

Evaluation of SHAPE 1
(Strengthening HIV/AIDS Partnerships in Education)
School Based Peer Education Program

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SUMMARY

To be added.

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ABBREVIATIONS

CSO	Civil Society Organization
FHI	Family Health International
FGD	Focus Group Discussion
GSS	Ghana Statistical Service
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
JSS	Junior Secondary School
MOE	Ministry of Education
NGO	Non-Governmental Organization
NSP	National Service Personnel
PHSC	Protecting Human Subjects Committee
PLWHA	People Living with HIV/AIDS
SHAPE	Strengthening HIV/AIDS Partnerships in Education
STI	Sexually Transmitted Infection
SSS	Senior Secondary School
USAID	United States Agency for International Development
WE	World Education

INTRODUCTION

World Education (WE) initiated the Strengthening HIV/AIDS Partnership in Education (SHAPE) Project in Ghana in September 2001, and the project concluded in late 2004 as a newly designed SHAPE 2 Project was initiated. The goal of the project was to prevent the spread and mitigate the impact of HIV/AIDS on the education sector, among both the professionals who serve within it and the youth and families who are served by it.

Under the auspices of the SHAPE 1 Project, World Education worked with a consortium of nine Civil Society Organizations (CSOs) to deliver HIV/AIDS education to in-school youth through a peer education program. Eight CSOs recruited and trained peer educators at primary, junior secondary and senior secondary schools in 19 districts in three regions of Ghana: Greater Accra, Volta, and Eastern. The ninth organization was a support network for people living with HIV and AIDS (PLWHA); it provided motivational speakers who offered testimonials in the sites covered by the other participating CSOs.

By the end of the second year of the project, nearly 90 schools had trained peer educators to provide information through clubs, health talks, skits and dramas, and one-to-one encounters (Mukwashi and Kelly 2004). Of these, approximately 70 maintained viable peer education programs by the end of Year 2 (2004) (Malcolm, personal communication, May 2004). In addition to the peer educators, SHAPE CSOs have also trained a patron at each school to provide support to peer educators, and to serve as a referral source should the information needs of students exceed the limits of the peer educators.

The peer education program introduced by SHAPE 1 had the goal of providing in-school youth with the basic education they need to avoid or reduce risk-taking behavior, to delay the onset of sexual activity, and if already sexually active, to change behavior to reduce risk. The subject matter conveyed by the peer educators was designed to be age appropriate, with gradually more complex and detailed information introduced as students progress through lower primary, upper primary, junior secondary and senior secondary school. The general topics included basic facts about HIV/AIDS and other sexually transmitted infections, life skills, human anatomy, substance abuse, gender and sexuality, and care and support of people living with HIV/AIDS.

OBJECTIVES AND METHODOLOGY

Objectives

The objective of the research is to measure differences in indicators of HIV/AIDS and reproductive health knowledge, attitudes and behavior among youth with peer educators sponsored by the SHAPE 1 Project, and those that are in schools with no ongoing SHAPE-sponsored peer education program. The SHAPE 1 Project had a strategic plan that identified objectives and intermediate results. Data collection will focus on the information needed to test differences in the key indicators included in the strategic plan.

Indicators include the following:

For both JSS and SSS students:

- Percent of youth having correct knowledge of HIV/AIDS transmission, including mother to child transmission
- Percent of youth having correct knowledge of HIV/AIDS prevention
- Percent of youth with comprehensive STI knowledge
- Percent of youth with positive attitudes toward PLWHA

For SSS students only

- Percent of youth reporting that they have had sex
- Percent of youth reporting condom use at last sex
- Percent of youth reporting multiple partners in prior 12 months

For reasons cited concerning the rarity of most of the sexual behavior events of interest the focus of the evaluation will be on knowledge and attitudinal change, rather than behavior change. Results from the study will provide information to refine the existing curricula and to modify the structure of the peer education program for both current and newly enrolled CSOs working with SHAPE 2.

Methodology

In anticipation of evaluation needs, baseline data were collected in 2002 prior to the implementation of the SHAPE Project (Fayorsey 2003). Flaws in sample selection and analysis, coupled with changes in the schools selected for intervention by the CSOs, rendered the data unsuitable to assess program impact measured by changes over time. As an alternative, an experimental-control posttest design using multi-stage clusters is appropriate. This quasi-experimental design requires the inclusion of schools that have participated in the SHAPE intervention with a comparable set of schools that have not been exposed to the intervention; the latter serve as control sites.

Since the intervention was already underway, we could not randomly assign schools to the treatment or control groups. To compensate, the schools in the two groups were matched as closely as possible on a set of key criteria, including location, level and size. The sample was limited to junior secondary (JSS) and senior secondary schools (SSS) in order to adequately detect change in the key variables of interest and to reduce the sample size and therefore the cost of the research.

Taking into consideration that differences in behavior are unlikely to be detected because the level of sexual activity is comparatively low in this population,¹ the emphasis will be on detecting differences in HIV/AIDS knowledge and attitudes. Moreover, because many students in JSS are less than 14 years of age, they were not asked any questions about sexual behaviors.

A form developed to determine class size and gender composition for the focus group study will be used to collect this information, and classes within the selected schools will

¹ According to several recent surveys, the median age of sexual debut is around 17 for most youth in Ghana (GSMF 2002; FHI 2000; Karim et al. 2003).

be randomly selected for inclusion. All students present on the day of data collection in the selected classes will complete a self-administered questionnaire. The participants will not be selected by age, but will represent the array of ages attending Ghanaian schools.

Study Site Selection

Selection of Intervention Schools

Sample intervention schools were selected from a list of 46 schools in which SHAPE 1 had operated during the prior one or two years (A detailed description of the sample plan is included in Appendix 1.) Schools were selected stratified by type of school (JSS or SSS) with the probability of selection proportionate to the total number of students reported in the latest school year. In addition to a primary sample of intervention schools, a secondary set of sample schools was selected in case criteria for selecting the primary sample were not met during fieldwork.

Selection of Control Schools

For each of the intervention schools, a list of control schools was compiled. This list of control schools consisted of the same type of schools located in the same district or neighboring district(s) whose student populations were more or less equal to the student population of the sample intervention school. The control schools that met the location and student size criteria were sorted randomly, and the first school listed was the matching school. As in the selection of intervention schools, secondary control schools were selected in case replacements were needed during fieldwork. A list of participating schools is included as Appendix 2.

Sample Size

The total number of sample schools was set at 10 intervention and 10 control schools. Approximately 170 students were to be surveyed in each school, enrolment permitting. This study size was deemed sufficient to provide precise estimates in the difference in knowledge indicators between intervention and control schools but not with respect to differences in indicators related to sexual behavior. Using lists of class enrolment developed for this study, classes were randomly selected, and data were collected from all students present that day using self-administered questionnaires.

Data collection was carried out during November 2004 by an experienced Ghanaian firm, Research International. A trained data collection resource person was present in every class in order to read each question aloud, and to respond to any questions of clarification that might arise. Questionnaires were developed by the lead author and reviewed with World Education staff and were administered in English. Permission to carry out the research was obtained from local Ministry of Education (MOE) representatives, and from the headmaster or headmistress of each school. Two schools refused participation, and the previously identified alternates replaced them. Students were read a group consent form prior to completing the questionnaire, and were given an opportunity to opt out of the study. There were no refusals. Students were also told that they could return a blank questionnaire if they preferred not to leave the room, but none did so. The research

protocol, data collection instruments, and consent forms were reviewed and approved by the Protecting Human Subjects Committee of FHI.

Valid questionnaires were collected from 3223 students: 1372 (43 percent) were JSS students, and 1851 (57 percent) were SSS students. Research International carried out data entry and cleaning. Data recoding, analysis and data production took place at the headquarters of Family Health International in North Carolina, USA.

In the interest of clarity and parsimony, tables in the body of the report present data for JSS and SSS students combined. Separate tables for JSS and SSS are included in Appendix 3. Detailed analysis of significant findings for JSS and SSS students separately will be completed at a later date.

FINDINGS

Socio-demographic Characteristics

The average age of students participating in the SHAPE 1 study was 16.5, broadly ranging from 10 to 25 (Table 1). Girls in the intervention schools were slightly younger; their mean age was 15.6. Slightly more than half the students lived in nuclear families with both parents; an additional 20 to 26 percent lived with their mother alone. Fewer than 10 percent reported living with their father alone. Students were more likely to report living with other relatives; about 15 percent reported this living arrangement.

Students were most likely to report that their fathers were businessmen or professionals. Eleven percent of students in intervention schools, compared to about seven percent in comparison schools, noted that their fathers were teachers. Half the students indicated that their mothers were traders, and 14 to 19 percent said they were businesswomen, possibly also engaged in trade. Fewer than ten percent of mothers were identified as professionals, although three percent were civil servants, and between five and ten percent were teachers.

Between one-quarter and one-third of fathers attended tertiary education, and nearly equal proportions (around 20 percent each) attended either junior or senior secondary school. Mothers tended to be less well educated than fathers; about one third completed JSS, and about one quarter completed SSS. About one in six attended tertiary education.

Nearly half the students in all groups were Aakan, and about 23 percent were Ewe. Fifteen percent were Ga/Adangbe. The category “other” represents 20 ethnic groups and nationalities, including about four percent each of Krobo and Guan.

