

# Suubi4Her

**A Combination Intervention Addressing  
HIV Risk Behaviors Among Older Adolescent Girls  
Transitioning into Adulthood in Uganda**

**Wave II (12-months Follow-up) Report  
2019-2020**



# **Suubi4Her: A Combination Intervention Addressing HIV Risk Behaviors Among Older Adolescent Girls Transitioning into Adulthood in Uganda**

## **WAVE II (12-Months Follow-up) Report**

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### **Disclaimer:**

The content of this report is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute of Mental Health (NIMH) or the National Institutes of Health (NIH).

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## 1. EXECUTIVE SUMMARY

This report presents the survey data collected at 12-months post intervention initiation for participants in the Suubi4Her Study. The Suubi4Her Study is a five-year (2017 – 2022) longitudinal randomized control trial evaluating a combination intervention aimed at reducing HIV risk among adolescent girls (ages 14 - 17) in Uganda. Out of the total sample (N=1260), 1219 adolescent girls completed 12-months follow-up interviews. Similar to baseline assessments, data was collected using a multidimensional survey instrument. The instrument is a combination of evidence-based measurement tools and some adapted scales and questions developed specifically for girls in Sub-Saharan Africa.

The following are highlights of the key findings from 12-months follow-up survey data:

- ❖ **Household Characteristics:** Similar to baseline assessments, several respondents' demographic characteristics were captured at 12-months follow-up. The average length of stay in the current household was 16 years. The average number of persons per household was 7 with 3 children below the age of 18 (excluding the respondent). At least 13.9% (n=169) of all respondents had lost their biological father, 5.8% (n=71) had lost their biological mother, and 47.6% (n=580) had lost at least a sibling. At 12-months follow-up, 92% (n=1122) respondents were still enrolled in school while 7.9% (n=97) respondents had dropped out.
- ❖ **Community Background:** Respondents were asked to indicate the distance from their homes to community resources like schools, healthcare centers and water sources. At 12-months follow-up, more than half of respondents (54.9%, n=669) lived near to their school, i.e., within walking distance, 81% (n=987) lived close to a clinic or medical facility, and 85.5% (n=1042) lived close to a clean water source. In addition, while 65.2% (n=677) of respondents indicated knowing the location of a formal financial institution, only 9.7% (n=118) reported having a formal financial institution within walking distance. Similar to baseline reports, respondents reported moderate satisfaction with communities where they live (mean=31.4, SD= 5.4, actual range= 11-40), with high scores indicating high levels of community satisfaction.
- ❖ **Family Relationships and Communication:** Family relationships were measured using four dimensions: family cohesion, perceived child-caregiver support, patterns of family care and relationships, and family communication. Similar to baseline reports, respondents reported moderate levels of family cohesion (mean=27.0, SD=5.5, actual range = 7-35), and family care and relationships (mean was 25.7, SD=3.8, actual range =11-30), with high scores indicating high levels of family cohesion and family care and relationships, respectively. In addition, the overall mean score on perceived child-caregiver support was 57.2 (SD=6.5, actual range=34-77), with high score indicating higher level of perceived caregiver support. With regards to family communication, respondents reported to be feeling comfortable when talking to the caregivers about the education, future plans. However, most of them did not feel comfortable communicating with their caregivers on issues of alcohol/smoking and topics related to sexual health, STDs, and marriage.
- ❖ **Social Support and Social Participation:** In addition to family relationships, respondents were asked to report on their perceived social support from their social networks. Similar to baseline reports, moderate levels of social support from parents/caregivers, classmates, peers and teachers

combined were reported (mean = 115.1, SD=19.0, actual range= 48-150), with higher scores representing higher levels of combined social support). Respondents reported high levels of social participation within their families and community contexts, such as being allowed to invite friends to their homes (87.9%, n=1072), celebrate special occasions (98.9%, n=1206), and participate in leisure activities (89.0%, n=1085).

- ❖ **Exposure to Violence:** Respondents' exposure to various forms of physical and emotional violence in the past month was assessed. At 12-months follow-up, 36.7% (n=447) of the respondents reported being spanked, hit, slapped on bottom with bare hand, 37.4% (n=456) reported being shouted, yelled, screamed at, and 31.4% (n=383) reported being belittled and labeled by names such as dumb, lazy or other belittling names in the past month belittled and called dumb. While these reports slightly decreased from baseline, the majority of the respondents 70.1% (n=854) still believed that physical punishment is an acceptable tool to bring up, raise, or educate a child properly. On the other hand, respondents also reported that their parents/caregivers use non-violent strategies to discipline them and their siblings, such as giving explanations about a wrong behavior and being given something else to do instead of getting punished.
- ❖ **Education Parameters:** At 12-months follow-up, less than half of respondents (43%, n=524) reported plans of completing secondary school and going onto the university to get a degree. This number declined from baseline where slightly over half of respondents (51.2%, n=645) planned to do so. Regarding education resources, the majority of respondents (88%, n=1073) reported that they had time devoted to reading their books on a daily basis, and 87.4 % (n=1065) reported having a quiet room and light to do their homework. About 2.1% (n=25) of respondents reported that they had experienced thoughts of dropping out of school (compared to 1.8%, n=23 at baseline), due to lack of school fees and scholastic materials, and lunch. The overall mean score on the measure of school satisfaction was 35.20 (SD =3.51, range = 18-40) representing high levels of school satisfaction (baseline mean = 34.93, SD= 3.81, actual range = 14-40).
- ❖ **Family Socioeconomic Status:** Measures of poverty, including availability of basic needs, household assets, and food consumption, were assessed. At 12-months follow-up, the majority of respondents 96.7% (n=1179) owned more than two sets of clothes, 92.4% (n=1126) owned a blanket, and 53.1% (n=647) owned more than two pairs of shoes. The majority of respondents (75.85%, n=924) lived in households with electricity, and more than half (66.2%, n=807) reported that their houses were made of bricks, iron sheets and cemented floors. Similar to baseline reports, the majority of respondents' households owned their own homes, land, several gardens, livestock, means of transportation and small income generating businesses.
- ❖ **Self-Reported Savings:** Respondents were asked whether they had personal savings. At 12-months follow up, 32.8% (n=400) of respondents reported that they had money saved, either with their parent/caregiver, in a financial institution, or someplace else. At least 53.2% (n=649) reported that their caregivers were saving money for them, and 50.4% (n=614) reported that their caregivers had an account in a formal financial institution. Similar to baseline reports, respondents rated the importance of saving for education and a family business highly; and felt

more comfortable saving for education and buying some kind of revenue generating asset, such as livestock.

- ❖ **Menstruation Practices:** Similar to baseline assessments, respondents were asked several questions related to their menstruation experiences and the effect of menstruation on school participation. At 12-months follow-up, 93.1% (n=1173) of the respondents reported to have started their menstrual cycle. Among these, 0.7% (n= 8) reported missing school always, and 2.2% (n=24) missed school many times because of their cycle. Reasons for missing school include fear of staining their uniforms, fear of being made fun of, not having sanitary pads, pain, and feeling uncomfortable or tired during their cycle. Regarding menstrual hygiene, the majority of respondents (83.8%, n=990) reported using sanitary pads and 27.5% (n=325) reported using reusable pads. About 49.6% (n=586) reported that they do not have enough money to purchase disposable sanitary pads from a shop. Similar to baseline reports, several respondents reported negative beliefs about menstruation, such as menstruation means that someone is sick, and menstrual blood contains dangerous substances. These reports point to the need for comprehensive reproductive health information for adolescent girls.
- ❖ **Mental Health:** Several measures of participant's mental health wellbeing were utilized. At 12-months follow-up, respondents reported slightly high levels of self-concept measured by the Tennessee Self-Concept Scale (mean=82.3, actual range=42-100), compared to baseline scores (mean = 80.8, actual range= 44-100), with high scores indicating high levels of self-concept. Self-esteem scores as measured by the Rosenberg Self Esteem Scale were similar to those reported at baseline (mean=34, SD=4.9, actual range=5-40), with high scores indicating high levels of self-esteem (baseline mean = 34, SD = 4.6, actual range 16-40). The Beck Hopelessness Scale was used to measure hopelessness, with higher scores indicating a high level of hopelessness and pessimistic attitudes. At 12-months follow-up, the overall mean score was 3.4 (SD=2.7, actual range = 0-15), indicating slightly lower levels of hopelessness and pessimistic attitudes compared to baseline scores (mean score = 4.6, SD = 3.01, actual range = 0-17). Finally, lower levels of depressive symptoms as measured by the Beck's Depression Inventory were reported (mean =14.9, SD=9.4, actual range=0-45), indicating a decrease in depressive symptoms from baseline (mean = 18.47, SD=10.2, actual range 0-58).
- ❖ **HIV/AIDS Knowledge and Prevention Attitudes:** Similar to baseline reports, respondents reported desirable HIV prevention attitudes at 12-months follow-up. The average score was 20.3 (SD= 4.5, range= 5-25), compared to 19.5 (SD=5.3, range 5-25) at baseline, with higher scores indicating desirable HIV prevention attitudes. In addition, respondents were able to identify unsafe HIV transmission behaviors, including unprotected sex and sharing needles. However, they also labeled what are considered safe behaviors, such as touching a toilet as an HIV infected person, as unsafe. Moreover, respondents answered "true" or "unsure" to common myths, such as using birth control protects a woman from HIV, you can look at a person and tell if they have HIV, and there is a cure for HIV. These inconsistencies point to a greater need for comprehensive and correct HIV-related information among adolescents
- ❖ **Youth Risks and Sexual Behaviors:** Respondents were asked a range of questions related to cigarette, alcohol and marijuana use at 12-months follow-up. Of the total sample, 0.3% (n=3) of respondents reported to have tried smoking cigarettes (compared to 15 (1.2%) at baseline), and

4.4% (n=53) reported ever drinking alcohol, other than a few sips (compared to 74 (5.9%) at baseline). No cases of marijuana use were reported at 12-months follow-up. Regarding sexual behaviors, 4.7% (n=57) of respondents reported having engaged in sexual intercourse (compared to 3.3% (n=42) at baseline). Overall, reported sexual risk-taking intentions decreased from baseline (mean =22.5, SD=3.74; actual range 5-25) to 21.5 (SD=4.14; actual range 5-25) at 12-months follow-up.

- ❖ **Biomarkers:** We collected biomarker data on HIV, sexually transmitted infections (Chlamydia, Gonorrhea, Trichomonas) and pregnancy. Of the total sample at 12-months follow-up (N=1219), 1.7% (n=21) of respondents tested positive for Trichomonas (compared to 65 cases at baseline), 0.7% (n=8) tested positive for Chlamydia (compared to 7 cases at baseline), and 0.8% (n=10) tested HIV positive (compared to 8 cases at baseline), indicating 2 new cases for HIV. Similar to baseline reports, no cases of Gonorrhea were reported. About 1.9 % (n=23) of respondents received positive HCG pregnancy test result (compared to 14 cases at baseline).

Overall, the Suubi4Her Wave II assessment data illustrates how adolescent girls viewed themselves, their families, their communities and their futures 12 months post intervention initiation.

## 2. SUUBI4HER: INTRODUCTION AND RATIONALE

Sub-Saharan Africa (SSA) remains the world's most affected region in the HIV epidemic; and a home to 71% of people living with HIV worldwide.<sup>1</sup> Girls account for 7 out of 10 new infections among adolescents (ages 15–19 years).<sup>2</sup> This gender disparity has increased the recognition that adolescent girls need more attention if we are to achieve an AIDS-free generation.

Being out-of-school is one of the key characteristics found to increase adolescents' and young women's vulnerability to HIV as it is associated with numerous risk factors, including age-disparate and transactional sex, early marriages, inconsistent condom use, and limited power in relationships – most significantly the ability to negotiate safe sex.<sup>3-9</sup> Alongside these risks exist mental health challenges associated with economically motivated sex (both age-disparate and transactional), which have been shown to have a bi-directional relationship with depression, low self-esteem, and anxiety for young women.<sup>10,11</sup> Moreover, higher depression among young women has been associated with co-factors of HIV risk.<sup>12</sup> Given the heightened risk for HIV infection in adolescent girls, there is an urgent need to address the complex and multilayered economic and psychosocial issues facing this population in SSA 18 to 20.

In many SSA countries, including Uganda, access to education remains strongly associated with household economic stability.<sup>13</sup> Lack of financial resources is the most commonly cited reason for why adolescent girls fail to attend school.<sup>14-17</sup> Moreover, cultural norms can be influential, and families may feel pressure to prioritize male education when resources are scarce. Several traditions in SSA are passed down generationally and encourage stratification of gender roles, such as adolescent marriage and early childbearing, both of which can prompt separation from school for adolescent girls.

At the same time, family economic stability influences the quality of family relationships where poverty adversely impact parent-child communication and involvement.<sup>21-23</sup> Studies have documented that

strong positive connections and more open communication between a child and his/her primary caregiver can predict better mental health outcomes, delays in onset of sex, and better overall child adjustment.<sup>24-29</sup> Additionally, better parenting skills have been associated with adolescents having less susceptibility to peer pressure.<sup>29, 30</sup> Thus, supporting families with economic opportunities and strengthening family supportive processes may minimize risk taking behaviors, discourage school separation, and address mental health stressors, especially among adolescents living in low-resource settings.

Given the complex and multi-dimensional drivers of increased HIV risk among adolescent girls in SSA and the failure of most single interventions to significantly decrease these rates, investments in combination interventions are critical to provide an interdisciplinary, multi-level response needed to reduce new HIV and STI infections in a way that single interventions alone have not yet been able. Against this backdrop, the Suubi4Her (also known as *Hope for Girls*) intervention pairs two innovative and evidence-based interventions together: an asset-based financial economic strengthening model, and a family strengthening approach to enhancing youth behavioral health via multiple family groups (MFGs), recognizing the possibility that mental health may be a critical component intersecting between poverty and HIV risk for young females.

This report is based on wave two data (12-months follow-up) collected between June 2019 to February-2020, from 1219 adolescent girls participating in the Suubi4Her study, a 5-year (2017 – 2022) longitudinal randomized clinical trial funded by the National Institute of Mental Health (NIMH, Grant #: R01MH113486, PI: Fred M. Ssewamala, PhD).

### 3. SUUBI4HER: OVERVIEW AND METHODOLOGY

Guided by asset theory,<sup>31,32</sup> the Suubi4Her study is aimed at addressing the HIV risk behaviors among older adolescent girls transitioning into adulthood in Uganda. The rationale for pairing the two interventions (financial economic strengthening model and MFG), includes mounting evidence that youth cognitive and behavioral change is influenced by economic stability, while familial support and protective processes are needed to reinforce and maintain engagement in protective health behaviors. Our previous Bridges to the Future and Suubi studies – set in primary schools in Uganda, demonstrated increased economic security among families and improved self-reported sexual health protective behavior, and mental health functioning, with younger children reporting better mental health functioning.<sup>33-36</sup> However, the outcomes were obtained via self-reports from a younger population. Whether similar outcomes would result if more objective measures of sexual behaviors (e.g., STI testing) were used is unknown. Moreover, the impact of economic strengthening for older girls transitioning into early adulthood, who are most vulnerable to HIV infection and poor mental health in this context is unknown.

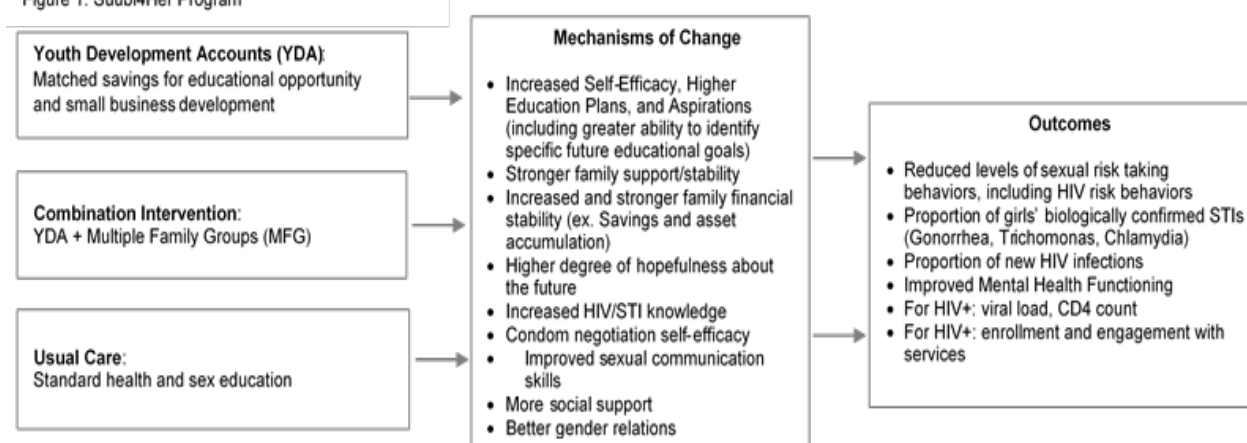
The Suubi4Her study was therefore designed to examine the impact and cost associated with an innovative combination intervention that aims to prevent HIV risk behaviors among older adolescent girls (14-17 years) living in communities heavily affected by poverty and HIV/AIDS in Uganda. The specific aims of the study are:

1. Examine whether the Suubi4Her intervention is effective in protecting adolescent girls against known HIV risk factors (including economically motivated sex and intimate partner violence).
2. Elucidate the effects of the Suubi4Her intervention on behavioral health functioning (i.e., depression, self-efficacy and hopelessness) and examine the effects of these variables as potential mechanisms of change, mediating the relationship between each intervention and HIV risk reduction.
3. Evaluate the cost-effectiveness of each intervention condition.

The mechanisms of change through which the intervention is hypothesized to impact adolescents' outcomes are presented in the figure below.

### Suubi4Her Conceptual Model

Figure 1: Suubi4Her Program

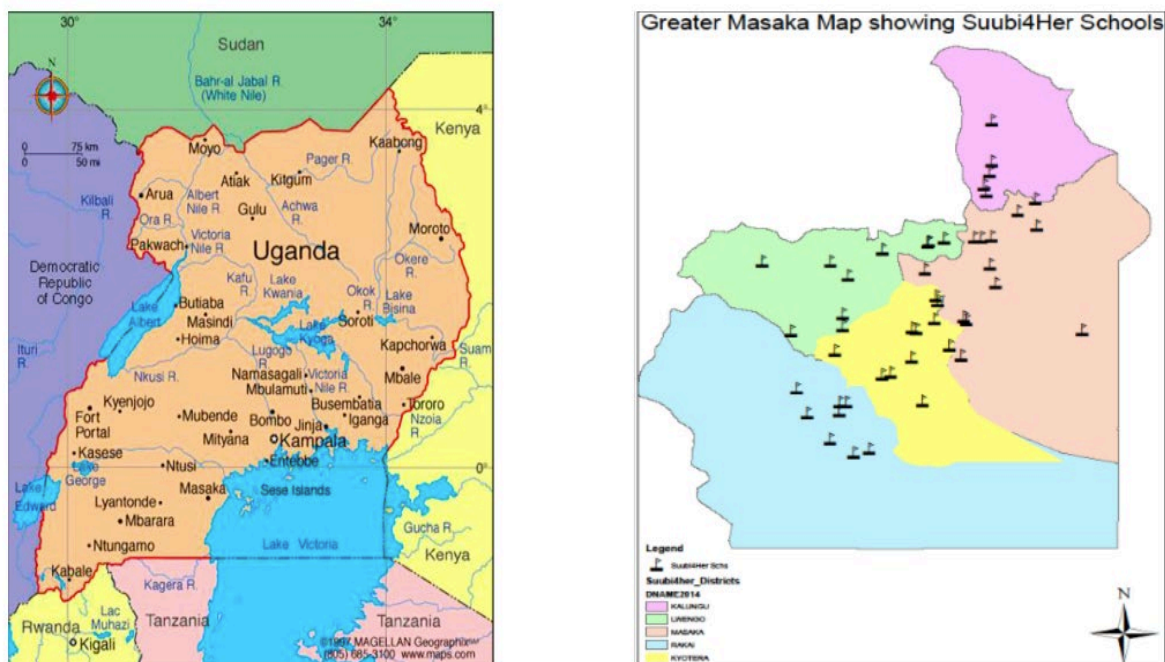


### Sample and Setting

A total of 1260 adolescents enrolled in lower secondary (high school), between 14–17 years of age at study initiation, were enrolled in the study. Adolescents were eligible to participate if they met the following inclusion criteria: 1) female; 2) age 14–17 years, 3) enrolled in first or second year of secondary school, and 4) living within a family (broadly defined and not an institution or orphanage, as those in institutions have different familial needs). Adolescents were recruited from 47 secondary schools in five geopolitical districts of Rakai, Kyotera, Masaka, Lwengo and Kalungu, in southern western/central Uganda – a region heavily affected by HIV/AIDS.<sup>37</sup> The schools included in the study were matched on the following key features: socioeconomic status of the students attending these schools, school size (total number of students enrolled), location (urban vs. rural), and overall performance based on the Uganda Certificate of Education (UCE) examinations, administered by the Uganda Government's Ministry of Education and Sports. The figures below the study region in Uganda.



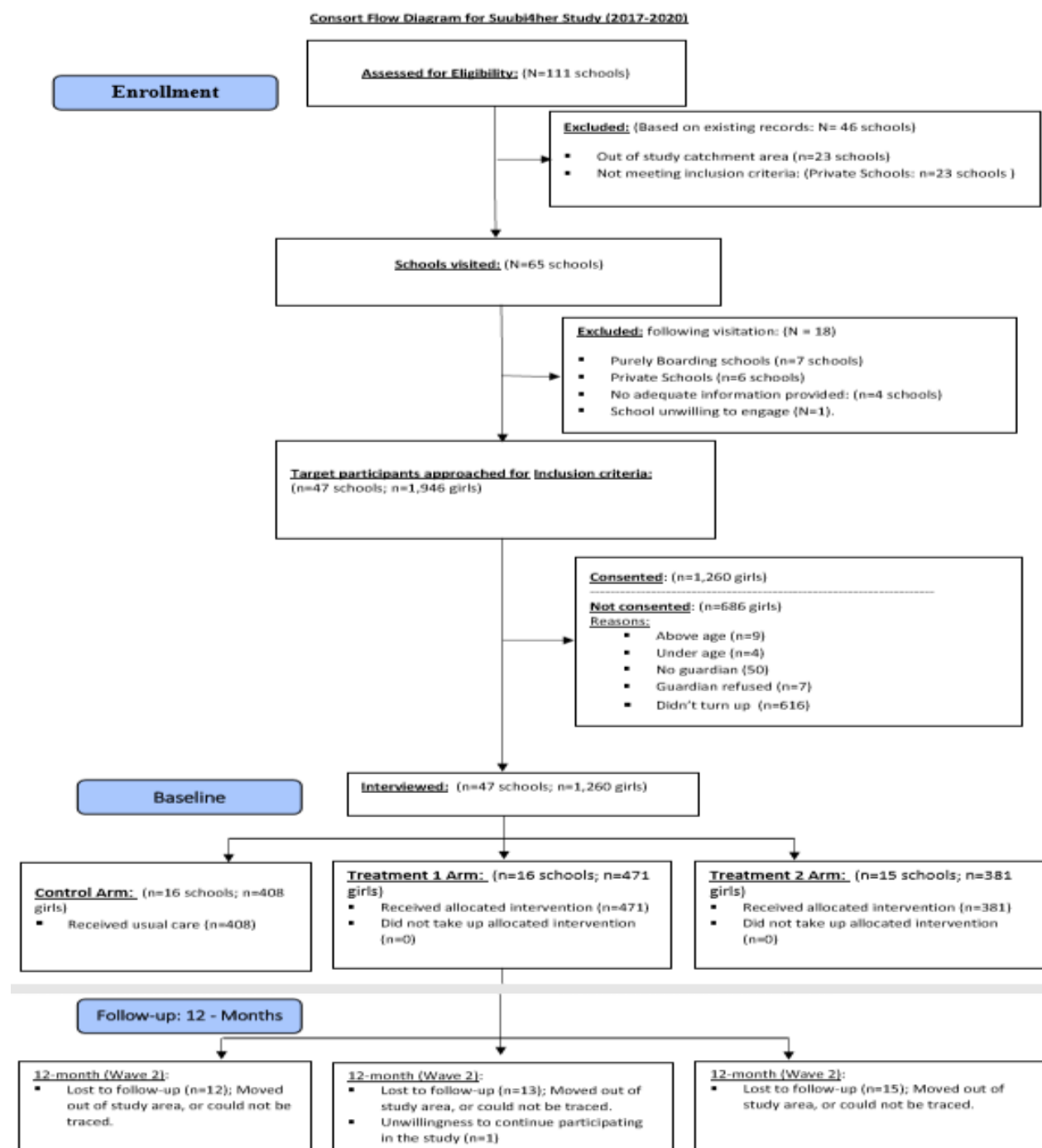
**Figure 3.2. and 3.3. Map of Uganda and Suubi4Her Study Region**



### **Human Subjects Protection**

The Suubi4Her study received approval from the Washington University Institutional Review Board (IRB- #201703102), the Uganda Virus Research Institute (GC/127/17/07/619), and the Uganda National Council of Science and Technology (SS4406). The study is registered in the Clinical Trials database NCT03307226. Each interviewer received Good Clinical Practice training and obtained the Collaborative Institutional Training Initiative (CITI) Certificate before interacting with study participants.

## Suubi4Her Wave II Consort Flow Diagram





## Study Design and Intervention Description

Each of the 47 secondary schools were randomly assigned to either the Control arm –bolstered standard of care (n=16 schools, 408 girls), or one of the 2 two treatment arms: Treatment 1 comprising of a family-based economic strengthening comprising of a youth development accounts (YDA) only (n=16 schools, 471 girls), or Treatment 2 comprising of YDA plus multiple family group (MFG) (n=15 schools, 381 girls). The figure below shows the Suubi4Her study design.

