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What is This?
A document analysis of HIV/AIDS education interventions in Ghana

Saamira Halabi, William Smith, John Collins, David Baker and Jason Bedford

Abstract

Objective: While the international donor community has spent millions on human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS) prevention through educational programmes, the quality of information in educational curricula is rarely analyzed. This study analyzes the content of prevention programmes, focusing on informational accuracy.

Design: Curricula for this study were collected using a snowball sampling technique in which we first contacted bi-lateral donors, the country’s national AIDS coordinating agency, and the Ministry of Education to find out which organizations and agencies were actively working in the country and implementing HIV curricular interventions. Our final data set included 24 curricula: seven school-based, 15 adult-based, and two multi-purpose curricula (manuals or modules used in conjunction with other curricula or independently). Using Senderowitz and Kirby’s (2006) standards for curricula content as a guide, each curriculum was coded independently by two reviewers, who noted specific lines, sections, or images of the curriculum which were problematic.

Setting: Ghana.

Method: Document analysis of 24 curricula that are designed to teach youth and adults about HIV/AIDS.

Results: We find one or more problems in each curriculum, including: (1) factual errors and omitted information; (2) oversimplified facts; (3) promotion of fear-based abstinence; (4) confusing condom information; (5) a presentation of infection as women’s problem; and (6) misrepresentation of individual risk.

Conclusion: Even with increased financial resources being directed at HIV prevention and treatment, the quality of information found in school-based and adult prevention curricula remains poor. This analysis calls into question the effect of these interventions in ‘socially vaccinating’ against new infections.

Keywords

educational intervention programs, Ghana, HIV/AIDS prevention, sexual health

Sub-Sahara Africa (SSA) accounted for 68% of the 33.3 million people worldwide living with human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS) at the end of 2009 and 72% of the 1.8 million global deaths. With antiretroviral therapy (ART) treatment...
available to only 37% of the eligible infected children and adults, prevention is still the best course of action in the region.\textsuperscript{2} Prevention programmes in SSA focus on the link between knowledge, attitudes, and behaviour with the understanding that knowledge of facts and possession of the right attitudes will lead to healthier behavioural decisions. When individuals fail to grasp the essential knowledge, remedies are often sought through the examination of a programme’s learning activities, student engagement, and teacher preparedness. These interventions do not take into account the foundation of knowledge, which is accurate information. In this study we attempt to measure the accuracy of information in Ghana through a multi-programme document analysis.

In the first section, we set the context for the study by examining the spread of the epidemic across the region as well as the information lag that followed the virus, with specific details given to Ghana. Section two outlines the common approaches to evaluating prevention programmes and the need for greater emphasis on information accuracy. The third section describes the methods and documents used for analysis and is followed by our results section, which identifies six common problems found in the curricular content of the programmes examined. The study concludes with a discussion section that situates our findings in previous literature and presents suggestions for programme improvement.

**HIV/AIDS Information in SSA and Ghana**

As the HIV/AIDS pandemic spread in the 1980s many SSA governments and their public health agencies formally denied the existence of AIDS in their countries.\textsuperscript{3, 4} For example, South Africa did not develop a strategy to address HIV until the African National Congress took office in 1994, and even by 1998 the government’s response was judged as too little, too late to address the full dimensions of the AIDS pandemic in the country.\textsuperscript{5} Similarly, until 2000 the Kenyan and Zimbabwean governments were in a state of public denial about the AIDS pandemic in their countries, while the governments of Botswana, Nigeria, Namibia, and Malawi began acknowledging AIDS in their countries only after 1995.\textsuperscript{3} Furthermore, at times during the pandemic, public misinformation was intentionally spread that worked against the early distribution of accurate public health information in SSA, or worse, actively discounted accurate information about the common heterosexual transmission of the disease. For example, in 1986 and 1987 there were rumours and media interpretations in SSA characterizing HIV as a disease genetically created by the United States (US) government, transmitted via injections as a means of biological warfare.\textsuperscript{6, 7} (cited in 4)

This history meant that information, a key component in an individual’s capacity to deal effectively with a threatening disease, was not readily available to many people in SSA until the early 1990s and even later in some countries. This is one major reason why non-governmental organizations (NGOs) focused on information transfer in their prevention programmes. Although over 20% of the US$44.5 billion spent by the international community to address AIDS since 2000 has been used on educational prevention programmes,\textsuperscript{8} few of these programmes have been systematically assessed as to the accuracy of medical facts and behavioural strategies, effectiveness of messages about risk and prevention, or for cognitive appropriateness for target populations.