Table 1: Socio-Demographic Characteristics of Intervention and Comparison Samples, by Sex

		Female		Male		Both	
Characteristics	Response	Int	Comp	Int	Comp	Int	Comp
Age	MEAN n	15.6 n=799	16.3 n=708	16.7 n=815	16.9 n=878	16.2 n=1614	16.6 n=1586
Living with	n	803	715	822	882	1625	1597
	No one	0.6	1.8	1.3	1.6	1.0	1.7
	Mother	21.9	25.9	19.7	19.8	20.8	22.9
	Father	5.1	4.6	10.2	7.8	7.6	6.2
	Mother and father	58.4	52.5	51.2	54.7	54.8	53.6
	Other relatives	13.8	15.0	17.2	15.8	15.5	15.4
	Other non-relatives	0.1	0.2	0.4	0.3	0.3	0.3
Father's Type of Work	n	782	699	808	863	1590	1562
	Farmer	6.9	8.9	12.2	13.7	9.5	11.3
	Trader	9.1	14.1	8.8	13.8	8.9	13.9
	Semi-Skilled Laborer	8.6	9.7	9.6	12.0	9.1	10.8
	Civil Servant	6.9	8.2	6.2	9.1	6.5	8.7
	Teacher	10.9	7.3	10.9	6.2	10.9	6.7
	Businessman	25.5	29.0	24.5	26.0	25.0	27.5
	Professional	20.4	17.0	16.3	12.3	18.3	14.6
	Unemployed	0.6	1.2	3.5	1.5	2.0	1.3
	Pensioner	5.8	3.0	5.2	3.6	5.5	3.3
	Skilled/Technical Worker	4.9	0.7	2.7	1.1	3.8	0.9
	Student	.	.	.	0.0	.	0.0
	Not Around	0.6	0.9	0.2	0.7	0.4	0.8
Father's Education	n	766	693	805	848	1571	1541
	Did not go to school	2.9	3.3	3.0	5.2	2.9	4.2
	Primary	1.3	1.3	2.6	2.4	2.0	1.8
	Junior Secondary	19.6	23.8	20.7	22.5	20.2	23.1
	Secondary School	18.0	22.0	20.5	23.1	19.2	22.5
	Tertiary	33.2	27.6	29.0	24.7	31.1	26.2
	Training School	15.8	11.3	13.7	10.9	14.8	11.1
	Technical or Greater College	9.2	10.8	10.5	11.2	9.8	11.0
Mother's Type of Work	n	788	703	813	858	1601	1561
	Farmer	4.6	1.5	8.4	5.1	6.5	3.3
	Trader	50.1	57.1	49.3	57.3	49.7	57.2
	Semi-Skilled Laborer	8.1	5.9	4.5	5.2	6.3	5.5
	Civil Servant	3.4	3.4	3.8	3.7	3.6	3.6
	Teacher	8.2	4.9	10.1	8.1	9.1	6.5
	Professional	9.0	5.3	6.5	3.8	7.8	4.6

	Unemployed	0.8	1.2	1.3	0.7	1.1	0.9
	Pensioner	0.1	0.8	1.0	0.8	0.6	0.8
	Skilled/Technical Worker	0.6	0.7	1.0	0.7	0.8	0.7
	Not Around	0.1	0.1	0.3	0.7	0.2	0.4
	Businesswoman	14.9	19.1	13.8	14.0	14.3	16.5
Mother's Education	n	777	693	801	852	1578	1545
	Did not go to school	5.7	7.1	6.6	10.3	6.2	8.7
	Primary	3.8	4.1	4.8	4.5	4.3	4.3
	Junior Secondary	28.9	32.7	31.4	31.7	30.2	32.2
	Secondary School	25.5	29.1	22.0	25.0	23.8	27.0
	Tertiary	18.1	14.8	17.6	14.3	17.9	14.5
	Training School	14.4	9.0	14.2	9.5	14.3	9.2
	Technical or Greater College	3.5	3.2	3.3	4.6	3.4	3.9
Ethnicity	n	803	716	827	882	1630	1598
	Akan	47.6	49.2	48.7	46.5	48.1	47.9
	Ewe	21.0	17.3	22.7	21.7	21.8	19.5
	Ga/Adangba	15.3	16.1	14.0	15.0	14.7	15.6
	Hausa	4.8	7.0	3.5	5.6	4.2	6.3
	All Others	10.8	9.2	11.3	10.9	11.0	10.1

Knowledge of HIV/AIDS

Number of ways correctly identified to prevent sexual transmission of HIV/AIDS

Overall, the students surveyed were very much aware of the correct ways to prevent sexual transmission of HIV/AIDS. Among both boys and girls in both the intervention and control schools, 70 percent or more were able to correctly identify 4 or more ways to avoid sexual transmission, and an additional 12 to 15 percent were able to identify three ways. There were no significant differences between the SHAPE 1 students and comparison students

Number of misconceptions about HIV transmission rejected

The majority of students successfully rejected three or more misconceptions about HIV/AIDS. There were no significant differences among the students.

Mother to Child Transmission of HIV/AIDS

With the exception of JSS boys in the comparison schools, more than 80 percent of the students were aware that mothers can pass HIV/AIDS to their babies. Somewhat fewer, though still nearly three-fourths of the students, knew that women could give birth to an HIV positive baby.

Ways to avoid STIs

Students were asked what ways they knew to avoid STIs. These data should be interpreted with conservatively, because most of the students appear to have responded using HIV/AIDS transmission as their point of reference, rather than STIs in general. For example, more than three-quarters of all students selected “not having sex with an infected person” as one means to avoid infection, and SHAPE 1 students were more likely to select this than comparison students. Between 45 and 60 percent of students mentioned using condoms during sex, but the small differences were not significant. Very few students cited abstaining from sex, but significantly more SHAPE 1 boys, and the SHAPE students as a whole, mentioned this.

Table 2: Knowledge of HIV/AIDS: All Students							
		Females		Males		Both	
		Intervent	Comp	Intervent	Comp	Intervent	Comp
Number of ways correctly identified to prevent sexual transmission of HIV/AIDS	Total	803	716	822	882	1625	1598
0	wtd %	0.4	0.8	1.3	1.1	0.9	1.0
1	wtd %	3.7	6.1	6.4	7.4	5.1	6.9
2	wtd %	6.8	6.7	7.2	7.1	7.0	6.9
3	wtd %	12.1	13.2	14.9	13.3	13.5	13.2
4+	wtd %	76.9	73.2	70.2	71.1	73.4	72.0
Number of misconceptions about HIV transmission that were rejected	Total	803	716	822	882	1625	1598
0	wtd %	0.3	0.1	0.2	0.1	0.2	0.1
1	wtd %	3.9	0.9	2.0	1.8	2.9	1.4
2	wtd %	14.5	14.3	17.3	13.2	16.0	13.7
3+	wtd %	81.3	84.8	80.5	84.9	80.9	84.8
Mothers can pass HIV/AIDS to babies	n	718	599	662	690	1380	1289
	wtd %	90.6**	84.8	81.4	81.3	85.9	82.9
It is possible for a women with HIV to give birth to a child with HIV	n	578	501	572	628	1150	1129
	wtd %	76.3	74.7	74.2	75.7	75.2	75.2
Ways to avoid STI's	N (multiple responses allowed)	803	716	822	882	1625	1598
No answer	wtd %	0.4	0.5	0.7	0.2	0.5	0.3

Not kissing infected person	wtd %	34.2	32.8	38.1	32.8	36.2*	32.8
Not having sex with infected person	wtd %	78.2	76.7	76.4	76.1	77.3	76.4
Sticking to one partner for sex	wtd %	46.7	48.1	44.2	46.2	45.4	47.0
Using a condom during sex	wtd %	51.7	44.9	53.2	56.8	52.5	51.6
Abstaining from sex	wtd %	7.8	6.2	8.4*	5.0	8.1*	5.5
Seeing a health personnel/doctor	wtd %	7.9	8.8	5.1	4.1	6.4	6.2
Not using same razor with infected person	wtd %	2.0	1.8	1.2	0.5	1.6	1.1
Other	wtd %	0.3	0.9	0.6	0.5	0.5	0.7

* indicates $p \leq 0.05$

Attitudes About Sexual Risk and Readiness

Table 3 displays the responses of students who agreed with several statements about sexual risk, and their own readiness. Eighty percent of all students agreed that young people should wait to have sex until they are ready. Comparable proportions of students agreed that it is acceptable for either men or women to have more than one sex partner—between nine and 16 percent of all respondents. No significant differences were present on these items for either the SHAPE 1 or comparison groups.

Nearly three-fourths of the students believed they had control over whether they have sex; among JSS students about 60 percent believe so. Fewer than 20 percent of students report feeling prepared to have sex, with males in both groups more than twice as likely to feel this way than girls. The differences between the girls in the SHAPE 1 schools and the intervention schools, and in the SHAPE 1 group as a whole, are significant, with fewer SHAPE students reporting feeling ready for sex.

Nearly 90 percent of all students report knowing how to protect themselves from HIV/AIDS, and SHAPE 1 girls were significantly more likely to mention this than non-SHAPE girls. SHAPE 1 girls, and all SHAPE students together, were significantly less likely to report being worried about getting HIV/AIDS, perhaps reflecting a better awareness of personal risk based on their exposure to the program.

Table 3: Attitudes about Sexual Risk and Readiness: All Students							
		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
Young people should wait to have sex until they are prepared for the consequences	n	619	570	635	660	1254	1230

	wtd %	80.1	79.9	79.2	75.8	79.7	77.6
It is OK for boys/men to have more than 1 sex partner	n	116	92	140	155	256	247
	wtd %	12.4	10.0	16.0	13.7	14.3	12.1
It is OK for girls/women to have more than 1 sex partner	n	95	77	122	137	217	214
	wtd %	11.2	8.9	13.1	11.9	12.2	10.6
I have control over whether I have sex or not	n	545	497	594	599	1139	1096
	wtd %	68.3	73.1	74.2	71.6	71.4	72.3
I feel prepared to have sex	n	60	107	169	209	229	316
	wtd %	7.0**	13.3	22.2	24.2	14.9**	19.4
I know how to protect myself against AIDS	n	710	614	721	766	1431	1380
	wtd %	89.9*	85.2	88.3	87.4	89.1	86.4
I worry about getting HIV/AIDS	n	550	552	637	705	1187	1257
	wtd %	66.7**	76.0	77.3	79.5	72.2**	77.9

* indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

Sexual Behavior

Students were asked whether they had ever had a boyfriend or girlfriend, and whether they did at the time of the survey. Thirty percent of girls and 40 percent of boys indicated that they had ever had a special friend (Table 4). A significantly lower percentage of SHAPE 1 girls reported having had a boyfriend, compared with girls in comparison schools. A smaller percentage of SHAPE girls also reported currently being with a boyfriend. Overall, a smaller proportion of SHAPE 1 students were currently in relationships.