### Suubi4Her Study Design



Participants in the control arm received what is referred to as the “usual care” of services offered to all adolescent children in the region. Specifically, in Uganda, an Adolescent Sexual and Reproductive Health curriculum is required of all secondary school students.<sup>38</sup> As such, these curricula are considered usual care, received by all enrolled participants, both in control and treatment conditions. The Adolescent Sexual Reproductive Health content is dispersed across a range of academic subjects in secondary schools. In each class, students receive information about sexual activity, HIV prevention, and gender studies relevant to that subject. Teachers and students all receive a sex and health education handbook. The content related to HIV and sexual risk-taking behaviors includes delaying sex; using condoms and contraception; preventing forced sex; and preventing substance abuse. This curriculum also includes education on gender equality and importance of delayed marriage. Prior to study implementation, the research team held induction meetings for all teachers involved in the study to ensure uniform delivery of the Ministry of Education approved sex education curriculum.

### Treatment Arm 1 -Youth Development Accounts (YDA)

Adolescents in both treatment arms were enrolled in a 1:1 matched savings program at a financial institution accredited by the Bank of Uganda. Each account was opened in the name of the adolescent, with her primary caregiver as a co-signer, until she turns 18 years of age, at which time a co-signer will no longer be required. This is consistent with the Ugandan banking law which prohibits children below age 18 from independently entering into a binding contract and operating a bank account. The matching funds are kept in a separate account from the participants’ own savings. When a girl is ready to pay for school fees, the check for the matching funds is written in the name of the school she attends or directly wired to the school’s bank account. This process is intended to eliminate the risk of family pressure on the girl to withdraw money set aside for education and skills training.

Participating girls are allowed to use up to 30% of their total matched savings to invest in a family-based income-generating activity (IGA). The remaining 70% of the savings is restricted to fund the education and skills training of participating adolescent girls. Consistent with our earlier studies, a participant’s access to the matching funds is conditional upon completion of financial management workshops during the intervention period. The workshops are implemented by a collaborating community agency, Reach the Youth-Uganda, in collaboration with the financial institutions holding the YDAs. The workshops

consist of 4 sessions that cover basic principles of financial management including income generation, use of financial institutions, saving, and asset-building.

### Treatment Arm 2 – YDA + Multiple Family Group (MFG)

Participants in treatment arm 2 received both the YDA (detailed above) and a family-based dialogue and training delivered via MFG, that aim to strengthen family relationships and address mental health challenges that commonly occur in adolescence. MFG is based on building support for families by providing opportunities for parents and children to communicate in a safe setting with other families who have shared experiences thus allowing each family to benefit from the contributions of one another.<sup>39</sup> Advice and insight from other families is often seen as less threatening than feedback given by a therapist.<sup>39</sup> In addition, MFG focuses on reducing stigma by normalizing shared experiences. The MFG intervention acknowledges poverty as a stressor that may undermine parenting while also recognizing the contextual challenges that contribute to poor mental health functioning for adolescent girls, including high rates of poverty, violence, and family loss due to HIV and other health threats.<sup>40-42</sup> The MFG approach allows adolescent girls and their families to share their experiences with others in similar situations, thus building hope by providing social support, normalization of similar experiences and struggles, and the sharing of effective solutions.<sup>43</sup> The Suubi4Her MFG 16-session curriculum intervention, also known as “*Amaka Amasanyufu*” (meaning “Happy families” in Luganda language), was delivered by trained community health workers under the supervision of project staff.

### Data Collection

The Suubi4Her study has four assessment points: baseline, 12, 24 and 36-months follow-up. This report is based on 12-months follow-up data. Data was collected using a 90-minute instrument administered by trained Uganda interviewers. The measures used were adapted, tested and refined in our earlier Bridges and Suubi studies in the region.<sup>33-36, 44-47</sup> Participants were assessed on a range of topics, including the following: family relationships and cohesion, community resources and satisfaction, social support, educational plans and aspirations, socio-economic status of the family, physical health, menstruation practice, depression, self-concept, hopelessness, self-efficacy, HIV/AIDS attitudes and knowledge, youth risk behaviors and savings outcomes. In the following sections, we provide participants’ responses for each of these sections.

## 4. DEMOGRAPHIC CHARACTERISTICS

Table 4.1 shows the demographic characteristics of respondents who completed interviews at 12-months follow-up (N=1219). Similar to baseline findings, 62% (n= 785) of the respondents self-identified as catholic and about 80% (n=1004) reported going to a place of worship almost every week.

**Table 4.1: Demographic Characteristics of the Study Sample**

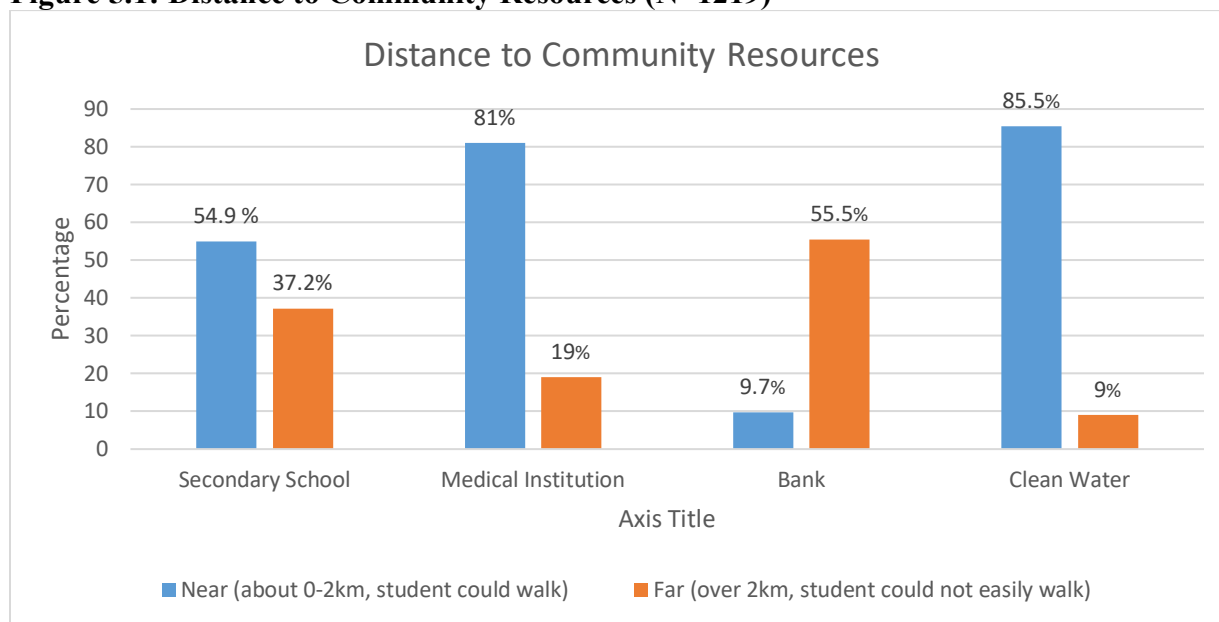
Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
<b>Religion</b>		
Catholic	785 (62.3)	764 (62.7)
Protestant	194 (15.4)	176 (14.4)
Muslim	174 (13.8)	178 (14.6)

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
Born Again/Saved	95 (7.5)	91 (7.5)
Not Religious	0 (0.0)	0 (0.0)
Other:	12 (0.1)	10 (0.8)
Seventh Day Adventist	11 (0.9)	9 (0.7)
Messianic Kingdom	1 (0.1)	1 (0.1)
<b>Number of Times Respondent Attends Church/Mosque</b>		
Almost Every Week	1004 (79.7)	976 (80.1)
Less Than Once a Week but More Than Just		
Holidays	217 (17.2)	210 (17.2)
Just on Holidays	26 (2.1)	23 (1.9)
Almost Never	13 (1.0)	10 (0.8)

## 5. COMMUNITY BACKGROUND

Similar to baseline assessment, respondents were asked several questions about their communities, including resources available to them, how far away these resources were from their homes, and how they felt about their communities. Specific community resources include secondary school (respondent's school), healthcare institution, bank and nearest water source. Distance was assessed by asking respondents to choose between two different options; *near* (about 0-2 km, one could walk), or *far* (over 2 km, one could not easily walk). For individual response data for this figure see Appendix Table A.1.

**Figure 5.1: Distance to Community Resources (N=1219)**



The majority of respondents lived within walking distance of their school (54.9%, n=669), medical facility (81%, n=987), and a clean water source (85.5%, n=1042). About 65.2% (n=677) indicated

knowing the location of a formal financial institution, but only 9.7% (n=118) of respondents indicated living within walking distance of a formal financial institution. This is not uncommon, since banks tend to have branches in major towns, and the study respondents mainly reside in rural communities.

### Community Satisfaction

Community satisfaction was assessed using 8 items adapted from the Multidimensional Students Life Satisfaction Scale (MSLSS).<sup>48</sup> The MSLSS was designed to provide a multidimensional profile of children's life satisfaction across key domains, including school, family, friends and community/living environment. Respondents were asked to rate how satisfied they were with their community/living environment, on a 5-point Likert scale with the following response options: 1= *never*, 2=*sometimes*, 3=*about half the time*, 4=*most of the time*, and 5=*always*. The theoretical range of this scale is 8-40 with higher scores indicating higher levels of community satisfaction. For this scale, 3 items were reverse coded to create summated scores.

At 12-months follow-up, the overall mean score was 31.4 (SD=5.4), actual range =11-40, indicating moderate levels of community satisfaction among respondents. The scale demonstrated a moderate internal consistency (Cronbach's alpha = 0.66). Table 5.1. below presents the mean scores and standard deviations for each item and the overall mean score of the community satisfaction scale. For individual response data for this scale see Appendix Table A.2.

**Table 5.1: Community Satisfaction**

Statement	Wave I (N=1260) <i>Mean (SD)</i>	Wave II (N=1219) <i>Mean (SD)</i>
I like where I live	4.1 (1.2)	4.1 (1.2)
I wish I lived in a different house*	4.2 (1.2)	4.2 (1.2)
I wish I lived in another village*	4.1 (1.3)	4.1 (1.2)
I like my village	3.8 (1.4)	4.0 (1.2)
I like my neighbors	3.8 (1.3)	3.9 (1.2)
This village is filled with not nice people*	3.6 (1.4)	4.0 (1.2)
My family's house is nice	3.5 (1.5)	3.6 (1.4)
There are a lot of fun things to do where I live	3.4 (1.4)	3.5 (1.3)
<b>Total Mean Score</b>	<b>30.4 (5.4)</b>	<b>31.4 (5.4)</b>
<b>Range</b>	<b>13-40</b>	<b>11-40</b>

\*Item has been reverse-coded, so that higher scores represent higher levels of community satisfaction

Similar to baseline reports, study respondents seem to be satisfied with certain aspects of their communities. Specifically, respondents gave favorable ratings for "I like where I live" (mean =4.1, SD=1.2), "I wish I lived in a different house" (mean =4.2, SD=1.2\*), and "I wish I lived in another village" (mean= 4.1, SD=1.2\*). We observe a slight increase from baseline to 12-months follow-up in favorable ratings for "I like my village" (from 3.8 to 4.9) and "This village is filled with not nice people" (from 3.6 to 4.0\*). Consistent with baseline findings, items with slightly low ratings were related to community recreation, i.e. "There are a lot of fun things to do where I live" (mean = 3.5, SD=1.3), and quality of their family, i.e. "My family's house is nice" (mean=3.6, SD=1.4).

## 6. FAMILY BACKGROUND

Respondents were asked several questions about their current households, including length of stay with their current family, the total number of people –both adults and children living in the household, number of children of school-going age who attend school, number of children of school-going age who do not attend school, and reasons why those children do not attend school. The results are presented in Table 6.1. At 12-months follow-up, the majority of respondents had lived in their current household or with the current family for about 16 years. The total number of people and children in the household declined from baseline to 12-months follow-up i.e., 0-18 people versus 2-31 people at baseline. In addition, the majority of respondents lived in households with 3 children under 18 years (range = 1-13), compared to 7 children at baseline. Similar to baseline findings, the majority of children of school-going age attended school. For those who did not attend school (Table 6.2), the most popular reasons for non-school attendance included lack of money for school fees and school-related expenses, and lack of interest in continuation of education.

**Table 6.1 Family Background I**

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
<b>For how long (years and/or months) have you lived at your current home or with your current family?</b>		
≤1	181 (14.4)	149 (12.2)
2	53 (4.2)	98 (8.04)
3	49 (3.9)	67 (5.5)
4	41 (3.3)	52 (4.3)
5	49 (3.9)	45 (3.7)
6	40 (3.2)	34 (2.8)
7	37 (2.9)	30 (2.5)
8	34 (2.7)	26 (2.1)
9	24 (1.9)	23 (1.9)
10	51 (4.0)	41 (3.4)
11	20 (1.6)	12 (1.0)
12	30 (2.4)	24 (2.0)
13	29 (2.3)	21 (1.7)
14	110 (8.7)	35 (2.9)
15	225 (20.2)	141 (11.6)
16	206 (16.3)	234 (19.2)
17	49 (3.9)	158 (13.0)
Don't know	1 (0.1)	27 (2.2)
Missing	1 (0.1)	2 (0.2)
<b>How many people currently live in your household?</b>		
2	22 (1.7)	30 (2.5)
3	73 (5.8)	77 (6.3)
4	112 (8.9)	125 (10.1)
5	172 (13.7)	156 (12.8)

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
6	193 (15.3)	181 (14.9)
7	194 (15.4)	190 (15.6)
8	188 (14.9)	171 (14.0)
9	105 (8.3)	110 (9.0)
10	95 (7.5)	72 (5.9)
11	50 (4.0)	39 (3.2)
12	18 (1.4)	38 (3.1)
13	16 (1.3)	16 (1.3)
14	9 (0.7)	9 (0.7)
15	5 (0.4)	4 (0.3)
16	2 (0.2)	0 (0.0)
17	1 (0.1)	0 (0.0)
18+	5 (0.5)	1 (0.1)
<b>Besides you, how many of the people who live in your household are children?</b>		
0	76 (6.0)	90 (7.4)
1	140 (11.1)	157 (12.9)
2	227 (18.0)	203 (16.7)
3	226 (17.9)	221 (18.1)
4	215 (17.1)	187 (15.3)
5	170 (13.5)	172 (14.1)
6	100 (7.9)	95 (7.8)
7	59 (4.7)	45 (3.7)
8	28 (2.2)	26 (2.1)
9	10 (0.8)	12 (1.0)
10	3 (0.2)	9 (0.7)
11	3 (0.2)	1 (0.1)
12	2 (0.2)	1 (0.1)
13	1 (0.1)	0 (0.0)
<b>Mean (SD)</b>	<b>3.49(2.10)</b>	<b>3.4 (2.14)</b>
<b>How many of the children in the household, not including you, age five and older, attend school?</b>		
0	38 (3.0)	55 (4.5)
1	186 (14.8)	194 (15.9)
2	299 (23.7)	246 (20.2)
3	248 (19.7)	181 (14.9)
4	193 (15.3)	108 (8.9)
5	113 (9.0)	63 (5.2)
6	61 (4.8)	35 (2.9)
7	28 (2.2)	6 (0.5)
8	10 (0.8)	3 (0.3)
9	5 (0.4)	2 (0.2)
10+	3 (0.3)	1 (0.1)
Not applicable	76 (6.0)	90 (7.4)

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
<b>How many of the children in the household, not including you, age five and older do not attend school?</b>		
0	1081(85.8)	1032 (84.7)
1	76 (6.0)	66 (5.4)
2	18 (1.4)	23 (1.9)
3	6 (0.5)	3 (0.3)
4	1 (0.1)	1 (0.1)
5	1 (0.1)	1 (0.1)
6	1 (0.1)	1 (0.1)
Not applicable	76 (6.0)	90 (7.4)

**Table 6.2. Family Background II**

	Wave I (N=103) Yes <i>n (%)</i>	Wave II (N=105) Yes <i>n (%)</i>
For the children who <u>do not</u> attend school, why don't they attend school?		
Failed to pass the exam	6 (0.5)	1 (1.0)
Not interested in continuation of education	6 (0.5)	20 (20.6)
Can't afford to pay for tuition	60 (4.8)	50 (51.5)
School is too far	1 (0.1)	0 (0.0)
Lack of school uniform/shoes	5 (0.4)	1 (1.0)
Did not like school	0 (0.0)	4 (4.1)
Did not like teachers	0 (0.0)	0 (0.0)
Did not like children there	0 (0.0)	0 (0.0)
Have to work	5 (0.4)	1 (1.0)
Have to take care of my siblings/parent	0 (0.0)	0 (0.0)
Don't know	9 (0.7)	7 (7.2)
Still too young to attend school	15 (1.2)	5 (5.1)
Have health issues	2 (0.2)	8 (8.2)
Other	1 (0.1)	8 (8.2)

### Family Origin

At 12-months follow-up, respondents were asked to provide information on their families of origin, including information about their biological parents. Of the total respondents (N=1219), 5.8% (n=71) had lost a biological mother, 13.9% (n=169) had lost a biological father, and 47.6% (n=580) had lost a sibling. The results are presented in Table 6.3 below.

**Table 6.3 Family of Origin**

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
<b>Is your mother still alive?</b>		
Yes	1185 (94.0)	1148 (94.2)

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
No	75 (6.0)	71 (5.8)
<b>Is your father still alive?</b>		
Yes	1096 (86.9)	1050 (86.1)
No	164 (13.0)	169 (13.9)
<b>Have you lost any of your siblings?</b>		
Yes	667 (52.9)	580 (47.6)
No	593 (47.1)	639 (52.4)

## 7. FAMILY RELATIONS

All items measuring family relations were adapted from the Family Environment Scale (FES)<sup>49</sup> and Family Assessment Measure (FAM)<sup>50</sup> and were tested in our previous Bridges and Suubi studies.<sup>33-36, 44-47</sup> Family relationships were measured on a number of dimensions: 1) family cohesion, 2) patterns of family care and relationships, 3) family communication assessed by frequency of conversation with a caregiver on specific topics and level of comfort discussing such topics with a caregiver, 4) perceived child -caregiver support, and 5) willingness to talk.

### Family Cohesion

Family cohesion was measured using 7 items that assess the degree of commitment, help, and support that family members provide to one another. Respondents were asked to rate how often each item occurred in their family, on a 5-point Likert scale, with 1=*never*, 2=*sometimes*, 3=*about half of the time*, 4=*most of the time*, and 5=*always*. The theoretical range for this scale is 7-35, with high scores indicating higher levels of family cohesion.

At 12-months follow-up, the scale had a high reliability coefficient (Cronbach alpha = 0.75). The average score was 27.0 (SD=5.5, actual range = 9-35), indicating moderate levels of family cohesion. Similar to baseline assessments, high scores were reported on specific items related to love from family members (mean=4.1, SD =1.1), family closeness, such as doing things together as a family (mean=4.0, SD =1.2), and spending free time with each other (mean=4.0, SD =1.2). The scores on these three items also increased slightly from baseline. Table 7.1 below presents the mean scores and standard deviations for each item as well as the overall mean score of the family cohesion scale. For individual response see Table A3 of the Appendix.

**Table 7.1 Family Cohesion**

Statement	Wave I (N=1260) <i>Mean (SD)</i>	Wave II (N=1219) <i>Mean (SD)</i>
Do your family members ask each other for help before asking non-family members for help?	3.7 (1.4)	3.8 (1.3)
Do your family members like to spend free time with each other?	3.9 (1.3)	4.0 (1.2)



Statement	Wave I (N=1260) <i>Mean (SD)</i>	Wave II (N=1219) <i>Mean (SD)</i>
Do your family members feel close to each other?	3.8 (1.3)	3.8 (1.3)
Are you available when others in the family want to talk to you?	3.4 (1.4)	3.6 (1.4)
Do you listen to what other family members have to say, even when you disagree?	3.7 (1.4)	3.7 (1.4)
Do you do things together as a family?	3.9 (1.2)	4.0 (1.2)
Do you think that your family members love you?	4.1 (1.2)	4.1 (1.1)
<b>Total Mean Score</b>	<b>26.6 (5.7)</b>	<b>27.0 (5.5)</b>
<b>Range</b>	<b>7- 35</b>	<b>9-35</b>

### Family Care and Relationships

Family care was measured using 6 items related to things that parents/caregivers sometimes do with their children. Respondents were asked to rate how often each item occurred in their family, on a 5-point Likert scale, with 1=*never*, 2=*sometimes*, 3=*about half of the time*, 4=*most of the time*, and 5=*always*. The theoretical range for this scale is 6-30, with high scores indicating higher levels of family care and relationships. Four items in the inverse direction were reverse coded to create summated scores. The modified scale had a modest reliability (Cronbach alpha = 0.62).

Table 7.2. presents the mean scores and standard deviations for each item and the overall mean score of the scale at 12-months follow-up. The overall mean score was 25.7 (SD = 3.8, actual range = 11-30), indicating high levels of family care and relationships. High scores were reported on items related to basic needs, i.e., respondents were less likely to report going without enough food to eat (mean = 4.7, SD =0.8), clean water (mean = 4.6, SD =0.9), medicine (mean = 4.6, SD=0.8), as well as scholastic materials (mean = 4.3, SD =1.0). Consistent with baseline findings, families seem to provide at least the basic needs and school needs for their children, despite the high levels of poverty in the study region. For individual response see Table A.4 of the Appendix.

**Table 7.2 Family Care and Relationships**

Statement	Wave I (N=1260) <i>Mean (SD)</i>	Wave II (N=1219) <i>Mean (SD)</i>
Do your parent(s)/guardians take time to listen to you when you want to talk to them?	3.9 (1.3)	3.9 (1.2)
If you have a problem, how often do your parents/guardians offer to help?	3.9 (1.2)	3.9 (1.2)
Over the past 3 months, how often have you gone without enough food to eat? *	4.4 (1.2)	4.7 (0.8)
Over the past 3 months, how often have you gone without enough clean water? *	4.2 (1.3)	4.6 (0.9)
Over the past 3 months, how often have you gone without medicine? *	4.2 (1.2)	4.6 (0.8)

Statement	Wave I (N=1260) <i>Mean (SD)</i>	Wave II (N=1219) <i>Mean (SD)</i>
Over the past 3 months, how often have you gone without school expenses for fees, uniforms or books? *	4.1 (1.2)	4.3 (1.0)
<b>Total Mean Score</b>	<b>24.7 (4.3)</b>	<b>25.7 (3.8)</b>
<b>Range</b>	<b>9-30</b>	<b>11-30</b>

\*Item has been reverse-coded, so that higher scores represent higher levels of family care and relationships.

### Family Communication

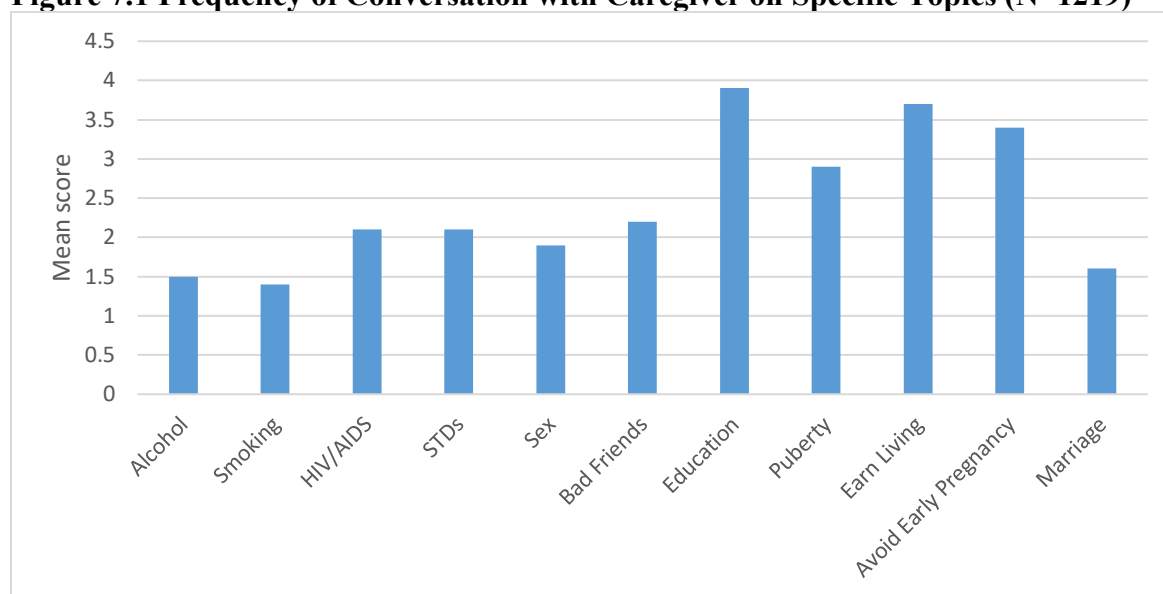
Items measuring family communication were adapted from Krauss's interview.<sup>53</sup> Two dimensions of family communication were measured: 1) frequency of conversation with caregiver about certain topics such as puberty, HIV/AIDS, having sex, education, and future plans, among others; and 2) level of comfort discussing these topics with caregiver.

### Frequency of Conversation with Caregiver

Respondents were asked to indicate how often they discussed 11 specific topics with their caregiver. Responses were rated on a 5-point Likert scale, with 1=*never*, 2=*sometimes*, 3=*about half of the time*, 4=*most of the time*, and 5=*always*. The theoretical range for this scale is 11-55, with higher scores indicating high communication frequency levels.

At 12-months follow-up, the scale had a high reliability coefficient (Cronbach Alpha =0.75). The overall mean score was 26.6 (SD = 9.2, actual range =10-55) – a slight decrease from the baseline mean score (27.3, SD = 9.0, actual range =11-55), indicating moderate levels of communication frequency with the caregiver. The mean scores for each item are presented in Figure 7.1. Individual response data is presented in Table A.5 of the Appendix.

