

PEPFAR & COHESU HIV/AIDS SENSITIZATION PROJECT IN
KISUMU COUNTY.

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INTRODUCTION

HIV/AIDS is still a global public health issue that requires comprehensive strategies and policies by all Nations. In the past, strategies of creating awareness, interventions of prevention, counseling, testing, and therapy were targeted at adult populations. However, with the proportion of adolescents and young people living with HIV worldwide increasing, it has become critical to target the youth in all strategies of prevention and therapy. In 2020, about 1.75 million [1.16 million-2.3 million] adolescents between the ages of 10 and 19 were living with HIV worldwide (UNICEF, 2021)

In Kenya, the National AIDS Strategic Framework (2014/15 – 2018/19) has identified adolescents of 10-19 years as a priority for HIV response. Many adolescents are known to begin sexual activity at a young age, generally oblivious to the dangers of having unprotected sex. A systematic review found associations between early sexual debut and HIV (UNAIDS 2016). In Kenya, a study in Kisumu County indicated that a high number (79%) of sexual debuts takes place in home set ups (Ogweno, Nicholas Nyasoro. 2011).

Many campaigns to increase HIV/AIDS awareness for prevention of new infections and remove stigma among adolescents rely heavily on one-time school visits by goodwill presenters as well as radio and television campaigns. These approaches have limited systems for follow-up information and questions. School based programs also leave out many non-school going adolescents. According to the World Bank collection of development indicators (2009), households with television and radio was 28% and 74% respectively. These mediums are more embraced by adult populations than adolescents, who prefer getting information through digital platforms, and are more likely than older age groups to use the new technologies. Although the main reason for many young people to adopt new technology is entertainment, adolescents' love of digital platforms presents opportunities to integrate technology into HIV/AIDS awareness and prevention campaigns, with a potential to influence behavior change. Data from the International Telecommunication Union, which is a part of the United Nations, showed that in 2017 the penetration of mobile line subscriptions reached 98.7% of the population in developing countries (Open Mind, 2019)

Our aim was to take advantage of this mobile phone penetration in our communities and use it to improve adolescent knowledge of the spread of HIV/AIDS to impact prevention through healthy choices among adolescents of 10-19, in our highly vulnerable County of Kisumu. In targeting 10–19-year-olds, we hoped to capture many adolescents prior to their sexual debut, reported to be 16years-18years for girls and boys respectively.

STATEMENT OF THE PROBLEM

According to the findings of the Kenya Population-based HIV Impact Assessment (KENPHIA) 2018 survey, the National HIV prevalence now stands at 4.9%. (Ministry of Health, 2020). Kisumu County however is among the top five HIV high-prevalence counties with a prevalence of more than 9%. HIV prevalence among people aged 15 years and above in Kisumu County stands at 17.5%, which is more than three times greater than the national prevalence [NASCOP 2020]. Kisumu County contributed to 9.5% of the total number of people living with HIV in Kenya and is ranked the third highest nationally. By the end of 2015, a total of 144,303 people were living with HIV in the County, with 22% being young people aged 15-24 years and 6% being children under the age of 15 years. (County Government of Kisumu, 2018). While the national adult HIV prevalence stood at 4.9% by 2017 that of Kisumu County stood at 16.3%. Kisumu County recognizes the urgency of taking action to reverse this trend with a County Strategic Plan of “Re-orienting HIV and AIDS response in a devolved system of Government”.

SIGNIFICANCE OF THE PROJECT

Three of the key recommended action in the Kisumu Strategic Plan is to engage the community in levels of knowledge, testing, stigma and service provision, to develop County specific adolescent and youth initiatives in line with the National Fast track plan, and to encourage discussion between parents and adolescents on sexual matters and HIV/AIDS. Our project aims to contribute towards these recommended actions by using a digital resource application to train adolescents in the community on how to access age-appropriate HIV/AIDS information and help. We shall also train mothers in the community on how to engage their adolescents on HIV/AIDS related matters

SCOPE OF THE PROJECT

This project was carried out in Kisumu county, Kenya. The target for this project included an aim to reach 360 children and adolescents, and 180 parents. The participants were recruited from 13 villages that surrounded the help center. Community health workers, approached various schools to inform the youth about our HIV/AIDS awareness program, and asked them to register for the program once they had discussed with their parents and gotten the appropriate consent. The target age for the youth in this project was youth aged 10-18, and once their parent's contact details were collected, they were also approached and invited to register for a separate program, that aimed to assist them become better interveners in the prevention of the spread of HIV/AIDS among the youth.

LITERATURE REVIEW

According to UNICEF (2020), in 2019 there were an average of 460,000 youths age between 10-24 years old living with HIV, of whom 170,000 were adolescents between the ages of 10-19, which is the focus age group for this project. Research has shown that the regions most affected by HIV are the eastern and southern Africa regions, with 27% (UNICEF, 2020).

Data from the western countries like the USA show that the most common way for children under 13 years to get HIV is through mother-to-child transmission, and for those who acquire it during adolescence get it through sexual transmission (HIV info, 2020). 1.7 million youth aged between 10-19 years live with HIV worldwide, accounting for about 5% of people living with HIV, and out of this 88% (about 1.5 million) live in sub-Saharan Africa (UNICEF, 2020). Mother-to-child transmission of HIV can happen during pregnancy, childbirth or breastfeeding, however, chances of transmission can be lowered to 1% or less with the help of HIV medicines and other strategies (HIV info, 2020).