		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
Ever had boyfriend/girlfriend	n	181	237	275	312	456	549

		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
	wtd %	22.9**	36.7	37.0	40.3	30.2	38.7
Currently with boyfriend/girlfriend	n	170	228	213	225	383	453
	wtd %	23.6**	36.3	29.3	29.1	26.6**	32.3

* indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

Age at first sex

Questions about sexual behavior were only asked of the SSS students. Of the 1851 SSS students, 20 percent reported ever having sexual intercourse. Fewer girls acknowledged that they had intercourse than boys (Table 5). Significantly fewer SHAPE 1 girls had had sex, and fewer SHAPE 1 students as a whole were sexually initiated, compared with the non-SHAPE 1 students. The average age at first sex was 15.5 among all students.

Condom Use

With the exception of SHAPE 1 girls, more than half the students reported using a condom at last sex. When asked why they used condoms, SHAPE 1 students were significantly less likely to mention pregnancy prevention than their counterparts in the comparison schools. A significantly lower percentage of SHAPE 1 girls, and SHAPE 1 students as a whole, reported using condoms to avoid STIs, also. (It should be noted that these percentages are calculated on a very small number of cases.)

		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
Ever had boyfriend/girlfriend	n	181	237	275	312	456	549
	wtd %	22.9**	36.7	37.0	40.3	30.2	38.7
Currently with boyfriend/girlfriend	n	170	228	213	225	383	453
	wtd %	23.6**	36.3	29.3	29.1	26.6**	32.3
Ever had intercourse	n	31	100	128	118	159	218
		5.8**	16.9	24.9	26.9	16.1**	22.4
Age at intercourse	n	29	95	103	103	132	198
	Wtd mean	15.9	16.2	15.4	15.7	15.5	15.9
Used condom at last sex							
No	n	18	43	57	46	75	89
	wtd %	58.1	43.0	44.5	39.0	47.2	40.8
Yes	n	13	57	71	72	84	129

		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
	wtd %	41.9	57.0	55.5	61.0	52.8	59.2
Reasons why used condoms	N (multiple responses allowed)	13	57	71	72	84	129
To avoid pregnancy	n	9	43	33	49	42	92
	wtd %	70.1**	73.4	43.5**	65.9	47.1**	68.4
To avoid HIV/AIDS	n	5	25	37	35	42	60
	wtd %	43.1**	46.2	51.6	49.6	50.4	48.5
To avoid STI's	n	7	28	27	41	34	69
	wtd %	56.6**	46.4	38.3	57.0	40.8**	53.5
Multiple partners	n	0	3	2	4	2	7
	wtd %	0.0	6.6	2.8	4.4	2.5	5.1

* indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

Students who reported that they had not used a condom at last sex were asked to indicate their reasons for not doing so. Between 40 and 50 percent reported that lack of availability was the main reason for not using condoms (Table 6). Twelve to 17 percent said they did not like them, and 11 to 23 percent reported that they forgot to use them. The SHAPE 1 girls were significantly more likely to report that condoms were not available, that they forgot them, or that their partner refused, compared with the other girls, but these differences were calculated with extremely small percentages and should be interpreted with caution.

		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
Not available	n	7	16	28	23	35	39
	wtd %	38.9*	37.2	49.1	50.0	46.7	43.8
Don't like it	n	3	5	8	8	11	13
	wtd %	16.7*	11.6	14.0	17.4	14.7	14.6
Forgot about it	n	2	6	13	7	15	13
	wtd %	11.1*	14.0	22.8	15.2	20.0	14.6
Not necessary	n	.	5	8	4	8	9
	wtd %	.	11.6	14.0	8.7	10.7	10.1
Partner refused	n	6	11	.	4	6	15
	wtd %	33.3*	25.6	.	8.7	8.0	16.9

* indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

Multiple Partners

Echoing a pattern seen in research with young people worldwide, the majority of students, 70 to 87 percent, (Table 7) reported having had only a single sexual partner during the prior year. This was particularly the case for girls. Higher percentages of boys reported having either two or three or more partners. Half to two thirds of those with multiple partners used a condom at last sex. This is a positive indicator, but there is certainly room to increase the frequency of this behavior.

Table 7: Number of sexual partners in the prior 12 months: SSS students							
		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
Number of partners							
1	n	25	87	89	82	114	169
	wtd %	80.6	87.0	69.5	69.5	71.7	77.5
2	n	4	9	21	21	25	30
	wtd %	12.9	9.0	16.4	17.8	15.7	13.8
3+	n	2	4	18	15	20	19
	wtd %	6.5	4.0	14.1	12.7	12.6	8.7
Those with multiple partners who used a condom at last sex	n	6	13	39	36	45	49
	Wtd mean	27.3**	60.7	57.2	64.3	54.4**	63.8

* indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

Attitudes Regarding People Living with HIV/AIDS

A major element of the SHAPE 1 strategy is to foster better understanding and less discriminatory attitudes towards persons living with HIV/AIDS (PLWHA). One of the original CSOs participating in the program was a support organization for PLWHA; they provided resource persons to visit schools for question and answer periods with students and teachers.

All students were asked a series of questions about their attitudes concerning PLWHA. At least eighty percent of all students agreed that people infected with HIV/AIDS should be treated like everyone else, and SHAPE 1 boys were significantly more likely to hold this view than their non-SHAPE counterparts (Table 8). When asked about particular classes of individuals, however, students revealed more nuanced attitudes.

Fifty to sixty percent agreed that an infected student should be allowed to continue attending school, with significantly more SHAPE 1 girls stating this than girls at comparison schools. This was also the case for the SHAPE 1 students as a group. However, 70 to 80 percent of students indicated that they would be worried if a classmate had HIV/AIDS.

Students also showed generally tolerant attitudes about teachers continuing to teach, but across a broader range: 40 to 60 percent of the students agreed. Significantly higher percentages of both boys and girls attending SHAPE 1 schools supported teachers, compared to the control group students. While these attitudes may be considered relatively positive, there is great opportunity to continue efforts to promote more positive perceptions of people with HIV, given that around half the students did not agree with these statements.

Even though few students believed that sharing spoons transmits HIV/AIDS, food and people working with it remained a source of concern. Reflecting attitudes voiced by other groups surveyed in Ghana, fewer than ten percent of students stated that they would buy food from a vendor with HIV/AIDS.

Table 8: Attitudes regarding people living with HIV/AIDS: All Students							
		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
People infected with HIV/AIDS should be treated like everyone else	n	401	398	412	333	813	731
	wtd %	88.2	84.4	84.8*	78.8	86.4	81.4
HIV/AIDS is transmitted by sharing spoons	n	39	27	61	36	100	63
	wtd %	10.3*	5.5	11.8	8.5	11.1	7.1
Would buy food from a shopkeeper/food seller with AIDS	n	27	26	50	34	77	60
	wtd %	6.5	5.9	10.4	8.1	8.6	7.1
A teacher with AIDS should be allowed to continue teaching	n	262	179	277	213	539	392
	wtd %	51.3**	39.2	58.5**	48.9	55.2**	44.5
A student with AIDS should be allowed to continue studying	n	282	214	290	241	572	455
	wtd %	59.1*	45.8	59.9	54.9	59.6*	50.7
How would you feel if you had a classmate with HIV/AIDS?							
Comfortable	n	55	22	69	53	124	75
	wtd %	12.2	5.3	14.5	12.3	13.4	9.1
Frightened	n	64	68	75	72	139	140
	wtd %	16.3	14.3	16.1	17.1	16.2	15.8
Worried	n	329	399	341	304	670	703

Table 8: Attitudes regarding people living with HIV/AIDS: All Students

	Female		Male		Both	
	Interven	Comp	Interven	Comp	Interven	Comp
wtd %	71.5	80.4	69.4	70.6	70.4	75.1

* indicates p <= 0.05; ** indicates p <= 0.01

Participation in Peer Education Activities

A significantly higher proportion of students attending SHAPE 1 schools reported participating in clubs or educational sessions taught by peer educators. Nearly two-thirds of students in SHAPE 1 schools were involved in peer education activities, compared with half of those in comparison schools. (The relatively high level of participation even in the non-SHAPE 1 schools likely explains why fewer significant differences emerged in this analysis.) Female students participating in SHAPE 1 and the group as a whole reported attending significantly more meetings per month, but the actual differences were small.

Club or Peer Education Session Activities

Students in both school groups reported participating in a wide variety of activities as part of their HIV/AIDS club or peer education classes. All groups reported looking at booklets most often, with two-thirds to three-fourths of students mentioning this relatively passive activity (Table 9). More actively, just over half the students indicated that they acted in dramas; SHAPE 1 students as a whole were significantly more likely to report this. Nearly as many students also saw talk shows; there were no differences among the students. Around half the students reported learning where to go if they needed help concerning HIV/AIDS.

Forty to fifty percent of all students had talked in small groups, and forty to forty-five percent had made poster..

Around one third of all students had given presentations, and slightly smaller proportions had received handouts or composed songs.