**Figure 7.1 Frequency of Conversation with Caregiver on Specific Topics (N=1219)**

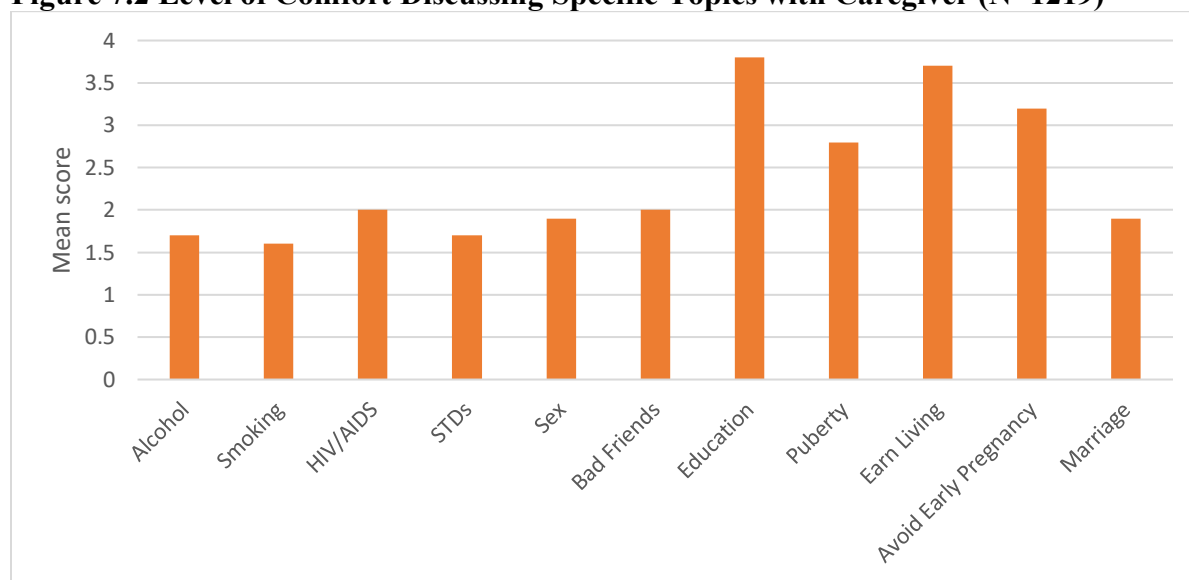


As presented in Figure 7.1 above, discussions in the home between respondents and caregivers varied widely by topic. Respondents reported that they often discussed topics related to education, how to earn a living in the future and how to avoid early pregnancy. However, when it came to topics related to sexual risk taking (including STDs, having sex, HIV/AIDS and getting pregnant) and substance use (alcohol, cigarettes), respondents reported discussion much less frequently. Indeed, individual response data in Table A.5 of the Appendix indicates that 58.7% (n=716) of respondents reported “never” discussing having sex, 49.6% (n=604) reported “never” discussing STDs, and 49.8% (n=607) reported “never” “discussing” HIV/AIDS with their caregivers. For alcohol consumption, 75.2% (n=917) of respondents reported “never” discussing alcohol use and 81.7% (n=990) reported “never” discussing cigarette use with their caregivers.

### Level of Comfort Discussing Specific Topics with Caregiver

Respondents were also asked to rate how comfortable they felt talking to their caregivers about the above specific topics. Responses were rated on a 4-point scale, with 1=*very uncomfortable*, 2=*somewhat uncomfortable*, 3=*somewhat comfortable*, and 4=*very comfortable*. The theoretical range for this scale is 11-44, with high-summed scores indicating high comfort levels of communication with a caregiver. At 12-months follow-up, the scale had a high reliability coefficient (Cronbach’s alpha =0.85). Similar to baseline reports (mean = 26.9, SD = 6.9, actual range 11-44), the overall mean score was 26.3 (SD = 6.7, actual range 10-44), indicating moderate comfort levels communication with a caregiver on specific topics. Figure 7.2 presents the mean scores for each item. Individual response data is presented in Table A.6 of the Appendix.

**Figure 7.2 Level of Comfort Discussing Specific Topics with Caregiver (N=1219)**



Consistent with frequency of conversation, respondents were less comfortable discussing topics that are traditionally considered sensitive, such as alcohol, smoking, HIV/AIDS, sex, STDs. On the other hand, respondents felt more comfortable discussing topics related to education, future planning and how to avoid early pregnancy –topics more frequently discussed with caregivers

### Perceived Child-Caregiver Support

Items measuring perceived child-caregiver support were adapted from Social Support Behaviors Scale (SS-B) scale.<sup>54</sup> Respondents were asked to rate the adults they live with, on a 17-item scale. Responses were rated on a 5-point Likert scale, with 1 = *never*, 2 = *sometimes*, 3 = *about half of the time*, 4 = *most of the time*, and 5 = *always*. Items in the inverse direction were reverse coded to create summated scores. The theoretical range for this scale is 17-85, with high summated scores indicating high levels of perceived support from caregivers. At 12-months follow-up, the scale had a high reliability coefficient (Cronbach alpha = 0.75). Table 7.3 presents the mean scores and standard deviations for each item and the overall mean score of the scale. For individual response see Table A.7 of the Appendix.

**Table 7.3 Perceived Caregiver Support**

Statement	Wave I (N=1260) <i>Mean (SD)</i>	Wave II (N=1219) <i>Mean (SD)</i>
Can you count on your current parent(s)/ guardian(s) to help you out, if you have a problem?	4.1 (1.2)	4.2 (1.1)
Do your current parent(s)/guardian(s) say that you shouldn't argue with adults? *	2.2 (1.3)	2.1 (1.3)
Do your current parent(s)/guardian(s) keep challenging you to do your best in whatever you do?	4.2 (1.0)	4.2 (1.1)
Do your current parent(s)/guardian(s) say that you should give in on arguments rather than make people angry? *	2.7 (1.5)	2.7 (1.5)
Do your current parent(s)/guardian(s) keep challenging you to think independently?	2.4 (1.5)	2.4 (1.4)
Do your current parent(s)/guardian(s) show interest in your work (whatever you do)?	4.1 (1.1)	4.1 (1.1)
Do your current parent(s)/guardian(s) show interest in your homework?	3.9 (1.2)	3.9 (1.3)
Do your current parent(s)/guardian(s) tell you that their ideas are correct and that you should not question them? *	3.7 (1.5)	3.8 (1.4)
When your current parent(s)/guardian(s) wants you to do something, do they explain why?	3.6 (1.4)	3.4 (1.3)
Whenever you argue with your current parent(s)/guardian(s), do they say things like, "You'll know better when you grow up"? *	3.6 (1.5)	3.9 (1.4)
Do your current parent(s)/guardian(s) let you make your own plans for things you want to do?	2.1 (1.4)	2.1 (1.3)
Do your current parent(s)/guardian(s) know who your friends are?	3.4 (1.5)	3.4 (1.4)
Do your current parent(s)/guardian(s) act cold and unfriendly if you do something they don't like? *	2.6 (1.5)	2.6 (1.4)
Do your current parent(s)/guardian(s) spend time just talking with you?	3.7 (1.3)	3.8 (1.2)
When you make a mistake, do your current parent(s)/guardian(s) make you feel bad about it? *	2.9 (1.5)	3.3 (1.5)

Statement	Wave I (N=1260) <i>Mean (SD)</i>	Wave II (N=1219) <i>Mean (SD)</i>
Do your current parent(s)/guardian(s) do things for fun together as a family?	3.6 (1.4)	3.7 (1.3)
Do your current parent(s)/guardian(s) stop you from doing things with them when you do something they don't like? (e.g., stop talking to you for some-time, spending time with you, etc.).*	3.9 (1.4)	4.1 (1.3)
<b>Total Mean Score</b>	<b>56.9 (6.8)</b>	<b>57.2 (6.5)</b>
<b>Range</b>	<b>29-81</b>	<b>34-77</b>

\*Item has been reverse-coded, so that higher scores represent higher perceived caregiver support.

At 12-months follow-up, the overall mean score was 57.2 (SD=6.5, actual range=34-77) –a slight increase from baseline (mean = 56.9 (SD=6.8, actual range=29-81)), indicating moderate levels of perceived caregiver support among respondents. Similar to baseline findings, respondents scored highly on items related to warmth and acceptance, such as counting on a caregiver's help in case of a problem (mean =4.2, SD=1.1), challenging the child to always do the best (mean =4.2, SD=1.1), and caregiver showing interest in child's work (mean =4.1, SD=1.1). Respondents scored lower on items related to psychological autonomy, such as a caregiver saying child shouldn't argue with adults (mean = 2.1, SD=1.3), and caregiver allowing child to make their own plans for things they want to do (mean =2.1, SD =1.3).

### Willingness to Talk

Respondents were asked to reflect back on their relationships with their caregivers in the last school term and indicate whether they had talked to them about issues related to school, their future, romantic relationships, and whether they would talk to someone if they were faced with a specific problem. Results are presented in Table 7.4 below.

**Table 7.4 Willingness to Talk with Caregivers**

Statement	Wave I (N=1260) Yes <i>n (%)</i>	Wave II (N=1122) Yes <i>n (%)</i>
Talked to your current parent(s)/guardian(s) about your schoolwork?	1157 (91.8)	1068 (95.2)
Asked your current parent(s)/guardian(s) to help you with your homework?	878 (69.7)	779 (69.4)
Talked to your current parent(s)/guardian(s) about your future plans?	977 (77.5)	980 (87.3)
Would you talk to someone if you had a problem with your schoolwork?	1154 (91.6)	1060 (94.5)
Would you talk to someone boy/girl wanted to be your romantic boy/girlfriend?	957 (75.9)	923 (75.7)
Would you talk to someone if your friends wanted you to skip school?	1114 (88.4)	1015 (90.5)

At 12-months follow-up, the majority of respondents 95.2% (n=1068) had talked to their caregivers about schoolwork, 69.4% (n=779) had asked their caregivers for help with homework, and 87.3% (n=980) had talked to their caregivers about their future plans. Regarding willingness to talk, 94.5% (n=1060) of respondents would talk to someone if they had a problem with schoolwork, 75.7% (n=923) would talk to someone about romantic relationships, and 90.5% (n=1015) would talk to someone if their friends asked them to skip school. Items with slightly higher ratings from baseline were: “Talked to your current parent(s)/guardian(s) about your schoolwork” (from 91.8% to 95.2%), “Talked to your current parent(s)/guardian(s) about your future plans” (from 77.5% to 87.3%), “Would you talk to someone if you had a problem with your schoolwork” (from 91.6% to 94.5%), and “Would you talk to someone if your friends wanted you to skip school” (from 88.4% to 90.5%). Given that respondents are willing to talk about issues and seek help, it provides a window of opportunity to strengthen family functioning, as well supportive networks for adolescent girls.

## 8. SOCIAL SUPPORT

### Social Relationships

Items in this section were tested in our previous Bridges and Suubi studies.<sup>33-36, 44-47</sup> Social support was measured using 30-items adapted from the Friendship Qualities Scale.<sup>55</sup> The scale assesses the impressions of the quality of children’s friendships and relationships with their classmates, peers, teachers and parents. Respondents were asked to rate how each statement applied to them. Responses were rated on a 5- point Likert scale, with 1=*never*, 2=*sometimes*, 3=*about half of the time*, 4=*most of the time*, and 5=*always*. The theoretical range for this scale is 30-150, with high scores indicating higher levels of social support and relationships. At 12-months follow-up, this modified scale had a high reliability coefficient (Cronbach’s alpha = 0.85). Eighteen items in the inverse direction were reverse coded to generate summated scores. Table 8.1 presents the mean scores and standard deviations for each item, the overall mean score of each subscale, and the grand mean for the entire scale. For individual response see Table A.8 of the Appendix.

**Table 8.1 Social Relationships**

Statement	Wave I (N=1260) <i>Mean (SD)</i>	Wave II (N=1219) <i>Mean (SD)</i>
<b>Parent/Guardian</b>		
Some youth have parent(s) or guardian(s) who don't really understand them.*	4.3 (1.2)	4.2 (1.1)
Some youth have parent(s) or guardian(s) who don't seem to want to hear about their children's problems.*	4.2 (1.2)	4.3 (1.1)
Some youth have parent(s) or guardian(s) who care about their feelings.	3.7 (1.4)	3.7 (1.4)
Some youth have parents or guardians who treat their children like a person who really matters.	3.9 (1.2)	4.0 (1.7)
Some youth have the current parent(s) or guardian(s) who like them the way they are.	3.7 (1.4)	3.8 (1.3)
Some youth have the current parent(s), or guardian(s) who don't act like what their children do is important.*	3.8 (1.4)	3.9 (1.3)
<i>Total Mean Score</i>	23.7 (4.2)	23.9 (4.2)
<i>Range</i>	9-30	8-30

Statement	Wave I (N=1260) <i>Mean (SD)</i>	Wave II (N=1219) <i>Mean (SD)</i>
<b>Classmates</b>		
Some youths have classmates who like them the way they are.	2.9 (1.5)	3.2 (1.4)
Some youths have classmates that they can become friends with.	3.4 (1.4)	3.6 (1.2)
Some youths have classmates who sometimes make fun of them.*	4.1 (1.2)	4.0 (1.2)
Some youths have classmates who pay attention to what they say.	3.5 (1.4)	3.6 (1.3)
Some youths don't get asked to play games with classmates very often.*	3.9 (1.3)	4.0 (1.1)
<i>Total Mean Score</i>	<i>17.8 (3.5)</i>	<i>18.4 (3.5)</i>
<i>Range</i>	<i>7-25</i>	<i>10-25</i>
<b>Teachers</b>		
Some youths have a teacher who helps them if they are upset.	3.4 (1.4)	3.5 (1.4)
Some youths don't have a teacher who helps them do their best*	4.1 (1.2)	4.2 (1.2)
Some youths do have a teacher who cares about them.	3.6 (1.4)	3.6 (1.3)
Some youths don't have a teacher who is fair to them.*	4.1 (1.2)	4.2 (1.1)
Some youths don't have a teacher who cares if they feel bad.*	3.9 (1.3)	4.2 (1.1)
Some youths have a teacher who treats them like a person.	3.8 (1.3)	3.7 (1.3)
<i>Total Mean Score</i>	<i>22.8 (4.2)</i>	<i>23.3 (4.2)</i>
<i>Range</i>	<i>10-30</i>	<i>12-30</i>
<b>Friends/Peers</b>		
Some youth have a close friend who they can tell problems to.	3.5 (1.4)	3.6 (1.3)
Some youth have a close friend who really understands them.	3.1 (1.5)	3.3 (1.4)
Some youth have a close friend who they can talk to about things that bother them.	3.4 (1.4)	3.4 (1.3)
Some youth don't have a close friend who they like to spend time with.*	3.9 (1.2)	4.1 (1.1)
Some youth don't have a close friend who really listens to what they say.*	3.9 (1.3)	4.1 (1.1)
Some youth often spend holidays being alone.*	3.9 (1.3)	4.2 (1.1)
Some youth don't have a close friend who cares about their feelings.*	3.9 (1.3)	4.1 (1.1)
Some groups of youth hit people.*	4.4 (1.1)	4.4 (1.1)
Sometimes youth, even friends, are hurting other youth. Somewhere like at home, at school, out playing, or somewhere else.*	4.1 (1.2)	4.3 (1.0)
Sometimes youth, even friends, try to hurt other youth's private parts on purpose by hitting or kicking them there.*	4.4 (1.1)	4.4 (1.0)
Sometimes youth, even friends, pick on other youth by chasing or grabbing or by making them do something they don't want to do.*	4.4 (1.1)	4.4 (1.0)
Sometimes youth are scared or feel really bad because other youth are calling them names, saying mean things to them, or saying they do not want them around.*	4.0 (1.2)	3.8 (1.3)
Sometimes, even boyfriend or girlfriend slap or hit their romantic partner.*	4.5 (0.9)	4.5 (0.9)
<i>Total Mean Score</i>	<i>51.6 (7.6)</i>	<i>52.7 (7.6)</i>
<i>Range</i>	<i>26-65</i>	<i>28-65</i>

Statement	Wave I (N=1260) <i>Mean (SD)</i>	Wave II (N=1219) <i>Mean (SD)</i>
	<b>Grand Mean Score</b>	<b>115.9 (14.8) 115.1 (19.0)</b>
	<b>Range</b>	<b>73-150 48-150</b>

\*Item has been reverse-coded, so that higher scores represent higher social relationships.

At 12-months follow-up, the overall mean score was 115.1 (SD=19.0), actual range= 48-150). Consistent with baseline findings, within the parent/guardian subscale, respondents scored highly on having parents/guardian who understands them (mean=4.2, SD=1.1), and who want to hear about their child's problems (mean= 4.3, SD=1.1). For items related to classmates, statements rated highly as not applying to respondents were having a classmate who likes to make fun of them (mean= 4.0, SD =1.1), and not getting asked to play games with other classmates (mean =4.0, SD =1.1). Within the teacher subscale, having a teacher who helps the adolescent do their best (mean= 4.2, SD=1.2), as well as having a teacher who treats the adolescent fairly (mean= 4.2, SD = 1.2) were highly rated by the respondents. Finally, for items related to friends and peers, respondents scored highly on having friends who care about their feelings (mean=4.1, SD =1.1), and 9 out of 13 items related to experiencing peer violence, i.e., participants indicated that these statements did not apply to them.

### Social Participation

Social participation was assessed using 4 items that measure the relationship between the child's perception of participation in the family and community context and their subjective well-being. Items have a "Yes" or "No" response coded as "1" or "0" respectively. Responses are presented in Table 8.2 below. The proportion of respondents who reported social participation increased between baseline and 12-months follow-up. Specifically, 87.9% (n=1072) reported being allowed to invite friends to their homes, celebrate special occasions (98.9%, n=1206), and participate in leisure activities (89.0%, n=1085). In addition, more than half of respondents (57.1%, n=696) reported being allowed to participate in community events –an increase from 41.4% at baseline. These reports indicate that caregivers tend to ease restrictions around social engagements as adolescents grow up.

**Table 8.2 Social Participation**

Statement	Wave I (N=1260) <i>Yes n (%)</i>	Wave II (N=1219) <i>Yes n (%)</i>
Are you allowed from time to time to invite friends home to play and eat?	1006 (79.8)	1072 (87.9)
Are you allowed to celebrate special occasions such as birthdays, name days, religious events, etc.?	1222 (96.9)	1206 (98.9)
Are you allowed to participate in community events such as ceremonies?	522 (41.4)	696 (57.1)
Are you allowed to do any leisure activities (swimming, playing an instrument, participating in youth organizations etc.)?	873 (69.3)	1085 (89.0)



### Non-Kin Support Networks

Non-kin support networks – defined as relationship ties not based on blood or marriage were measured using 5 items, previously tested in the Bridges and Suubi studies.<sup>46</sup> Participants were asked to name up to 5 people besides their biological parents, caregivers, relatives and the Suubi project, who provided them or their families with any kind of support. These may include neighbors, friends, school, faith-based organizations, groups or organizations in their communities. After identifying these individuals or groups, participants were asked to provide addition information on each, including relationship to respondent, how long they have been receiving support from this source, number of times they are in contact per month, and the kind of support received.

At 12-months follow-up, 23.8% (n=291) of respondents (compared to 17%, n=216 at baseline) reported receiving support from a non-kin individual or group in their community. These included community-based organizations, friends, neighbors, church leaders, political leaders, teachers, and other community members. Support received by the respondents included material support, financial, in kind and emotional support. While the proportion of respondents reporting support from non-kin increased slightly from baseline to 12-months follow-up, this number is still low – indicating, limited non-kin support among adolescents living in HIV-impacted communities.<sup>46</sup>

### 9. PROTECTION FROM VIOLENCE

Protection from violence was measured using 12 items adapted from the Multiple Indicator Cluster Survey (MICS) for children ages 5-17.<sup>56</sup> Respondents were asked about the methods that adults in their households have used to teach them and their siblings the right behaviors and/or address behavioral problems in the past month. Items were binary coded as 1 = “Yes” and 0= “No.” The results are presented in Table 9.1.

At 12-months follow-up, respondents reported being exposed to various forms of physical and emotional violence by their parents/caregivers in the past month. Similar to baseline findings, over one third of respondents (36.7%, n=447) reported being spanked, hit, slapped on bottom with bare hand, 37.4% (n=456) reported being shouted, yelled, screamed at, and 31.4% (n=383) reported being belittled and called dumb. On the other hand, respondents reported that their parents/caregivers also use non-violent strategies to discipline them and their siblings. More than half of the respondents 68.7% (n=837) reported getting explanations about a wrong behavior, 62.2% (n=758) reported being given something else to do, instead of being punished. However, majority of the respondents 70.1% (n=854) also believed that physical punishment is an acceptable tool to bring up, raise, or educate a child properly. This number increased from 62.8% (n=791) at baseline.

**Table 9.1 Protection from Violence**

Adult in the household has used this method on the respondent/sibling to teach right behaviour	Wave I	Wave II
	(N=1260)	(N=1219)
	<i>Yes n (%)</i>	<i>Yes n (%)</i>
Took away privileges	200 (15.9)	172 (14.1)
Explained wrong behaviour	812 (64.4)	837 (68.7)
Shook him/her	127 (10.1)	87 (7.1)
Shouted, yelled, screamed	469 (37.2)	456 (37.4)

	Wave I (N=1260) <i>Yes n (%)</i>	Wave II (N=1219) <i>Yes n (%)</i>
Adult in the household has used this method on the respondent/sibling to teach right behaviour		
Gave something else to do	777 (61.7)	758 (62.2)
Spanked, hit, slapped on bottom with bare hand	526 (41.8)	447 (36.7)
Hit with belt, hairbrush, stick or another hard object	327 (25.9)	241 (19.8)
Called dumb, lazy or another name	473 (37.5)	383 (31.4)
Hit / slapped on the face, head or ears	225 (17.9)	155 (12.7)
Hit / slapped on hand, arm or leg	264 (20.9)	199 (16.3)
Beat up, hit over and over as hard as one could	138 (10.9)	86 (7.1)
Do you believe that in order to bring up, raise, or educate a child properly, the child needs to be physically punished?	791 (62.8)	854 (70.1)

## 10. EDUCATION PARAMETERS

### School Satisfaction

Items assessing respondents' school satisfaction were adapted from the Multidimensional Students Life Satisfaction Scale (MSLSS).<sup>57</sup> These items were tested in the previous Bridges and Suubi studies.<sup>33-34, 44-47, 51, 52</sup> Respondents were asked to rate 8 items on a 5- point scale, with 1=*never*, 2=*almost never*, 3=*sometimes*, 4=*often* and 5=*almost always*. The theoretical range for this scale is 18-40, with higher scores indicating higher levels of school satisfaction. Three items in the opposite direction were reverse coded to create summated scores. At 12-months follow-up, this modified scale had a modest reliability coefficient (Cronbach's alpha = 0.63). The overall mean score was 35.20 (SD =3.51, range = 18-40) representing high levels of school satisfaction. Table 10.1 below presents the mean score and standard deviations for each item. For individual response see Table A.9a of the Appendix.

**Table 10.1 School Satisfaction**

Statement	Wave I (N=1260) <i>Mean (SD)</i>	Wave II (N=1219) <i>Mean (SD)</i>
I look forward to going to school each day.	4.63 (0.61)	4.67 (0.56)
I like being in school.	4.63 (0.59)	4.60 (0.61)
School is interesting.	4.43 (0.81)	4.42 (0.74)
I wish I didn't have to go to school.*	4.56 (0.99)	4.60 (0.91)
There are many things about school I don't like.*	3.57 (1.26)	3.72 (1.13)
I enjoy school activities.	4.19 (0.93)	4.17 (0.88)
I learn a lot at school.	4.42 (0.80)	4.41 (0.74)
I feel bad at school.*	4.50 (1.05)	4.57 (0.88)
<b>Total Mean Score</b>	<b>34.93 (3.81)</b>	<b>35.20 (3.51)</b>
<b>Range</b>	<b>14-40</b>	<b>18-40</b>

\*Item has been reverse-coded, so that higher scores represent higher school satisfaction

### Pediatric Quality of Life Inventory (PEDSQL)

Pediatric Quality of Life Inventory was assessed using four items adapted from the Pediatric Quality of Life Inventory (PEDSQL).<sup>58</sup> The original instrument has 23 items and is used to measure health-related quality-of-life in children and adolescents. Items were rated on a 5-point Likert scale, with 1=*never*, 2=*almost never*, 3=*sometimes*, 4=*often* and 5=*almost always*. Table 10.2 below shows the total mean score for the 4 items was 14.7 (SD =2.88). Individual response data is presented in Table A.9b of the Appendix.

**Table 10.2 Pediatric Quality of Life Scale**

Statement	Wave I (N=1260)	Wave II (N=1219)
	<i>Mean (SD)</i>	<i>Mean (SD)</i>
It is hard for me to pay attention in class.*	3.97 (1.48)	4.13 (1.26)
I am forgetful.*	3.55 (1.19)	3.71 (1.08)
I miss school because of poor physical health condition.*	3.39 (1.28)	3.45 (1.16)
I miss school to go to the doctor, clinics or hospital.*	3.27 (1.32)	3.39 (1.19)
<b>Total Mean Score</b>	<b>14.2 (3.18)</b>	<b>14.7 (2.88)</b>
<b>Range</b>	<b>4-20</b>	<b>4-20</b>

\*Item has been reverse-coded, so that higher scores represent higher quality of life.

### School-Related questions

In addition to school satisfaction, respondents were asked several questions related to their experiences in school, including grade level, school accessibility and living arrangements (i.e., whether they lived in boarding sections), behavioral issues while attending school, any extra help they receive at school, and school-related challenges and goals.

