spanish. The principal investigator translated the quotes used in this report into English.

The school observation used a checklist with the following criteria for evaluation of WASH facilities, adapted from UNICEF's WASH in schools monitoring<sup>32</sup>.

**Figure 5: Definitions for school WASH observation checklist**

- *Functional* - the toilet facilities are not physically broken and can be used. *Partially functional* - the toilets can be used, but there are at least some problems with the physical infrastructure (e.g., corrosion in concrete, doors/locks coming loose, roof deteriorating) and some repair is necessary.
- *Not functional* - the toilets exist, but are so badly damaged or deteriorated it is no longer reasonably possible to use them (e.g., squatting plate broken, door missing, roof has holes).
- *Clean* - the toilet facilities are 1) not smelly, 2) there are no visible feces on floor, seat or walls and 3) there is no litter.
- *Somewhat clean* - fulfill two of the above mentioned three criteria.
- *Not clean* - fulfill one or none of the above mentioned three criteria.

### D.3. Research Ethics

The research protocol was approved by the National Ministry of Health and by the directors of the departmental education and health bureaus. Authorization for activities at schools was additionally obtained

from each education district director and from each school principal. **Consent** was obtained from each school principal via *in loco parentis* (in the place of parents) consent. Prior to each interview or group discussion, the research assistants read aloud an explanation of the purpose of the MHM study, as well as the benefits, risks and confidentiality involved in participation. Participation was voluntary. Consent or assent was recorded prior to the start of each activity.

**Confidentiality:** Several measures were taken to protect the privacy of research participants. All the activities were held in private sessions, either in a classroom with no other students, or outside in a quiet spot on the campus. Confidentiality was assured by de-identification of all participants in the transcriptions and transcripts were password-secured. Names of participants' present in the report were changed in order to protect confidentiality.

**Protection:** All student participants were provided with phone numbers of the study coordinator in Beni and the child protection officer of Save the Children, Bolivia, in case they wanted to claim any issue related with the research. Additionally, the research participants were given information of the names and phone numbers of representatives of the child protection agency in each municipality in case they wished to seek assistance or report cases of abuse. No claims were registered at any point during the time of the study.

#### **D.4. Analysis**

The principal investigator reviewed every transcript, prepared a codebook and summaries of the transcripts that provided the basis for analysis. The transcripts were highlighted in different colors based on the following topics: 1) school wash facilities and behaviors, 2) education and knowledge about menstruation, 3) materials used to manage menstruation, 4) challenges girls faced when managing their menstruation at school, 5) voiced impacts, and 6) potential risks. The information that was gleaned from the transcripts from the first two schools formed the basis of the codebook, which was then applied to the remaining 6 sets of transcripts. After the transcripts from each school were highlighted, a summary sheet that consisted of quotes from participants was prepared, based on the research questions, and organized into the six categories listed above. The school observation checklist was summarized in a table by one of the research assistants.

## E. FINDINGS

This chapter is divided into four sections: challenges, determinants, context and impacts. The findings highlight first the *challenges*, meaning any difficulties experienced with menstruation. Citing girls' own words to describe their experiences of menstruation, other quotations are included from mothers, adolescent boys, teachers and school directors to present a comprehensive picture of how girls' experience menstruation. *Determinants* are the causes of these experiences, in terms of both the physical and psychosocial school and home environment. *Context* includes underlying socio-cultural issues that relate to these determinants. *Impacts* are both those that study participants voiced as well as potential risks caused by the challenges.

### E.1. Challenges: How do girls experience menstruation in rural Beni?

Menstruation was a significant issue for schoolgirls and presented challenges in a school environment without adequate sanitary facilities, menstrual materials and a clean water source. During IDIs, girls shared their personal experience with menarche; girls discussed the physical, social and emotional changes that accompany adolescence; how they first heard about menstruation; and the difficulties they encountered at school during menstruation. FGDs with girls investigated similar themes but aimed to understand the common experience of Benian girls. Interviews with teachers, mothers, fathers and boys gave an additional light on the concerns voiced by the girls.

Menstruation challenges that were most frequently mentioned during activities with girls included:

- Distraction and worry about blood staining their clothes;
- Inability to change pads at school; and
- Teasing, embarrassment or bullying by their classmates.

Other common challenges included physical symptoms such as pain, cramps, weakness, and fatigue; feeling sad or moody, or being quiet and withdrawn; experiencing and worrying about bad odor and discomfort due to the lack of privacy at school to manage menstruation.

*“One day we were playing ball and a girl got her period on the court, she stained the whole court, we thought she had cut herself. Some boys get scared and run away. We <the boys> laugh.”*

-Boys, FGD, San Javier

Girls talked about being distracted in class due to fear that their blood would soak through their clothes: *“I felt scared because I thought I had stained my pants, and maybe I had a bad odor.”* (Girl, FGD, San Javier). Girls were worried that if they did not change and wash, they would smell like blood. Mothers talked about their daughters suffering shame and teasing at school. *“Sometimes my daughter is not careful and she gets a stain, then her classmates look at her and this causes her to feel embarrassed”* (Mother, FGD, San Javier). Note that in this case, the mother blames her daughter for the stain in her clothes.

Girls mentioned that if the toilets at school were closed, clogged or too dirty, they preferred to stay home where they had water and privacy; or they went home during school to wash and change, then returned to school later in the day. Many girls preferred to skip school, especially on the first day of their period, since

this was the heaviest day of their menstrual cycle. Girls also preferred to skip sports during menstruation, although this was not always permitted: girls mentioned a physical education teacher who threatened lowering their grades if they did not participate in sports, when they had asked to skip the class because they were menstruating.

Girls discussed their fear of being teased and humiliated if there was a visible bloodstain on their clothes. They also mentioned being bullied by boys who said that they are no longer virgins because they were menstruating. This teasing and bullying caused girls to isolate themselves: *“the girl (who menstruates) stays in a corner of the classroom ‘cause she doesn’t want to be bothered by anyone”* (Girl, FGD, San Javier). In one school the teachers recounted that *“boys make fun of girls if they know she is menstruating, they see it as something ugly and icky. However this is due to a lack of knowledge and guidance from home”* (Teachers, FGD, San Ignacio de Moxos). Finally, girls also talked not concentrating due to pain or cramps and about feeling sad or being moody: *“A girl who gets her period in school will try to cover herself, she will feel scared, let’s say, that the classmates see her, worried, sad, what to do to get out of class, she feels like, she doesn’t move at all, or wait until all others leave, to go to the toilet.”* (Girls, FGD, San Javier).

The following two stories are compiled from several girls’ first experience of menstruation, and highlight the typical challenges in rural villages in Beni.

### Figure 6: Two schoolgirls’ experiences of menarche

My name is Patricia. I am 14 years old. I have always lived here in this village and I walk to school. I am an average student and my favorite subjects are math and language. I like to help my mother around the house.

I had not started having periods yet, when my mother told me: “You need to take care, daughter, your menstruation is going to start”. I was shocked when she said blood will come out... I was 8 years old then.

When my period came, I was 12 years old. The first time I had it, I had a lot of pain, the vagina and all that was hurting me. I told my mamma because I trust her. She said your menstruation is coming, that was a week before my period actually started. She told me not to be afraid and to not feel sad during these days. She bought sanitary pads and told me that I should not bathe completely, but just wash my private parts; otherwise I could get varicose veins. However, I can’t go without bathing, so I just do it anyway.

Girl: *“The boys say ‘you are no girl, blood is coming out of you’. I tell the teacher and she scolds the boys, then they get angry with me.”*

Interviewer: *“and when they say ‘girl’, what do they mean?”*

Girl: *“That, that she is no virgin.”*

Interviewer: *“what does that mean ?”*

Girl: *“that, she never had, like, relationships”*

Interviewer: *“How did you feel when the boys said that?”*

Girl: *“Hmm, I felt bad, with shame.”*

-Girl, IDI, San Javier

During my menstruation I have a lot of pain and no energy. My mom tells me that I should exercise so that the blood will not accumulate. She said that this blood has to come out. I can talk with my mother and my little sister, who is 8 years old, about my menstruation. We tell my sister not to be afraid. My mother says that one should not lift heavy objects or grind rice, and to not pick fruit or the plants will die. I should not kick dogs as they will become stupid, and have been cautioned not slap my siblings, as this will make them moody. My mother told me not to drink lemonade, as lemons will stop the blood flow. My mom always helps me, she takes care of me.



Very young adolescent girl with her baby sister, San Ignacio, Beni

My name is Susana, I am 15 now and I live with my teacher because my parents are working at our farm, which is far away. I am a good student. I have a best friend and we play sports in the afternoons. When I first got my period I was going to school in Trinidad<sup>d</sup>. I did not feel anything, but when class finished my friends told me that my uniform was stained. I was afraid, it terrified me to see my own blood. My girlfriends took me to the bathroom, bought me a sanitary pad, and gave me chamomile water to wash myself with. My teacher took me home, my mother was not there, and I was too embarrassed to say anything to my relatives, to tell them that I got my period. I was 13 years old. I did not want my stepfather to know that I am menstruating, because I felt embarrassed.

