PRIMARY SCHOOL ACTION FOR BETTER HEALTH

10 MONTH EVALUATION RESULTS for FIVE NEW SITES
VOLUME I of II

Project: Primary School Action for Better Health IV
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LIST OF ABBREVIATIONS

DFID	Department for International Development
FGD	Focus group discussion
KAB	Knowledge, attitudes and behaviours
KCPE	Kenya Certificate of Primary Education
KIE	Kenya Institute of Education
MK	Mount Kenya Formal Income Families
MoEST	Ministry of Education, Science and Technology
NFI	Nairobi Formal Income Families
NIS	Nairobi Informal Settlements
PSABH	Primary School Action for Better Health
UC	Urban Coast
UOW	University of Windsor
VCT	Voluntary Counseling and Testing
WK	Western Kenya Densely Populated Areas

EXECUTIVE SUMMARY

Primary School Action For Better Health (PSABH)

Primary School Action for Better Health (PSABH) is an HIV/AIDS prevention programme for primary schools being delivered in Kenya by CfBT with Ministry of Education staff. It was evaluated using successive waves of data collection over a 30 month period in Nyanza and Rift Valley Provinces. Based on positive evaluation results, PSABH began to be delivered to schools across Kenya in 2004. The evaluation reported here follows PSABH into five new regions of the country, including schools in: Western Kenya, Mount Kenya, Urban Coast and 2 groups of schools in Nairobi, those with pupils from families with formal incomes and those from informal settlements. The model delivered to these schools trains the head teacher (or deputy head), 1 resource or senior teacher, and 1 community representative in a week-long training sessions, followed by 2 additional teachers being trained in a similar session 1 term later. The trained teachers then deliver training to their colleagues and provide HIV/AIDS education in the classrooms and co-curricular activities in their schools. In addition, primary schools in communities where there is a secondary school also have 4 peer supporters and one additional teacher-supervisor trained in a similar one-week training course.

Evaluation Design

22-25 schools from each region were randomly selected from among those that sent a full complement of teachers to training in December 2004. Select teachers from these schools participated in a focus group discussion at the beginning of the training. Standard 6 and 7 pupils and 2 teachers from each school completed surveys in January 2005 and a sample of boys and girls from 4 schools in each region also participated in focus group discussions. Survey, focus group and interview data collection was also completed in October 2005, 10 months after the teachers began implementing the programme in their schools. A total of 16-25 schools in each region participated in both phases of data collection and are used in this evaluation.

The central question in this phase of research is:

> *Can PSABH be delivered and have an impact similar to that observed in Nyanza and Rift Valley in different regions that serve pupils from different ethnic groups?*

Evaluation Results

Teacher Training

- PSABH trained teachers were evident in all schools participating in the evaluation. However, the majority of schools in all regions also reported having had other forms of HIV and AIDS training.
- Training of colleagues was evident in almost all of the schools in each region, generally through staff meetings
- Trained community representatives reported using their training to build awareness in the schools and the local community

HIV and AIDS Teaching in the Schools

- In Classroom Subjects:
  - There were significant increases in the percentages of both teachers and pupils reporting that HIV and AIDS had been addressed in at least one subject (for teachers) and all subjects (for pupils) in each region
  - In interviews, teachers were able to provide a variety of examples of the ways that HIV and AIDS had been infused and integrated into subjects. Some teachers acknowledged that this type of infusion and integration was present in the syllabus for all except grade 4 and 8.
  - Teachers from UC and MK schools had the greatest number of techniques for addressing HIV and AIDS in the classroom where the use of these techniques increased significantly from pre to post data collection
- Co-Curricular Activities:
  - Assemblies remained the most common activity to include HIV and AIDS information according to both teachers and pupils
  - Although there were significant increases in the number of schools with health clubs and question boxes, there was also significant variability across regions. For example, fewer than 50% of NFI schools had health clubs and fewer than 50% of UC schools had question boxes at post data collection.
- Resource Use:
  - Of the 8 types of educational materials included in the survey, teacher reports of availability of at least 3 (MK and WK) to as many as all (NIS) of these teaching resources increased significantly. Teachers in all regions significantly increased their use of resources.
  - Pupils were also asked about their use of 9 types of resources. There were significant increases in the percentage of pupils referencing at least 5 (NIS) to as many as all (NFI, UC, WK) of these resources

Barriers to Teaching HIV and AIDS

- There were significant decreases in the number of barriers to teaching about HIV and AIDS reported by NIS, UC and MK schools but structural barriers such as shortage of materials and time remained the most prominent across all regions despite significant decreases in the percentage of teachers concerned about these in most regions.
- In interviews, most teachers were able to identify at least one area in which they felt further training would be useful.
- Teachers' attitudes about teaching about HIV and AIDS and towards people who are infected typically remained positive, however, teachers appear to continue to struggle with teaching about condoms in light of their sexual morality (the majority in all regions believe that sex outside marriage is wrong)..

Abstinence Teaching/Learning

- Abstinence remains the most common message that teachers provide and pupils hear.
- There are few significant increases in the percentages of teachers reporting they address each of the specific strategies for abstinence (the majority in UC). In contrast, there were significant increases in the percentage of pupils reporting being taught about each abstinence strategy in all regions.

Peer Supporters

- There are peer supporters in many schools despite the fact that PSABH did not train any peer supporters in these regions. Peer supporters are actively contributing to the HIV/AIDs prevention programming in the schools.

Knowledge

- Knowledge was high for teachers at pre-programme with few significant increases post-programme.
- There were significant increases in the mean percentage score for pupils in MK and WK and significant increases in the mean percentage of pupils with scores greater than 50% in UC, MK and WK.

Pupil Pursuit of Information and Communication about HIV and AIDS

- With very few exceptions, there were significant increases in the percentage of pupils reporting pursuing HIV and AIDS information in each of the specified ways across all regions.
- Scores for talking to various types of individuals also increased significantly for both boys and girls across all regions.

Pupil Sexual Behaviours and Risk Perception

- Sexual Behaviours
  - Attitudes: There were significant increases in all regions in pupil's with convictions that they could say no to sex. Attitudes and agency with respect to condoms did not, however, change.
  - Pressure to play sex: The percentage of boys and girls reporting specific pressures to engage in sexual activity increased significantly for many of the types of pressures. The specific pressures varied across regions. This was less the case among those who were sexually active where experiences of specific types of force or pressure remained constant across data collection periods.
  - Sexual Activity: Although there were increases in the percentages of pupils reporting sexual activity, these appear to be the result of behaviour that took place before PSABH.
  - Avoiding and Refusing Sex: There were significant increases in the percentage of boys (MK and WK) and girls (all but NFI) reporting that they had refused sex in the last 3 months and in the percentage of boys (all but NFI) and girls (all regions) who had refused to go somewhere in the past month to avoid the possibility of playing sex.
  - Peer Estimates: There were significant increases in pupil estimates of the numbers of both boys and girls who are playing sex.

- Condom Use
  - The only significant change in condom use was an increase in the percentage of boys in MK reporting condom use at last sex.

Emerging Issues

- Concerns about drug use, homosexual behaviour, and circumcision practices appeared more frequently among teachers in this data collection than had been expressed in any earlier qualitative data.
- Teachers and pupils also expressed concerns about the various ways their communities had been infected and affected by HIV and AIDS and what was needed to assist those most deeply affected by the pandemic.

Recommendations

- The results of these analyses suggest several recommendations for the on-going support of HIV and AIDS education in the schools.

Conclusions

Taken together, these results support the conclusion that PSABH can be successfully transferred to other regions in Kenya with results that are comparable to those obtained in Nyanza and Rift Valley provinces.

INTRODUCTION

Primary School Action for Better Health (PSABH) is an HIV/AIDS prevention programme for primary schools being delivered in Kenya by C*f*BT with Ministry of Education, Science and Technology staff. The goal of PSABH is to create a positive behaviour change in upper primary school pupils to reduce their risk of exposure to HIV. This is done using a modified cascade approach to training teachers in the delivery of an HIV/AIDS education programme in standards 6-8.

Between November 2001 and October 2003, PSABH was evaluated using a community randomized cross-sectional trial with combined survey and interview methodologies focusing initially on Nyanza and followed by Rift Valley. Data collected pre-programme (wave 1) and 18 (Nyanza) or 14 (Rift Valley) months after teachers were trained (wave 3), supported the conclusions that the programme was well received in schools and communities and compared to control schools, produced desirable changes in pupil KAB related to HIV transmission. Many of the changes evidenced in wave 3 were sustained through data collection 30 (Nyanza) or 26 (Rift Valley) months later. While the impact of findings differed in scale and specific nature in the two provinces, in general they were similar in terms of KAB. Given the promising results in these regions, the programme is currently being expanded to primary schools across Kenya. Four-five peer supporters and a teacher supervisor were also trained in some of the schools.

This report summarizes the results for comparisons pre-training and 10 months post-training in schools from five regions of Kenya to which PSABH has been expanded: Nairobi schools which draw their populations from households where adults generally have access to a formal income, referred to as Nairobi Formal Income (NFI), Nairobi schools which draw their populations from families living in informal settlements (NIS), Coastal Province schools located in the urban areas of Mombasa and Malindi (UC), Mount Kenya schools, most of which draw their population from households where adults have access to a formal income (MK), and schools in Western Kenya which are identified as located in rural, but densely populated areas (WK). In each case, a head or deputy-head teacher, senior teacher and community representative participated in a week-long residential training, with 2 additional teachers participating in the same training a term later.

PSABH follows an action research model where the goal of the research is to both evaluate the project and identify new or emerging issues that need to be incorporated into programme content or delivery. The model of PSABH that is being delivered in the five new regions trains teachers to:

- Infuse and integrate HIV/AIDS teaching into classroom subjects.
- Use co-curricular activities such as school assemblies, an anonymous question box, school health clubs to engage pupils in learning activities related to HIV/AIDS.
- Use participatory learning techniques such as drama, music, debates, story writing to actively engage pupils in learning and to provide them with practice in skills necessary to avoid contact with HIV.
- Explore sexual scripting with youth and deliver messages that take these scripts into account.
- Be alert to different levels of sexual maturation and ensure pupils receive information and motivation to take risk reducing action that is appropriate to their level of sexual maturation.
- Separate the delivery of factual information about condoms from moral education.

- Use resources inside and outside the schools. Outside resources, such as health workers are used especially to deliver programme components which teachers feel unable to deliver.

In addition, representatives of the main faith communities in each region participate in a portion of the teacher training to facilitate discussions of the views of faith communities and demonstrate their support to teachers.

Twenty schools from each of the designated regions were targeted for this evaluation. To insure 20 schools were retained through to the post-data collection period, more than 20 were randomly selected from those that had a full complement of trained personnel (head teacher, senior teacher, and community representative) attending Course A. Only those schools that participated in both the pre and post data collection are used in this report. Of note is that because PSABH is being rolled-out to all schools in each region, it was not possible to include control sites (i.e. schools that did not receive the intervention) in this evaluation.

The central question of this phase of research is:

> *Can PSABH be delivered and have an impact similar to that observed in Nyanza and Rift Valley in different regions that serve pupils from different ethnic groups?*

The question is answered by comparing HIV/AIDS activities in the schools and pupil and teacher KAB before and 10 months after the programme was introduced into schools.

RESEARCH METHODS

This chapter reports on the methods used for evaluation of PSABH as it was delivered in five new regions of Kenya.

Monitoring Design

A pre-post mixed quantitative-qualitative design was used with a random sample of 22-25 schools from each of five regions of Kenya.

Site Selection

The objective was to select regions that were likely to provide a different profile of pupils and communities from each other and from the original research and evaluation sites in Nyanza and Rift Valley provinces. Based on consultation with senior staff at Steadman Research Services Incorporated and C*f*BT, it was decided to monitor the roll-out of PSABH in five regions of the country. These included schools in Western Province (WK), the Mount Kenya region (MK), the urban areas of Mombasa and Malindi in Coast Province (UC), and two groups of schools in Nairobi, those serving informal settlements (NIS) and those catering primarily to pupils from formal income households (NFI). Data collection pre-programme confirmed that these regions provided different economic, ethnic, and socio-cultural profiles and constituted a suitable test of the transferability of PSABH to different regions.

Lists were made of all schools that sent a full complement of representatives (1 head teacher, 1 resource or senior teacher, 1 community representative) to Course A of the PSABH training session (December 2004) in the designated regions. Twenty-two to twenty-six schools were randomly selected from each region from the lists. Schools were over-sampled to accommodate potential attrition over the 10 month period. Four schools were randomly selected from this sample for participation in qualitative data collection.

Survey Administration

Teachers from selected schools completed surveys before beginning their training and a selection of teachers and community representatives also participated in a focus group before training. In January 2005, before teachers began PSABH activities in schools, all standard 6 and 7 pupils in the selected schools also completed surveys and 5 boys and 5 girls from 4 schools in each region participated in gender segregated focus group discussions.[1] Surveys were administered in English and the dominant ethnic language of the area (Luo, Kikuyu, and Swahili) and focus groups were also conducted bilingually. Multilingual staff from Steadman Research Services, Inc. administered surveys and conducted interviews and focus group discussions. In pupil survey administration, questions were read aloud to pupils as they followed along on their printed questionnaires. These data collection procedures were then repeated in October 2005 with teacher surveys implemented in the schools and in-depth interviews of teachers and community representatives held at the schools selected for focus

[1] Following the collection of baseline data it was identified that one of the schools which was originally assigned as an NIS school should have been included as an NFI school. To maintain consistency qualitative data were collected from the same schools at post data collection, therefore, there are actually 5 NFI and 3 NIS schools included in qualitative analysis.

groups with pupils. As well, Steadman staff interviewed head teachers and/or deputy head teachers at all participating schools to obtain information on school characteristics and training.

Ethics

Research procedures, questionnaires, interview and focus group discussion schedules were reviewed and cleared by the Kenya Ministry of Education, Science and Technology and by the University of Windsor Research Ethics Board prior to commencement of research. All participants were apprised that participation was voluntary, that their responses remained confidential, and that they had the right to decline participation or withdraw from participation.

Data Handling

Steadman Research Services Incorporated organized pilot testing and translation of the surveys to the dominant ethnic languages (Luo, Kikuyu, and Swahili), data collection and data entry. Their multi-lingual staff conducted surveys with pupils and teachers, and in-depth interviews and focus groups with teachers, community representatives and pupils. Records were maintained of field situations and unexpected circumstances. Steadman personnel entered all survey data into SPSS databases and translated and transcribed the focus group and in-depth interviews. All data and transcripts were transmitted to the University of Windsor (UOW) for analysis. Senior staff at Steadman also consulted with senior staff at C*f*BT and the UOW on data collection instruments, research design, and interpretation of results, contributing their many years of field experience to insuring the research design was feasible, the questions reliably and validly tapped the desired information, and local contexts or meanings were reflected in the interpretation of results.

Research Design, Data Analysis and Reporting

Dr. Eleanor Maticka-Tyndale, Canada Research Chair in Social Justice and Sexual Health at the UOW (Canada) was responsible for research design, data analysis, and completion of reports. Data collection instruments and data collection plans were developed in collaboration with senior C*f*BT and Steadman Research staff in Nairobi. Close contact was maintained through email and periodic meetings and site visits in Kenya to deal with any unexpected field situations, interpretations of results, and implications of results for programme modifications. SPSS was used in survey analysis and Scolari N6 for analysis of interviews and focus groups.

Measurements

Two sets of survey measurements were used in analysis. The first set consisted of direct responses of pupils and teachers to questions on surveys. The second consisted of scales and composite measures created by combining responses to clusters of questions dealing with the same topic. Differences between pre and post scale scores were also calculated for comparisons between regions and with corresponding data from Nyanza province. Before creating scales or composite measures, clusters of questions were tested using factor and reliability analysis to ensure pupils and teachers were responding to questions in a way that justified combining them.

Explanations and discussions evidenced in the transcripts of interviews and focus groups were used to produce in-depth, subjective measurements of knowledge, attitudes and behaviours related to HIV transmission, and to identify emerging issues within schools and communities

that were not covered in questionnaires. Where conclusions based on questionnaire responses and interview or focus group discussions differed, these were examined in greater detail to identify potential conditions or mediating factors that might influence the interpretation of results. Discussions with those more familiar with Kenyan youth and schools (e.g. Steadman research staff, C*f*BT staff, and lead trainers and teachers), and examination of other research conducted with youth in Kenya and other subSaharan African countries contributed to this process.

Data Analysis Procedures

Survey Data

There were three stages to survey analysis:

(1) Data checking to verify the validity and reliability of data and whether variables met the assumptions of statistical analyses. Modifications of variables or exclusion of some variables was based on the results of data checking.
(2) Comparison of responses pre and post using chi-square and t-test statistics.
(3) Separate analyses for each of the 5 regions with statistical comparisons across regions done using chi-square and analysis of variance (ANOVA) statistics. For ANOVA, significance was established using least squares difference (LSD) post hoc measures for pupil-level data and Scheffle post hoc measures for teacher- and school-level data.

Where there were statistically significant differences between pre and post-programme results or in pre-post changes across the regions, these are noted in the text. It is important to note, however, that statistical significance only provides information about the stability or trustworthiness of results – i.e., the likelihood that the same results would be found in another similar sample. It does *not* provide information about the size or importance of results. Statistical significance is influenced by the size of the sample and the diversity of results within the sample, as well as the size of the difference between the percentages of mean scores. Thus, for example, in some places a very small difference may be statistically significant (e.g. in Table 18, the percentage of girls pre and post who say they have chosen not to go somewhere to avoid sex is 31.2% and 32.8% with this a statistically significant difference) while in other places, what appears to be a fairly sizable difference is not statistically significant (e.g. Table 15, the percentage of boy peer supporters who reported talking to a parent pre and post programme was 37.2% and 45.3% respectively but this was not statistically significant).

The *rule* for interpreting results is that only statistically significant changes or differences can be considered as valid reflections of a change or difference. From among those that are significant, readers must decide how big a difference or change is meaningful for the information they are working with. This means asking the question, with respect to the example from Table 18: Is a 1.6% change in the percentage of girls who choose not to go someplace in order to avoid sex large enough to identify it as a programme impact? There is great variety in 'how big' a change or difference is considered meaningful. For example, a 1.6% change in HIV prevalence or incidence can signal a substantial change in the number of people who are infected; whereas a 1.6% increase in knowledge scores is rarely considered indicative of a real change in knowledge. For this report we have identified statistically significant changes of less than 5-percentage points as small, those between 5 and 10-percentage points as medium, and those above 10-percentage points as strong or large. For scale scores, significant difference less than 0.5 are identified as weak, 0.5 to 1.0 are identified as moderate and greater than 1.0 as strong.

The statistical data reported here for pre-programme results may differ slightly from that contained in the report: *Baseline Report for Five New Sites*. This is because all sampled schools were included in the baseline report; whereas, only schools that participated in both the pre and post data collection are included in this report.

Number of Schools in Each Phase of Data Collection

Data Collection Phase	Region				
	NFI	NIS	UC	MK	WK
Pre	24	25	25	24	25
Post (school information sheet)	20	16	21	24	25
Post (teacher surveys)	20	19	21	22	24
Post (pupil surveys)	21	19	21	24	25
Total schools used in this report*	20-21	16-19	21	22-24	24-25

* Number of schools used in the report varies depending on the number of schools providing data for each report section.

Textual Data

Analysis of textual data was facilitated using Scolari N6 Software. Qualitative data analysis focused on three areas:

(1) Elaborating on and clarifying responses to survey questions and the thought process and meanings that influenced answers.
(2) Identifying similarities and differences between regions[2]
(3) Identifying issues raised in focus groups and interviews that were not covered in the questionnaires.

Comparisons were conducted to identify statistically significant differences in pupil responses to survey questions in schools that participated in the qualitative component of the data collection and those that participated only in the survey component. In the 32 comparisons analysed there were significant differences in at least one region in all but 2 of the comparisons. This suggests that although qualitative sites were randomly selected from the full sample, their pupil populations may have a somewhat different profile than sites that did not participate in the qualitative component of the research. Where there are differences in the conclusions drawn based on qualitative as compared to quantitative results, the differences in pupil profile must be taken into consideration. Such differences are rare, and are noted in the report.

Triangulation

All forms of data were combined in developing the analysis and conclusions in this report.

[2] Where reasonable, quotations have been taken from a variety of regions to demonstrate the presence of similarities. Quotation references indicate when the data was collected w2 = post, which region NFI = Nairobi Formal Income, NIS = Nairobi Informal Settlement, UC = Urban Coast, MK = Mount Kenya, WK = Western Kenya, who was interviewed Boys/Girls = FGD with boys or girls, HTM/F = Head Teacher Male or Female, DHTM/F = Deputy Head Teacher Male or Female, RTM/F = Resource Teacher Male or Female, CLM/F = Community Leader Male or Female, and a number corresponding to a specific school in the region.

DEMOGRAPHIC INFORMATION

Table 1a: School Demographic Information at post data collection

	Region				
	NFI	NIS	UC	MK	WK
N schools =	20	16	21	24	25
Mean # of pupils/school (Range)	1018.95 (320-2350)	1160.50 (553-1493)	1172.43 (450-2046)	425.58 (116-1183)	541.21 (300-1029)
Mean # of teachers/school (Range)	23.20 (10-35)	23.69 (14-33)	19.76 (11-32)	13.21 (5-24)	12.52 (8-27)
Pupil-Teacher ratio (Range)	42.93 (24.62-73.44)	50.18 (30.72-69.88)	59.13 (32.14-91.57)	31.46 (10.89-49.29)	43.84 (32.50-63.00)
Proportion of female teachers (Range)	79% (10%-100%)	72% (36%-97%)	76% (15%-92%)	58% (20%-95%)	52% (25%-79%)
Has a sponsor	55%	56%	62%	67%	100%
Christian sponsor (N who have sponsor)	18% (11)	78% (9)	54% (13)	69% (16)	96% (25)

Schools varied substantially across the five regions in size. Those located in the urban areas of Nairobi and UC had significantly more pupils than those in the more rural regions of MK and WK. While larger schools had more teachers, pupil-teacher ratios demonstrated that there wasn't an even distribution of teachers across regions. In particular, UC had a significantly larger ratio of pupils to teachers than any other region while MK was significantly smaller than all other regions. On average, at least 50% of the teachers in each region were female and all schools had both male and female teachers except one in Nairobi which reported only female teachers. Schools in MK and WK, however, had a significantly smaller proportion of female teachers than any of the urban regions. In interviews and focus groups, some felt that it was important to have both male and female teachers to address topics which were better discussed in gender segregated groups.

> *And when we have pupils there are some topics we need to address purely where we can have both [male and female]... But to the girls they know what you are talking about. So it is a topic relevant to one group yet very irrelevant to the other* (W2MKCLM3:533-8).
>
> *We are all gathered outside, that's the whole school and arranged into groups. Then they answer the questions, that is the teachers. Whatever the boys cannot be told they organize separate seminars for boys and girls* (W2MKGirls3:138-40).
>
> *…we are all female* [teachers]. *If we tried to leave the boys out* [i.e., only address girls] *then we are not doing anything and you know it is supposed to be discussed freely* (W2NISHTF1:241-2).

The majority of schools in all regions have a sponsor. Among these, with the exception of NFI schools, the majority of sponsors are Christian organizations or churches. No schools indicated Muslim sponsorship.

Table 1b: Teacher Demographic Information

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N schools	20	20	19	19	21	21	22	22	24	24
N teachers surveyed	36	44	38	36	42	44	44	43	48	48
N trained teachers surveyed	N/A	39	N/A	32	N/A	38	N/A	38	N/A	42
Types of teachers surveyed:										
Head Teacher N	12	7	18	7	16	10	18	12	21	13
%	60%	35%	95%	37%	76%	48%	82%	54%	88%	54%
Deputy Head N	4	6	2	8	6	8	6	11	3	6
%	20%	30%	10%	42%	28%	38%	27%	50%	12%	25%
HT/DHT surveyed N	15	13	18	15	20	18	22	18	23	19
%	75%	65%	95%	79%	95%	86%	100%	82%	96%	79%
Std 1-5 teacher N	8	15	11	7	7	7	13	15	15	15
%	40%	75%	58%	37%	33%	33%	59%	59%	62%	62%
Std 6-8 teacher N	11	15	9	10	15	17	14	12	10	12
%	55%	75%	47%	53%	71%	81%	64%	54%	42%	50%

* $p \leq 0.05$; ** $p \leq 0.01$; ***$p \leq 0.001$

N.B. Percentages do not add to 100 since teachers may play more than 1 role in a school.

Table 1c: Pupil Demographic Information

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N schools	21	21	19	19	21	21	24	24	25	25
N pupils	1668	1749	1827	1745	1920	1815	1423	1481	1795	1788
Males	871	875	885	798	923	879	696	759	845	824
Females	797	874	942	947	997	936	727	722	950	964
Standard 6	820	875	964	915	925	907	688	716	898	930
Standard 7	848	874	863	830	925	908	735	765	897	858
Mean age in years	12.31	12.73	12.84	13.17	13.21	13.49	12.90	13.22	13.80	13.91
Mean SES score	8.76	8.80	7.87	7.94	7.66	7.85	6.82	7.34	5.73	5.80

At both pre and post data collection, pupils in NFI are significantly younger and come from homes with a higher SES than those in the other regions. Those in WK are significantly older and come from homes with a lower SES than pupils in all other regions.

PSABH TRAINING

The training model employed at this stage of PSABH invited the head teacher and a resource teacher or senior teacher, along with a community representative to a one week training at the first time point (Course A) and two other teachers for a one week training 4 months later (Course B). Under normal circumstances, this would mean that the head teacher and potentially 3 other teachers would be trained in each school. Schools that are located near a secondary school were also invited to send 4-5 pupils and a teacher supervisor to a one week peer supporter training. The extent to which schools met these ideals was established through discussions with head and deputy head teachers as part of the completion of the 'school information sheet'.

Table 2a: PSABH and Other Training

	Region				
	NFI	NIS	UC	MK	WK
N (schools) =	20	16	21	24	25
N (schools reporting PSABH trained teachers) =	19	15	21	24	25
% of schools reporting there is 1 PSABH trained teacher	15%	0%	0%	4%	0%
% of schools reporting there are 2 PSABH trained teachers	26%	20%	24%	21%	8%
% of schools reporting there are 3 PSABH trained teachers	32%	40%	33%	17%	16%
% of schools reporting 4 or more PSABH trained teachers	26%	40%	43%	58%	76%
Percentage of schools where each type of teacher was sent for training:					
Head Teacher	55%	50%	71%	75%	80%
Deputy Head Teacher	25%	38%	33%	38%	44%
Head Teacher *and/or* Deputy Head Teacher	80%	81%	90%	88%	86%
Resource Teacher	35%	31%	67%	46%	80%
Guidance & Counselling Teacher	40%	69%	38%	58%	52%
Std. 1-5 Class Teacher	55%	88%	62%	62%	72%
Std. 6-8 Class Teacher	65%	75%	71%	71%	60%
PS Training					
N (schools reporting teachers sent for PS training)	14	12	9	7	17
% of schools sent 1 teacher to PS training	29%	8%	11%	0%	29%
% of schools sent 2 teachers to PS training	21%	25%	44%	43%	6%
% of schools sent 3 teachers to PS training	36%	33%	11%	14%	24%
% of schools sent 4 or more teachers to PS training	14%	33%	33%	43%	41%
N of schools reporting that pupils were sent to PS training	3	8	6	1	4
Of the schools where pupils were sent to PS training (N= previous row), mean number of pupils attending (Range)	11.67 (1-30)	34.50 (4-70)	14.67 (2-46)	50	21 (4-35)
Movement of Trained teachers					
Number of schools where at least one PSABH trained teacher transferred into the school	1	3	1	7	1
Number of Schools that lost at least one trained teacher due to:					
Transfers	5	2	6	6	4
Death	0	0	1	0	0
Retirement	1	0	1	1	0
Other training					
% of schools where teachers received other HIV-related training	70%	94%	67%	76%	78%

	Region				
	NFI	NIS	UC	MK	WK
Number of schools where training was delivered by:					
MoEST	2	6	5	8	8
KNUT	1	0	3	1	0
MoH	0	7	2	2	3
KIE	1	2	1	0	0
Churches	3	4	3	7	3
NGO	6	9	9	8	14
Self-Help group	1	0	0	4	4
Other Government Groups	1	0	1	0	0

Head teacher reports of the number of teachers in their schools that received PSABH training are puzzling. Schools for this evaluation were randomly selected from among those that had a full complement of teachers (1 head or deputy head teacher, 1 senior teacher, 1 community representative) in attendance at PSABH training held in December 2004. These schools were then expected to send 2 additional teachers for training in April 2005, producing a minimum of 2 to a maximum of 4 trained teachers in each school. However, across the 5 regions head teachers reported as few as 1 to as many as 6 PSABH trained teachers in their schools. Schools also claimed to have sent 1 to 6 teachers for peer supporter training with an average of approximately 3 for most regions (4 in WK). The discrepancy between head teacher reports of trained teachers in their schools and the number of teachers recorded in attendance at PSABH training cannot be accounted for by the transfer of teachers between schools.