At 12-months follow-up, the majority of respondents 91.1% (n=1111) were in senior 2, 0.4% (n=5) were in senior 1, 0.4% (n=5) were in senior 3, 1 respondent was in vocational training school, and 7.9% (n=97) had dropped out of school. About 22.6% (n= 275) of respondents had repeated a grade in the past, mainly during primary-level schooling. About 88.3% (n= 1076) of respondents reported that their school had a boarding section, and 21.9% (n= 267) of these respondents reported living in the boarding section. This is not unusual since boarding sections come at an additional cost, as such, low-income families are less likely to afford this type of living arrangement for their children. In addition, 65.5% (n=798) of respondents reported walking daily to their school from home, and 4.7% (n=57) used other modes of transportation, including bicycle (n=17), motorcycles/boda boda (n=35), or a vehicle/taxi/school bus (n=5).

To assess school-related behavioral issues, respondents were asked about verbal and physical altercation incidences with other students and teachers, as well as suspensions and expulsions during the last school term. About 2.9% (n=33) of respondents reported physical fights, and 14.7% (n=165) reported verbal fights with other students. In addition, 2 respondents reported verbal altercations, and 2 respondents reported a physical fight with a teacher respectively. Only 1 respondent reported a case of suspension from school in the last term. Overall, cases for school related behavioral issues decreased significantly from baseline to 12-months follow-up.

### Thoughts of Dropping Out of School

Respondents were asked if they had ever considered dropping out of school during the previous school term. Similar to baseline reports, about 2.1% (n=25) of respondents reported that they had experienced thoughts of dropping out of school, ranging between 1 to 30 times during the last school term. Of these, 20 respondents reported that they couldn't afford to pay tuition/school fees, 1 respondent reported lack of school lunch and 4 reported other reasons such as not understanding what the teachers were teaching her at school. When asked why they did not drop out of school, responses included the following: secured sufficient financial resources to pay for school fees, respondent/parent/caregiver changed their mind about the importance of education.

### Missing School

Respondents were asked several items related to how often they missed school in the last four weeks. Responses were rated on a scale of 0 (*never missed school*) to 10+ (*miss school very often*). The results are presented Table 10.3 below. At 12-months follow-up, about 6.8% (n=86) of respondents reported difficulty getting to school at least twice a month. This number declined from 10% (n=126) at baseline. Half of respondents (50.4%, n=615) did not miss school in the last four weeks. Among those who missed school, 12.5% (n=152) reported missing school at least 2 days in the previous 4 weeks. Reasons for missing school varied from illness, menstruation cycle, and lack of school-related fees.

**Table 10.3 School Absenteeism**

Variable	Wave I (N=1260) n (%)	Wave II (N=1219) n (%)
<b>It can often be difficult to get to school every day, even when you are trying your hardest.</b>		
0 (never missed)	855 (67.9)	710 (58.2)
½	47 (3.7)	56 (4.6)
1	126 (10.0)	127 (10.4)
2	86 (6.8)	84 (6.9)
3	33 (2.6)	37 (3.0)
4	18 (1.4)	15 (1.2)
5	19 (1.5)	25 (2.0)
6	9 (0.7)	13 (1.1)
7	6 (0.5)	11 (0.9)
8	8 (0.6)	10 (0.8)
9	10 (0.8)	5 (0.4)
10	35 (2.8)	23 (1.9)
10+ (miss school very often)	8 (0.6)	6 (0.5)
<b>Number of days missed school in the last four weeks.</b>		
0 (never missed)	683 (54.2)	615 (50.4)
½	25 (2.0)	43 (3.5)
1	118 (9.4)	95 (7.8)
2	147 (11.7)	152 (12.5)
3	100 (7.9)	75 (6.1)
4	42 (3.3)	34 (2.8)

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
5	46 (3.7)	36 (2.9)
6	13 (1.0)	12 (0.9)
7	29 (2.3)	19 (1.6)
8	7 (0.6)	4 (0.3)
9	9 (0.7)	7 (0.6)
10	28 (2.2)	19 (1.6)
10+ (miss school very often)	13 (1.0)	11 (0.9)
<b>In a month, how many days do you miss school because of illness?</b>		
0 (never missed)	661 (52.5)	552 (45.3)
½	54 (4.3)	58 (4.8)
1	121 (9.6)	113 (9.3)
2	145 (11.5)	159 (13.0)
3	88 (7.0)	86 (7.0)
4	58 (4.6)	61 (5.0)
5	35 (2.8)	28 (2.3)
6	14 (1.1)	10 (0.8)
7	25 (2.0)	20 (1.6)
8	7 (0.6)	5 (0.4)
9	7 (0.6)	2 (0.2)
10	29 (2.3)	25 (2.0)
10+ (miss school very often)	16 (1.3)	3 (0.2)
<b>Number of days missed school due to menstruation period.</b>		
0 (never missed)	975 (77.4)	818 (67.1)
½	26 (2.1)	28 (2.3)
1	43 (3.4)	66 (5.4)
2	41 (3.3)	63 (5.2)
3	55 (4.4)	52 (4.3)
4	42 (3.3)	42 (3.4)
5	14 (1.1)	16 (1.3)
6	9 (0.7)	3 (0.2)
7	15 (1.2)	5 (0.4)
8	9 (0.7)	1 (0.1)
9	3 (0.2)	2 (0.2)
10	20 (1.6)	21 (1.7)
10+ (miss school very often)	8 (0.6)	5 (0.4)
<b>Number of days missed school due lack of school related fees.</b>		
0 (never missed)	653 (51.8)	588 (48.2)
½	42 (3.3)	40 (3.3)
1	113 (9.0)	129 (10.6)
2	125 (9.9)	124 (10.2)
3	62 (4.9)	60 (4.9)
4	39 (3.1)	37 (3.0)
5	57 (4.5)	42 (3.4)

Variable	Wave I (N=1260) <i>n</i> (%)	Wave II (N=1219) <i>n</i> (%)
6	20 (1.6)	13 (1.1)
7	48 (3.8)	27 (2.2)
8	14 (1.1)	9 (0.7)
9	10 (0.8)	4 (0.3)
10	45 (3.6)	39 (3.2)
10+ (miss school very often)	32 (2.5)	10 (0.8)

### Availability of Educational Resources

There are several factors that contribute to a conducive learning environmental, both at home and at school. Participants were asked to answer 4 questions related to the availability of educational resources. Responses were coded as 1 = *Yes* and 0= *No*. Responses are presented in the Table 10.4 Similar to baseline reports, the majority of respondents 88% (n=1073) reported that they had time devoted to reading their books on a daily basis, and 87.4 % (n=1065) reported having a quiet room and light to do their homework. In addition, slightly over half of respondents (51.9%, n=633) reported having non-school-related books they read in their spare time. This number increased from 36% (n=454) at baseline. In addition, 74.4% (n=907) reported participating in school trips and other school events.

**Table 10.4 Education Resources**

Variable	Wave I (N=1260) Yes <i>n</i> (%)	Wave II (N=1122) Yes <i>n</i> (%)
On a daily basis, do you have time that you devote to reading books?	1218 (96.7)	1073 (88.0)
Do you have books (not including schoolbooks) you can read in your spare time?	454 (36.0)	633 (51.9)
Do you have a quiet place with enough room and light to do your homework?	1183 (93.9)	1065 (87.4)
Do you participate in school trips and events?	822 (65.2)	907 (74.4)

### Education Plans

Questions in this section were tested in our previous Bridges and Suubi studies.<sup>33-36, 44-47</sup> Respondents were asked several questions about their future educational plans, including professions of interest, completing high school, how confident they were in their ability to achieve those plans, and alternative plans to educational attainment.

At 12-months follow-up, respondents were asked about their educational plans after completing lower secondary school (senior 4). Results are presented in Table 10.5. Less than half of respondents 43% (n=524) planned to go on to high secondary level (senior 5 and 6) and then to university. This number slightly declined from baseline where slightly over half of respondents (51.2%, n=645) planned to do so. About 15.6% (n=190) planned to go to high secondary level and then go to technical/nursing/teachers' college. Compared to baseline reports where 14.9% (n = 188) of respondents planned to stop in senior 4 and find a job, this number declined to 2.9% (n=36) at 12-months follow-up.

Respondents were then asked to report on how sure and hopeful they were that they will achieve their set educational plans. About 9.5% (n=116) reported being “*very sure*” about their plans, and 44.1% (n=538) reported that they were “*extremely sure*.” Similarly, 28.1% (n=343) reported being “*very hopeful*”, and (34.6%, n=422) reported that they were “*extremely hopeful*” about achieving their educational plans.

In addition, respondents were asked to identify what other plans they had, in case they were unable to achieve their set educational plans. Almost one third of respondents (31.5%, n=384) reported that they would persist to the end of their education. This was a decline from baseline where more than half of respondents (60.7%, n=765) planned to persist. About 34.8% (n= 425) reported that they would look for a job to support themselves, and 0.2% (n=3) reported that they would give up and opt for marriage. Other plans identified by participants include going to vocational training and sitting at home.

**Table 10.5 Future Educational Plans**

Variable	Wave I (N=1260) n (%)	Wave II (N=1219) n (%)
<b>What are your educational plans after completing senior 4?</b>		
Planning to go on to HSC (Senior 5 and 6), then University	645 (51.2)	524 (43.0)
Planning to go on to HSC (Senior 5 and 6), then go to Technical/Nursing/Teachers college	292 (23.2)	190 (15.6)
Planning to stop in Senior 4, then find a job and start working	188 (14.9)	36 (2.9)
Not planning to go on to Senior 4	18 (1.4)	8 (0.6)
Other (Specify)	8 (0.6)	4 (0.3)
Planning to stop in Senior 4, then go to Technical/Nursing/Teaching college	109 (8.7)	360 (29.5)
<b>How sure are you that you will achieve this educational plan?</b>		
Not at all sure	92 (7.3)	36 (2.9)
Slightly sure	211 (16.7)	205 (16.8)
Moderately sure	253 (20.1)	219 (17.9)
Very sure	149 (11.8)	116 (9.5)
Extremely sure	537 (42.6)	538 (44.1)
Not applicable	18 (1.4)	105 (8.6)
<b>How hopeful are you that you will achieve your educational goals?</b>		
Not at all hopeful	16 (1.3)	3 (0.2)
Not very hopeful	32 (2.5)	21 (1.7)
Somewhat hopeful	402 (31.9)	325 (26.6)
Very hopeful	336 (26.7)	343 (28.1)
Extremely hopeful	456 (36.2)	422 (34.6)
Not applicable	18 (1.4)	105 (8.61)
<b>What plans do you have for your future in case attaining education fails?</b>		
I will give up and opt for marriage	7 (0.6)	3 (0.2)

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
I will give up and sit at home	20 (1.6)	41 (3.3)
I will look for a job to support myself	379 (30.1)	425 (34.8)
I will persist to the end of my education	765 (60.7)	384 (31.5)
Other (specify)	71 (5.6)	261 (21.4)
Not applicable	18 (1.4)	105 (8.6)

## 11. FAMILY SOCIO-ECONOMIC STATUS

### Poverty

Questions in this section were adapted from the Uganda Household Survey<sup>59</sup> conducted by the Uganda Bureau of Statistics. All questions have been tested in our previous Bridges and Suubi studies<sup>33-36, 44-47</sup>. Respondents were asked several questions to assess their relative level of poverty. Items related to the availability of basic needs, food consumption, household assets, and living arrangements were asked. Table 11.1 present results related to possession of basic needs and food consumption at 12-months follow-up.

Similar to baseline reports, the majority of the respondents 96.7% (n=1179) owned more than two sets of clothes, 92.4% (n=1126) owned a blanket, and 53.1% (n=647) owned more than two pairs of shoes. In terms of food consumption in the last week, 48% (n=585) of respondents, on average, had two meals per day, 31.6% (n=386) had not eaten meat or fish, 53.8% (n=655) had not eaten an egg, and 47.8% (n=583) had not had milk. However, 67.9% (n=828) had drank tea with sugar every day in the last week, and 81.6% (n=995) had eaten breakfast the day of the interview.

**Table 11.1 Poverty Indicators**

Variable	Wave I (N=1260) <i>n(%)</i>	Wave II (N=1219) <i>n(%)</i>
<b>How many sets of clothes do you have?</b>		
None	5 (0.4)	3 (0.2)
One	22 (1.8)	8 (0.7)
Two	61 (4.9)	29 (2.4)
More than two	1172 (93.0)	1179 (96.7)
<b>Do you have a blanket?</b>		
Yes	1120 (88.9)	1126 (92.4)
No	140 (11.1)	93 (7.6)
<b>How many pairs of shoes do you have?</b>		
None	10 (0.8)	6 (0.5)
One pair	372 (29.5)	231 (18.9)
Two pairs	355 (28.2)	335 (27.5)
More than two pairs	523 (41.5)	647 (53.1)



Variable	Wave I (N=1260) <i>n</i> (%)	Wave II (N=1219) <i>n</i> (%)
<b>How often did you eat meat or fish in the last week?</b>		
None	485 (38.5)	386 (31.6)
Once	284 (22.5)	264 (21.7)
Twice	235 (18.7)	296 (24.3)
Three times	179 (14.2)	195 (16.0)
Every day	77 (6.1)	78 (6.4)
<b>How often did you eat an egg in the last week?</b>		
None	729 (57.7)	655 (53.8)
Once	251 (19.9)	250 (20.5)
Twice	134 (10.6)	176 (14.4)
Three times	99 (7.9)	86 (7.0)
Every day	47 (3.7)	52 (4.3)
<b>How often did you have milk in the last week?</b>		
None	688 (54.6)	583 (47.8)
Once	138 (10.9)	152 (12.5)
Twice	100 (7.9)	110 (9.0)
Three times	65 (5.2)	106 (8.7)
Every day	269 (21.4)	268 (22.0)
<b>What is the average number of meals you took per day in the last 7 days?</b>		
None	11 (0.9)	18 (1.5)
One	104 (8.3)	68 (5.6)
Two	690 (54.6)	585 (48.0)
Three	455 (36.1)	548 (44.9)
<b>In the last seven days, how many times did you drink tea with sugar?</b>		
None	176 (13.9)	101 (8.3)
One	72 (5.71)	60 (4.9)
Two	121 (9.60)	111 (9.1)
Three	126 (10.0)	119 (9.8)
Everyday	765 (60.7)	828 (67.9)
<b>Did you have breakfast today?</b>		
Yes	945 (75.0)	995 (81.6)
No	315 (25.0)	224 (18.4)

In addition to basic needs and food consumption, respondents were asked several questions related to their living arrangements, including type of housing, availability of electricity and other facilities. The results are presented in the Table 11.2. At 12-months follow-up, the majority of respondents (75.85%, n=924) lived in households with electricity, more than half (66.2%, n=807) reported that their houses were made of bricks, iron sheets and cemented floors, and 66.1% (n=806) reported that their houses had cemented floors. Also, the majority of participants' households (98.5%, n=1201) had a toilet facility, with 97.2% (n=1185) reporting a pit latrine. About 79.4% (n= 968) of respondents' households used firewood to cook.

**Table 11.2 Household Facilities**

Statement	Wave I (N=1260) n (%)	Wave II (N=1219) n (%)
<b>Does the house you live in have electricity (including solar or biogas)</b>		
Yes	870 (69.1)	924 (75.8)
No	390 (30.9)	295 (24.2)
<b>What kind of house do you live in?</b>		
Brick house with iron sheets and cement floors	743 (58.9)	807 (66.2)
Brick house with iron sheets but not cemented floors	344 (27.3)	261 (21.4)
Mud house	92 (7.3)	62 (5.1)
Hut	3 (0.2)	6 (0.5)
Muzigo	78 (6.2)	83 (6.8)
<b>What is the floor in your house where you live?</b>		
Dirt sand	38 (3.02)	28 (2.3)
Dung floor	406 (32.2)	349 (28.6)
Tiled floor	19 (1.5)	27 (2.2)
Cement floor	793 (62.9)	806 (66.1)
Other	4 (0.3)	9 (0.7)
<b>Do you have a toilet facility?</b>		
Yes	1243 (98.7)	1201 (98.5)
No	17 (1.4)	18 (1.5)
<b>What kind of toilet facility do your family members use?</b>		
Pit latrine	1230 (97.6)	1185 (97.2)
Flush or pour-flush toilet	19 (1.5)	25 (2.0)
No facility or bush or field	5 (0.4)	1 (0.1)
Other	6 (0.5)	8 (0.7)
<b>How do you/your family cook?</b>		
Wood	1062 (84.3)	968 (79.4)
Charcoal	179 (14.2)	242 (19.8)
Dung	2 (0.2)	2 (0.2)
Other	17 (1.4)	7 (0.6)

**Household Assets**

Respondents were also asked about household assets. Responses are presented in Table 11.3. The majority of participating families (93.6%, n=1141) owned their own homes, 88.3% (n=1077) owned a piece of land, and 56.6% (n=690) owned a bicycle –primarily used as a means of transportation. Similarly, the majority of households (79.3%, n=967) owned a radio, and 95.2% (n=1161) owned a cellphone. Given that Uganda’s economy is primarily agricultural, the majority of households owned several gardens, including bananas, coffee, beans and maize, as well as farm animals such as cows,

goats, and pigs. Household assets are usually supplemented by small scale income generating activities. Similar to baseline reports, 16.1% (n=196) of households owned rental property, 43.3% (n=528) owned poultry for sale, and 60.5% (n=811) owned a small business. All these reports are consistent with baseline findings.

**Table 11.3 Household Assets**

Variable	Wave I	Wave II
	(N=1260) <i>Yes n (%)</i>	(N=1219) <i>Yes n (%)</i>
House	1184 (93.9)	1141 (93.6)
Rental property /mizigo gya bapangisa	201 (15.9)	196 (16.1)
Land / ekibanja	1151 (91.4)	1077 (88.3)
Bicycle	732 (58.1)	690 (56.6)
Motorcycle /boda boda	461 (36.6)	450 (36.9)
Car	160 (12.7)	157 (12.9)
Television	436 (34.6)	497 (40.8)
Refrigerator	107 (8.5)	119 (9.8)
Cell phone	1192 (94.6)	1161 (95.2)
Radio	1038 (82.4)	967 (79.3)
Banana garden	1056 (83.8)	1018 (83.5)
Coffee garden	815 (64.7)	749 (61.4)
Beans garden	786 (62.4)	698 (57.3)
Maize garden	911 (72.3)	769 (63.1)
Other gardens (cassava, sweet potato, greens)	910 (72.2)	862 (70.7)
Cow (s)	376 (29.9)	366 (30.0)
Goat (s)	615 (48.8)	560 (45.9)
Pig (s)	758 (60.2)	698 (57.3)
Poultry (for sale)	514 (40.8)	528 (43.3)
Any other animals	246 (19.5)	245 (20.1)
A small business/retail store/shop/kiosk	790 (62.7)	811 (66.5)

### Child Work

Questions in this section were tested in our previous Bridges and Suubi studies.<sup>33-36,44-47</sup> Child work was assessed by asking participants to indicate whether they were currently engaged in work for pay, the type of jobs, number of hours they worked, and type of earnings or compensation. At 12 months follow up, about 4.0% (n=49) were currently engaged in work for pay, and 4.3% (n=52) engaged in paid work in the previous year. About 0.3% (n=4) of the respondents reported having two jobs.

Among those who reported work in the previous year, 1.3% (n=16) worked almost every day, 1.2% (n=15) worked for few days a week, 0.4% (n=5) worked almost every week, 0.7% (n=8) worked once in a few weeks, and 0.7% (n=8) worked on a particular incidence. Respondents primarily worked in garden/farm work or housework, either for a neighbor or family members. In terms of wage and salary, 41 out of the 49 respondents who reported work for pay, received monetary compensation. They used the money to purchase basic needs and pay for education. Respondents were also asked how many hours per day they worked outside of schoolwork (including housework). Outside the home, respondents normally engage in activities such as craftsmanship, housemaid, shop attendant, farming, and fetching

water. On average, respondents spent 3 hours per day working outside of schoolwork. In addition, 64.9% (n=791) of the respondents reported participating in income generating jobs including partime jobs. About 8.9% (n=109) reported that work affected their studies at school

### **The Person Supporting the Family**

Respondents were asked to provide details on the person supporting their family, including their relationship to the participant, employment status, and education level. About 51.8% (n= 632) of respondents reported a biological father as their primary caregiver, 23.9% (n=291) reported a biological mother, and about 6.6% (n=80) reported a grandmother. Similarly, more than half of respondents (52.9%, n= 644) reported a biological father as the primary source of financial support, and 23.2% (n=283) reported a biological mother. Other respondents included grandmother 5.3% (n= 65), grandfather 2.2% (n= 27), aunt 3.8% (n= 47), uncle 4.7% (n=57), sister 1.6% (n=20), brother 1.6% (n=19), and other relatives 1.6% (n=20). Similar to baseline, majority of respondents (74.2%, n= 904) reported that the person who financially supported them was not employed in the formal sector (i.e., did not earn a wage or salary).

In addition to employment, respondents were asked about the educational level of the person financially supporting their household. More than half of respondents (49.8%, n=607) reported that the person who financially supported them had not completed high school, 4.4% (n=54) had a technical college diploma, 4.3% (n=53) had a university degree, and 2.9% (n=35) did not go to school. About 23% of respondents did not know the educational background of their caregivers.

**Table 11.4. Person Supporting the Family**

Statement	Wave I (N=1260) n(%)	Wave II (N=1219) n(%)
<b>Who is your primary caregiver?</b>		
Biological father	626 (49.7)	632 (51.9)
Biological mother	339 (26.9)	291 (23.9)
Grandmother	107 (8.5)	80 (6.6)
Grandfather	33 (2.6)	33 (2.7)
Aunt	51 (4.1)	51 (4.2)
Uncle	47 (3.7)	48 (3.9)
Sister	13 (1.0)	12 (1.0)
Brother	15 (1.2)	18 (1.5)
Cousin	3 (0.2)	4 (0.3)
Myself	1 (0.1)	3 (0.3)
Other relative	23 (1.8)	20 (1.6)
Other non-relative	2 (0.2)	27 (2.2)
<b>Is that person currently employed in the formal sector and earn a salary</b>		
Yes	292 (23.2)	315 (25.8)
No	968 (76.8)	904 (74.2)
<b>What is the education level of the person who financially supports your family?</b>		

Statement	Wave I (N=1260) n(%)	Wave II (N=1219) n(%)
Did not go to school	45 (3.6)	35 (2.9)
Dropped out before primary 7	247 (19.6)	204 (16.7)
Dropped out before senior 4	137 (10.9)	137 (11.2)
Completed senior 4 and stopped	172 (13.7)	189 (15.5)
Went on to senior 6 and stopped	49 (3.9)	42 (3.5)
Has a technical college diploma	40 (3.2)	54 (4.4)
Has a university degree	58 (4.6)	53 (4.4)
Completed primary 7 and stopped	204 (16.2)	224 (18.4)
Don't know	308 (24.4)	281 (23.1)

## 12. SAVING BEHAVIORS

Questions in this section were tested in our previous Bridges and Suubi studies.<sup>33-36, 44-47</sup> Similar to baseline assessments, respondents were asked several questions regarding their saving behaviors, attitudes, and savings goals. At 12-months follow up, 32.8% (n=400) of respondents reported that they had money saved somewhere. The average self-reported savings amount was Uganda Shillings 58,382.25/= (fifty-eight thousand three hundred and eighty-two) Uganda shillings. Participants kept their savings in a range of places (Table 12.1). Specifically, of the 400 who reported savings, 24% (n=96) reported saving their money in a bank, 34.3% (n=137) reported keeping their money with a caregiver(s)/parent(s), 20% (n=80) saved with a Savings and Credit Cooperative (SACCO), and 35.5% (n=142) reported saving in another informal location such as piggy bank, with a friend, neighbor or other relative, a family saving group, or some place in the house.

**Table 12.1 Savings locations**

Variable	Wave I (N=303) Yes n (%)	Wave II (N=400) Yes n (%)
<b>Do you have money saved in any of the following places?</b>		
Bank	11 (3.6)	96 (24.0)
Savings and Credit Cooperative (SACCO)	36 (11.9)	80 (20.0)
With your current parent(s)/caregiver(s)	130 (42.9)	137 (34.3)
Any other place	148 (48.8)	142 (35.5)
<b>If you have ever deposited money in a bank, how did you get the money to save?</b>		
My parent/guardian gave me the money to put into the bank account	6 (54.5)	78 (81.3)
I saved it from my work.	4 (36.4)	5 (5.2)
I saved it from my allowance.	4 (36.4)	28 (29.2)
Other	2 (18.2)	8 (8.3)

For respondents who reported saving in the bank (n=96), they were asked to report the source(s) of their money. About 81.3% (n=78) reported that their parents/guardians gave them money, 5.2% (n=5) saved money from their own work, 29.2% (n=28) saved money from their own allowance, and 8.3% (n=8) saved money from other resources, such as from selling personal property, or from a community development project.

In addition to personal savings, 53.2% (n=649) of respondents reported that their caregivers were saving money for them, and 50.4% (n=614) reported that their caregivers had an account in a formal financial institution (Bank or SACCO). When given a hypothetical scenario, “If you had 10,000 Uganda shillings what would you do?”, 46.8% (n=571) reported that they would purchase some kind of revenue generating asset, such as livestock, and 37.2% (n=454) reported that they would spend half and save half. Table 12.2 below presents participants’ spending preferences.

**Table 12.2 Spending Preferences**

	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
If you had Uganda shilling 10,000, would you?		
Spend it all	60 (4.8)	76 (6.2)
Spend most of it	25 (1.9)	24 (1.9)
Spend half, save half	407 (32.3)	454 (37.2)
Save most of it	55 (4.4)	50 (4.1)
Save all of it	53 (4.2)	44 (3.6)
Buy chicken, rabbit or other animals that would eventually bring in money	660 (52.4)	571 (46.8)

### **Importance of Saving Toward a Specific Goal**

Respondents were asked to rate the importance of saving money toward a specific goal (e.g., education, a family business) on a Likert scale with responses: 1=*not important at all*, 2=*not very important*, 3=*somewhat important*, 4=*very important* and 5=*extremely important*. Table 12.3 presents the mean scores and standard deviations for each item and the overall summated mean score. Similar to baseline reports, respondents placed significant importance on saving overall (mean = 21.67, SD = 2.5). High mean scores were reported on items related to saving for a family business (mean=4.59, SD= 0.6) and education (mean= 4.52, SD= 0.6). For individual responses see Table A.10 of the Appendix.