That night I had a fever, I was in pain and my stepfather's mother gave me some medicine, and the pain went away. After that my period was normal. Now I am not afraid. I get the pain for about half an hour, and if it hurts a lot, I take a pain medication. I use pads that I buy at the store; each pad costs 8 bolivianos<sup>e</sup>.

My aunt says I can't drink milk because I will get the "white flower"<sup>f</sup>. If I bathe in a pond a snake<sup>g</sup> could get inside of me, and impregnate me in the form of smoke, then I would give birth to a baby fathered by a snake. At least this is what I have been told. Also one cannot be with one's boyfriend or husband because one could get pregnant. It is better to wait 12 days or 7 days, I'm not sure. It is important to wash one's private parts during menstruation, because if not, one smells like blood.

<sup>d</sup> Capital of the Beni department in Bolivia

<sup>e</sup> Approximately, 1 USD

<sup>f</sup> White vaginal discharge

<sup>g</sup> The local term "Sicuri" was used, which denotes the giant Anaconda snake that lives in the rivers of the Amazon basin and is between 3-4.5 meters long.

## E.2. Determinants: Why do girls have these challenges?

The challenges girls faced managing menstruation at school were determined primarily by the inadequate menstruation education that led to a lack of information and negative attitudes at home and in school. A second determinant was the poor quality of school WASH facilities. A third determinant was the availability and the disposal of absorbent material.

### **Determinant 1: Inadequate knowledge and attitudes**

Despite the great importance that menarche represents in the life of a young girl, many girls and boys were in the dark about puberty, menstruation and reproductive health. Education on these topics is crucial to guide girls and boys through the physical, social and emotional changes they experience during adolescence and to help them make sound decisions regarding their health. Figure 7 shows the common questions girls posed after FGD's and IDI's. These questions about menstruation demonstrate the significant knowledge gaps regarding menstruation and reproductive health. Though girls knew of menstruation, the information from home was colored by traditional beliefs and the one provided in schools was inconsistent. Though the Bolivian education curriculum calls for education on physical development as early as 4<sup>th</sup> grade, and human reproduction and sexuality in 6<sup>th</sup> grade (Table 1), teachers were unaware of a standardized curriculum to prepare girls for menarche and subsequent management of menses.

#### **Figure 7: Girls' Questions About Menstruation**

- *Where does the word 'menstruation' come from?*
- *Why do women menstruate?*
- *How can we learn more about this?*
- *Have there been cases of death due to menstruation?*
- *Does menstruation take place only in women?*
- *How does a woman get pregnant?*
- *Why does a woman stop having her period when she is pregnant?*
- *How can we get sperm out of our body?*
- *How can we protect ourselves from getting pregnant when we menstruate?*
- *How can pregnancy be prevented?*
- *How can I take care of myself if I am pregnant?*

-Girls, IDIs and FGDs, San Javier and San Ignacio de Moxos

#### **Girl's preparation and information at home**

All eight girls who participated in the IDIs heard about menstruation before menarche: five from their mothers, one from her aunt, and two from older sisters. Although they had heard about menstruation, some of them felt unprepared for menarche. One of the girls shared: "Some of my classmates told me that they had gotten their period, and when it happened they did not know what to do, they thought that they had an illness. When my sister got it, I heard my mother tell her that it was her menstruation. When I heard this I got scared. I was so surprised to learn that women menstruate." (Girl, IDI, San Ignacio de Moxos)

The majority of mothers felt comfortable talking about menstruation with their daughters ahead of menarche. However, they would wait for their daughter first menstrual period to teach them the details of how to deal with it. Girls mentioned that once they were menstruating, conversations opened up spontaneously with the other women in the family. Some girls reported being afraid to tell their mothers for fear of being punished

because the mother could think that she started having sex. “Being careful” was mentioned oftentimes by mothers, referring to several different issues: 1) not staining clothes or bed linen, 2) complying with food and activity restrictions, and 3) not having sex. *“Your have to be careful with many different things. Like if someone takes <a girl> somewhere, she could even become pregnant, right? You shouldn’t tell <the girls> that it is an illness. On the contrary, they should feel like any other day, but with being careful, like hygiene but not getting wet all the time, not to lift heavy object, because if you stand and lift heavy things, that’s when the varicose veins come out...”* (Mother, FGD, San Javier).

Mothers’ advice was also reflected by the girls: *“Mom says I have to be careful ... I shouldn’t be going out at night, with my boyfriend, I should ask her for permission, I shouldn’t go into the dark with him. That’s what she has taught me.”* (Girl, IDI, San Javier).

Mothers often mentioned that they wanted the teachers to educate their daughters about menstruation and reproductive health. Many mothers did not feel that they had a good understanding of the biological aspects of menstruation, and several of the women shared their own traumatic experiences with menarche: *“I share now with my daughter, my experience, my life. It is very different, because my reality (starts crying), my experience, unfortunately, I didn’t have that from my mom (cries). But my living experience I tell my daughter (...) so that she doesn’t have that lack of trust”* (Mother, FGD, San Javier).

### **Traditional Customs and Beliefs**

In Beni, there were many traditional beliefs that guided girls’ behavior during menstruation, and both mothers and teachers propagated those beliefs. For instance, mothers told their daughters not to eat lemons, grapefruit or any acidic food because this could halt the menstrual flow for up to a day. This would cause a much heavier flow the following day which would make them sick. School teachers concurred with mothers’ advice: *“The girls like to eat cidra lemons, and I tell them that when they have their period they can’t eat them because this will stop their menstruation, nor should they lift anything that is heavy, and they should only use tepid water to wash themselves”* (Teacher, FGD,

*“I didn’t want to repeat my own story, when I was almost twelve and a half years old, my menstruation came, my mom hadn’t said anything... that I would get menstruation. I went up to her, I told her, and she: she just changed the subject. So what I did was... as I was going to school here... I asked the teacher what it was and she explained it to me. At that time, it was, how can you say, a taboo and we didn’t have the right to know, so I didn’t want that story to repeat itself, I talked to my daughter since she was ten so she wouldn’t get scared”*

-Mother, FGD, San Javier.

San Ignacio de Moxos). The importance of not stopping the menstrual flow was described by one of the mothers: *“Well, for me this bad blood is the black part that all of us women have to get rid of”* (Mother, FGD, San Javier), implying that that if menstruation stopped for any reason, bad blood would stay inside and could cause illness.

In Beni, women and girls did not drink milk during menstruation because they believed it would cause a white vaginal discharge to appear, called the “white flower”. Some mothers realized that it was an infection

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<sup>h</sup> “Cuidarse” in Spanish

and thought that it could be gonorrhoea, while others were unaware of the potential infection, however, none of the mothers reported the need to seek medical treatment. Women also mentioned that one should not sit in the sun, especially not on a warm bench during menstruation, as this could cause them to get an infection, fall ill or catch a fever. The table below presents the traditional practices and the consequences research participants shared during IDIs and FGDs.

Mothers' advice stressed the importance on not using cold water for any reason, as this could cause varicose veins. Both teachers and mothers talked to girls about the importance of hygiene and washing ones "private parts" with tepid water, steeped with chamomile, and using soap or shampoo to prevent infections.



Two adolescent girls dressed up for traditional dancing ceremonies in San Ignacio, Beni

**Table 6: Traditional practices and beliefs: restrictions during menstruation voiced by schoolgirls and mothers in rural villages in Beni, Bolivia**

Restrictions during menses	Consequences of not adhering to the practice
<i>Personal hygiene</i>	
Do not wash or bathe with cold water, get your head wet or wash clothes	Risk varicose veins and cellulite Increased menstrual flow
<i>Activity restrictions</i>	
Do not spank children	The children will become stupid
Do not kick dogs	The dogs will be dumb
Do not slap siblings	Brothers and sisters will lose their energy and enthusiasm
Do not lift heavy objects	Lifting can cause an internal wound that will grow
Do not grind rice	Physical work can cause heavy menstrual flow and hemorrhage
Do not overdo housework	
Do not sweep	

Do not bathe in pools of water near the river	A snake called the “sicuri” could enter the vagina, turn to smoke, and impregnate her. Also it is not safe to bathe in the pools if there is rainbow, as the girl could also get pregnant.
Do not pick fruit or leaves from the tree	The tree will die
Do not walk, run or play	Heavier menstrual flow - Increased pain
Do not have sex during menstruation	Will get pregnant or sick
Do not sit in the sun	Will get sick or faint
<b>Food restrictions</b>	
Lemon, grapefruit or any acid fruit	This will cause the menstrual flow to stop, at least for one day. The belief is that a woman could become seriously ill and die. Stopping menstrual flow will make a woman sick because all women have to get rid of black blood. It is bad because it is black and real blood is red.
Milk	This causes the secretion of a white vaginal discharge, known as the “white flower”, it smells bad and can turn into an infection.
Sweets	Will smell bad
Salt	Will cause menstrual flow to increase, can cause hemorrhage.