Across all regions at least 80% of the schools sent a Head or Deputy Head Teacher for training, with the majority sending the Head Teacher. The multiple roles held by teachers in many schools made it difficult to assess the classroom responsibilities of the teachers reportedly sent for training, however, the fact that in all regions the majority of schools reported sending a standard 6-8 teacher is consistent with PSABH expectations.

There appears to be considerable confusion and variation in reporting of pupil and teacher attendance at peer supporter training. This confusion is also seen in the number of pupils who reported they themselves were PSABH trained peer supporters This despite the fact that there was no PSABH peer supporter training in any of these regions during 2005. Jerry Aurah of the National Organization of Peer Educators of Kenya confirmed, in a conversation on January 11, 2006, that many NGOs are training primary and secondary school pupils as peer educators and peer supporters. Our data suggest that head teachers and pupils are generally unable to differentiate between the training provided by PSABH and that provided by other organizations.

The movement of teachers between schools has implications for the training programme. At least one school in each region reported that they had received a PSABH trained teacher as a result of a transfer. This potential benefit was offset by the loss of trained teachers in all except NIS and MK schools. At this point, the number of teachers lost due to death and retirement remains small.

The majority of schools in each region reported that teachers had received training other than PSABH. In 2 of the NFI schools and 1 MK school, this included training for *all* or almost all of the teachers in the school. The most commonly reported source of this training in all regions was some type of NGO, followed by the MoEST and churches. In interviews, some teachers spoke of these training opportunities and occasionally had difficulty differentiating them from PSABH training.

…those groups that I was telling you, that are assisting us to give information to the children (W2MKRTF1:255-6).

Table 3a: Teacher Response to PSABH Training by Region

	Region				
	NFI	NIS	UC	MK	WK
N =	39	32	38	38	42
Mean scores (all based on a range of 1-5) on Perceptions of PSABH training					
Summation of all items	31.92	31.59	34.13	32.29	32.64
Interesting	4.64	4.63	4.89	4.66	4.67
Worthwhile	4.56	4.47	4.74	4.47	4.71
Informative	4.51	4.56	4.95	4.84	4.67
Organized	4.59	4.53	4.89	4.53	4.64
Useful	4.77	4.63	4.89	4.79	4.76
Relevant	4.64	4.59	5.00	4.76	4.79
Easy to Understand	4.21	4.19	4.76	4.24	4.40

Scores on individual items range from 1-5, with 5 indicating full endorsement of the listed adjectives.
The summation of items scale scores range from 7-35, with 35 indicating full endorsement of all of the listed adjectives.

Table 3b: Teacher Response to PSABH Training by Training Location

	Region				
	Eregi	Shanzu	St. Marks Kigari	Kamwenja	Kigari-Embu
N =	38	30	23	18	63
Mean scores (all based on a range of 1- 5) on Perceptions of PSABH training					
Summation of all items	32.45	34.37	32.56	31.72	31.67
Interesting	4.63	4.93	4.74	4.50	4.60
Worthwhile	4.68	4.80	4.65	4.39	4.44
Informative	4.68	4.93	4.74	4.78	4.60
Organized	4.61	4.93	4.61	4.56	4.48
Useful	4.74	4.87	4.83	4.67	4.73
Relevant	4.76	5.00	4.83	4.67	4.63
Easy to Understand	4.34	4.90	4.17	4.17	4.17

Scores on individual items range from 1-5, with 5 indicating full endorsement of the listed adjectives.
The summation of items scale scores range from 7-35, with 35 indicating full endorsement of all of the listed adjectives.

Teacher response to PSABH training was consistently positive across regions and training sites with all mean scores less than 1 point below the maximum possible endorsement of 5. Of note is that teachers in UC schools had significantly higher scores than those in most other regions. This was confirmed by the significantly higher scores provided by teachers trained at Shanzu Teachers College (the primary training location for UC teachers) than at most other training centers.

In qualitative interviews teachers were also generally positive about the content of PSABH training and the importance of building awareness about HIV and AIDS not only at the school but also in the community.

To me the whole area was ok. All that was put across was quite okay. In fact I was with the other Headteacher, we enjoyed the whole thing (W2UCDHTM4:34-5).

So what I gained has helped me as a person, community and the children so it was a good thing (W2NFIRTF2:44-5)

I think the whole course was important as I had not attended any such course before, so at least what I heard from the beginning right up to the end was important and of use (W2NFIRTF1:43-5).

Other than HIV, it is just making people be aware of what is around them and their own community and the school (W2NISRTF1:37-8)

To me it gave me a lot of knowledge as far as health is concerned. We were taught in Kigali very well. We had very good facilitators, also we had very good hosts there and the facilitators gave a lot of knowledge which has helped me and which has also helped the community, the boarding school and the outside community (W2MKHTM3:47-51).

Interviews also provided teachers with an opportunity to articulate specific areas where they felt that they needed more training. In this context, some teachers commented that they felt overwhelmed by the course, finding one week to be too short for all of the information presented.

There are many areas because the training was for one week. It was very tedious because there was no time even to rest. I think if another one is organized there were many topics of which I cannot remember all of them off head unless I read (W2NFIHTF1:114-7)

Others felt that it would be advantageous to have more people trained, including teachers, parents and children.

More additional training can be done especially very few teachers have been trained and also parent representatives and we also need children to be trained if there is a chance they we can train a few, so that they see the reality from facilitators who we had from all over the country (W2MKHTM3:133-7).

I think or I feel if we were to be given any training we should choose some of the pupils also, to come along with us, so that, whatever we learn, they can also learn and come and tell their friends (W2UCRTF1:95-7)

Some teachers identified particular topics which they felt that they had insufficient training to address. These included issues around those infected and affected by HIV and AIDS.

Yes, we feel we need more training because we feel there are so many emerging cases in HIV/AIDS, some people are suffering from HIV/AIDS when they had had sexual partner (W2WKHTM2:49-51).

Other teachers suggested that they needed further training to ensure that they would be capable of answering any questions that might arise.

Mostly to know about HIV in details…Yes, because when you stand before people to talk to them you should know everything you need to say (W2UCRTF3:81-5).

*These areas are very important so that when I talk to them at least I should have the authority so they look at me as a person who is well equipped. If it comes to asking questions what they ask I should answer them correctly (*W2WKRTF3:73-6).

Table 4: In-School Teacher Training information – Post only

	REGION				
	NFI	NIS	UC	MK	WK
N (SCHOOLS) =	20	19	21	22	24
One of the teachers surveyed was not PSABH trained	5 25%	4 21%	6 28%	5 23%	6 25%
Both surveyed teachers N attended PSABH training %	14 70%	12 63%	15 71%	15 68%	18 75%
Primary location of training for the region	Kigari–Embu	Kigari-Embu	Shanzu Teachers Training College	Kamwenje Teachers training College/ Kigari-Embu	Eregi Teachers Training College
In-School Teacher Training					
At least one teacher N reports undertaking H/A % educational training	19 95%	17 89%	17 81%	22 100%	24 100%
At least one teacher N reports receiving training % from PSABH trained staff	14 70%	12 63%	17 81%	17 77%	24 100%
SRS Reports of In-school Training					
N=	24	25	25	24	25
Training Held N %	24 100%	19 76%	20 80%	24 100%	24 96%
Median Number of Hours	4.00	2.50	2.50	5.00	5.00
Where training occurred (number of schools reporting)					
Staff Meetings	18	13	16	20	18
Seminars	8	2	0	6	4
Workshops	5	8	5	4	6

* $p \leq 0.05$; ** $p \leq 0.01$; ***$p \leq 0.001$

At least one trained teacher was surveyed at post data collection in each school, with the majority of schools in each region having 2 or more surveyed teachers who were PSABH trained. Similarly, Steadman targeted trained teachers when selecting participants for the post qualitative interviews and, of the 39 teacher interviews, only one participant did not identify himself as PSABH trained.

In all regions, teachers in the majority of schools reported that they had conducted some form of in-school training since returning from PSABH training. This is consistent with what was reported in the School Responsiveness Survey (SRS) in Sept. 2005. Using observational data from zonal inspectors (ZIs), information from the SRS suggested that teachers preferred to provide training in staff meetings with training lasting on average 2.5 to 5 hours.

Qualitative interviews at post data collection provided teachers with an opportunity to supply further details about the process of and response to in-school training. Although all teachers interviewed provided such details, between the two teachers interviewed in each school, there were different interpretations of what took place and the content covered. Consistent with the SRS, however, the most frequently mentioned avenue for training was staff meetings, with the number and length varying across schools. Some teachers suggested that in-school training took place at two separate time points, the first following initial PSABH training and the later training following the return of teachers from the second course.

> *And we had discussions and the two of us; we were the four of us because the first time we were two, this time we were four so the one we held in June we were four of us and we passed very good information* (W2NFIHTF3:152-5).

> *We only had one day we had one day after Shanzu then the other lady went to Thogoto Teachers training so when we came back they had their own session* (W2UCDHTM1:185-7).

One of the more unique approaches to addressing HIV and AIDS with the teachers was the use of 'study circles' reported in one NFI school. Discussed by both the head teacher and resource teacher, these circles provided a regular opportunity for teachers to meet and discuss relevant issues including HIV/AIDS and its integration into class and school activities.

> *Like here we have a circle, we can help one another those who have knowledge like me and the other teachers. We tell them and when they go to class they try to use their languages especially in the lower primary you know everybody wants to know about it, so every week we have two meetings* (W2NFIHTF1:140-4).

With the exception of WK where the teacher-identified training topics tended to focus on general knowledge about HIV and AIDS, the most commonly mentioned topic was infusion and integration. The MoEST mandate of HIV and AIDS as part of the primary school curriculum facilitated the recognition that this was an important topic. In some schools, teachers continued to struggle with integration and infusion, particularly with respect to class 4 and 8 where the syllabus had not yet incorporated this topic.

> * Q: Which components of the training did your teachers respond well to?
> *Infusion, in fact it has been doing very well, but we have others like integration where some of the subjects it is becoming impossible* (W2NISRTM3:119-22).

Teachers typically felt that their colleagues had responded positively to the in-school training, particularly in relation to their ability to fulfill their role within the school and educate their pupils about HIV and AIDS. However, it should be noted that at least one teacher from among those interviewed at NFI, NIS and WK schools reported that his/her colleagues felt that including HIV education into the regular routine was extra work.

> *When it came to infusion of subjects in classes, in the syllabus of std 4 and 8 it looked like a lot of work. They complained as they had a lot of work and now introducing a new topic in the same syllabus* (W2WKHTF4:118-20).

During training, teachers – particularly head teachers - addressed these complaints by emphasizing that incorporating HIV and AIDS was part of teaching today.

As well, at least one teacher in each of NFI, NIS, UC, and WK schools suggested that his/her colleagues were uncomfortable with the information on VCT, in part because they were concerned about what they might learn from testing.

> *Now, this aspect of going to VCTs, it was somehow, if I go I might know that I am a victim, I could be a victim* (W2UCHTM2:310-1).

In some schools this was addressed by simply emphasizing the value of knowing one's status and discussing how simple the process was.

Community representatives in all regions indicated that they had made an effort to reinforce the information provided by trained teachers and encourage the teaching staff to engage in AIDS education with pupils. This was done through special meetings arranged by the Head Teacher, staff meetings, and informal discussions. There were community representatives in each of the regions, however, who felt that it was the responsibility of trained teachers to pass this information onto their colleagues. They therefore avoided this type of engagement with teachers.

> * Q: Have you been able to talk to the teachers in the school since the training? *No, that was done by the Headteacher since there was also other teachers I felt they were able to do that.* (W2UCCLM3:181-4).

In interviews, there were some teachers who also felt that there was a division of labour between trained teachers and community representatives.

> *Let me say that I have not taken a very crucial role in that [talking in the community] because as we went for this course, there was one who was responsible for the community and he was a school committee member, so we left that one to him so he does it then we have an AGM [annual general meeting], there is always a session where he is given a chance to stand and talk about HIV pandemic to the parents. AGM means annual general meeting* (W2NFIRTM5:106-111).

Most community representatives did indicate that they had used the information and skills gained from training in some way. This included addressing the school community through parent, school committee, and annual general meetings, and discussing HIV and AIDS as part of their regular roles in the community. Reinforcing the role of the community representative as an advocate for HIV and AIDS education in the school, one community representative attempted to garner support for the work of teachers through a discussion with those in the church.

> *I have told them [the church] to assist the teachers to fight the deadly disease* (W2WKCLM2:80)

Conclusions

Trained teachers are present in all surveyed schools across all regions with little differences across sites. There appears, however, to be some inconsistency between head teacher reports of the number of PSABH trained teachers in their schools and the number recorded as

trained. The quantity and variety of peer supporter programmes currently active in Kenya continue to make it difficult to identify and assess the peer supporters within the schools.

Teachers responded positively to the training with a minimum of 74% of teachers in each region rating it as interesting, worthwhile, informative, organized, useful and relevant. This represents a more consistently positive endorsement than in Nyanza where, at the 6 month evaluation, a minimum of 60% rated the training as interesting, worthwhile, informative, organized, useful and relevant. The only characteristic of training that did not receive these minimum levels of support was 'easy to understand'. However, here too, teachers in the five new sites were more likely than those in Nyanza to rate the training as 'easy to understand' (minimum of 66% compared to minimum of 42% respectively). Some of the teachers interviewed during post data collection for the 5 new sites admitted that they found the training quantity and complexity overwhelming and almost all of the teachers interviewed could identify at least one area or reason why further training would be useful.

Parallel to the 6-month results in Nyanza, PSABH trained teachers are training their colleagues in all schools across all regions. One of the benefits of the modified model used in the new sites, is that when the 'extra' teachers trained in the second session returned to school, additional training sessions were often held for all teachers.

Trained community representatives have also used their training to build awareness both in the school and the local community. However, there were teachers and community representatives who saw their respective roles as distinct and felt no obligation to engage in dialogue beyond their respective boundaries (schools for teachers and communities for community representatives).

HIV/AIDS TEACHING IN THE SCHOOLS

All schools had been directed by the Ministry of Education (MoEST) to include one AIDS lesson a week in early 2002 and in 2003 questions about HIV and AIDS began to appear on KCPE. Thus, it was not surprising that there was evidence of teaching about HIV and AIDS in all schools at pre-programme data collection. The question raised at post data collection was the extent to which these efforts had been sustained or improved in the 10 months following PSABH training.

Table 5a: Mean Programme Implementation Rates and Percentages of Teachers Reporting on Indicators of HIV/AIDS Teaching by Region

	Region									
	NFI		NIS		UC		MKFI		WKDPA	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N=	36	44	38	36	42	44	44	43	48	48
Mean Programme Implementation Score (range 0-10)	3.59	4.30*	3.92	4.85	2.73	4.52***	4.01	5.32***	5.01	5.80*
Percentage of ALL Teachers teaching each subject who addressed AIDS last term in:										
Carrier Subjects										
GHC N (teach subject)	69% (16)	96%* (22)	72% (18)	100%* (20)	54% (13)	100%** (17)	84% (19)	100% (19)	77% (26)	100%* (25)
HIV/AIDS N (teach subject)	91% (23)	100% (20)	84% (19)	100%* (23)	88% (8)	100% (26)	100% (32)	100% (36)	87% (39)	100%* (30)
Home science N (teach subject)	78% (9)	86% (7)	80% (5)	100% (8)	80% (5)	100% (5)	89% (9)	100% (11)	75% (20)	92% (13)
Religious Ed N (teach subject)	78% (18)	100%* (19)	84% (19)	100% (21)	83% (12)	90% (19)	100% (30)	100% (27)	94% (35)	95% (37)
Communication Subjects										
English N (teach subject)	76.5% (17)	90% (20)	92% (24)	84% (19)	77% (22)	100%* (22)	96% (25)	100% (25)	84% (32)	100%** (39)
Kiswahili N (teach subject)	56% (9)	85% (20)	88% (16)	94% (18)	92% (13)	88% (16)	93% (14)	100% (15)	83% (29)	100%* (27)
Music N (teach subject)	62% (8)	100%* (11)	86% (14)	93% (14)	71% (7)	89% (9)	94% (16)	100% (19)	79% (24)	96% (22)
Physical Ed N (teach subject)	47% (17)	85%* (20)	73% (15)	73% (15)	50% (8)	67% (9)	76% (25)	100%** (27)	73% (33)	92% (26)

	Region									
	NFI		NIS		UC		MKFI		WKDPA	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Percentage of Std 6-8 Teachers teaching each subject who addressed AIDS last term in:										
Carrier Subjects										
GHC N (teach subject)	25% (4)	86%* (7)	75% (4)	100% (5)	0% (3)	100%** (6)	86% (7)	100% (5)	100% (4)	100% (8)
HIV/AIDS N (teach subject)	86% (7)	100% (9)	100% (6)	100% (6)	100% (4)	100% (13)	100% (11)	100% (14)	89% (9)	100% (7)
Home science N (teach subject)	60% (5)	80% (5)	NA (0)	100% (3)	100% (4)	100% (3)	75% (4)	100% (6)	33% (3)	100% (3)
Religious Ed N (teach subject)	67% (6)	100% (6)	80% (5)	100% (5)	75% (4)	89% (9)	100% (12)	100% (8)	100% (9)	100% (7)
Communication Subjects										
English N (teach subject)	100% (3)	88% (7)	100% (7)	100% (2)	89% (9)	100% (8)	90% (10)	100% (11)	82% (11)	100% (10)
Kiswahili N (teach subject)	50% (1)	86% (7)	50% (1)	100% (5)	80% (5)	100% (8)	83% (6)	100% (5)	71% (7)	100% (7)
Music N (teach subject)	40% (5)	100%* (6)	100% (3)	100% (2)	50% (1)	75% (3)	100% (5)	100% (9)	60% (5)	100% (2)
Physical Ed N (teach subject)	29% (7)	78%* (9)	100% (3)	67% (3)	40% (5)	71% (7)	80% (10)	100% (10)	75% (8)	100% (9)
Percentage of ALL teachers (see initial N) who report using each technique at least once in the last term to teach about HIV and AIDS:										
Notices on boards	61%	73%	66%	78%	36%	82%***	52%	74%*	56%	83%**
Q&A	81%	86%	71%	86%	55%	91%***	75%	98%**	92%	98%
Class discussions	100%	96%	76%	92%	79%	93%	91%	93%	85%	96%
Pupils alone	42%	50%	47%	56%	21%	41%	30%	44%	58%	60%
Pupils in groups	69%	80%	58%	72%	26%	70%***	46%	70%*	75%	81%
Debates	44%	57%	40%	58%	19%	43%*	39%	40%	69%	81%
Dramas	58%	68%	66%	67%	36%	66%**	41%	67%*	77%	79%
Class competitions	33%	25%	29%	42%	10%	36%**	7%	30%**	38%	33%

* p < 0.05; ** p <0.01; ***p<0.001

The overall implementation score is a composite based on responses to a variety of questions about teachers' activities related to teaching about HIV and AIDS both in the classroom and in co-curricular activities. Scores in all regions increased at post data collection. NIS was the only region in which this increase was not statistically significant. The mean post score for NIS was, however, within the same range as scores in other regions. The lack of statistical significance may be a result of the smaller sample size in NIS or because of greater variability in responses in this region. The most substantial increase was in UC schools (the region with the lowest implementation score at pre data collection), followed by MKFI schools. WKDPA schools had the

highest mean implementation score at post data collection and this score was significantly higher than the scores in most other regions.

By post data collection, at least 84% of the teachers who taught each subject reported addressing HIV/AIDS at least once in the last term with the exception of physical education teachers in NIS and UC schools. HIV/AIDS were least likely to be addressed, both pre- and post-programme, in physical education.

In all regions there were at least 2 (NFI, WKDPA) to as many as all 4 (NIS, MKFI) of the carrier subjects where all of the teachers addressed HIV and AIDS at least once in the past term. Statistically significant differences from pre-post were evident with respect to the percentage of teachers reporting addressing HIV/AIDS in GHC (all regions except MKFI), HIV/AIDS classes (NIS, WKDPA), and religious education (NFI). Although there were increases among the standard 6-8 teachers specifically, the smaller sample sizes meant that these differences were not always statistically significant.

Among those teaching communication subjects, there were statistically significant increases in the percentage of teachers reporting addressing HIV and AIDS in English (UC, WKDPA), Kiswahili (WKDPA), Music (NFI) and Physical education (NFI, MKFI). Only NIS schools did not have at least one (NFI, UC) of the subjects where all of the teachers have address HIV and AIDS at least once. In MKFI schools all of the teachers had addressed HIV and AIDS at least once in the last term in all of the carrier subjects. Although there were increases among the standard 6-8 teachers specifically, the smaller sample sizes meant that these differences were not always statistically significant.

In interviews teachers stressed that HIV and AIDS has been included in the syllabus for most grades making it substantially easier to integrate information into the subjects. Using information from training and the syllabus, teachers were able to describe a variety of creative ways in which HIV and AIDS were brought into the classes.

> *The books have the topics in them especially the new syllabus so when we reach that topic we have taught our teachers, they are already aware. They usually ask for some materials to prepare for the lesson* (W2WTKRTF3:207-9).

Carrier Subjects

> *In GHC we have some topics like one on Tourism, advantages of tourism and disadvantages of tourism…So when you reach that area you talk to them telling them that this is an important sector, our economy is supported by tourism but there are these problems and they mostly affect people along the coastal areas* (W2UCMDHTM1:238-246).

> *Like the science, when you are teaching about blood circulation that is when you can infuse* (W2NFIRTF2:64-5).

> *We have such topics like migration where we say that people who migrate from one place to another may transfer the disease to the other area. We have also in urban problems we talk about unemployment in urban migration* (W2NISDHTM3:150-5).

Communication Subjects

> *Yes, we integrated it and used, for instance when we are reading English and you are reading a comprehension and it is about diseases, and they are talking about diarrhoea and such other diseases, then there are good opportunities to talk about HIV and how it spreads as you talk about those other diseases* (W2NISRTF4:49-53).
>
> *Let me talk about Kiswahili because I am teaching Kiswahili there is the debate in class, we discuss there is also the role-play i.e. they get the words and they have a drama to dramatise* (W2NISRTM3:192-4).
>
> *It is there even In Mathematics, when you set a question like, last year there were these number of HIV victims and this year they have decreased so you tell them that people did ABC and this number decreased* (W2NFIDHTM2:152-4)
>
> *And during lessons like P.E, we add some songs related to HIV* (W2NFIRTM5:59-60).

Turning to specific techniques used to address HIV and AIDS in classroom subjects, class discussions were the most commonly used technique at pre data collection. Although there were increases in the percentage of teachers reporting the use of most of the techniques at post data collection, in Nairobi (both NFI and NIS) schools none of the increases were statistically significant, and the only significant increase in WKDPA schools was in the use of notices on boards. UC and MKFI schools consistently had the lowest percentage of teachers reporting the use of these techniques at pre data collection. Ten months after training, however, the percentage of teachers reporting using most of these techniques were parallel to the other regions representing statistically significant increases for most of the techniques. Of note is that across all regions, class competitions, working with pupils alone and debates were used least often.

In post qualitative interviews, teachers identified a variety of techniques that they were using when teaching about HIV/AIDS in the classroom and could provide reasons why these techniques did or did not worked.

> *I have said one of them is like debate, ok we have also drama, then some of them can pretend to be HIV carriers and choose in a clever way…* (W2MTKHTM3:394-6).
>
> *In the classroom, we use mostly the lecture, nothing else* (W2NFIDHTM2:166)
>
> *We can sing, we can have poems even dramas but short ones* (W2NFIHTF1:252)
>
> *There is drama, question and answer method* (W2UCMDHTM1:255)
>
> *You send them into groups, you give them a guide you tell them to discuss, get their reports and discuss. Then give them some, you know, short notes to write. So that they realize it was a good activity* (W2UCMHTM2:399-400)

I have also tried to write some skits from the facilitators' handbook, put them on the board, let them discuss them, then after that I got the responses from the group secretaries and informed them better of what they are to do (W2UCMRTF1:79-82)

We have drama, we have debates, we have singing, songs about AIDS and there are poems that talk about AIDS (W2WTKHTF4:139-140)

Role playing, drama. Nature corners project work, question and answer etc (W2WTKHTM1:135).

I think this one on drama is very successful because the students themselves act and they feel themselves they are part and parcel of the problems (W2UCMDHTM1:259-61).

Some of the same techniques that were identified as successful by some teachers were described as problematic by others for a variety of reasons.

* Q: Which activities don't do well?
Like drama and poems especially if written in English because of language barrier (W2WTKRTF3:237-40)

Some are afraid that when they act, it may look real, also fear of nicknames (W2WTKRTM1:140-3)

The debating I do not find it very successful … they shy off (W2MTKRTF2:649-53).

Debates, they don't like because you tell them to go and do research the next time you meet they have not done anything. So I find songs easier (W2NISRTF4:232-3)

The activity of question and answer [does not work well]. *Because some times others do not answer in groups* (W2UCMDHTM1:264-5).

Project work or discussions don't work well especially when the language is not versed. Especially even the mother tongue, some students will shy off hence message can't be grasped well (W2WTKHTM1:145-7).

Lecturing; in these pupils do not participate well because they just listen hence they are quickly bored (W2WTKRTM4:118-9)

Table 5b: Mean Awareness/Participation Scores for Pupils and Percentages of Pupils Reporting Where HIV/AIDS Information Has Been Received

	Region									
	NFI		NIS		UC		MKFI		WKDPA	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N =	1668	1749	1827	1745	1920	1815	1423	1481	1795	1788
Mean Participation/ Awareness Score (range 0-10)	2.65	4.19***	3.06	4.73***	3.38	4.95***	3.45	5.79***	3.60	5.77***
Percentage of pupils reporting HIV/AIDS addressed in each subject										
Carrier Subjects										
GHC	17.0%	30.0%***	18.3%	30.3%***	23.9%	41.3%***	21.5%	45.5%***	24.0%	46.0%***
HIV/AIDS classes	45.6%	60.1%***	52.4%	64.2%***	63.0%	72.9%***	72.5%	78.0%***	62.1%	76.3%***
Home science	41.2%	35.8%***	49.8%	55.2%***	53.5%	52.6%	60.6%	45.0%***	61.5%	58.8%
Religious education	46.8%	71.1%***	39.5%	50.8%***	38.8%	56.1%***	47.8%	71.0%***	42.5%	58.8%***
Science	46.0%	32.9%***	25.7%	11.3%***	21.8%	16.1%***	36.3%	34.8%	24.4%	17.2%***
Communication Subjects										
English	23.1%	36.4%***	28.0%	35.7%***	40.1%	48.7%***	40.8%	55.0%***	45.6%	54.1%***
Kiswahili	19.7%	44.5%***	26.6%	42.7%***	36.8%	55.0%***	36.4%	60.1%***	36.3%	60.2%***
Music	6.5%	14.1%***	14.3%	21.8%***	20.6%	27.9%***	11.2%	20.7%***	15.5%	24.0%***
Physical education	8.5%	13.2%***	13.2%	16.0%*	13.0%	19.7%***	18.6%	30.2%***	18.8%	21.4%*
Math	.2%	.5%	.3%	.2%	1.5%	.2%***	.4%	1.2%**	1.6%	.1%***

* p ≤. 05 ** p ≤ .01 *** p ≤ .001

The participation/awareness scores are based on pupil reports of HIV or AIDS being addressed in their classes and in co-curricular activities in their schools and of their participation in these. Scores range from a low of 0 if a pupil is unaware of any of the activities being present in the school, to a high of 10 if a pupil reports that all of the possible activities occur on a regular basis in the school. These scores increased significantly in all regions at post data collection. The increases for MKFI and WKDPA schools were significantly greater than the increases in most other regions. Overall mean pupil participation/awareness scores at post data collection were significantly higher in NIS schools than in all other regions, and significantly lower for NFI schools than all other regions.