**Table 12.3 Importance of Saving for a Specific Goal**

Variable	Wave I (N=1260) <i>Mean (SD)</i>	Wave II (N=1219) <i>Mean (SD)</i>
Saving money for a family business	4.53 (0.7)	4.59 (0.6)
Saving money for one’s personal educational	4.46 (0.6)	4.52 (0.6)
Saving money for family use	4.23 (0.9)	4.17 (0.8)
Saving money to buy an animal	4.34 (0.8)	4.44 (0.7)
Saving money to move into one’s own home	3.83 (1.2)	3.93 (1.17)
<b>Total Mean Score</b>	<b>21.41 (2.7)</b>	<b>21.67 (2.5)</b>
<b>Range</b>	<b>9-25</b>	<b>8-25</b>

### Level of Confidence to Save for a Specific Goal

In addition, respondents were asked to rate their level of confidence to save toward a specific goal. Responses were rated on a 5-point Likert scale, with 1=*not confident at all*, 2=*not very confident*, 3=*somewhat confident*, 4=*very confident* and 5=*extremely confident*. Table 12.4 presents the mean scores and standard deviations for each item and the overall mean score. Consistent with the importance of savings above, respondents highly rated their confidence in ability to save (mean = 19.5, SD = 4.0). Although respondents placed higher importance on saving for a family business and educational opportunities, they felt more confident in their abilities to save for educational opportunities (mean =4.2, SD= 1.1), and buying some kind of revenue generating asset, such as livestock (mean =4.2, SD= 1.0). For individual responses see Table A.11 of the Appendix.

**Table 12.4 Confidence in Ability to Save**

Variable	Wave I (N=1260) <i>Mean (SD)</i>	Wave II (N=1219) <i>Mean (SD)</i>
Save money for a family business	3.99 (1.2)	4.0 (1.2)
Save money for personal educational opportunities, including formal schooling or vocational, technical, or job training	4.2 (1.0)	4.2 (1.1)
Save money for family use	3.9 (1.2)	3.8 (1.2)
Save money to buy an animal such as a goat, pig, or cow	4.2 (1.0)	4.2 (1.0)
Save money to move into one's own home	3.5 (1.4)	3.4 (1.4)
<b>Total Mean Score</b>	<b>19.9 (3.9)</b>	<b>19.5 (4.0)</b>
<b>Range</b>	<b>5-25</b>	<b>5-25</b>

## 13. PERSONAL HEALTH

Questions in this section were tested in our previous Bridges and Suubi studies.<sup>33-36, 44-47</sup> Respondents were asked several questions regarding their personal health including overall life and physical health satisfaction, energy level, medication intake, and STD history. Participants' reports are presented in the Table 13.1 below.

At 12-months follow-up, respondents were generally satisfied with their life. About 68.1% (n=830) were "*extremely satisfied*" with their life. A little over half of the respondents (53.3%, n= 650) rated their physical health as "*excellent*" and 52.3% (n=638) reported that they "*sometimes*" experienced low energy. In terms of medication intake, 8.8% (n=107) reported than they were taking some form of medication. The most common reasons for taking medicine was pain relief for headaches and menstrual cramps, treatment of typhoid, malaria/fever, and HIV. At 12-months follow-up, 56 respondents had been diagnosed with an STD (an increase from 10 participants at baseline), including one case of Syphilis, 6 cases of candidiasis, and 1 case of a non- specific disease. Respondents also reported experiencing one or a combination of symptoms, such as itching, pain, rash, and discharge among others.

**Table 13.1 Personal Health**

Variable	Wave I (N=1260) <i>N (%)</i>	Wave II (N=1219) <i>N (%)</i>
<b>How satisfied are you with your life overall?</b>		
Extremely satisfied	828 (65.7)	830 (68.1)
Very satisfied	263 (20.9)	233 (19.1)
Somewhat satisfied	138 (10.9)	129 (10.6)
Not very satisfied	15 (1.2)	16 (1.3)
Not satisfied at all	16 (1.3)	11 (0.9)
<b>At present time would you say your physical health is:</b>		
Excellent	662 (52.5)	650 (53.3)
Good	387 (30.7)	359 (29.4)
Fair	196 (15.6)	190 (15.6)
Poor	6 (0.5)	11 (0.9)
Very poor	9 (0.7)	9 (0.7)
<b>I have low energy:</b>		
Almost always	53 (4.2)	35 (2.9)
Often	187 (14.9)	121 (9.9)
Sometimes	586 (46.5)	638 (52.3)
Almost never	226 (17.9)	176 (14.4)
Never	208 (16.5)	249 (20.4)
<b>Do you take any medications?</b>		
Yes	96 (7.6)	107 (8.8)
No	1164 (92.4)	1112 (91.2)
<b>Have you ever been diagnosed with any Sexually Transmitted Disease (STDs)?</b>		
Yes	10 (0.8)	56 (4.6)
No	1250 (99.2)	1163 (95.4)
<b>Have you ever experienced any or a combination of these symptoms?</b>		
Bleeding	16 (1.2)	87 (7.1)
Pain	45 (3.8)	373 (30.6)
Rash	85 (6.8)	199 (16.3)
Discharge	38 (3.0)	55 (4.5)
Sores/Blisters	15 (1.2)	13 (1.1)
Warts	9 (0.7)	4 (0.3)
Itch	137 (10.9)	227 (18.6)
Problem with urination	29 (2.3)	35 (2.9)
Others	0.00	2 (0.2)

**Biomarker Data**

In addition to self-reports, all respondents in the study were asked to provide blood, urine specimens, and vaginal swab specimens for testing common bacterial and viral STDs, HIV, and pregnancy, as 12-



months follow-up. Testing in a study-certified local laboratory was performed to assess trichomonas, chlamydia, gonorrhea and HIV. At 12-months follow-up, 1.7% (n=21) of respondents tested positive for trichomonas (compared to 65 at baseline), 0.7% (n=8) tested positive for chlamydia (compared to 7 at baseline), and 0.8% (n=10) tested HIV positive (compared to 8 at baseline) –indicating 2 new cases of HIV at 12-months. About 1.9 % (n=23) of respondents received a positive pregnancy test result (compared to 14 cases at baseline).

### Body Mass Index (BMI)

The actual height and weight measurements were collected by the research team using a Seca Mechanical Floor Scale - Model 762 and Oxford 67mm height rod. Weight was recorded to the nearest tenth of a kilogram, and height was measured to the nearest tenth of a centimeter. Height and weight measurements were used to determine BMI. The World Health Organization's BMI-for-age percentile growth chart<sup>1</sup> for girls between 5 to 19 years, was used to determine respondents' BMI and corresponding percentiles.

At 12-months follow-up, 6.6 % (n=78) of respondents were underweight (BMI <5th percentile), compared to 2.22% (n=28) at baseline, 83.9% (n=988) were normal weight (BMI 5th to <85th percentile), 7.6% (n=90) were overweight (BMI 85th to <95th percentile), compared to 9.29% (n=117) at baseline, and 1.8% (n=21) were obese (BMI ≥95th percentile), compared to 2.22% (n=28) at baseline.

## 14. MENSTRUATION PRACTICES

Questions in this section were adapted from the Questionnaire Assessing Girls' Menstrual Hygiene Practices in East Africa.<sup>60</sup> Respondents were asked several questions related to their current menstruation management practices, their menstruation experiences, choice of protection and disposal methods, as well as the effect of menstruation experience on their school participation. At 12-months follow-up, 97% (n=1182) of respondents had started their menstruation cycle, and 3% (n=37) had not. Similar to baseline assessments, respondents were asked about the different types of absorbents used during menstruation (Table 14.1). The majority of participants 97.6% (n=1190) had purchased sanitary pads, 91.1% (n=1111) had heard about reusable pads that can be washed and used again, and 79.6% (n=970) had heard about a menstruation cloth/towel. Other materials included banana fibers, bark cloth, pieces of paper, and plastic bags.

**Table 14.1 Menstrual Hygiene and Management I**

Variable	Wave I (N=1260) <i>Yes n (%)</i>	Wave II (1219) <i>Yes n (%)</i>
<b>Which of the following products have you heard of?</b>		
Cloth/Towel	1010 (80.2)	970 (79.6)
Tampon	53 (4.2)	66 (5.4)
Purchased sanitary pad	1211 (96.1)	1190 (97.6)

<sup>1</sup> According to the World Health Organization, underweight is defined as BMI below the 5th percentile. Overweight is defined as a BMI at or above the 85th percentile and below the 95th percentile. Obesity is defined as a BMI at or above the 95th percentile. Available at: [https://www.who.int/growthref/bmifa\\_girls\\_5\\_19years\\_per.pdf?ua=1](https://www.who.int/growthref/bmifa_girls_5_19years_per.pdf?ua=1)

Variable	Wave I (N=1260) <i>Yes n (%)</i>	Wave II (1219) <i>Yes n (%)</i>
Menstrual Cup	85 (6.8)	89 (7.3)
Toilet paper	448 (35.6)	386 (31.7)
Reusable pads that you can wash and use again	1069 (84.8)	1111 (91.1)
Cotton	379 (30.1)	381 (31.3)
Mattress	166 (13.2)	142 (11.6)
Natural materials (mud, cow dung or leaves)	67 (5.3)	38 (3.1)
Other	26 (2.1)	21 (1.7)

It should be noted that the choice of sanitary protection is influenced by the girl's environment, cultural acceptability, water supply and affordability. Participants (who had started their cycle) were asked about what forms of protection they normally use during their cycle and their ability to purchase disposable sanitary pads. Results are presented in Table 14.2 below.

Similar to baseline reports, the majority of participants 83.8% (n=990) reported using sanitary pads, 21.1% (n=250) reported using a cloth or towel, and 27.5% (n=325) reported using reusable pads. In addition, respondents were assessed on their ability to purchase disposable sanitary pads. About 75.2% (n=889) reported buying disposable pads in the last six months, while 9.2 % (n=109) reported that there were no disposable sanitary pads in the shops. Half of the respondents (51.9%, n=614) reported that they were unable to buy disposable sanitary pads from a shop, and 49.6% (n=586) reported that they do not have enough money to purchase disposable sanitary pads from a shop. This number reduced from 56% (n=706) reported at baseline.

**Table 14.2 Menstrual Hygiene and Management II**

Variable	Wave I (N=1123) <i>Yes n (%)</i>	Wave II (N=1182) <i>Yes n (%)</i>
<b>What do you normally use during your menstruation period?</b>		
Cloth/Towel	344 (27.3)	250 (21.1)
Tampon	10 (0.79)	5 (0.4)
Purchased sanitary pad	947 (75.2)	990 (83.8)
Menstrual Cup	4 (0.32)	2 (0.2)
Toilet paper	39 (3.10)	11 (0.9)
Reusable pads that you can wash and use again	268 (21.3)	325 (27.5)
Cotton	24 (1.90)	8 (0.7)
Mattress	6 (0.48)	4 (0.3)
Natural materials (mud, cow dung or leaves)	12 (0.95)	3 (0.2)
Other	4 (0.32)	2 (0.2)
<b>Disposable sanitary towels</b>		
Have you bought disposable sanitary pads from a shop in the last six months?	806 (63.9)	889 (75.2)

Variable	Wave I (N=1123) <i>Yes n (%)</i>	Wave II (N=1182) <i>Yes n (%)</i>
Have you ever wanted to buy disposable sanitary pads from a shop but been unable to?	712 (56.5)	614 (51.9)
I do not have enough money to buy disposable sanitary pads from a shop.	706 (56.0)	586 (49.6)
There are no disposable sanitary pads in the shops.	932 (83.0)	109 (9.2)

Lack of menstrual health hygiene knowledge and practices, and poor access to sanitary products impose barriers for engagement in school and other social activities.<sup>62</sup> At 12-months follow-up, respondents were asked how often their menstruation cycle interfered with their school attendance. Specifically, respondents were asked how often they missed school during their period (Table 14.3). About 0.7% (n=8) reported missing school always, 2.2% (n=24) missed school many times, 5.9% (n=64) several times, 15.5% (n=168) once or twice, and 75.7% (n=821) had never missed school.

Respondents who reported ever missing school during their cycle (n=1085) were then asked the reasons why they couldn't make it to school. About 22.2% (n=241) reported fear of staining their uniforms, 17.2% (n=187) feared being made fun of, 21% (n=228) did not have sanitary pads, 31.6% (n=343) reported pain, and 30.9% (n=336) reported feeling uncomfortable or tired during their cycle. Moreover, a non-facilitating school environment can make it difficult for girls to attend school during their cycle. At 12-months follow-up, 19.7% (n=214) of respondents reported missing school due to lack of space to wash and change, and 10.2% (n=111) reported lack of place to dispose of sanitary products.

**Table 14.3 School Attendance During Menstruation**

Variable	Wave I (N=1123) <i>n (%)</i>	Wave II (N=1085) <i>n (%)</i>
<b>How often does your menstruation period make you miss school?</b>		
Never	795 (70.8)	821 (75.7)
Once or twice	192 (17.1)	168 (15.5)
Several times	78 (6.9)	64 (5.9)
Many times	40 (3.6)	24 (2.2)
Always	18 (1.6)	8 (0.7)
<b>Reasons for missing school during menstruation</b>		
I am afraid of staining my clothes	328 (29.2)	241 (22.2)
I am afraid of others making fun of me.	254 (22.6)	187 (17.2)
Menstruation periods can cause pain.	378 (33.7)	343 (31.6)
Menstruation periods can make me feel uncomfortable or tired.	368 (32.8)	336 (30.9)
There isn't anywhere for girls to wash and change at school.	359 (32.0)	214 (19.7)
There is nowhere to dispose of sanitary products.	231 (20.6)	111 (10.2)

Variable	Wave I (N=1123) <i>n (%)</i>	Wave II (N=1085) <i>n (%)</i>
I do not have sanitary pads.	371 (33.0)	228 (21.0)
Because of cultural or religious reasons	201 (17.9)	102 (9.4)
Other	4 (0.4)	3 (0.3)

In addition to school attendance, respondents were asked whether their menstruation cycle interfered with their engagement in household activities. The results are presented in Table 14.4. At 12-months follow-up, 23.7% (n=289) reported inability to do sports during their cycle, 15.1% (n=184) reported inability to walk far, and about 13.9% (n= 169) reported inability to go to a place of worship. Other constraints were reported around doing housework and household chores.

**Table 14.4 Physical Activity During Menstruation**

Statement	Wave I (N=1260) <i>Yes n (%)</i>	Wave II (N=1182) <i>Yes n (%)</i>
Does the menstruation period make you miss paid work?	69 (5.5)	60 (4.9)
Does your menstruation period make you miss housework?	113 (8.9)	127 (10.4)
Does your menstruation period make you stay at home?	117 (9.3)	134 (11.0)
Does your menstruation period make you unable to walk far?	192 (15.2)	184 (15.1)
Does your menstruation period make you unable to carry our daily activities like cooking or fetching water?	105(8.3)	119 (9.8)
Does your menstruation period make you unable to go to church/Mosque/place of worship?	183 (14.5)	169 (13.9)
Does your menstruation period make you unable to do sports?	386 (30.6)	289 (23.7)

### **Pain during Menstruation**

At 12-months follow-up, about 24.3% (n=264) reported missing school due to pain associated with their menstruation cycle. Respondents were asked to rate the average level of pain they experience during their cycle on a scale of 0 (*pain free*) to 10 (*worst pain I've ever experienced*). Results are presented in the Table 14.5 below. Overall, about 8.5% (n=101) of our respondents reported experiencing extreme pain, while 26.1% (n=309) reported experiencing no pain at all.

**Table 14.5 Level of Pain during Menstruation**

On a scale of 0 to 10, indicate the average level of pain you experience during menstruation.	Wave I (N=1123) <i>n (%)</i>	Wave II (N=1182) <i>n (%)</i>
0 (Pain free)	303 (26.9)	309 (26.1)
1	108 (9.6)	178 (15.1)
2	94 (8.4)	133 (11.2)
3	99 (8.8)	111 (9.4)
4	57 (5.1)	89 (7.5)
5	130 (11.6)	114 (9.6)

On a scale of 0 to 10, indicate the average level of pain you experience during menstruation.	Wave I (N=1123) <i>n (%)</i>	Wave II (N=1182) <i>n (%)</i>
6	61 (5.4)	43 (3.6)
7	37 (3.3)	28 (2.8)
8	40 (3.6)	43 (3.6)
9	23 (2.1)	33 (2.8)
10 (Worst pain I have ever had)	171 (15.2)	101 (8.5)

### Participants' Feelings during Menstruation

Anecdotal evidence links the menstrual cycle and comorbid psychiatric symptoms such as depression and anxiety among adolescent girls.<sup>63</sup> Respondents were asked to indicate whether a particular statement related to their feelings was true for them during their period (Table 14.6). At 12-months follow-up, more than half of the participants 55.6% (n=657) reported not feeling good, 52.4% (n= 619) wished they could be happier, and 48.7% (n=575) reported feeling less confident during their cycle. However, 51.3% (n=606) of the respondents reported feeling happy with themselves and 48.4% (n=572) felt as good as other people.

**Table 14.6 Mental Status and Level of Confidence During Menstruation**

Variable	Wave I (N=1123) <i>Yes n (%)</i>	Wave I (N=1182) <i>Yes n (%)</i>
During my menstruation period I am happy with myself	476 (42.4)	606 (51.3)
During my menstruation period I feel I am no good	717 (63.8)	657 (55.6)
During my menstruation period I feel as good as other people	500 (44.5)	572 (48.4)
During my menstruation period I wish I could be happier	508 (45.2)	619 (52.4)
During my menstruation period I feel that I am a failure	372 (33.1)	255 (21.6)
During my menstruation period I feel less confident than when I am not on my menstruation period.	610 (54.3)	575 (48.7)

### Menstruation -Related Beliefs

In addition to feelings during menstruation period, respondents' beliefs about menstruation were assessed. All respondents were asked to indicate whether specific statements about menstruation were true (coded as 1) or false (coded as 0). At 12-months follow-up, more than half of the respondents 60.8% (n= 741) believed that women stop menstruating as they grow old, and 57.3% (n=699) believed that menstrual blood comes from the womb. Respondents also reported false beliefs about menstruation i.e., menstruation means that someone is sick (22.6%, n=275), menstrual blood contains dangerous substances (28.1%, n=343), it is harmful to a woman's body if she runs or dances during her menstruation period (32%, n=390), and girls should not leave home during their period (15.3%, n=187). Overall, we observe an increase in the number of participants reporting correct knowledge and favorable attitudes about menstruation from baseline to 12-months follow-up. Responses are provided in the Table 14.7 below.

**Table 14.7 Knowledge and Belief About Menstruation**

Statement	Wave I (N=1260)			Wave II (N=1219)		
	True n (%)	False n (%)	Don't Know n (%)	True n (%)	False n (%)	Don't Know n (%)
Women stop menstruating as they grow old	637 (50.6)	387 (30.7)	236 (18.7)	741 (60.8)	312 (25.6)	166 (13.6)
Menstruation is a disease	171 (13.6)	1007 (79.9)	82 (6.51)	92 (7.5)	1088 (89.3)	39 (3.2)
Pregnant women menstruate	161 (12.8)	939 (74.5)	160 (12.7)	69 (5.7)	1031 (84.6)	119 (9.8)
Menstrual blood comes from the stomach where the food is	184 (14.6)	763 (60.6)	313 (24.8)	106 (8.7)	869 (71.3)	244 (20.0)
Menstrual blood comes from the womb	696 (55.2)	286 (22.7)	278 (22.1)	699 (57.3)	270 (22.2)	250 (20.5)
Menstrual blood contains dangerous substances	474 (37.6)	533 (42.3)	253 (20.1)	343 (28.1)	604 (49.6)	272 (22.3)
Pain during menstruation period means that someone is sick	414 (32.9)	669 (53.1)	177 (14.1)	275 (22.6)	828 (67.9)	116 (9.5)
It is harmful to a woman's body if she runs or dances during her menstruation period.	567 (45.0)	544 (43.2)	149 (11.8)	390 (32.0)	700 (57.4)	129 (10.6)
During menarche, girls should not leave home	381 (30.2)	784 (62.2)	187 (7.5)	187 (15.3)	980 (80.4)	52 (4.3)

## 15. MENTAL HEALTH

### Child Self-Concept

Self-concept was measured using the Tennessee Self-Concept Scale (TSCS).<sup>64</sup> The 20-item scale measures children's perception of identity and self-satisfaction. Each of the 20 items was rated on a 5-point scale: 1= *always false*, 2= *usually false*, 3= *sometimes true/sometimes false*, 4= *usually true* and 5= *always true*. Ten (10) items in the opposite direction were reverse coded to create summated scores. The theoretical range for the Tennessee Self-Concept Scale is 20-100. Higher scores indicate higher levels of child self-concept. At 12-months follow-up, the overall mean score was 82.4 (SD=11.6, range = 42-100), indicating high levels of self-concept (baseline mean score= 80.8, SD =11.9, range = 44-100). A high internal consistency (Cronbach alpha =0.82) was reported for this scale. Individual response data are presented in Table A.12 of the Appendix.

### Sense of Hopelessness

Respondents' sense of hopelessness was measured using the Beck Hopelessness Scale (BHS).<sup>65</sup> The 20-item scale measures children's hopelessness and pessimistic attitudes toward the future. Items have a "true" or "false" response rating, coded as "1" or "0" respectively. Nine (9) items in the opposite direction were reverse coded to create a summated score. The theoretical range for the BHS is 0-20,

with higher scores indicating a high level of hopelessness and pessimistic attitudes. At 12-months follow-up, the overall mean score was 3.4 (SD=2.7, range = 0-15), indicating lower levels of hopelessness and pessimistic attitudes (baseline mean score = 4.6, SD = 3.01, range = 0-17). The scale demonstrated a moderate internal consistency (Cronbach's alpha =0.70). For individual responses see Table A.13 of the Appendix.

### **Self-Esteem**

Respondents' self-esteem was measured using the Rosenberg Self-Esteem Scale (RSES).<sup>66</sup> The 10-item scale measures individual self-esteem on a 4-point Likert- scale, with 4=*strongly agree*, 3=*agree*, 2=*disagree*, 1=*strongly disagree*. The theoretical range for the RSES is 10-40, with high scores indicating high levels of self-esteem. At 12-months follow-up, the overall mean was 34 (SD=4.9, range=5-40) indicating a high level of self-reported self-esteem among respondents and this is also consistent with the findings from the baseline (mean score = 34, SD = 4.6, range 16-40). The scale demonstrated a high internal consistency (Cronbach's alpha 0.77). Individual response data are presented in Table A.14 of the Appendix.

### **Depressive Symptoms**

Participants' depressive symptoms were measured using the Beck's Depression Inventory (BDI).<sup>67-69</sup> The scale measures characteristic attitudes and symptoms of depression including mood, pessimism, and sense of failure, self-dissatisfaction, guilt, punishment, self-dislike, self-accusation, suicidal ideas, crying, irritability, social withdrawal, indecisiveness, body image change, work difficulty, insomnia, fatigability, loss of appetite, weight loss, somatic preoccupation, and loss of libido. The scale consists of 21 sets of statements; each set is ranked regarding severity on a 4-point continuum (0=least, 3=most). The theoretical range for the BDI is 0-63, with higher scores indicating higher levels of depressive symptoms. At 12-months follow up, the overall mean score was 14.9 (SD=9.4, range=0-45), indicating a decrease in depressive symptoms from baseline (mean score = 18.47, SD=10.2, range 0-58). The scale demonstrated a high internal consistency (Cronbach's alpha =0.82). Individual response data are presented in Table A.15 of the Appendix.

## **16. HIV/AIDS**

To assess HIV/AIDS prevention attitudes, respondents were asked to rate 5-items related to HIV/AIDS prevention on a 5-point Likert scale, with 1=*not at all agree*, 2=*agree a little*, 3=*moderately agree*, 4=*agree a lot*, and 5=*agree a great deal*. The theoretical range for this scale is 5-25, with higher scores indicating higher levels HIV/AIDS prevention attitudes. At 12-months follow-up, the scale demonstrated a moderate reliability coefficient (Cronbach's alpha =0.64). Table 16.1 presents the mean scores and standard deviations for each item. The overall mean score was 20.3 (SD= 4.5, range= 5-25). Similar to baseline reports, high ratings were reported on knowing that HIV is a threat to the participants' health (mean = 4.6, SD=1.0), and abstinence as the best way to void getting HIV (mean =4.4, SD=1.2). For individual responses see Table A.16 of the Appendix.

**Table 16.1 HIV/AIDS Prevention Attitudes**

Statement	Wave I (N=1260)	Wave II (N=1219)
	<i>Mean, SD</i>	<i>Mean, SD</i>
As a teenager, I think AIDS is a threat to my health	4.4 (1.3)	4.6 (1.0)
I think all people my age who have sex should use condoms	3.4 (1.8)	3.7 (1.6)
I think the best way to avoid getting AIDS is not to have sex	4.3 (1.3)	4.4 (1.2)
Even if you know your partner very well, you should use condoms	3.7 (1.7)	3.8 (1.5)
I think it is very imported to use condoms every time one has sex	3.7 (1.7)	3.7 (1.6)
<b>Total Mean Score</b>	<b>19.5 (5.3)</b>	<b>20.3 (4.5)</b>
<b>Range</b>	<b>5-25</b>	<b>5-25</b>

**HIV/AIDS Prevention Knowledge**

Knowledge of HIV/AIDS transmission was assessed by asking respondents if five different behaviors were safe to engage in with an HIV positive person. Response options included: 1=*not sure*, 2=*unsafe*, and 3=*safe*. Results are presented in Table 16.2 below. At 12-months follow-up, respondents demonstrated knowledge of the most unsafe and high-risk behaviors, i.e., having unprotected sex (96.5%, n=1177), and sharing a needle (96.1%, n=1172) with an HIV positive person. However, participants also rated some behaviors which are considered safe, as unsafe. For example, 53.7% (n=654) of participants reported that kissing an HIV positive person is risky, and 62.3% (n=760) reported that touching a toilet seat that an HIV positive person has touched is unsafe. Overall, these reports indicate improvements in HIV transmission knowledge, as more respondents are able to identify safe and unsafe behaviors, when compared to baseline reports.