The following girl’s quote illustrates some of these recommendations: “*Yeah, not to pick fruit or leaves because they (the plants) die, she says. And this one too: not to kick the dogs, because, of this one I don’t remember what happens to them... oh no, they say the dog will become stupid. And not to slap your brothers because they become incredibly moody. And I don’t drink lemon juice or eat grapefruit... because (she) says it stops it (menstrual flow)*” (Girl, IDI, San Ignacio).

“*My mother told me to wash with tepid water, not with cold water, because some of us girls have hot blood and then the varicose veins could pop up*” (Girl, IDI, San Javier).

One girl specifically described how linked adhering to restrictions made her feel good: “*You are not supposed to drink milk, right?, and I don’t remember which fruit <not to eat>, so (..) that you have more energy, so that your self-esteem doesn’t go down and all that*” (Girl, IDI, San Javier).

Boys also referred to the belief of the snake going inside of women when they bathe in a lake while menstruating.

### **Lack of fertility awareness**

Mothers and girls commented that the most dangerous time for a woman was during her menses. Much emphasis was put on the importance of avoiding sexual intercourse during menses, as this could result in pregnancy or infection. Girls and mothers frequently used the term “dangerous days,” mostly to refer to pregnancy risk.

One mother thought that her daughter had lost her virginity when she got her period for the first time, and the girl was severely scolded and taken to the doctor. The physician explained that the girl was not pregnant but rather experiencing menarche.

## Male attitudes to menstruation

In general, boys admitted that they did not know much about menstruation. Conversations with boys revealed that many were aware of the importance of hygienic practices and the need to safeguard the environment with proper waste disposal. Boys mentioned learning from their teachers, books, and from NGO educators. They affirmed that they knew when girls were menstruating because they were unusually quiet, only conversed with other girls, went to the bathroom frequently, had headaches, and smelled like eggs and blood.

FGDs with boys revealed that they had limited knowledge of the biology of the female reproductive cycle, suggesting that they also may not understand the concept of virginity. Boys connected menstruation with sexuality, however, did not understand how the menstrual cycle related to fertility. Many boys said that a woman's most fertile days were during her period. Other boys thought that if a girl was menstruating it meant that she was going to have a baby.

During FGDs, boys demonstrated negative attitudes and little respect for their female peers. Boys claimed that the purpose of having a girlfriend was for sex, and they viewed girls in this light. Boys recounted: *"Boys treat girls badly, they call them "perras"<sup>i</sup> because they go with lots of men, and some boys beat their girlfriends when they have their period, because they want to have sex and can't."* (Boys, FGDs, San Javier). Another boy in San Javier talked about kicking his girlfriend when she was menstruating because he could not have sex with her. Some teenage boys used violent phrases when describing sexual intercourse and girls, such as: 'whore,' 'have a whore' and 'carnage' (penetration, as a knife going into raw meat). The lack of respect for girls described in boys' FGDs was corroborated by girls in FGDs, who stated they did not want to be near boys during their period for fear of being teased or harassed. Harassment was described by girls as "bothering": *"men are always, kind of, bothering"* (Girl, IDI, San Javier).

There were few examples of male support during menstruation: *"I didn't want my brothers to know, but my mother told them anyway. My brothers were supportive and I didn't have to do chores."* (Girl, IDI, San Ignacio de Moxos). In another case a mother said: *"In the case of my daughter, she is 14, sometimes she stains while she is asleep, and my husband, her father, holds her up and covers the blood stain"* (Mother, FGD, San Javier).

<sup>i</sup> Spanish word for female dog

Interviewer (I): What else have you heard about the period?

Boy3: *About the period they say they change, I've heard say "some are in their dangerous days" so they say.*

I: Who did you hear say that?

Boy 6: *My mom.*

I: What did you mom say when you heard her talk about it?

Boy 6: *"I have my period" she said to her husband. I asked "What's that mom?" That when one has her period, it's no good to have a ... whore*

I: What is no good during those days?

Boy 6: *Sex*

I: Why?

P6: *Cause it is dangerous.*

I: Who else says that?

Boy 1: *The girls.*

I: What do the girls say?

Boy #: *"We are in our dangerous days" they say.*

E: What happens in that moment?

Boy 6: *I heard it is more dangerous after nine days, only then something really happens.*

I: Who said that?

Boy: *The doctor told me that*

-FGD, boys, San Javier



Very young adolescent boys in San Ignacio, Beni

The fathers said that they did not normally address the topic of menstruation or talk to their daughters about it. Menstruation was considered a delicate, personal and private matter, best left to mothers. Men also referred to menstruation as the beginning of sexual activity “the mother is the one who knows everything. If we talk beyond that sometimes as a father one doesn’t know what the daughter is up to, whereas the mother already knows the naughtiness of the daughter” (Father, FGD, Trinidad). Only one father mentioned that he supported his daughter with money for pads, less household chores and buying pain medication.

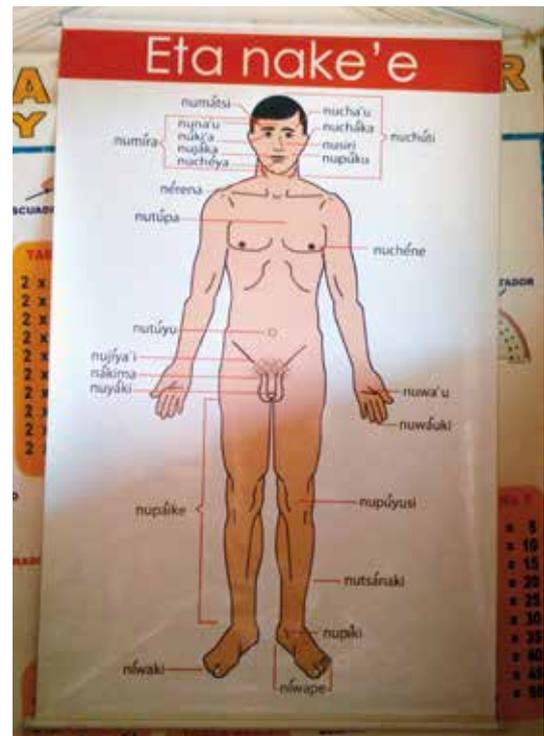
### Puberty education at school

Teachers were not trained, nor did they have materials, to address puberty or menstruation in class. They were unaware of the puberty education components in the primary grade curriculum in any subject. In one school, teachers reported that parents did not want their children to learn about sexuality, believing this could foster curiosity and experimentation. One social science teacher stated bluntly: “I have been at this school for three years but have never taught a formal class on menstruation.” (Teacher, KII, San Javier). A female teacher commented: “I have never spoken to my students about menstruation and I teach all the grade levels here, with the

exception of my own daughter who is 13 years old.” (Teacher, KII, San Javier). School directors indicated that there was no educational material to teach menstruation; the only visual aids were posters showing the anatomy of the human body. These anatomy posters in native language observed in several schools were only available for the male body. In some schools, we saw self-made posters for Mother’s Day, which replicated very stereotyped Western images of femininity with white women dressed up and using make-up:



Self-made posters to Mother’s Day, school in San Ignacio, Beni



Anatomy posters in native language (Mojeño) for male body only, school in San Ignacio, Beni

In secondary levels, teachers made an effort to orient their students regarding health topics such as the importance of preventing HIV/AIDS and STIs, along with different aspects of personal hygiene. Both male and female teachers alternated teaching these topics, but admitted that primary level children were not given the lessons and that none of the topics were covered in depth.

This left teachers in the position of providing information sporadically and at an individual level, often in cases when girls were ill-prepared at home. Male teachers often felt uncomfortable talking about menstruation and expected the female teachers to take on this responsibility. Some female teachers shared their own experiences and

advice with some of the girls including topics on washing, changing sanitary pads frequently to avoid infections, and avoiding unwanted pregnancy. They commented on the need to prepare girls for menstruation, primarily because they did not know what information girls received at home. *“It’s important to talk to the girls considering that no one may talk to them at home. When their period comes they are scared, could faint away... that was my experience, one thinks that one will die. Because our mother did not tell us and menarche came as a surprise.”* (Teacher, FGD, San Ignacio de Moxos)

In one school teachers believed that mothers generally did not give enough guidance to their daughters about how to manage their menses. One teacher shared that girls attended class with a bad odor as a result of poor personal hygiene. This may have been due to the fact that in this school in the more urbanized town of San Ignacio, a greater proportion of girls lived alone or with relatives because parents were migrant workers. Teachers recommended that parents receive puberty education so they could better support their children as they moved into adolescence. *“I think that there should be workshops for parents, because sometimes the mothers have knowledge gaps, and are overly influenced by taboos. Boys also need to learn, so they won’t tease the girls when they stain their clothes.”* (Teacher, KII, San Javier)

In another school teachers took it upon themselves to provide education regarding puberty, menstruation and sexuality in their classes with lessons for boys and girls. Information was shared based on the personal experience of each teacher. One female teacher recounted: *“I tell the kids about my own experience. When I was a girl, I did not have a regular menstrual cycle because I had a problem with cysts causing some irregularities. The students give their opinion and tell their stories and this is how I approach the subject”* (Teacher, FGD, San Ignacio de Moxos). At another school the teachers were proactive and undertook their own internet research, then provided classes to their students with videos and other educational aids they obtained online. At still another school a concerned male math teacher talked with the boys to reduce gender-related bullying.

