



RAY UNITED FC 2018 SURVEY DATA REPORT

Introduction

The northern region of Uganda is recovering from decades of armed conflict that destroyed local infrastructure, caused massive displacement, and traumatized the mental health of the community. The district of Oyam in northern Uganda has demonstrated resilience as they have overcome the resulting impacts, but there is still a long way to go. The under-5 child mortality rate in Oyam is nearly 3 times higher than all of Uganda. Less than 1 percent of children enrolled in primary school complete secondary school¹.

Ray United FC (RUFC) is an organization that helps promote health and educational opportunities for youth in Uganda. Ray Wipfli founded RUFC after he first visited in 2014, and the Youth Academy has expanded from its roots in the District of Mpigi in Central Uganda, to the District of Oyam in Northern Uganda. The Academy provides the opportunity for kids to participate in a fun-filled week-long football camp, but the goal of the program focuses on empowerment activities including health education, promotion of citizenship, and leadership development.

The health risks faced by individuals living in Oyam have been relatively well-documented, but it is important to document the gaps in knowledge and awareness in order to inform more effective, highly contextualized education-based health programs and interventions. Through collaboration with Global Health Network Uganda (GHNU), Youth Rising's Youth at Work Initiative (YAWI), and Football for Good, RUFC hosted its fourth annual camp and collected data necessary to improve upon future programs.

Methods

Study Design and Setting

A cross-sectional study was conducted in June 2018 among primary and secondary school students from 19 schools in Oyam district. Schools from all four town councils in Oyam were included. Oyam district is located in the northern region of Uganda and it covers an area of 2,191 square kilometers. The district has 112 primary and 13 secondary schools.

Sample Size Determination

The final size of the sample size for the study was 244 students (148 females and 96 males). We oversampled females due to our specific research interest in challenges faced by girls, particularly menstrual hygiene management.

Participant Recruitment

Participants for the study were drawn from 14 primary and five secondary schools in Oyam district that were participating in the annual youth camp hosted by the non-governmental organization Ray United FC. Each primary school sends 40 students and each secondary sends 80 students to participate in one day of camp for a total of 1,000 camp participants over a five-day period. Schools determine which students will participate using random selection, but ensure there are equal numbers of male and female participants. At the camp students receive public health education and soccer training. After obtaining permission from district authorities, the Internal Review Board (IRB) at the University of Southern California, and the Ugandan National Research Council, the research team approached the leadership of each school to seek for permission to conduct the study with the students attending camp. All students participating in camp were given a parental consent form to be signed prior to attending

¹ Global Health Network, Uganda: Research. <http://www.ghnu.org/research.html>

camp. Random sampling of campers took place on each day of camp. Research team members randomly approached individual students during the camp activities and asked if they would be willing to participate in the study. In addition to their parent’s prior consent, all students who agreed to be surveyed provided signed consent before starting the interview.

Quantitative Method

The interviews were conducted by the research team using a structured interviewer-administered questionnaire. The tool was developed by the investigators after a review of the literature about demographics and burden of disease in the region. The questionnaire was written in simple English and was translated into the local language (Lango). Although English is the language of instruction in the schools, translation to the local language ensured that the students fully understood the questions. The questionnaire was pretested among 200 students from other schools participating in RUFCA’s camp the year prior to the study. Necessary adjustments were made to the questions to ensure clarity. The items on the questionnaire were organized under the sections of demographic characteristics, self-esteem, and knowledge and beliefs. An additional section on feminine hygiene management was included for girls.

Data analysis

Data was immediately entered into a tablet by the research team member at the time the interview and the data were uploaded through a Wi-Fi network to a secure database using KoboCollect software. Data were analyzed using Excel and STATA version 10.

Ethical considerations

A standard explanation was given to each individual about the benefits of participating in the study before informed assent was sought. Parental consent was obtained prior to the children’s participation in camp. Individuals were given the opportunity to stop the survey at any time or opt out altogether. Confidentiality of all study participants was assured.

Results

Demographic characteristics

The socio-demographic profiles of the study groups are summarized in Table 1.

