

# INTRODUCTION

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AIDS has devastated communities in much of sub-Saharan Africa. Kenya has not been immune to these effects. Government and non-government organizations alike have focused their efforts on finding ways to reduce the spread of HIV and help communities deal with the presence of large numbers of AIDS-affected individuals. Many public health advocates and researchers have pointed out that school-based programming is a necessary cornerstone to addressing HIV and AIDS (Stover, 2002).

Primary School Action for Better Health (PSABH) is an HIV/AIDS prevention programme being implemented by the Centre for British Teachers (CfBT) with funding from the Department for International Development (DFID). PSABH is a large, multifaceted endeavor that includes community sensitization, sensitization and negotiation of programme and evaluation components with provincial directors of education and other representatives of the Ministry of Education, two week-long training sessions with teachers and community representatives, a week-long training session with peer supporters, training of zonal inspectors, provision of book boxes to each participating school, publication of a newsletter and FAQ booklet, and organization of competitions between schools. To date the programme has been implemented in over 1500 schools with 160 schools in Nyanza Province and 60 in Rift Valley participating in its evaluation. The monitoring and evaluation is equally multifaceted and includes repeated surveys of teachers and pupils, in-depth interviews with teachers and community representatives, focus groups with pupils, and brief information-gathering survey tools and pregnancy data-forms completed by zonal inspectors during their school visits. The University of Windsor, Ontario, Canada designed the monitoring and evaluation and is analyzing the data, which are collected by zonal inspectors and by staff at Steadman Research Services Incorporated.

This report uses data collected in two waves (prior to teacher training and 6 months after full training) in Nyanza Province. Teachers and pupils completed surveys; teachers, pupils and community representatives participated in interviews or focus groups; and zonal inspectors collected information about school-girl pregnancies and completed school and community responsiveness survey. Collectively these provided a profile of how PSABH is working, the effects it is having, and the factors which influence these effects.

The report has 2 Volumes: Volume I includes the following chapters:

- Overview of Methodology
- Community and School Profiles
- HIV/AIDS Activity in the Schools
- Knowledge
- Communication and Pursuing Information
- Main Modes of Prevention: Abstinence
- Main Modes of Prevention: Condoms
- Remaining Issues
- Conclusions
- Appendix A which includes details of research and evaluation methods
- Appendix B which contains data tables to support results provided in the main body of the report

Volume II includes:

- All survey and interview instruments used in collecting data
- Coding manuals that provide details of how scalar and composite measures were created

## OVERVIEW OF METHODOLOGY

The objective of this section is to provide sufficient information about the research and evaluation methodology to understand the foundation for the evaluation results. Full details of the methodology are provided in Appendix A. In addition, copies of all data collection instruments and codebooks for data transformation are contained in Volume II.

### **Monitoring, Research and Evaluation Design**

A quasi-experimental design is being used in programme evaluation. One hundred and sixty schools (80 target and 80 control) were selected in Nyanza using multi-stage stratified, disproportionate random sampling. Short-term evaluation results were produced using data collected in these schools at three time points. Table 1 outlines the sequence of activities relevant to this report.

**Table 1: Sequence of Activities**

<b>Date</b>	<b>Activity</b>	<b>Details</b>
November 2001	Data collection – wave 1	Teachers and Pupils in 80 control and 80 target schools complete self-completion surveys (TSC and PSC respectively).
March 2002		Interviews and focus groups conducted in 8 control and 8 target schools & communities. Zonal Inspectors collect pregnancy data in 80 control and 80 target schools.
April 2002	Training	Teachers and community representatives from 80 target schools complete Training Course A.
August 2002	Interim data collection and training	Zonal Inspectors complete School (SRS) and Community (CRS) Responsiveness Surveys in 80 target and 80 control schools & communities. Teachers and community representatives from 80 target schools complete Training Course B.
December 2002	Training	Peer supporters and teacher advisors from 80 target schools complete training.
February 2003	Data collection – wave 2	Teachers and pupils in 80 control and 80 target schools complete self-completion surveys (TSC and PSC) and interviews and focus groups are conducted in 4 target communities.
March 2003		Zonal Inspectors collect pregnancy data in 80 control and 80 target schools.

### **Unanticipated Events**

Three unanticipated events influenced programme implementation and evaluation. First, not all target schools sent representatives to training and some control schools found ways to attend training. In addition, between the end of Course B training and wave 2 data collection, schools experienced a lengthy teacher strike in October 2002. Implementation of PSABH stopped during the strike and it is questionable whether it was taken-up again before the end of 2002 since schools had to give priority to preparation for December KCPE exams once classes resumed.

Finally, in January of 2003, school fees were eliminated resulting in an influx of a large number of new pupils. This had a major impact on schools in this project. Over 2000 pupils in standards 6 and 7 who completed surveys in February 2003 reported that they had not been in school in 2002. In addition, the range of ages of pupils in these grades expanded by 6 years.