SHAPE 1 students were significantly more likely to have played “Wild Fire”, a game used to teach about the transmission of HIV/AIDS, but only a small proportion (10 percent) did so.

Table 9: Participation in peer education activities: All Students

	Female		Male		Both	
	Interven	Comp	Interven	Comp	Interven	Comp

Table 9: Participation in peer education activities: All Students

		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
AIDS club members who attended clubs/sessions taught by PE	n	570	401	517	439	1087	840
	wtd %	69.5**	56.6	58.8**	47.3	64.0**	51.4
Mean # of sessions attended per month	n	436	298	413	365	849	663
	wtd %	2.5*	2.2	2.4	2.3	2.5**	2.2
Composed songs	n	177	119	177	119	354	238
	wtd %	29.2	27.2	33.2	27.8	31.1	27.5
Saw a talk show	n	318	215	261	184	579	399
	wtd %	54.4	52.3	49.9	44.1	52.3	48.1
Took quizzes	n	315	172	260	189	575	361
	wtd %	52.8**	40.4	48.6	42.6	50.8**	41.6
Played risk game	n	153	47	144	64	297	111
	wtd %	25.6**	9.0	24.3**	11.1	25.0**	10.1
Gave presentations	n	198	135	198	165	396	300
	wtd %	39.7	32.3	35.5	38.9	37.7	35.7
Saw a puppet show	n	95	49	74	69	169	118
	wtd %	14.7*	9.1	12.3	11.6	13.5	10.4
Acted in a drama	n	324	207	298	212	622	419
	wtd %	55.6	51.3	56.6	47.3	56.1*	49.2
Talked in large groups	n	337	189	264	188	601	377
	wtd %	57.7**	45.3	49.4	43.9	53.7**	44.6
Received handouts	n	183	103	159	109	342	212
	wtd %	32.9	30.4	31.8	28.1	32.4	29.2
Played wild fire	n	50	24	62	38	112	62
	wtd %	9.9	5.4	9.9	5.9	9.9**	5.7
Looked at booklets	n	425	271	353	268	778	539
	wtd %	73.6	71.3	68.3	63.7	71.1	67.4
Talked in small groups	n	293	163	247	155	540	318
	wtd %	48.9	40.0	46.1	38.1	47.6	39.0
Talked one-on-one	n	230	140	218	134	448	274
	wtd %	38.3	36.4	40.3	30.8	39.3	33.5
Made posters	n	219	155	225	163	444	318

		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
	wtd %	40.6	41.5	45.0	39.8	42.7	40.6
Found out where to go for help	n	339	214	270	211	609	425
	wtd %	59.1	54.0	50.5	47.1	55.0	50.5
Participated in games/activities	n	285	169	263	199	548	368
	wtd %	51.8	43.5	49.5	47.5	50.7	45.6
Put on a drama	n	277	168	229	159	506	327
	wtd %	50.6	43.2	43.7	32.9	47.3	37.9

* indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

Students discussing topics about selves

Eighty-five to ninety percent of all students had discussed self-control in their peer education sessions, and 76 to 87 percent had discussed peer pressure and their relations with friends (Table 10). Fewer than one in seven had discussed empowerment issues, which may have facilitated their implementation of self-control, or resisting peer pressure.

One of the goals of SHAPE 1 was to foster improved communication with parents on issues relating to HIV/AIDS. Significantly more girls in the SHAPE 1 schools, and SHAPE 1 students as a whole, reported discussing family communication in their peer education activities, although this represents just more than half of the students reporting. Nearly 40 percent of SHAPE 1 girls also reported discussing gender equality, a significantly larger share than among non-SHAPE 1 girls.

Topics Discussed		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
Friends and peer pressure	n	483	334	398	311	881	645
	wtd %	86.6	84.3	76.0	76.6	81.5	80.4
Empowerment	n	58	31	70	52	128	83
	wtd %	9.6	9.2	13.9	13.8	11.6	11.6
Self-control	n	505	352	434	370	939	722
	wtd %	89.0	87.0	84.0	86.2	86.6	86.6

Family communication	n	326	180	257	200	583	380
	wtd %	62.4**	45.1	50.6	45.4	56.8**	45.3
Discrimination	n	132	86	157	105	289	191
	wtd %	24.6	22.8	30.5	24.8	27.4	23.8
Gender equality	n	175	95	159	103	334	198
	wtd %	38.2**	28.1	33.2	28.3	35.8**	28.2
Being happy with oneself	n	373	223	246	209	619	432
	wtd %	65.1*	57.8	48.2*	54.5	57.1	56.1
Having a positive attitude	n	342	231	297	257	639	488
	wtd %	62.7	60.7	60.1	60.9	61.4	60.8

* indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

Students discussing health topics

Significantly more girls participating in SHAPE 1 reported discussing their bodies, changes during puberty, menstruation, and pregnancy than did girls in non-SHAPE schools (Table 11). There were no detectable differences among boys in either school set regarding these health topics. Personal hygiene was the topic reportedly discussed by the majority of students, and about three-fourths reported speaking about health and about sexual relations. Somewhat fewer students, half to two-thirds, said that they had spoken about their bodies, though 63 to 80 percent mentioned talking about the changes associated with puberty.

Table 11: Percent of students discussing health topics: All students							
Topics Discussed		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
Personal hygiene	n	475	330	427	348	902	678
	wtd %	84.9	80.1	81.3	82.8	83.1	81.5
Health	n	434	292	348	319	782	611
	wtd %	74.5	71.6	68.4	75.3	71.6	73.5
My body	n	351	214	273	219	624	433
	wtd %	65.3*	53.5	49.8	54.8	57.9	54.2
Changes during puberty	n	441	290	324	278	765	568
	wtd %	79.1*	72.2	62.9	66.0	71.4	69.0
Menstruation	n	446	290	280	204	726	494
	wtd %	79.6**	71.7	51.1	48.0	66.0*	59.5
Sexual relations	n	419	305	363	298	782	603

	wtd %	77.0	81.4	72.3	72.3	74.8	76.7
Pregnancy	n	436	289	341	283	777	572
	wtd %	78.2*	71.7	65.6	66.9	72.2	69.2
Abortion	n	345	247	301	254	646	501
	wtd %	65.0	62.1	59.8	62.1	62.6	62.1
Consequences of pregnancy	n	425	274	329	264	754	538
	wtd %	77.3	69.9	65.1	68.7	71.5	69.3

* indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

Students discussing sex

Significantly more boys attending SHAPE 1 schools reported having discussed abstinence in peer education sessions, compared with boys in comparison schools (Table 12). As a group, SHAPE students were more likely to report this than the comparison students. A greater percentage of girls in SHAPE 1 schools reported having discussed being prepared for sex, and why people have sex, relative to girls in non-SHAPE schools.

About two-thirds of the students had spoken about sexual abuse; significantly more SHAPE students mentioned this. Just over one-fourth of all students had discussed talking with dates about sex, but of this relatively small proportion, a significantly higher proportion of SHAPE 1 students had explored this topic. SHAPE 1 boys, and the group as a whole, were less likely to report having discussed the consequences of sex for boys.

Topics Discussed		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
Abstinence	n	541	376	477	366	1018	742
	wtd %	95.3	93.8	92.5**	87.6	94.0**	90.6
Being prepared for sex	n	173	108	150	125	323	233
	wtd %	32.7*	27.6	28.2	28.2	30.6	27.9
Why people have sex	n	363	228	307	255	670	483
	wtd %	64.9**	56.9	58.6	60.9	61.9	58.9
Deciding when you should have sex	n	274	182	225	180	499	362
	wtd %	49.4	45.6	41.4	46.6	45.6	46.2
Self control	n	492	348	425	358	917	706

	wtd %	87.7	86.4	81.9	85.0	85.0	85.7
Talking with parents about sex	n	344	227	252	203	596	430
	wtd %	63.0	58.8	47.0	50.8	55.4	54.7
Talking with dates about sex	n	147	94	147	105	294	199
	wtd %	29.7	24.2	29.0	24.6	29.4*	24.4
Sexual abuse	n	397	260	330	254	727	514
	wtd %	71.8	65.7	62.6	55.3	67.4*	60.3
Rape	n	394	285	316	281	710	566
	wtd %	71.5	72.0	60.0	66.1	66.0	69.0
Consequences of having sex for boys	n	331	222	277	252	608	474
	wtd %	59.4	60.2	54.9**	64.5	57.3**	62.4
Consequences of having sex for girls	n	351	243	291	240	642	483
	wtd %	64.1	65.1	57.5	61.3	61.0	63.1

* indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

Students discussing STIs and HIV/AIDS

Students were asked whether they had discussed particular topics related to STIs and HIV/AIDS. Nearly 90 percent of all students had discussed how a person contracts HIV/AIDS, and nearly as many had discussed how to prevent the spread of HIV/AIDS, and STIs in general (Table 13). About three-fourths had discussed the consequences of getting an STI.

Girls attending SHAPE 1 schools were more likely than girls in comparison schools to have discussed STIs in their peer education classes. A smaller proportion of SHAPE 1 boys discussed being kind to people with HIV/AIDS, although four-fifths of all students, or more, had covered this topic.

Topics Discussed		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
STIs	n	531	352	444	361	975	713
	wtd %	92.6**	87.9	85.1	86.4	89.0	87.1

Consequences of getting an STI	n	432	287	351	280	783	567
	wtd %	78.9	73.7	70.0	71.5	74.7	72.6
How a person gets HIV/AIDS	n	525	352	453	383	978	735
	wtd %	91.7	87.2	86.0	88.9	89.0	88.1
How to prevent the spread of HIV/AIDS	n	494	354	436	343	930	697
	wtd %	87.4	88.3	83.7	82.3	85.6	85.2
Being kind to people living with HIV/AIDS	n	502	336	420	353	922	689
	wtd %	88.4	85.5	79.2**	84.9	84.0	85.2

* indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

Student attitudes about peer educators

Of students who had attended a peer education session, 59 to 71 percent enjoyed attending peer education or HIV/AIDS club meetings very much, and more than three-fourths reported learning “a lot” in their activities (Table 14). A higher percentage of boys in SHAPE 1 schools, and SHAPE students as a whole, reported speaking with a peer educator at school and mentioned positive attributes about the peer educators. Peer educators were generally well regarded; between 65 and 85 percent of all students reflected some of their positive traits.