Teenagers often don't plan their sexual debuts, it is often something that 'simply happens', which indicates that the teenager was not prepared for the activity. This means they are less likely to take appropriate precautions to prevent pregnancy or the transmission of disease (Jones, Modeste, Marshak & Fox, 2013). Some studies have indicated that the absence

of both parents from the household was associated with earlier sexual debut, with orphans consistently reported to have increased risky sexual behavior and HIV acquisition (Operario, Underhill, Chuong, Cluver, 2011)

Globally, adolescent girls seem to be most at risk for HIV infection, accounting for three-quarters of all new HIV infections among adolescents; this is not the case in east Asia, where more boys are newly infected with HIV each year, reflecting differences in risk behavior in these regions (UNICEF, 2020). Because many adolescents lack basic information about HIV and prevention, it makes it challenging to prevent them from getting HIV. Other factors that increase the risks of adolescents getting HIV include low rates of condom use, high STDs among youth and alcohol or drug use (HIV info, 2020).

“Many adolescents with HIV don’t know that they are HIV positive” (HIV info, 2020). Testing and awareness of HIV status seems to also be a problem, with testing coverage remaining below 20% in some regions for adolescents, with boys consistently less likely to have been tested for HIV compared to girls (UNICEF, 2020). Because of issues such as stigma or taste of medication, children and adolescents may abstain from medication adherence, affecting their treatment, i.e. not taking their HIV medication every day and exactly as prescribed. They may also skip HIV medication dose to hide their HIV status (HIV info, 2020).

Youth tend to be deluded by the idea that bad things happen to others and won’t happen to them, viewing themselves as being unique, hence immune to disease and death. This leads adolescents to engage in risky behavior that includes not using precautions when engaging in sexual activity (Jones et al., 2013).

According to Jones et al. (2013), a quasi-experimental study design was used to assign schools to intervention or active comparison groups in Trinidad and Tobago. Information the students provided from this study would be used to develop HIV/AIDS educational programs for youths (study participants were between the ages of 11 to 18 years). Six areas were focused on in this study that resulted in the greatest impact, these were perceived susceptibility of contracting HIV/AIDS, condom use self-efficacy scale, parent-adolescent communication scale, attitudes towards abstinence scale, beliefs about preventing AIDS and postponing sexual

initiation scale. These areas of focus showed to create changes in the intention of youth to delay sexual initiation.

“Parent-child sexuality communication has been identified as a protective factor for adolescents sexual and reproductive health, including HIV infection” (Bastien, Kajula & Muhwezi, 2011). Child/adolescent-parent communication is great way for youth to learn about HIV, and unplanned/unwanted pregnancy. Therefore, it is important for them to be educated about issues that pertain to sexuality, and how to discuss these issues with their children (Jone et al., 2013).

According to Bastien et al. (2011), the effectiveness of parent-child communication about sexual behavior is influenced by processes such as frequency of discussions, content, styles, tone of discussions, preferences, timing of communication, as well as associations with and barriers to sexuality communication, i.e. perceptions of quality and comfort of communication. In many cases parent-child communication is hindered by things such as lack of knowledge & skills, and, cultural norms & taboos.

METHODOLOGY

DESIGN

This project was an interventional program aimed at addressing HIV/AIDS prevention among youth. Students from 10 schools in Wathorego Location were invited to participate in the training. All those willing to participate were then given consent/assent forms to take to their parents for signatures. Community health workers then visited the homes of the children to recruit the mothers into the program and administer a pre-training questionnaire. During this exercise, orphans aged 10-14 were identified for an expanded Healthy Choices training. Parents received a Family Matters training designed to help them become effective interveners in the campaign to curb the spread of HIV/AIDS among the youth. The youth and parents were subject to pre-posttests, and pre-testing respectively during the intervention/trainings, which were used to assess a myriad of parameters including knowledge and attitudes towards

HIV/AIDS. These tests were then assessed to identify areas of interest that may cause negative outcomes in the attempt to curb HIV/AIDS spread among the youth.

POPULATION

The population for this project consisted of adolescents aged 10-19 years, recruited from school settings in the area. These youths included both males and females from classes 3 to form 4. The population also included the youth's mothers (however some fathers showed up anyway) who included adults of all ages.

SAMPLING DESIGN

SAMPLING FRAME

The sample for this intervention, included youth from schools around the area in which the program center is located. The schools that were selected provided lists of youth in classes 3 to form 4. These youths then provided their parents' details and contact information, which was then used to pick a sample of parents.

SAMPLING SIZE

A random sample size of 360 youths and 180 parents was decided upon for this intervention.

SAMPLING TECHNIQUES

A random sample was used to acquire the sample group. Youth from various schools were informed about the project, and those who were interested came in for registration until the sample numbers were met. Then community health workers using information provided by the youth, went out into the communities to reach out to the parents and invite them for their trainings.

DATA COLLECTION INSTRUMENTS

For the HIV/AIDS intervention, 3 sets of questionnaires were designed. These instruments were designed after a careful literature review of areas of interest when it comes to HIV/AIDS prevention among youth. The first questionnaire was a knowledge and attitudes based tool designed for the youth aged 10-13 year, and did not include questions about the children's sexual lives. The second questionnaire was also a knowledge and attitudes tool,

designed for adolescents aged 14-19 years which included questions about their sexual lives. The final questionnaire was designed for the parents to assess parent-child communication.

DATA COLLECTION PROCEDURES

The youth questionnaires were first administered before the interventions/trainings to assess the levels of knowledge and attitudes before information was shared. The questionnaires were then administered a second time after the interventions, to assess how the participants had improved in terms of knowledge and attitudes, and what areas would still have negative effects post intervention/training. For the parents, the questionnaires were administered before interventions to get a sense of aptitudes towards HIV/AIDS prevention, when it came to their children.