Parallel to the teacher results at post data collection, a significantly greater percentage of pupils reported that HIV and AIDS had been addressed in virtually all of the carrier subjects. The exception was homescience where no significant change was found in UC or WKDPA schools and a significant decrease was found in NFI and MKFI schools. In NIS, UC and WKDPA schools, however, the majority of pupils indicated that HIV and AIDS were addressed in homescience. Among all regions there were at least 2 (NFI, MKFI) or 3 (NIS, UC, WKDPA) carrier subjects where the majority of pupils indicated that HIV and AIDS had been addressed at least once in the last term.

Likewise, there were significant increases in the percentages of students reporting that HIV and AIDS had been addressed in all of the communication subjects except for mathematics where there was no statistically significant change pre-post for students at NFI and NIS schools. With few exceptions, less than half of the students in all regions reported that HIV and AIDS had been addressed in the communication subjects. However, since efforts to incorporate HIV topics into these subjects may be more subtle (e.g., including a question about population changes due to HIV and AIDS in a mathematics lesson), pupils may not necessarily view these efforts as examples or these approaches may not be as salient in the minds of pupils.

Differences between pupil and teacher results could be explained in part by the fact that in 3 of the regions fewer than 55% of the teachers completing the surveys taught standards 6-8 with the percentage not exceeding 81% in the other two. When the statistics are presented for only those teachers who teach standards 6-8, the sample sizes are too small to identify variations between teachers and pupils. As well, while teachers would be conscious of their efforts to infuse and integrate HIV and AIDS information into the topics, the pupils may not identify these as HIV/AIDS lessons but rather as lessons in the particular subject of the class.

Information about addressing HIV and AIDS in Science and Mathematics was not included in the teacher survey, however, there was typically a significant decrease or no significant change in the number of pupils reporting that HIV and AIDS had been discussed in these subjects in the last term. Of note is that few pupils reported that HIV or AIDS were addressed in math classes. By comparison, in interviews, teachers reported infusing HIV and AIDS into science and mathematics. In the case of the former, examples included expanding discussions about blood circulation and/or diseases to include information on HIV and AIDS. In the latter, HIV and AIDS were incorporated into mathematical questions when studying addition, subtraction and graphing. This approach, although important for building awareness and normalizing HIV and AIDS conversations, may not be identified as an HIV/AIDS lesson by the pupils compared to readings and debates about HIV and AIDS or discussions on culture and tourism provided as examples of HIV and AIDS integration into other courses.

In most FGDs, interviewers did not probe for the specific classes where HIV and AIDS were discussed but only asked for the standard to be identified. The few times that names of classes were provided, science was the subject mentioned most often. Other classes pupils referred to were PE, Kiswahili, CRE, Social Studies, Health Education, and English.

In every region, there was at least one (NFI and NIS) to as many as 5 (UC) school activities in which the percentage of teachers reporting HIV/AIDS teaching showed a strong and statistically significant increase from pre to post data collection. The use of an information corner for HIV and AIDS information increased significantly in all regions except NIS. In all regions, however, assemblies remained the most common activity used to address HIV and AIDS and class competitions the least.

Table 6a: Percentage of teachers who report HIV or AIDS was addressed as a topic in specific school activities last term

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N=	36	44	38	36	42	44	44	43	48	48
Assemblies	78%	89%	82%	86%	74%	91%*	91%	91%	98%	98%
Staff Meetings	92%	84%	21%	19%	71%	86%	77%	91%	88%	98%*
Classroom displays	67%	59%	55%	83%**	45%	75%**	39%	70%**	54%	75%*
Schools work displays	56%	61%	47%	67%	48%	68%	36%	65%**	50%	67%
Debates	47%	61%	40%	61%	24%	48%*	30%	37%	62%	81%*
Drama/music festivals	81%	75%	76%	69%	60%	73%	48%	54%	71%	81%
Class Competitions	42%	30%	24%	33%	14%	41%**	11%	30%*	33%	29%
Information Corner	36%	68%**	42%	56%	48%	75%**	34%	77%***	42%	75%***

* $p \leq 0.05$; ** $p \leq 0.01$; ***$p \leq 0.001$

In qualitative interviews teachers further highlighted the use of assemblies and parades[3] to convey information about HIV and AIDS. Among the ways that these activities were used included through pupil presentations and as a common space in which to respond to questions in the question box.

> *…when we come for parade, we have poems where the children recite them, and we also talk about being careful with HIV/AIDS* (W2NFIHTF1:46-8).
>
> *Any day we have parade, we have to talk about HIV an AIDS* (W2NFIHTF3:146-7)
>
> *We usually have posters poems or 'shairis' (Swahili poems) like on a Friday morning assembly we usually have poems or 'shairis' and in the classroom you will get posters* (W2NFIRTF2:257-9)
>
> *…we usually teach them everything in classes and also in the assembly where we even invite people from outside* (W2NISDHTM3:274-5)
>
> *Some are answered at the parade; some are answered at the question box. But the majority is answered at the parade* (W2NISHTF1:375-6)
>
> *Those ones which are for the whole school and you want every child to know we just answer them at the assembly* (W2UCRTF1:339-40).

Some teachers also suggested that competitions provided a space to showcase poems, dramas and songs developed within the school.

[3] Gatherings of all pupils in the school yard, usually at the beginning of each day.

Like last time they had competitions at [one school] *they went there with their poem and their play on AIDS and a song. They came with this trophy* (W2NFIHTF5:439-41).

In interviews, some community representatives indicated that they had taken part in parades, responded to questions in the question box, and/or discussions with particular classes. There were, however, those who felt that this was the domain of the trained teachers and they did not, therefore, participate in these activities.

Those ones, I have never talked to them. It is their teachers who are usually with them. Teachers are usually with them (W2MKCLM2:101-2).

Table 6b: Percentage of pupils who report HIV or AIDS was addressed as a topic in specific school activities last term

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N =	1668	1749	1827	1745	1920	1815	1423	1481	1795	1788
Assembly	48%	59%***	41%	55%***	45%	61%***	52%	73%***	53 %	78%***
Debates	26%	42%***	32%	52%***	44%	53%***	35%	51%***	39%	53%***
Drama/music festivals	42%	47%**	44%	58%***	63%	68%**	48%	61%***	48%	63%***
Class competitions	26%	33%***	32%	44%***	36%	42%***	36%	52%***	39%	48%***
Information corner	28%	36%***	37%	43%***	48%	55%***	36%	62%***	32%	51%***
A club in school	33%	53%***	40%	63%***	38%	6%***	32%	68%***	38%	67%***

* $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

At post data collection, there were statistically significant and moderate to strong increases in the percentage of pupils in each region reporting the use of each of the school activities for delivering HIV and AIDS information. Consistent with the teachers, assemblies were the most frequently identified approach to delivering HIV information in NFI, MK and WK schools. In NIS schools, the most common response was that HIV and AIDS had been addressed in a club at school (an option not provided in the teacher survey) while in UC schools, the most common response was that HIV information was being delivered through drama and music festivals.

Although the general trends were consistent with teacher reports of HIV activities outside of the classroom, it is interesting to note that a higher percentage of pupils than teachers indicated that class competitions were being used to present HIV information in all but UC schools. Such differences between teacher and pupil responses could reflect different levels of participation in these activities.

Despite the large percentage of pupils reporting class competitions in surveys, they were rarely mentioned in FGDs. The main non-class activities identified were dramas, assemblies, poems, debates/seminars and clubs. Although identified in most regions, drama was the main activity mentioned by girls in NIS and WK and for boys in NFI. For girls in NFI, MK and UC, most of the FGD participants did not discuss activities. Since boys in those regions provided examples of

activities, this is most likely an indication of the interviewers' lack of emphasis and use of probes for that particular question rather than a case of nothing happening in those regions.

Table 7: Pupil Comments on HIV and AIDS Lessons

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N =	1668	1749	1827	1745	1920	1815	1423	1481	1795	1788
Mean positive response (max 5)	3.68	3.71	3.40	3.56***	3.46	3.71***	3.48	3.65***	3.46	3.70***
% Agree lessons:										
have been useful	82%	89%***	70%	74%**	81%	84%**	76%	90%***	79%	84%***
told everything needed	71%	70%	65%	70%***	77%	79%	68%	69%	70%	80%***
not difficult to understand	74%	79%***	75%	77%	74%	80%***	71%	72%	64%	70%***
not shameful	55%	47%***	55%	58%	47%	52%***	56%	56%	64%	64%
not boring	84%	86%	74%	76%	68%	76%***	78%	78%	69%	72%*

* p ≤. 05 ** p ≤ .01 *** p ≤ .001

There were statistically significant but weak increases pre to post data collection in the mean pupil response scores (Table 7) in all regions except NFI. In particular, in all regions, there were significant, though weak, increases in the percentage of pupils who believed that these lessons were useful. All regions also had at least one other area in which there was a significant increase in the percentage of pupils in agreement. Pupils most likely to identify the lessons as shameful, with fewer than 65% in each region *not* finding them shameful, and a significant, moderately strong *decrease* in the percentage of pupils in NFI who did not find the lessons shameful.

Resources

There was a significant and strong increase in the percentage of teachers reporting the presence of teacher training notes in schools in all regions from pre to post data collection. Similarly there were significant and strong increases in the percentage of teachers reporting reference, text, and story books in all regions but WK. In WK the increase in reference books was only moderate, and there was no significant increase in storybooks. In all but NFI, reference books remained the most common resource available in the schools, while class worksheets and videos or radio remained the least common resources in all regions.

Twelve resource books were identified in the survey as being available to assist with HIV/AIDS instruction. Eight of these texts are readily available through the MoEST while the other four have usually been supplied by C*f*BT as part of PSABH training. The total number of these 12 texts reportedly used by teachers to address HIV and AIDS in the last term was calculated with the average scores determined per region. There was a significant and strong increase in this mean score from pre to post data collection in all regions except NIS.

TABLE 8a: Teacher reports of the presence and use of specific resources for addressing HIV and AIDS

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N=	36	44	38	36	42	44	44	43	48	48
Percentage of Teachers reporting HIV/AIDS education materials										
Reference books	75%	86%	68%	89%*	69%	96%***	84%	95%	92%	100%*
Text books	72%	93%*	53%	75%*	60%	93%***	82%	95%*	79%	94%*
Class worksheets	0	18%**	8%	25%*	5%	11%	9%	5%	12%	23%
Radio or Video	11%	32%*	8%	28%*	29%	30%	41%	30%	27%	25%
Posters	78%	84%	63%	81%	76%	84%	54%	84%**	65%	71%
Leaflets Magazines	58%	71%	60%	86%*	83%	75%	64%	84%*	62%	58%
Story books	42%	68%*	29%	64%**	29%	59%**	16%	40%*	35%	48%
Training Notes	53%	86%***	45%	69%*	43%	84%***	34%	84%***	54%	90%***
Percentage of Teachers using of resources										
Mean Number of Resources Used	1.83	3.75***	2.29	3.64	1.38	5.09***	2.66	5.98***	4.62	5.69*
Lets Talk about AIDS Handbook	26%	57%**	38%	56%	26%	84%***	50%	86%***	70%	90%*
Lets Talk about AIDS Book III	33%	48%	32%	42%	17%	50%***	61%	63%	70%	75%
HIV and AIDS Readers (Green)	3%	9%	10%	19%	0%	25%***	7%	16%	18%	21%
AIDS Handbook (Blue)	3%	9%	16%	19%	5%	27%**	2%	12%	21%	23%

* $p \leq 0.05$; ** $p \leq 0.01$; ***$p \leq 0.001$

Of the four texts that were historically supplied by C*f*BT, there was a statistically significant and strong increase in the percentage of teachers reporting the use of all four in UC while there was no significant increase in the use any of these four in NIS schools from pre to post data collection. The only significant increase in the remaining regions was in the percentage of teachers reporting using the 'Lets talk about AIDS' handbook. Of note is that the green HIV/AIDS reader and blue AIDS Handbook were used by only a small minority of teachers in each region.

At pre data collection, more than 80% of pupils in all regions identified radio and television as sources of HIV and AIDS information. In all regions, teachers, followed by school textbooks, were the next most frequently identified sources of HIV and AIDS information by pupils. Significant and moderately strong increases in all regions in the percentage of pupils identifying teachers as a source of information from pre to post data collection meant that in all but WK, teachers had surpassed radio/television to become the most frequently cited source of HIV and AIDS information. Although there were also significant increases in the percentage of pupils identifying school textbooks as sources of HIV and AIDS information, in all regions, radio/television remained a more popular source of information.

Table 8b: Pupil sources of HIV and AIDS information inside and outside the school

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N =	1668	1749	1827	1745	1920	1815	1423	1481	1795	1788
Radio/Television	82%	89%***	80%	81%	81%	85%***	84%	83%	85%	92%***
Newspapers	63%	78%***	64%	69%**	69%	76%***	65%	70%**	70%	83%***
School textbooks	79%	88%***	72%	75%*	75%	84%***	71%	76%***	77%	89%***
Friends/Peers	52%	69%***	55%	64%***	55%	63%***	56%	63%***	55%	69%***
Teachers	82%	90%***	73%	81%***	80%	86%***	72%	85%***	78%	86%***
PS in school	34%	46%***	42%	54%***	43%	46%*	41%	42%	48%	35%***
Pastor/church leader	41%	53%***	39%	42%	37%	42%**	45%	49%*	49%	56%***
Parents	63%	74%***	61%	64%	61%	71%***	62%	70%***	67%	77%***
Another Cy member	37%	47%***	47%	45%	47%	53%***	47%	52%**	55%	66%***

* $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

In NFI, MK and WK schools, peer supporters in the schools were the least frequently reported source of HIV and AIDS information at pre data collection and remained such at post. This is not surprising since not all schools had peer supporters in place. The roles of peer supporters will be addressed in greater detail in the chapter on peer supporters. Among NIS and UC schools, the least reported source of HIV and AIDS information at pre data collection was pastors/church leaders. These remained low at post data collection.

Among the nine sources of information identified in the survey, there were significant increases in the percentage of pupils reporting the use of at least 5 (NIS) to as many as all (NFI, UC and WK) of these. The only significant decease occurred in the percentage of pupils identifying peer supporters in the school as a source of HIV and AIDS information in WK schools. Given that statistics for this region show significant increases in peer supporter activity and the percentage of students accessing peer supporters, it is difficult to surmise the potential reason behind this decrease. FGD do not provide much clarification since pupils in all WK schools reported that there were no peer supporters in their schools (1 girls FGD mentioned that they had peer supporters but did not discuss their role).

In FGD, pupils discussed various sources of information with respect to learning about staying safe from HIV and AIDS and other related topics. These included:

- Teachers
- Peers, including peer supporters
- Health workers, VCT workers
- Church leaders
- Parents, siblings and other relatives
- Community members
- Visitors to the school
- Books, newspapers and magazines
- Clubs (health, bible, drama)
- Radio/Television

Table 9: Presence of School Health Clubs and Question boxes in the schools

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N (schools) =	21	21	19	19	21	21	24	24	25	25
Percentage of schools reporting there is a School Health Club based on:										
SRS	79%		88%		52%		71%		88%	
Agreement from at least 80% of std 6 OR 7 pupils	19%	38%	16%	47%*	5%	38%**	0%	71%***	12%	56%***
Percentage of schools reporting there is a Club where HIV and AIDS is addressed based on:										
Agreement from at least 80% of std 6 OR 7 pupils	28%	48%	37%	100%	19%	67%	12%	92%	36%	76%
Percentage of schools reporting there is a Question Box based on:										
SRS	83%		88%		32%		83%		96%	
Agreement from at least 80% of std 6 OR 7 pupils	10%	67%***	0%	84%***	0%	43%***	4%	92%***	4%	100%***
Percentage of pupils indicating questions in question box have been answered this past term (% based on schools where of pupils say there is a question box)										
N=	19	21	19	19	20	21	23	24	23	25
>80% of pupils	5%	43%	21%	10%	20%	14%	30%	50%	26%	32%
>70% of pupils	5%	48%	37%	53%	20%	33%	35%	79%	30%	52%
>60% of pupils	21%	57%	63%	89%	50%	62%	39%	88%	52%	72%
>50% of pupils	26%	81%	74%	100%	75%	86%	65%	100%	78%	92%

* $p \leq 0.05$; ** $p \leq 0.01$; ***$p \leq 0.001$

School Health Club

During SRS data collection, zonal inspectors reported that the majority of schools in all regions had some form of a school health club. Fewest schools (52%) were reported to have a school health club in UC, and most (88%) in NIS and WK. Given that school health clubs are run by specific teachers within the school and may be limited in terms of the pupils who have access to these clubs, analysis of pupil reports of whether their school had a health club were run separately for pupils in standards 6 and 7. Those schools with a minimum of 80% of pupils in standard 6 or standard 7 reporting a school health club were considered to have such a club. Based on this calculation, there was an increase in the percentage of schools reporting health clubs from pre to post data collection in all regions with this increase significant and strong in all but NFI schools. It should be noted, however, that there were fewer than 50% of schools in NFI, NIS and UC with 80% or more of pupils reporting a health club. MK schools had the highest percentage (71%) of schools with health clubs.

The difference in percentages between SRS and pupil reports could result from any of four possibilities: (1) changes in the presence of clubs in schools between the two time periods; (2) a lack of awareness of and participation in clubs that exist on the part of the pupils surveyed; (3) pupils not identifying certain clubs that exist in the school as fitting within the question asked on the survey; or (4) over-reporting of clubs on the part of Zonal Inspectors. Qualitative data were reviewed in order to identify trends that might suggest the extent to which any one of these possibilities had affected the quantitative data. In focus groups and interviews, it was acknowledged that the concept of a 'health club' as presented in PSABH training (i.e., a club that focuses on HIV and AIDS education) could take a variety of forms with multiple names; however, pupils and teachers do not necessarily identify these as health clubs.

> * Q: Does the school have a health club?
> *Health club means?*
> * Q: A club that teach pupils on how to take care of themselves e.g. about how to eat well, keep themselves clean, health matters and also HIV/AIDS issues.
> *We don't call it health club but we have something similar to that* (W2NFIDHTM2:245-50).
>
> *My friend says straight talk but for me the one for Red Cross is the one for health while the straight talk teaches the children good behaviour. The Red Cross treat people like in games, while the health club is different*. (W2UCGirls1: 119-34)

Although the term 'health club' was used by pupils in most of the Nairobi (both NFI and NIS) and MK schools, it was used only once in WK and not at all in UC schools. Across all regions, pupils provided alternative labels for clubs that addressed HIV and AIDS in the schools. These included:

- Bible Study (NFI)
- Drama (NFI, NIS, UC, WK)
- Wildlife (NFI)
- Scouts (NFI, UC)
- AIDS (NFI)
- Sports (NFI)
- WASH (NFI, NIS)
- Art (NFI)
- Peer supporters club (NFI, WK)
- Peer education club (NIS)
- Child to child (NIS)
- Public speaking (NIS)
- Red Cross (UC)
- Straight Talk (UC)
- Teen Club (UC)
- Adventure club (MK)
- KARN-P club (WK)
- 4-K club (WK)

To adjust for the possibility that pupils are not equating clubs that address HIV and AIDS with the 'health club' identified in the survey, a composite variable was created which took into consideration all questions asking about clubs where HIV and AIDS are discussed. This included a category identified under activities in the school where HIV and AIDS are discussed and options

found under non-peer supporter and peer supporter activities as well as the original question about whether there was a 'health club' in the school. Using this composite measure the same standard was applied – i.e., at least 80% of pupils in standard 6 or 7 agree that there is a club where HIV and AIDS are discussed. This analysis further increased the percentage of schools which had such a club so that NFI was the only region at post where fewer than half of the schools had such a club (48%), while *all* of the NIS schools had at least 80% of the pupils indicating that there was some type of club where HIV and AIDS were discussed. Furthermore, using this approach there was greater consistency between reports of a club where HIV and AIDS is discussed in qualitative data and the corresponding quantitative calculations.

In schools where there was some agreement about the existence of such clubs, activities ranged from discussing question box questions and answers, to creating presentations on HIV and AIDS for other pupils, to visiting the sick. Variations on these activities existed in every region except for UC where qualitative comments downplayed the presence and activity of HIV- and AIDS-focused health clubs in the schools.

> *Okay, during the health club, we … discuss the questions that they have asked….That they have put in the question box* (W2MKDHTF4:355-9).
>
> *We talk about HIV training, also we have parents who have asked the management to give a plot, they have given us, and we are going to have resource, we will use the funds to visit this sick people around* (W2MKHTM3:551-6).
>
> *The teacher who is in-charge talks to the children about AIDS, she talks about the general health and they have come up with skits and poems* (W2NFIHTF5:425-7).
>
> *They also discuss those questions at certain times in the health club* (W2NISHTF1:415).
>
> *The activities we have are: we learn new songs that we sing on parade, and even there was a time, the health club was invited to recite poems and sing songs to their parents during a parents meeting in the school* (W2NISRTF4:386-8).
>
> *We have festivals, where we come to a central place, all the ten schools in Nairobi here, and have discussion poems, songs etc about HIV/AIDS. There is also visiting to children's home as a club, and discussed issues on HIV/AIDS* (W2NISRTM3:288-91).
>
> * Q: What activities go on with respect to HIV/AIDS?
> *Many e.g. Drama, singing, planting the crops. We would like to have tapes, video to enhance the same* (W2WKHTM2:239-42).

In all regions, pupils in FGDs described these clubs as having the task of raising awareness of HIV and AIDS, providing counseling to students, and creating ways for discussing HIV and AIDS.

> * Q: What things does this club do concerning HIV?
> *Spreading the word, creating awareness about HIV*. (W2MKBoys1:194-6)

You know some other pupils are naughty when at home, so it is good, they become free with the teachers, ask any questions that they have and the teachers will help them because they cannot ask their parents.
Or if there is something you did not know about sex, you could ask the teacher and she will answer you. (W2NFIGirls4: 229-33)

Like in drama, we have role-plays where somebody acts like an infected person and you are able to see consequences of your actions when you engage in reckless sex. (W2WKGirls3: 146-8)

Boys in UC schools mentioned that there were some problems with participating in clubs, for example they catered primarily to girls and there were limitations on the number of clubs apupil could join.

* Q: So you told me none of you is in this club. Why haven't you joined?
If you are already in another club you cannot join another. (W2UCBoys1: 269-71)

We are already in other clubs and they already have the number of members they needed. (W2UCBoys1: 292-3)

Question Box

Results from SRS data collection indicated that at least 83% of schools in each region had a question box. The exception was UC in which only 32% of schools had a question box reported in the SRS. In self-completion questionnaires pupils were asked whether there was a question box where they could put anonymous questions. Out of concern that only certain groups have access to the question box and/or only some pupils may take part in the answering process, it was decided to split the analysis by standard and identify any school in which a minimum of 80% of pupils in standard 6 or 7 agreed that there was a question box. Using this approach, there were statistically significant and strong increases in the percentage of schools identified as having a question box from pre to post data collection in all regions across standard 6, standard 7 and the combination of the two. With only 43% of schools having a question box, UC had significantly fewer schools with question boxes than any other region. WK, with pupils in all schools reporting a question box, had a significantly higher percentage of schools with question boxes than the majority of the other regions.

Compared with the results from the SRS data collection, it appears that there may be a substantial drop in the percentage of NFI schools with a question box, while in the remainder of the regions there appears to be only a small drop (4% for NIS schools) or an increase in the percentage of schools with question boxes. Most of these variations may reflect changes that have occurred over the months between the SRS and post data collection. The substantial results for NFI schools could be the result of confusion in responding to the questionnaire, the question box falling into disuse (as documented in one of the qualitative schools), or an over-reporting by zonal inspectors during the SRS.

Given that there were inconsistencies in the quantitative data (i.e., pupils who indicated there was no question box but later indicated that they had placed a question in the question box); qualitative data were reviewed to identify discrepancies which would provide insight into these

inconsistencies. In qualitative interviews, both pupils and teachers made references to 'suggestion boxes' in all regions except WK. In most cases, this term was used as an alternative label for 'question box'.

> *That letters to be put on the suggestion box…One sends her/his question on what you want to know more about AIDS. Then on Friday we all sit in our health club meeting then we use those questions to answer people's questions* (W2MKBoys2:102-13).

> * Q: Now we are going to talk about a question box. You know about question boxes? *And at times they are labeled suggestion box* (W2UCGirls4:146-8).

> *…when we came we opened a suggestion box where by they write and they don't label their names* (W2NISHTF1:65-6).

It is likely that teachers and pupils alike may be referring to a box where questions about HIV or AIDS are placed as either a question box or a suggestion box. The use of only one of these terms in the questionnaire may explain the apparent inconsistency in responses.

Teachers in most schools involved in qualitative data collection indicated that there was a question/suggestion box in the school; however teachers within a school were not always in agreement about how and where the questions were answered. In 3 of the 5 NFI qualitative schools and 2 of the 4 UC qualitative schools, teachers reported that there was either no question box or (in one NFI school), there had been a question box but it had fallen into disuse.

By post data collection, in the majority of schools in all regions, at least 60% of the pupils who reported that there was a question box in the school also reported that questions had been answered at some point during the last term.

FGDs support the findings from teacher interviews and pupil surveys that most schools have a question box in the school with questions usually answered once a week. Occasionally pupils reported that their school answered questions once a month but this was not the norm. Consistent with teacher interviews, pupils in 3 of the 5 NFI schools and 2 of the 4 UC schools reported that they did not have a question box or that it was not being used. Pupils in one school in WK also reported that this was the case. Of the 3 schools in NFI that did not have a question box, pupils at one school said that it had been removed.

> *Pupils were writing questions, which are not HIV related like if one wants a certain teacher to be transferred or others abused teachers through those questions.*(W2NFIGirls1: 141-3)

Where pupils and teachers in focus groups and interviews reported that a question box was present, the most common questions in all regions included:

- What is HIV/AIDS?
- Where did AIDS come from?
- How is AIDS transmitted? (Types of questions in this area ranged from the general to specific and included questions about transmission through bugs, blood, body fluids, saliva, water, kissing, razors, food, bedding, urine, and clothing).
- How can pupils help those infected (including friends, parents and relatives).

Other typical questions focused on:

- Mother to child transmission of HIV (through pregnancy and/or breastfeeding).
- Relationships – e.g., is it bad to have a boyfriend? If your boyfriend has another, should you stay with him (because he is asking for sex)?
- Pregnancy – e.g., Can an old man or secondary school boy make a young girl pregnant?
- Playing sex – e.g., How can you avoid playing sex? Is there a right time to play sex? Why is playing sex bad? What to do if you are raped.
- Prevention of AIDS.
- Can a condom prevent AIDS and/or pregnancy?
- How to know one's status.

The most common questions on condoms were:

- Is it good to use a condom?
- Are condoms safe?
- Can you get AIDS if you use a condom?

Typically questions were answered in class or assembly. At times, consideration was given to the age of the pupils and the appropriateness of raising certain issues. In these cases, some questions were reserved for addressing with older pupils. Where possible, some teachers suggested that they provided pupils with the opportunity to respond to each other with teachers filling in details where necessary.