Table 1: Demographic Characteristics

Characteristics	Total (N= 244)	Female (N=148)	Male (N=96)
Education Level			
0 years	5 (2%)	4 (2.7%)	1 (1%)
1-3 years	15 (6.1%)	12 (8.1%)	3 (3.1%)
4-6 years	68 (27.6%)	40 (27%)	28 (29.2%)
7-10 years	87 (35.4%)	46 (31.1%)	41 (42.7%)
10+ years	69 (28%)	46 (31.1%)	23 (24%)
Parents’ Occupation			
Health Professional	7 (2.8%)	6 (4.1%)	1 (1%)
Business	25 (10.2%)	16 (10.8%)	9 (9.4%)
Agriculture	159 (64.6%)	95 (64.2%)	64 (66.7%)
Teacher	28 (11.4%)	20 (13.5%)	8 (8.3%)

Unemployed	0	0	0
Other	25 (10.2%)	11 (7.4%)	14 (14.6%)

Health characteristics

Of the students surveyed, one in five feel that they have not had enough to eat on most days. The majority (68.7%) use a borehole as their source of water at home, while others use piped/tap water or well water. Very few get their water from rivers or springs. Almost half of participants indicated that they have diarrhea at least once monthly. Of those who indicated they get their water from a well, 10% indicated that they have diarrhea a few times per week, while of those who get their water from a borehole, only 4.7% reported they have diarrhea a few times per week. While 70.3% of participants indicated that they had seen the doctor in the past year, 21.5% indicated they had never been to the doctor (see Table 2, Appendix).

Mental Health, Self-esteem & Resilience

Most participants described themselves as happy, while more than half described themselves as strong and smart. Very few described themselves as weak or sad. The majority strongly agreed with positive descriptive phrases, such as “I like myself” and “I work well with others”. However, only a little over half of students (61.3%) indicated that they feel like they can control what happens in their life (see Tables 3 & 4, Appendix).

One third of participants reported that violence is common in their community, but female respondents (43.9%) felt more strongly about this statement than the male respondents (25%). Less than half believe that violence is possible without physical touch, and this belief was shared almost equally amongst male and female participants. The majority indicated that they would respond to violence by trying to stop the fight and almost half indicated that they would run for help (see Table 5, Appendix).

The majority of respondents indicated witchcraft to be the cause for mental health issues. A little over half of participants know someone in their community suffering mental health issues. When asked to describe the type of mental health issues the individual was known to be suffering, the common misconception that mental health issues are related to witchcraft was evident. Many indicated that an individual was bewitched or possessed by evil spirits, resulting in poor behavior such as stealing or killing. Many also referenced drinking too much alcohol as a cause for mental illness. A few also referenced headaches or epilepsy as causes for mental illness, which indicates some confusion about the terminology. There were quite a number, however, who had a clear understanding of mental illness as demonstrated by neighbors who walk around naked, “talk things which we all don’t understand,” or “can be out of sense.” Aside from the few who referenced depression, none used specific mental terminology to refer to mental disorders (see Table 6, Appendix).

Non-Communicable Disease

The majority of participants believe daily intake of fruits and vegetables should be between three and five. 17.1% of participants live in homes with smokers, and the majority of those smokers consume tobacco daily. However, only 4 out of the 244 of participants (1.6%) indicated ever having tried any form of tobacco, including cigarettes, pipes, and chewing tobacco. When asked about smoking-related diseases, the majority (80.5%) indicated yellow teeth, closely followed by cancer (73.2%) and then heart attack (63.4%). Very few indicated stroke as a smoking-related disease.

Roughly one in ten of participants have tried alcohol before, but there remains some confusion about the consequences of drinking too much. The majority indicated liver disease and loss of memory to be a

consequence, but only a little over half indicated poor decision making, aggression, and vomiting. Very few indicated depression to be a consequence of drinking too much alcohol (see Table 7, Appendix).

Infectious Disease

Among both male and female respondents, there seemed to be some confusion about Hepatitis B. Over two thirds of respondents identified sex with an infected person as a risk for infection. 50% incorrectly identified kissing as a means of transmission while only about one third identified mother-to-unborn child. The majority of participants don't believe Hepatitis B to be treatable. Yellowing of skin and fever were identified as symptoms of Hepatitis B with the greatest frequency, but the total number of individuals who identified these symptoms made up less than half of participants (see Table 8, Appendix).