		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
Enjoying going to club meetings: A LOT	n	402	287	320	277	722	564
	wtd %	69.9	71.3	61.7	58.7	66.0	64.8
Enjoy going to club meetings: SOME	n	87	44	85	79	172	123
	wtd %	16.3	10.8	15.6	21.4	16.0	16.3
Learned A LOT at club meetings	n	487	323	397	343	884	666
	wtd %	87.1	82.3	77.8	79.9	82.7	81.0
Learned SOME at club meetings	n	33	37	53	39	86	76

	wtd %	4.9	6.8	9.7	7.3	7.2	7.1
Spoke with PE at school	n	684	588	673	602	1357	1190
	wtd %	84.4	80.6	80.6**	65.1	82.5**	72.0
Reported positive attributes of PE	n	680	587	666	594	1346	1181
	wtd %	84.1	80.5	79.7**	64.2	81.8**	71.4
Reported negative attributes of PE	n	64	54	82	84	146	138
	wtd %	8.3	7.7	10.1	7.1	9.2	7.4

* indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

Student Confidantes and Information Sources

An implicit goal of SHAPE 1 was to foster better communication about HIV/AIDS between students and their teachers and parents, in addition to providing the resource of peer education. Students were asked to identify their preferred confidantes for personally important information, and for information related to sexual matters. For all students, mothers were the person most turned to discuss personal issues; half the girls, twice as many as boys, named their mothers (Table 15). About 15 percent of boys named their fathers, while fewer than four percent of girls did so. Friends and siblings were important resources for slightly more than ten percent of students, and peer educators were mentioned by only slightly more than five percent.

		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
Confidantes for personally important information	Total	783	689	796	864	1579	1553
Brother/sister	wtd %	9.9	10.6	11.8	12.6	10.9	11.7
Friends	wtd %	12.3	8.7	16.6	10.6	14.5	9.8
Boyfriend/girlfriend	wtd %	2.1	4.2	2.3	2.4	2.2	3.2
Mother	wtd %	48.9	51.2	25.6	28.6	36.8	38.6
Father	wtd %	3.7	3.8	14.5	17.3	9.3	11.4
Auntie	wtd %	0.7	0.8	1.3	1.1	1.0	1.0

Table 15: Confidantes for personally important information: All students							
		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
Uncle	wtd %	0.1	0.0	1.0	0.6	0.6	0.3
Guardian	wtd %	2.4	3.1	4.3	6.7	3.4	5.1
Teacher	wtd %	0.6	1.3	1.2	0.7	0.9	0.9
Religious leader	wtd %	1.6	2.7	7.0	6.6	4.4	4.8
Peer educator	wtd %	7.1	5.4	7.9	6.0	7.5	5.7
No one	wtd %	5.5	4.0	2.5	4.1	3.9	4.1
Other	wtd %	1.3	0.6	0.4	0.9	0.9	0.8

* indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

When asked who they turned to when they wanted to discuss sexual matters such as relationships, abstinence, control over sex, number of partners and interactions with partners, the percentages reporting their mother dropped by half (Table 16). Friends assumed a much more important role, with one quarter to one third of the students mentioning them. Peer educators also were mentioned by twice as many students as had noted them as important when discussing personal issues. No significant differences emerged among the groups.

Table 16: Confidantes for sexual information: All students							
		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
Confidantes for information about sexual matters	Total	781	691	799	864	1580	1555
Brother/sister	wtd %	11.1	9.6	13.1	11.4	12.1	10.6
Friends	wtd %	24.0	24.0	31.5	31.4	27.9	28.1
Boyfriend/girlfriend	wtd %	4.3	5.9	6.6	8.5	5.5	7.4
Mother	wtd %	22.4	25.7	11.4	12.0	16.7	18.1
Father	wtd %	1.6	0.9	3.1	4.2	2.4	2.8
Auntie	wtd %	0.6	1.0	0.5	1.0	0.6	1.0

Uncle	wtd %	0.3	0.1	0.1	0.0	0.2	0.1
Guardian	wtd %	0.9	2.3	1.5	2.0	1.2	2.2
Teacher	wtd %	1.9	0.6	2.5	0.9	2.2	0.7
Peer educator	wtd %	18.1	13.4	15.0	12.2	16.5	12.7
Religious leader	wtd %	0.3	1.1	3.2	3.5	1.8	2.4
Doctor/nurse	wtd %	5.7	6.5	4.2	4.8	4.9	5.6
No one	wtd %	5.2	4.9	3.4	5.4	4.3	5.2
Other	wtd %	0.7	0.6	0.5	0.4	0.6	0.5

* indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

Students were asked, “If you had doubts or questions about pregnancy, sexually transmitted diseases and HIV/AIDS, who is the most knowledgeable person you would want to talk to?”. One quarter to one third identified doctors or nurses as the most knowledgeable source (Table 17). Mothers remained important for about 17 percent of the students, with twice as many girls as boys naming mothers. Peer educators were mentioned by similar percentages as were health personnel, particularly among the SHAPE 1 students.

		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
	Total	787	693	793	863	1580	1556
Brother/sister	wtd %	2.1	3.9	5.2	4.1	3.7	4.0
Friends	wtd %	6.8	3.4	5.9	5.1	6.3	4.4
Boyfriend/girlfriend	wtd %	1.2	2.2	2.1	2.1	1.7	2.1
Mother	wtd %	22.4	23.0	11.0	11.6	16.5	16.6
Father	wtd %	1.3	1.8	5.7	6.0	3.6	4.1
Auntie	wtd %	0.3	0.4	0.6	1.0	0.5	0.7
Uncle	wtd %	0.1	0.5	0.5	0.3	0.3	0.4

Guardian	wtd %	1.8	2.4	1.9	2.2	1.8	2.3
Teacher	wtd %	3.2	3.5	4.9	4.9	4.1	4.3
Peer educator	wtd %	26.4	22.3	25.4	21.3	25.9	21.7
Religious leader	wtd %	1.7	0.9	3.3	2.3	2.5	1.6
Doctor/nurse	wtd %	27.3	29.3	27.3	34.2	27.3	32.1
No one	wtd %	2.9	3.0	1.9	2.8	2.4	2.9
Other	wtd %	0.4	0.3	0.0	0.0	0.2	0.1

* indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

Finally, students responded to several questions that asked about the specific topics they discussed with friends, teachers and parents; these are summarized in the following tables.

Discussions with friends

Students reported discussing a wide range of reproductive and sexual health topics with friends. More than 80 percent had discussed abstinence, and significantly more SHAPE 1 boys reported talking about this, compared with non-SHAPE 1 boys (Table 17). Nearly as many students mentioned discussing HIV/AIDS with friends, with no differences among the groups. Eighty percent of girls and 60 percent of boys indicated that they discussed puberty, menstruation, and reproduction, and about 60 percent of all students had discussed pregnancy and childbirth.

About three-fourths of students spoke with friends about STIs; slightly lower percentages reported talking about how to prevent them. Just over a third of the students spoke with friends about places that treat STIs and test for HIV; significantly more SHAPE 1 boys mentioned this than non-SHAPE boys.

Half the students discussed sexual relationships, harassment or coercion with friends, and just under half discussed how condoms prevent HIV/AIDS. Finally, only one quarter to one third discussed family planning methods, and even fewer, where to obtain them.

		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
Puberty, menstruation, reproduction	wtd %	80.2	81.0	60.9	58.8	70.2	68.6

Sexual relationships, harassment, coercion	wtd %	51.9	52.3	52.7	54.2	52.3	53.4
Abstinence	wtd %	87.7	86.1	84.4	80.2	86.0*	82.8
Pregnancy and childbirth	wtd %	60.5	57.7	57.8	60.2	59.1	59.1
STIs	wtd %	72.9	72.6	73.2	76.8	73.1	74.9
HIV/AIDS	wtd %	80.9	78.1	78.8	82.1	79.8	80.3
Family planning methods	wtd %	24.5	27.1	35.5	31.3	30.2	29.5
Methods to prevent STIs and HIV/AIDS	wtd %	70.6	66.5	71.8	74.2	71.2	70.9
How condoms prevent HIV/AIDS	wtd %	38.1	35.5	57.5	56.2	48.1	47.1
Where to obtain family planning methods	wtd %	17.8	20.8	34.1	32.0	26.2	27.1
Places that test for HIV/AIDS and treat STIs	wtd %	33.6	34.8	47.7*	41.8	40.9	38.7
Treatment of youth at STI clinics	wtd %	34.8	37.0	39.7	38.1	37.3	37.6

* indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

Discussions with teachers

Relatively high percentages of students reported discussing most sexual and reproductive health topics with their teachers. More than 70 percent reported talking about abstinence, HIV/AIDS, and STIs (Table 18). Higher percentages of girls in SHAPE 1 schools consistently reported discussing puberty, sexual relations, abstinence, pregnancy, STIs, HIV/AIDS, and family planning methods than their non-SHAPE counterparts. Significantly lower percentages of SHAPE 1 boys reported discussing HIV/AIDS and STIs than boys in the comparison schools. While only about 40 percent of students reported discussing family planning, significantly more SHAPE students mentioned this than non-SHAPE students.