In general, teachers indicated that they felt comfortable responding to the questions placed in the box and, as confirmed by pupils in focus groups, typically provided factual information in response to these questions.

> *We tell them this disease is normally transmitted through fluids, like now vagina fluids semen fluids and blood. The sharp objects like needles and injections and piercing and if blood penetrates into that opening* (W2MKRTF4:347-9).
>
> *Like the question they are asking on transmission, we give them all ways HIV is transmitted from infected persons to another person through sexual intercourse, sharp objects that they are playing with and one is infected and the other is not infected, also through pregnancy; a mother who is infected to the child through breastfeeding and so on* (W2NFIRTM5:316-20).
>
> *Be open and tell them through sex. Through sex you can get AIDS. Through blood transmission, tell them the most important ones not like insects* (W2NISRTF1:197-8).
>
> *This question we always answer them by telling them that you cannot just look at somebody and then imagine that this fat person is free from AIDS or is suffering from AIDS. So be sure one knows your status or has visited the VCT and do not just visit it once maybe it will be done and then after three months you also go for testing* (W2WKRTF2:390-4).

We said the major risk is sexual intercourse, this one of the glass we said if he has sores then there is a risk, but if he is normal and there are no sores then there is no problem (W2UCDHTM1:354-7).

What is HIV/AIDS?
A disease that can be prevented but no cure.(W2WKGirls2: 258)

Lets say you are sharing food, they were asking if you can share food with HIV infected person if you will be infected but the answer was, if you share anything with an infected person you will not get infected if it is a razor blade or something sharp you might get, but if you just share clothe you might not get AIDS. (W2NFIBoys5:77-81)

Less common questions asked by pupil's focused on obtaining more detailed and sophisticated information on HIV and AIDS.

I asked if there are other diseases you can get by having sex apart from AIDS. (W2MKGirls3: 218-19)

Why women stay longer than men do when infected before dying. (W2NFIBoys4: 89)

There was this question which was asking about the body fluids, for instance if a person who is not sick travels with someone who has AIDS and then they happen to have an accident and then the fluids happen to mix whether they can get AIDS. (W2MKBoys4: 146-9)

Is HIV and AIDS the same?
We were also told HIV are small viruses which one can live with for many years like three years or so before you get AIDS.(W2NISGirls3:181,195-6)

How did you know this person is infected?
You go to VCT (W2WKGirls4:197)

Teachers acknowledged that there were some questions which they found particularly difficult. These often included questions which required technical knowledge which they felt they did not have.

For example they can ask you if you have these STDS and you are not treated are you likely to get the disease. You don't have AIDS but you have chronic AIDS. Those one like gonorrhea, syphilis ….. now you see those ones you have to look for materials (W2MKRTF4:352-5).

There are some questions children ask especially about how AIDS came about, which country it came from first and when it was first reported to have come in Kenya and so many others we feel we need more knowledge (W2NFIRTM5:323-6).

Although rare, some responses to questions reported by pupils during FGDs were problematic.

> What does someone feel when having sex
> The teacher said whoever had asked should go and try it out and he will know what it feels.(W2MKGirls3: 278, 288-9)

> * Q: Now that you have asked such questions what answers did you give?
> *Like what to do so that a girl can give in?*
> *That you can sweet-talk her with, goodies like sweets*. (W2MKBoys2: 191-3)

There were particular types of questions which teachers felt were either inappropriate to discuss among pupils or they felt compelled to incorporate their values and attitudes in responses rather than merely responding with factual information. This was frequently the case in questions related to sexual behaviour and condom use.

> *First we warn that sex is not for you and the whole thing is about sex* (W2WKRTF3:344).

> *Another question like can pregnant women play sex. You find that person is not even pregnant or married. Why does he want to know?... That one we shelve because you won't tell them.* (W2MKHTM1:476-81).

There were some instances where accurate answers about condoms were given to pupils, however condom use and condom talk was generally discouraged.

> *Ah… we tell them to… okay they are not 100% safe…And according to our denomination…We are Catholics. We do not encourage use of condoms* (W2MKDHTF4:148-54).

> * Q: So what were you told about the condom?
> *We were told that we are not even suppose to ask such a question we are not yet in that age of engaging in that*. (W2MKBoys4:162-5)

> *The teacher said that condom has no prevention at all*. (W2WKBoys4: 72)

> * Q: How was it answered (what a condom does)?
> *That the condom is supposed to be used by one person only, do not use then give another person to use it. You should dispose it.* (W2MKBoys1: 125-8)

> *Some people were asking if condoms will protect you from getting AIDS but there were members that said it is likely to protect you from AIDS but it is not the best.* (W2NFIBoys5:105-7)

> *They teach us you cannot get AIDS when you use condoms. They also tell us that at our age we should not use condoms. They say you can use condoms to avoid getting pregnant and we should only used condoms after marriage.* (W2NISGirls3: 365-8)

Occasionally, responses to questions about sexual behaviour suggested the need to use condoms, particularly among those who are playing sex.

> *We usually tell them that early sex is not good. But in case you indulge in it try to use condoms* (W2NISHTF1:404-5).

> *For the protection, of course when the question is asked, then you have no choice but also to find out from them so find out from them what they think about protection, they will talk about condom and they all then trust and many others then you tell them condoms are used by people who have been unable to abstain. And you see if you would like to save their lives they would rather use the condoms though it has its own risks* (W2NISRTF4:356-361).

Pupils indicated that most questions were answered; however, of those that were not, they usually related to condoms.

> *Someone had asked if she plays sex with a person while using a condom can she get AIDS and that was not answered.*(W2UCGirls1: 92-3)

Some pupils mentioned that questions were sometimes not answered because they were illegible or the questions were not serious.

> *Others write, I want to have sex tonight, who wants to have sex today? Should I have sex or shouldn't I?* (W2NFIGirls4: 119-20)

Conclusions

Baseline data in Nyanza was collected in November 2001, prior to the MoEST mandate to incorporate one AIDS lesson per week into classes. Given the difference in timing, it is not surprising that the teacher implementation scores in Nyanza were significantly lower than those from the five new regions collected in November 2004, two years following the MoEST mandate. Scores at both the 9 and 18 month post-programme data collection periods in Nyanza fell below (9 month) or within (19 month) the range of scores for the 5 new sites. Pupil participation/awareness scores were not significantly different in Nyanza compared to the five new sites at any of the data collection periods.

In general, results from post data collection in the five new regions suggested that there has been an increase in the infusion and integration of HIV and AIDS into classroom subjects with variations across subjects and regions. There has also been an increase in the use of various activities to address HIV and AIDS. Although teachers, in interviews, highlighted the use of assemblies and parades in delivering HIV and AIDS information, in FGDs it appeared as though dramas were the most salient activity for pupils.

Typically pupils responded positively to the lessons on HIV and AIDS, however, there remains on-going evidence that many feel these lessons are 'shameful'.

There were some statistically significant and moderate to strong increases in the number of resources available to teachers for addressing HIV and AIDS. As well, the percentage of pupils

referencing a variety of sources of information about HIV and AIDS increased across the regions with teachers becoming the most frequently cited source of information at post data collection in almost all regions. In FGDs, pupils confirmed that they had access to multiple sources of information about how to stay safe.

To account for the use of various names and titles for activities (e.g. question box, suggestion box), several approaches were used to determine whether or not the school had a school health club and/or a question box. Using the most liberal of these calculations, the majority of schools in all but NFI have a health club, while the majority of schools in all but UC have a question box. According to qualitative data, clubs which incorporate information on HIV and AIDS often do so through songs, poems and skits which can then be used for informing the remained of the school in assembly or on parade. Questions boxes may be answered as part of the health club or in assembly or on parade typically once every one or two weeks depending, at times, on the number of questions posed. Although teachers feel confident answering most of the questions, there are some which involve technical knowledge or are too closely tied to strongly held beliefs which continue to present some problems.

TEACHERS PERCEPTIONS ABOUT ADDRESSING HIV AND AIDS

PSABH relies on teachers to be the primary carriers of HIV and AIDS information to the pupils. Thus, it is important to examine the beliefs and attitudes of teachers in the schools with respect to what is being asked of them.

Teachers' Perceptions of Barriers To Teaching About HIV and AIDS

Table 10: Percentage of teachers who reported the absence of each barrier to teaching about HIV/AIDS

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N=	36	44	38	36	42	44	44	43	48	48
Mean score for barriers to teaching (range 0-10)	3.56	3.14	4.06	3.41*	4.18	3.27**	4.03	3.31*	3.86	3.49
Structural: There are/is not enough:										
• textbooks	86%	54%**	79%	50%**	74%	61%	73%	65%	54%	60%
• training	78%	52%*	82%	39%***	57%	54%	57%	51%	81%	50%***
• time	61%	36%*	53%	47%	57%	48%	68%	46%*	42%	48%
Pupils are:										
• too shy	25%	43%	34%	42%	60%	41%	64%	44%	58%	50%
• too young	17%	9%	18%	22%	0%	25%***	25%	35%	17%	27%
Teaching young people about HIV/AIDS:										
• is inappropriate	14%	14%	16%	44%**	21%	20%	14%	14%	27%	21%
• does more harm than good	6%	11%	10%	8%	12%	4%	14%	19%	12%	17%
Parents:										
• are reluctant	14%	27%	42%	56%	52%	39%	32%	28%	44%	48%
Teachers:										
• are uncomfortable	28%	18%	45%	25%	31%	18%	36%	21%	35%	25%

* $p \leq 0.05$; ** $p \leq 0.01$; ***$p \leq 0.001$

The barriers scale takes into consideration teacher responses to the 9 statements listed in the table that address elements which may hinder the implementation of PSABH. Lower scores suggest that the teachers do not consider many of these elements to be barriers to their ability to address HIV and AIDS in the schools. At post data collection, there were significant and moderately strong decreases in the mean barriers to teaching scores in NIS, UC and MK schools. The only item with a statistically significant increase was in the percentage of UC teachers who felt pupils were too young to be taught about HIV and AIDS. There were no significant differences between regions in any of the statistical comparisons. Virtually all teachers participating in qualitative interviews continued to express some area of concern.

Overall, structural barriers such as a belief that there were not enough textbooks, training or time were the most commonly cited at pre data collection. Although there were significant and moderately strong decreases in the percentage of teachers reporting a shortage in textbooks in Nairobi (both NFI and NIS) schools, training in Nairobi (both NFI and NIS) and WK schools, and time in NFI and MK schools at post data collection, these areas continued to be the most commonly cited concerns for most regions.

Despite the previously discussed increases in the percentage of teachers reporting having reference books, textbooks and the *Lets talk about AIDS* handbook, more than 50% of the teachers across all regions continued to report a concern about a shortage of textbooks and only in Nairobi (NFI and NIS) schools was the decrease in percentage of teachers reporting concerns statistically significant from pre to post programme.

A shortage of resources was also raised by some teachers in the qualitative interviews. Teachers felt that particular types of materials would be useful to further support the information being presented.

> *We need more training with the materials. We don't have enough diagrams on the lesson, how the lesson can be more effected by putting on materials, pictures on the walls. Some of the materials you see them on some areas, but how to get them. Nobody wants to tell you where they have got them. Maybe if somebody could help you with such, we could display in the room where we have lessons of such kind* (W2NFIHTF3:59-64)

> *We need to have resource material in modern approach to teach about HIV/AIDS. Since the same is complex* (W2WKHTM1:43-4).

> *Teaching is unimpressible without teaching aids reference books and well equipped teachers* (W2WKHTM1:47-8).

> *We don't have enough materials to assist us in teaching these children. Since talking to them by word of mouth is not helping them a lot. They need to do something for themselves so that AIDS can become a success* (W2MKRTF1:589-92).

Although there were significant and strong decreases in the percentage of teachers concerned about a lack of training in NFI, NIS and WK schools, there were still at least 50% of teachers in all regions except NIS who expressed a concern about insufficient training at post data collection. This concern was further echoed in qualitative interviews where teachers suggested that it would be helpful to have refresher training, and/or others trained.

> *So I think they should train again, you know even we teachers trained teachers we go for refresher courses and we were trained for three years and this was one week and we covered a lot so its better they call another one, people will be more knowledgeable* (W2NFIHTF1:117-20).

> *You know refresher courses are very important. Perhaps when we get refresher courses, perhaps something we have not implemented so when we keep on refreshing our minds we implement them* (W2NISHTF1:116-8).

> *We need also to have more teachers trained, because you know a lesson like this one coming from the head teacher to the children and to the teachers, we need more to be trained so that they even take it more seriously* (W2NFIHTF3:68-71).

> *Another one I felt since it was the first time this was done, maybe if the government was able to go on teaching these people and many more … I know that even if alone with two*

teachers. That we should be added another teacher and a parent, it would be easier to distribute the information (W2MKCLM3:126-30).

While there was a significant, strong decrease in the percentage of teachers in NFI and MK schools who identified time as an ongoing concern, a lack of time remained a concern among at least one third of the teachers in each region at post data collection.

The constraint is a challenge because there you are preparing the class eight for exams so you find that we are so much attached to the revision that sometimes we forget to touch the topic as much as we wish to do it with the other staff. So it [is] also very hectic, especially when we have few teachers. There is also a problem of who is now going to handle that class when there is nobody in this other class. And when we have three classes without a teacher… (W2NFIHTF3:395-401).

Among the other concerns expressed by teachers was the perception that pupils were too shy. At post data collection there were no significant changes in the percentage of teachers expressing this concern which ranged from 41% in UC schools to 50% in WK schools. While we cannot tell from the questionnaires what pupils might be shy about, there are some potential insights in the interviews. One of the particular concerns was that pupils who had been infected or affected would feel shy about the content of HIV lessons.

…we realize that there are children who are orphaned because of this disease and because of that when we were beginning the health club, we realized that most of these pupils did not want to join the club. But initially we did not know why, but one of them spoke and said when they hear about HIV, they are reminded of what happened (W2NFIRTF4:80-5).

Concern about the discomfort of teachers did not change significantly. In qualitative interviews teachers also recognized that some of their colleagues might be infected and affected by HIV and AIDS and that this might affect their willingness to address certain topics

The greatest challenge I have, we have also some colleagues who we suspect and when we are teaching we don't warn the teacher thinking that we are referring to her so there are times you would think that we are referring to her. (W2NFIRTF2:463-6).

In interviews, teachers indicated that potential discomfort associated with discussing sexuality was reduced by training. Training helped motivate teachers to address sensitive topics like out of a concern for pupil well-being.

… I got the confidence on what you are saying during the training. We were told not to hide anything as you are telling the people. If you hide what you want to tell them they automatically learn and if they learn it is up to you. Because you are trained you have not delivered what you are to deliver. You are the one who had led the children to dark. And so you don't want to be told that you have led the children to dark so you get bold to speak on both sides (W2MKRTM3:636-42)

There were no significant changes in the percentage of teachers concerned about the reluctance of parents at post data collection with a range from a low of 27% of teachers in NFI schools to a high of 56% of teachers in NIS schools. The reasons behind this perceived reluctance were further explored by some teachers in qualitative interviews.

> *When we started with the pupils and speaking to them openly sometimes we heard from few parents saying that there the teachers are telling out what is supposed to be told to the children. They are telling the children deep things but then because we are trained we knew challenges would come* (W2MKRTM3:648-52).

> *Initially it was not easy. The children were referring to us as the AIDS teachers and when they went home they told there parents the teachers are teaching us about AIDS. The parents were negative to some point but we had a meeting with the heads and the parents and we were able to make them understand…Culture also does not allow sex to be mentioned. They feel that when we mention, we are introducing it to them* (W2WKRTF3:384-94)

The only other statistically significant changes from pre to post were an increase in the percentage of teachers in UC who felt that pupils were too young to discuss issues of sexuality and HIV/AIDS and a significant increase in the percentage of teachers in NIS schools who felt that it was inappropriate to teach young people about HIV and AIDS. There was no apparent explanation for either of these changes in the qualitative interviews.

Teacher Attitudes Towards Teaching About HIV/AIDS and Related Issues

Table 11: Percentage of teachers who reported each attitude

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N=	36	44	38	36	42	44	44	43	48	48
Mean Attitudes towards HIV/AIDS (range 0-10)	6.96	7.21	7.23	7.09	6.94	6.82	6.90	7.06	6.83	6.96
HIV & AIDS is a big problem	92%	89%	90%	89%	79%	91%	84%	91%	94%	88%
We need to be able to talk openly about sex	100%	100%	100%	97%	98%	100%	96%	100%	100%	98%
The more information provided to pupils the better	92%	100%	97%	100%	93%	96%	91%	100%*	100%	98%
Those infected do not have only themselves to blame	69%	70%	74%	67%	64%	68%	52%	51%	73%	62%
HIV is not God's punishment	50%	52%	58%	64%	55%	43%	46%	56%	38%	52%
Promoting condom use does not - encourage pupils to have sex	19%	27%	26%	17%	14%	11%	23%	23%	15%	15%
Having sex outside marriage is not wrong	6%	7%	3%	0%	7%	4%	11%	0%*	4%	6%
It is possible for a man to remain faithful	97%	98%	95%	94%	88%	93%	93%	98%	92%	94%
It is possible for a woman to remain faithful	97%	96%	92%	94%	86%	93%	96%	98%	96%	96%

* $p \leq 0.05$; ** $p \leq 0.01$; ***$p \leq 0.001$

There were only two significant changes in teacher attitudes towards teaching about HIV and AIDS and related issues from pre to post data collection. In most cases this was likely because the attitudes of most teachers were already conducive to teaching about HIV/AIDS at pre data collection. For example, *all* of the teachers in NFI, NIS and WK schools already agreed at pre data collection that they needed to be able to talk openly about sex. The only significant changes in this area were a moderate increase in the percentage of teachers in MK schools who agreed that the more information provided to pupils the better and all of the teachers in MK schools (representing a strong change) reporting that having sex outside marriage was wrong at post data collection.

At post data collection, there were 3 attitude questions where 88% or more of the teachers in all 5 regions scored positively:

- 88-91% of teachers at each site believed that HIV and AIDS was a big problem.
- 97-100% of teachers believed there was a need to talk more openly about sex.
- 96-100% believed the more information provided to pupils the better.

In interviews, teachers acknowledged that the presence of HIV and AIDS in their communities had motivated them to talk more openly about sex and provide more information to pupils about HIV and AIDS.

> *Yes, it makes you become more open because it's a problem the country is facing on HIV/AIDS so you become more open to them* (W2NISHTF1:427-8).
>
> *Because now I saw openly what is happening you know my mind was opened to see more, to see further about how HIV has affected Kenyans and everybody in the world and who are more affected? Africans are more affected by HIV/AIDS, then we have to stress on it as much as we can* (W2NFIHTF3:386-9).
>
> *When you see your friends, parents are affected; it gives you the courage to talk so that others are not affected* (W2NISDHTM3:299-300).
>
> *Because of what they need at their homes. Some have lost their parents through AIDS and we have told them that AIDS can be got through sexual intercourse. Therefore they get to know this is what has killed my parents, my brother* (W2UCDHTM4:326-9).

Among the other attitude questions, at least 50% of teachers in each region felt that those infected did not have only themselves to blame and, with the exception of UC, at least 50% of teachers in each region did not feel that HIV was God's punishment.

Teachers were less convinced about the potential that promoting condoms would not encourage pupils to have sex, with a minimum of 11% (UC) to a maximum of 27% (NFI) holding such a belief at post data collection. This attitude was further reflected in qualitative interviews from all regions.

> *For the young people in school, I have told them to abstain, we don't allow them to use condoms, because that will be encouraging sex* (W2NISRTF1:172-3).

This attitude has appeared at all stages of data collection throughout PSABH and appears to be the most difficult to change. Taken together with teacher responses to the question about sex

outside marriage being wrong, it demonstrates the overall perspective of teachers toward the challenge of teaching pupils to prevent HIV infection. The dominant view is that premarital sex is wrong and that condoms encourage premarital sex. This is consistent with teachers' greater comfort in teaching pupils to abstain and their reluctance and difficulty in teaching about condoms, even for pupils who are already sexually active. Both of these issues are addressed in later chapters of this report.

Conclusions

There were few barriers to teaching about HIV and AIDS at pre data collection and some regions experienced a further decrease in perceived barriers at post data collection. Most barriers that remain are structural – e.g. availability of textbooks – or concern that pupils are too young or shy. Qualitative interviews suggest that the latter may relate to concerns about pupils infected or affected by HIV.

Attitudes support teaching about HIV and AIDS but suggest a preference for abstinence teaching over condom teaching out of a concern that the latter will encourage sexual activity. There were no significant differences between the five new regions or with Nyanza difference scores at 18 months post-programme with respect to teacher barriers or attitudes.

TEACHING AND LEARNING ABOUT ABSTINENCE

During baseline data collection in Nyanza province pupils stressed the need to learn specific strategies to address the pressures to play sex that they experienced. Teacher training since then has included discussions of how to teach such strategies and the need to address the specific pressures that pupils face. Teaching about resisting pressures to engage in sexual activity is tapped through a series of questions on the teacher and pupil surveys with 'abstinence teaching/learning' scales created as a summation of reports by teachers of the number of strategies they have taught and the number that pupils report having been taught.

Table 12a: Mean Abstinence Teaching Scores and Percentages of Teachers Reporting Abstinence Topics

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N=	36	44	38	36	42	44	44	43	48	48
Mean teaching strategies for abstinence scores (range 0-10)	8.72	8.73	7.95	8.44	6.24	8.14**	8.59	8.93	8.04	8.92
Percentage of Teachers who have talked about										
How to resist 'bodily urges' to play sex	92%	91%	92%	92%	71%	91%*	98%	98%	94%	98%
How to control natural urges	92%	82%	76%	81%	50%	82%**	86%	84%	67%	85%*
How to abstain under pressure from friends	92%	91%	90%	86%	79%	96%*	91%	100%*	81%	94%
How to abstain under pressure from boy/girlfriend	81%	89%	66%	86%*	64%	68%	77%	84%	77%	85%
How to avoid sex with older people	81%	84%	74%	78%	48%	70%*	77%	81%	83%	83%

* $p \leq 0.05$; ** $p \leq 0.01$; ***$p \leq 0.001$

Reports of abstinence teaching by teachers were relatively high at baseline with the majority of teachers in each region addressing most of the specific abstinence topics. At pre data collection, the mean score for abstinence teaching was significantly and substantially lower (1.72 - 2.48 points) in UC schools than all other regions. UC also consistently had the lowest percentages of teachers reporting addressing each of the abstinence topics at this time point. UC was the only region with a significant pre-post increase in mean score for abstinence teaching and significantly higher percentages of teachers reporting that they had addressed most of the abstinence topics. In all cases, these were strong increases.

Although all other regions did have increases in the mean scores for abstinence teaching, these were not significant and there were only a few significant, two strong and one moderate in strength, changes with respect to the percentage of teachers talking about specific topics. The changes that did occur corresponded with topics where there were lower than average percentages of teachers reporting having addressed that topic at pre data collection. These included strong and significant increases in the percentage of teachers from NIS schools who talked about how to abstain under pressure from one's partner, teachers in WK schools who talked about how to control natural urges and teachers in MK schools who discussed how to abstain under pressure from friends. Such increases meant that by post data collection, more than 80% of teachers in all but UC reported

discussing each of the specific issues with respect to how to abstain. There were no significant differences in the mean scores between regions at post data collection.

Among all regions, the most popular topics addressed included how to resist playing sex when faced with 'bodily urges' and how to abstain under pressure from friends, while the least popular topic among teachers from all regions except NFI was how to avoid sex with older people. In NFI the least popular topic was how to control 'bodily urges.'

Teachers acknowledged that pupils were confronted with biological urges and pressures from others to play sex. However, the primary approaches to teaching about abstinence tended to focus on the ideal of abstinence until marriage, suggestions of ways to reduce the chances of becoming involved in sexual activity and/or fear messages around the potential consequences of sexual activity. Each of these messages will be further explored in the chapter on Pupil Behaviour.

Table 12b: Pupil Scores on Learning about Abstinence

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N=	1668	1749	1827	1745	1920	1815	1423	1481	1795	1788
Mean scores for learning strategies for abstinence (range 0-10)	5.21	6.69 ***	4.53	6.29 ***	4.65	6.29 ***	5.01	7.25 ***	4.42	7.28 ***
Percentage of Pupils who have been taught about:										
How to resist bodily urges to play sex	62%	74% ***	52%	68% ***	58%	73% ***	55%	83% ***	54%	81% ***
How to control natural urges	47%	57% ***	44%	58% ***	39%	56% ***	50%	69% ***	46%	73% ***
How to abstain under pressure from friends	53%	72% ***	45%	65% ***	43%	62% ***	50%	77% ***	41%	74% ***
How to abstain under pressure from boy/girlfriend	52%	70% ***	45%	63% ***	45%	62% ***	48%	70% ***	42%	70% ***
How to avoid sex with older people	48%	62% ***	41%	62% ***	47%	61% ***	47%	64% ***	38%	66% ***

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

Pupil scores on learning about abstinence remained lower than the scores of teachers on teaching how to abstain. However, in all regions these scores demonstrated strong, significant increases. WK and MK had the highest mean scores at post-programme, followed by NFI and NIS/UC. The increase in mean score was significantly greater in WK than in all other regions except MK.

In all regions, the percentage of pupils reporting that they had been taught about each of the abstinence topics demonstrated strong, significant increases. Consistent with reports from teachers, the most popular topics included how to resist 'bodily urges' and how to abstain under pressure from friends. Among pupils from NFI, NIS and UC schools, the topic that they least often reported learning about was how to control 'bodily urges', while from WK and MK schools it was how to avoid sex with older people.

It was clear from FGDs that pupils were hearing the teachers' lessons on abstinence. The abstinence message seemed to be more common at post-data collection than at baseline. In all regions pupils reported that the primary way for them to stay safe from HIV and AIDS was to abstain. Typical comments were:

> *I have learnt that the best way to protect yourself from AIDS is by abstaining.* (W2NFIBoys5:161-2)

> *Abstain from sex until marriage.*
> * Q: What else?
> *Avoid playing around with boys.*
> * Q: What else?
> *Stop doing sex thinking condoms will work.* (W2NFIGirls3: 291-7)

Consistent with survey findings, the most popular topics discussed in all regions in terms of why it was difficult to abstain were control of bodily urges and peer pressure

> *Because when you reach that age of playing sex, you just feel like playing sex. So your body desires it.*
> *Some people say like the boys they say there is no use of moving on with a girl without playing sex, that is not a girlfriend.*
> *They also say that tea without sugar is not tea.* (W2UCGirls1: 213-17)

> *When you hear that many people are playing sex you think that you are left out and you start following them*. (W2NFIBoys5: 207-8)

> *When you see a female private part you are urged to have sex with her. When you are walking and meet a girl. While on the way, you are forced to talk to her about sex. Some mature girls pester the young boys for sex*. (W2MKBoys1:78-80)

In addition to bodily urges and peer pressure, pupils in MK and UC mentioned that it was also difficult to abstain for those people who are used to having sex. A typical comment from boys and girls is captured in the following quote:

> *It is difficult if one has played sex already, but if one has never played sex then you can abstain.* (W2UCBoys2: 309-10)

In NIS, MK and WK the problem for girls was wanting the money that came in exchange for sex.

> *So many of our peers engage in sex and they taunt the ones who don't.*
> *Some girls look for men to provide for them with things they cannot get from home in exchange for sex.*(W2WKGirls3: 120-2)

> *Let us say you have no finances at home. So as a girl you are engaged in commercial sex and eventually drop out of school and takes the money she makes to her parents alternatively she can buy tight clothes that make her look more attractive*. (W2MKBoys4: 308-11)

Boys in MK and NFI, and girls in all regions discussed strategies and reasons for avoiding rape.

> *You should not be a person who when he/she reaches home walking around to other peoples houses because he or she can be caught by another man on the way and be raped.* (W2NFIBoys5:163-5)

> *Don't walk alone at night because someone who has AIDS can RAPE you.* (W2MKGirls3:447)

Girls in one school in NFI mentioned a tool they could use to defend themselves against rape.