**Table 16.2 HIV/AIDS Transmission Knowledge**

Statement	Wave I (N=1260)			Wave II (N=1219)		
	Safe <i>n (%)</i>	Unsafe <i>n (%)</i>	Not Sure <i>n (%)</i>	Safe <i>n(%)</i>	Unsafe <i>n(%)</i>	Not Sure <i>n(%)</i>
Sharing needles or syringes (empiso) with an HIV/AIDS infected person.	28 (2.2)	1181 (93.7)	51 (4.1)	22 (1.8)	1172 (96.1)	25 (2.0)
Having unprotected sex with an HIV/AIDS infected person	38 (3.1)	1183 (93.9)	39 (3.1)	19 (1.6)	1177 (96.5)	23 (1.9)
Holding hands with an HIV/AIDS infected person	826 (65.6)	322 (25.6)	112 (8.9)	957 (78.5)	204 (16.7)	58 (4.8)
Touching toilet seats, spoons, cups or other objects after a person infected with HIV/AIDS	577 (45.8)	530 (42.1)	153 (12.1)	760 (62.3)	362 (29.7)	97 (8.0)



Statement	Wave I (N=1260)			Wave II (N=1219)		
	Safe n (%)	Unsafe n (%)	Not Sure n (%)	Safe n(%)	Unsafe n(%)	Not Sure n(%)
Kissing a person who is infected with HIV/AIDS	354 (28.1)	741 (58.8)	165 (13.1)	426 (34.9)	654 (53.7)	139 (11.4)

In addition to transmission knowledge, general knowledge of HIV/AIDS was also assessed by asking respondents to indicate which of the 8 statements were correct about HIV/AIDS. Response options were: 1 =*not sure*, 2=*false* and 3 =*true*. Participants' responses are illustrated in the Table 16.3. Just like the HIV transmission knowledge, there was some variability in responses. The majority of respondents were able to accurately answer items such as, "Anyone can become infected with HIV/AIDS" (90.4%, n=1102), "A pregnant woman who has HIV/AIDS can give it to her unborn" (83.8%, n=1022), and "There is test to determine if a person is HIV positive" (95.2%, n=1161). However, for other questions like, "If a woman is using birth control pills, she is protected from HIV" (83.8%, 1022) and "You can look at a person and tell if they have HIV," a number of participants answered "*true*" (17%, 207). The number of respondents who answered "*true*" reduced after 12-months follow-up –pointing to the need for correct HIV-related information among participants.

**Table 16.3 HIV/AIDS General Knowledge**

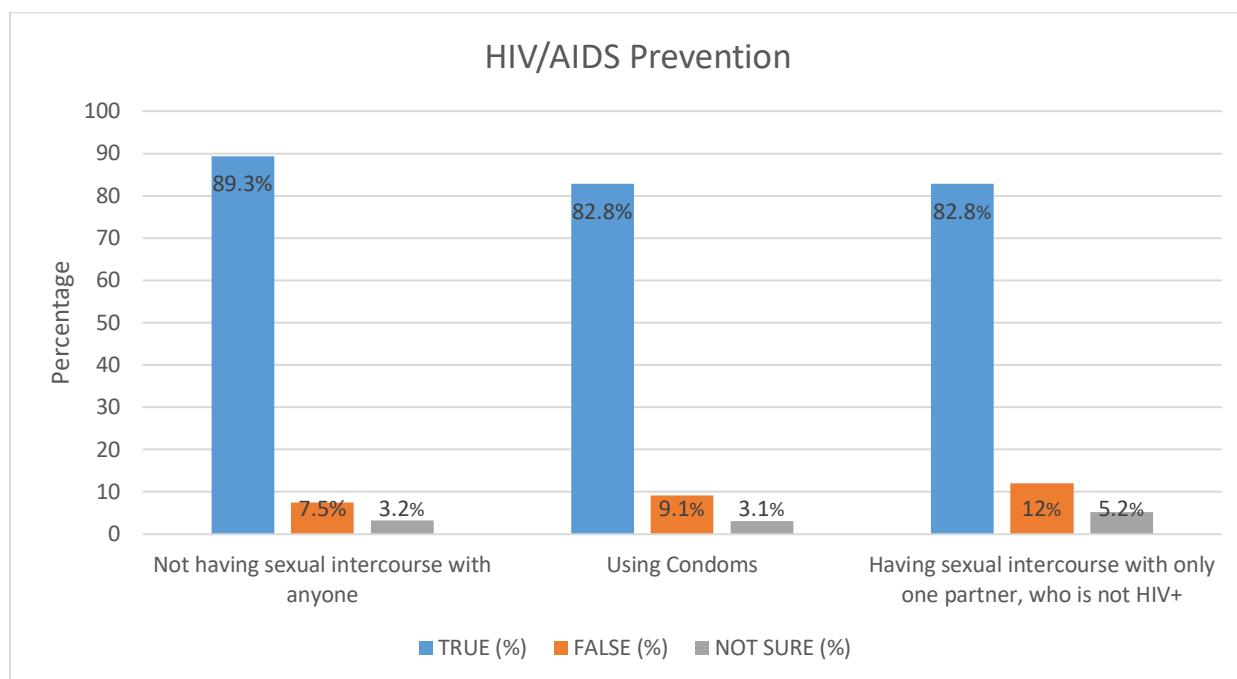
Statement	Wave I (N=1260)			Wave II (N=1182)		
	True n (%)	False n (%)	Not Sure n (%)	True n (%)	False n (%)	Not Sure n (%)
You can look at a person and tell if they are infected with HIV/AIDS.	295 (23.4)	673 (53.4)	292 (23.2)	207 (17.0)	808 (66.3)	204 (16.7)
A pregnant woman who has HIV/AIDS and is not on treatment can transmit the virus to her unborn baby.	993 (78.8)	142 (11.3)	125 (9.92)	1022 (83.8)	131 (10.6)	66 (5.4)
There is a cure for HIV/AIDS.	378 (30.0)	724 (57.5)	158 (12.5)	266 (21.8)	832 (68.3)	121 (9.9)
If a woman is using birth control pills, she is protected from HIV/AIDS infection.	320 (25.4)	623 (49.4)	317 (25.2)	307 (25.2)	719 (58.9)	193 (15.8)
You can get HIV/AIDS from a mosquito bite.	215 (17.1)	898 (71.3)	147 (11.7)	161 (13.2)	973 (79.8)	85 (6.9)
You can get HIV/AIDS from using the same washing basin with an HIV/AIDS infected person.	265 (21.0)	843 (66.9)	152 (12.1)	141 (11.6)	976 (80.1)	102 (8.4)

Statement	Wave I (N=1260)			Wave II (N=1182)		
	True n (%)	False n (%)	Not Sure n (%)	True n (%)	False n (%)	Not Sure n (%)
There is a test to determine if a person has HIV/AIDS.	1161 (92.1)	75 (5.9)	24 (1.9)	1161 (95.2)	53 (4.4)	5 (0.4)
Anyone can become infected with HIV/AIDS.	1071 (85.0)	142 (11.3)	47 (3.7)	1102 (90.4)	92 (7.6)	25 (2.1)

Finally, respondents were asked how people can reduce their chances of becoming infected with HIV/AIDS, based on the behavioral change model of ABC (Abstinence, Be faithful and Use of Condoms). Respondents were asked to rate each of the three items as: 1=*not sure*, 2=*false* or 3=*not sure* (Figure 16.1).

Consistent with baseline reports, the majority of respondents knew that all three prevention methods could lower their risk of becoming infected with HIV/AIDS, at 12-months follow-up. While abstinence is emphasized in schools, 82.78% (n=1070) of all respondents reported condom use as equally effective in reducing the risk of HIV. Individual response data for these items are presented in Table A.17 of the Appendix.

**Figure 16.1: HIV/AIDS Prevention (N=1219)**



### Anti-Retroviral Treatment (ART)

Respondents were asked questions related to HIV testing, HIV status and adherence to medication—for those who were living with HIV. Item assessing medication adherence were adapted from the validation of a new-item self-report measure for medication adherence.<sup>71</sup> At 12-months follow-up, 100% (n=1219)

of respondents had been tested for HIV. Respondents reported many barriers to testing, including lack of perceived risk of HIV, fear of being HIV-positive, fear of blood draw using needles, the cost of the test, testing sites and time not being convenient, perception that more immediate problems take priority, difficulty accessing services, and poor quality of interactions with health care providers. At 12-months follow, 11 participants received a positive HIV diagnosis (compared to 6 who tested positive at baseline). All 7 respondents had initiated ART, reported complete adherence (i.e., no missed doses) of their HIV medicine in the last 30 days. Responses are presented in the Table 16.4 below.

**Table 16.4 Adherence to Anti-Retroviral Treatment**

Variable	Wave 1 (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
<b>In the last 30 days, on how many days did you miss at least one dose of any of your HIV medicines?</b>		
0	4 (0.3)	7 (0.6)
3	1 (0.1)	0 (0.0)
Not applicable	1255 (99.6)	1212 (99.4)
<b>On the days missed, how many doses did you miss?</b>		
0	4 (0.3)	7 (0.6)
1	1 (0.1)	0 (0.0)
Not applicable	1255 (99.6)	1212 (99.4)
<b>In the last 30 days, how good a job did you do at taking your HIV medicine the way you were supposed</b>		
Fair	1 (0.1)	1 (0.1)
Very Good	2 (0.2)	4 (0.3)
Excellent	2 (0.2)	2 (0.2)
Not applicable	1255 (99.6)	1212 (99.4)
<b>In the last 30 days, how often did you take your HIV medicines in the way you were supposed to?</b>		
Almost Always	1 (0.1)	1 (0.1)
Always	4 (0.3)	6 (0.5)
Not applicable	1255 (99.6)	1212 (99.4)

## 17. GENDER ROLES/NORMS

Similar to baseline assessment, gender norms were measured using items adapted from the Attitudes Towards Women Scale for Adolescents<sup>74</sup> and were tested in our previous Bridges and Suubi studies.<sup>33-34, 44-47, 51,52</sup>. The 10-item scale measures gender attitudes among adolescents. Respondents were asked to indicate whether they agreed with each statement related to how men and women act. Items had a “Yes” or “No” response coded as “1” or “0” respectively. At 12-months follow-up, respondents exhibited both positive and negative gender norms. Specifically, respondents agreed with items related to gender inequality, such as, “In general, the father should have greater authority than the mother in making family decisions” (86.4%, n=1053), “Girls should be more concerned with becoming good wives and mothers than desiring a professional or business career” (73.1%, n=891), and “More

encouragement in a family should be given to sons than daughters to go to college” (43.4%, n=529). However, respondents also rated highly on positive items such as, “On average, girls are as smart as boys” (69.6%, n=848) and “Girls should have the same freedoms as boys” (75.5%, n=920). Responses are presented in the Table 17.1 below.

**Table 17.1 Gender Roles/Norms**

Statement	Wave I (N=1260)	Wave II (N=1219)
	<i>Yes n (%)</i>	<i>Yes n (%)</i>
Swearing is worse for a girl than for a boy.	552 (43.8)	454 (37.2)
On average, girls are as smart as boys.	801 (63.6)	848 (69.6)
More encouragement in a family should be given to sons than daughters to go to college.	630 (50.0)	529 (43.4)
In general, the father should have greater authority than the mother in making family decisions.	1103 (87.5)	1053 (86.4)
It is more important for boys than girls to do well in school.	466 (36.9)	374 (30.7)
Boys are better in school than girls.	511 (40.6)	524 (43.0)
It is all right for a girl to propose to a boy.	209 (16.6)	164 (13.5)
Girls should be more concerned with becoming good wives and mothers, than desiring a professional or business career.	887 (70.4)	891 (73.1)
Girls should have the same freedoms as boys.	915 (72.6)	920 (75.5)
It’s alright for girls to carry condoms.	329 (26.1)	285 (23.4)

### Gender Relations

In addition to gender norms, gender relations were assessed via the Gender Relations Scale.<sup>75</sup> The 5-item scale measures attitudes toward gender roles and expectations, decision-making around sex and reproduction, household decision-making, and violence. The two response options were “*Agree*” and “*Disagree*,” coded as “1” or “2” respectively. Similar to gender norms, respondents exhibited attitudes related to negative gender relations, such as “It is a female’s responsibility to avoid getting pregnant (72.8%, n=888), “A male should have the final word about decisions in his home” (69.7%, n=850). The majority of respondents (89%, n=1085) did not approve of gendered violence, i.e. “It is OK for a male to hit his wife is she will not have sex with him.” Individual responses are presented in Table 17.2 below.

**Table 17.2 Gender Relation Scale**

Statement	Wave I (N=1260)		Wave II (N=1219)	
	<i>Agree n (%)</i>	<i>Disagree n (%)</i>	<i>Agree n (%)</i>	<i>Disagree n (%)</i>
It is a female’s responsibility to avoid getting pregnant.	805 (63.9)	455 (36.1)	888 (72.8)	331 (27.2)
A male should have the final word about decisions in his home.	887 (70.4)	373 (29.6)	850 (69.7)	369 (30.3)

Statement	Wave I (N=1260)		Wave II (N=1219)	
	Agree <i>n</i> (%)	Disagree <i>n</i> (%)	Agree <i>n</i> (%)	Disagree <i>n</i> (%)
A female should tolerate violence to keep the family together.	584 (46.4)	676 (53.7)	481 (39.5)	738 (60.5)
It is OK for a male to hit his wife if she will not have sex with him.	176 (13.9)	1084 (86.0)	134 (11.0)	1085 (89.0)
Males and females should share household chores.	961(76.3)	299 (23.7)	965 (79.2 )	254 (20.8)

## 18. ELECTRONIC VICTIMIZATION

Items in this section were adapted from the Youth Internet Survey.<sup>76,77</sup> Participants were asked 3 items related to electronic victimization. At 12-months follow-up, about 3% (n=37) of the respondents reported experiencing cyberbullying via the internet i.e., that someone used the internet to bother, harass, or spread mean words or pictures about them, about the same number of respondents 3.4% (n=42) reported experiencing bullying via cellphone and text messaging, and 3% (n=37) reported experiencing online sexual harassment.

**Table 18.1 Electronic Victimization**

Variable	Wave I (N=1260)	Wave II (N=1219)
	<i>Yes n (%)</i>	<i>Yes n (%)</i>
Has anyone ever used the Internet to bother or harass you or to spread mean words or pictures about you?	48 (3.8)	37 (3.0)
Has anyone ever used a cell phone or texting to bother or harass you or to spread mean words or pictures about you?	47 (3.7)	42 (3.4)
Did anyone on the Internet ever ask you sexual questions about yourself or try to get you to talk online about sex when you did not want to talk about those things?	54 (4.3)	37 (3.0)

## 19. YOUTH RISK BEHAVIOR SURVEY

### Cigarette Smoking

Questions in this section were adapted from the Youth Risk Behavior Survey<sup>78</sup> and were tested in our Bridges and Suubi studies.<sup>33-34, 44-47, 51, 52</sup> Respondents were asked about their cigarette, alcohol, marijuana use, as well as rates of peer pressure surrounding these behaviors.

Similar to baseline assessments, self-reported tobacco, marijuana, alcohol and drug use were minimal at 12-months follow-up. Responses related to cigarette smoking are presented in Table 19.1. Of the total

1219, respondents, 0.3% (n=3) reported that they had tried smoking in the past 30 days. Respondents reported purchasing these cigarettes, or someone else giving it to them. In addition, the majority of respondents (97.1%, n=1184) reported no pressure on people their age to smoke, and 95.4% (n=1163) did not feel peer pressure to smoke themselves. Moreover, 97.3% (n=1186) of respondents reported that none of their closest friends smoked a cigarette. These reports are consistent with baseline reports.

**Table 19.1 Cigarette Smoking History**

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
<b>Ever tried cigarette smoking</b>		
Yes	15 (1.2)	3 (0.3)
No	1245 (98.8)	1216 (99.7)
<b>Age at first smoke or puff</b>		
8 years old or younger	4 (0.3)	2 (0.2)
11 or 12 years old	3 (0.2)	0 (0.0)
13 or 14 years old	4 (0.3)	0 (0.0)
15 or 16 years old	1 (0.1)	0 (0.0)
17 years old or older	3 (0.2)	1 (0.1)
Not applicable	1245 (98.8)	1216 (99.7)
<b>Number of days smoked in the past 30 days</b>		
0 days	10 (0.8)	3 (0.3)
1 or 2 days	4 (0.3)	0 (0.0)
6 to 9 days	1 (0.1)	0 (0.0)
All 30 days	0 (0.0)	0 (0.0)
Not applicable	1245 (98.8)	1216 (99.7)
<b>Number of cigarettes smoked in the past 30 days</b>		
1 cigarette per day	5 (0.4)	0 (0.0)
Not applicable	1255 (99.6)	1219 (100)
<b>Source of cigarettes</b>		
I bought it myself	1 (0.1)	0 (0.0)
I got it at a public event such as concert, sporting event or wedding	1 (0.1)	0 (0.0)
My friend gave it to me	2 (0.2)	0 (0.0)
Someone gave it to me	1 (0.1)	0 (0.0)
Not Applicable	1255 (99.6)	1219 (100)
<b>How much peer pressure is there on people your age to smoke cigarettes?</b>		
None	1185 (94.1)	1184 (97.1)
A little	46 (3.7)	25 (2.0)
A moderate amount	10 (0.8)	3 (0.3)

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
A lot	11 (0.9)	5 (0.4)
A great deal	8 (0.6)	2 (0.2)
<b>How often do you feel peer pressure to smoke cigarettes?</b>		
Never	1196 (94.9)	1163 (95.4)
Sometimes	42 (3.3)	42 (3.4)
About half the time	7 (0.6)	7 (0.6)
Most of the time	8 (0.6)	4 (0.3)
Always	7 (0.6)	3 (0.3)
<b>Of your closest friends, how many smoke cigarettes?</b>		
None	1210 (96.1)	1186 (97.3)
Less than half	30 (2.4)	23 (1.9)
About half	7 (0.6)	3 (0.3)
More than half	10 (0.8)	6 (0.4)
All	3 (0.2)	1 (0.1)

### Smoking Marijuana

Respondents were asked about their marijuana use in the past 30 days. Of the total 1219 respondents, none reported to have ever tried marijuana. Similar to cigarette smoking, 97.9% (n=1193) of respondents reported no pressure from people their age to smoke marijuana, 98% (n=1195) did not feel peer pressure to smoke, and 98% (n=1194) reported that none of their closest friends smoked marijuana. Individual responses are presented in Table 19.2 below.

**Table 19.2 Marijuana Smoking History**

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
<b>Tried marijuana smoking</b>		
Yes	3 (0.2)	0 (0.0)
No	1257 (99.76)	1219 (100)
<b>Age at first tried marijuana</b>		
8 years old or younger	2 (0.2)	0 (0.0)
15 or 16 years old	1 (0.1)	0 (0.0)
Not applicable	1257 (99.8)	1219 (100)
<b>Number of days smoked marijuana in the past 30 days</b>		
0 days	2 (0.2)	0 (0.0)
20 to 29 days	1 (0.1)	0 (0.0)
Not applicable	1257 (99.8)	1219 (100)

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
<b>Amount of marijuana smoked in the past 30 days</b>		
Less than 1 stick per day	1 (0.1)	0 (0.0)
Not applicable	1259 (99.9)	1219 (100)
<b>Sources of Marijuana</b>		
I took it from a family member	1 (0.1)	0 (0.0)
Not applicable	1259 (99.9)	1219 (100)
<b>How much peer pressure is there on people your age to smoke marijuana?</b>		
None	1230 (97.6)	1193 (97.9)
A little	19 (1.5)	17 (1.4)
A moderate amount	3 (0.2)	1 (0.1)
A lot	4 (0.3)	1 (0.1)
A great deal	1 (0.1)	7 (0.5)
<b>How often do you feel peer pressure to smoke marijuana?</b>		
Never	1220 (96.8)	1195 (98.0)
Sometimes	31 (2.5)	17 (1.4)
About half the time	6 (0.5)	5 (0.4)
Most of the time	2 (0.2)	0 (0.0)
Always	1 (0.1)	2 (0.2)
<b>Of your closest friends, how many smoke marijuana?</b>		
None	1222 (96.9)	1194 (98.0)
Less than half	23 (1.8)	13 (1.1)
About half	7 (0.6)	7 (0.5)
More than half	6 (0.5)	5 (0.4)
All	2 (0.2)	0 (0.0)

### Alcohol Use

Similar to baseline assessments, respondents' history of alcohol use was assessed. Drinking alcohol included beer, wine, and liquor such as whiskey, local brew, including Uganda Waragi, Mwenge bigere, or Tonto. Drinking a few sips of wine for religious purposes was excluded. Responses are presented in Table 19.3. Of the total 1219 respondents, 4.4% (n=53) reported ever drinking alcohol, other than a few sips, and 3.8 % (n=46) reported drinking on 1 or 2 days during their entire life. The sources of alcohol included respondents buying it directly from the shops, getting it from a public event, or from someone else, including friends and family members. In terms of peer pressure, 95.9% (n=1169) of respondents reported no peer pressure from others to drink alcohol, while 3.1% (n=38) reported a little pressure. Also, 93.8% (n=1143) reported that they had never felt peer pressure to drink, and 5.2% (n=63) reported feeling pressure sometimes.



**Table 19.3 Drinking Alcohol History**

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
<b>Ever tried alcohol</b>		
Yes	74 (5.9)	53 (4.4)
No	1186 (94.13)	1166 (95.6)
<b>Age at first tried alcohol</b>		
8 years old or younger	10 (0.8)	6 (0.5)
9 or 10 years old	5 (0.40)	2 (0.2)
11 or 12 years old	16 (1.3)	4 (0.3)
13 or 14 years old	23 (1.8)	17 (1.4)
15 or 16 years old	19 (1.5)	21 (1.7)
17 years old or older	1 (0.1)	3 (0.2)
Not applicable	1186 (94.1)	1166 (95.5)
<b>Number of days had alcohol other than a few sips</b>		
1 or 2 days	65 (5.2)	46 (3.8)
3 to 9 days	7 (0.6)	3 (0.2)
10 to 19 days	1 (0.1)	1 (0.1)
20 to 39 days	0 (0.0)	2 (0.2)
100 or more days	1 (0.1)	1 (0.1)
Not applicable 1186	1186 (94.2)	1166 (95.6)
<b>Number of days had alcohol in the past 30 days</b>		
0 days	59 (4.7)	46 (3.8)
1 or 2 days	13 (1.1)	6 (0.5)
3 to 5 days	1 (0.1)	0 (0.0)
6 to 9 days	1 (0.1)	1 (0.0)
10 to 19 days	0 (0.0)	1 (0.1)
Not applicable	1186 (94.1)	1166 (95.7)
<b>Source of alcohol</b>		
I bought it in a shop	1 (0.1)	1 (0.1)
I bought it at a restaurant, bar, or club	0 (0.0)	0 (0.0)
I got it at a public event such as a concert, sporting event or wedding.	3 (0.2)	1 (0.1)
I gave someone else money to buy it for me	0 (0.0)	0 (0.0)
My friend gave it to me	1 (0.1)	1 (0.1)
Someone gave it to me	2 (0.2)	0 (0.0)
I took it from a family member	5 (0.4)	4 (0.3)
I got it some other way	3 (0.2)	0 (0.0)

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
<b>How much peer pressure is there on people your age to drink alcohol?</b>		
None	1201 (95.3)	1169 (95.9)
A little	52 (4.1)	38 (3.1)
A moderate amount	2 (0.2)	2 (0.2)
A lot	5 (0.4)	8 (0.7)
A great deal	0 (0.0)	2 (0.2)
<b>How often do you feel peer pressure to drink alcohol?</b>		
Never	1192 (94.6)	1143 (93.8)
Sometimes	48 (3.8)	63 (5.2)
About half the time	6 (0.5)	6 (0.5)
Most of the time	11 (0.9)	5 (0.4)
Always	3 (0.2)	2 (0.1)

**Table 19.4 Peer Pressure**

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
<b>Other than marijuana, cigarettes and alcohol, have you ever used anything/any other drug to make you high?</b>		
No	1260 (100)	1218 (99.9)
Yes	0 (0.0)	1 (0.1)
<b>How much peer pressure is there on people your age to smoke this drug?</b>		
None	1223 (97.1)	1191 (97.7)
A little	32 (2.5)	19 (1.6)
A moderate amount	3 (0.2)	4 (0.3)
A lot	1 (0.1)	4 (0.3)
A great deal	1 (0.1)	1 (0.1)
<b>How often do you feel peer pressure to smoke this drug?</b>		
Never	1218 (96.7)	1180 (96.8)
Sometimes	35 (2.8)	33 (2.7)
About half the time	1 (0.1)	3 (0.2)
Most of the time	3 (0.2)	1 (0.1)
Always	3 (0.2)	2 (0.2)
More than half	11 (0.9)	0 (0.0)

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
<b>Of your closest friends, how many smoke this drug?</b>		
None	1196 (94.9)	1183 (97.1)
Less than half	38 (3.0)	18 (1.5)
About half	15 (1.2)	10 (0.7)
More than half	11 (0.9)	8 (0.7)

### School Safety

Respondents were asked about school safety. Of the total 1219 respondents, 85.9% (n=1048) reported that they had never missed school because they felt they would be unsafe at school or on the way. About 2.9% (n=36) of participants reported missing at least one day, and 0.2% (n=2) reported missing 6 days or more due to safety reasons in the past 30 days. In addition, 4% (n=49) reported being threatened or injured by someone else at school at least two or three times. Individual responses are presented in Table 19.5 below.