In consultation with Mary Gichuru and Janet Wildish of C/BT, it was decided that because of these events:

- (1) Schools would be reassigned to target and control groups based on participation in Courses A and B. This resulted in the reassignment of 5 control and 3 target schools for a final sample of 82 target and 78 control schools.
- (2) The pupil sample analyzed at wave 2 would be restricted to those who had attended school during 2002.
- (3) Only pupils between the ages of 11 and 16 years at the time of data collection would be included in analyses.

### **Data Handling**

Steadman Research Services Incorporated conducted surveys with pupils and teachers, interviews with teachers and community representatives and focus groups with pupils. They entered all survey data – including School and Community Responsiveness data and pregnancy data – into SPSS databases and translated and transcribed interviews and focus groups. All data and transcripts were transmitted to the University of Windsor for analysis. SPSS was used in survey analysis and Scolari N5 and 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 scalar and composite measures created by combining responses to clusters of questions dealing with the same topic. Before creating scalar or composite measures, clusters of questions were tested to ensure pupils and teachers were responding to questions in a way that justified combining them.

### **Data Analysis**

#### **Survey Data**

There were three main steps in the analysis of survey data:

- (1) Data checking to verify the validity and reliability of data.
- (2) Chi-square and analysis of variance to examine target/control differences and changes between wave 1 and 2 in individual pupil and teacher responses to survey questions. All analyses were run three times: for all pupils, comparing results for boys and girls, comparing results for pupils with and without sexual experience. Where there are significant differences in results by gender or by sexual experience, these are noted in the body of this report.
- (3) Hierarchical multivariate regression analyses to develop a profile of the uptake of PSABH in schools, factors which influenced greater or lesser programme implementation, and the influence of school uptake on knowledge, attitudes and behaviours. These analyses used aggregated measures from the PSC and TSC together with measures from the SRS, CRS and pregnancy data combined in a school-level database. Analyses were conducted for schools rather than individuals. These

regression analyses provided information about how groups of factors collectively influenced each outcome of interest as well as the relative importance of each factor when it is considered as part of the group. Since schools, teachers and pupils are influenced by many factors operating simultaneously, regression provided a closer approximation to how these influences were exerted than analyses that looked at one factor at a time.

- (4) Identification of 'premiere' or 'best' schools based on their performance in the top 10% of schools on the largest number of behavioural outcome indicators. Profiles of these schools were then created on all outcomes, programme implementation and school and community characteristics.
- (5) Individual level analyses were most often based on the following numbers unless otherwise noted:
  - 3420 target and 3381 control pupils at wave 1
  - 3133 target and 3266 control pupils at wave 2
  - 218 target and 222 control teachers at wave 1
  - 154 target and 160 control teachers at wave 2

### **Textual Data**

Analysis of textual data was facilitated using N5 and N6 Software. For wave 2 qualitative data analysis focused on two areas. First, themes identified in analysis of wave 1 data were re-examined using wave 2 data to assess whether there had been any changes. Second, conclusions drawn based on the survey data were examined in light of what pupils, teachers and community members were saying. These examinations provided confirmation and textual illustrations of what was found in survey results or alternative interpretations and challenges of the survey results. Details on the steps taken in the analysis of textual data are described in Appendix A.

### **Triangulation**

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

### **Presentation of Results**

For ease of comparison, data comparing target with control and pre-programme (wave 1) with post-programme (wave 2) results are presented as bar graphs in the body of the report with tables that accompany graphs located in Appendix B. Graphs and tables are numbered alike (i.e. Figure A in the body of the report uses data from Table A in Appendix B) to facilitate location of the exact numbers that coincide with each graph.

Statistical significance was set at  $p \leq .01$  for all tests. This partially compensated for the large sample sizes and number of statistical tests and reduced the likelihood of making a claim of significance for very small or chance results. It should be noted that  $p \leq .01$  is still a liberal level of significance that will identify every difference and change that is likely to be of substantive importance.

Using the individual-level data, statistical tests were conducted on the difference between wave 1 and 2 results for target and for control schools and also on the difference in the amount of change between target and control schools. Where differences and changes were significantly different, these are noted on the graphs.

The statistical and numerical results of regression analyses are not as intuitively easy to understand as are percentages and scale scores. Consequently, the text of the report includes only a verbal description of trends found in regressions. Numerical and statistical results are included in Appendix B.

## **COMMUNITY AND SCHOOL PROFILES**

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This project was designed to include schools and communities with diverse profiles (see sample procedures in Appendix A). This was to ensure that PSABH was tested in communities that might have different sources/forms of HIV vulnerability, may respond differently to the threat of AIDS, and also to the PSABH programme. The following section will provide a collective profile of the communities and schools in this project and of PSABH teacher training.

### **Community Profiles**

AIDS is very real in the lives of the communities participating in this evaluation. Eighty-three percent of teachers in control, 92% in target schools and over 50% of pupils in both control and target schools knew people in their community who had died of AIDS. Similarly, 70% of teachers in control, 67% in target schools and almost 40% of pupils in both target and control groups knew community members who were living with HIV.