ETHICAL CONSIDERATIONS

Because this was not an experimental intervention or a program that would cause harm, consent to proceed with the project was based off schools' willingness to participate, the youths' interest, and their parents' consent to allow them to do so where under aged youth were concerned. Prior to the evidence based interventions, youth were required to provide assent and consent from their parents where necessary.

DATA ANALYSIS TECHNIQUES

In order to evaluate the project, we sort out specific details from the questionnaires that the participants responded to, these included:

- Impact of the lectures, i.e. improvements in knowledge and attitudes.
- Which questions did most of the participants not know? i.e. which questions did more than 50% of the participants not know.
- Perceived susceptibility of contracting HIV/AIDS
- Condom use self-efficacy
- Parent-Child communication scale
- Attitudes towards abstinence
- Superstition

For the parental assessment, the PI chose to focus on parental-child communication and its content. This is because the literature indicated that this was an area of great impact when it came to HIV/AIDS prevention among youth. Specifically, the parents were assessed for frequency of discussions, content, styles and tone of discussions, preferences, timing of communication, as well as associations with and barriers to sexuality communication, i.e. perceptions of quality and comfort of communication.

RESULTS

YOUTH SUMMARY

All the 360 adolescents completed the Healthy Choices training. Out of the 360 adolescents who participated in this project, 189 youths successfully complete the evaluation questions both at pre-test and at post-test. The data collection tool was split into two versions due to the ages of some of the participants, and the sensitive nature of some of the questions. The youth were split into two groups, the children (ages 10-13) and the adolescents (ages 14-19), each with a different version of pre-posttest questionnaire. The children were not asked any questions about their sexual lives, while the adolescents were asked questions that they could anonymously answer about their sexual lives.

The children comprised of 146 participants, who took part in both the pre & posttest. 87 females participated, making up 59.6% of the group, while 58 males participated, making up 39.7% of the group.

The 10-13-year-old adolescents came from 11 villages including:

Village	No. of children	%Percentage of the sample
Alango	24	16.4
Angira	1	0.7
Coptic	1	0.7
Kaego	1	0.7
Kajulu	93	63.7
Kamenya	1	0.7

Kibos	3	2.1
Kombe	1	0.7
Kondele	2	1.4
Kotunga	1	0.7
Wathorego	18	12.3

The 10 to 13-year-old participants came from classes 3 – form 1, with classes 3-4 making up 8.2% of the sample, classes 4-5 making up 43.8%, classes 6-7 made up 46.6% of the sample, while classes 8 – form 1 only made up 1.4% of this group.

In their assessment, the 10 to 13-year-old adolescents scored an average of 54.32% on their pretest and an average of 66.58% on their posttest, showing a 12.26% improvement in their knowledge about HIV and HIV/AIDS prevention.

43 adolescents aged 14 to 19-years participated in the second version of the assessment, which included questions about their sexual lives. 30 of these adolescents were female making up 69.8% of the group, while only 13 males participated, making up 30.2% of the group.

These 14 to 19 year-old adolescents came from 7 villages including:

Village	No. of adolescents	%Percentage of the sample
Alango	8	18.6
Kajulu	25	58.1
Kibos	3	7.0
Kombe	2	4.7
Nyawita	1	2.3
Obwolo	2	4.7
Wathorego	2	4.7

The adolescents came from class 8 – form 4. Class 8 – form 1 made up 60.4% of the participants, forms 2 – 3 made up 30.2% of the group, while those from form 4 only made up 9.3% of the sample.

In their assessment, these older adolescents showed a greater knowledge of the topic of HIV/AIDS, scoring an average of 80.16% on their pretest and an average of 91% on their posttest, showing a 10.84% improvement in knowledge and attitude from the program.

OTHER RESULTS AND FINDINGS

1. *Which questions did most of the students not know, i.e. which questions did more than 50% of the participants not know?*

Analysis of the questionnaire showed that the younger adolescents aged 10-13 scored lowest on two questions. These were, (a) Which of the following is not a method for preventing HIV/AIDS transmission? Scoring 71.9% wrong at the pretest and 56.8% wrong at posttest. (b) What are opportunistic infections? Scoring 78.1% wrong at pretest and 63% wrong at posttest. Even with the low score, there was still an improvement after the training.

Analysis of the second questionnaire showed that the older adolescent participants also had low scores on the same questions. (a) Which of the following is not a method for preventing HIV/AIDS transmission? Scoring 55.8% wrong at pretest, and 30.2% wrong at posttest. (b) What are opportunistic infections? Scoring 65.1% wrong at pretest and 37.2% wrong at posttest.

Another find from the data was that a substantial number of adolescents did not know what PrEP was prior to the intervention, scoring 46.5% wrong when asked if they knew what PrEP was, while the children only scored 17.1% wrong. This might be an indication that the children were not entirely honest on their response to the question.

2. *One of the things the second questionnaire sort to find was how many of the adolescents aged 14-19 were sexually active.*

At pretest, 46.5% of the participants admitted to being sexually active, however at posttest 65.1% of the participants admitted to being sexually active. Perhaps an indication that the training allowed the participants to be more honest.

3. *Questions that were dependent on whether the adolescents were sexually active included:*

a. I always use a condom during sex

65.1% of the adolescents responded YES at pretest, and 81.4% responded YES at posttest. Responses should have been 100% YES.

b. I know how condoms work and how to use them.

60.5% responded YES at pretest and 79.1% responded YES at posttest, even after demonstration. Responses should have been 100% YES at posttest.

c. If there is no condom or if we cannot use a condom, I will not have sex.