		Female		Male		Both	
		Interven	Comp	Interven	Comp	Interven	Comp
Puberty, menstruation, reproduction	wtd %	63.2**	52.0	61.9	66.0	62.5	59.9
Sexual relationships, harassment, coercion	wtd %	52.8**	44.2	55.3	56.4	54.1	51.0
Abstinence	wtd %	75.3**	67.1	73.3	72.6	74.3	70.2

Pregnancy and childbirth	wtd %	65.0**	54.3	61.8	64.9	63.3	60.2
STIs	wtd %	72.3**	66.1	69.5*	72.9	70.9*	69.9
HIV/AIDS	wtd %	75.4*	69.8	73.2**	77.2	74.3**	74.0
Family planning methods	wtd %	40.5**	33.3	48.3	44.7	44.5*	39.7
Methods to prevent STIs and HIV/AIDS	wtd %	67.4	64.5	69.8	71.1	68.6	68.2
How condoms prevent HIV/AIDS	wtd %	46.1	45.8	56.0	55.6	51.2	51.3
Where to obtain family planning methods	wtd %	32.6	32.9	44.9	40.4	38.9	37.2
Places that test for HIV/AIDS and treat STIs	wtd %	44.3	46.5	52.8	53.5	48.7	50.4
Treatment of youth at STI clinics	wtd %	37.8	39.4	46.1	46.5	42.1	43.4

* indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

Discussions with parents

Program implementers and community members frequently debate whose role it is to teach young people about sexual and reproductive health. Often people conclude that parents have first responsibility, but parents themselves acknowledge either lacking information themselves, or feeling uncomfortable during such discussions. They look to teachers, as trained and objective professionals, to convey accurate, up to date messages to their children.

With the exception of puberty, menstruation and reproduction, fewer students reported talking about reproductive and sexual health topics with their parents than with teachers (Table 19). About 60 percent of students had discussed HIV/AIDS with their parents, and half the students reported discussing STIs; a significantly higher percentage of SHAPE 1 boys and SHAPE students as a whole had these discussions than those in comparison schools. Only one quarter of students mentioned discussing how condoms prevent STIs with parents, but SHAPE 1 boys, and SHAPE students overall, were more likely to have done so. SHAPE 2 boys were more frequently reported discussing places that treat STIs and test for HIV/AIDS, but the overall proportion is low, only about one third.

	wtd %	Female		Male		Both	
		Interven	Comp	Interven	Comp	Comp	Interven
Puberty, menstruation, reproduction		72.8	72.9	31.6	31.3	51.6	49.7

Sexual relationships, harassment, coercion	wtd %	37.9	35.4	24.8	23.7	31.2	28.9
Abstinence	wtd %	66.8	65.0	52.0	47.2	59.2	55.1
Pregnancy and childbirth	wtd %	53.1	54.6	36.3	33.3	44.5	42.7
STIs	wtd %	56.9	57.3	49.5*	45.1	53.1	50.5
HIV/AIDS	wtd %	67.3	64.8	54.7	57.6	60.8*	60.8
Family planning methods	wtd %	26.1	25.5	26.6	24.5	26.4	25.0
Methods to prevent STIs and HIV/AIDS	wtd %	51.3	48.6	43.4*	41.6	47.2*	44.6
How condoms prevent HIV/AIDS	wtd %	24.3	25.2	27.8**	20.7	26.1**	22.7
Where to obtain family planning methods	wtd %	20.1	22.3	23.2	19.1	21.7	20.5
Places that test for HIV/AIDS and treat STIs	wtd %	33.1	35.2	34.1*	31.3	33.6	33.0
Treatment of youth at STI clinics	wtd %	31.4	34.8	30.5	29.0	31.0	31.6

* indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

While parents may not feel comfortable speaking with their children about sensitive topics, young people themselves may also feel awkward in raising questions or initiating discussions. When asked, about twenty percent of the students responded that they found it very easy to speak with their parents (girls more so than boys), but a nearly equal percentage also replied that they found it very difficult.

		Female		Male		Both	
		Interven	Comp	Interven	Comp	Comp	Interven
	Total	776	689	780	851	1556	1540
Very easy	wtd %	21.2	22.5	17.2	17.1	19.2	19.5
Easy	wtd %	15.6	11.1	10.8	10.5	13.1	10.8
Not easy, not difficult	wtd %	18.6	19.7	15.3	14.1	16.9	16.5
Difficult	wtd %	18.0	12.9	20.2	19.9	19.2	16.8
Very difficult	wtd %	12.6	20.1	20.6	24.4	16.7	22.5
Not sure	wtd %	9.4	10.3	9.7	9.9	9.6	10.1

• indicates $p \leq 0.05$; ** indicates $p \leq 0.01$

SUMMARY AND PROGRAMMATIC IMPLICATIONS

The findings of this research support the expectation that students exposed to SHAPE 1 interventions will demonstrate more beneficial outcomes than students not exposed to SHAPE 1. While there were many indicators for which little or no difference was detected between the intervention and comparison schools, significant differences were found in a number of key strategic indicators. Some differences can be strengthened by continued attention during SHAPE 2, and proportions reporting improved levels of knowledge, attitudes or behaviors can be increased.

Knowledge of HIV/AIDS

Knowledge of HIV/AIDS was very high in this population of school students. Most rejected three or more misconceptions about HIV/AIDS, and there were no significant differences among the students.

Students appear to be less well informed about other STIs, and this might be a topic to include in more detail in the SHAPE 2 curriculum, given the links between STIs and higher risk of contracting HIV. When asked how to avoid contracting an STI, not more than sixty percent mentioned using condoms, another topic that bears reinforcing. Few students mentioned abstinence as a means to avoid STIs, but SHAPE boys, and SHAPE students as a whole, were significantly more likely to mention this.

Attitudes About Sexual Risk and Readiness

Less than one-fourth of the students reported feeling ready for sex; boys in both groups were more than twice as likely to say they were ready as girls. Simultaneously, nearly 75 percent of the students feel they control whether they have sex. Significantly fewer SHAPE 1 girls indicated they felt ready for sex, compared with the control girls, perhaps reflecting internalization of peer education messages to delay sexual debut.

Knowledge of protection from HIV/AIDS was nearly universal, and SHAPE 1 girls reported better knowledge than non-SHAPE girls. The program focus on personal risk assessment may be seen in the SHAPE 1 girls, and SHAPE students as a whole, being less worried about contracting HIV/AIDS. Nevertheless, with more than 70 percent of students saying they are worried, in a country with as low prevalence as Ghana, it is probable that young people are applying extremely conservative calculations of their personal risk.

Sexual Behavior

Fewer SHAPE 1 girls reported ever having a boyfriend, or currently being in a relationship, though generally these levels were low across all groups.

Of the 1851 SSS students, 20 percent reported ever having sexual intercourse. Fewer girls acknowledged that they had intercourse than boys. Significantly fewer SHAPE 1 girls

had had sex, and fewer SHAPE 1 students as a whole were sexually initiated, compared with the non-SHAPE 1 students. The average age at first sex was 15.5 among all students, slightly lower than that reported in other surveys of youth in Ghana. (cites here)

Condom use did not differ among the groups, and at between 50 and 60 percent, is comparable with levels seen in surveys of young people in other countries. (cites here) The SHAPE 1 girls were significantly more likely to report that condoms were not available, that they forgot them, or that their partner refused, compared with the other girls, but these differences were calculated with extremely small percentages and should be interpreted with caution. Half to two thirds of the few students with multiple partners used a condom at last sex. While condom demonstration and distribution remains a contentious issue in many peer education programs, it is an essential component of comprehensive education efforts. SHAPE 2 implementers should explore opportunities to introduce condom education as clearly as possible in curricula.

People Living with HIV/AIDS

Four in five students concurred that people infected with HIV/AIDS should be treated like everyone else, and SHAPE 1 boys were significantly more likely to hold this view than their non-SHAPE counterparts. However, students held less accepting views when asked about particular classes of individuals. Fifty to sixty percent agreed that an infected student should be allowed to continue attending school, with significantly more SHAPE 1 girls stating this than girls at comparison schools. However, 70 to 80 percent of students indicated that they would be worried if a classmate had HIV/AIDS.

Significantly higher percentages of both boys and girls attending SHAPE 1 schools supported teachers continuing to teach, compared to the control group students, but levels dropped to just around half the students. There is room to promote greater tolerance and less stigma among students through the SHAPE 2 activities.

Peer education: topics and attitudes

While high proportions of students in both sets of schools reported discussing many of the topics listed, a number were mentioned by only a modest fraction of the students. It is well documented that peer educators frequently cover a limited set of topics, returning repeatedly to those with which they feel most comfortable. A strong, comprehensive program needs to devote considerable support and monitoring to ensure that peer educators convey information regularly on all topics included in their curriculum.

More girls attending SHAPE 1 schools discussed their bodies, changes during puberty, menstruation, and pregnancy than did girls in non-SHAPE schools; they also reported discussing being prepared for sex, and why people have sex. More boys attending SHAPE 1, and SHAPE students in general, reported having discussed abstinence.

More SHAPE students discussed sexual abuse. SHAPE 1 boys, and the group as a whole, were less likely to report having discussed the consequences of sex for boys

The majority of students who had attended a peer education session enjoyed them, and around 80 percent reported learning “a lot” in their activities. A higher percentage of boys in SHAPE 1 schools, and SHAPE students as a whole, reported speaking with a peer educator at school and mentioned positive attributes about the peer educators. Peer educators were generally well regarded; between 65 and 85 percent of all students reflected some of their positive traits. This was reflected in a recent series of focus groups carried out with students and peers in a different set of SHAPE 1 schools (cite).

Peers were viewed as knowledgeable about pregnancy, sexually transmitted diseases and HIV/AIDS, with similar percentages of students mentioning peers and health personnel as equally credible.