41.9% of participants indicated that that their families consume bush meat, the majority being wild birds and wild pigs. There were also a few mentions of wild rabbit, rats, antelope, and elephant. Only about half of participants indicated Ebola and rabies as diseases carried by animals (see Table 9, Appendix).

HIV & Family Planning

Almost all participants correctly identified sex with an infected individual as a means of HIV transmission, while a little under two thirds identified infected mother-to-unborn child. One in five participants incorrectly identified kissing as a mode of transmission. 82.1% of participants don't believe HIV to be treatable. Of those who believe HIV to be treatable, only 2 were able to use the medical term, antiretroviral drug (ARV), to describe the treatment. More than half would not be at all embarrassed to tell their families if they were to get HIV, but one third indicated that they would not be friends with a HIV positive individual (see Table 10, Appendix).

The majority understand that it is possible to contract a sexually transmitted infection while married and that using a condom is an effective way to prevent pregnancy. However, one in ten indicated that covering male genitalia with any barrier, such as a plastic bag, may serve as a contraceptive.

Most respondents desire between 3 and 5 children, and one in five respondents indicated that the best age to have the first child is between 19 and 22 years. Almost all female participants indicated that they would seek care at a local health clinic upon becoming pregnant, but only 13.8% of respondents believe it's safe to give birth in their community (see Table 11, Appendix).

Non-Communicable Disease

Almost one third of participants (29.3%) indicated they know someone in their community suffering from cancer, but few were able to identify the type of cancer. Only a little over one third of participants (35.4%) believe cancer to be treatable. Of those who believe cancer to be treatable, they indicated early diagnosis, surgical removal of cancer, and medication to all be acceptable treatments (see Table 12, Appendix).

Water, Hygiene and Sanitation (WASH) & Menstrual Hygiene Management

The majority of participants indicated they wash their hands before eating (94.7%) and after using the restroom (88.2%). However, only about half of the participants (56.1%) indicated that they wash their hands after touching an animal (see Table 13, Appendix).

Almost all participants (96.7%) indicated that the restrooms at their school are gender segregated. Understanding of menstruation varied significantly between male and female respondents. When asked

to indicate which words best describe a woman's menstrual period, 84.5% of females, compared to only half of male respondents, described it as *normal*. More male than female respondents described menstruation as *dirty* and *embarrassing*. Twice as many female participants described menstruation as *painful* and *healthy*. More males than females believe that boys have an advantage over girls because they don't menstruate. Almost half of participants believe it's difficult for girls to attend school during their period. More than half of the female participants indicated that their school does not provide them with sanitary pads during their period (see Table 13, Appendix).

Of the females 13 and older who participated in the additional menstrual hygiene survey, one in five indicated that they miss between 1 and 5 days of school monthly due to menstruation. One in four indicated that their menstrual period interferes with their ability to learn. Roughly one third (30.1%) indicated they know schoolmates who have dropped out of school due to an inability to manage their period. The majority of girls use disposable and reusable pads, but nearly one in ten girls uses cloth. Most girls feel comfortable approaching their mother (82.5%) or their teacher (39.8%) with questions about menstruation. One in four girls indicated there is no water for handwashing near the washrooms and half indicated there is a lack of toilet paper and waste bins for disposal of pads (see Table 14, Appendix).

Discussion

The general misunderstanding about how HIV is spread likely contributes to the high prevalence of stigma surrounding the disease in the community, particularly the misconception that it may be spread through kissing. Though the majority of participants understand HIV to be spread through sex, over one third are unaware that the disease may be spread from infected mother-to-unborn child, which could have dangerous consequences, particularly as this population approaches reproductive age. 82.1% of participants are unaware that there is a treatment for HIV and one third of students said they would not be friends with an HIV positive individual. These two factors may seriously impact health behaviors, as they may result in individuals being less likely to get tested and less likely to disclose their status to partners. For individuals already living with HIV, the stigma may lead to social and economic marginalization, in addition to going untreated.