Teachers expressed concern about their responsibility regarding early adolescent pregnancies: *“As teachers we need to address this situation and teach the girls how to protect themselves so they will not get pregnant. Two of*



Typical classroom in rural San Ignacio, Beni

*my nieces got pregnant at the age of fourteen, this made me very sad, but their mother did not teach them how to protect themselves. My sister said that she was too embarrassed to talk about sexuality with her daughters. We need to get over feeling uncomfortable around this topic and better prepare our daughters when they begin menstruating”* (Teacher, FGD, San Ignacio de Moxos).

Teachers also worried about the lax moral standards and permissiveness of the parents, but felt they lacked power to make their community change. A teacher in one village expressed concern that “most of the girls here begin having sexual relations at a very young age, and by age 15 already have children. One gives them guidance and tells them to take care to prevent pregnancy so they will not have babies at such a young age.” (Teacher, KII, San Javier). One of the school directors shed further light on the situation: “For example at a certain age young girls start staying out all night. We talk to the kids and give them advice, but those truly responsible are their parents. If their parents give them the freedom to go out, we as teachers can’t do anything about it” (Teacher, Interview, San Javier).

In some of the schools, NGOs visited and provided workshops to youth on sexual and reproductive health topics. Teachers, parents and girls agreed that more learning was required for the important topics of puberty, menstruation and sexual and reproductive health. Girls and teachers were eager to improve the classroom experience and learning.

In general, mothers wanted teachers to inform children about menstruation at school, but several mothers were concerned that male teachers would not be as capable or as aware of girls’ needs: “<The teachers> should give advice... be considerate, right? At least during these days, when <a girl> says “I am ill.”... Talk with the male teachers, because as they are men, you have to require them to do... sometimes they don’t know ‘cause they are guys.” (Mother’s FGD, San Javier).

## **Determinant 2: School WASH facilities**

To further complicate the situation for menstruating girls, none of the schools had fully functioning “girl-friendly” well maintained sanitary facilities.

### **Toilets and hand washing stations**

Although all of the schools did have toilets, only three schools, all in San Ignacio, had them gender segregated. During the site visits, four schools had urine diverting dry (UDD) toilets and the other four had water flush toilets. Toilets were clean only in one school and “somewhat clean” in three additional schools, related to the fact that only five schools had trash



UDD toilet poorly maintained in San Ignacio.

<sup>i</sup> See figure 5 page 18 for the definition

bins in the stalls<sup>k</sup>. All the stalls had doors, but only four schools had sufficient lighting or functional locks in the toilet stalls. Cleanliness and functionality was not related to the type of toilet (UDD or water flush).

The number of students for each “at least partially functional” toilet stall was reasonable with 33 students per stall, however the poor quality led to girls not using these facilities. Teachers, girls and mothers mentioned that there was no privacy in the bathrooms at school because there were no locks, and the boys used the same facilities. During interviews with girls they stated that the toilets were in poor condition, lacked maintenance, smelled, were dirty, and there was no soap or water available. Girls stated that they did not like to use the school toilets, and usually went home any time they needed to go, particularly during their menstrual period. In one school, the girls used the bathrooms at the local health post, near to the school. When girls had to use the school toilet, they preferred to go with a friend to keep watch. At schools where the teachers had a locked bathroom, girls asked to borrow the key to use the teachers’ bathroom.

*“Our toilets are all dirty and we don’t want them to be like this because they can contaminate the environment and also diseases can come from there. They boys and teachers use these same toilets. The smell is terrible, there is no light, and all around is jungle. When the stalls are occupied we have to go into the jungle. We don’t have water or soap to wash our hands with, and no where to go to wash. There is no toilet paper so kids take sheets from their notebooks and use these, then they throw them on the floor.”*

- Girls, FGD, San Javier

Girls at all of the schools complained about the lack of proper WASH facilities for the management of their menstruation: *“We have toilets that are clogged, no wash basins, and the stalls are not clean, some have trash bins, but others do not. The stalls are not private, there are no locks, and we need someone to hold the door closed on the outside, because we are afraid that someone will come in. We are girls but we cannot sit on the toilet because we are afraid that if we do, we will get an infection, so sometimes we just have to “hold it” and not go.”* (Girls, FGD, San Ignacio de Moxos). Teachers reported: *“because there is nowhere to wash, nowhere to dispose of a sanitary pad here at school, when a girl gets her period unexpectedly, we send her home so she can change and then come back to class.”* (Teachers, FGD, San Ignacio de Moxos). Mothers expressed concern about schools toilets which are not working: *“this need of the girls, in this... the time of their period, they need to change, clean, and then <the toilet> doesn’t work right that moment. That is a big worry for us that we have to, in this school, worry about the toilets.”* (Mothers, FGD, San Javier).

*When the toilets are dirty, they smell bad. There is a window at the top, but no lights. There is a well where we can wash our hands but no soap. The stalls have a cardboard box for throwing toilet paper.*

-Girls, FGD, San Javier

Although six of the eight schools had hand-washing stations, only four of those had running water at the time of the visit. Two schools were not connected with water pipes to the village water system, and children had to

<sup>k</sup> In Latin America, anal cleansing is done with toilet paper. If toilet paper is not available, other paper or leaves, sometimes even stones, are used. In water flush toilets, paper is not supposed to be thrown into the toilet. If there are no trash bins, throwing used toilet paper in the corner of the stall is common practice in many schools.

carry buckets of water to school. Other schools were connected, but the village water system only pumped water for one hour per day, and schools did not have a tank to store water. None of the hand washing stations were located next to the toilet, so there was no private place for washing. Only one of the schools had soap available for hand washing. At the question: “What is the most difficult thing for a girl who gets her period in school”, several girls mentioned the lack of water and soap for hand washing.

The following table summarizes the characteristics of WASH facilities:

**Table 7: Summary of WASH facilities in research schools**

	San Javier	San Ignacio de Moxos	Total	%
<b>Sanitation observation</b>				
No. of schools with <i>at least some stalls</i> partially functional	4	4	8	100
No. of schools with <i>at least some stalls</i> specifically for use by girls only	0	3	3	38
No. of schools with <i>at least some stalls</i> clean or somewhat clean	4	1	5	63
No. of schools with <i>at least some stalls</i> with trash bins	2	3	5	63
No. of schools with <i>at least some stalls</i> with sufficient lighting	0	4	4	50
No. of schools with <i>at least some stalls</i> with functional locks	2	2	4	50
No. of schools with <i>at least some stalls</i> with toilet paper	0	1	1	13
No. of schools with space or pits used for burning used sanitary materials	1	3	4	50
<b>Water observation</b>				
No. of schools with functional water source on school grounds at time of visit	4	4	8	100
<b>Hygiene observation</b>				
No. of schools with hand-washing stations	4	4	8	100
No. of schools with hand-washing facilities with water at the time of visit	2	2	4	50
No. of schools with soap available	1	0	1	13
<b>Student to toilet ratio</b>				
Mean boys to boys’ toilet ratio	na	45		
Mean girls to girls’ toilet ratio	na	31		
Mean all student to mixed toilet ratio	32	34	33	

Na: not applicable, because there were only mixed use toilet

### **Facility maintenance and repairs**

In the UDD toilet, a handful of cover material (wood ash, saw dust, soil, etc.) should be sprinkled over the feces. When full, the respective compartment should be sealed while the other compartment is put in use. At each school with this sanitation, four stalls were constructed in one building with stairs leading up to each toilet facility. However, some schools did not have any cover material and no school had a staff in charge of sealing the full compartments, which was why many of these toilet stalls were closed.

School observations showed that water systems and pumps that required maintenance were left unused and the toilets closed. Once sanitation projects were completed, municipal governments did not provide a timely response to requests for repairs, in the form of funds or manpower. There was no system in place that allowed

for problems to be solved quickly. At one school, mothers complained: “At this school we have had problems with the toilets since the beginning, because they don’t work. The tank fills up with water and all the waste material comes up into the toilet, and the stalls have to be closed. We need to improve this situation because the girls need a place to change and wash when they have their period. This is a huge worry for us. We have talked with the authorities and the tank has been emptied, but the water continues to filter in from somewhere. So the girls have to go to their homes, as none of the toilets work here at the school.” (Mothers, FGD, San Javier).

On-going cleaning of sanitary facilities was also problematic, as no one was specifically charged with these duties. Only the two larger schools had a custodian responsible for cleaning. Results of the observation checklist showed that five of the eight schools did not have clean toilets and most of them had a bad odor. FGDs with girls confirmed observations, as girls thought the toilets smelled bad, were dirty and they did not want to use them. At several schools the teachers kept one of the students’ toilet locked, so that the teachers (both male and female) could use a clean toilet.

Girls shared their frustration about the sanitary facilities: “the custodian only cleans her own toilet, but does not clean the students’ toilet, even though it is her responsibility”. (Girls, FGD, San Javier).