72.1% responded YES at pretest and 76.7% responded YES at posttest. Responses should have been 100% YES at posttest.

d. If I am having sex, I should only have sex with one person.

86% responded YES at pretest and 97.7% YES response at posttest. Showing the best improvement in attitude.

SUBSECTIONS

The data collection tool used in this program was also designed to collect specific information from the youth about:

- a. Perceived susceptibility of contracting HIV
- b. Condom use self-efficacy

- c. Parent-Child communication
- d. Attitudes towards abstinence
- e. Superstitions about HIV/AIDS

Perceived susceptibility of contracting HIV

To determine this question we asked the youth the following questions:

- HIV/AIDS is a serious threat in Kenya
- A healthy looking person can be HIV positive
- Which of the following is NOT a way for HIV to be transmitted?
- Which of the following is NOT a method for preventing HIV transmission?
- If I am having sex, I should only have sex with one person

In this section, the younger adolescents scored an average of 44.35% susceptibility to contract HIV at pretest and a 31.15% chance at posttest. An indication of lack of knowledge among this age group.

The older adolescents indicated a 25.6% chance of contracting HIV at pretest and a 9.76% at posttest.

Condom use self-efficacy

For condom use efficacy we only collected data from the older adolescents aged 14-19 due to the sensitive nature of the questions. We asked them:

- I always use a condom during sex
- I know how condoms work and how to use them
- If there is no condom, or if we cannot use a condom, I will not have sex

The adolescents showed a 65.9% efficacy at pretest, and a 79.1% efficacy at posttest.

Parent-Child communication

In order to assess attitudes and beliefs about communicating with parents about HIV/AIDS and prevention, we asked the youth the following YES/NO questions:

- Do you trust your parents?
- I can ask my parents questions about sex without them getting angry

- I can talk to my parents about anything except sex

In this subsection, the younger adolescents scored an average of 75.3% communication and trust on their pretest, and a 73.7% on their posttest. Indicating that perhaps the children felt slightly less inclined to discuss the topic with their parents the more they learnt about it from the outside world.

The older adolescents scored an average of 65.1% on their pretest for adolescent-parent communication scale, and a 71.3% on their posttest, showing a slightly lower overall comfort for communication with parents about HIV/AIDS compared to the younger children, with an average chance of 68.2% on the scale, while the younger youth scored an average 74.5% on the scale.

Attitudes towards abstinence

Data on attitudes towards abstinence was only collected from the older adolescents, which showed the best attitudes from the participants among the subsections.

To assess this, we asked the adolescents:

- It is ok to wait for marriage to have sex
- If I don't feel/want to have sex, I should still have sex to make my boyfriend/girlfriend happy
- If all my friends are having sex, then I should also be having sex
- If someone does something for me or gives me money, I must have sex with them as a favor

The adolescents indicated a 98% chance of abstinence in both the pre & posttest. However, the 2% chance of not abstaining is all it takes to create a problem.

Superstitions about HIV/AIDS

For superstition, we asked the youth three questions:

1st was the question 'What is the definition of HIV?' from which the youth had the response options of

- a. HIV is a curse

- b. HIV is a virus that attacks the body's ability to protect itself
- c. HIV is an evil spirt
- d. HIV is a cancer that destroys the body

At pretest, the children's second most common response was that HIV is a curse; however, the most common response was the correct one. While for the older adolescents least common response was that HIV was a curse, with a score of only 4.7%.

Fig 1. Pre-test response for the younger youth

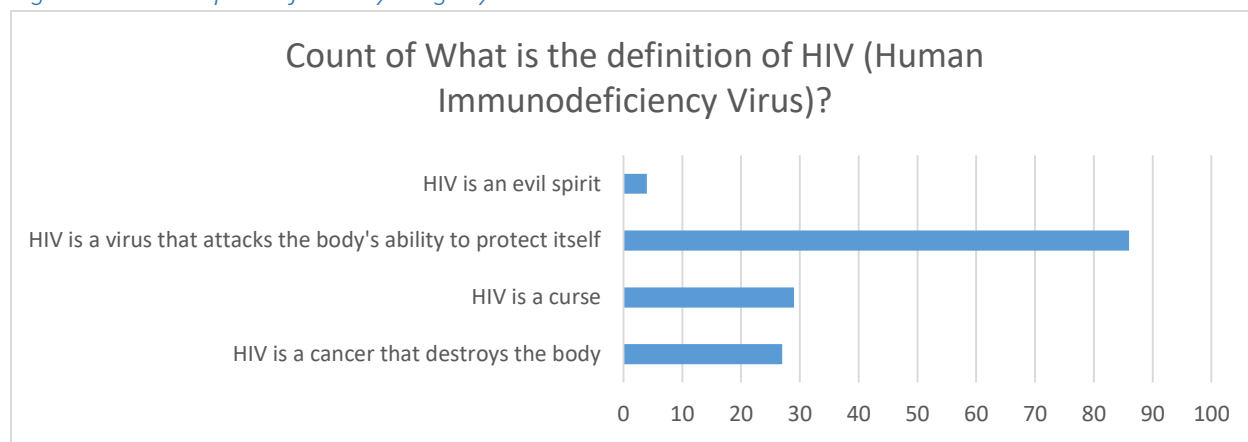
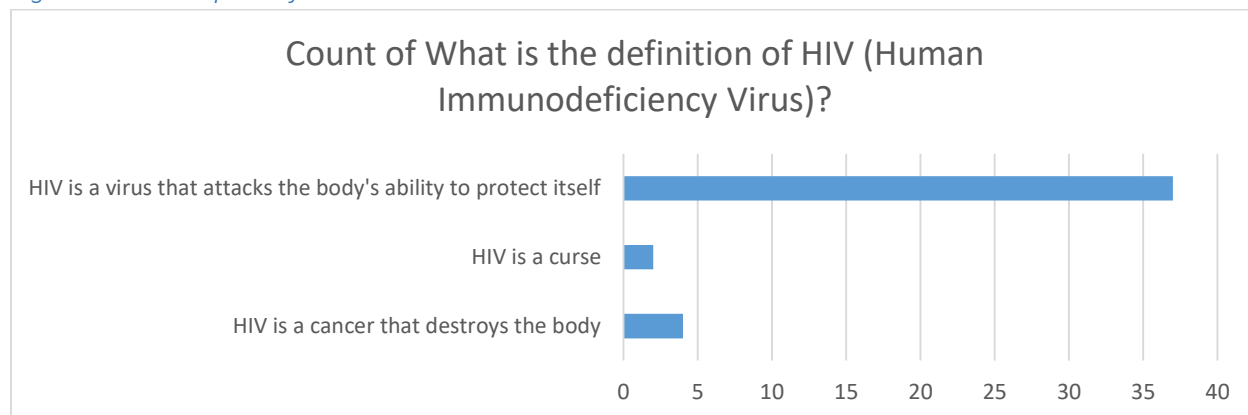