Students reported discussing a wide range of reproductive and sexual health topics with friends. More than 80 percent had discussed abstinence, and significantly more SHAPE 1 boys mentioning this, implying this message has been well covered in the SHAPE program.

As mentioned in the introduction, one goal of the SHAPE project is to strengthen the knowledge and capacity of teachers in HIV/AIDS education. It appears that teachers in SHAPE schools are taking an active role in promoting good sexual and reproductive health. High percentages of students indicated that they discuss most sexual and reproductive health topics with their teachers. Higher percentages of girls in SHAPE 1 schools consistently reported discussing puberty, sexual relations, abstinence, pregnancy, STIs, HIV/AIDS, and family planning methods. However, lower percentages of SHAPE 1 boys reported discussing HIV/AIDS and STIs than boys in the comparison schools. While only about 40 percent of students reported discussing family planning, significantly more SHAPE students mentioned this than non-SHAPE students.

While SHAPE 1 nominally targeted parents in an effort to improve parent-child communication on HIV/AIDS, in fact only limited effort was made to reach them. Fewer students reported talking about reproductive and sexual health topics with their parents than with teachers. Among the topics reported by the highest percentages of students as discussed with parents were HIV/AIDS and STIs. Few discussed condoms and how they prevent STIs, but SHAPE 1 boys, and SHAPE students overall, were more likely to have done so. A greater focus on parents who are willing and interested in learning more and in reaching out to their children, should be stressed in SHAPE 2.

The SHAPE 1 program appears to have successfully improved a number of important indicators of knowledge, attitudes and behaviors among students attending schools in which the program operated. While these are impressive accomplishments, World Education and SHAPE 2 CSOs should carefully examine the data to determine what program elements did not show differences between the intervention and comparison schools, and develop strategies to address these gaps in the future.

Appendix 1

Sampling Design Report SHAPE Evaluation Study

Study Design Summary

Selection of Intervention Schools

The study design for phase 1 of the SHAPE Evaluation study included selection of sample intervention schools from a list of 46 schools with SHAPE program in operation for the past one to two years prior to the survey. The samples were selected stratified by type of school (junior high school or senior high school) with the probability of selection proportionate to the total number of students reported in the latest school year. In addition to a primary sample of intervention schools, a secondary set of sample schools was selected to ensure that the projected number of sample schools would be obtained. That is, a secondary intervention sample school would have to replace a primary intervention sample school, in case criteria for selecting the primary sample were not met during fieldwork.

Selection of Control Schools

For each of the primary and secondary sample of intervention schools, a list of control schools was compiled. This list of control schools consisted of the same type of schools located in the same district or neighboring district(s) whose student populations were more or less equal to the student population of the sample intervention school. The candidate control schools that met the location and student size criteria were sorted randomly, and the first school listed was the matching school. As in the selection of intervention schools, secondary control schools were noted as possible replacement in case the assumptions regarding the matching were found to be violated during field work.

There was considerable missing data on enrollment in the list of control schools so matching by enrollment was not implemented for all pairs of intervention and matching schools.

Sample Size

The total number of sample schools was set at 10 intervention and 10 control schools for a total of 20 sample schools to meet logistical constraints. A total of over 3000 students, approximately half females and the other half males were projected to be interviewed. Although the sample sizes were driven mostly by logistical constraints, the proposed study size was deemed sufficient to provide precise estimates in the difference in knowledge indicators between intervention and control schools but not with respect to differences in indicators related to sexual behavior.

Characteristics of List Frames of Schools

In Table 1 is a set of summary statistics from the list frame for intervention schools. The sampling frame consisted of 46 schools, 29 junior high schools with enrollment of over 7,000 students and 17 senior high schools with enrollment of over 10,000 students. Of the 46 schools in the intervention school frame, two had missing data on enrollment. To allow inclusion of these two schools during sample selection, they were assigned the mean value of their school type: 606 for senior high school and 177 for junior high school enrollment. Some schools reported aggregated total enrollment while some schools reported enrollment disaggregated by sex; as such, the sums of enrollment across schools did not sum up to sums of male and female enrollment. All schools regardless of duration of the SHAPE operations were included in the sampling frame.

Table 1. Number of Schools, Total Enrollment and Average Enrollment per School by Type of School and Number of Years SHAPE Intervention was in Operation, Ghana

School Type	# of Years in SHAPE	Number of schools	Total Population			Average per School		
			Males	Females	Both Sexes ¹	Males	Females	Both Sexes ¹
Junior Secondary								
	1	16	3279	1104	4383	205	74	274
	2	13	1286	1196	2648	117	109	204
	All	29	4565	2300	7031	169	88	242
Senior Secondary								
	1	15	2977	5042	10239	271	388	683
	2	2	54	39	243	54	39	122
	All	17	3031	5081	10482	253	363	617
Both Types of Schools								
	1	31	6256	6146	14622	232	220	472
	2	15	1340	1235	2891	112	103	193
	All	46	7596	7381	17513	195	185	381

¹ Sum for both sexes not necessarily equal to sum of male and female population as not all schools reported enrollment by sex

² Enrollment data for two schools imputed to average by school type

³ Field report indicated at least two schools in the frame had to be excluded

In Table 2 is the list of primary and secondary samples of intervention schools, including the original and adjusted sampling weights. Two schools in the primary samples were found to be logistically difficult to handle (Pope John Junior Secondary School and Osino Presbyterian Senior Secondary Schools). In lieu of these two primary school samples, interviews were completed in two secondary samples (Suhum Methodist L/A and Amadaman Senior Secondary Schools). With the exclusion of two primary samples, and inclusion of secondary samples, the original school sampling weights were recalculated. (The original school sampling weight for the primary sample is equal to the total number of students in the strata (e.g. type of school) divided by the product of the sample size from the stratum and the total number of students in the selected sample school). For the secondary sample, the weight was calculated in the same manner except the total strata size included total of students not included in the selection of the primary sample.

To recalculate the school weight, the numbers of students represented by the sample schools were changed from over 7000 to 5001 in the junior secondary schools, and from

10482 to 9876 in the senior secondary schools to account for the exclusion of the primary school samples. The average number of students represented by each sample school in each of the junior and senior secondary school strata was also recalculated to be equal to 1250.25 and 1646 students, respectively. The adjusted school weight was recalculated to sum up to this new average number of students represented by each school. On average, the new weights are about 0.71 and 0.98 of the original weights for junior and senior secondary school weight. School samples with no student interviews were assigned sampling weight of zero.

Table 2. List of Sample Intervention Schools by Type, Type of Sample, School Enrollment and Original and Adjusted Sampling School Weight

Type of School	Type of Sample	School Name	District	School Enrollment	Strata Size	Original Sampling Weight	Adjusted Sampling Weight	Sums of Weighted Enrollment
Junior	Primary	Pope John Sec Sch	New Juabeng	2030	7031	0.8659	0.0000	0
		St. Francis Demo. JSS	Hohoe	332	7031	5.2944	3.7658	1250.25
		Flagstaff House Primary & JSS	Ayawaso	701	7031	2.5075	1.7835	1250.25
		SDA Demonstration JSS	New Juabeng	347	7031	5.0656	3.6030	1250.25
	Secondary	Suhum Methodist L/A JSS	Suhum Kroboa	250	3621	7.2420	5.0010	1250.25
		Alajo Primary & JSS	Alajo	285	3621	6.3526	0.0000	0
		Sub-total						
Senior	Primary	Armed Forces Sec Tech	Ayawaso	750	10482	2.3293	2.1947	1646
		Koforidua Technical Sec	New Juabeng	1385	10482	1.2614	1.1885	1646
		Ofori Panin Sec. Sch	East Akyem	1753	10482	0.9966	0.9390	1646
		Osino Presby Sec Sch	Fanteakwa	606	10482	2.8828	0.0000	0
		Adukrom Sec Sch	Akwapim North	425	10482	4.1106	3.8729	1646
		Accra Girls Sec Sch	Ayawaso	1000	10482	1.7470	1.6460	1646
	Secondary	Amasaman Sec Sch	Ga	510	4563	2.9824	3.2275	1646
		Abert Academy SSS	Ga	285	4563	5.3368	0.0000	0
		Adonten Sec. Sch	Akwapim South	1400	4563	1.0864	0.0000	0
		Sub-total						

In Table 3 is the list of matched schools by type of school and intervention/control group. Also shown are the number of total classes, sample classes, number of students listed in the total classes, and number of students who completed the self-administered questionnaires by sex.

For the 20 sample schools, 301 classes with a total enrollment of 14,358 students were listed. Of the total listed classes, 137 classes were in control schools with 6542 enrolled students and 164 were in intervention schools with 7816 enrolled students. Fifty-four of the classes were in junior secondary schools (28 from intervention schools and 26 from control schools) and 247 were in senior secondary schools (136 from intervention schools and 111 from control schools).

From the 301 classes, 86 classes were identified as sample; 43 classes from intervention schools (19 from junior and 24 from senior secondary schools) and 43 classes from the control schools (19 from junior and 24 from senior secondary schools). Of the 1915 students in the 43 intervention school classes, 1628 students completed the self-administered questionnaires (692 from junior and 936 from senior secondary schools). Of the 2013 students from the control school classes, 1598 completed the self-administered questionnaires (680 from junior and 918 from senior secondary schools). The completed self-administered interviews were 3226.

Of those who completed the self-administered interviews from the intervention schools, 825 were boys and 803 were girls. The corresponding figures in the control schools were 882 boys and 716 girls.