> *But nowadays there is this thing that girls have been advised to be putting on so that if somebody tries to rape you they will feel pain.*
> * Q: And is it available here?
> *Not yet.*
> *But it is about to*. (W2NFIGirls2: 169-74)

In pre-programme data collection, girls from one school in UC identified several self-defense techniques they could use when faced with physical force. In post-programme reports, girls from this same school, when asked what the programme could do better focused on the need for additional security – this was the only girls' FGD that mentioned this.

> *I think they should improve the security in towns.*
> *They should put watchmen.*
> *Find a cure for AIDS.*
> *They should install alarms*.(W2UCGirls4: 642-5)

Other pressures were pornography and drugs. Typical comments made by boys and girls were similar to the following:

> *During adolescence someone feels that he or she is of age then he or she goes out then she or he gets some money and they watch some pornographic movies the way they saw the people acting they get out of that place going to act the way those people acted.* (W2NFIBoys3: 131-4)

> *Sometime when you see pictures of naked people, you get the mood to have sex and when you meet a girl, you go having sex.* (W2NFIBoys4:215-16)

> *Those who use drugs cannot control their emotions and end up engaging in sex carelessly*. (W2NISBoys3: 134-5)

Teachers addressed what they heard from pupils regarding the difficulties with abstaining by providing avoidance messages. These messages most commonly referred to avoiding peer pressure, bad company, dark places, walking alone at night, being idle, taking or giving gifts, and drugs. The following quotes are examples of typical discussions.

They can do jobs, which can keep them very busy. So instead of being idle they have some work to do, may be you can go for a video show watch cartoons, movies these cannot make you think and make your emotions higher, you can also keep yourself busy reading, playing football or anything else. (W2NFIBoys3: 138-42)

You chill, meaning keep off. Do not think about sex. Control your minds by keeping busy with other things, keeping good company. (W2WKBoys1: 83-4)

To avoid bad companies, going to videos and allowing men to touch your breasts, and avoid as much as possible silly jokes with men.(W2NISGirls3: 338-9)

Conclusions

Reports of teaching and learning about strategies to abstain are high with at least 80% of teachers and 50% of pupils at post data collection reporting that each of the specific strategies had been addressed. Qualitative interviews and FGDs further suggested that teachers feel comfortable focusing on abstinence as a way to reduce risk for HIV transmission.

Questions about abstinence teaching and learning have evolved out of qualitative data collected at baseline in Nyanza and therefore, these questions were not raised on the initial survey for Nyanza. Comparisons between the 9 month and 18 month post training periods in Nyanza and the five new sites suggest, however, that there are more teachers and pupils reporting each of the areas of abstinence teaching/learning at post data collection in the 5 new regions than in Nyanza at either of these time periods. This difference is not significant for teachers; however, there are significantly more pupils reporting coverage of each of the subject areas in most of the new sites as compared to Nyanza at wave 2 and wave 3. The primary exception was with respect to the percentage of pupils reporting learning about how to control 'bodily urges' which was significantly higher in WK and MK schools than the Nyanza schools at both waves of data collection.

PEER SUPPORTERS IN THE SCHOOLS

Peer supporter training has been included in the PSABH model for schools that are identified as at particular risk due to the close proximity of secondary schools. Schools targeted for peer supporter training send 4-5 pupils from standard 6 and 7 and a teacher supervisor for a one week training course. None of the regions covered in this report had schools targeted for peer supporter training. Therefore, the results presented in this chapter deal with the influence of pupils trained by other organizations as peer supporters.

At present, peer supporter programmes are among the most popular approaches used to address HIV and AIDS with youth[4] and, as confirmed in conversation with Jerry Aurah of the National Organization of Peer Educators of Kenya (January 11, 2006), there are many of these programmes working in Kenya. The information provided about peer supporters in this chapter is the result of training provided through sources other than PSABH.

Table 13a: Percentage of teachers reporting Peer Supporter activities at post

	Region				
	NFI	NIS	UC	MK	WK
N (SRS Schools) =	24	25	25	24	25
Percentage of schools with PS in SRS	42%	40%	8%	17%	28%
N (schools) =	20	19	21	22	24
Percentage of schools where teachers say there are PS	75%	84%	48%	27%	71%
N of teachers reporting PS present in school=	29	28	23	13	35
Helping prepare answers to questions in question box	38%	71%	65%	62%	77%
Leading club activities on HIV and AIDS	69%	79%	61%	46%	77%
Speaking to other pupils about HIV and AIDS	86%	100%	74%	54%	74%
Helping with classroom activities on HIV and AIDS	79%	86%	78%	38%	74%

* $p \leq 0.05$; ** $p \leq 0.01$; ***$p \leq 0.001$

During SRS data collection ZIs reported that trained peer supporters existed in fewer than half of the schools in each region. By post data collection, based on agreement from at least 2 of the teachers completing self-completion questionnaires in each school, there were substantial increases in the percentage of schools in each region where there were peer supporters. Statistically, at post data collection the percentage of schools where teachers reported trained peer supporters was significantly higher in NIS than in UC and MK. MK had significantly fewer schools with trained peer supporters than all other regions except UC. Clearly, there are steady increases in the number of pupils being trained as peer supporters in these schools.

Where teachers indicated that peer supporters were present in the schools, the majority reported that these peer supporters were actively involved in four key areas: helping prepare answers for the question box, leading club activities on HIV/AIDS, speaking directly to pupils about HIV/AIDS, and helping with classroom activities. The exceptions were in NFI schools where only 38% of the teachers reporting peer supporters indicated that they were involved in helping to prepare answers to questions in the question box, and MK schools where only 46% indicated peer supporters were

[4] Maticka-Tyndale, E. & Brouillard-Coyle, C. (2006, in press) The effectiveness of community interventions targeting HIV and AIDS prevention for youth in developing countries. *WHO Expert Series.*

involved in leading club activities on HIV and AIDS and only 38% indicated peer supporters were helping with classroom activities on HIV and AIDS.

According to teacher qualitative interviews, among the primary advantages of peer supporters was their ability to talk with other pupils about a variety of topics, including HIV and AIDS.

> *In fact, they teach the others and we found it working well because sometimes these children do not open up to teachers as they can open up to fellow pupils, so the peer supporters are really helping a lot* (W2NFIRTF4:450-2).
>
> *They are answering questions from other pupils on HIV, they are also advising other pupils on control measure etc* (W2NISRTM3:302-3).

In some schools, the ability to accomplish this was facilitated by the responsibility given to peer supporters for a variety of activities.

> *I said there are activities like singing they compose those songs or write poems then take them to the club* (W2NFIHTF1:444-5).
>
> *They lead discussions…They also organize dramas* (W2NFIRTF4:457-60).
>
> *Other than talking in parades and talking to students during club meetings we have not involved in many other activities* (W2NISRTF4:413-4).
>
> *Discussions held and peer supporters do it as per the level of age so that the information can sink without shyness* (W2WKHTM1:231-2).
>
> *Like the singing, you find they lead and they also help in the question box to see that it is safe and in the place where it is supposed to be* (W2WKRTF2:466-7).

Teachers believed that peer supporters could and had helped change pupil behaviour.

> *They help them because they bring to us only the difficult questions, because you realize that if there is any unbecoming behaviour in the class, those peer supporters are there before they reach you they would have tried to calm them down, tell them that it is not right to do this so they are helping* (W2NFIRTF4:466-70).
>
> *Actually how they help is by talking to them especially when we have that day for the club. What they do is they move to the rooms and putting those slogans with these warns the students and they stop* (W2NFIRTM5:378-80).

Table 13b: Percentage of Peer Supporters and Non Peer Supporters Reporting Activities

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N (schools) =	21	21	19	19	21	21	24	24	25	25
Percentage of schools where at least one pupil self-identifies as trained PS	97%	78%	100%	92%	100%	97%	84%	46%	85%	26%
N (Non-PS) =	1539	1579	1350	1396	1187	1554	1242	1395	1354	1778
Involved in a PS – pupil discussion about H/A	19%	27%***	30%	50%***	32%	41%***	20%	31%***	21%	26%**
Involved in a PS-pupil discussion about condoms	11%	15%**	20%	32%***	28%	31%	10%	20%***	17%	19%
Participated in a PS led activity about HA	17%	24%***	23%	38%***	26%	33%***	17%	39%***	19%	28%***
Involved in a PS-pupil discussion about ways to abstain from sex	20%	32%***	32%	51%***	38%	45%***	23%	41%***	25%	29%*
Talked about H/A at the school health club	18%	35%***	32%	53%***	31%	48%***	23%	56%***	24%	56%***
N (PS) =	129	170	477	349	733	261	181	86	441	10
Involved in a PS – pupil discussion about H/A	45%	75%***	45%	71%***	60%	78%***	49%	69%**	56%	70%
Involved in a PS-pupil discussion about condoms	33%	39%	34%	45%***	44%	40%	36%	45%	40%	30%
Participated in a PS led activity about HA	25%	51%***	29%	54%***	41%	50%*	21%	64%***	33%	50%
Involved in a PS-pupil discussion about ways to abstain from sex	43%	72%***	44%	66%***	60%	75%***	30%	74%***	46%	60%
Talked about H/A at the school health club	37%	64%***	41%	63%***	48%	66%***	16%	66%***	40%	70%

* $p \leq 0.05$; ** $p \leq 0.01$; ***$p \leq 0.001$

The percentage of schools in which at least one pupil identified him/herself as a trained peer supporter decreased from pre to post data collection in every region. Given that both pre and post-programme data were collected during the same school year (January and October 2005), this is an unusual result.

Among pupils who did not identify themselves as peer supporters there were significant increases in the percentage reporting participating in each of the peer supporter activities for all regions

except with respect to the percentage of UC and WK non-peer supporters reporting engaging in a conversation about condoms with a peer supporter. With the exception of NFI schools where there was only a weak increase in the percentage of non peer supporters reporting involvement in discussions about condoms, the remaining statistically significant increases were moderate or strong.

Among pupils who identified themselves as peer supporters, there were significant and strong increases in the percentage reporting at least some of the related activities in all but WK. The weak showing in WK was primarily because of the small number of pupils claiming to be trained peer supporters. With small sample sizes it is extremely difficult to obtain statistical significance, even for large differences. In all other regions, the only activity which did not have a statistically significant increase at post data collection was the discussion of condoms in NFI, UC and MK schools.

Based on FGD, boys and girls generally agreed on the presence or absence of peer supporters in their school. In NIS, all schools reported having peer supporters, while MK and WK typically said they had none (1 girls school in WK said that they did have peer supporters). For those schools that had peer supporters, pupils indicated that they played an important role by teaching about HIV and AIDS, condoms and abstinence, providing answers to questions, giving advice and helping with problems. Common discussions were:

> *Everyday they teach us more and more new things.*
> *They are supportive.*
> *You get to know more.*
> *They give us good advice.* (W2NFIGirls3: 719-22)

> *You sit together you tell them for instance you had sex over the weekend and then they tell you if you continue joking that way you will get AID.* (W2MKBoys3: 795-6)

Pupils liked the roles that peer supporters played.

> *We like the way they talk to us because we understand what they tell us.* (W2MKBoys3: 918)

> *They are safe to talk to*. (W2NFIGirls3: 723)

Common activities for peer supporters included leading poetry, competitions, prayers, and dramas; telling stories; and teaching about condoms, HIV and AIDS and ways to protect against the dangers of HIV and AIDS.

Both boys and girls thought that peer supporters did help to change behaviours by telling them about the consequences of their actions, giving advice, and telling stories.

> *By giving examples of people who have had some consequences and have regretted so that you can give yourself another chance to change.*(W2NFIGirls3: 701-2)

*They have taught us not to buy gifts for girls they have told us if you feel like you cannot stay without sex, and then use a condom because you will not get a child. (*W2MKBoys3: 910-12)

Pupils occasionally mentioned reasons that they did not like peer supporters.

Those peer supporters are pretenders they used to do what they were teaching against. But they were not all, they were few among them.
There are some who were telling us to keep away from the boys. But later you would find that they were the ones in bushes, their breasts being fondled by boys. But the following day you would see them talking so well in front of other pupils then you wonder. (W2UCGirls1:555-60)

The way they don't like being asked questions in public. The way they fear questions. (W2NISBoys3:404-5)

Conclusions

A considerable number of pupils claimed to be peer supporters and a considerable number of teachers claimed to have trained peer supporters in their schools. Clearly, many organizations are training teachers and pupils in peer supporter activities related to HIV and AIDS education.

KNOWLEDGE

Knowledge is considered a necessary (though not sufficient) pre-requisite for taking action to reduce risk or vulnerability to HIV infection. There were few gains in knowledge scores for teachers or pupils over the course of the evaluation period in Nyanza or Rift Valley. For teachers, the lack of significant change in knowledge was related to the relatively high knowledge scores prior to programme initiation, with difficulties remaining in subsequent waves of data collection in questions associated with areas of moral contention (e.g., can condoms prevent HIV) and issues requiring technical sophistication (e.g., the relationship between STIs and HIV). Pupil focus groups suggested that pupils could convey information about HIV transmission and prevention, could engage in discussions of conditions under which certain strategies for prevention might be questionable or infeasible and what the alternatives might be, and could identify and critically assess misinformation which they had heard in their communities. It was concluded that the relatively low scores obtained by pupils on the yes/no survey questions most likely did not accurately reflect the complexity of pupil knowledge about transmission and prevention.

It was also clear that knowledge was entangled with beliefs about right or wrong typically supported with knowledge claims and particular interpretations of knowledge. For example, information that condoms are nearly 100% effective against HIV transmission become statements that they are not 100% effective in the context of beliefs that they are not morally acceptable. This is accompanied by beliefs that condoms are, therefore, not effective ways to reduce the spread or risk of HIV infection. Affecting this knowledge requires a change in the associated attitudes and, in the case of knowledge associated with areas where pupils lack volitional control, behaviours of pupils and others.

These complexities in measuring knowledge need to be taken into consideration when reviewing the results for this stage of PSABH.

Table 14a: Teacher Mean Knowledge Scores and Percentages of Teachers Responding Correctly to Each Knowledge Item by Region

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N=	36	44	38	36	42	44	44	43	48	48
Mean % Correct (range)	88.9% (44-100%)	86.6% (33-100%)	88.3% (44-100%)	88.0% (56-100%)	79.4% (11-100%)	82.8% (44-100%)	86.1% (44-100%)	88.4% (33-100%)	84.5% (11-100%)	92.6%** (44-100%)
Percentage of Teachers that believe these actions reduce the chances of infection										
Avoid having sex	86%	80%	90%	92%	76%	82%	86%	95%	83%	94%
Having fewer partners	44%	32%	55%	53%	43%	23%*	50%	37%	42%	48%
Not sharing razor blades	86%	91%	92%	92%	86%	96%	93%	95%	94%	96%
Using a condom	89%	84%	87%	72%	71%	68%	82%	88%	83%	98%*
Being faithful	97%	96%	92%	97%	90%	93%	91%	98%	98%	96%

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Percentage of Teachers that believe that the following do not reduce the chances of infection										
Wearing infected persons clothes	69%	75%	74%	83%	64%	73%	57%	74%	56%	71%
Avoiding sex with thin people	86%	93%	84%	86%	64%	84%*	91%	81%	85%	60%**
Sharing food with infected persons	92%	86%	92%	81%	79%	84%	89%	77%	85%	94%
Mosquito bites (insects)	89%	93%	84%	86%	83%	77%	91%	79%	79%	94%

* $p \leq 0.05$; ** $p \leq 0.01$; ***$p \leq 0.001$

Teacher knowledge about HIV and AIDS prevention was fairly high at baseline. Consequently, it is not surprising that, with the exception of WK, there were no significant changes in the mean percentage of correct answers for teachers. In WK there was a significant and moderately strong increase in mean percentage of correct answers among teachers surveyed.

On individual items, there were also few changes. There were significant, strong improvements with respect to UC teachers' knowledge that avoiding sex specifically with thin people would not necessarily reduce the chances of infection and WK teachers' recognition that using a condom would reduce the chances of infection. Of note, however, is that in some cases, there were significant *decreases* in the percentage of teachers responding correctly. This included significant and strong decreases in the percentage of teachers in UC schools who knew that having fewer partners would reduce the chances of infection and the percentage of teachers in WK who knew that avoiding sex specifically with thin people would not reduce the chances of infection.

Although there were no specific knowledge questions posed in qualitative interviews, teachers did have the opportunity to discuss the situations and circumstances which contributed to pupil risk. In these discussions, it was apparent that most teachers understood that HIV was transmitted through sexual intercourse and blood exposure. Some teachers also provided information about the extent to which a particular community has been infected and affected, information about VCT and ARVs, and epidemiological information. This suggests that teachers typically have a solid foundation of knowledge on HIV and AIDS, however, there were some teachers who felt that further training on the technical aspects of HIV and AIDS could help teachers build greater confidence in delivering this information.

> *The technical scientific terms and how HIV is transmitted are not in our books… without the knowledge, we shall not be equipped to attain behaviour change* (W2WKHTM3: 36-42).

Table 14b: Pupil Mean Knowledge Scores and Mean Percent Correct Responses to Knowledge Items by Sex and Region

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N (schools)	21	21	19	19	21	21	24	24	25	25
Mean Percent of pupils with ≥50% correct† (range)	85% (65%-94%)	84% (61%-94%)	72% (49%-85%)	71% (53%-86%)	69% (45%-86%)	72% (60%-90%)	64% (35%-92%)	73%*** (44%-100%)	65% (25%-96%)	79%*** (68%-97%)
N (pupils)	1668	1749	1827	1745	1920	1815	1423	1481	1795	1788
Mean Percent Answers Correct (range)	71% (0-100)	72% (0-100)	62% (0-100)	62% (0-100)	59% (0-100)	61%* (0-100)	58% (0-100)	64%*** (0-100)	59% (0-100)	67%*** (0-100)
Percentage of pupils that believe these actions reduce the chances of infection										
Avoid having sex	83%	85%	69%	73%**	72%	76%**	66%	70%**	53%	74%***
Not sharing razors	75%	79%**	63%	66%	59%	67%***	66%	68%	65%	70%***
Using condom	74%	62%***	66%	58%***	62%	55%***	54%	55%	53%	60%***
Being faithful to partner	60%	61%	52%	48%*	48%	49%	46%	49%	52%	56%*
Using clean needles	81%	82%	74%	72%	73%	78%***	70%	70%	63%	72%***
Percentage of pupils that believe that the following don't reduce the chances of infection										
Wearing infected persons clothes	63%	64%	57%	60%*	55%	57%	54%	62%***	59%	69%***
Sharing food with infected persons	67%	72%***	58%	64%***	55%	58%*	53%	64%***	62%	72%***
Mosquito bites (insects)	56%	60%*	48%	47%	44%	45%	50%	63%***	54%	59%**
Shaking hands	80%	81%	70%	69%	67%	67%	61%	75%***	71%	73%

p ≤. 05 ** p ≤ .01 *** p ≤ .001

†This statistic was calculated by school

There was a statistically significant, strong increase in the percentage of pupils correctly answering at least 50% of the knowledge questions in MK and WK. In UC, MK and WK schools there were statistically significant increases in the mean scores of pupils on the knowledge scale. These were of moderate strength in MK and WK, but weak in UC. Consistent with results at pre data collection, however, NFI schools continued to have significantly higher mean scores than all other regions. The changes in the mean scores in WK made these significantly higher, at post-programme, than all regions except NFI.

Pupils in WK schools saw significant improvements (of varying strength) in responses to all 9 questions. Considering the specific questions, significantly more pupils in each region recognized that avoiding sex was a way to reduce chances of infection in post than pre questionnaires and in all regions except MK significantly more pupils recognized that sharing a plate of food with someone infected with HIV was not a risk.

Of concern, however, were answers to the question on using condoms. In all urban sites – Nairobi and UC – there was a moderate to strong, statistically significant *decrease* in the percentage of pupils who identified using condoms as a way to reduce chances of HIV infection. In MK schools there was no change in responses to this question, whereas, in WK significantly more pupils recognized condoms as a way to reduce infection risk.

Overall, NFI schools continued to have significantly higher percentages of pupils responding correctly to the majority of the knowledge questions than in other regions. The exceptions were:

- At post data collection, there was no significant difference in the percentage of pupils from NFI and WK schools correctly acknowledging that using condoms would reduce risk for HIV transmission or that avoiding sharing a plate of food with one who was infected would not reduce risk
- At post data collection, there were significantly more pupils correctly acknowledging that avoiding wearing the clothes of one who is infected would not reduce the risk of transmission in WK schools than any other region (including NFI which had the second highest score)
- There were no significant differences between NFI and WK schools at pre data collection and MK, NFI and WK schools at post data collection in the percentage of pupils correctly acknowledging that avoiding mosquito bites would not reduce risk for HIV transmission.

In qualitative interviews, teachers indicated that the pupils were becoming more confident about their knowledge and that some pupils were able to answer questions and inform other pupils about HIV and AIDS.

> *…the one we explained as a leader at one time he was given a chance to speak to pupils on parade about HIV/AIDS and how it spreads and he urged his fellow pupils to abstain, so that they can live longer* (W2NISRTF4:123-6).

> *…when we summon them and we tend to answer questions, some of the questions that are asked by their colleagues, they are answered by the pupils themselves …There isn't that shy off at this problem some know a lot they can even assist their colleagues* (W2UCDHTM1:131-5).

> *Like the other time, here we had an annual general meeting, so we have a boy in class eight who made a play for the parents and pupils at large where he pretended that he was the AIDS virus, he went through the poem, and he was telling them to take care of themselves and he will care for them. He was now telling them that the virus is there and if you are not careful, and you are not taking care of yourself the virus will* (W2UCDHTM4:101-6).

Then we open the box where they have written their questions. Then we talk about the answering the questions and there we can ask the children same questions and then they answer (W2MKRTM3:183-5).

In general, the knowledge the pupils displayed in focus groups in all 5 sites was good. Similar to baseline reports, pupils knew that AIDS was dangerous, they could list several modes of transmission, and knew that there was no cure. Pupils continued to be familiar with VCT, however knowledge has improved in terms of how to know one's status.

You should go for testing if you intend to marry after three months you go back because there is the window period where maybe that person has AIDS but cannot be detected the first time.
The married people should be faithful to their spouses.(W2NFIGirls1: 670-8)

Before having sex, go to a VCT to check your status. (W2NFIBoys1: 462)

There was evidence in FGDs that pupils were moving beyond discussions of general knowledge of HIV and AIDS and looking at the impact of AIDS on their country

[AIDS] has made many children loose their parents, become orphans
It has made our country poor. It has caused poverty (W2UCGirls4: 662-3)

I want to know where that disease came from and how it came to our community. (W2NISBoys4: 384-5)

One pupil pointed out that it was not awareness that people were lacking, but that people chose to ignore this.

I think everyone knows that AIDS is real but they only ignore. Those in school, at least 99% know about the risks of HIV/AIDS only one percent that is letting our school down.(W2NFIGirls1: 689-91)

In terms of specific knowledge regarding staying safe and condoms, in FGDs pupils continued with the baseline trend to be more knowledgeable and positive about condoms. In all regions, pupils mentioned condoms as a way to stay safe from HIV. In one FGD it was the first response provided.

* Q: What have you learnt about staying safe from HIV and AIDS in school?
*How to use a condom.(*W2NISGirls4: 262-4)

There was evidence that a shift may be occurring in some schools from the recommendation of 'never use condoms' to 'if you must play sex, use a condom'

We were told that you must abstain, and if you can't abstain, you must use a condom (W2NISGirls1: 396)

[Teachers] *have said that if someone tells you to have sex, or he forces you and you have no other choice, let him use a condom if you have no other* (W2NFIGirls5: 384-5)

If someone force you and you have no otherwise, use a condom.
* Q: And the peer supporters, what did they say?
If you go to your boyfriend's house and he wants to play sex with you, you must use a condom. (W2NFIGirls5: 407-11)

It is better to use a condom if it is a must to play sex, hence you will prevent HIV/AIDS. (W2WKBoys4: 303-4)

However, there continues to be misinformation about condoms. Typical comments were:

Condoms have holes and sperms can penetrate so you should not trust condoms but trust God. (W2UCBoys4: 497-8)

If you play sex using those things they can destroy your body (W2MKGirls2: 738)

In addition, some youth were cautioned that young boys are too small for the condoms that are available.

[Community leader] *said the young like us can't wear condoms because when young ones put them on it is like a spoon when you put in a cup some of the space remains so that even when you sleep with the boy some sperms may find their way and you get pregnant. So I would say that condoms are not useful to people like us.*(W2WKGirls1: 702-6)

Despite the mis- and discouraging information, pupils are including condoms as an option when discussing HIV prevention. In addition, they are deciphering many mixed messages about condoms and when asked about what is right about condoms, they suggest that condoms could keep them safe.

* Q: There are so many different things that have been said about condoms which of these do you think is right?
To carry them.
Using Trust to protect yourself from AIDS. (W2NFIBoys1: 343-6)

We are not supposed to use the already used condoms. For health purposes we should check the expiry dates of the condoms. (W2WKBoys2: 237-8)

You cannot get AIDS when you use a condom. (W2MKGirls2: 756)

Condoms are for preventing AIDS and pregnancies.(W2WKGirls3: 226-7)

[condoms] *prevent pregnancy.*
[condoms] *are safe.*
It is safe to use one condom while playing sex. (W2NISGirls4: 554-8)

All pupils in NIS and NFI, and most pupils in UC and MK claimed to have seen a condom demonstration. Only girls in WK indicated that they had never seen one.

Most pupils who had seen a condom demonstration saw them on television and condom packages. However other sources of information were newspapers, tent demonstrations, health workers, family members, friends, video tapes (pornography), and books. In one school pupils mentioned that they saw a condom demonstration in church camp.

> *There is this person who came to show us. He had a wooden carving that looked like the boys private parts. Then he came with the condom then they said you have to do it carefully otherwise you will spoil it.*(W2UCGirls4: 574-6)

> *I saw the demonstration on the TV. A certain man was drink and he was with a woman so he was told if he goes with that woman he should use a condom*. (W2NFIBoys3: 324-5)

> *On TV when a pipe is leaking some people use condoms to seal it.* (W2NFIBoys1:370)

> *On TV when a ball had a puncture, someone used a condom to seal it.*
> *A bottle is leaking then a person inserts the bottle in a condom.*
> *On TV where a lady is walking and her umbrella cover disappears then a man comes and covers the umbrella with a condom.* (W2NFIBoys1: 370-4)

From the pupil FGDs, perceptions of the condom demonstrations were generally mixed. Some pupils indicated that they were useful, while others did not see them in a positive light.

> *It was good on how it was educating the girls and the men. (*W2MKGirls3: 477)

> *I thought it was helpful and fun*. (W2NFIBoys4: 416).

> *I didn't like it…. Because they lie that it can prevent HIV and they know it can't.*
> (W2UCBoys3: 787-90)

> *I thought that they should show it at night when children are sleeping* (W2NFIGirls1: 579)

> *It is not good for young people to watch such things, they bring sexual urge*.
> (W2WKBoys2: 250-1)

> *I was shocked if that is what people do, the whole process of inserting and using a condom*
> (W2UCGirls1: 449)

One pupil expressed discomfort when condom demonstrations were performed by women.

> *No I didn't like it because it was shown by a woman. I don't think a woman knows how to put on a condom as compared to men*. (W2UCBoys3: 793-4).

Conclusions

Knowledge was typically high with the majority of teachers and pupils correctly responding to most of the knowledge questions. This was reinforced with evidence from qualitative data which demonstrated a solid understanding of the complexities of HIV transmission and prevention.

Difficulties did persist, however, with statements that could be influenced by norms and beliefs. The most problematic of these were issues around reducing the number of partners and using condoms.