Fig 2. Pre-test response for adolescents



At posttest, the youth who were superstitious about the disease, maintained their belief, with the children having 'HIV is a curse' as the second most common response, and for the adolescents 4.7% responding the same as last, but this time being the second least response to the question at post-test.

Fig 3. Post-test response for younger youth

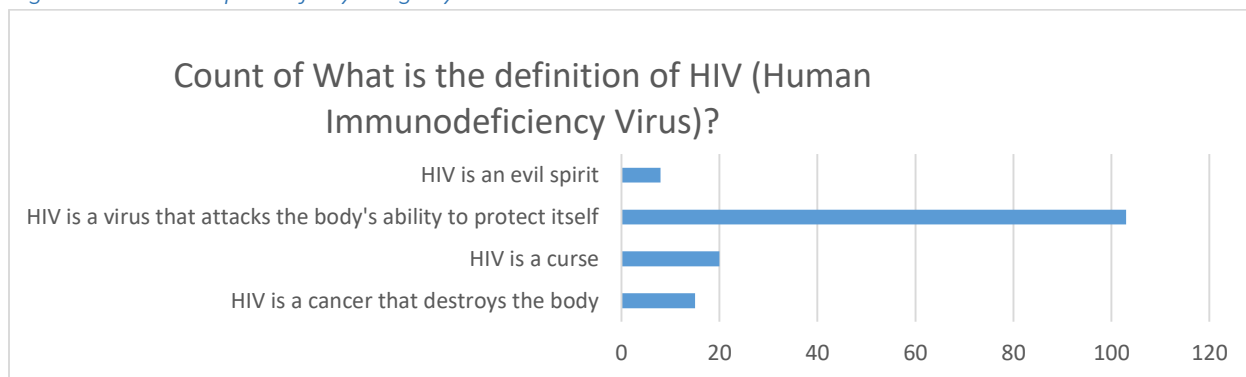
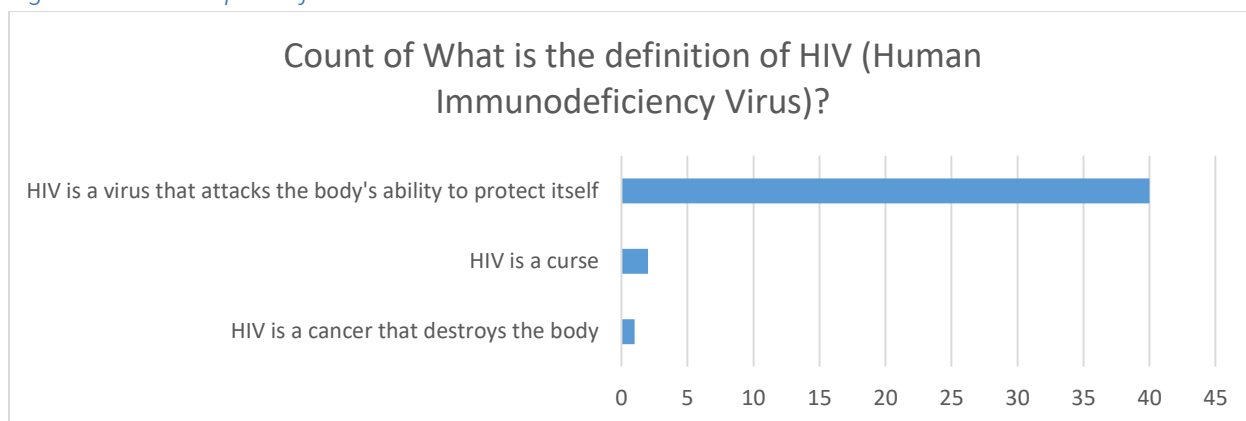


Fig 4. Post-test response for adolescents



2nd was the question 'What is AIDS?', from which the youth had the response options of

- a. AIDS stands for Agency for International Development
- b. AIDS is another name for Ebola
- c. HIV leads to AIDS which is the most advanced stage of the virus
- d. AIDS is a curse

At pretest, the children's second most common response was that AIDS is a curse; however, the most common answer was the correct one. The adolescents also responded with 'AIDS was a curse' as the second most common answer, but also had the correct answer as the most common response.