**Table 19.5 School Safety**

Statement	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
<b>During the past 30 days, on how many days did you not go to school because you felt you would be unsafe at school or on your way to or from school?</b>		
0 days	1144 (90.8)	1048 (85.9)
1 day	57 (4.5)	36 (2.9)
2 or 3 days	39 (3.1)	31 (2.5)
4 or 5 days	13 (1.0)	5 (0.4)
6 or more days	7 (0.6)	2 (0.2)
Not Applicable	0 (0.0)	97 (7.9)
<b>During the past 12 months, how many times has someone threatened or injured you with a weapon such a knife or club at school</b>		
0 times	1076 (85.4)	995 (81.6)
1 time	105 (8.3)	62 (5.1)
2 or 3 times	51 (4.0)	49 (4.0)
4 or 5 times	19 (1.5)	12 (0.9)
6 or 7 times	2 (0.2)	4 (0.3)
8 or 9 times	1 (0.1)	0 (0.0)
10 or 11 times	3 (0.2)	0 (0.0)
12 or more times	3 (0.2)	0 (0.0)
Not Applicable	0 (0.0)	97 (7.9)

## 20. SEXUAL RISK BEHAVIORS

Respondents' sexual risk and risk-taking behaviors were assessed using items tested in our previous Bridges and Suubi studies in Uganda.<sup>33-34,44-47,51,52</sup> Other items were adapted from the Violence Against Children Survey.<sup>82</sup>

At 12 months follow-up, respondents were asked several questions regarding their romantic relationships and history of sexual activity. Specifically, respondents were asked what the most appropriate age to have a romantic partner, boy/girlfriend was. Ages ranged between 5 to 42 years, with the majority of participants (25.3%, n=308) reporting 25 years and 24.3% (n=296) reporting 18 years. Respondents were then asked whether they had ever kissed someone in a romantic way; 3.8% (n=46) answered affirmatively, of which, 3.1% (n=38) reported that they had ever kissed a boy, and 1.2% (n=14) reported that they had ever kissed a girl in a romantic way.

In addition, respondents were also asked about the most appropriate age for one to willingly choose to have sex. Ages ranged from 5 to 42, with the majority of respondents (26.2%, n=319) reporting 18 years, and 20.3% (n=248) reporting 25 years. At 12 months follow-up, about 4.7% (n=57) of respondents reported that they had engaged in sexual intercourse, with 0.6% (n=7) reporting their first sexual debut at age 11. When asked about the number of sexual partners, 4.1% (n=50) reported 1 person, 0.6% (n=7) respondents reported 2 persons. In addition, 46 (3.8%) of respondents reported that they had willingly had sex and 0.9% (n=11) reported incidences of having sex unwillingly. 0.2% (n=2) of the respondents reported drinking alcohol or using drugs prior to sexual intercourse.

Further, respondents were asked to report on the methods of protection used during their last sexual encounter. About 2.1% (n=26) of respondents reported that their partner used a condom. When asked about the methods used to prevent pregnancy, 3 respondents reported the "pulling out" method, 18 respondents reported using condoms, 1 reported birth control, and 6 reported no method used. Respondents were also asked about the sexual activity of their closest friends. The majority of respondents 61.8% (n=754) thought that none of their closest friends ever had sex, 3% (n= 37) reported more than half, and 0.7% (n= 9) reported that all their friends had had sex.

### **Incidence of Sexual Assault/Abuse**

In regard to the propensity for sexual acts, 10.8% (n=132) of the respondents reported that they had been touched without their consent in a way that made them feel uncomfortable such pinching, grabbing or fondling. About 6.7% (n= 82) reported having been touched at least once, 2.9% (n=36) two to three times, 0.7% (n=8) four to five times, and 0.5% (n=6) more than six times. When asked about the source of this abuse, 0.8% (n=10) reported a romantic partner/friend, 0.3% (n=3) reported a parent, caregiver or other relative. None of the respondents reported to be sexually assaulted by a member or an armed group, 7.5% (n=91) reported a friend or neighbor, and 0.2% (n=2) reported an official. Other individuals included, a stranger, classmate/fellow student, teacher or a community member.

In addition, 5.3% (n=65) of the total respondents reported sexual coercion, specifically, that a person used their influence or authority to threaten or pressure the girl to do sexual acts against her will, including kissing, touching, or being physically forced to have sexual intercourse. Among those who reported, 0.2% (n=2) reported that this happened at least 1 time, 1.6% (n=19) reported happening 2 to 3 times, 0.4% (n=5) reported 4 to 5 times, and 2 (0.2%) respondents reported the incident occurring 6

times or more. When asked about the source of this coercion, 3 (0.3%) respondents reported a romantic partner/friend, 2 (0.2%) reported a parent/caregiver or other relative, 1 (0.1%) reported a member or an armed group, 1 (0.1%) of the respondents reported a friend or neighbor, and 16 (1.3%) reported an official.

At 12-months follow up, 9.9% (n=121) of respondents reported receiving money, food, gifts or other favors in exchange for sex. Out of these, 50 respondents reported this happening at least 1 time, 56 reported 2 to 3 times, 5 reported 4 to 5 times, and 10 respondents reported this happening 6 times or more. About 6.8% (n=83) reported the incident happening in the past 12 months.

### **Romantic Relationship Patterns**

Respondents were asked to report on their normative romantic sequence experience. About 9.5% (n=116) reported romantic relationships, lasting between 1 month and 3 years, the age range for romantic partners was between 14 and 28 years. About 99.8% (n=114) reported sexual intercourse with their romantic friend, no respondent lived with their partner. None of the respondents was married or had children.

### **Pressure to Engage in Sexual Risk-taking Behaviors**

At 12-months follow-up, respondents were asked to report on their experience of peer and parent pressure to engage in sexual taking behaviors. Of the total 1219 respondents, 85.9% (n=1047) reported no pressure at all, 9.1% (n=111) reported a little peer pressure to have sex, 13% (n=159) reported sometimes experiencing peer pressure to have a romantic partner, and 1.5% (n=18) reported sometimes experiencing pressure from their guardian/parent to get married. Results are presented in Table 20.1 below.

**Table 20.1 Experience of Peer and Parent Pressure**

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
<b>How much peer pressure is there on people your age to have sex?</b>		
None	1008 (80.0)	1047 (85.9)
A little	162 (12.9)	111 (9.1)
A moderate amount	48 (3.8)	25 (2.1)
A lot	32 (2.5)	34 (2.8)
A great deal	10 (0.8)	2 (0.2)
<b>How often do you feel peer pressure to have a romantic partner (boyfriend/girlfriend)?</b>		
Never	993 (78.8)	1021 (83.8)
Sometimes	218 (17.3)	159 (13.0)
About half the time	23 (1.8)	17 (1.4)
Most of the time	16 (1.3)	12 (1.0)
Always	10 (0.8)	10 (0.8)

Variable	Wave I (N=1260) <i>n (%)</i>	Wave II (N=1219) <i>n (%)</i>
<b>How often does your guardian/parent pressure you to get married?</b>		
Never	1233 (97.9)	1196 (98.1)
Sometimes	17 (1.3)	18 (1.5)
About half the time	5 (0.4)	2 (0.2)
Most of the time	2 (0.2)	1 (0.1)
Always	3 (0.2)	2 (0.2)

### Sexual Communication Skills

Questions in this section were adapted from the Couples Communication Scale.<sup>75</sup> Respondents were asked to rate how they communicate about sex with their partner(s). Items were rated on a 5-point Likert scale, with 1=*never*, 2=*sometimes*, 3=*about half of the time*, 4=*most of the time*, and 5=*always*. The theoretical range for this scale is 5-50, with high scores indicating higher levels of sexual communication. At 12-months follow-up, the scale demonstrated a high internal consistency (Cronbach's alpha = 0.81). The overall mean score was 24.6 (SD=8.9; actual range 10-41), indicating a slight increase from baseline reports (mean = 21.6 (SD=9.1, actual range 10-41). Table 20.2 presents the mean scores and standard deviations for each item and the overall mean score of the sexual communication skills scale. Respondents scored moderately on items related to condom use, including insisting on using condom use, even when the romantic partner does not want to, or when the respondent or their romantic partner was under alcohol or drug use. Individual responses are presented in Table A.20 of the Appendix.

**Table 20.2 Sexual Communication Scale**

Statement	Wave I (N=42) <i>Mean (SD)</i>	Wave II (N=57) <i>Mean (SD)</i>
Can you communicate with your romantic partner/friend about when to have sexual intercourse?	2.00 (1.18)	2.10 (1.34)
Can your romantic partner/friend communicate with you about when to have sexual intercourse?	1.83 (1.08)	2.26 (1.27)
Does your romantic partner/friend take into account your opinion regarding your sexual desires?	2.09 (1.43)	2.38 (1.41)
Do you feel comfortable talking with your romantic partner/friend about your sexual relationship?	1.95 (1.43)	2.14 (1.28)
Can you discuss condom use with your romantic partner/friend?	2.59 (1.58)	2.98 (1.44)
Can you insist on condom use if your romantic partner /friend does not want to use one?	2.64 (1.62)	2.64 (1.48)
Can you stop and look for condoms when you're sexually aroused?	2.09 (1.45)	2.56 (1.53)
Can you insist on condom use every time even when you are under the influence of alcohol or drugs?	2.14 (1.65)	2.49 (1.62)

Statement	Wave I (N=42) <i>Mean (SD)</i>	Wave II (N=57) <i>Mean (SD)</i>
Can you insist on condom use every time when your romantic partner/friend is under the influence of alcohol or drugs?	2.45 (1.65)	2.78 (1.63)
Can you put a condom on your romantic partner/friend without spoiling the mood?	1.78 (1.32)	2.19 (1.50)
<b>Total Mean Score</b>	<b>21.6 (9.1)</b>	<b>24.6 (8.9)</b>
<b>Range</b>	<b>10-41</b>	<b>10-41</b>

### Sexual-Risk Taking Intentions

Tested in our previous Bridges and Suubi studies in Uganda,<sup>33-34, 44-47,51,52</sup> intentions to engage in sexual-risk taking behaviors were assessed by asking respondents to rate how several sexual-activity related statements applied to them. Items were rated on a 5-point Likert scale, with 1=*never*, 2=*sometimes*, 3=*about half of the time*, 4=*most of the time* and 5=*always*. The theoretical range for this scale is 5-25, with high scores indicating high sexual risk-taking intentions. At 12-months follow-up, the scale demonstrated a high internal consistency (Cronbach's alpha = 0.73). The overall mean score was 21.5(SD=4.14; actual range 5-25) indicating a decrease in sexual risk-taking intention among respondents from baseline to 12-months follow-up (baseline mean =22.5(SD = 3.74, actual range 5-25).

**Table 20.3 Sexual Risk-Taking Intention**

Statement	Wave I (N=1260) <i>Mean (SD)</i>	Wave II (N=1219) <i>Mean (SD)</i>
Ok for people my age to have sex with someone they've just met.*	4.55 (1.07)	4.38 (1.20)
Ok for people my age to have sex with someone they love.*	4.48 (1.07)	4.34 (1.17)
Ok for people my age to have sex before marriage.*	4.41 (1.12)	4.09 (1.31)
Ok for people my age to force a boy/ girlfriend to have sex when they don't want to.*	4.49(1.08)	4.32 (1.15)
Ok for people child's age to have sex without protection with someone they know.*	4.53(1.06)	4.37 (1.12)
<b>Total Mean Score</b>	<b>22.5</b>	<b>21.5</b>
<b>Range</b>	<b>5-25</b>	<b>5-25</b>

\*Item has been reverse-coded so that higher scores represent high sexual risk-taking intentions

## 21. CONCLUSION

This report presented survey data at 12 months follow-up interviews from 1219 adolescent girls who completed the interviews. The report provides a detailed understanding of participants in the following key areas: demographics, community background and satisfaction, family background and functioning, social support, educational outcomes and plans, poverty and asset ownership, financial saving habits, physical and mental health, menstruation practices, gender roles/norms, electronic

victimization, and youth sexual risk behaviors. These data illustrate how adolescent girls currently view themselves, their families, their communities, and their futures, 12 months post intervention initiation.

## 22. APPENDIX: EXTENDED TABLES

**Table A.1. Distance to Community Resources (N=1219)**

Community Resource	Near (about 0-2 kms) <i>n (%)</i>	Far (over 2 kms) <i>n (%)</i>	Not Applicable <i>n (%)</i>
Secondary School	669 (54.9)	453 (37.2)	97 (7.9)
Medical Institution	987 (81.0)	232 (19.0)	0 (0.0)
Bank	118 (9.7)	677 (55.5)	424 (34.8)
Clean Water	1042 (85.5)	110 (9.0)	67 (5.5)

**Table A.2. Community Satisfaction (N=1219)**

Statement	Always <i>n (%)</i>	Most of the time <i>n (%)</i>	About half of the time <i>n (%)</i>	Sometimes <i>n (%)</i>	Never <i>n (%)</i>
I like where I live	618 (50.7)	353 (28.9)	89 (7.3)	143 (11.7)	16 (1.3)
I wish I lived in a different house*	718 (58.9)	285 (23.4)	40 (3.3)	85 (6.9)	91 (7.5)
I wish I lived in another village*	665 (54.6)	312 (25.6)	49 (4.0)	116 (9.5)	77 (6.3)
I like my village	564 (46.3)	334 (27.4)	106 (8.7)	180 (14.8)	35 (2.9)
I like my neighbors	511 (41.9)	326 (26.7)	126 (10.3)	227 (18.6)	29 (2.4)
This village is filled with not nice people*	461 (37.8)	489 (40.1)	66 (5.4)	107 (8.8)	96 (7.9)
My family's house is nice	501 (41.1)	215 (17.6)	114 (9.4)	300 (24.6)	89 (7.3)
There are a lot of fun things to do where I live	439 (36.0)	249 (20.4)	112 (9.2)	361 (29.6)	58 (4.8)

\*Item was reverse coded so that higher scores reflect higher level of community satisfaction.

**Table A.3. Family Cohesion (N=1219)**

Statement	Always <i>n (%)</i>	Most of the time <i>n (%)</i>	About half the time <i>n (%)</i>	Sometimes <i>n (%)</i>	Never <i>n (%)</i>
Do your family members ask each other for help before asking non-family members for help?	564 (46.3)	270 (22.1)	77 (6.3)	246 (20.2)	62 (5.1)
Do your family members like to spend free time with each other?	570 (46.8)	314 (25.8)	128 (10.5)	176 (14.4)	31 (2.5)
Do your family members feel close to each other?	536 (44.0)	272 (22.3)	133 (10.9)	240 (19.7)	38 (3.1)



Statement	Always <i>n (%)</i>	Most of the time <i>n (%)</i>	About half the time <i>n (%)</i>	Sometimes <i>n (%)</i>	Never <i>n (%)</i>
Are you available when others in the family want to talk to you?	425 (34.9)	297 (24.4)	118 (9.7)	330 (27.1)	49 (4.0)
Do you listen to what other family members have to say, even when you disagree?	488 (40.0)	281 (23.0)	106 (8.7)	266 (21.8)	78 (6.4)
Do you do things together as a family?	561 (46.0)	295 (24.2)	136 (11.2)	200 (16.4)	27 (2.2)
Do you think that your family member loves you?	559 (49.1)	300 (24.6)	117 (9.6)	188 (15.4)	15 (1.2)

**Table A.4. Family Care and Relationships (N=1219)**

Statement	Always <i>n (%)</i>	Most of the time <i>n (%)</i>	About half the time <i>n (%)</i>	Sometimes <i>n (%)</i>	Never <i>n (%)</i>
Do your parent(s)/guardians take time to listen to you when you want to talk to them?	529 (43.4)	306 (25.1)	106 (8.7)	254 (20.8)	24 (2)
If you have a problem, how often do your parents/guardians offer to help?	523 (42.9)	314 (25.8)	140 (11.5)	216 (17.7)	26 (2.1)
Over the past 3 months, how often have you gone without enough food to eat? *	1052 (86.3)	102 (8.4)	14 (1.2)	25 (2.1)	26 (2.1)
Over the past 3 months, how often have you gone without enough clean water? *	939 (77.0)	175 (14.4)	22 (1.8)	46 (3.8)	37 (3.0)
Over the past 3 months, how often have you gone without medicine? *	903 (74.1)	222 (18.2)	27 (2.2)	47 (3.9)	20 (1.6)
Over the past 3 months, how often have you gone without school expenses for fees, uniforms or books? * <sup>‡</sup>	636 (52.2)	349 (28.6)	32 (2.6)	84 (6.9)	21 (1.7)

\*Item was reverse coded so that higher scores reflect higher level of family care and relationships.

<sup>‡</sup>Item was skipped for those respondents who dropped out of school

**Table A.5. Frequency of Conversation with Caregiver (N=1219)**

Statement	Always <i>n (%)</i>	Most of the time <i>n (%)</i>	About half the time <i>n (%)</i>	Sometimes <i>n (%)</i>	Never <i>n (%)</i>
Alcohol/Drinking	83 (6.8)	52 (4.3)	14 (1.1)	153 (12.6)	917 (75.2)
Cigarette Smoking	68 (5.6)	52 (4.3)	20 (1.6)	89 (7.3)	990 (81.2)
HIV or AIDS	140 (11.5)	124 (10.2)	63 (5.2)	285 (23.4)	607 (49.8)
Sexually transmitted diseases (STDs)	141 (11.6)	118 (9.7)	64 (5.2)	292 (23.9)	604 (49.6)

Statement	Always <i>n</i> (%)	Most of the time <i>n</i> (%)	About half the time <i>n</i> (%)	Sometimes <i>n</i> (%)	Never <i>n</i> (%)
Having sex	127 (10.4)	116 (9.5)	61 (5.0)	199 (16.3)	716 (58.7)
Bad friends	161 (13.2)	160 (13.1)	59 (4.8)	269 (22.1)	570 (46.8)
Your education <sup>†</sup>	521 (42.7)	279 (22.9)	99 (8.1)	177 (14.5)	46 (3.8)
Puberty	228 (18.7)	246 (20.2)	129 (10.6)	401 (32.9)	215 (17.6)
What you will do to earn a living in the future?	426 (34.9)	339 (27.8)	143 (11.7)	267 (21.9)	44 (3.6)
How to avoid getting pregnant?	388 (31.8)	275 (22.6)	146 (12.0)	236 (19.4)	174 (14.3)
Marriage	96 (7.9)	61 (5.0)	25 (2.1)	174 (14.2)	863 (70.8)

<sup>†</sup>Item was skipped for those respondents who dropped out of school (n=97)

**Table A.6. Level of Comfort Communication with Caregiver (N=1219)**

Statement	Very Comfortable <i>n</i> (%)	Somewhat Comfortable <i>n</i> (%)	Somewhat Uncomfortable <i>n</i> (%)	Very Uncomfortable <i>n</i> (%)
Alcohol/Drinking	125 (10.2)	79 (6.5)	306 (25.1)	709 (58.2)
Cigarette Smoking	108 (8.9)	73 (6.0)	281 (23.0)	757 (62.1)
HIV or AIDS	193 (15.8)	196 (16.1)	274 (22.5)	556 (45.6)
Sexually transmitted diseases	164 (13.4)	186 (15.3)	317 (26.0)	552 (45.3)
Having sex	116 (9.5)	108 (8.9)	351 (28.8)	644 (52.8)
Bad friends	160 (13.1)	191 (15.7)	372 (30.5)	496 (40.7)
Your education <sup>†</sup>	978 (80.2)	104 (8.5)	18 (1.5)	22 (1.9)
Puberty	364 (29.8)	485 (39.8)	195 (16.0)	175 (14.4)
What you will do to earn a living in the future?	965 (79.1)	212 (17.4)	21 (1.7)	21 (1.7)
How to avoid getting pregnant?	660 (54.1)	297 (24.4)	110 (9.0)	152 (12.5)
Marriage	144 (11.8)	189 (15.5)	272 (22.3)	614 (50.4)

<sup>†</sup>Item was skipped for those respondents who dropped out of school (n=97)

**Table A.7. Perceived Caregiver Support (N=1219)**

Statement	Always <i>n</i> (%)	Most of the time <i>n</i> (%)	About half the time <i>n</i> (%)	Sometimes <i>n</i> (%)	Never <i>n</i> (%)
Can you count on your current parent(s)/ guardian(s) to help you out, if you have a problem?	648 (53.2)	318 (26.1)	80 (6.6)	164 (13.4)	9 (0.7)
Do your current parent(s)/ guardian(s) say that you shouldn't argue with adults? *	75 (6.2)	173 (14.2)	118 (9.7)	341 (27.9)	512 (42.0)

Statement	Always <i>n (%)</i>	Most of the time <i>n (%)</i>	About half the time <i>n (%)</i>	Sometimes <i>n (%)</i>	Never <i>n (%)</i>
Do your current parent(s)/ guardian(s) keep challenging you to do your best in whatever you do?	638 (52.3)	348 (28.6)	110 (9)	113 (9.3)	10 (0.8)
Do your current parent(s)/ guardian(s) say that you should give in on arguments rather than make people angry? *	181 (14.9)	294 (24.1)	124 (10.2)	253 (20.7)	367 (30.1)
Do your current parent(s)/ guardian(s) keep challenging you to think independently?	179 (14.7)	136 (11.2)	86 (7)	396 (32.5)	422 (34.6)
Do your current parent(s)/ guardian(s) show interest in your work (whatever you do)?	599 (49.1)	308 (25.3)	115 (9.4)	178 (14.6)	19 (1.6)
Do your current parent(s)/guardian(s) show interest in your homework (for children who are in school)?	509 (45.4)	247 (22)	112 (10)	220 (19.6)	34 (3.0)
Do your current parent(s)/guardian(s) tell you that their ideas are correct and that you should not question them? *	530 (43.5)	367 (30.1)	66 (5.4)	109 (8.9)	147 (12.1)
When your current parent(s)/ guardian(s) wants you to do something, do they explain why?	369 (30.3)	268 (22)	141 (11.6)	376 (30.8)	65 (5.3)
Whenever you argue with your current parent(s)/guardian(s), do they say things like, "You'll know better when you grow up"? *	563 (46.2)	325 (26.7)	70 (5.7)	126 (10.3)	135 (11.1)
Do your current parent(s)/ guardian(s) let you make your own plans for things you want to do?	118 (9.7)	95 (7.8)	64 (5.2)	416 (34.1)	526 (43.2)
Do your current parent(s)/ guardian(s) know who your friends are?	378 (31)	257 (21.1)	122 (10)	387 (31.8)	75 (6.1)
Do your current parent(s)/ guardian(s) act cold and unfriendly if you do something they don't like? *	140 (11.5)	287 (23.5)	108 (8.9)	271 (22.2)	413 (33.9)
Do your current parent(s)/ guardian(s) spend time just talking with you?	479 (39.3)	314 (25.8)	127 (10.4)	268 (22)	31 (2.5)

Statement	Always <i>n (%)</i>	Most of the time <i>n (%)</i>	About half the time <i>n (%)</i>	Sometimes <i>n (%)</i>	Never <i>n (%)</i>
When you make a mistake, do your current parent(s)/guardian(s) make you feel bad about it? *	290 (23.8)	406 (33.3)	91 (7.5)	185 (15.2)	247 (20.3)
Do your current parent(s)/guardian(s) do things for fun together as a family?	479 (39.3)	281 (23)	113 (9.3)	293 (24.0)	53 (4.3)
Do your current parent(s)/guardian(s) stop you from doing things with them when you do something they don't like? *	623 (51.1)	335 (27.5)	68 (5.6)	94 (7.7)	99 (8.1)

\*Item was reverse coded so that higher scores reflect higher perceived caregiver(s) support.