Door locked to a school toilet in San Ignacio, Beni

### **Determinant 3: Absorbent materials for MHM**

#### **Availability of absorbent materials for MHM**

Although none of the schools in Beni had absorbent materials available, girls did have access to pads and cloth at home. Most girls reported using commercial sanitary pads because they were more absorbent than cloth. Sanitary pads were also available in some of the communities at local stores. Two girls who participated in the IDIs said that they always have one or two sanitary pads in their backpacks just in case there was an emergency. Mothers in Beni spoke openly about buying commercial pads and teaching their daughters how to use them, including how to wash themselves and change the pads at least four times a day. One mother said that they both use the pads “because now everything is disposable. Before we used cloth, but now with everything that is available, it’s cheaper to use the sanitary pads... cheaper and expensive at the same time, but we use the pads ...” Another mother said: “My daughter only uses sanitary pads, they are easier to use and also inexpensive. I save money each month for this <to purchase pads>.” Some mothers suggested using cloth at night or in combination with commercial pads to provide additional protection: “For me both options are good because commercial pads work well during the day and at night too, but with cloth one feels more secure, as a double cloth can be used.” (Mothers, FGD, San Ignacio de Moxos).

Regarding the materials that mothers used, some said they used cloth, but some indicated that only poor people still used homemade materials: “In our community, several women use cloth, let’s say, they don’t have enough economy to buy, so they use clean cloth.” (Mother, FGD, San Javier). One mother recounted: “The cloth we use

is bought at a store, we wash it, iron it and it can be reused. Sometimes we use cloth from old clothes, but these we usually throw away after they are used.” (Mother, FGD, San Ignacio de Moxos). Although both girls and mothers talked about using cloth, there was a concern about getting an infection if the cloth was not clean. In one school, girls mentioned that they used both cloth and commercial sanitary pads, but had to be careful with the cloth because it had to be washed with laundry soap and ironed.

To help girls who get their periods unexpectedly at school, mothers, teachers and school directors suggested that a first aid kit<sup>1</sup> be available and be stocked with commercial pads.

### **Disposal of menstrual absorbent materials**

Girls struggled to safely and privately dispose of used sanitary materials in school. Some girls would throw pads on the floor of the toilet stalls, trying to hide them among the toilet papers. “They leave the <used> pads on the floor just like that, there is no privacy, because the boys see them too”. (FGD, Mothers, San Javier). Others do not change at school and try to make one pad last until they can go home to change.

“When some girls are menstruating and go to the toilet, the seat gets stained with blood, and they throw their pads on the floor (because there are no trash bins), and there is no privacy because children and boys use the same stalls, and sometimes they take the pad out and the girls get embarrassed.”

- Mothers, FGD, San Javier

Both girls and mothers mentioned that at home they put their used pads in a separate bin, to be burned or buried: Mother 1: “I burn mine because sometimes dogs or the neighbor’s pigs pull them out.” Mother 2: “I put them where no one can see them. First we wrap them in a bag so they will dry, then we light a fire with used toilet paper from the bathroom and we burn these along with the pads.” (both mothers, FGD, San Ignacio de Moxos). “My daughter gets a black plastic bag and puts her used pads there, and once her period is over, she burns the pads.” (Mothers, FGD, San Javier).

## **E.3. Context: What influences the menstruation experience?**

### **Close-knit communities and access to water**

In the northeastern lowlands of Bolivia, the many lakes, rivers, and streams offer a plentiful water supply. Mothers and girls mentioned bathing and washing at home three to four times a day, indicating that access to water at home is not a problem. Even in communities where no improved piped water system is available, the sources for carrying water were close to the houses. Close-knit agrarian communities provide a supportive context for families with easy communication among family members, friends and neighbors as people are outside enjoying the evenings and visiting with each other. Schools are within walking distance from the homes of the majority of the students.

### **Integration of teachers in local communities**

Many of the teachers interviewed were from Beni, and some were residents of the community where the school was located. Interviews with teachers revealed that they habitually conversed with students and

<sup>1</sup>Typically, a first aid kit in a school contains dressing material for small injuries.

parents outside of class and were available to discuss issues that come up regarding puberty, hygiene, and reproductive health. One of the girls, who participated in an IDI, said that she lived with a female teacher who provided guidance and emotional support to the girls in the village. In another rural village, all the teachers were women and mentioned sharing information and guidance outside of school with students and parents.

### **Social networks and Internet**

Adolescents in Beni had access to the Internet and social media; many also had cell phones. With Internet access, students had the opportunity to investigate and broaden their knowledge about many topics, though the accuracy and quality of the information they receive is unknown. During an FGD with boys at one school, the boys talked about wanting to have sexual relations with girls and commented that they go to a friend's house to watch pornographic videos. *"When they <boys> grow up, I mean their mind, they think about having sex, let's say over there, and say some of their buddies have this type of cell phone, when they go home they watch pornos"* (FGD, Boys, San Ignacio).



Adolescent boys using the local internet store at the town of San Ignacio, Beni

Though it is unclear how many boys were watching pornography, their misinformation regarding sexuality reveals that they did not use accurate information sources.

### **Patriarchal attitudes and Machismo**

In Bolivia, cultural patriarchal attitudes and machismo are ingrained in men and quickly transfer to boys<sup>33</sup>. While machismo is a concept that dictates many aspects of male behavior, it has particular relevance to male sexual culture, especially in this region of Bolivia, where sexual debut occurs at a young age and is socially accepted. Mothers said that men in their communities felt entitled to satisfy their sexual desires, and women of all ages were considered potential sexual partners. During FGDs mothers expressed sadness when their daughters came of age, with the onset of menstruation and puberty, as it denoted their acceptability as sexual partners. FGDs with boys revealed macho attitudes that negatively colored their violent behavior towards girls (see above: male attitudes to menstruation); frequent viewing of pornography among boys may further negatively engrain this macho social norm. Having a girlfriend and being in love was about having sexual relations, and some boys expressed anger if a girl was unavailable for any reason.

## **E.4. Impacts and Risks: What happens to girls' education and health?**

Research participants discussed the following educational and health impacts and risks that girls experienced due to menstruation challenges. Impacts are the known and concrete outcomes that girls, and other participants, discussed occurring as a result of menstruation challenges. Risks are outcomes that participants suspect may be related to menstruation-related challenges, or that have been deduced from the data, but not directly stated by participants.

### ***Fear and shame***

As a result of the lack of knowledge about menstruation, girls talked about being scared, and feeling ashamed because they were menstruating. Girls excluded themselves from their normal activities during menstruation in an effort to hide it. Girls were afraid of revealing any sign of menstruation, particularly odors or bloodstains and thus avoided activities that would incite a bloodstain or place them too close to others who may notice the stain or a smell. Often they sat alone or only interacted with a best girlfriend, especially since boys bullied or harassed girls when they were menstruating. The insecure school bathrooms added yet another obstacle for girls, since they were often unclean, but also did not have locks and were shared with the boys. When girls had their period at school and needed to use the bathroom to change, a close friend would accompany her to hold the door and keep watch so no one could enter or approach the bathroom while she was changing. The friend also warned her if she had any stains when they were in class or at recess.

### ***Reduced participation at school***

Girls tended to exclude themselves from participation in class; girls avoided standing up to answer questions or going to the blackboard and sat in the back of the class. When girls had their period at school, they described themselves as being moody, quiet and reluctant to take part in class activities so as to not attract attention. They mentioned not feeling well and suffering from cramps, which contributed to their lack of participation. Most girls said they avoided the physical education class when they were having their period for fear that the increased movement would cause increased blood flow and result in a bloodstain. Though girls purposefully altered behavior to hide their menstrual period, boys and teachers noticed the difference. Teachers noted that girls were distracted in class and participated less. One teacher commented: *“The girls are more fearful, for example when they are sitting down they dread having to stand up. They are very careful and prefer just to sit and not walk around or play but rather stay in the classroom at recess.”* (Teacher, KII, San Javier) The boys assumed the distraction was because the girl was thinking about her period. They noticed that when a girl was menstruating she did not want to be with boys, but preferred to be surrounded by her girlfriends.

### ***Missing class***

It was common for girls to stay home on the first day of their period, and to go home to change if the sanitary facilities at school were inadequate throughout their menstrual cycle. *“Often they prefer to just go home. They ask for permission with fear and shame, ‘please can I go home?’ but they don’t want to tell me. I try to persuade the girls to share their real problem so that we can come to a solution”* (Male Teacher, FGD, San Ignacio de Moxos). For most girls, they lived close enough to home to cope with poor school sanitation, however, inadequate facilities caused girls to often miss some class throughout the day, if they did not skip the school day altogether.

Teachers said that girls who were suffering from pain and cramps would also ask permission to go home. One female teacher commented: *“I have a student who is 16 years old and it seems that she has a lot of pain with her period and it makes her sick. So I tell her that it is better for her to stay home because the pain can be very strong, this happens to me too sometimes, and one does not want to do anything.”* (Teacher, FGD, San Ignacio de Moxos).