Table 3. Number of Classes, Listed Students and Completed Questionnaires by Sex, by Type of School, Intervention and School

Type of School	Pairs	Type of Intervention	School	Number of Classes		Number of Students in		Number of Completed Questionnaires			
				Total	Sample	All Classes	Sample Classes	Both Sexes	Male	Female	
Junior	1	Control	GBI CENTARL RC	6	5	237	204	175	175	0	
		Intervention	ST FRANCIS DEMO JSS	8	4	393	193	174	80	94	
	2	Control	KOTOBABI 13 JSS	8	4	425	248	136	64	72	
		Intervention	FLAGSTAFF HSE PRI & JSS	6	4	243	161	164	94	70	
	3	Control	NEW TAFO L/A FEDEN	6	4	276	178	162	93	69	
		Intervention	SDA DEMONSTRATION	8	5	289	186	180	93	87	
	4	Control	STAR OF SUHUM	6	6	197	197	207	121	86	
		Intervention	SUHUM METHODIST LA JSS	6	6	220	220	174	70	104	
	Sub-total	Control			26	19	1135	827	680	453	227
		Intervention			28	19	1145	760	692	337	355
Both			54	38	2280	1587	1372	790	582		

		Groups									
Senior	5	Control	KANESHIE SEC TECH	15	5	649	221	134	96	38	
	5	Intervention	ARMED FORCES	18	5	653	178	146	81	65	
	6	Control	SUHUM PRESBY	15	4	711	190	148	56	92	
	6	Intervention	KOFORIDUA SEC TEC	34	4	1740	182	162	138	24	
	7	Control	ABUAKWA STATE COL	34	4	1678	203	171	79	92	
	7	Intervention	OFORI PANIN	33	3	1730	186	138	43	95	
	8	Control	NSAWAM SEC SCH	15	4	677	194	171	71	100	
	8	Intervention	ADUKROM SEC TECH	12	4	620	220	172	162	10	
	9	Control	O'REILLY SECONDARY	18	3	1071	197	147	65	82	
	9	Intervention	ACCRA GIRLS SEC	23	4	1197	194	166	0	166	
	10	Control	NGLESHIE AMANFRO SEC	14	4	621	181	147	62	85	
	10	Intervention	AMASAMA SEC	16	4	731	195	152	64	88	
	Sub- total		Control		111	24	5407	1186	918	429	489
			Intervention		136	24	6671	1155	936	488	448
		Both Groups		247	48	12078	2341	1854	917	937	
Both Types		Control		137	43	6542	2013	1598	882	716	
Total		Intervention		164	43	7816	1915	1628	825	803	
		Both Groups		301	86	14358	3928	3226	1707	1519	

In Table 4 are additional statistics on total counts of students compiled from the sampling frame, the total number listed for the sample schools, total number of students from the sample classes, and number of students who completed the questionnaires by type of school and intervention group.

During the construction of the school frame using data from the Ministry of Education, (MEC) over 12000 students comprised enrollment from both the control and intervention sample schools with 42% of students from the control schools. During the listing of classes, over 14000 students were listed with 46% of the listed students from the intervention schools. The difference of almost 1500 students from the listing and the MEC counts occurred mostly in the senior secondary schools while the difference in the junior secondary schools was only 44.

The class listing yielded larger proportion of boys than girls in all types of schools by interventions except in the junior intervention group with higher proportion of girls than boys.

Of the 3928 students from the sample classes, 3226 completed the questionnaires for an 82% completion rates. The completion rate was higher in intervention schools (1628 out of 1915 students for 85% completion rate) than in control schools (1598 out of 2013 students for 79% completion rate). The completion rate was also higher among girls than among boys.

Table 4. Counts of Students from the Sample Frame, Listing and Number of Completed Questionnaires by Type of School, Intervention and Sex

Types of Counts/Sources	Junior Secondary			Senior Secondary			Both Types of School		
	Control	Inter- vention	Both	Control	Inter- vention	Both	Control	Inter- vention	Both
School Enrollment	694	1630	2324	4689	5823	10512	5383	7453	12836
Counts from Listing									
Boys and Girls	1135	1145	2280	5407	6671	12078	6542	7816	14358
Boys	695	542	1237	2957	3620	6577	3652	4162	7814
Girls	440	603	1043	2450	3051	5501	2890	3654	6544
Counts in Sample Classes									
Boys and Girls	827	760	1587	1186	1155	2341	2013	1915	3928
Boys	543	365	908	627	627	1254	1170	992	2162
Girls	284	395	679	559	528	1087	843	923	1766
Completed Questionnaires									
Boys and Girls	680	692	1372	918	936	1854	1598	1628	3226
Boys	453	337	790	429	488	917	882	825	1707
Girls	227	355	582	489	448	937	716	803	1519

Sampling Weight at the Class/Student Level

Within each sample school, the sampling weights of sample classes were calculated to equal the total number of classes divided by the total number of sample classes. In some schools, this weight was 1 as all of the listed classes were taken as sample.

All of the enrolled students in a sample class were to be administered the questionnaires. However, some students did not complete the self-administered questionnaires. To adjust for such non-response each student in the sample class was assigned weights equal to the total number of students enrolled divided by the total number of students who completed the self-administered questionnaires. Because the enrollment data at the class level were reported by sex, the adjustment for non-response/absence was also by sex.

The sampling weight for each student is a product of the school weight, class weight and student weight.

For the control schools, the sampling weight was normalized so that the sum of the weights is equal to the total number of boys and girls in junior and senior secondary schools. Such normalization was not done for the students in the intervention schools as the schools in this group represent all the other SHAPE schools not included in the sample.

Overall, the weighted estimates of responding students by type of schools, type of intervention and sex are in Table 5.

Table 5. Weighted Estimates of Completed Interviews by Type of School, Intervention Group and Sex

School Type	Intervention Groups	Boys	Girls	Boys & Girls
Junior	Control	695	440	1135
	Intervention	1935	2189	4124
	All	2630	2629	5259
Senior	Control	2957	2450	5407
	Intervention	5309	4768	10077
	All	8266	7218	15484
Both Types	Control	3652	2890	6542
	Intervention	7243	6957	14200
	All	10895	9847	20742

The students in the control schools who completed the questionnaires, 1598, represent the 6542 students listed in all of schools classes. On the other hand, 1698 students from the intervention schools represent 14,200 students from the intervention schools.

Alternative Weights

After the sampling weights were constructed, issues arose as to how the sampling weights would be merged with the data file. It turned out that class id numbers in the data file were not consistent with the class id file in the summary spreadsheet used to calculate the sampling weight. Given the short turn-around for the phase 1 analysis, temporary weights that ignored the sampling of classes were considered. These alternative weights consisted of two components: 1) school weight and 2) adjusted student weight. The school weight was as previously defined. The adjusted student weight, on the other hand, was a ratio of the total number of male (female) students listed for each school to the total number of male (female) students with completed questionnaires. Thus, as in the weight that accounted for classes, separate weights for males and females are used. The weighted distribution of the sample is in Table 6. The totals of the intervention populations are larger by about 2000 with the temporary weights as class sampling as well as non-response rates at the class level were not considered in this set of temporary weights.

These alternative weights are to be used only for the Phase 1 analysis until the class id issues are resolved.

Table 5. Alternative Weighted Distribution using Weights that Ignored Sampling of Classes

School Type	Intervention Groups	Girls	Boys	Boys & Girls
Junior	Control	440	695	1135
	Intervention	2164	1891	4055
	All	2604	2586	5190
Senior	Control	2450	2957	5407
	Intervention	5293	6129	11422
	All	7743	9086	16829
Both Types	Control	2890	3652	6542
	Intervention	7458	8019	15477
	All	10348	11671	22019

APPENDIX 3

References

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Table A2a: Knowledge of HIV/AIDS: JSS Students							
		Female		Male		Both	
		Int	Comp	Int	Comp	Int	Comp
Number of ways correctly identified to prevent sexual transmission of HIV/AIDS	Total	355	227	337	453	692	680
0	wtd %	0.3	1.5	3.0	2.2	1.5	1.9
1	wtd %	5.9	2.3	8.0	7.9	6.8	5.7
2	wtd %	8.2	9.6	12.2	12.7	10.1	11.5
3	wtd %	16.3	16.5	17.7	17.5	16.9	17.1
4+	wtd %	69.4	70.0	59.1	59.8	64.6	63.7
Number of misconceptions about HIV transmission that were rejected	Total	355	227	337	453	692	680
0	wtd %	0.9	0.7	0.3	0.4	0.6	0.6
1	wtd %	5.1	2.1	4.3	5.9	4.7	4.4
2	wtd %	21.1	29.8	21.0	26.5	21.1	27.8
3+	wtd %	72.9	67.3	74.3	67.2	73.6	67.3
Mothers can pass HIV/AIDS to babies	n	314	192	272	337	586	529
	wtd %	88.6	83.5	80.0	72.4	84.6	76.7
It is possible for a women with HIV to give birth to a child with HIV	n	197	158	194	291	391	449
	wtd %	56.2	65.7	59.3	61.7	57.6	63.2
Ways to avoid STI's	N (multiple responses allowed)	355	227	337	453	692	680
No answer	wtd %	0.3	1.2	0.4	0.4	0.4	0.7
Not kissing infected person	wtd %	48.3	66.2	46.7	43.6	47.6	52.3
Not having sex with infected person	wtd %	79.4	81.3	77.4	75.1	78.5	77.5
Sticking to one partner for sex	wtd %	37.3	48.9	33.8	34.1	35.7	39.8

Using a condom during sex	wtd %	49.9	46.8	44.9	47.0	47.6	46.9
Abstaining from sex	wtd %	1.1	2.6	2.3	2.4	1.6	2.4
Seeing a health personnel/doctor	wtd %	6.2	4.5	5.4	2.7	5.8	3.4
Not using same razor with infected person	wtd %	1.3	5.2	2.1	1.1	1.7	2.7
Other	wtd %	0.0	0.4	0.4	0.7	0.2	0.6

Additional tables to be added.