This does not bode well for stemming the HIV/AIDS pandemic in SSA. Since an effective vaccine has not yet been developed, prevention programmes aimed at educating are considered the main public-health strategy to prevent the spread of new infections.\textsuperscript{9–12} Antiretroviral therapy is increasing rapidly in the region but coverage still remains below 40%.\textsuperscript{2}

In Ghana, the site for this study, the first case of HIV was reported in 1986. The government response to the generalized epidemic has been proactive, providing a positive policy environment. In 2002 parliament established the Ghana AIDS commission and 2010 marked the end of their
second five-year National HIV and AIDS strategic framework. In addition to working on a new national framework, in 2008 the government signed a joint strategic partnership framework with the United States with the goal of reducing incidence rates by 30% and increasing ART coverage to 60% by 2013. The expansion of antiretroviral therapy speaks to a new emphasis on treatment in Ghana. From 2007 to 2009 the percent of adults and children with advanced HIV receiving ART jumped from 15.6% to 40.4%.

Unfortunately, regardless of these efforts prevalence and incidence rates in the country have stagnated in recent years. In 2009 there were 240,802 individuals infected with HIV/AIDS; 22,541 of them newly infected from the previous year. Additionally, the knowledge level of citizens seems to be creeping up slowly, if at all. Although there has been nearly universal awareness of HIV since 2003, ‘comprehensive knowledge of HIV and AIDS . . . has been lagging behind’. When asked to correctly identify factual information and reject common misconceptions, only 28.3% of females aged 15–24 and 34.2% of males were successful. Increases from the previous year were marginal at 3.2% and 1.2% respectively.

Evaluating prevention programmes

Most HIV/AIDS prevention programmes in SSA are based on a simple two-part strategy: (1) teach factual knowledge about transmission and strategies for prevention; and (2) teach positive attitudes and beliefs about the rights and care of infected individuals. This seemingly sensible approach underlies curricula development for prevention programmes delivered by local NGOs and mass media outlets to adults in SSA who were uneducated or who left school long before accurate information about HIV was widely available in the region. The NGO-developed programme curricula were then delivered through what is known as ‘peer education’, in which a member of the target population assumes responsibility for leading ‘lessons’ on HIV/AIDS. Similarly, prevention programmes aimed at children and youth in SSA adopt the same model, sometimes substituting a teacher in place of a peer educator. In many SSA countries, schools have only recently integrated school-based HIV curricular prevention interventions into classroom instruction. Like the programme curricula developed for adults, the school-based prevention curricula are arranged by topic and include various interactive activities.

Prevention programmes are generally evaluated using the basic tenets laid out by the Center for Disease Control and the work of Senderowitz and Kirby. Both of these measures provide a list of required characteristics in which the quality of a programme should be judged. The ‘success’ of a programme is then evaluated relative to these standards with emphasis placed on health outcomes such as incidence rate or student’s perception of health (see Kirby, Laris and Rolleri for an evaluation of health outcomes in 83 programmes). The 1992 report by the Center for Disease Control (CDC) identified seven areas of successful strategies ranging from instructional principals to parent involvement. In 2006, Senderowitz and Kirby expanded the tool to 24 standards with 10 addressing curriculum and 14 addressing programme design and implementation.

Guided by these templates, prior studies have focused on the following inputs: classroom structure, including time allotted for the subject and the preparedness of the teacher; classroom practices, including learning activities and student discussion; and a recent emphasis on life skill training to improve student decision making and negotiation skills. Within these studies the quality of information provided was understood as acceptable and scant attention was paid to it.