Over 75% of participants indicated they do not want to have their first child before they are 23 years old and more than 9 out of 10 want no more than 5 children in their lifetime. The students' responses are promising, as it seems they have a good understanding of the importance of family planning, but unfortunately this data is not reflective of the reality of this population, as demonstrated by national statistics. The median age of first birth in Uganda is 18 and the average Ugandan woman has more than 6 children. There is a disconnect between the population's intentions and their outcomes. When asked if they believe it is safe to give birth in their community, the majority (86.2%) said no, which is unfortunately reflective of national statistics, where the lifetime risk of dying during childbirth in Uganda is 1 in every 47 women.

Despite the history of conflict and displacement in the district of Oyam, the participants demonstrate great resilience as the majority of them describe themselves as happy and strong. Nonetheless, over half of participants reported knowing someone in their community who suffers from a mental health illness. Mental illnesses identified by students in the community included depression, epilepsy, PTSD, and symptoms such as talking to oneself, walking around naked, throwing rocks, violence, and 'madness'. Despite the prevalence of mental illness in the community, there remains a relatively poor understanding of the causes for mental illness, as 7 out of 10 attribute it to witchcraft.

Though the majority of participants reported that they wash their hands before eating and after using the restroom, only half reported washing their hands after touching animals. Considering the limited knowledge on the transmission of animal-related diseases, where only half of students indicated Ebola and rabies as diseases carried by animals and 4 out of 10 families consume bush meat, this statistic is a cause for concern.

When surveyed about menstrual hygiene practices, roughly 1 in 10 girls reported using cloth. The poor absorbency of cloth can increase a woman's susceptibility to bacterial vaginosis, reproductive tract infections, and urinary tract infections. Additionally, half of the girls reported an absence of toilet paper and waste bins in or near the washrooms and 1 in 4 reported a lack of water for handwashing. Women with the ability to change their pads frequently and clean the area are less likely to report bacterial infections during or after their menstrual period². If a girl is unable to effectively prevent menstrual blood from leaking through her clothes, she is likely to be distracted by the potential for embarrassment and teasing on the part of her classmates. It is unsurprising that one third of the girls reported knowing someone who had dropped out of school due to an inability to manage their period.

Conclusion

The Ray United FC and Global Health Network Uganda public health program is a positive step towards changing health knowledge and behaviors, but there remain significant programming needs. For programming geared toward primary and secondary students in Oyam, we recommend focusing on improving sexual health and HIV knowledge, mental health awareness, family planning and maternal care knowledge and attitudes, non-sexual risky health behaviors (tobacco and alcohol use, bush meat consumption, and violence), and addressing the persistent challenges of feminine hygiene management in schools.

² Das, P., Baker, K. K., Dutta, A., Swain, T., Sahoo, S., Das, B. S.,...Torondel, B. (2015). Menstrual Hygiene Practices, WASH Access and the Risk of Urogenital Infection in Women from Odisha, India. Plos One, 10(6).

APPENDIX

Table 2: Health Characteristics

Characteristics	Total (N= 244)	Female (N=148)	Male (N=96)
Have had enough to eat on most days	193 (78.5%)	125 (84.5%)	68 (70.8%)
Source of water at home (check all that apply)			
Borehole	169 (68.7%)	111 (75%)	58 (60.4%)
Piped/Tap	50 (20.3%)	26 (17.6%)	24 (25%)
River	8 (3.3%)	3 (2%)	5 (5.2%)
Well	60 (24.4%)	34 (23%)	26 (27.1%)
Drain	0	0	0
Pool/Spring	6 (2.4%)	3 (2%)	3 (3.1%)
Other	1 (0.4%)	1 (0.7%)	0
Monthly frequency of diarrhea			
Every day	0	0	0
A few times per week	15 (6.1%)	9 (6.1%)	6 (6.3%)
A few times per month	31 (12.6%)	16 (10.8%)	15 (15.6%)
Once	57 (23.2%)	33 (22.3%)	24 (25%)
Never	141 (57.3%)	90 (60.8%)	51 (53.1%)
Last visit to the doctor			
Past year	173 (70.3%)	104 (70.3%)	69 (71.9%)
2-10 years	13 (5.3%)	8 (5.4%)	5 (5.2%)
10+ years	4 (1.6%)	2 (1.4%)	2 (2.1%)
Never	53 (21.5%)	33 (22.3%)	20 (20.8%)