## Unplanned pregnancy

The transition to adolescence is not easy for a girl in rural Beni. The physical changes marked social changes in their relationships with peers and the community that exposed girls to new risks affecting their sexual health. The onus of preventing pregnancy mostly fell on girls, while social norms dictated early and accepted sexual debut among boys who openly viewed girls as sexual objects. Although girls were attracted to boys, they knew that they needed to be careful around them. “As an adolescent I see sparks and fall in love, but my mother told me to be careful, to not go out at night. She warned me ‘the devil never sleeps,’ I could be grabbed and raped” (Girl, IDI, San Javier). Girls talked about wanting to attract boys, whereas boys talked about wanting to have sex. Once girls began menstruating this became a cause of stress, because they could get pregnant and had to worry about being with boys, wanted to have a boyfriend, yet knew not how to prevent pregnancy. Interviews with mothers, girls and teachers revealed a great concern with teenage pregnancy.

Mothers cautioned their daughters and told them not to go out at night with boys, because they could get pregnant. Some of the mothers were very worried about teen pregnancy and stated that they wanted their daughters to use birth control. All research participants shared anecdotes of young girls becoming pregnant. Some mothers talked about the fact that they didn’t know much about contraceptive options but did know about condoms, and wanted their daughters to go to the health post for advice. One mother told us: “My youngest daughter already has a husband, and she is 15 years old.” Another mother mentioned that many girls begin living with a man at a very young age, become mothers, and this determines their future. Mothers cautioned girls: “They need to protect themselves and make sure that boys respect them. Advice to sons was also given: “If their girlfriend has her period she is in danger of getting pregnant.” (Mothers, FGD, San Ignacio de Moxos).



Young adolescent couple in San Ignacio, Beni

*“My mother has talked to me a lot about puberty, she told me that a woman’s body is sacred and that a man cannot touch it.*

*I have a classmate who has a baby, she is 16, and another girl in my class is pregnant and she is only 13.”*

*-Girl, IDI, San Javier*

One mother told that she scolded her daughter when she reached menarche because she thought her daughter had been with a man, mistaking menstrual blood for the hymen breaking and took her to the doctor: “And I, I took her to the doctor. And he said, the doctor: ‘no, this is normal’. Because even she <the daughter> was frightened. My daughter <said>: ‘No, mummy’ and then I asked, like a “studying” mom, and I said: ‘With whom have you been? With him? Or with that one?’ and she said: ‘No mom, with no one, mummy!’” (Mother, FGD, San Javier)

Adolescent pregnancy put girls at great risk, including death from unsafe abortion. In one village a 15-year old girl died in the process of attempting to abort her baby. *“She spent a lot of time at nearby ranches where primarily men were working. Her mother did not say anything to her, nor did she forbid her to go.”* (Mother, FGD, San Javier).

### **School dropout**

There were more boys than girls in school, with a significant attrition in the number of girls enrolled, compared with boys in the 7<sup>th</sup> and 8<sup>th</sup> grades. School directors and teachers stated that school dropout was a direct consequence of pregnancy, as girls left school to take on the responsibilities of motherhood. In some cases girls began living with a man once they had a child and took on household duties fulltime. According to mothers, it was common for men of all ages to seduce or even rape young girls. The burden of child rearing for women was unquestioned.

One teacher talked about the need to keep girls in school, even though they are pregnant. *“There was a case where an adolescent girl got pregnant and dropped out of school because she felt ashamed. Now we encourage girls who get pregnant to continue coming to class”* (Teacher, FGD, San Ignacio de Moxos). Another teacher talked about the lack of self-esteem and goal orientation that leads to girl’s dropout. *“For me, the girls that dropout of school, it is a lack of values, because they don’t value themselves in the first place, then they think that falling in love means to drop everything else, they don’t look towards the future or the social (consequence), what happens with a girl that... they do the same thing (as their parents). I think we lack a bit of education in values and a bit more discipline with (the students) and support”* (Female teacher, San Ignacio).

### **Sexual violence**

Girls, mothers and boys made reference to rape and sexual violence throughout research activities. Boys spoke directly about utilizing girls to fulfill sexual desires and used derogatory language when describing girls and sex; an indication that girls may also be experiencing emotional violence in their relationships. Boys explained how menstruation was an annoyance when they could not have sexual relations with their girlfriends, an instance that could also result in violence against girls. Mothers expressed concern over the safety of their daughters as they reached adolescence, warning them to be careful with boys, but also fearing that older men would prey on their daughters. Mothers were sad, not because their daughters reached menarche, but because of the potential of sexual violence that accompanied girls’ coming of age. One mother confided that when her daughter reached menarche: *“I feel very sad, now we need to protect our daughter, there are many cases of rape here, one cannot trust anyone, not even a father or a brother.”* One mother said: *“The men go sniffing for girls that are 12 years old”* (Mother, FGD, San Javier). Interestingly, female participants and local researchers used the phrase “respect a woman” to denote sexual abstinence: *“let’s say <the girls who menstruate> have to be careful, let’s say, get respected by ... the men”* (Mother, FGD, San Ignacio). However, boys used the word “respect a girl” to refer to not bullying, understanding and being nice to girls. Finally, father used the word “respect” in the sense of consenting to girl’s wishes: *“when the <girls> get <their first menstruation>, they become more responsible, in the way they dress.... They hide up to get dressed, not like girls that dress in front.. Well, I think they should be respected, right? Given that they are already adolescents, and are growing up...”* (Father, FGD, Trinidad).

## ***Infections***

Conversations with mothers showed a limited understanding of vaginal infections, attributing symptoms of infections to traditional practices, such as sitting in the sun or drinking milk during menstruation. Traditional beliefs were passed on through the generations and often justified not seeking medical attention and treatment. Early sexual debut, combined with machismo attitudes that often go along with infidelity, also put girls at higher risk for contracting STIs.

## F. CONCLUSIONS AND RECOMMENDATIONS

This research highlights the multiple the barriers that girls must overcome to exercise their rights. It demonstrates the strong linkages between access to water, sanitation and hygiene, health, protection and education services, and gender equity, intra familiar dialogue, opportune information and access to basic products. There is a need for intensified multi-sectorial efforts that will address the inequitable social determinants affecting girls' lives and ensure health, education, and empowerment for girls..

### *F.1. Conclusions for the Beni Department*

#### ***Challenges for Schoolgirls***

Girls had limited knowledge about the physical, social and emotional changes that occurred with the onset of adolescence and menstruation. During their menses, girls discussed feeling sad, moodiness and distraction. They preferred to sit in the back of the class interacted less with teachers and peers, especially boys. Schoolgirls were less able to concentrate in class due to fear that their blood would soak through their clothes. They tended to avoid academic participation and physical education class. Girls preferred to miss school on the first day of their periods because their menstrual flow was heaviest and other symptoms, such as headache and cramps, were the most painful. The onset of menstruation was also a signal to boys and men that a girl was sexually available. Menstruation led to bullying and harassment from boys in school, and also increased her risks of unprotected sex and sexual violence from men in the greater community. Girls' and boys' lack of understanding about the menstrual cycle, plus early and accepted sexual debut, was frequently cited as the reason that girls became pregnant, dropped out of school and married young.

#### ***Determinant 1: Inadequate knowledge and attitudes***

The information schoolgirls receive about puberty and reproductive health was insufficient and did not emphasize the avoidance of risky or unhygienic behaviors. Fertility awareness and knowledge of contraceptive methods to prevent pregnancy was severely lacking. Mothers, girls and boys link menarche with sexuality and fertility, but most did not understand the biological aspects of menstruation, believing that the most fertile time for a woman is during menstruation. The lack of knowledge about reproductive health was a contributing factor to the teenage pregnancies that mothers and teachers discussed during FDGs. This finding aligns with the high incidence of teenage pregnancy among young girls in Beni<sup>25</sup>. The language used around sexual intercourse tended to euphemisms and indirect allusions (“going around in the dark with boys”, “not being careful”, “not respecting a woman”). This may compound misunderstandings and fear about sexual and gender relationships.

Some of the traditional beliefs such as “not spanking small children or animals” and “not harvesting fruits” while menstruating denote that menses takes life, intelligence and energy away from people and plants. This might speak to the negative connotation of menstruation and women in general – but also associate women's blood with a mysterious power: “One of nature's most stigmatized fluids” as Ingrid Johnston-Robledo called it<sup>34</sup> is causing some fear if traditional restrictions are trespassed, and adhering to those restrictions gives girls a feeling of safety and security.

While the national curriculum<sup>17</sup> does cover growth, sexuality and sex, teachers were unaware of it. MHM was not taught as part of the school curriculum. Teachers in some schools taught puberty and menstruation related information on an ad-hoc basis, sometimes sharing personal experiences as it was needed. On the positive side, most teachers were sympathetic to girls and gave them permission to go home if they felt ill or needed to wash and change. It was not uncommon for teachers to befriend students and parents outside of school and to provide informal guidance on puberty issues. While strong teacher integration within the community was an area that could be leveraged to strengthen knowledge of puberty among students and parents, teachers unfortunately often harbored some of the same traditional beliefs and misinformation about menstrual hygiene. Nonetheless, teachers felt a responsibility to guide girls to manage menstruation adequately. Teachers at some schools were proactive, undertook research on the Internet and gave classes to their students that included videos and other educational aids.