When measured, the accuracy of information is generally assumed to correlate with the student’s knowledge. Although the ability to recall factual information is improving throughout SSA, significant concerns remain. In Mkumbo’s investigation of 725 school-age children in Tanzania,
several disconcerting questions were brought forward by the participants. Sample questions illustrated in the study included: ‘I have heard that condoms do spread HIV, is this true?’ and ‘How is a person infected with HIV?’ Ngarari included a 15-point scale of factual knowledge in her evaluation of HIV/AIDS education in Kenyan secondary schools. Out of the 457 students questioned, 66.3% had high levels of understanding about HIV (identified as a score of 11 or greater). Nevertheless, misconceptions persisted, including the belief that ‘HIV can be spread through casual contact (e.g. swimming in the same pool as someone with AIDS or using the same toilet, utensils, etc.’).

In their multi-country, multi-year analysis of 14 programmes, Lopez and Spiezer, using one of the standards put forth by Senderowitz and Kirby, directly addressed the accuracy of the information. Of the 14 programmes examined, ‘five of the curricula included medical inaccuracies or omissions, unclear or misleading information, and typographical errors that led to false and inappropriate statements’. This resulted in over one-third of the studies misleading students in an area that could have deadly consequences. Given this lack of accuracy, it is not surprising that the aforementioned misconceptions are perpetuated.

Our study will add to the work of Lopez and Spiezer, moving past the implicit assumption taken in some studies that, since correct factual information is now widely available, it is actually being implemented in prevention programmes. This assumption limits the examined variables in such studies to class structure, teaching practices, and health outcomes. Our study will directly challenge the assumed accuracy of HIV/AIDS prevention curricula. Although some individual programmes have completed independent analysis of their content, to our knowledge very little has been done to comprehensively evaluate the content of curricula within a single country. This detailed document analysis will examine issues of factual accuracy in prevention curricula used within Ghana, speaking to the correlation between information and student’s knowledge, ultimately with implications for behaviour change.

Data and methods

International development agencies, bi-lateral donor agencies, international non-governmental organizations, and local non-governmental organizations engaged in HIV/AIDS education programmes in Ghana in 2007. Curricula for this study were collected using a snowball sampling technique in which we first contacted bi-lateral donors, the country’s national AIDS coordinating agency, and the Ministry of Education to find out which organizations and agencies were actively working in the country and implementing HIV curricular interventions. We compiled an initial list of seven organizations and as curricula were collected, we requested contact information for other known agencies that were implementing similar programmes until no new agencies could be identified. In addition to the curricula, materials such as brochures or pamphlets distributed were also collected. Our final data set included 24 curricula: seven school-based, 15 adult-based, and two multi-purpose curricula (manuals or modules used in conjunction with other curricula or independently).

Using Senderowitz and Kirby’s standards for curricula content as a guide, each curriculum was coded independently by two reviewers, who noted specific lines, sections, or images of the curriculum which were problematic. The reviewers met to discuss and reconcile discrepancies. The individual problems identified were then categorized into six distinct types of problems. To ensure reliability and validity of the categories developed, the curricula were re-coded by new coders. Consensus among the coders on incidences of problems in the programme curricula was reached by discussion.
Results

Specific problems among the programme curricula

Table 1 summarizes the occurrences of the six types of problems across the programme curricula (see Table 2 for listing of problems by individual programme curricula). Almost 90% of the programme curricula suffer from at least one problem: 100% of school-based curricula and 82% of adult curricula. Among the adult programmes 70% have two or more problems, and just less than one half suffer from three or more problems. All of the school-based programme curricula have at least two problems, and three suffer from all six types of problems.

Factual errors and omitted information

As shown in Table 1, almost one half of all the programme curricula had factual errors or omitted crucial information that can lead to medically dangerous misunderstandings about HIV and AIDS transmission and prevention among the target populations. In some cases simple errors that have gone uncorrected can lead to risky behaviour. For example, in one school-based programme curriculum (Peer Educators’ Session Manual: HIV/AIDS Peer Education for Senior Secondary Students, p. 42), peer volunteers are presented with facts to teach the class. In one lesson on the possible consequences of becoming pregnant as a teenager, the last of four consequences that the volunteer is to read states: ‘She could not get infected with STIs [sexually transmitted infections], including HIV/AIDS’ (emphasis added). An otherwise uninformed youth takes away the incorrect message that if and when she becomes pregnant, she will be immune from STIs and HIV infection so that there is no need for her to take preventative behaviour if she is to become pregnant or during sex while pregnant.