Table 3: Descriptive Words

Characteristics	Total (N= 244)	Female (N=148)	Male (N=96)
Descriptive Words			
Funny	86 (35%)	52 (35.1%)	34 (35.4%)
Brave	114 (46.3%)	62 (41.9%)	52 (54.2%)
Positive	97 (39.4%)	57 (38.5%)	40 (41.7%)
Weak	32 (13%)	18 (12.2%)	14 (14.6%)
Sad	28 (11.4%)	19 (12.8%)	9 (9.4%)
Helpless	48 (19.5%)	32 (21.6%)	16 (16.7%)
Strong	152 (61.8%)	92 (62.2%)	60 (62.5%)
Smart	139 (56.5%)	83 (56.1%)	56 (58.3%)
Happy	213 (86.6%)	134 (90.5%)	79 (82.3%)

Table 4: Descriptive Phrases

Descriptive Phrases	Strongly agree		Agree a little		Disagree a little		Strongly disagree	
	Female (N=148)	Male (N=96)	Female (N=148)	Male (N=96)	Female (N=148)	Male (N=96)	Female (N=148)	Male (N=96)
I like myself.	136 (91.9%)	91 (94.%)	9 (9.61%)	3 (3.1%)	2 (1.4%)	1 (1%)	1 (0.7%)	1 (1%)
I am a good listener.	135 (91.2%)	90 (93.8%)	7 (4.7%)	5 (5.2%)	5 (3.4%)	1 (1%)	1 (0.7%)	0
I am honest.	137 (92.6%)	88 (91.7%)	8 (5.4%)	7 (7.3%)	1 (0.7%)	0	1 (0.7%)	0
I work well with others.	140 (94.6%)	91 (94.8%)	5 (3.4%)	4 (4.2%)	2 (1.4%)	0	1 (0.7%)	0
I can control what happens in my life.	92 (62.2%)	58 (60.4%)	41 (27.7%)	26 (27.1%)	7 (4.7%)	7 (7.3%)	8 (5.4%)	5 (5.2%)
I am good at solving problems.	79 (53.4%)	52 (54.2%)	40 (27%)	31 (32.3%)	18 (12.2%)	8 (8.3%)	9 (6.1%)	5 (5.2%)
My friends come to me for help.	127 (85.8%)	76 (79.2%)	15 (10.1%)	17 (17.7%)	4 (2.7%)	2 (2.1%)	2 (1.4%)	1 (1%)
I am not afraid of change.	84 (56.8%)	47 (49%)	27 (18.2%)	27 (28.1%)	10 (6.8%)	9 (9.4%)	27 (18.2%)	12 (12.5%)
I want to help others.	128 (86.5%)	85 (88.5%)	12 (8.1%)	8 (8.3%)	5 (3.4%)	3 (3.1%)	3 (2%)	0
I feel supported by my friends.	120 (81.1%)	78 (81.3%)	19 (12.8%)	12 (12.5%)	6 (4.1%)	4 (4.2%)	3 (2%)	2 (2.1%)
I feel accepted in my community.	125 (84.5%)	79 (82.3%)	16 (10.8%)	15 (15.6%)	4 (2.7%)	0	3 (2%)	2 (2.1%)

Table 5: Violence

Health Beliefs	Total (N= 244)	Female (N=148)	Male (N=96)
Violence common in the community	89 (36.2%)	65 (43.9%)	24 (25%)
Violence possible without physical touch	102 (41.5%)	61 (41.2%)	41 (42.7%)
How to respond to violence (check all that apply)			
Stay away and tell adult after	26 (10.6%)	14 (9.5%)	12 (12.5%)
Run for help	122 (49.6%)	79 (53.4%)	43 (44.8%)
Hide	7 (2.8%)	4 (2.7%)	3 (3.1%)
Try to stop the fight	171 (69.5%)	99 (66.9%)	72 (75%)