At pre-programme data collection there were no significant correlations between the mean knowledge scores of teachers and pupils in any of the regions. The only significant correlation at post data collection was a negative one in UC schools – i.e., schools where teachers' scores were higher generally had lower pupil scores and those where teachers' scores were lower had higher pupil scores. This suggests that there is little statistical relationship between teacher and pupil knowledge levels, however, what should be kept in mind is that there were typically only 2 teachers who completed the surveys and these individuals may or may not be involved in teaching the pupils who completed self-completion surveys as is indicated by the fact that, at post data collection, on average only 50 - 81% of teachers completing the survey taught standard 6 - 8.

There were no significant differences in the changes in mean scores pre to post when comparing the five new sites and Nyanza. However, all regions had significantly larger increases in the mean pupil knowledge scores than Nyanza pupils did.

PUPIL PURSUIT OF INFORMATION AND COMMUNICATION ABOUT HIV AND AIDS

Pursuing information and communicating with others about HIV and AIDS are considered important factors contributing to pupil awareness, knowledge and skills for making decisions to protect against HIV transmission. Questions about pursuing information about HIV and AIDS were asked separately of pupils claiming to be peer supporters and those who did not.

Table 15: Percentage of Pupils Pursuing HIV & AIDS Information by Sex and New Site

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
BOYS										
Pursuing Information about HIV & AIDS										
Non-Peer Supporters N=	804	763	546	595	546	812	647	728	550	817
Used Question Box†	13%	41%***	23%	52%***	24%	41%***	19%	71%***	12%	85%***
Asked Teacher	56%	54%	47%	59%***	47%	63%***	50%	62%***	47%	76%***
Talked to Parent	35%	42%**	27%	40%***	28%	42%***	47%	38%***	28%	46%***
Talked at Health Club	19%	36%***	31%	51%***	32%	44%***	29%	52%***	23%	58%***
Peer Supporters N	67	112	339	203	377	67	49	31	295	7
Used Question Box†	37%	56%*	32%	54%***	35%	51%*	24%	55%**	23%	57%*
Asked Teacher	40%	72%***	47%	70%***	56%	73%**	35%	71%**	46%	43%
Talked to Parent	34%	58%**	37%	45%	47%	48%	31%	52%	42%	43%
Talked at Health Club	33%	58%***	38%	57%***	44%	52%	24%	77%***	41%	57%
GIRLS										
Pursuing Information about HIV & AIDS										
Non-Peer Supporters N=	735	816	804	801	641	742	595	667	804	961
Used Question Box†	14%	40%***	16%	58%***	17%	45%***	11%	77%***	14%	75%***
Asked Teacher	61%	67%**	51%	65%***	52%	68%***	42%	67%***	42%	64%***
Talked to Parent	57%	66%***	50%	55%	42%	57%***	32%	74%***	42%	55%***

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Talked at Health Club	17%	35%***	32%	54%***	31%	53%***	16%	60%***	24%	53%***
Peer Supporters N=	62	58	138	146	356	194	132	55	146	3
Used Question Box†	37%	67%***	41%	66%***	32%	70%***	41%	76%***	29%	67%
Asked Teacher	61%	88%***	59%	75%**	61%	87%***	50%	82%***	47%	100%
Talked to Parent	64%	83%*	53%	65%*	63%	75%**	16%	82%***	41%	67%**
Talked at Health Club	42%	76%***	49%	70%***	53%	71%***	12%	60%***	39%	100%*

p ≤. 05 ** p ≤ .01 *** p ≤ .001

†Given the presence of statistical inconsistencies and the potential term confusion (question vs. suggestion box) it is unclear what pupils are responding to here

There were statistically significant, predominantly strong, gains in the percentage of pupils reporting they were pursuing information about HIV and AIDS using all the methods asked. Exceptions included:

- No significant change in the percentage of female peer supporters in WK reporting that they asked a question in the question box (note there are only 3 pupils in this category at post-programme).
- No significant changes in the percentage of male non-peer supporters in NFI schools and male and female peer supporters in WK schools reporting that they asked a teacher a question.
- No significant changes in the percentage of male peer supporters in all regions except NFI and female non-peer supporters in NIS schools reporting that they have talked to their parents about HIV and AIDS.
- A significant, moderately strong, *decrease* in the percentage of male non-peer supporters in MK reporting that they talked to a parent about HIV and AIDS.
- No significant change in the percentage of male peer supporters in UC and WK who report discussing HIV and AIDS in a club at school.

Among male non-peer supporters, WK typically had the lowest percentages reporting each method of pursuing information pre-programme. This changed drastically by post data collection when WK had the highest percentages of male non-peer supporters reporting that they had used each method of pursuing information. The difference between pre and post data collection percentages in this group were significantly greater than all other regions for each method except talking to parents, where WK changes were only significantly greater than NFI and MK.

The patterns for female non-peer supporters were less pronounced. With respect to asking a question in the question box and talking to parents, however, the difference between pre and post percentages for pupils from MK were significantly greater than most other regions. There were no

statistically significant variations in the pre-post percentage differences for this group in asking a teacher a question and talking about HIV and AIDS in the school health club.

In qualitative interviews, teachers indicated that pupils had become more open about HIV and AIDS and thus more willing to ask questions and obtain information from a variety of fora.

> *I had a class with standard 8 and they were discussing and they told me I am not going to teach that they want to discuss. There were boys asking me different questions.* (W2NISRTF1:82-4).
>
> *We talk in parade and there is discussion every Friday on the question box when you sit there you will see children running there very fast because they know we are going to talk about friendship and AIDS. And teachers have been told to talk about it very nicely and children are enjoying it and they ask very good questions* (W2WKHTF4:50-5)
>
> *Yes, and they ask questions especially the questions put in the suggestion box, there are many questions…* (W2MKHTM3:182-3).
>
> *Like now we have health club…when they meet in this group, there are pupils when they meet in clubs, they have some questions which they will write on the board then they answer them. And all those questions are only about HIV and AIDS…* (W2NFIHTF1:147-51).
>
> *…there is a change like when we are carrying out a discussion with them* [the pupils]*, you find them saying my mum told me this and that, my father told me this…* (W2NFIRTF4:121-3)

Table 16: Mean Scores for Communication with Family and Other Community Members by Sex and Region

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Talked about sex to (scores range 0-5):										
Boys N=	871	875	885	798	923	879	696	759	845	824
Female relatives	1.29	1.63**	1.20	1.67***	1.12	1.60***	3.43	1.79***	1.18	1.62***
Male relatives	1.58	1.96**	1.65	2.21***	2.03	2.76***	1.70	2.41***	2.47	3.14***
Others in the community	2.54	3.15***	2.49	3.16***	2.66	3.35***	2.96	3.71***	2.94	3.37***
Girls N=	797	874	942	947	997	936	727	722	950	964
Female relatives	3.41	4.08***	2.98	3.95***	2.52	4.00***	1.62	5.71***	2.68	3.56***
Male relatives	.76	.97*	.68	1.00***	.70	1.00**	1.21	1.38	.86	1.28***
Others in the community	2.52	3.45***	2.38	3.28***	2.00	2.92***	2.32	3.96***	2.11	3.14***

*p ≤. 05 ** p ≤ .01 *** p ≤ .001

Pupils were asked about whether they communicated about HIV and AIDS with any one of a variety of relatives and community members. The list was grouped into female relatives, male relatives, and other community members with responses to the individual questions related to each type of person summed and converted to a scale score ranging from 0 to 5. Higher scores indicated communication with more different people in each group. With only one exception, both boys and girls in each region reported increased communication with each group. The only exception was girls in MK for whom there was no increase in communication with male relatives. What must be noted, however, is that these girls already had the highest scores of all regions for talking to male relatives prior to the programme. Post programme, girls in MK had the highest scores for communication with all three groups (female and male relatives and community members). Oddly, boys in MK were significantly more likely than in any other region to report talking to female relatives at pre data collection but this *decreased* significantly at post data collection. MK girls were least likely to talk to female relatives at pre data collection than all other regions with this increasing significantly at post.

Communication about HIV and AIDS was consistent across regions. In schools where question boxes, health clubs and peer supporters were present, pupils participated in these activities by asking questions, listening to messages, engaging in debates and competitions, singing songs, writing poems and creating posters to raise awareness. Pupils in each region, when asked where they had learned about staying safe, identified at least four different sources of information. The most frequently mentioned was teachers. Also included were parents, siblings, church leaders, relatives, health workers and peer supporters.

At baseline, teachers were rarely mentioned as a source of information about condoms. This was not the case at post where teachers were the main source of information about condoms, with at least two schools in each region mentioning them. At baseline, sources of information about condoms varied by region. At post-data collection there were few differences with a variety of people talking about condoms across all regions. Sources included church leaders, parents, visitors, health workers, siblings, peer supporters and other family members. Most regions had at least one school where no one had spoken to them about condoms. One pupil offered an explanation of why condoms had not been discussed in their school.

> *Almost all the teachers in this school, we are related in one way or another. Some of them are our parents, aunts, uncles, so maybe they feel embarrassed to talk to us about such things.*
> *You see most of these teachers are our neighbours, we live together, and others are aunts, uncles grandfathers, so they find it very hard to discuss such issues with us.* (W2UCGirls2: 194-200)

When pupils were asked what they would like to know, their questions were similar regardless of whom they were asking. Typically questions focused on whether or not they should use condoms, how to use condoms, how to protect themselves from HIV, and how to abstain.

> * Q: What would you like teachers to tell you?
> *There are newspapers that say that condoms do not prevent AIDS. We would like the teachers to tell us more*. (W2NFIBoys2: 421-2)

* Q: So what would you want your brother to tell you?
What I would like my brother to do is to protect me and tell me how I can stay safe, free of AIDS and not the condoms. (W2MKBoys4: 505-8)

* Q: What would you like a doctor to talk about?
About the ways of HIV and how to avoid sex. (W2NFIGirls2: 382-4)

* Q: What else would you like to learn about HIV and Aids?
If there are any other things you can do to avoid HIV and AIDS.
If you can stay without playing sex until the day you die. (W2NISGirls4: 866-71)

Conclusions

There were statistically significant and generally strong increases in the percentages of pupils reporting pursuing information across most regions. There were also statistically significant increases in each of the types of individuals that both boys and girls spoke to for all of the regions. Overall, however, at post-programme data collection, pupils in Nyanza reported significantly higher levels of communication with relatives or community members than did pupils in the five new regions. The only exception was that there was no significant difference in scores for talking with others in the community at post-data collection for girls in MK and girls at 18 months post-programme in Nyanza.

Of particular interest is that pupils relied more on teachers than other sources of information at the post data collection period. This was especially the case with respect to condoms.

PUPIL SEXUAL BEHAVIOURS AND RISK PERCEPTION

The primary outcome goal of PSABH is to affect a change in the sexual behaviours of youth so that fewer of them are placed at risk for HIV infection. Survey questions were designed to tap pupil attitudes toward sexual activity, and in particular their sense of control or agency in making decisions about such activities. These questions have incorporated descriptions of the sexual script which was perceived by boys and girls as inflexible and inevitably leading to sexual intercourse.

Table 17: Percentage of Pupils Reporting Attitudes toward Sexual Behaviour and Condom Use

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Boys										
N=	871	875	885	798	923	879	696	759	845	824
I can say 'no' to sex	72%	79%**	48%	61%***	40%	56%***	53%	61%***	36%	51%***
When a girl says 'no' she means 'no'	60%	61%	44%	46%	31%	41%***	40%	51%***	31%	44%***
I can talk to girlfriend about using a condom	59%	51%***	60%	52%**	52%	55%*	32%	50%***	54%	56%***
I can make sure we use a condom	74%	69%***	70%	65%***	65%	67%	45%	63%***	72%	70%**
A girl can refuse even if the boy is older	64%	63%	48%	49%	41%	51%***	42%	51%***	31%	46%***
A gift from a boy doesn't obligate a girl to play sex	74%	70%**	52%	55%***	47%	52%	55%	53%***	34%	49%***
A girl can refuse even if he is her boyfriend	68%	66%*	52%	52%	48%	52%	53%	57%	47%	51%***
Girls										
N=	797	874	942	947	997	936	727	722	950	964
I can say 'no' to sex	77%	86%***	45%	67%***	35%	51%***	46%	62%***	20%	48%***
When a girl says 'no' she means 'no'	66%	80%***	40%	57%***	28%	38%***	41%	56%***	19%	40%***
I can talk to boy friend about using a condom	53%	42%***	37%	40%	33%	29%	30%	23%***	25%	31%***
I can make sure we use a condom	69%	65%*	56%	55%***A	44%	43%***a	51%	40%***	37%	52%***
A girl can refuse even if the boy is older	63%	71%***	45%	55%***	34%	45%***	41%	52%***	22%	39%***
A gift from a boy doesn't obligate a girl to play sex	81%	86%**	69%	71%	73%	69%*	49%	73%***	60%	68%***
A girl can refuse even if he is her boyfriend	65%	72%***	47%	54%***	40%	48%***	45%	49%***	32%	37%***

* p ≤. 05 ** p ≤ .01 *** p ≤ .001

a. The significant changes here were in the percentage of pupils responding 'disagree' at pre and 'don't know' at post.

The most consistent improvements in attitudes from pre to post-programme were in MK and WK where there were significant and moderate to strong increases in the percentage of boys and girls endorsing each attitude with only three exceptions (percentage of MK boys who did not feel a gift from a boy obliged a girl to engage in sex, girls who felt they could talk to a boyfriend about using a condom and percentage of WK boys who felt they could make sure they used a condom).

Changes were less consistent in other regions. NFI saw the largest number of losses for both boys and girls. This was particularly the case for confidence in talking about and using condoms, and, for boys, in girls refusing sex with their boyfriends or when given a gift. Of note is that the percentage of girls who felt they could refuse sex with and boyfriend or when given a gift demonstrated a moderately strong and significant increase among NFI girls. The sense of agency related to condoms also decreased, or remained the same for NIS boys and girls and for UC girls.

Qualitative interviews and focus groups highlighted that the primary message delivered to pupils with respect to risk reduction continued to be abstinence from sexual intercourse. To achieve this, however, pupils needed the tools to say 'no' to sex under a variety of circumstances. In general, there were four basic approaches to this message found in each of the regions. These approaches included:

- Telling pupils to abstain

  Yours is just to abstain and we have created a slogan for the girls "Not now, not ready" (W2NFIDHTM2:218-9).

  The main one is abstinence that we advocate for…Mostly we do not go for any other because once you given them a loophole, they might find that one easier than abstaining (W2NISRTM3:248-52)

  I have told them to abstain; I have put posters in their class showing abstinence (W2WKHTM3:195-6).

  …but for me I feel that children should just "chill" as it is said. And they should abstain from sex, early sex (W2NISHTF1:352-3)

- Associating an ideal with sexuality

  We read the bible in ecclesiastics that it is good to abstain, there is always time for everything so they should wait (W2NISDHTM3:238-40)

  I have told them they should respect their bodies and be good citizens of this country until the day they get married (W2NFIHTF1:340-1).

  Aah, Have just told them to have good morals…And its no good to have sex at a certain age, just abstain from sex completely until the right time (W2UCRTF3:329-33)

- Telling pupils to avoid situations or individuals that may lead to sex

  They should also think about their life, about their future…The risk of maybe getting involved in such things (W2MKDHTF4:492-5).

  And also to engage themselves in worthwhile activities that may not cause boredom because you know they are bored they need to spend the extra energy but when they engage in worthwhile activities they can keep them busy, like lets say drama, joining

church choir participation in different organization. They will be kept busy they will think about what is happening around them (W2NFIHTF5:345-50).

They should avoid wrong groups, the drug peddling and drug taking. They should say no to drugs completely. They should avoid talking to strange people. They should not take tokens from them like sodas… (W2UCDHTM4:254-6).

So they [girls] *should not be accepting gifts from men or strangers and always to make sure that when they are walking maybe to school or from school they are in a group and when there is an attempt of rape then they should not keep quiet but they should shout up for help* (W2WKRTF2:328-31)

They should avoid in the night life, avoid discos, crusades also should be avoided, some are good but some are not. We have told them all these (W2WKRTM1:182-3).

- Providing 'fear' messages which aim to motivate pupils to abstain.

  [I tell them] *try as much as possible not to play sex. That is to abstain, to wait until the right time since they don't know the truth about that person that they are with if he or she is good or not infected* (W2MKRTF1:452-5).

Although some teachers did provide positive information about condoms during interviews, typically they maintained that pupils were too young to use condoms and expressed a concern that teaching them about condoms would undermine the abstinence message and could possibly encourage experimentation.

Some ask questions about condoms, we tell them that it is like gum boots when there is mud, you cannot get mud when you wear them, but remember, you are a pupil so you are not supposed to wear the gumboots, you only need to use one method; to abstain (W2NFIDHTM2:222-5).

Yes. We tell them because in as much as we like not to because sometimes when you tell them that's when they are likely to go and try, we tell them its when they know about it but we try and caution them that its not the best and then it is not meant for them (W2NFIRTM3:276-9).

For condoms unless a child comes with a question and asks that I don't talk about it because I am advocating for abstinence so I don't involve condoms but if a child asks I usually answer (W2NISRTF4:297-9)

Myself, I cannot encourage them, because when I encourage them as a leader is like telling them to indulge in sexual activities. That is my feeling (W2UCDHTM1:309-11)

Contrary to what was found at baseline, pupils in all regions felt that it was possible to say no to sex. Similar to baseline were the motivations for refusal, including controlling oneself and avoiding situations that may lead to sex. Boys in MK and NFI schools emphasized the importance of a firm no.

It is not difficult to if you make your own decision and walk your own way.(W2WKGirls1: 449)

* Q: What does a true no mean?
A no that means you will never do that. (W2MKBoys2: 428-30)

You should tell him, my no is no and I have stood firm. I will never until I am at the right time and ready. (W2NFIBoys5: 258-9)

Pupils also suggested that fear of HIV and AIDS, STIs and pregnancy were reasons to say no to sex.

You can also tell them about the dangers of having sex. You can tell them of STD's and other things which can overturn their lives. (W2NFIBoys3: 156-7)

When you feel like you want to play sex just think of the dangers that you can get, you can get pregnant you can get HIV/ AIDS and it will cost you your life so just think about it if there's something dangerous you just stay away from it. (W2NISBoys4: 156-9)

We can be shown those films on AIDS and this can scare people when they see the way AIDS victims look. (W2UCBoys4: 381-2)

So when you learn that or see how people behave or look when they have AIDS, you fear and you take care of yourself to avoid the same. (W2MKGirls3: 817-18)

For some pupils, religion was a reason to abstain.

* Q: What else can you do to be able to abstain?
Not unless you go to church and be prayed for, so that such things will not cross your mind. (W2MKBoys1: 271-4)

Sex is a sin, and they should be told that also they should read the bible. (W2UCBoys2: 336-7)

We should not be thinking about sex, we should put God first. (W2NFIGirls4: 529)

In the FGDs a few boys suggested that if pupils engaged in sex, then condoms should be used.

What I can tell the person who says it is difficult, is to just try but if they cannot stop they should use condoms. (W2UCBoys2:318-19)

…despite body desire, we should use condoms. (W2WKBoys3: 98-99)

Similar to the baseline FGDs and the information provided in the knowledge section, various ideas, misconceptions, and questions about the truth about condoms were expressed by pupils. Some of these ideas were also suggested as reasons not to use condoms when engaging in sex.

I believe that condoms don't protect. (W2UCBoys1: 659)

If you somehow ingest the oil in the condom it should be dangerous to your health. (W2UCBoys2: 536-7)

Condoms are not 100%sure that they can prevent you from HIV/AIDS. (W2WKBoys1: 173)

TABLE 18: Percentages of Pupils Engaging in Sexual Behaviour by Gender and Region

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
BOYS N=	871	875	885	798	923	879	696	759	845	824
Refused to play sex in the past 3 months	23%	18%**	27%	30%	24%	29%	16%	26%***	19%	33%***
I was not asked to play sex	58%	64%	38%	39%	43%	40%	53%	46%	48%	28%
Past 1 month chosen not to go somewhere to avoid sex	47%	36%***	26%	37%***	29%	35%	26%	38%***	28%	34%***
I am not sure	13%	21%	18%	20%	23%	16%	24%	14%	20%	9%
Never played sex	87%	78%***	68%	66%	68%	62%***	80%	57%***	53%	54%
Pre-Programme Virgin	89%	83%***	76%	78%	76%	71%*	87%	66%***	62%	65%
Debut during program	2%	4%	8%	9%	7%	10%	5%	8%	9%	10%
Debut pre-program	10%	17%**	24%	21%	24%	29%*	13%	34%***	37%	35%
N= have played sex	116	188	289	267	292	337	141	326	399	382
Engaged in sex in past 3 months	25%	27%	26%	32%***	33%	39%**	30%	24%***	33%	35%***
Condom used at last sexual intercourse	18%	19%	18%	15%***	26%	24%	17%	24%**	20%	25%
GIRLS N=	797	874	942	947	997	936	727	722	950	964
Refused to play sex in the past 3 months	10%	13%	20%	23%***	16%	18%*	16%	23%***	16%	29%***
I was not asked to play sex	78%	76%	50%	57%	59%	62%	56%	57%	57%	46.7%
Past 1month chosen not to go somewhere to avoid sex	31%	33%***	29%	42%**	22%	34%***	21%	356%***	23%	33%***
I am not sure	24%	15%	20%	20%	24%	22%	20%	17%	31%	24%
Never played sex	97%	94%**	92%	88%***	91%	93%	80%	85%	92%	84%***
Pre-Program Virgin	98%	96%*	96%	93%***	95%	96%	83%	89%***	96%	89%***
Debut during program	1%	2%	4%	4%	4%	3%	3%	3%	3%	5%
Debut pre-program	2%	4%	4%	7%*	5%	4%	17%	11%**	4%	11%***
N=have played sex	25	50	78	113	89	66	148	106	71	159
Engaged in sex in the past three months	32%	16%	26%	25%	30%	30%	3%	29%**	30%	24%
Condom used at last sexual intercourse	20%	18%	19%	14%	24%	29%	14%	15%	37%	20%*

* p ≤. 05 ** p ≤ .01 *** p ≤ .001

Abstinence agency, in this case refusing or avoiding sexual activity, was measured with two questions – refusing to play sex in the past 3 months and choosing not to go someplace in the past month in order to avoid sex. For girls there were significant gains from pre to post-programme with the exception of NFI. In NFI there were no significant gains in the percentage of girls refusing to play sex and significant, although weak gains in avoiding places. While gains for girls were significant in all other regions, they were weak for refusing sex in NIS and UC. The remainder of gains were strong for girls. For boys, the only consistent gains were in MK and WK where moderate to strong, statistically significant gains were made for both refusing and avoiding places.

UC boys did not change from pre to post-programme on these items and NIS boys made significant strong gains, but only in avoiding places. IN NFI, there were significant decreases in boys who reported refusing sex or avoiding places from pre to post-programme.

The percentage of pupils who reported that they had engaged in sexual activity during pre data collection included fewer than 35% of boys in all except WK, where fewer than 50% were sexually active; and fewer than 10% of girls in all regions except for MK, where fewer than 25% were sexually active. During post data collection, the percentage of pupils indicating that they had engaged in sexual activity increased significantly among boys in NFI, UC and MK schools and among girls in NFI, NIS and WK schools. Among boys these were moderate or strong changes, whereas for girls they were weak in the Nairobi schools, but strong in WK. What needs to be acknowledged however, is that these increases were the result of increases in sexual activity prior to programme initiation and not to increases in pupils initiating sex during the programme. This suggests that there was something pushing young people to become sexually active earlier and, so far, PSABH hasn't been able to counteract it.

Among those pupils who had already engaged in sexual activity, there were significant increases from pre to post data collection in the percentage of boys in NIS, UC and WK schools and girls in MK schools who reported engaging in recent sexual activity. These changes were moderately strong for NIS and UC boys, but weak for WK boys. They were, however, strong for MK girls. The latter compares to a significant and moderately strong decrease from pre to post data collection in the percentage of boys in MK who reported engaging in recent sexual activity.

In regards to condom use, there was a significant decrease from pre to post data collection in the percentage of boys in NIS (although weak) and girls in WK (strong change) schools reporting condom use at last sex and a significant and moderately strong increase for boys in MK. At pre data collection, UC had the highest percentage of boys (compared to all other regions) and WK the highest percentage of girls (compared to most other regions) who reported condom use at last sex. MK schools, on the other hand, had significantly lower percentages of boys and girls reporting condom use at pre data collection. By post data collection the percentage of boys reporting condom use in WK schools was significantly higher than all other regions while significantly fewer boys reported condom use in NIS schools than all other regions. This finding is surprising when examining FGDs where, according to pupils in WK, there were very few positive messages about condoms. However, in NIS, messages were usually mixed with many schools portraying more accepting attitudes of condoms such as 'if you must play sex, use a condom' or 'condoms prevent pregnancy.' In addition, girls in all schools in MK mentioned at least one positive condom message. At post data collection, there were no significant differences between regions with respect to girls' reports of condom use.

Table 19: Percentages of Pupils Engaging in Sexual Behaviour by Sex and Region

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
BOYS N=	871	875	885	798	923	879	696	759	845	824
Mean # girls in your class have played sex	3.66	6.65***	4.08	13.49***	6.71	12.30***	2.24	7.92***	7.41	10.48***
Mean # boys in your class have played sex	3.92	6.67***	5.23	11.89***	8.54	11.84***	2.92	9.06***	8.19	10.75***
N(have played sex)=	116	188	289	267	292	337	141	326	399	382
Mean age at first intercourse (self report)	9.03	9.48	10.01	10.32	10.21	10.67*	9.73	9.32	10.65	10.58
% reporting 1st partner was ≤ 14 years old	88%	80%	92%	83%***	86%	77%	84%	85%*	88%	82%*
Most recent partner was:										
N(who responded)=	102	178	278	216	261	325	125	298	370	359
Primary school pupil	77%	80%	87%	82%	80%	77%	82%	88%	87%	84%
Secondary school pupil	7%	5%	3%	45%	3%	7%	7%	6%	2%	6%
Out of school youth	14%	10%	10%	11%	15%	12%	9%	4%	10%	10%
Adult	2%	5%	0%	2%	2%	3%	2%	2%	1%	1%
GIRLS N=	797	874	942	947	997	936	727	722	950	964
Mean # girls in your class have played sex	1.61	3.72***	3.69	7.22***	4.04	5.18**	3.64	4.12	5.14	7.88***
Mean # boys in your class have played sex	1.96	4.23***	4.01	3.68	4.26	5.72**	7.09	5.42	5.14	8.81***
N(have played sex)=	25	50	78	113	89	66	148	106	71	159
Mean age at first intercourse (self report)	9.12	9.81	10.65	10.49	11.00	11.00	8.61	8.58	11.70	10.90*
% reporting 1st partner was ≤ 14 years old	92%	64%	74%	64%	56%	50%	86%	78%	61%	62%
Most recent partner was:										
N(who responded)=	24	38	72	100	85	62	143	95	61	142
Primary school pupil	88%	45%	82%	68%	56%	56%	86%	72%*	62%	66%
Secondary school pupil	4%	16%	11%	18%	18%	14%	6%	8%	13%	18%
Out of school youth	8%	24%	4%	13%	22%	21%	8%	15%	23%	10%
Adult	0%	16%	3%	1%	4%	8%	0%	5%	12%	7%

*p ≤. 05 ** p ≤ .01 *** p ≤ .001

Pupils were asked to estimate the number of girls and boys in their class whom they thought had already experienced sexual intercourse. With the exception of MK, boys consistently estimated higher numbers of both boys and girls. At post data collection, not only was this trend maintained

and extended into MK (i.e., the estimates for boys were higher than girls), but the difference between boys' and girls' estimates were significantly higher for boys in every region.

Both boys and girls estimated significantly higher numbers of their peers as sexually active at post than at pre-programme data collection. This is not surprising given the increase in the percentage of pupils who were sexually active post- compared to pre-programme.

Mean age of first sexual intercourse among those who had already engaged in sexual intercourse appears particularly low, ranging, for boys, from 9.03 in NFI pre-programme to 10.67 in UC post programme; and for girls ranging from 8.58 in MK post to 11.7 in WK pre. What must be remembered, however, is that well under 50% of boys and under 20% of girls reported any sexual intercourse experience and these ages are based only on those with such experience.