Along with factual errors, information necessary for understanding the intended prevention messages was omitted. For example, in a discussion on modes of transfer of the disease, programme participants are presented with three images and corresponding percentages: (1) heterosexual sex 80% (image: heterosexual couple engaged in intercourse); (2) mother to child transmission 15% (image: shape of pregnant woman, baby); (3) blood transfusions/ blades/needles/ syringes etc., 5% (image: syringe, needle, blade; Commercial Drivers HIV/AIDS Programme, p. 13). Not only is the accuracy of the numbers presented in the figures questionable, but their presentation does little to increase understanding of the mechanism of viral transmission. There is no information on how various activities and objects lead to infection. Another example is the

Table 1. Frequencies across six types of curricular problems in HIV/AIDS prevention programmes in use in Ghana

<table>
<thead>
<tr>
<th>Prevention programme curricula</th>
<th>Factual errors &amp; omitted information</th>
<th>Simple facts out of context</th>
<th>Sex = AIDS</th>
<th>The condom breakdown</th>
<th>A woman’s burden</th>
<th>‘We’re all at risk’</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of School-based with:</td>
<td>57%</td>
<td>71%</td>
<td>100%</td>
<td>71%</td>
<td>86%</td>
<td>57%</td>
</tr>
<tr>
<td>% of Adult with:</td>
<td>41%</td>
<td>35%</td>
<td>0%</td>
<td>41%</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>% of total with:</td>
<td>46%</td>
<td>46%</td>
<td>29%</td>
<td>54%</td>
<td>58%</td>
<td>54%</td>
</tr>
</tbody>
</table>

School-based N = 7; adult N = 17.
Table 2. Detailed analysis of problems in school-based and adult curricula

<table>
<thead>
<tr>
<th>School-based curricula</th>
<th>Factual errors</th>
<th>Simple out-of-context facts</th>
<th>Sex = AIDS: fear-based abstinence</th>
<th>The condom breakdown</th>
<th>Gender imbalance</th>
<th>‘We’re all at risk’</th>
<th>% of problems in curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer Educator’s Session Manual: Junior Edition</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>100</td>
</tr>
<tr>
<td>Peer Educator’s Session Manual: Senior Edition</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>100</td>
</tr>
<tr>
<td>Peer Educator’s Session Manual: Upper Primary</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>100</td>
</tr>
<tr>
<td>Stay Alive: Teacher Discussion Guide</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>50</td>
</tr>
<tr>
<td>The Story of Ama, Kojo, and Kwesi</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>83</td>
</tr>
<tr>
<td>Passion Squad: Curriculum Manual</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>33</td>
</tr>
<tr>
<td>HIV/AIDS Teaching Manual: For Pre &amp; Basic Schools</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>67</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adult curricula</th>
<th>Factual errors</th>
<th>Simple out-of-context facts</th>
<th>Sex = AIDS: fear-based abstinence</th>
<th>The condom breakdown</th>
<th>Gender imbalance</th>
<th>‘We’re all at risk’</th>
<th>% of problems in curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Window of Hope: Revised Trainee Manual for Teacher Training Colleges</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>33</td>
</tr>
<tr>
<td>Window of Hope: Revised Trainee Manual</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>33</td>
</tr>
<tr>
<td>Facing AIDS Together: Facilitator Guide</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>17</td>
</tr>
<tr>
<td>Facing AIDS Together: Trainer Manual</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>17</td>
</tr>
<tr>
<td>Lifeshield: Workplace</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>83</td>
</tr>
<tr>
<td>Toolguard: Apprentice</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>67</td>
</tr>
<tr>
<td>Peace Corps Life Skills Manual</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Peer Education Training Manual, GSMF, Commercial Drivers Programme</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>67</td>
</tr>
<tr>
<td>Who Are You to Judge: Stigma Reduction (NGO)</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>50</td>
</tr>
<tr>
<td>Who Are You to Judge: Stigma Reduction (faith-based organizations [FBOS])</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>50</td>
</tr>
<tr>
<td>COH: Workplace Peer Education: Manual for Truckers</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>0</td>
</tr>
</tbody>
</table>
curriculum that states ‘unprotected sex with an infected partner can transmit HIV’, yet omits any discussion of condoms, thus failing to explain or even mention what is meant by protected sex (Peer Educators’ Session Manual: HIV/AIDS Peer Education for Senior Secondary Students, p. 6).