Fig 5. Pre-test response for the younger youth

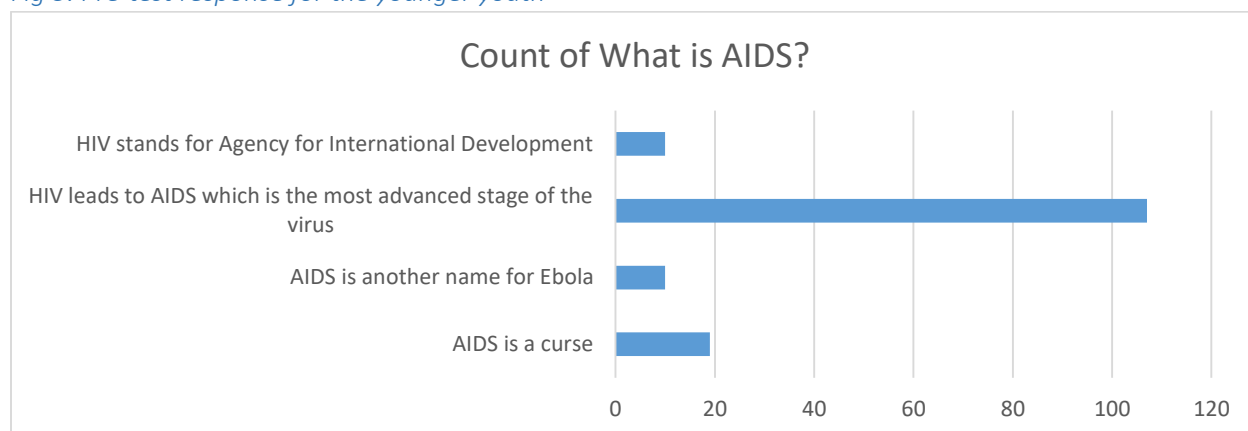
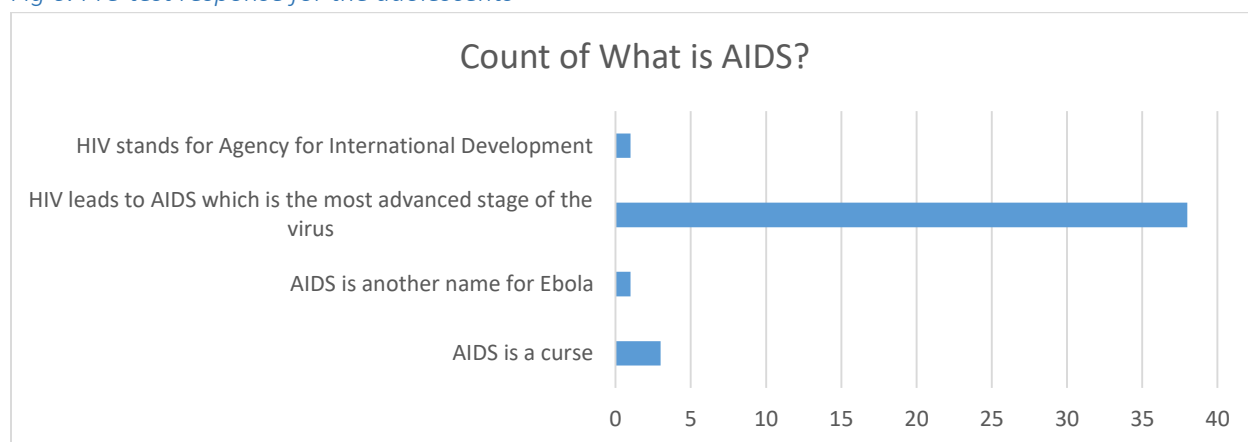


Fig 6. Pre-test response for the adolescents



At posttest, the children showed a shift in belief having 'AIDS is a curse' as the least common response, while with the adolescents responding that AIDS is a curse as the only other response.