The majority of boys and girls at both data collection points reported that their first partners were under 14 years of age. The increase in the percentage of sexually experienced boys who initiated sexual activity prior to programme initiation in the post than in the pre-data collection sample is consistent with the increase in the percentage of boys who reported first partners from this younger age group at post compared to pre data collection.

At both pre and post data collection, the majority of boys and girls in almost all regions indicated that their most recent partner was another primary school pupil. Girls in NFI and UC schools were most likely (significance not tested) to report current partners who were out of school youth (24% and 21% respectively).

Pressure to Engage in Sex

A series of questions was created to tap the degree to which pupils experienced situations that pushed or pressured them to engage in sex. Responses to these questions are reflected in the 'pressure to play sex' scores in the table below. The questions reflect the circumstances that pupils in FGDs reported as pushing of forcing them to play sex. The scale score is a composite of answers to 8 questions that asked about having been pressured or forced to engage in sex.

Smaller sample sizes for those who had initiated sexual activity made it far more difficult to obtain significant differences both between and within regions. Consequently, the only significant changes in the mean scores on the pressure scale were among boys in NFI schools and girls in MK. Overall, at pre data collection the mean score on the pressure scale was highest for MK boys and this score was significantly higher than the lowest score found in NFI schools. For girls at pre data collection the highest mean score on the pressure scale was in WK schools and this score was significantly higher than the lowest mean score found in MK schools.

Table 20: Mean Scores on Pressure Scale and Percentages of Pupils Reporting Experience of Each Pressure Item by Sex and Region – Only Pupils Who Have Engaged in Sexual Intercourse

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Boys N=	116	188	289	267	292	337	141	326	399	382
Mean Pressure to play sex (range)	2.91 (0-8.75)	3.56* (0-10)	3.13 (0-10)	3.21 (0-10)	3.40 (0-10)	3.67 (0-10)	3.75 (0-10)	3.38 (0-10)	3.55 (0-10)	3.53 (0-10)
I played sex because:										
My body felt desire, it was pushing me	65%	65%	75%	63%**	72%	78%	54%	77%***	79%	78%
My friends were pushing me	23%	26%	18%	24%	18%	26%**	36%	22%***	34%	28%
Older people were telling me I should	11%	20%	13%	14%	18%	18%	20%	16%	21%	13%**
My girlfriend wanted to play sex	54%	65%	59%	59%	68%	65%	57%	65%	62%	66%
I had been given a gift or money and had to play sex	5%	21%***	12%	18%	16%	19%	24%	15%*	19%	19%
Someone had arranged for me to play sex	16%	19%	16%	19%	15%	22%*	29%	20%*	17%	22%
I didn't know how to refuse	39%	48%	47%	43%	49%	47%	51%	43%	39%	42%
Someone physically forced me	20%	20%	11%	16%*	17%	19%	30%	12%***	12%	14%
Girls N=	25	50	78	113	89	66	148	106	71	159
Mean Pressure to play sex (range)	2.95 (0-6.25)	2.62 (0-7.25)	3.57 (0-8.75)	3.47 (0-10)	3.07 (0-10)	3.81 (0-10)	2.76 (0-10)	4.22*** (0-10)	4.03 (0-10)	3.82 (0-10)
I played sex because:										
My body felt desire, it was pushing me	64%	50%	45%	51%	46%	54%	68%	57%	41%	50%
My friends were pushing me	12%	10%	33%	23%	27%	27%	26%	45%***	52%	41%
Older people were telling me I should	4%	4%	15%	15%	14%	11%	18%	19%	21%	21%
My boyfriend wanted to play sex	60%	46%	63%	58%	58%	64%	52%	66%*	62%	62%
I had been given a gift or money and had to play sex	12%	16%	26%	30%	22%	30%	7%	37%***	45%	42%
Someone had arranged for me to play sex	20%	14%	24%	18%	21%	23%	14%	38%***	20%	18%
I didn't know how to refuse	40%	54%	51%	50%	39%	59%*	26%	45%***	46%	50%
Someone physically forced me	24%	16%	28%	34%	18%	36%**	9%	31%***	35%	24%

*p ≤. 05 ** p ≤ .01 *** p ≤ .001

At post data collection, there were no significant differences between regions for boys while for girls the highest mean score found in MK was significantly higher than the lowest mean score, in NFI schools.

There were few significant changes with respect to the percentage of boys and girls who had already engaged in sexual intercourse having experienced each of the types of pressures. Many of these occurred in MK schools including:

- A significant increase in the percentage of boys reporting biological force.
- A significant decrease in the percentage of boys reporting:
  - experiencing peer pressure
  - that someone had arranged for them to play sex
  - physical force
- A significant increase in the percentage of girls reporting:
  - experiencing peer pressure
  - experiencing pressure from their boyfriend
  - that gifts had lead to an obligation to play sex
  - someone had arranged for them to play sex
  - that they didn't know how to refuse.

Other significant changes included:

- A decrease in the percentage of NIS boys reporting biological pressure
- An increase in the percentage of UC boys reporting experiencing peer pressure
- A decrease in the percentage of WK boys reporting that older people were telling them they should play sex
- An increase in the percentage of NFI boys reporting that they had been obligated by a gift
- An increase in the percentage of UC boys reporting that someone had arranged for them to play sex
- An increase in the percentage of NIS boys reporting physical force

Although in qualitative interviews, teachers were not specifically asked about pupil sexual behaviour, when discussing what put pupils at risk, teachers acknowledged that there were specific influences which frequently led to playing sex and thus put pupils at risk for HIV. These included:

- Poverty and the need to exchange sex for gifts or money

  As the girls they don't get sanitary towels, some things they don't get from home and some parents encourage them that they are now old enough to go looking for their own things, so they get them from the men (W2UCRTF1:273-5).

  Some of them you know are poor and they need things like perfumes, oil and they can't afford and then some comes who wants to buy for them she can be misused that way (W2MKHTM3:464-6).

  We can say 30-40% due to poverty, they are told to go and bring flour so they go looking for a man who can give them money for sex. Also some give them chips and they go with the man. Also in a case where a neighbour always cooks meat while them at their house, there is no meat, the girl gets lured into the house (W2NISDHTM3:206-10).

  Poverty and child labour, e.g. she doesn't have school uniform the shopkeeper may agree to offer the uniform but for sex as a pay back (W2WKHTM2:189-90).

- Biology

  Boys would like others to feel they are superior so the more a boy commands the girl the more powerful he looks among the youth. That urge of superiority leads to the high percentage of being at risk, hence as many as he takes, he is likely to be at risk. Some boys are pushed by their peer group actually they don't know what they are doing hence running at risk (W2WKRTM1:160-5).

  Because of the chemical component that the body goes through, you know they are growing and they want to show that they are masculine (W2NFIRTF4:307-8).

- Peer pressure

  Girls outside have peer groups; some of these girls also take drugs with their boyfriends who are drug addicts so they may confuse a schoolgirl (W2UCDHTM4:242-3).

  Yes you find that in most cases they want to group themselves especially the peers and you know now they have so many things in common who has a boyfriend, and they share ideas and you also find that those who don't have will also want to have those experiences (W2UCRTF4:348-51).

  Peer pressure from other schools because they have older neighbours or brothers who have left school in the estate (W2NFIDHTM2:203-4)

  Peer group pressure is a problem in this area. It's very much common because they go out and they come back late (W2NISHTF1:298-9).

- The influence of older individuals

  Boys, maybe the extreme ones like those who use these young children, yes because I haven seen them being used by grownups (W2MKRTF1:392-3).

  …you find that the girls are lured by the other grown ups and adults (W2UCRTF4:344-5).

- The potential for rape

  But you see, maybe you know there are a lot of rape cases here. Its a lot actually we don't even allow them to leave school by themselves. They have to walk in groups (W2NISHTF1:304-6).

- Or a combination of these

  The environment surrounding which we look at who are around them. Because in Kenya we know there are so many rapists, there is also peer pressure you know with peer pressure in girls, sometime when it comes to boys they think they should turn to the more

older boys an those who are staying around who are jobless and seem to look at the small girls of primary school. And some of them are grown up to me (W2NFIHTF3:305-10).

In FGDs, pupils in all regions indicated that abstaining was possible, however they also indicated that there were many obstacles that made abstinence difficult. Common hindrances were similar to those discussed by teachers: poverty and the need to exchange sex for gifts or money, biology, peer pressure, and the potential for rape. Pornography and drugs were also mentioned by pupils. These issues were discussed in detail in the Teaching and Learning about Abstinence section.

Conclusions

There were some statistically significant increases in the percentages of pupils responding positively to several of the statements related to resisting or refusing sexual activity (i.e., saying no to sex, a girl means no when she says no, and a girl being able to refuse even if the boy is older) across the regions. There was less consistency with respect to statements dealing with resisting or refusing sex with a boyfriend or when a gift was involved and, in particular with respect to ability to speak about or use condoms.

Qualitative data confirmed that the primary risk reduction message provided to pupils focused on abstinence. It was also evident that resistance to teaching about condoms persisted in all regions. There were, however some instances where the use of condoms was introduced for those who 'must play sex'.

While there were significant gains in agency to resist or refuse sexual activity for boys and/or girls in some regions, these were not uniform. In fact, in certain cases there were significant decreases in the percentage of pupils reporting that they had resisted sexual activity (i.e., by refusing to play sex or refusing to go somewhere that might lead to playing sex).

Although there were statistically significant increases in the percentage of both boys and girls who reported they had played sex in most regions, this appears to have been caused by significant increases in the number of pupils who initiated sexual activity before the programme. This suggests a pressure or trend within the community toward younger sexual initiation. When this occurs before pupils are introduced to the PSABH programme in their schools, it obviously is not something the programme can affect. Only among MK boys was there a significant decrease in the percentage reporting that they had engaged in recent sexual activity at post data collection. In this same group, there was also a significant increase in the percentage reporting condom use at last sex.

There were statistically significant increases in the perceptions of both boys and girls of the numbers of pupils who had already engaged in sexual activity across most regions. This is consistent with the higher percentages who were already sexually experienced at the post data collection period. Among those who were sexually active, there were few statistically significant changes in self-reports of age at first intercourse. The majority of sexually active boys continued to report that their first partner was less than 14 years old, with considerably more variability among girls. However, the majority of both boys and girls continued to report that their first partner had been a primary school pupil.

Although there were significant increases in the percentage of pupils experiencing the various types of pressure across all regions, when the sample was reduced to only those who had already played sex, there were few significant changes over the two data collection points. Qualitative data confirmed the on-going presence of various forms of pressure to play sex across all of the regions.

EMERGING ISSUES

PSABH has made an on-going effort to address the needs and concerns of participants. To that end, training content takes into consideration the results of evaluation research. As a result, research at each phase identified new issues raised, primarily in the qualitative data collection, for consideration in PSABH training.

Drug use

Teachers and community representatives expressed a concern for drug abuse suggesting that for some it is a common problem.

> *The drug trafficking because you see in a society like this we have so many school drop outs some people have stopped school and they have no way out. So they turn to drugs* (W2NFIHTF5:290-2).
>
> *…some of these girls also take drugs with their boyfriends who are drug addicts so they may confuse a schoolgirl* (W2UCDHTM4:242-3).
>
> *…you find they have a problem with the drug because it is right there from home, the parents are using* (W2WKRTF2:515-6).
>
> *Like drug abuse business is very common…* (W2WKHTF4:33-4).

They also made the connection between drugs and HIV.

> * Q: What activities do boys engage in that put them at risk?
> *Drug abuse, because you will hear some used to inject themselves* (W2NISDHTM3:194-6).

One community representative suggested that more training and information is needed to help them cope with drug abuse.

> *Training… there is the area of drug abuse like here when they finish primary school. They all chew "miraa" and I think that is a drug, many of them smoke and the others drink yet they are very young. When they start this thing it becomes a problem so if they teach us about drug abuse and behavioural change it will help our community* (W2MKCLM3:138-42).

In all regions except WK, pupils identified that drugs may lead to increased risks for HIV/AIDS. Typical comments were:

> *You see when people are high an drugs they start engaging in bad behaviours like raping girls so you should avoid moving with such guys because they will Influence you to drugs and you will start doing the same* (W2MKBoys4: 212-15).

Those who use drugs cannot control their emotions and end up engaging in sex carelessly (W2NISBoys3: 134-5).

* Q: Is there something young people can do to prevent them from HIV/AIDS?
Not to use drugs (W2NISGirls1: 251-9).

Homosexuality

There were teachers and community representatives in almost all regions who expressed concerns about the presence of homosexual practices which increased the risk of HIV transmission for local boys.

We have those boys who work in this small town around, they are young and they ought to be in school, I understand some are involved in some homosexual activities and that leads to the spread of HIV/AIDS (W2MKCLM1:173-5).

In fact the biggest problem we have between the society and this school is sodomy. There are so many boys being sodomized especially from class five to two. Boys not even girls in fact the cases of rape are now very rare but sodomy is very rampant now (W2NFIHTF5:272-5).

…in our place we have rapists and … there is a boy who was sodomized the other day outside here (W2NISRTF1:150-2).

…there is also a lot of homosexual among the boys (W2UCRTF1:272).

Although not common, boys in two focus groups expressed an interest in gaining knowledge about homosexuality.

* Q: So what would you like your teachers to talk concerning condoms?
Whether two boys can play sex.
* Q: Using a condom?
No anal sex (W2MKBoys4: 404-7).

We were told that even boys could do homosexual.
* Q: What were you told that Homo-sex is? Do not shy off, do not fear me
I said you be free to give your opinions we are all men here. Tell the others what Homo-sex is?
We were told that the men could catch the boys and d...
* Q: Who else do you think can force people of your age?
Even old men can (W2MKBoys4: 483-9).

* Q: Do you know of a question put in the question box and were not answered?
How do you feel when you have sex with people of your sex? (W2NFIBoys4: 105)

It is important to acknowledge, however, that in the time prior to post data collection there was a highly publicized news story circulating throughout Kenya about a group of boys involved in

homosexual activities, and in April 2005, the National Assembly passed a motion to allow the introduction of the Sexual Offences Bill which would acknowledge for the first time that males can be the victims of sexual violence. The publicity that these events garnered may have raised teachers' consciousness and made them more outspoken about these issues.

Circumcision Practices

Particularly in the Western and Mount Kenya regions, there were teachers and community representatives who expressed concerns about traditional circumcision practices which could increase the risk of HIV transmission for boys.

> *Boys they are at risk maybe lets say during circumcision season you know some people want to take their children to traditional circumcisers and these people are not up to standard level. Like one boy per knife such a knife on 10 boys and therefore there is a risk* (W2MKCLM3:339-42).
>
> *They were explained to by who took part in circumcision that they should find girls I don't know if you understand the term "Urambiro" if they don't accept this they say that one will be barren but if you do it the ability to bear children will be more* (W2MKHTM1:299-302).
>
> * Q: What activities do boys engage in that make them be at risk?
> *Dances at night, attending funerals; circumcision is just a problem for the boys* (W2WKHTF4:160-3).
>
> *Quite a number* [of boys are at risk] *because culture play a role. When a boy is circumcised, he is said to be a man, now parents leave him to make decisions. He feels he is now to practice adulthood hence careless sex, hence they are at risk* (W2WKHTM3:171-4).

It was not common for girls or boys to discuss circumcision.

Affected Communities

There are people who are infected and affected in every region of the country. This is demonstrated in the high percentages of teachers in every region who acknowledge their own familiarity with someone in the community who is infected HIV and the even higher percentage who indicated that they knew someone who had died of AIDS. In interviews, teachers further described how this high prevalence influenced the delivery of PSABH within the schools.

Table 21: Familiarity with those who are infected with HIV and who have died of AIDS

	Region									
	NFI		NIS		UC		MK		WK	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
N (teachers) =	36	44	38	36	42	44	44	43	48	48
% of teachers who know someone in village infected with HIV	86%	80%	76%	72%	76%	84%	86%	74%	92%	83%
% of teachers who know someone who died of AIDS	100%	91%	100%	86%	95%	91%	100%	100%	100%	100%
N (pupils) =	1668	1749	1827	1745	1920	1815	1423	1481	1795	1788
% of pupils who know someone in village infected with HIV	22%	24%	22%	26%**	22%	26%***	30%	42%***	36%	47%***
% of pupils who know someone who died of AIDS	34%	39%**	35%	38%	36%	40%***	49%	60%***	52%	62%***

* p ≤. 05 ** p ≤ .01 *** p ≤ .001

Among the challenges identified by teachers and pupils was the presence of HIV and AIDS in their communities. In surveys, the majority of teachers indicated that they knew of someone who is infected with HIV and even more acknowledged and that they had known someone who died of AIDS. Pupil surveys suggested that they were less exposed to HIV and AIDS within their communities, however, in every region there was a significant increase in either the percentage who knew someone infected with HIV or the percentage who knew someone who died of AIDS or both. The most substantial increases occurred in Western and MK schools. This reinforces teachers' concerns that pupils, parents, even teachers have been infected and affected by the pandemic.

> *We have so many orphans with HIV and they are traumatized and some of them have been brain washed that they are bewitched that they are really stigmatized* (W2NISRTF1:221-5).
>
> *They would rather talk about it like a disease for other people. There are even those ones who we know their parents died of AIDS…when we start talking about it they say you see mine died of tuberculosis. So it is very challenging. You reach a point you do not want to make a child feel that was just a symptom of HIV and they want to help HIV affected children* (W2NFIHTF5:473-9).
>
> *The greatest challenge has been in that club most of the children who were HIV positive stopped coming* (W2NISRTF4:436-7).
>
> *I have told you that most of our pupils are orphans, so when we talk to them about it they know* (W2UCDHTM4:333-4).

Pupils, mostly girls, focused their comments on wanting to help orphans. Typical comments were:

* Q: What things would you like to have in the club that are related to HIV/AIDS?

We should be visiting the orphans because they think that their lives are very useless because their parents died of AIDS. So if they are visited they feel loved. And also they are happy if we share with them the current things that are happening (W2NFIGirls1: 341-6).

* Q: What else would you like to do in the clubs?
Visit the HIV orphans (W2NFIGirls4: 240-3).

* Q: What do you think could be made better about HIV/AIDS programme?
We would like them to continue teaching people about HIV so that they cannot be affected because parents are leaving their children to be orphans (W2NISGirls1: 613-19).

Caring for PHAs

Teachers acknowledged that there were pupils who were caring for sick family members. Since at least some of these pupils were likely helping those with AIDS, teachers felt it was important to convey positive messages about PHAs and their needs.

…those who are having an AIDS patient either in the family or in the house, how they can take care of the patients and the way they should love, comfort and encourage the patient that AIDS is just a normal disease and how they can get the medicine ARV/ARTS that will make their prolong (W2NFICLF4:64-8).

It was clear that pupils were hearing these messages.

I have learnt that we should help those victims of the disease and also to be aware of it (W2NISBoys4: 377-8).

We are taught how to take care of them, love them and help them go through the HIV life. We should not hate them (W2NFIGirls1: 328-9).

* Q: Tell me all the questions you would like to ask about AIDS/HIV?
How can we help somebody who is HIV positive? (W2UCBoys2: 615-17).

We should care for AIDS victims if we have them at home we should wash for them their clothes, wash them and do everything for them just to encourage them (W2UCGirls2: 332-4).

Living with HIV/AIDS

Community leaders were concerned about the need for those who are infected to understand that there is a future.

So many people did not know about the meaning of HIV, They knew that if you have AIDS is the end of you. You are gong to die, they didn't know you can live and they were so eager to visit the VCT to know their status because they were not open with themselves and they were not sure, they thought that somebody would laugh at them. But this time

they have known and it is really helping them because they have known he truth and known it is not the end of life they can continue living and be positive with their life (W2NFICLM3:41-8).

Being infected is not the end of life, life should continue, having the information because we were advised to go for ARV'S (W2NFICLM1:54-6).

Some pupils had received messages from various sources (teachers, health workers, peer supporters) about the need to understand that one can live a fulfilling life even with HIV and AIDS.

She (HW) said that even if you are infected with AIDS its not the end of you but you can get proper medication and proper balanced diet and you can live much longer. (W2NFIBoys5:440-2)

* Q: What do you think is the best part about HIV and AIDS programme is your school.
It's where they talk about being aware of that disease and the dangers of that disease. They are telling you to accept your status whether you are negative or positive you can live positively you need guidance and counselling. (W2NISBoys4: 369-72)

[Peer supporters] *teach people who are living with HIV how to live long life and a healthy life* (W2NISGirls4: 765).

[The doctor that visited the schools] *had lived with the disease for five years and if he doesn't tell anyone, nobody would think he had it. He said the best thing is protecting yourself, avoiding playing sex and eating properly and you would look like any other person*
* Q: What else did he say?
He also said when you have AIDS its good to use ART
* Q: What else did he say?
And avoid drugs like cigarettes
Avoid coloured tea if you have AIDS (W2NISGirls3: 406-19).

* Q: What activities would you like to have the club do with respect to HIV and AIDS?
We should be going to hospitals to visit those with AIDS and tell them how to live positively with AIDS (W2UCGirls1: 178-81).

Presence of Infected and Affected in the school

Some teachers suggested that the presence of pupils who are infected or affected raised special concerns with respect to programme delivery.

Oh yes there is a girl in eight who when an infected person talked to them she came up with very personal questions that lady sought to talk to her alone and she even advised her to tell the mother to take her to the VCT because its like it create a lot of fear in her as though she had already involved in sexual activity and was not sure (W2NFIHTF5:407-11).

So that we can know how to handle these kids that you know, although they have not told you that they are positive, but they have frequently been sick, they are on ARVs so we need at least some training on that (W2NFIDHTM2:54-6).

The area where AIDS has taken a big toll in the community and we have a number of orphans; how do we make sure they don't fall victims like their parents (W2NFIHTM4:206-8).

…these pupils are staying with parents who are victims, some of them have lost their parents and we are just with them altogether….But now the solution is they can at least try to inform them on what is required, how they can care for the sick (W2UCDHTM4:87-91).

The greatest challenge has been in that club most of the children who were HIV positive stopped coming…And you find they don't want to hear a about it (W2NISRTF4:436-40).

VCT

Among the secondary benefits of training identified by teachers and community representatives was an interest in knowing their own status through VCT.

No, when I came from Kigali after being trained I taught even my wife realized that I was a changed a man. I didn't talk to her but she noticed I had changed. She saw me go to the VCT to know my status and I told her to go and find hers (W2MKCLM3:556-9).

They [training] *gave me the courage to visit the VCT, which I did…*(W2UCCLF4:30).

With the training, we were advised to check our status. So I first of all went and cheeked my status (W2NISRTM3:272-3).

Some teachers felt compelled to encourage their colleagues to also visit VCT. However, this was frequently met with reluctance.

But in my staff I have not had maybe they have not gone for tests. But I am always telling them to visit your VCT so that your status can be known because knowing your status makes you know how to plan your life better (W2NFIHTF3:163-6).

We also talked about VCT and most of them [the teachers] *were fearing that they said they were not ready to go for a test although we were encouraging them* (W2NFIRTF4:182-3).

…when it came to VCT, they were not ready to listen to me (W2NISRTF1:118-9).

Other teachers suggested that VCT should be used prior to sexual activity or marriage, or if one has already engaged in sexual behaviour as a way of knowing one's status.

…so the right thing to do is abstain until the right time so that you can even go to the VCT and know your status (W2MKRTF1:455-7).

We have talked about visiting a VCT also guide and tell them it is wrong and risky and they should stop it (W2NFIHTM4:165-6).

…I can tell them if you have once tried may be you can go for the VCT and see your status (W2WKRTF2:358-9).

Pupils are hearing teachers' suggestions. In all regions except UC, VCT was often mentioned by pupils as the way to know their status. Typical comments were:

If we go for a VCT, if we are given the results in a good way and given enough advice, we can live long (W2NFIGirls4: 556-7).

If you grow up and would want to get married, we must visit VCT be tested because even if I protect myself, there is no way to know that he has no AIDS. I can be infected (W2NISGirls3: 285-7).

When you want to know your status you visit a VCT Centre (W2MKBoys2 :358).

One group of girls said that they felt that VCT was the place to get the truth.

Best thing about VCT is that they will tell us the truth, it is the only way to know your status (W2WKGirls1:874).

One group of boys mentioned that going to VCT is a way to stay safe from HIV/AIDS.

Before having sex, go to a VCT to check your status (W2NFIBoys1:462).

SUMMARIES BY REGION

This chapter brings together information about each of the five regions in summary form to provide a profile of how schools, teachers and pupils in each region are responding to the programme.

Nairobi Formal Income

From qualitative data at baseline, this region can be described as:

- Consisting primarily of families where at least one parent has a regular source of income.
- Having diverse living situations with some pupils living in homes where they have their own room, access to diverse electronic and media sources, and household help, whereas others live in very modest homes without such resources.

School Characteristics

- 20-21 schools participated in the evaluation
- On average, each school had:
  - Just over 1000 students
  - 43 pupils for every teacher (approximately 23 teachers/school)
  - 3 teachers that were PSABH trained
  - In-school teacher training taking place

HIV and AIDS Teaching in the Schools

- Implementation scores increased significantly indicating an increase in HIV/AIDS classroom and co-curricular teaching.
- Teachers were supportive of teaching about HIV and AIDS, feeling it was an important and necessary subject prior to training and these attitudes remained positive after training
- The amount of teaching about HIV/AIDS that was reported by teachers increased significantly. Teachers reported, in particular:
  - significant increases in the availability and use of resources
  - that more std 6-8 teachers had addressed HIV and AIDS in every subject
  - an identified club where HIV and AIDS were addressed in almost half of the schools
  - having a question box in nearly 70% of schools
  - Assemblies and parades as the activities where HIV and AIDS were most often addressed
- Teachers expressed concerns about
  - integration and infusion of HIV and AIDS in schools
  - availability of resources
  - students being too shy

Outcomes

Abstinence Teaching/Learning

- Teachers continued the focus on abstinence teaching that was evident at baseline
- Reports of learning about abstinence from pupils increased significantly
- Strategies for maintaining abstinence focused on
  - learning to resist bodily urges

- resisting peer pressure to engage in sex
- avoiding situations, e.g. dark places, bad company, drugs and acceptance of gifts

Peer Supporters

- 75% of schools reported having trained peer supporters. This was consistent with the percentage of pupils who self-identified as trained peer supporters.
- Peer supporter activities:
  - There were significant increases in the percentage of pupils reporting involvement with most peer supporter activities
  - Non-peer supporter pupils reported that pupil-peer supporter discussions on condoms were not common (15%)
- Overall, both teachers and pupils had a favourable attitude towards peer-supporters

Knowledge

- Teachers knowledge:
  - remained high (87% - mean % questions correctly answered), with no significant change
  - Primary weakness in knowledge is awareness that a reduction in sexual partners can reduce the chances of HIV infection (32% correctly answered)
- Pupil knowledge:
  - continued to have good knowledge of HIV and AIDS, with no significant change (72% questions correctly answered)
  - Area of concern: significant decrease in the percentage of pupils identifying condoms as a way to reduce chances of HIV infection (74% pre; 62% post)

Pupil Pursuit of Information and Communication about HIV and AIDS

- Pupils showed a significant increase in their pursuit of information and communication about HIV and AIDS
- The most common source of information for pupils was teachers, however also providing information about HIV and AIDS were parents, radio, television, newspapers, school textbooks and friends
- Pupils want more information on: HIV prevention and protection, condoms, and abstinence

Pupil Sexual Behaviours and Risk Perception

- From both survey and focus group data, the primary message in schools for HIV prevention is abstinence.
- Pupils and sexual behaviour
  - Significant increase in pupil perception that they can postpone or abstain from sexual activity
  - Strategies to abstain
    - Significant but weak increase in percentage of girls who had chosen not to go somewhere to avoid sex (31% pre; 33% post)
    - Significant and moderate to strong decreases in the percentage of boys who had:
      - refused to play sex in the past 3 months (23% pre to 18% post)
      - chosen not to go somewhere to avoid sex (47% pre to 36% post)
  - Among pupils who had played sex, there was a significant increase in the percentage of boys who reported they had been given a gift or money to play sex

  - 6% of girls and 21% of boys reported they had engaged in sexual intercourse.
  - For both boys and girls, there were significant increases in the mean number of peers thought to be engaging in sex
- Pupils and condoms
  - Significant and moderately strong decrease in pupil beliefs that condoms could be used (Boys: 74% pre to 69% post; Girls: 69% pre to 65% post).
  - There was no change in reports of using a condom at last sexual intercourse (Boys: 19% post; Girls: 18% post)

Nairobi Informal Settlements

From qualitative data at baseline, this region can be described as:

- Urban, typically referred to as 'slums'
- Vast majority of pupils are Christian
- Orphans were particularly evident
- Factors contributing to vulnerability to HIV and AIDS were poverty, children unsupervised at night, girls as prostitutes, and intravenous drug use

School Characteristics (include demographics, # of teachers trained, etc.)