Among curricula with this problem are also those that present inconsistent information. For example, a presentation on female condoms first cautions that both condoms (male and female) must not be worn together, and then that ‘the female condom is not supposed to replace the male condom but to compliment [sic] it’, implying that the two types of condoms, male and female, could and should be worn together to be effective. Facts are also inconsistent across curricula. For example, Toolguard states that HIV is present in sweat and tears (p. 12), while Who Are You to Judge? explains that HIV is not found in sweat and tears (p. 11). The relative riskiness of certain behaviours also varies across curricula. In Who Are You to Judge?, sharing razors presents ‘almost no risk’ of infection, and ‘deep kissing with tongues’ is classified as an activity that presents no risk. Yet in a school-based curriculum (Peer Educators’ Session Manual for Senior Secondary Students), sharing razors and sharp objects and deep kissing are portrayed as risky activities to be avoided because of the possibility of blood exchange.

**Simple facts out of context**

Instead of developing an approach for a fuller understanding of the disease, over a third of adult programme curricula and 71% of school-based programme curricula attempt to impart general information about HIV transmission through a list of simplified and out-of-context facts such as the one presenting modes of transfer (described earlier). Individuals must learn about HIV from this vague, simplified information that is technically correct, but lacks the context to make it effective.1 This is particularly apparent in the display of needles, syringes, and razor blades, which lacks any information for the individual to make a full assessment of risk. For example, do these instruments always transmit HIV? Or, do all heterosexual sexual practices lead to risk? Will all HIV positive women pass on the disease to their fetuses? Instead of developing deeper
understanding of the disease with these facts, target populations are asked literally to commit these to memory through oral repetition of the simple images on cards. While all of the images are of activities and physical items that can be involved in HIV transmission, the information is so minimal as to how infection occurs and what one should know about these common activities and household items that the fact card gives little knowledge to the target populations. Figure 1 on the human immune system presents an example of information in a similarly meaningless context. Frequently taught by peer volunteers, often with limited knowledge of transmission themselves, these out-of-context, simplified facts are unlikely to guide preventative behavioural changes. Even programme curricula that include more information about the biological and epidemiological nature of the virus tend not to connect it to implications for long-term behaviour.

A similar out-of-context, simplified approach is found in many programme curricula’s messages about effective prevention strategies, often based on the strategy known as the ABCs of HIV prevention (sexual Abstinence, Be faithful to one sexual partner, or use a Condom). Frequently, curricula do not present real scenarios of prevention to either youth or adults, nor do they attempt to teach skills to adopt long-term behaviour change aimed at prevention. While facts about transmission and prevention are necessary, they are not sufficient for target populations of prevention programmes to gather enough knowledge of the disease to inform risk-taking and prevention strategies. An illustration of this problem is found in a lesson on drug abuse, the story of Kweku and Afua (Peer Educator’s Session Manual: Upper Primary Students, p. 31). Figure 2 tells of a boy and a girl who get drunk at a party and have sex. Three months later, they both ‘went for blood test’ and both ‘tested HIV positive’. Based on the story, it is difficult to determine which behaviour led to infection. As presented, it could be excessive consumption of alcohol or sex.

Figure 1. Example of simple, out-of-context facts: an illustration of how the immune system works (Toolguard Apprentice, GSMF International, p. 11)
Sex = AIDS: promotion of fear-based abstinence

This curricular problem is found among all school-based programmes; all contain the message that having sex under all and any circumstances leads to AIDS infection. Over-simplified portrayals of the risk of infection from sex appear to be used to scare adolescents and sometimes adults into sexual abstinence. With no explanation that infection occurs when there is an exchange of blood, semen, or vaginal fluids with an infected partner, an inevitability of HIV infection through any sexual experience is both incorrect and may create a sense of fatalism among adolescents. Rather than teaching and discussing more realistic and action-based challenges of sexual negotiation, communication with partners or steps for a healthy sexual relationship, the message is: engagement in sex will automatically result in HIV infection. No skills or strategies are provided for youth who are sexually active, or who are forced or coerced to be sexually active, or for youth who plan to become sexually active in the future. While it is true that the 2003 US administration’s Emergency Plan for AIDS Relief (PEPFAR) required HIV prevention initiatives to promote a message of abstinence-until-marriage, the abstinence message was not presented in a realistic, actionable way.29