Table 6: Mental Health

Health Beliefs	Total (N= 244)	Female (N=148)	Male (N=96)
Cause for mental health issues			
Chemical or hormone imbalance	93 (37.8%)	63 (42.6%)	30 (31.3%)
Family history	90 (36.6%)	55 (37.2%)	35 (36.5%)
Traumatic experience	127 (51.6%)	72 (48.6%)	55 (57.3%)
Witchcraft	170 (69.1%)	97 (65.5%)	73 (76%)
Know someone in community suffering mental health issues	138 (56.1%)	92 (62.2%)	46 (47.9%)

Table 7: Nutrition, Tobacco, & Alcohol

Health Beliefs	Total (N= 244)	Female (N=148)	Male (N=96)
Recommended daily fruit & vegetable intake			
> 5	59 (24%)	40 (27%)	19 (19.8%)
3-5	119 (48.4%)	73 (49.3%)	46 (47.9%)
<3	66 (26.8%)	35 (23.6%)	31 (32.3%)
Tobacco consumers at home	42 (17.1%)	24 (16.2%)	18 (18.8%)
Frequency of consumption			
1-2 times a week	5 (2%)	4 (2.7%)	1 (1%)
3-4 times a week	7 (2.8%)	5 (3.4%)	(2.1%)
Everyday	29 (11.8%)	15 (10.1%)	14 (14.6%)

Ever tried tobacco	4 (1.6%)	3 (2%)	1 (1%)
Smoking-related diseases (check all that apply)			
Cancer	180 (73.2%)	107 (72.3%)	73 (76%)
Heart attack	156 (63.4%)	90 (60.8%)	66 (68.6%)
Wrinkles	76 (30.9%)	44 (29.7%)	32 (33.3%)
Stroke	40 (16.3%)	25 (16.9%)	15 (15.6%)
Yellow teeth	198 (80.5%)	120 (81.1%)	78 (81.3%)
Diabetes	16 (6.5%)	9 (6.1%)	7 (7.3%)
Ever tried alcohol	27 (11%)	15 (10.1%)	12 (12.5%)
Consequences of drinking too much			
Liver disease	174 (70.7%)	105 (70.9%)	69 (71.9%)
Vomiting	132 (53.7%)	71 (48%)	61 (63.5%)
Depression	53 (21.5%)	35 (23.6%)	18 (18.8%)
Poor decision-making	149 (60.6%)	92 (62.2%)	57 (59.4%)
Loss of memory	169 (68.7%)	102 (68.9%)	67 (69.8%)
Aggression	151 (61.4%)	88 (59.5%)	63 (65.6%)

Table 8: Hepatitis B

Health Beliefs	Total (N= 244)	Female (N=148)	Male (N=96)
Transmission of Hepatitis B			
Hugging	69 (28%)	39 (26.4%)	30 (31.3%)
Sex	169 (68.7%)	103 (69.6%)	66 (68.8%)
Mother-to-unborn child	94 (38.2%)	61 (41.2%)	33 (34.4%)
Kissing	123 (50%)	68 (45.9%)	55 (57.3%)
Sharing bathroom	77 (31.3%)	43 (29.1%)	34 (35.4%)
Sharing food	56 (22.8%)	28 (18.9%)	28 (29.2%)
Believe Hepatitis B is treatable	91 (37%)	54 (36.5%)	37 (38.5%)
Symptoms of Hepatitis B (check all that apply)			
Yellowing of skin	113 (45.9%)	64 (43.2%)	49 (51%)
Fever	113 (45.9%)	63 (42.6%)	50 (52.1%)
Stomach pain	94 (38.2%)	56 (37.8%)	26 (27.1%)
Heart attack	59 (24%)	33 (2.3%)	38 (39.6%)
Bleeding	92 (37.4%)	53 (35.8%)	39 (40.6%)
Nausea/vomiting	63 (25.6%)	39 (26.4%)	24 (25%)