**Table A.8. Social Support and Relationships (N=1219)**

Statement	Always <i>n (%)</i>	Most of the time <i>n (%)</i>	About half the time <i>n (%)</i>	Sometimes <i>n (%)</i>	Never <i>n (%)</i>
<b>Parents /Guardian</b>					
Some youth have parent(s) or guardian(s) who don't really understand them.*	684 (56.1)	359 (29.5)	30 (2.5)	75 (6.1)	71 (5.8)
Some youth have parent(s) or guardian(s) who don't seem to want to hear about their children's problems.*	729 (59.8)	302 (24.8)	57 (4.7)	81 (6.6)	50 (4.1)
Some youth have parent(s) or guardian(s) who care about their feelings.	503 (41.3)	260 (21.3)	124 (10.2)	250 (20.5)	82 (6.7)
Some youth have parents or guardians who treat their children like a person who really matters.	533 (43.7)	356 (29.2)	121 (9.9)	176 (14.4)	33 (2.71)
Some youth have the current parent(s) or guardian(s) who like them the way they are.	503 (41.3)	323 (26.5)	123 (10.1)	222 (18.2)	48 (3.9)
Some youth have the current parent(s), or guardian(s) who don't act like what their children do is important.*	505 (41.4)	399 (32.7)	65 (5.3)	144 (11.8)	106 (8.7)
<b>Classmate</b>					
Some youth have classmates who like them the way they are.	325 (28.9)	215 (19.2)	90 (8.0)	380 (33.9)	112 (9.9)

Statement	Always <i>n (%)</i>	Most of the time <i>n (%)</i>	About half the time <i>n (%)</i>	Sometimes <i>n (%)</i>	Never <i>n (%)</i>
Some youth have classmates that they can become friends with.	355 (31.6)	317 (28.2)	135 (12)	289 (25.8)	26 (2.3)
Some youth have classmates who sometimes make fun of them.*	521 (46.4)	357 (31.8)	72 (6.4)	105 (9.4)	67 (5.9)
Some youth have classmates who pay attention to what they say.	324 (28.9)	309 (27.5)	134 (11.9)	312 (27.8)	43 (3.8)
Some youth don't get asked to play games with classmates very often.*	471 (41.9)	438 (39.0)	59 (5.26)	91 (8.1)	63 (5.6)
<b>Teachers</b>					
Some youths have a teacher who helps them if they are upset.	383 (34.1)	246 (21.9)	120 (10.7)	308 (27.5)	65 (5.8tab)
Some youths don't have a teacher who helps them do their best*	631 (56.2)	288 (25.7)	52 (4.3)	85 (7.6)	66 (5.9)
Some youths do have a teacher who cares about them.	365 (32.5)	297 (26.5)	139 (12.4)	264 (23.5)	57 (5.1)
Some youths don't have a teacher who is fair to them.*	591 (52.7)	324 (28.9)	65 (5.3)	85 (7.6)	57 (5.1)
Some youths don't have a teacher who cares if they feel bad.*	575 (51.2)	338 (30.1)	67 (6.0)	89 (7.9)	53 (4.7)
Some youths have a teacher who treats them like a person.	417 (37.2)	317 (28.2)	125 (11.1)	214 (19.1)	49 (4.4)
<b>Friends/peers</b>					
Some youth have a close friend who they can tell <i>problems</i> to.	432 (35.4)	285 (23.4)	122 (10.0)	343 (28.1)	37 (3.0)
Some youth have a close friend who really understands them.	337 (27.6)	285 (23.4)	120 (9.8)	365 (29.9)	112 (9.2)
Some youth have a close friend who they can talk to about things that bother them.	330 (27.1)	306 (25.1)	162 (13.3)	378 (31.0)	43 (3.5)
Some youth don't have a close friend who they like to spend time with.*	616 (50.5)	380 (31.2)	61 (5.0)	102 (8.4)	60 (4.9)
Some youth don't have a close friend who really listens to what they say.*	602 (49.4)	400 (32.8)	71 (5.8)	89 (7.3)	57 (4.7)
Some youth often spend holidays being alone.*	594 (48.7)	419 (34.4)	76 (6.2)	74 (6.1)	56 (4.6)

Statement	Always <i>n</i> (%)	Most of the time <i>n</i> (%)	About half the time <i>n</i> (%)	Sometimes <i>n</i> (%)	Never <i>n</i> (%)
Some youth don't have a close friend who cares about their feelings.*	607 (49.8)	384 (31.5)	62 (5.1)	113 (9.3)	53 (4.3)
Sometimes groups of youth hit people.*	830 (68.1)	227 (18.6)	45 (3.7)	70 (5.7)	47 (3.9)
Sometimes youth, even friends, are hurting other youth. Somewhere like at home, at school, out playing, or somewhere else. *	659 (54.1)	376 (30.8)	58 (4.8)	87 (7.1)	39 (3.2)
Sometimes youth, even friends, try to hurt other youth' private parts on purpose by hitting or kicking them there. *	835 (68.5)	218 (17.9)	47 (3.9)	86 (7.0)	33 (2.7)
Sometimes youth, even friends, pick on other youth by chasing or grabbing or by making them do something they don't want to do.*	773 (63.4)	278 (22.8)	55 (4.5)	77 (6.3)	36 (2.9)
Sometimes youth are scared or feel really bad because other youths are calling them names, saying mean things to them, or saying they do not want them around.*	493 (40.4)	391 (32.1)	96 (7.9)	132 (70.8)	107 (8.8)
Sometimes, even boyfriend or girlfriend slap or hit their romantic partner.*	882(72.3)	210 (17.2)	29 (2.4)	65 (5.3)	33 (2.7)

\*Item has been reverse-coded, so that higher scores represent higher social support.

**Table A.9a. School Satisfaction (N=1122)<sup>†</sup>**

Variable	Almost Always <i>n</i> (%)	Often <i>n</i> (%)	Sometimes <i>n</i> (%)	Almost Never <i>n</i> (%)	Never <i>n</i> (%)
I look forward to going to school each day.	800 (71.3)	287 (25.6)	31 (2.8)	0 (0.0)	(0.4)
I like being in school.	742 (66.1)	322 (28.7)	50 (4.5)	6 (0.5)	2 (0.2)
School is interesting.	645 (57.5)	320 (28.5)	151 (13.5)	4 (0.4)	2 (0.2)
I wish I didn't have to go to school.*	906 (80.8)	64 (5.7)	100 (8.9)	25 (2.2)	27 (2.4)
There are many things about school I don't like.*	421 (37.5)	115 (10.3)	490 (43.7)	51 (4.5)	45 (4.0)
I enjoy school activities.	504 (44.9)	348 (31.0)	248 (22.1)	8 (0.7)	14 (1.2)
I learn a lot at school.	613 (54.6)	385 (34.3)	109 (9.7)	8 (0.7)	7 (0.6)
I feel bad at school.*	878 (78.3)	77 (6.9)	123 (10.9)	27 (2.4)	17 (1.5)

\* Item has been reverse-coded, so that higher scores represent higher school satisfaction.

<sup>†</sup>N=97 participants not included in this analysis because they dropped out school

**Table A.9b Pediatric Quality of Life (N=1122)<sup>†</sup>**

Variable	Almost Always <i>n (%)</i>	Often <i>n (%)</i>	Sometimes <i>n (%)</i>	Almost Never <i>n (%)</i>	Never <i>n (%)</i>
It is hard for me to pay attention in class.*	693 (61.8)	101 (9.0)	181 (16.1)	76 (6.8)	71 (6.3)
I am forgetful.*	403 (35.9)	99 (8.1)	546 (48.7)	43 (3.8)	31 (2.8)
I miss school because of poor physical health condition.*	334 (29.8)	54 (4.8)	586 (52.2)	80 (7.1)	68 (6.1)
I miss school to go to the doctor, clinics or hospital.*	320 (28.5)	61 (5.4)	561 (50.0)	99 (8.8)	81 (7.2)

\* Item has been reverse-coded, so that higher scores represent higher quality of life.

<sup>†</sup>N=97 participants not included in this analysis because they dropped out school

**Table A.10. Importance of Saving for a Specific Goal (N=1219)**

Variable	Extremely Important <i>n (%)</i>	Very Important <i>n (%)</i>	Somewhat Important <i>n (%)</i>	Not Very Important <i>n (%)</i>	Not Important at all <i>n (%)</i>
Saving money for a family business is:	788 (64.6)	388 (31.8)	28 (2.3)	12 (1.0)	3 (0.3)
Saving money for one's personal educational opportunities is:	716 (58.7)	452 (37.1)	34 (2.8)	13 (1.1)	4 (0.3)
Saving money for family use is:	518 (42.5)	463 (37.9)	176 (14.4)	53 (4.4)	9 (0.7)
Saving money to buy an animal is:	670 (55.0)	455 (37.3)	62 (5.1)	27 (2.2)	5 (0.4)
Saving money to move into one's own home is:	514 (42.2)	341 (28.0)	189 (15.5)	120 (9.8)	55 (4.5)

**Table A.11. Confidence in Ability to Save (N=1219)**

Variable	Extremely Confident <i>n (%)</i>	Very Confident <i>n (%)</i>	Somewhat Confident <i>n (%)</i>	Not Very Confident <i>n (%)</i>	Not Confident at all <i>n (%)</i>
Save money for a family business	610 (50.0)	198 (16.2)	275 (22.6)	74 (6.1)	62 (5.1)
Save money for personal educational opportunities	667 (54.7)	257 (21.1)	192 (15.8)	66 (5.4)	37 (3.0)
Save money for family use	456 (37.41)	250 (20.5)	345 (28.3)	104 (8.5)	64 (5.3)
Save money to buy an animal such as a goat, pig, or cow	673 (55.2)	261 (21.4)	186 (15.3)	68 (5.6)	31 (2.5)

Variable	Extremely Confident <i>n</i> (%)	Very Confident <i>n</i> (%)	Somewhat Confident <i>n</i> (%)	Not Very Confident <i>n</i> (%)	Not Confident at all <i>n</i> (%)
Save money to move into one's own home	408 (33.5)	166 (13.6)	313 (25.7)	134 (11.0)	198 (16.2)

**Table A.12. Tennessee Self-Concept Scale (TSCS) (N=1219)**

Statement	Always True <i>n</i> (%)	Usually True <i>n</i> (%)	Sometimes True/ Sometimes False <i>n</i> (%)	Usually False <i>n</i> (%)	Always False <i>n</i> (%)
I like the way I look.	943 (77.4)	143 (11.7)	79 (6.5)	32 (2.6)	22 (1.8)
I have a happy family.	809 (66.4)	247 (20.3)	93 (7.6)	45 (3.7)	25 (2.1)
I don't sleep well.*	630 (51.7)	176 (14.4)	149 (12.2)	159 (13.0)	105 (8.6)
It's hard for me to do what's right.*	596 (48.9)	190 (15.6)	151 (12.4)	153 (12.6)	129 (10.6)
I know as much as the other children in my class.	595 (53.0)	267 (23.8)	146 (13.0)	71 (6.3)	43 (3.8)
I'm happy with who I am.	879 (72.1)	199 (16.3)	79 (6.5)	39 (3.2)	23 (1.9)
I don't feel as well as I should.*	465 (38.2)	200 (16.4)	194 (15.9)	232 (19.0)	128 (10.5)
It's hard for me to be around other people.*	601 (49.3)	183 (15.0)	162 (13.3)	166 (13.6)	107 (8.8)
I don't do well in school, even when I try.*	620 (55.3)	191 (17.0)	146 (13.0)	120 (10.7)	45 (4.0)
I really care about my family.	854 (70.1)	195 (16.0)	92 (7.6)	46 (3.8)	32 (2.6)
I'm as nice as I should be.	804 (65.9)	224 (18.4)	97 (7.9)	54 (4.4)	40 (3.3)
I don't feel happy when I'm with other people.*	635 (52.1)	219 (17.9)	153 (12.6)	144 (11.8)	68 (5.6)
It's hard for someone to be my friend.*	618 (50.7)	199 (16.3)	148 (12.1)	152 (12.5)	102 (8.4)
My family doesn't trust me.*	820 (67.3)	192 (15.8)	89 (7.3)	78 (6.4)	40 (3.3)
My teacher thinks I am smart.	456 (40.6)	290 (25.9)	206 (18.4)	75 (6.7)	95 (8.5)
I get along well with other people.	834 (68.4)	220 (18.1)	99 (8.1)	45 (3.7)	21 (1.7)
I hate myself.*	778 (63.8)	174 (14.3)	112 (9.2)	111 (9.1)	44 (3.6)
I'm not the person I would like to be.*	600 (49.2)	209 (17.2)	174 (14.3)	138 (11.3)	98 (8.0)
I'm an honest person.	828 (67.9)	217 (17.8)	108 (8.7)	43 (3.5)	23 (1.9)
I feel good most of the time.	809 (66.4)	239 (19.6)	99 (8.1)	45 (3.7)	27 (2.2)

\*Item has been reverse-coded, so that higher scores represent higher level of self-concept.



**Table A.13. Beck's Hopelessness Scale (BHS) (N=1219)**

Statement	True <i>n (%)</i>	False <i>n (%)</i>
I look forward to the future with hope and enthusiasm.*	1169 (95.9)	50 (4.1)
I might as well give up because there is nothing I can do about making things better for myself.	255 (20.9)	964 (79.1)
When things are going badly. I am helped by knowing that they cannot stay that way forever.*	919 (75.4)	300 (24.6)
I can't imagine what my life will be like in ten years' time.	800 (65.6)	419 (34.4)
I have enough time to accomplish the things I want to do.*	1067 (87.5)	152 (12.5)
In the future, I expect to succeed in what concerns me most.*	1164 (95.5)	55 (4.5)
My future seems dark.	122 (10.0)	1097 (90.0)
I happen to be particularly lucky, and I expect to get more good things in life than the average person.*	1152 (94.5)	67 (5.5)
I just can't get breaks, and there is no reason I will in the future.	245 (20.1)	974 (79.9)
My past experiences have prepared me well for the future.*	1085 (89.0)	134 (11.0)
All I can see ahead is unpleasant rather than pleasant.	99 (8.1)	1120 (91.9)
I don't expect to get what I really want.	157 (12.9)	1062 (87.1)
When I look ahead to the future, I expect that I will be happier than I am now.*	1125 (92.3)	94 (7.7)
Things just won't work out the way I want them to.	307 (25.2)	912 (74.8)
I have great faith in the future.*	1108 (90.9)	111 (9.1)
I never get what I want, so it's foolish to want anything.	290 (23.8)	929 (76.2)
It's very unlikely that I will get any real satisfaction in the future.	296 (24.3)	923 (75.7)
The future seems vague and uncertain to me.	186 (15.3)	1033 (84.7)
I can look forward to more good times than bad times.*	1077 (88.4)	142 (11.6)
There is no use in really trying to get anything I want because I probably won't get it.*	963 (79.0)	256 (21.0)

\*Item has been reverse-coded, so that higher scores represent higher level of hopelessness and pessimistic attitudes.

**Table A.14 Rosenberg Self-Esteem Scale (RSES) (N=1219)**

Variable	Strongly Agree <i>n (%)</i>	Agree <i>n (%)</i>	Disagree <i>n (%)</i>	Strongly Disagree <i>n (%)</i>	Don't Know <i>n (%)</i>	No response <i>n (%)</i>
I feel that I am equal to other people.	622 (51.0)	293 (24.0)	149 (12.2)	122 (10.0)	32 (2.6)	1 (0.1)
I feel that I have a number of good qualities.	513 (42.1)	398 (32.7)	157 (12.9)	133 (10.9)	17 (1.4)	1 (0.1)
I feel that I am a failure.*	52 (4.4)	85 (7.1)	488 (40.9)	569 (47.6)	19 (1.6)	6 (0.5)
I am able to do things as well as most other people.	722 (59.2)	405 (33.2)	30 (2.5)	53 (4.4)	9 (0.7)	0 (0.0)
I feel I have much to be proud of.	676 (55.5)	403 (33.1)	68 (5.6)	59 (4.8)	11 (0.9)	2 (0.2)

Variable	Strongly Agree <i>n</i> (%)	Agree <i>n</i> (%)	Disagree <i>n</i> (%)	Strongly Disagree <i>n</i> (%)	Don't Know <i>n</i> (%)	No response <i>n</i> (%)
I take a positive attitude toward myself.	753 (61.8)	384 (31.5)	39 (3.2)	36 (3.0)	7 (0.6)	0 (0.0)
I am satisfied with myself.	745 (61.1)	396 (32.5)	40 (3.3)	31 (2.5)	7 (0.6)	0 (0.0)
I have a lot of respect for myself.	801 (65.7)	357 (29.3)	30 (2.5)	19 (1.6)	10 (0.8)	2 (0.2)
I feel that I am a useful person.	857 (70.3)	320 (26.3)	15 (1.2)	14 (1.2)	12 (0.9)	1 (0.1)
I think that I am a person who has value	841 (68.9)	328 (26.9)	16 (1.3)	17 (1.4)	17 (1.4)	0 (0.0)

\*Item has been reverse-coded, so that higher scores represent higher level of self-reported self-esteem.

**Table A.15. Beck's Depression Inventory (BDI) (N=1219)**

Variable	Frequency <i>n</i> (%)
I do not feel sad.	693 (56.8)
I feel sad.	249 (20.4)
I am sad all the time, and I can't snap out of it.	142 (11.7)
I am so sad and unhappy that I can't stand it.	135 (11.1)
I am not particularly discouraged about the future.	927 (76.1)
I feel discouraged about the future.	159 (13.0)
I feel I have nothing to look forward to.	75 (6.2)
I feel the future is hopeless and that things cannot improve.	58 (4.8)
I do not feel like a failure.	984 (77.8)
I feel I have failed more than the average person.	134 (10.9)
As I look back on my life, all I can see is a lot of failures.	84 (6.9)
I feel I am a complete failure as a person.	53 (4.8)
I get as much satisfaction out of things as I used to.	769 (63.1)
I don't enjoy things the way I used to.	230 (18.9)
I don't get real satisfaction out of anything anymore.	118 (9.7)
I am dissatisfied or bored with everything.	102 (8.4)
I don't feel particularly guilty	548 (44.9)
I feel guilty a good part of the time	464 (38.1)
I feel quite guilty most of the time	149 (12.2)
I feel guilty all of the time.	58 (4.8)
I don't feel I am being punished.	720 (59.1)
I feel I may be punished.	225 (18.5)
I expect to be punished.	197 (16.2)

Variable	Frequency <i>n (%)</i>
I feel I am being punished.	77 (6.3)
I don't feel disappointed in myself.	951 (78.1)
I am disappointed in myself.	115 (9.4)
I am disgusted with myself.	85 (6.9)
I hate myself.	68 (5.6)
I don't feel I am any worse than anybody else.	404 (33.1)
I am critical of myself for my weaknesses or mistakes.	245 (20.1)
I blame myself all the time for my faults.	362 (29.7)
I blame myself for everything bad that happens.	208 (17.1)
I don't have any thoughts of killing myself.	1051 (86.2)
I have thoughts of killing myself, but I would not carry them out.	85 (7.0)
I would like to kill myself.	61 (4.0)
I would kill myself if I had the chance.	22 (1.8)
I don't cry any more than usual.	714 (58.6)
I cry more now than I used to.	72 (5.9)
I cry all the time now.	77 (6.3)
I used to be able to cry, but now I can't cry even though I want to.	356 (29.2)
I am no more irritated by things than I ever was.	631 (51.8)
I am slightly more irritated now than usual.	143 (11.7)
I am quite annoyed or irritated a good deal of the time.	383 (31.4)
I feel irritated all the time.	62 (5.1)
I have not lost interest in other people.	586 (48.1)
I am less interested in other people than I used to be.	330 (27.1)
I have lost most of my interest in other people.	114 (9.3)
I have lost all of my interest in other people.	189 (15.5)
I make decisions about as well as I ever could.	760 (62.4)
I put off making decisions more than I used to.	164 (13.4)
I have greater difficulty in making decisions more than I used to.	184 (15.1)
I can't make decisions at all anymore.	111 (9.1)
I don't feel that I look any worse than I used to.	956 (78.4)
I am worried that I am looking old or unattractive.	72 (5.9)
I feel there are permanent changes in my appearance that make me look unattractive	161 (13.2)
I believe that I look ugly.	30 (2.5)
I can work about as well as before.	829 (68.0)

Variable	Frequency <i>n (%)</i>
It takes an extra effort to get started at doing something.	138 (11.3)
I have to push myself very hard to do anything.	217 (17.8)
I can't do any work at all.	35 (2.9)
I can sleep as well as usual.	
I don't sleep as well as I used to.	
I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.	768 (63.0)
I wake up several hours earlier than I used to and cannot get back to sleep.	83 (6.8)
	163 (13.4)
	205 (16.8)
I don't get more tired than usual.	785 (64.4)
I get tired more easily than I used to.	158 (12.9)
I get tired from doing almost anything.	224 (18.4)
I am too tired to do anything.	52 (4.3)
My appetite is no worse than usual.	859 (70.5)
My appetite is not as good as it used to be.	232 (19.0)
My appetite is much worse now.	79 (6.5)
I have no appetite at all anymore.	49 (4.0)
I haven't lost much weight, if any, lately.	886 (72.7)
I have lost more than five pounds.	222 (18.2)
I have lost more than ten pounds.	67 (5.5)
I have lost more than fifteen pounds.	44 (3.6)
I am no more worried about my health than usual.	832 (68.3)
I am worried about physical problems like aches, pains, upset stomach, or constipation.	182 (14.9)
I am very worried about physical problems and it's hard to think of much else.	110 (9.0)
I am so worried about the physical problems that I cannot think of anything else.	95 (7.8)
I have not noticed any recent change in my interest in sex.	207 (17.0)
I am less interested in sex than I used to be.	60 (4.9)
I have almost no interest in sex.	555 (45.5)
I have lost interest in sex completely.	397 (32.5)

**Table A.16. HIV/AIDS Prevention Attitudes (N=1219)**

Variable	Agree a great deal <i>n (%)</i>	Agree a lot <i>n (%)</i>	Moderately agree <i>n (%)</i>	Agree a little <i>n (%)</i>	Not at all agree <i>n (%)</i>
As a teenager, I think AIDS is a threat to my health	1033 (84.7)	76 (6.2)	27 (2.2)	16 (1.3)	67 (5.5)
I think all people my age who have sex should use condoms	602 (49.4)	211 (17.3)	76 (6.2)	63 (5.2)	267 (21.9)
I think the best way to avoid getting AIDS is not to have sex	934 (76.6)	119 (9.8)	40 (3.3)	28 (2.3)	98 (8.0)
Even if you know your partner very well, you should use condoms	636 (52.2)	171 (14.0)	154 (12.6)	63 (5.2)	195 (16.0)
I think it is very important to use condoms every time one has sex	632 (51.8)	131 (10.7)	142 (11.6)	88 (7.2)	226 (18.5)

**Table A.17. HIV/AIDS Prevention (N=1219)**

Statement	True <i>n (%)</i>	False <i>n (%)</i>	Not Sure <i>n (%)</i>
Not having intercourse with anyone	1089 (89.3)	91 (7.5)	39 (3.2)
Using condoms	1070 (87.9)	111 (9.1)	38 (3.1)
Having sexual intercourse with only one partner, who is not infected with HIV/AIDS	1010 (82.8)	146 (12.0)	63 (5.2)

**Table A.18. Gender Roles/Norms (N=1219)**

Statement	Yes <i>n (%)</i>	No <i>n (%)</i>	Don't Know <i>n (%)</i>
Swearing is worse for a girl than for a boy.	454 (37.2)	593 (48.6)	172 (14.1)
On average, girls are as smart as boys.*	304 (24.9)	848 (69.6)	67 (5.5)
More encouragement in a family should be given to sons than daughters to go to college.	529 (43.4)	652 (53.5)	38 (3.1)
In general, the father should have greater authority than the mother in making family decisions.	1053 (86.4)	158 (12.9)	8 (0.7)
It is more important for boys than girls to do well in school.	374 (30.7)	800 (65.6)	45 (3.7)
Boys are better in school than girls.	524 (43.0)	647 (53.1)	48 (3.9)
It is all right for a girl to propose to a boy.*	910 (74.6)	164 (13.4)	145 (11.9)
Girls should be more concerned with becoming good wives and mothers, than desiring a professional or business career.	891 (73.1)	305 (25.0)	23 (1.9)
Girls should have the same freedoms as boys.*	287 (23.5)	920 (75.5)	12 (1.0)
It's alright for girls to carry condoms.*	793 (65.0)	285 (23.4)	141 (11.6)

\*Item was reverse coded so that higher scores reflect more traditional gender norms.

**Table A.19 Gender Relation Scale (N=1219)**

Statement	Agree <i>n (%)</i>	Disagree <i>n (%)</i>
It is a female's responsibility to avoid getting pregnant.	888 (72.8)	331 (27.2)
A male should have the final word about decisions in his home.	850 (69.7)	369 (30.1)
A female should tolerate violence to keep the family together.	481 (39.5)	738 (60.5)
It is OK for a male to hit his wife if she will not have sex with him.	134 (11)	1085 (89)
Males and females should share household chores.*	965 (79.2)	254 (20.8)

\*Item was reverse coded so that higher scores reflect higher negative gender relations beliefs.

**Table A.20 Sexual Communication Scale (N=57)**

Statement	Always <i>n (%)</i>	Most of the time <i>n (%)</i>	About half the time <i>n (%)</i>	Sometimes <i>n (%)</i>	Never <i>n (%)</i>
Can you communicate with your romantic partner/friend about when to have sexual intercourse?	6 (10.5)	6 (10.5)	0 (0.0)	21 (36.8)	24 (42.1)
Can your romantic partner/friend communicate with you about when to have sexual intercourse?	4 (7.0)	9 (15.8)	4 (7.0)	21 (36.8)	19 (33.3)
Does your romantic partner/friend take into account your opinion regarding your sexual desires?	7 (12.3)	9 (15.8)	2 (3.5)	20 (35.1)	19 (33.3)
Do you feel comfortable talking with your romantic partner/friend about your sexual relationship?	4 (7.0)	8 (14.0)	3 (5.3)	19 (33.3)	23 (40.3)
Can you discuss condom use with your romantic partner/friend?	11 (19.3)	14 (24.6)	6 (10.5)	15 (26.3)	11 (19.3)
Can you insist on condom use if your romantic partner /friend does not want to use one?	10 (17.5)	9 (15.8)	5 (8.8)	17 (29.8)	16 (28.1)
Can you stop and look for condoms when you're sexually aroused?	9 (15.8)	11 (19.3)	4 (7.0)	12 (21.0)	21 (36.8)
Can you insist on condom use every time even when you are under the influence of alcohol or drugs?	12 (21.0)	7 (12.3)	2 (3.5)	12 (21.0)	24 (42.1)
Can you insist on condom use every time when your romantic partner/friend is under the influence of alcohol or drugs?	12 (21.0)	14 (24.6)	1 (1.7)	10 (17.5)	20 (35.1)
Can you put a condom on your romantic partner/friend without spoiling the mood?	9 (15.8)	4 (7.0)	4 (7.0)	12 (21.1)	28 (49.1)

**Table A.21 Sexual Risk-Taking Intentions (N=1219)**

Statement	Always <i>n (%)</i>	Most of the time <i>n (%)</i>	About half the time <i>n (%)</i>	Sometimes <i>n (%)</i>	Never <i>n (%)</i>
Ok for people my age to have sex with someone they've just met.	83 (6.8)	75 (6.1)	19 (1.6)	154 (12.6)	888 (72.8)
Ok for people my age to have sex with someone they love.	72 (5.9)	83 (6.8)	29 (2.4)	208 (17.1)	827 (67.8)
Ok for people my age to have sex before marriage.	108 (8.9)	101 (8.3)	54 (4.4)	257 (21.1)	699 (57.3)
Ok for people my age to force a boy/ girlfriend to have sex when they don't want to.	67 (5.5)	81 (6.6)	37 (3.0)	233 (19.1)	801 (65.7)
Ok for people child's age to have sex without protection with someone they know.	59 (4.8)	77 (6.3)	49 (4.0)	192 (15.7)	842 (69.1)

## 23. REFERENCES

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