### ***Determinant 2: School WASH facilities***

None of the schools visited had optimal water and sanitation conditions to assure hygiene practices, safety and privacy for schoolgirls. Girls preferred to go home rather than to use the school WASH facilities. Teachers, girls and mothers mentioned that there was no privacy in the bathrooms at school because there were no locks and the boys used the same facilities. Girls sought support from close female friends at school to accompany them to the school bathroom to guard the door; in some instances girls were allowed to use the cleaner teacher bathrooms. There was not a water source available for washing in private in case they got a bloodstain or needed to wash their hands. Only one of the eight schools had soap available.

### ***Determinant 3: Absorbent material for MHM***

Menstrual hygiene supplies were not available at any of the schools visited during research activities. While girls did not have access to sanitary pads in the event an emergency at school, girls did easily access pads at home and from local stores in the communities. Girls and mothers had a strong preference for disposable sanitary pads, which were primarily what girls used while attending school, though cloth could be used at night. As girls became accustomed to their monthly periods, they were aware of the signs that their period was coming and could prepare by carrying sanitary pads in their backpacks. A main issue remains the problem of waste management, as there were no safe systems in place in rural communities.

## ***F.2. Comparison of findings between the Andean and Amazonian regions***

The challenges that schoolgirls faced managing their menstruation in the Beni Amazonian lowlands were similar to those expressed by girls from the Andean highlands of Cochabamba. Girls from both regions felt fear and shame about their menstrual periods. They worried about bloodstains appearing on their clothes, odor and about being teased and bullied by boys. During their menstrual cycle, girls from both regions explained that they tended to more quiet and withdrawn, both in class and among their peers. Girls reported remaining silent during class and not participating, which in both regions was also observed by teachers and boys. Girls talked about their difficulties managing menstruation in school because they had little or no privacy to wash and change at school, and often there was no water, much less soap, at school. In both Beni and Cochabamba, teachers, mothers and girls were also concerned about girls' transition to adulthood, particularly as menses was a sign of fertility and increased their risk of unplanned pregnancy; in both regions, this was noted as a major cause of school dropout for girls.

Many of the traditional beliefs and customs were similar in Beni and Cochabamba. For example, chamomile water was recommended for washing during menses in both regions, as was the admonition to not drink milk as it could cause an infection. The prohibition regarding bathing with cold water during menstruation was cited in both locations; however, in Beni, women believed that this caused varicose veins, whereas in Cochabamba cold water was associated with reduced menstrual flow and cramps. Mothers, boys, and girls commented that the most dangerous time for a woman to be sexually active was during her menses. Interestingly, in the Cochabamba study, the older women were the ones who believed that girls were at greatest risk of pregnancy during their menses.

The main difference between the Andean highlands and the tropical lowland region of Bolivia lies primarily in contextual and cultural factors. In Beni, there were close relationships between women and girls and easier communication among families, as well as between teachers and girls. Most girls learned about menstruation from their mothers or female relatives, and received comfort and support from close friends at school, whereas in Cochabamba many girls reported not knowing why they were bleeding the first time they had their menstrual period. Girls also had access to the internet and social media, which allowed them to potentially connect to outside information and social networks. In the Beni region, there is less isolation and self-exclusion than in Cochabamba. Mothers mentioned setting aside money each month so they could buy sanitary pads for their daughters. In contrast, schoolgirls in Cochabamba lived either far from school, or far from their family in a boarding home, hence had limited knowledge prior to menarche and less support at school. In the high Andean valley people tended to be more reserved, and the topic of menstruation was not openly discussed. In contrast to Cochabamba, adolescents in Beni had more access to Internet, social media and cell phones.

In Beni, water was plentiful, facilitating bathing and personal hygiene, as opposed to Andean Cochabamba where the cold climate and scarcity of water there contributed to customs that restricted frequent bathing, as well as potentially increased the odor that often shamed girls. The villages in Beni were small and houses were close to the school, making it easier for girls to go home to change pads. In Cochabamba this was not the case. In Cochabamba, though it was harder to go home to manage their menstruation, most of the schools visited had separate bathrooms for boys and girls, though like Beni, many were in poor condition.

Female teachers in Beni were supportive of girls and interested in teaching them about puberty and menstruation, and the information provided by mothers and teachers was similar. In Cochabamba, girls mentioned receiving conflicting and different information from home than they did from school. In Beni, there was not a contradiction between advice from mothers and teachers, as both shared a similar cultural background. While this did not create confusion, as in Cochabamba, it meant that misinformation and traditional practices were sometimes supported and not corrected, by teachers in Beni. Girls in Beni were also open to receiving information from teachers; girls were open to talking about puberty and menstruation, whereas in Cochabamba schoolgirls hunched over their chairs, or put their hands over their faces, embarrassed to participate in discussions about reproductive health whether they came from teachers or health workers.

In Beni, relationships with boys and men are charged with a more explicit degree of patriarchal attitudes and machismo. Girls were expected by men to initiate sexual relations once they reached menarche, yet did not

know how to prevent pregnancy, resulting in a high incidence of pregnancy and school dropout. Mothers and teachers cited violence and rape as risks for girls in Beni, whereas in Cochabamba this topic did not surface as a risk to schoolgirls.

### **F.3. Recommendations**

The first group of recommendations are from research participants and represent a summary of the responses from the eight schools pulled from the transcripts. During each interview school directors, teachers, mothers, girls and boys had the opportunity to share their suggestions on how to improve MHM in their school and community. Below is a summary of recommendations, showing the specific needs and suggestions of mothers, students, teachers, and school directors. Together with the recommendations of the Cochabamba Study, these form the basis for the suggestions for future MHM programming.

#### **Recommendations from research participants**

##### *Adolescent Girls*

- Clean all the bathrooms and ensure sufficient light in the stalls.
- Clear assignments and responsibilities for bathroom cleaning.
- Provide sanitary pads in schools in case of emergencies.
- Reinforce positive factors, such as support among girlfriends.
- Establish coordination between students, teachers and parents to improve MHM conditions at schools.
- Coordinate with local authorities such as the village councilman and the mayor at the municipal level.



Young adolescent girls walking to school in San Ignacio, Beni

##### *Adolescent Boys*

- We could help girls by not making fun of them and being kind to them.
- Stop other boys from bullying girls.
- Listen to a girl if she has a problem, keep it confidential; call a doctor if necessary.
- Help girls by giving them advice as friends.
- Advise girls to practice good hygiene and to take good care of themselves.
- Help the girls to feel happy and secure.
- Have clean bathrooms for girls.
- Don't kick the girls.

### *Mothers*

- Develop and implement an MHM training for both teachers and students.
- Teach about menstruation starting in the fourth grade. A trusted female teacher should give the classes and make the girls feel comfortable so that they will confide in her, share their problems and ask questions.
- Establish a direct connection between mothers and the school director to establish ground rules for teachers that ensure that they treat girls with respect and consideration when they are menstruating.
- Improve school bathrooms so they offer privacy for girls provide trash bins with lids for pad disposal.
- Ensure each bathroom has water, soap, toilet paper and towels.
- Provide a first aid kit at each school that contains pain medication and sanitary pads for girls when they are menstruating.

### *Teachers*

- Improve current facilities so that each school has one private bathroom for girls that can be locked from the inside
- Establish a first aid kit with sanitary pads at the school, and a revolving fund to replenish materials.
- Include training workshops in the annual school calendar to provide education and counseling for parents and students
- Request assistance from outside institutions to provide education in MHM at the school
- Make a formal request for educational materials for teaching MHM to the Education District Office in Trinidad, and to the respective municipal governments, so that funds can be allocated in annual operating plans.

### *School Directors*

- Assure that each school has the necessary absorbent materials for MHM.
- Implement training sessions for teacher on the topics of puberty, menstruation, and reproductive health and provide teachers with didactic materials for teaching MHM.
- Invite health staff and NGOs to give courses to teachers.
- Coordinate with the respective health post to provide the school with medications for girls who are menstruating and suffering from pain and cramps.
- Take responsibility as educators of children and youth to teach parents how to help them prevent unwanted pregnancy, as many of the youth were sexually active.
- Talk to adolescents about sexual and reproductive health and make sure that they know how to access contraceptive methods.

The major findings of the Beni study confirm that adolescent girls suffer from many of the same challenges that their counterparts reported in Cochabamba. The determinants of these challenges were analogous, namely access to adequate water and sanitation facilities, sufficient knowledge and education about menstrual hygiene management; and availability of absorbent materials. A summary of the key recommendations from the Cochabamba study are shown in Figure 10, as these hold true for Beni as well.

## Figure 10: Recommendations from the Cochabamba MHM study<sup>1</sup>

*Enable girls to have concrete practical skills that allow them to manage menstruation.*

These skills should enable girls to practice menstrual hygiene management safely and effectively, using WASH facilities available to them in school, and with the confidence and ability to support themselves when teachers or family are not present. To advance these goals, it is recommended that:

- Education is provided to girls in primary school pre-menarche
- Strengthens teachers' capacities and equips them with tools to provide in-depth and medically accurate information to students in a safe learning environment.