Activities related to HIV were present in a variety of community events and festivals in all but 2 communities included in this study. From responses on the CRS and in interviews, it was evident that the focus of community messages about HIV was to promote abstinence prior to marriage and faithfulness to one partner. In only 1 community were condoms cited as the focus of messages at community events. However, it was also evident from in-depth interviews with community leaders and teachers, that failure to abide by the abstinence and faithfulness prescriptions was common and expected. Despite this, there was profound reluctance to promote condom use. Condoms were, however, available to adults and youth alike in one or more locations in 71% of communities, most typically in clinics and shops.

During wave 1 data collection, churches were found to be highly influential, with their influence often extending to schools, teachers and curriculum. When the activities of churches were considered, it was evident that churches in every community had HIV/AIDS programming. Since different churches approach issues of health, sexuality, personal responsibility, and morality differently, information about the presence and activities of specific denominations was collected in the CRS. Churches clustered into three faith groupings: Roman Catholic, Protestant, and Breakaway or Traditional churches. Breakaway churches are affiliated with mainline Protestant denominations but incorporate traditional beliefs and practices into their teaching and worship. Traditional churches are founded primarily upon traditional beliefs and practices although they may have, at one time, been affiliated with Protestantism or Catholicism. Both Breakaway and Traditional churches, to varying degrees, include significant portions of traditional beliefs, viewpoints, and practices, together with some aspects of Christianity in their teachings and practices. Because of their similarities and small numbers they were treated as one group.

Although all churches had HIV/AIDS programming, the most active were the Mainline Protestant churches. The more churches there were in a community, the more religious programming there was related to HIV and AIDS. The programming across churches did not reflect any difference in 'messages' about prevention. In all cases, abstinence and faithfulness to one partner were the dominant prevention messages. Churches were either silent about or conveyed information designed to discourage the use of condoms by youth. In some cases this information was blatantly false, or an inversion of the truth, designed to portray condoms in the worst possible light.

## **School Profiles**

It is important to note that there were *no* significant differences between target and control schools on any of the characteristics included in the profile. The majority of schools were:

- Rural;
- Protestant sponsored;
- As likely to have Protestant as Catholic pupils;
- More likely to have Protestant than Catholic teachers; and,
- More likely to have students belonging to the Luo than the Kisii ethnic group with one or the other of these groups predominating in most schools.

In addition:

- The average KCPE scores per school covered a broad range from as low as 18 to as high as 509;
- School resourcing also covered a broad range with teacher/pupil ratios as low as 1 teacher/100 pupils to 15 teachers/100 pupils; and,
- School SES<sup>1</sup> ranged from 40-90.

Community characteristics *did* cluster into set patterns. Thus, schools with primarily Luo pupils were also, on average, of a lower SES, had lower average KCPE scores, and were more likely to be sponsored by a Protestant church. The pupils in these schools, however, were more likely, on average, to be either Roman Catholic or to belong to a Breakaway or Traditional rather than a mainline Protestant church. There was greater diversity and a larger number of churches active in these communities. This was evidenced partially by more meetings and programming about HIV/AIDS within these communities compared to others.

Schools with primarily Kisii pupils did not produce as distinctive a profile, although the majority of pupils were likely to belong to a mainline Protestant church (primarily SDA) and there was less diversity and a smaller number of churches active in the communities. Schools with predominantly Kisii pupils also had, on average, higher teacher/pupil ratios, i.e. they were better resourced in terms of teachers. Schools with predominantly Kisii pupils were not significantly different from schools with pupils from diverse ethnic groups in KCPE scores, religious sponsorship or religion of pupils or teachers.

## **Teacher Training**

At least one PSABH trained teacher completed the wave 2 survey in each target school. All PSABH trained teachers reported that they had undertaken training with their fellow teachers and all non-PSABH trained teachers reported that they had been trained in their schools. There was, however, considerable unevenness in the amount of training present in each school:

- In target schools:
  - 52% of teachers were in schools that had received all 4 components of the training -- Course A, Course B, Peer Supporter Training, and a book box;
  - 31% were in schools that had 3 of these components;
  - 7% had 2 components; and,
  - 10% had only 1 component
- In control schools:

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<sup>1</sup> Calculated based on structural resources –i.e. windows, doors, floor, walls, roof, and desks. Possible scores ranged from 0-100.

- 2% of teachers were in schools that had 3 or more components of the PSABH training;
- 68% of teachers were in schools that were in the same zone as a PSABH trained school (with the possibility of ‘spillover’ between schools) or reported that some other group had done HIV/AIDS training in their school; and,
- 30% of teachers were in schools with no evidence of any training in HIV/AIDS instruction.

Overall, teachers rated the PSABH training positively, with over 60% rating it as interesting, worthwhile, informative, organized, useful and relevant. The only characteristic of training that did not receive at least 60% support from teachers was ‘easy to understand.’ Only 42% of teachers rated the training as easy to understand.