- 18-19 schools participated in the evaluation
- On average, each school had:
  - Just over 1100 students
  - 50 pupils for every teacher (approximately 24 teachers/school)
  - 3 teachers that were PSABH trained
  - In-school teacher training taking place

HIV and AIDS Teaching in the Schools

- Strong and significant increases in implementation scores indicating an increase in HIV/AIDS classroom and co-curricular teaching.
- Teachers were supportive of teaching about HIV and AIDS, feeling it was an important and necessary subject prior to training and these attitudes remained positive after training
- The amount of teaching about HIV/AIDS that was reported by teachers increased significantly. Teachers reported, in particular:
  - significant increases in the availability and use of resources
  - that every std 6-8 teacher had addressed HIV and AIDS in every subject except physical education
  - an identified club where HIV and AIDS were addressed in every school
  - having a question box in 84% of schools
  - Assemblies, class room displays, schools work displays and drama/music festivals as the activities where HIV and AIDS were most often addressed
- Teachers expressed concerns about
  - not having enough textbooks, training and time
  - teaching young people about HIV and AIDS – they felt it was inappropriate
  - students being too shy
  - parents being reluctant

Outcomes

Abstinence Teaching/Learning

- Teachers continued the focus on abstinence teaching that was evident at baseline
- Reports of learning about abstinence from pupils increased significantly
- Strategies for maintaining abstinence focused on
  - learning to resist bodily urges
  - resisting peer pressure to engage in sex
  - avoiding situations, e.g. dark places, bad company, drugs and acceptance of gifts

Peer Supporters

- 84% of schools reported having trained peer supporters. This was consistent with the percentage of pupils who self-identified as a trained peer supporter.
- Peer supporter activities:
  - There were significant increases in the percentage of pupils reporting involvement with most peer supporter activities
  - Non-peer supporter pupils reported that pupil-peer supporter discussions on condoms were increasing significantly (32%)
- Overall, both teachers and pupils had a favourable attitude towards peer-supporters

Knowledge

- Teachers knowledge:
  - remained high (88% - mean % questions correctly answered), with no significant change
  - Primary weakness in knowledge is awareness that a reduction in sexual partners can reduce the chances of HIV infection (53% correctly answered)
- Pupil knowledge:
  - continued to have fair knowledge of HIV and AIDS, with no significant change (mean 62% questions correctly answered)
  - Area of concern: significant and moderately strong decrease in the percentage of pupils identifying condoms as a way to reduce chances of HIV infection (66% pre; 58% post)

Pupil Pursuit of Information and Communication about HIV and AIDS

- Pupils showed a strong and significant increase in their pursuit of information and communication about HIV and AIDS
- The most common sources of information for pupils were teachers, radio and television however also providing information about HIV and AIDS were newspapers and school textbooks
- Pupils want more information on: HIV prevention and protection, condoms, and abstinence

Pupil Sexual Behaviours and Risk Perception

- From both survey and focus group data, the primary message in schools for HIV prevention is abstinence.
- Pupils and sexual behaviour
  - Significant increase in pupil perception that they can postpone or abstain from sexual activity
  - Significant and strong increase in boys (26% pre to 37% post) and girls (29% pre to 42% post) indicating that they had chosen not to go somewhere to avoid sex
  - 12% of girls and 34% of boys reported they had engaged in sexual intercourse.
  - For both boys and girls, there were significant increases in the mean number of peers thought to be engaging in sex
- Pupils and condoms
  - Significant but weak decrease in pupil beliefs that condoms could be used (Boys: 70% pre to 65% post; Girls: 56% pre to 55% post).

- Significant and moderately strong decrease in boys' beliefs that they could talk to their girlfriends about condoms (60% pre; 52% post), for girls there was no change (40% post)
- A significant though weak decrease in the percentage of boys who used a condom the last time they had sex (19% pre; 15% post) and no change for girls (14% post)

Urban Coast (Mombasa and Malindi)

From qualitative data at baseline, this region can be described as:

- Both urban (Mombasa) and less urban (Malindi) with the latter known for its 'beach boy' culture
- Primarily Christian although some schools have more than 50% of pupils who are Muslim
- Factors contributing to vulnerability to HIV and AIDS include caring for PHAs, poverty, a nearby airbase, witchdoctors failing to use sterilized equipment, and tourism

School Characteristics (include demographics, # of teachers trained, etc.)

- 21 schools participated in the evaluation.
- On average, each school had:
  - Just over 1100 students
  - 59 pupils for every teacher (approximately 20 teachers/school)
  - 3 teachers that were PSABH trained
  - In-school teacher training taking place

HIV and AIDS Teaching in the Schools

- Strong and significant increases in implementation scores indicating an increase in HIV/AIDS classroom and co-curricular teaching.
- Teachers were supportive of teaching about HIV and AIDS, feeling it was an important and necessary subject prior to training and these attitudes remained positive after training
- The amount of teaching about HIV/AIDS that was reported by teachers increased significantly. Teachers reported, in particular:
  - significant increases in the availability and use of resources
  - that more std 6-8 teachers had addressed HIV and AIDS in every subject. In particular, every teacher addressed HIV and AIDS in English, GHC, HIV/AIDS, Home science and Kiswahili
  - an identified club where HIV and AIDS were addressed in 67% schools
  - having a question box in almost half of schools
  - Assemblies and staff meetings were where HIV and AIDS were most often addressed
- Teachers expressed concerns about
  - not having enough textbooks, training and time
  - students being too shy

Outcomes

Abstinence Teaching/Learning

- Teachers continued the focus on abstinence teaching that was evident at baseline
- Reports of learning about abstinence from pupils increased significantly
- Strategies for maintaining abstinence focused on
  - learning to resist bodily urges
  - resisting peer pressure to engage in sex
  - avoiding situations, e.g. dark places, bad company, drugs and acceptance of gifts

Peer Supporters

- 48% of schools reported having trained peer supporters. This was not consistent with the percentage of pupils who self-identified as a trained peer supporter (97%).
- Peer supporter activities:
  - There were significant increases in the percentage of pupils reporting involvement with most peer supporter activities
  - Non-peer supporter pupils reported that pupil-peer supporter discussions on condoms were occurring for some (31%)
- Overall, both teachers and pupils had a favourable attitude towards peer-supporters

Knowledge

- Teachers knowledge:
  - remained high (83% - mean % questions correctly answered), with no significant change
  - Primary weakness in knowledge is awareness that a reduction in sexual partners can reduce the chances of HIV infection (23% correctly answered)
- Pupil knowledge:
  - Significantly improved knowledge of HIV and AIDS (mean 61% questions correctly answered post-programme)
  - Area of concern: significant and moderately strong decrease in the percentage of pupils identifying condoms as a way to reduce chances of HIV infection (62% pre-programme; 55% post-programme)

Pupil Pursuit of Information and Communication about HIV and AIDS

- Pupils showed a significant and strong increase in their pursuit of information and communication about HIV and AIDS
- The most common sources of information for pupils were teachers, radio, television and school textbooks however also providing information about HIV and AIDS were parents, and newspapers
- Pupils want more information on: HIV prevention and protection, condoms, and abstinence

Pupil Sexual Behaviours and Risk Perception

- From both survey and focus group data, the primary message in schools for HIV prevention is abstinence.
- Pupils and sexual behaviour
  - Significant increase in pupil perception that they can postpone or abstain from sexual activity
  - Significant and strong increase in percentage of girls who had chosen not to go somewhere to avoid sex (22% pre-programme; 34% post-programme)
  - 7% of girls and 38% of boys reported they had engaged in sexual intercourse.
  - For both boys and girls, there were significant increases in the mean number of peers thought to be engaging in sex

- Pupils and condoms
  - No change in boy's beliefs that condoms could be used and a significant but weak decrease for girls (Boys: 67% post; Girls: 56% pre to 55% post).

- There was no change in reports of using a condom at last sexual intercourse (Boys: 24% post; Girls: 29% post)

Mount Kenya Formal Income Families

From qualitative data at baseline, this region can be described as:

- Agriculturally based
- Consisting of boarding and community schools
- Factors contributing to vulnerability to HIV and AIDS were poverty, marijuana growing and prostitution

School Characteristics

- 22-24 schools participated in the evaluation
- On average, each school had:
  - Just under 450 students
  - 31 pupils for every teacher (approximately 13 teachers/school)
  - 3 teachers that were PSABH trained
  - In-school teacher training taking place

HIV and AIDS Teaching in the Schools

- Strong and significant increases in implementation scores indicating an increase in HIV/AIDS classroom and co-curricular teaching.
- Teachers were supportive of teaching about HIV and AIDS, feeling it was an important and necessary subject prior to training and these attitudes remained positive after training
- The amount of teaching about HIV/AIDS that was reported by teachers increased significantly. Teachers reported, in particular:
  - significant increases in the availability and use of resources
  - that every std 6-8 teacher had addressed HIV and AIDS in every subject
  - an identified club where HIV and AIDS were addressed in almost every school
  - having a question box in almost every school
  - Assemblies and staff meetings were the activities where HIV and AIDS were most often addressed
- Teachers expressed concerns about
  - not having enough textbooks, training and time
  - students being too shy and too young

Outcomes

Abstinence Teaching/Learning

- Teachers continued the focus on abstinence teaching that was evident at baseline
- Reports of learning about abstinence from pupils increased significantly
- Strategies for maintaining abstinence focused on
  - learning to resist bodily urges
  - resisting peer pressure to engage in sex
  - avoiding situations, e.g. dark places, bad company, drugs and acceptance of gifts

Peer Supporters

- 27% of schools reported having trained peer supporters. This was not consistent with the percentage of pupils who self-identified as a trained peer supporter (46%).
- Peer supporter activities:

  - There were significant increases in the percentage of pupils reporting involvement with most peer supporter activities
  - Non-peer supporter pupils reported that pupil-peer supporter discussions on condoms were increasing significantly (20%)
- Overall, both teachers and pupils had a favourable attitude towards peer-supporters

Knowledge

- Teachers knowledge:
  - remained high (88% - mean % questions correctly answered), with no significant change
  - Primary weakness in knowledge is awareness that a reduction in sexual partners can reduce the chances of HIV infection (37% correctly answered)
- Pupil knowledge:
  - Significantly improved knowledge of HIV and AIDS (64% questions correctly answered)

Pupil Pursuit of Information and Communication about HIV and AIDS

- Pupils showed a significant and strong increase in their pursuit of information and communication about HIV and AIDS
- The most common source of information for pupils was teachers, however also providing information about HIV and AIDS were parents, radio, television, newspapers, school textbooks and friends
- Pupils want more information on: HIV prevention and protection, condoms, and abstinence

Pupil Sexual Behaviours and Risk Perception

- From both survey and focus group data, the primary message in schools for HIV prevention is abstinence
- Pupils and sexual behaviour
  - Significant increase in pupil perception that they can postpone or abstain from sexual activity
  - Significant and strong increases in percentage of girls (21% pre; 36% post) and boys (26% pre; 38% post) who had chosen not to go somewhere to avoid sex
  - 15% of girls and 43% of boys reported they had engaged in sexual intercourse.
  - For both boys and girls, there were significant increases in the mean number of peers thought to be engaging in sex
- Pupils and condoms
  - A significant and strong increase for boys and a significant and strong decrease for girls reporting condoms could be used (Boys: 45% pre; 63% post; Girls: 51% pre to 40% post).
  - There was no change in reports of using a condom at last sexual intercourse for girls, however there was a significant and moderately strong increase for boys (Boys: 17% pre; 24% post; Girls: 15% post)

Western Kenya Densely Populated Areas

From qualitative data at baseline, this region can be described as:

- Predominantly rural and agricultural but heavily populated
- Vast majority of pupils are Luhyia and Christian
- Factors contributing to vulnerability to HIV and AIDS were poverty, drugs and alcohol use, traditional beliefs such as circumcision, community expectation that young people know how to play sex during initiation period, children staying out most of the night

School Characteristics (include demographics, # of teachers trained, etc.)

- 24-25 schools participated in the evaluation.
- On average, each school had:
  - Just under 550 students
  - 44 pupils for every teacher (approximately 12 teachers/school)
  - 4 teachers that were PSABH trained
  - In-school teacher training taking place

HIV and AIDS Teaching in the Schools

- Significant and strong increase in implementation scores indicating an increase in HIV/AIDS classroom and co-curricular teaching.
- Teachers were supportive of teaching about HIV and AIDS, feeling it was an important and necessary subject prior to training and these attitudes remained positive after training
- The amount of teaching about HIV/AIDS that was reported by teachers increased significantly. Teachers reported, in particular:
  - significant increases in the availability and use of resources
  - that every std 6-8 teacher had addressed HIV and AIDS in every subject
  - an identified club where HIV and AIDS were addressed in 76% schools
  - having a question box in all schools
  - assemblies and staff meetings as the activities where HIV and AIDS were most often addressed
- Teachers expressed concerns about
  - not having enough textbooks, training and time
  - students being too shy
  - parents being reluctant

Outcomes

Abstinence Teaching/Learning

- Teachers continued the focus on abstinence teaching that was evident at baseline
- Reports of learning about abstinence from pupils increased significantly
- Strategies for maintaining abstinence focused on
  - learning to resist bodily urges
  - resisting peer pressure to engage in sex
  - avoiding situations, e.g. dark places, bad company, drugs and acceptance of gifts

Peer Supporters

- 71% of schools reported having trained peer supporters. This was not consistent with the percentage of pupils who self-identified as a trained peer supporter (26%).
- Peer supporter activities:
  - There were significant increases in the percentage of pupils reporting involvement with most peer supporter activities
  - Non-peer supporter pupils report that pupil-peer supporter discussions on condoms were occurring for some (19%)
- Overall, both teachers and pupils had a favourable attitude towards peer-supporters

Knowledge

- Teachers knowledge:
  - remained high (93% - mean % questions correctly answered), with a significant increase from baseline
  - Primary weakness in knowledge is awareness that a reduction in sexual partners can reduce the chances of HIV infection (48% correctly answered)
- Pupil knowledge:
  - Significantly improved knowledge of HIV and AIDS (67% questions correctly answered post-programme)

Pupil Pursuit of Information and Communication about HIV and AIDS

- Pupils showed a significant and strong increase in their pursuit of information and communication about HIV and AIDS
- The most common sources of information for pupils were radio, television, teachers, school textbooks and newspapers however also providing information about HIV and AIDS were parents, friends and other community members
- Pupils want more information on: HIV prevention and protection, condoms, and abstinence

Pupil Sexual Behaviours and Risk Perception

- From both survey and focus group data, the primary message in schools for HIV prevention is abstinence.
- Pupils and sexual behaviour
  - Significant increase in pupil perception that they can postpone or abstain from sexual activity
  - Significant and strong increases in percentage of girls who had chosen not to go somewhere to avoid sex (23% pre; 33% post) and had refused to play sex (15% pre; 29% post)
  - Significant and moderately strong increase in percentage of boys who had chosen not to go somewhere to avoid sex (28% pre; 34% post) and significant and strong increase in those who had refused to play sex (19% pre; 33% post)
  - 16% of girls and 46% of boys reported they had engaged in sexual intercourse.
  - For both boys and girls, there were significant increases in the mean number of peers thought to be engaging in sex
- Pupils and condoms
  - A significant but weak decrease for boys and a significant and strong increase for girls that condoms could be used (Boys: 72% pre; 70% post; Girls: 37% pre to 52% post).

- There was no change in reports of using a condom at last sexual intercourse for boys, however there was a significant and strong decrease for girls (Girls: 37% pre; 20% post; Boys: 25% post

RECOMMENDATIONS

The results of these analyses suggest several recommendations for the on-going support of HIV and AIDS education in the schools.

HIV and AIDS Training

- Training of colleagues was evident in almost all of the schools in each region, generally through staff meetings. However, the average length of training of teachers in the schools ranged between 2.5 and 5 hours. It would be beneficial to establish guidelines about how much training should be conducted in the schools.
- It is clear that other organizations are conducting HIV/AIDS teacher training. What is unclear is the degree to which there is consistency across these training programmes as compared to differences or conflicts in the messages that teachers are being taught to convey. A better understanding of the other programs and how PSABH can build on them would be useful.
- A large number of schools and pupils claimed training of pupils as HIV/AIDS peer supporters. Of note is that PSABH conducted no peer supporter training in these schools during the evaluation time period. Teachers found peer supporters helpful and there was evidence that contributed to the programming in the schools in a substantial and beneficial way. Since many other organizations are training pupil peer supporters, it is questionable whether PSABH should continue this activity.

HIV and AIDS Teaching in the Schools

- Teachers are most comfortable replicating concrete examples which they have been provided with in training. They are not as secure when left to improvise or create lessons on their own. It would be beneficial to continue to provide concrete samples of ways to teach about HIV and AIDS and to provide specific instructions about including HIV and AIDS in the syllabus.
- There is uneven success across regions. Regions and schools that are having greater success with particular aspects of the program could potentially assist those that are struggling e.g.,
  - Teachers from UC and MK schools had the greatest number of techniques for addressing HIV and AIDS in the classroom.
- Assemblies seem to be a popular choice when conveying information about HIV and AIDS. These are the least participatory and interactive methods of instruction. Since other research has demonstrated the importance of interaction and participation for pupils to develop the critical thinking and practical skills to deal with challenging situations and take on new behaviours it would be beneficial to focus on how such participation and interaction could be incorporated into assemblies. Some examples are through interactive, start-stop drama and improvisational songs.
- Question boxes are a popular choice for pupils and help them access information that is not otherwise provided in regular classroom teaching. Schools and teachers need to find ways to deal with some of the difficulties that get in the way of making a question box available, e.g., what to do if pupils ask inappropriate questions
- Teachers use the educational materials that are provided. Methods should be found to continue supplying such materials.

Barriers to Teaching HIV and AIDS

- The main barriers cited by teachers were limited textbooks, training and time. It would be beneficial to find ways to increase these resources – e.g. one-day refreshers, more educational materials.
- Encourage schools to bring in health workers to provide pupils with factual information about condoms since they are more comfortable than teachers with this topic.

Abstinence Teaching/Learning

- Continue to provide a clear abstinence message coupled with the teaching of specific abstinence strategies that pupils can put into action.

Pupil Sexual Behaviours and Risk Perception

- Develop ways for teachers to address the various pressures to engage in sexual activity that pupils face.
- Teachers continue to have difficulty providing an unambiguous, factual message about condoms. Recognize the limitations of teachers and encourage them to invite health workers to address condoms in an effort to minimize the mixed messages that pupils continue to hear.

Emerging Issues

- Review the emerging issues for each region and develop ways to address them in future PSABH training and refresher courses.
- Ensure programs continue to be tailored to the unique characteristics of each region and the issues that are most prominent for each

CONCLUSIONS

The results presented in the Baseline Report for the Five New Sites supported the conclusion that each of the five regions had profiles of student populations, social circumstances, and knowledge, attitudes, and behaviours related to HIV and AIDS that were different from each other and from those found in the Nyanza and Rift Valley schools. Thus, it was suggested that these sites would provide a good test of the transferability of PSABH to new regions in Kenya.

Based on comparisons of the pre and post data, it is apparent that PSABH is operating in schools across all regions. UC appears to have made the most substantial gains in terms of many of the specific elements of PSABH, however, this was also the region that tended to have the lowest amount of HIV and AIDS teaching at pre data collection. MK and WK also had significant gains in programme elements, while the Nairobi schools tended to have fewer significant gains in programme elements. In general, teachers responded positively to PSABH training and pupils were typically positive about the lessons they have received on HIV and AIDS.

Changes in behaviours appeared less evident than in Nyanza at 18 months post training and Rift Valley at 12 months. This is in part because sexual activity was already low at baseline across all regions. Increases in sexual activity in these regions between pre and post data collection appeared to be the result of trends and patterns that predate PSABH.

Teachers continue to struggle with messages that extend beyond abstinence, with particular issues raised around addressing condoms. Pupils acknowledge on-going conflicts about addressing condoms and have made efforts to assess the various messages they have received.

Taken together, these issues suggest that, although there will be on-going struggles about the types of messages teachers are willing to provide to pupils and the pressures pupils experience with respect to playing sex, PSABH can be successfully transferred to other regions in Kenya with results that are comparable to those obtained in Nyanza and Rift Valley provinces.

APPENDIX A: PSABH EXPANSION TO FIVE NEW REGIONS OF KENYA - 2005

Primary School Action for Better Health (PSABH), is an HIV/AIDS behaviour change intervention developed by CfBT, Kenya and funded by DFID that demonstrated its effectiveness in primary schools in Nyanza and Rift Valley Provinces over a 30 month evaluation period from Oct. 2001 to Oct. 2004. PSABH began expanding to primary schools across Kenya in 2005. To evaluate this expansion, pre- (Dec. 2004-Jan. 2005) and post-programme (Oct. 2005) data were collected using pupil and teacher surveys, focus group discussions and interviews in 16-25 schools in each of five regions of Kenya where PSABH was delivered. These included Nairobi schools drawing students from families with fixed incomes (NFI), Nairobi schools serving informal settlements (NIS), schools in the urban regions of Mombasa and Malindi in Coast Province (UC), and schools in the Mount Kenya (MK) and Western Kenya (WK) regions. In each region, between 1660-1920 standard 6 and 7 pupils and 36-48 teachers were surveyed and 40 pupils and 8 teachers participated in focus groups or in-depth interviews in December 2004-January 2005 and October 2005.

Pupil Attitudes and Behaviours

	NFI		NIS		UC		MK		WK	
ODDS RATIOS post/pre	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Attitudes and Sexual Behaviours										
I can say 'no' to sex	1.10**	1.12***	1.28***	1.49***	1.40***	1.64***	1.15***	1.35***	1.42***	2.40***
A girl means 'no' when she says 'no'	1.02	1.21***	1.04	1.42***	1.32***	1.36***	1.28***	1.37***	1.42***	2.11***
Ever engaged in sex	1.62***	1.03*	1.03	1.04*	1.11***	.98	1.40***	.93	.98	1.11***
Sexual Debut pre-prog	1.62**	1.81*	.89	1.92*	1.21*	.83	2.82***	.62**	.94	3.14***
Sexual Debut during prog.	2.64	1.60	1.09	.98	1.31	.79	1.50	1.23	1.17	1.69
Avoided place to avoid sex	.78***	1.05**	1.41***	1.46**	1.20	1.58***	1.44***	1.71***	1.24***	1.42***
Refused sex past 3 mos.	.76**	1.24	1.09	1.15**	1.21	1.10*	1.60***	1.40***	1.72***	1.87***
Attitudes and Condom Use										
I can make sure we use a condom	.93***	.94*	.93***	.98	1.03	.98	1.40***	.78***	.97**	1.40***
Condom used last sex	1.05	.90	.79***	.74	.94	1.22	1.39**	1.06	1.28	.55*

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

Statistically Significant Changes:

From pre- to post-programme, with respect to the sexual behaviour of pupils, schools evidenced significantly:

1. More boys and girls reporting they 'can say no to sex' and that 'a girl means no when she says no'
2. More boys and girls reporting they avoided places in order to avoid engaging in sex – with the exception of NFI, where fewer boys reported avoidance.
3. More boys and girls refusing to engage in sex in MK and WK; and more girls in NIS and UC – there were fewer boys reporting refusal in NFI.
4. More girls reporting sexual activity in NFI, NIS and WK and more boys in NFI, UC and MK. This was due primarily to more reporting sexual activity before PSABH began as evidenced in results for 'debut pre-programme,' and not to more youth initiating sexual activity during the programme.

From pre- to post-programme, with respect to condom use by pupils, schools evidenced significantly:

1. Fewer boys saying they can make sure a condom is used in NIF, NIS, and WK, fewer girls in NFI and MK; more boys saying they can make sure a condom is used in MK and more girls in WK
2. Consistent with feelings about making sure a condom is used, more boys reporting condom use in MK and fewer boys in NIS. Results are inconsistent for girls in WK with fewer reporting condom use.

Qualitative and Quantitative Insights

Focus group discussions confirmed pupils' sense of confidence that they could avoid or resist engaging in sexual activity. The seemingly poor results for engaging in sex was the result, in most districts, of events that occurred before the PSABH programme. In all regions, pupils in focus group discussions reported bodily urges and peer pressures as the factors that most often made abstinence difficult. Focus group discussions related to confidence

and use of condoms produced mixed results with some pupils expressing confidence in their ability to use condoms while others were uncertain about the wisdom of condom use or their ability to use them.

Pupil and Teacher Knowledge

	NFI		NIS		UC		MK		WK	
ODDS RATIOS post/pre	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers
Mean knowledge score	1.62**	1.81*	.89	1.92*	1.21*	.83	2.82***	.62**	.94	3.14***

* p ≤ .05; ** p ≤ .01; *** p ≤ .001

Statistically Significant Changes:

From pre- to post-programme, schools evidenced significantly:

1. Higher mean knowledge scores for teachers in NFI, NIS, and WK, but lower scores in MK
2. Higher mean knowledge scores for pupils in NFI, UC and MK.

There were also large and significant gains in the percentage of pupils pursuing information about HIV and AIDS on their own and communicating with teachers and parents about the subject.

Qualitative and Quantitative Insights

While mean knowledge scores of pupils and teachers increased in several regions, the gains were uneven across different areas of knowledge. For example, while pupil knowledge that abstaining from sex offered protection from HIV remained high, fewer pupils responded correctly to questions about the ability of condoms or reduction in number of partners to reduce the risk of infection. In several regions, the percentage of pupils who responded correctly to questions about condoms decreased over the course of the programme. The gaps in knowledge about condoms were confirmed in focus groups where pupils demonstrated a mixture of correct and incorrect information. While most teachers responded correctly to questions about condoms on the survey, in interviews, as well as on surveys, they expressed reluctance to teach that condoms could reduce the risk of HIV transmission.

Teachers' Abilities

Both pre- and post-training, teachers and community leaders presented abstinence as the only truly effective method of preventing transmission and acquisition of HIV. They encouraged pupils to avoid behaviours, peers and situations that could lead to sexual activity and to find ways to control their bodily urges. The content of messages delivered to youth about condoms was largely negative and at times inaccurate. Teachers struggled with the issue of condoms, not knowing how or if they should talk about them to pupils.

School Response

Schools in all regions demonstrated increases in teaching about HIV and AIDS as part of classroom subjects, in the presence of question boxes and clubs that addressed HIV and AIDS, and in the HIV/AIDS content of other co-curricular activities. In addition, there were significant decreases in the number of barriers to teaching about HIV and AIDS reported by teachers in most regions. Structural barriers (e.g., insufficient time and shortage of resources) rather than personal, pupil or community barriers were the most commonly mentioned post-programme.
Of note is that almost all schools reported a large number of trained peer supporters in their pupil population. This is well beyond the training provided by PSABH and suggests that other organizations are training peer supporters in primary schools.

Comparison to Nyanza and Rift Valley Results

These results are consistent with results for Nyanza and Rift Valley Provinces at comparable time periods post-programme.

For more information: www.psabh.info