*National and local governments should have policies and mechanisms that encourage proper use and facilitate maintenance of WASH facilities in schools:*

- Develop mechanisms to maintain existing WASH infrastructure to ensure:
- Develop and practice practical and sustainable water conservation strategies for schools in water-scarce regions.
- Prioritize construction and repairs in schools with poor basic WASH facilities over schools with better facilities.

*Schools should have policies, facilities and resources in place that allow girls to discreetly manage menstruation in school:*

- Norms for WASH facility use during school hours are adjusted to facilitate discreet management of menses for girls.
- Basic WASH consumables and resources are provided to schools, including:

Girls should have access to absorbent materials

- Sanitary pads or other appropriate materials are available for free to girls in cases of emergency needs at school.

### **Recommendations for future MHM programming**

The following recommendations derive directly from the findings of this study and address the challenges and determinants that impair schoolgirls' physical, emotional, social and mental wellbeing.

#### **General recommendations**

- 1) Strengthen the gender equity approach in the education, WASH, health and protection sectors.
- 2) Strengthen the enabling environment through advocacy and policy initiatives for improved WASH, MHM, adolescent health and puberty education.
- 3) Promote an innovative, intercultural, multi-sectorial and gender approach in all programming, ensuring that MHM aspects are included in planning processes and budget allocation processes by the water and sanitation, health, and education ministries.

- 4) Support national government strategies to include access to WASH in schools and health centers considering different needs of girls and boys.
- 5) Improve knowledge, skills, attitudes and self-efficacy among adolescent girls and boys related to MHM, gender norms and gender based violence.
- 6) Increase availability of quality educational and health services for students prior to and during puberty and adolescence.
- 7) As flooding is a recurrent natural disaster in Beni and compounded by climate change, WASH programs needs to take resilience and emergency response plans into account.

### ***Specific recommendations***

#### *Advocacy and policy initiatives for MHM*

The goal of the advocacy and policy initiatives is to institutionalize MHM interventions in health, education, protection and WASH sectors in rural communities throughout Bolivia. Based on Beni and Cochabamba studies, an innovative approach to advocacy is recommended, where teachers, parents and youth serve as advocates. It is recommended that researchers share results of MHM research and submit evidence to support new interventions to improve MHM and safeguard the wellbeing and health of children and youth in rural communities. The local research participants should build their capacity for public speaking to serve as spokespeople on key rights of women and children, participate in media campaigns, interface directly with strategic allies, convince and persuade policy makers, and build partnerships with key stakeholders to further policy goals. Awareness must be raised with a variety of local actors including municipal authorities, parents, teachers, and representatives from the education and health sectors. Finally, communities should be mobilized and local leaders involved to advocate for MHM in schools which includes:

- o Technical assistance and advocacy to prioritize budgets and investment in WASH facilities in schools.
- o Capacity building of municipal and departmental WASH officials<sup>m</sup> to promote hygiene in schools and communities.
- o Training adolescents with age-appropriate methods on MHM, gender equity, gender and sexuality, prevention of teenage pregnancy, danger of unsafe abortion and other topics as appropriate;
- o Detecting, reporting and responding to inter-generational and gender-based violence.

#### *Institutionalize MHM in the formal school curriculum*

Develop a formal MHM/puberty education curriculum to be implemented on a pilot basis and incorporated into the Ministry of Education curriculum. The pilot MHM program for schools should be based on proven theoretical approaches to social and individual behavior change, and emphasize the following:

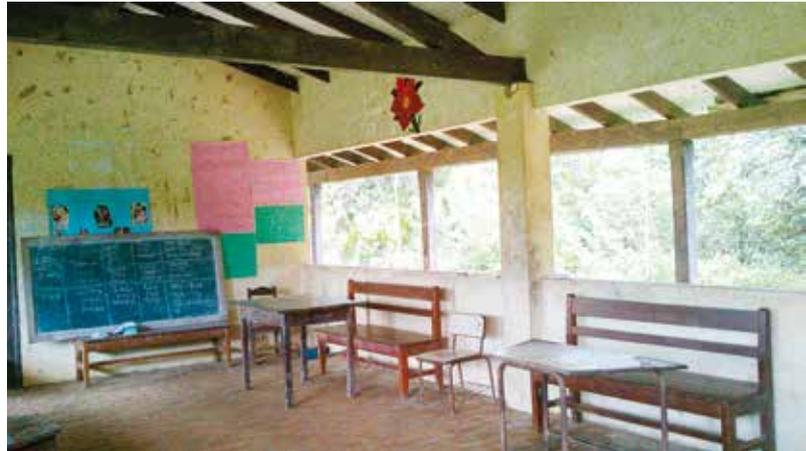
Provide accurate information on MHM, puberty and risky behaviors;

- Promote specific healthy behaviors;
- Use clear and plain language about sexuality, avoiding euphemisms;

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<sup>m</sup> Called “Community development officials” or DESCOM for the Spanish abbreviation

- Address the social pressures of early sexual behavior;
- Incorporate practice of communication, negotiation and refusal skills;
- Use a variety of participatory teaching methods that allow students to personalize the information;
- Incorporate individual behavioral goals for adolescents, participatory teaching methods, and learning materials that are age and culture appropriate;
- Deploy trained teachers, or peers, committed to the program.



Typical classroom, San Ignacio, Beni

Topics to include are adolescent psychological and social development, puberty, MHM, gender roles and gender-related values, decision making and self-esteem, intra-family communication around puberty and menstruation (girls with mothers, fathers, brothers), reproductive anatomy and physiology,

Develop a strategy that can be used at each school to prevent bullying, where students can learn life skills that include information on what it means to be a man or a woman, how to value each person and treat them with respect, along with the importance of avoiding bullying behavior.



Boys and girls learning traditional dancing ceremonies in San Ignacio, Beni

#### *Boys as friends*

Adolescent boys are traditionally neglected by families and communities when it comes to knowledge of menstruation and the female reproductive health, along with their own sexuality. Boys are left to navigate puberty in the absence of support, resorting to macho social norms and pornography. Simultaneously, girls are told to make boys respect them and fend off their aggressive sexual advances. This mixed messaging causes confusion between girls and boys, with unfair and conflicting social expectations for both sides, leading to potentially violent relationships throughout their lives. Unless attention is paid to adolescent boy's sexuality, efforts to help girls will be largely ineffective, as current gendered

relationship dynamics encourage boys to pressure girls to make poor reproductive health choices. It is recommended that a peer education program be developed specifically for adolescent boys, starting at a young age before negative gender norms are fully engrained, taking into consideration the following:

- Address the harmful gender roles that make boys equate risky behavior with being “manly” and provide examples of positive male behavior that boys can emulate and will instill pride.
- Stress the value and the personal investment that boys have in challenging the gender order. Gender inequity is not just about girls, but these unbalanced gender norms hurt their families and affect their own health and livelihood.

Periodic refresher training will be given to provide new information and strengthen skills. Specific objectives and tasks will be identified and agreed upon by peer educators; a plan for regular supervision and support will be prepared; and educational and presentation materials will be developed by the youth themselves.

In conjunction with the *Boys as Friends* approach, consider developing a youth leadership program for both sexes through the schools, based on an ethic of service through which youth contribute to their own process of personal transformation, and are harbingers of change in their communities promoting respect for adolescents, their rights, and their wellbeing. Activities include the formation of school councils, implementation of service projects, art workshops and festivals, and training for parents and teachers.

#### *Improve clinic to school linkages*

Consider working with health facilities to develop linkages with schools and communities to increase access to services for MHM and adolescent reproductive health. Develop an on-going training and supervision program with the public health system in target communities on a pilot basis, where health providers will receive preparation to work with adolescents, and a system for referral between health clinics and schools will be developed.

#### *Behavior change communication through mass and social media*

Consider implementing a mass media approach to support the information on MHM and puberty learned through schools and outreach programs at health facilities. Develop a behavior change communication plan to reach a large number of youth but also parents. Particularly fathers of adolescent girls should be targeted to broaden and deepen their responsibility for their daughters. Messages will be communicated primarily through radio and in certain municipalities, television. Given that young people are currently connected to social internet media, these channels can and should also be explored.

Provide knowledge of puberty, menstruation, and hygiene to help adolescents: 1) comprehend their physical and emotional development, 2) understand puberty issues, 3) manage relationships and peer pressure, 4) be aware of fertility, identify signs of illness and pregnancy, and 6) know how and where to seek help. This education and information will provide skills for carrying out healthful intentions, such as decision-making, personal communications, negotiating safe practices and an ability to express important concerns.

#### *Absorbent MHM material*

In school access to absorbent material should be prioritised, and funding mechanisms such as revolving funds should be piloted.

Policies and implementation to improve waste management in schools is direly needed, not only for menstrual waste, particularly in rural communities. Availability of reusable, washable and affordable cloth pads could

provide an alternative to the increasing waste disposal problem in Bolivian rural schools. These cloth pads require several trials of refining the product to meet girls' needs and preferences. Also, the cost needs to be adjusted to demand and families' willingness to pay. Additionally to meeting the need and contributing to the environmental protection, this could become an interesting local income generation.

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Adolescents posing in a village of San Ignacio, Beni