Fig 7. Post-test response for younger youth

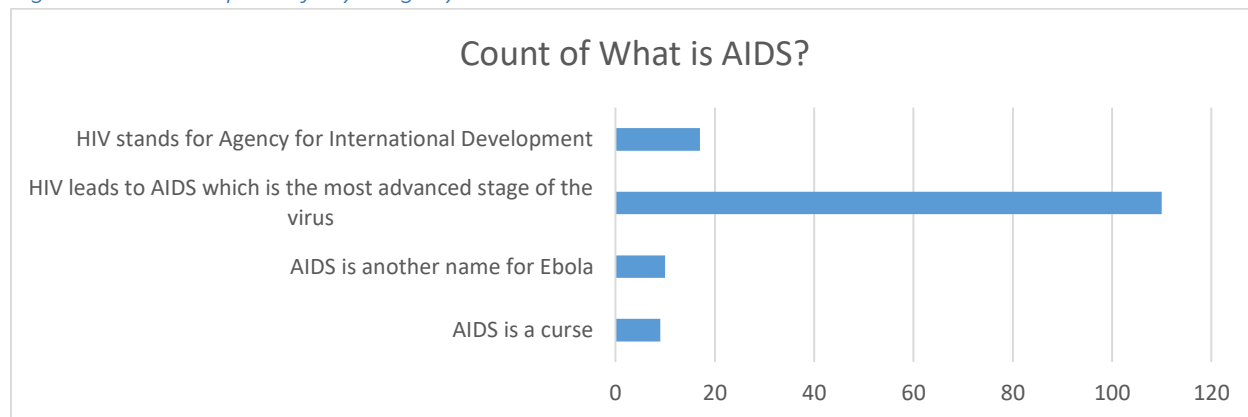
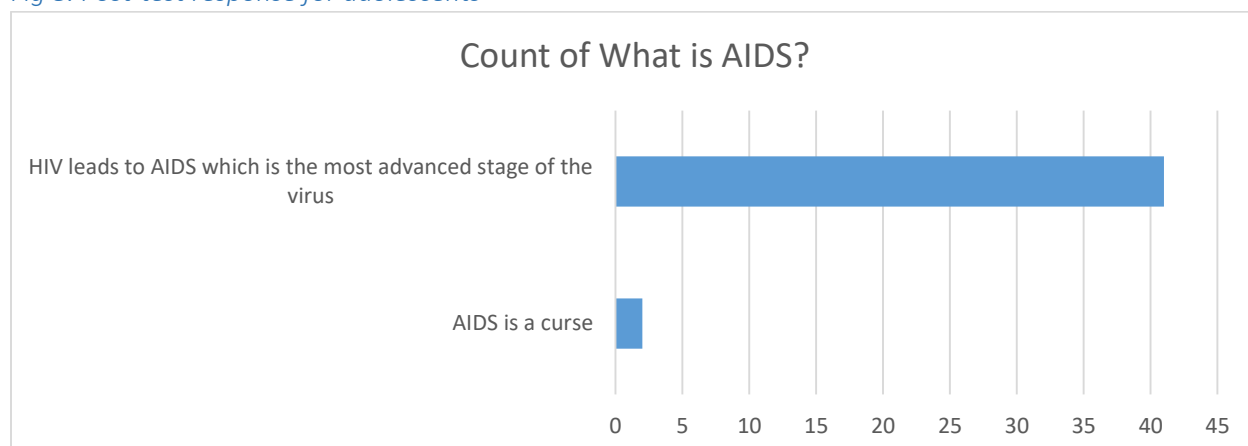


Fig 8. Post-test response for adolescents



3rd was the question ‘can traditional healers cure AIDS?’, to which 24% of the children said YES at pretest and 17.8% said YES at posttest, while 4.7% of the adolescents responded YES both at pretest and posttest.

PARENTS SUMMARY

The project had planned to reach 180 parents, however a total of 324 parents ended up responding to our evaluation forms. Out of this, 285 were mothers and 39 were fathers aged between 18-72 years. The average age was 38 years with a mode age of 32 years. 67.3% of these parents were married, 20.4% were widowed, 8.3% were divorced and 4% were single parents who were never married. Most of the parents reported having 3-6 children (61.7%), followed by 25.3% who had 1-3 children, 11.1% had 6-9 children and 1.9% had more than 9 children. The largest portion of the parents reported to be Christian 96.9%, while 2.5% reported to be Muslim, and 0.3% reported to be of other religions and 0.3% had no religion. Finally, the majority of the parents only reported having completed primary school level education (67.3%), 28.7% reported having finished high-school, 2.8% completed university while 1.2% had no education.

When it came to the assessment of parent-child communication, the majority of parents responded correctly in terms of what is expected of them to be able to intervene in their

children's lives insofar as HIV/AIDS prevention was concerned. However, there were some parents whose responses were of some concern.

Results are as follows:

- When asked if parents talked to their children about HIV/AIDS and other STDs, 44 parents (14%) said they did not.
- When asked if they talked to their children about unplanned pregnancy, 65 parents (17%) said they did not.
- Majority of parents felt that the age 14-18 years was a good age to talk to children about STDs and unplanned pregnancy, followed by 28% who felt 10-13 years was a good age, then 7% felt younger than 10 was a good age, and finally 1.5% thought above 18 years was a good age. This response pattern was similar when asked what age they thought the children in their community debuted sex.
- When asked if the parents felt they had enough knowledge to talk to their children about HIV/AIDS and unplanned pregnancy, 77 parents (24%) felt they did not. However, after our intervention with parents, this is expected to change.
- When asked if they believed talking to their children about STD transmission & unplanned pregnancy could stop them from making poor decisions, 109 parents (34%) or parents felt it would not.
- When asked about the tone the parents used to talk to their children about STDs & unplanned pregnancy, 34 parents (10.5%) said they spoke with authority which may be counterproductive in such matters.
- When asked if the parents spoke to their children directly or indirectly i.e. parables, 12 parents (4%) of parents said they spoke to their children indirectly.
- When asked how often they spoke to their children about STD transmission & unplanned pregnancy, 2 parents said they did it less than once every two years, while 22 said they only did so twice a year.
- When asked how comfortable they felt about talking to their children about STD transmission and unplanned pregnancy, 6 parents said they were not comfortable with it. This is also expected to change for the better after intervention.

- 31 parents said they only talked to their children about STDs & unplanned pregnancy when they were reminded about the dangers i.e. after it happened to someone they knew, while 2 parents said they did it after their child's sexual debut.
- 103 parents (32%) said they did not talk to their children about condom use.
- 137 parents (42%) said they did not talk to their children about contraceptives.
- 59 parents (18%) thought contraceptives would affect their children's ability to have children of their own in the future.
- 122 parents (38%) said their extended family and friends did not participate in informing their children about STDs and unplanned pregnancy.
- And 279 parents (86%) did not think their children should be taught about STDs and unplanned pregnancy in schools.

DISCUSSION

One of the things that was most noticeable about the youth participants was that more females participated in the program than males, something the literature discusses when the UNICEF (2020) reported that boys were consistently less likely to have been tested for HIV, compared to girls. This maybe a sign that boys are less vigilant of about their sexual health. The youths aged 10-13 knew less about the topic of HIV/AIDS scoring averages of 54.32% and 66.58% at pre and posttest, while the adolescents aged 14-19 showed greater knowledge on the topic scoring averages of 80.16% and 91% at pre and posttest. This is consistent with the data from parents who responded that the age 14-18 years was a good age to talk to children about STDs and unplanned pregnancy, followed by 28% who felt 10-13 years was a good age.