Table 9: Animal-related Diseases

Health Beliefs	Total (N= 244)	Female (N=148)	Male (N=96)
Family eats bush meat (check all that apply)	103 (41.9%)	56 (37.8%)	47 (49%)
Bats	2 (0.8%)	0	2 (2.1%)
Rats	9 (3.7%)	6 (4.1%)	7 (7.3%)
Monkey	1 (0.4%)	0	1 (1%)
Birds	79 (32.1%)	38 (25.7%)	41 (42.7%)
Warthog	55 (22.4%)	22 (14.9%)	33 (34.4%)
Rabbit	21 (8.6%)	21 (14.2%)	0
Antelope	5 (2%)	3 (2%)	2 (2.1%)
Buffalo	2 (0.8%)	2 (1.4%)	0
Elephant	7 (2.9%)	7 (4.7%)	0
Hippopotamus	2 (0.8%)	1 (0.7%)	1 (1%)
Squirrel	2 (0.8%)	1 (0.7%)	1 (1%)
Fox	1 (0.4%)	1 (0.7%)	0
Zebra	1 (0.4%)	1 (0.7%)	0
Diseases carried by animals (check all that apply)			
Malaria	12 (4.9%)	9 (6.1%)	3 (3.1%)
HIV	9 (3.7%)	5 (3.4%)	4 (4.2%)
Pneumonia	30 (12.2%)	16 (10.8%)	14 (14.6%)
Ebola	144 (58.5%)	91 (61.5%)	53 (55.2%)
Salmonella	26 (10.6%)	21 (14.2%)	5 (5.2%)
Rabies	137 (55.7%)	82 (55.4%)	55 (57.3%)

Table 10: HIV

Health Beliefs	Total (N= 244)	Female (N=148)	Male (N=96)
Transmission of HIV (check all that apply)			
Hugging	9 (3.7%)	7 (4.7%)	2 (2.1%)
Sex	236 (95.9%)	140 (94.6%)	96 (100%)
Mother-to-unborn child	154 (62.6%)	97 (65.5%)	57 (59.4%)
Kissing	51 (20.7%)	36 (24.3%)	15 (15.6%)
Sharing bathroom	16 (6.5%)	10 (6.8%)	6 (6.3%)
Sharing food	7 (2.8%)	4 (2.7%)	3 (3.1%)
Believe HIV is treatable	44 (17.9%)	31 (20.9%)	13 (13.5%)
How embarrassed would you be to tell your family if you got HIV			
Very much	56 (22.8%)	40 (27%)	16 (16.7%)
Somewhat	31 (12.6%)	19 (12.8%)	12 (12.5%)
Very little	24 (9.8%)	12 (8.1%)	12 (12.5%)
Not at all	131 (53.3%)	75 (50.7%)	56 (58.3%)

Are/would be friends with HIV positive individual	174 (70.7%)	103 (69.6%)	71 (74%)
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Table 11: Family Planning

Health Beliefs	Total (N= 244)	Female (N=148)	Male (N=96)
Can contract STDs while married	206 (83.7%)	127 (85.8%)	79 (82.3%)
Ways to prevent pregnancy (check all that apply)			
Covering female genitalia with soda before/after sex	15 (6.1%)	10 (6.8%)	5 (5.2%)
Using a condom	221 (89.8%)	132 (89.2%)	89 (92.7%)
Covering male genitalia with any barrier such as plastic bags	26 (10.6%)	17 (11.5%)	9 (9.4%)
Girls jumping up and down after sex	16 (6.5%)	13 (8.8%)	3 (3.1%)
Girls quickly urinating after sex	11 (4.5%)	10 (6.8%)	1 (1%)
How many children desired when older			
0	4 (1.6%)	3 (2%)	1 (1%)
1-2	54 (22%)	33 (22.3%)	21 (21.9%)
3-5	172 (69.9%)	105 (70.9%)	67 (69.8%)
More than 5	14 (5.7%)	7 (4.7%)	7 (7.3%)
Best age to have first child			
15-18	8 (3.3%)	5 (3.4%)	3 (3.1%)
19-22	45 (18.3%)	34 (23%)	11 (11.5%)
23-26	97 (39.4%)	60 (40.5%)	37 (38.5%)
After 26	89 (36.2%)	45 (30.4%)	44 (45.8%)
No response	5	4	1
If pregnant, where to seek care			
Local health clinic	212 (86.2%)	141 (95.3%)	71 (74%)
Traditional birth attendant	6 (2.4%)	4 (2.7%)	2 (2.1%)
Nowhere, wouldn't seek care	2 (0.8%)	0	2 (2.1%)
No response	24	3	21
Believe it's safe to give birth in community	34 (13.8%)	25 (16.9%)	9 (9.4%)

Table 12: Cancer

Health Beliefs	Total (N= 244)	Female (N=148)	Male (N=96)
Know someone in community suffering from cancer	72 (29.3%)	41 (27.7%)	31 (32.3%)
Lung cancer	12 (4.9%)	6 (4.1%)	6 (6.3%)
Breast cancer	15 (6.1%)	11 (7.4%)	4 (4.2%)
Cervical cancer	16 (6.6%)	9 (6.1%)	7 (7.3%)
Other	19 (7.8%)	7 (4.7%)	12 (12.5%)
Type unknown	10 (4.1%)	8 (5.4%)	2 (2.1%)
Believe cancer is treatable	87 (35.4%)	58 (39.2%)	29 (30.2%)

Table 13: WASH & Menstruation

Health Beliefs	Total (N= 244)	Female (N=148)	Male (N=96)
When to wash hands (check all that apply)			
Before eating	233 (94.7%)	142 (95.9%)	91 (94.8%)
After touching an animal	137 (56.1%)		
After using the restroom	217 (88.2%)	131 (88.5%)	86 (89.6%)
School has gender segregated bathrooms	238 (96.7%)	146 (98.6%)	92 (95.8%)
Menstruating is...			
Normal	175 (71.1%)	125 (84.5%)	50 (52.1%)
Dirty	57 (23.2%)	31 (20.9%)	26 (27.1%)
Painful	71 (28.9%)	56 (37.8%)	15 (15.6%)
Healthy	139 (56.5%)	102 (68.9%)	37 (38.5%)
Associated with sex	20 (8.1%)	13 (8.8%)	7 (7.3%)
Embarrassing	61 (24.8%)	33 (22.3%)	28 (29.2%)
No response	19	5	14
Believe boys have advantage over girls because they don't menstruate	114 (46.3%)	63 (42.6%)	51 (53.1%)
Believe it is difficult for girls to attend school during their period	111 (45.1%)	65 (43.9%)	46 (47.9%)
School provides girls with sanitary pads	111 (45.1%)	72 (48.6%)	39 (40.6%)
Know schoolmates who have dropped out of school due to inability to manage period	51 (20.7%)	36 (24.3%)	15 (15.6%)

Table 14: Menstrual Hygiene Management (only girls 13 and older)

Health Behaviors & Beliefs	Girls 13 or older (N= 103)
Days of school missed due to menstruation	
0	78 (75.7%)
1-5 days	21 (20.4%)
5-10 days	2 (1.9%)
11-20 days	0
21-30 days	1 (1%)
30+ days	0
Menstrual period interferes with ability to learn	27 (26.2%)
Know schoolmates who have dropped out of school due to an inability to manage their period	31 (30.1%)
Products used for hygiene management (check all that apply)	
Reusable pad	47 (45.6%)
Disposable pad	81 (78.6%)
Tampon	3 (2.9%)
Cloth	9 (8.7%)
Other	1 (1%)
Beliefs about frequency of menstruation	
Once per month	83 (80.6%)
Once per week	3 (2.9%)
Once per year	4 (3.9%)
Varies person-to-person	21 (20.4%)
Person they feel most comfortable approaching about menstruation (check all that apply)	
Mother	85 (82.5%)
School friend	30 (29.1%)
Sister	30 (29.1%)
Aunt	2 (1.9%)
Teacher	41 (39.8%)
Father	5 (4.9%)
Brother	3 (2.9%)
None of the above	2 (1.9%)
Supplies that can be found in washrooms	
Water for handwashing	80 (77.7%)
Toilet paper	52 (50.5%)
Waste bins	59 (57.3%)