Both the children and adolescents showed similar levels of improvement at posttest, scoring 12.26% improvement and 10.84% improvement respectively. In order to identify what questions where of concern, the PI sort to assess which questions more than half the participants did not know. Assessments showed that the youth were unsure of methods for preventing HIV/AIDS, they did not know what opportunistic diseases were, and indicated that they were unaware of what PrEP was (Pre-exposure prophylaxis used to prevent the spread of

HIV). This may be indication of a lack of connection for some of the youth with the educational material, since, these are areas that were discussed during the training sessions. This also suggests that they need more than a one-time-training, which is something that COHESU has planned for, by providing a customized online library of information combined with integrated mobile technology, to allow the youth access to these trainings and information whenever they may need to revisit it.

Assuming that the youth were more honest at posttest, the data collected suggested that more than half the adolescents assessed were sexually active. Considering this, not all respondents said they used condoms, or knew how condoms work and how to use them, while some respondents also indicated that not having a condom would not prevent them from having sex. With 65.9% efficacy and 79.1% efficacy and pre and posttest, this collection of responses highlights a loophole from which the spread of the virus is made possible.

At posttest, 31.15% of the children still showed a lack of perception for susceptibility for contracting HIV, while 9.76% of the adolescents did. Showing significant vulnerability among the youth aged 10-13 years.

When it came to parent-child communication, none of the age groups responded to having a 100% comfort for talking about their sexual health with their parents. This could be considered normal, however this was more of an assessment of how much they trusted their parents to inform them without prejudice, which some youth seem to have caution about.

One of the more positive pieces of feedback was that the adolescents seemed to have positive attitudes towards abstinence. However, most adolescents do not plan their first sexual experience which maybe an indication of youth feeling one way in theory, but not having the tools to follow through in reality. This makes for a blind spot for those who do not plan for their sexual debut, putting them at greater risk of contracting STDs or having unplanned pregnancies.

Among the younger children, there was a substantial number of participants with superstitious beliefs about HIV, with 'HIV is a curse' and 'AIDS is a curse' being the second most common responses to questions about what these were.

As major figures in the education of children in HIV/AIDS prevention and unwanted pregnancies, parents should all feel qualified to play this role. As much as most parents did feel they were equipped for the role, some parents' responses highlighted potential avenues for negative outcomes in the prevention process. Some parents did not talk to their children about HIV/AIDS, other STDs and unplanned pregnancies. There were parents who felt they did not have enough knowledge to talk to their children about HIV/AIDS and unplanned pregnancy, while many more said they did not think talking to their children about STD transmission and unplanned pregnancy would stop them from making poor decisions. This can potentially be a great hindrance to the enthusiasm and hope a parent has when appealing to their child. Some parents thought that communicating to their children with authority was the right way to get through to them on matters of HIV/AIDS prevention and unplanned pregnancy, while the literature shows that having conversations about the topic was a more effective means of communication.

Some parents only spoke to their children about HIV/AIDS when they were reminded about it, like when someone they knew died from the virus. Many parents did not discuss condom use or contraceptives, some even thinking that the contraceptives would affect their children's ability to have children in the future.

Because parents may not want to get into the details of sexuality, extended family members are sometimes tasked with passing on this knowledge. However, many parents said their family members or family friends did not play a role in this. Many parents did however indicate that they were comfortable with passing on the knowledge themselves. Finally, one of the more universal oddities from the parents (86%) was that they did not think their children should learn about STDs and unplanned pregnancy in schools. This could be a sign of lack of trust by parents for the teachers to safely and ethically pass on this information. However, this can become a matter of great disservice to the children where they cannot receive all the information they need to effectively navigate HIV/AIDS prevention and unwanted pregnancy.

CONCLUSION AND RECOMMENDATIONS

The fact that the youth did not score 100 after training means that they could benefit from their use of phone messaging, information sites and apps that they can get the information they need on topics they cannot discuss with their parents about.

There is a need for interventions that encourage the male population to take their sexual health more seriously. This may need to come in the form of a campaign that raises awareness among the male population about their role in community health, and their role in managing the spread of disease.

As the youth from different communities are educated about HIV/AIDS, schools can consider pulling resources to find out what materials the youth are most receptive to, or have licensed personnel who collect feedback from different schools on the most effect ways to transfer the information, and hence what has the greatest impact for knowledge retention among member of the community, i.e. what do the youth in the community identify with.

Condom use should not just be taught as an HIV/AIDS and unplanned pregnancy prevention strategy; since most youth think they are invincible and bad thing do not happen to them, but should also be linked to economic decline in the face of poor family planning and possibilities of hardship throughout life, to help translate the importance of proper condom use self-efficacy.

Superstition needs to be addressed because the youth, and adults as well, need to see and understand that AIDS is something they have the power to fight and protect themselves against. That this is not a battle that is beyond them, and should not lose faith in the community's attempt to rid itself of the vicious disease.

As suggested earlier, schools can organize to have licensed specialists who can come in to educate both children and their parents; as well as pointing them to the necessary technology that can help them after said training, someone who can create a rapport with the parents and gain their trust as competent helpers. Parents then need to have more specialized programs tailored towards helping them become people their children can trust with their

sexual health, and to become effective tools in the campaign to prevent HIV/AIDS spread among youth.

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