Figure 2. A short vignette falsely illustrating how sex and alcohol lead to testing HIV positive (Senior Secondary School Peer Educators Session Manual, p. 33)
For example, returning to Figure 2 (Peer Educators’ Session Manual: HIV/AIDS Education for Junior Secondary Students) the four-part comic-strip story shows a young boy and girl who have sex and then find out that they now have AIDS, with no mention of either of them having previous sexual partners, or one already being HIV positive. Another example from a curriculum (HIV/AIDS Teaching Manual: For Pre and Basic Schools, p. 98) similarly tells of a woman who gets AIDS because her boss got her drunk and had sexual intercourse with her. There is no mention that, to infect the woman, the boss must have been first infected himself. Instead, the commentary directed at adolescents is: ‘You mean you can have AIDS having sex only once?’, implicating that the act of sex one time results in HIV infection. In Passion Squad, the message of fear is evident in the statement ‘Do you think sex is romance? There is nothing romantic about herpes, genital warts, syphilis, gonorrhea, chlamydia’ (p. 34). Furthermore, in an effort to promote abstinence as the only prevention strategy, all school-based programmes either ignore condoms or discredit their effectiveness. For example, in Peer Educator’s Session Manual: Upper Primary Students, condoms are not mentioned once, even in a lesson on preventing teen pregnancy.

The heavy focus on abstinence in these curricula replaced discussions on ways to engage in healthy sexual behaviour. These missing discussions could have discussed reducing risk by having monogamous relationships with long-term partners, reducing the number of sexual partners, or communication with a new partner about other sexual partners, condom use, and voluntary counselling and testing (VCT).

The condom breakdown

Although use of latex condoms during vaginal or anal intercourse is a widely recognized preventative strategy against the spread of HIV, many curricula contain untrue and confusing messages about condoms and HIV infection. There were two contrasting problems identified, depending on the target population. As shown in Table 1, 71% of the school-based curricula discredit, misrepresent, or entirely ignore the use of condoms. One example of the reckless message that condoms are ineffective against HIV infection is the Shield Game used in several school-based curricula (HIV/AIDS Teaching Manual for Pre and Basic Schools, Window of Hope). In the game, students are invited to simultaneously throw crumpled pieces of paper – representing HIV – at another student who is holding up a book – representing a condom – as a shield. As some paper is bound to reach the student despite being shielded by the book, students are told that the game demonstrates how condoms are an ineffective strategy against HIV.

In contrast, 41% of the adult-based curricula frequently focus on condoms as the single and unconditional magic bullet against HIV, often to absurd ends. For example, one curriculum implied that the use of a condom makes a trip to a beauty salon safe even though the salon also serves high-risk truck drivers and sex workers (Commercial Drivers HIV/AIDS Programme, p. 58). So, too, the story is so focused on condoms that there is no discussion about the potential risk of blood contaminated scissors and razors. Other curricula are so singularly fixated on condom use that they ignore sharing information about other effective prevention alternatives, such as abstinence, reducing sexual partners, and fidelity to one sexual partner. And some adult-based curricula take condom as prevention to a dangerously unrealistic level. For example, one curriculum (Commercial Drivers HIV/AIDS Programme) uses a short risk assessment quiz including the questions: have you ever had sex without a condom? Do you frequently have sex without a condom? At the end of the quiz the adult is informed that any affirmative answer means that they indulge in high-risk sexual behaviour. The condom as the magic bullet in every situation muddles the message of effective and strategic use.
Infection as only a women’s burden

Across most of the school-based and nearly one half of the adult curricula, women are portrayed as potentially causing infection, the most likely victims of the disease, and the ones who must take responsibility because males are incapable of control and responsible prevention. This finding is supported by other recent research,30 which finds that there are limitations of behaviour change initiatives that primarily target women, and that discourses in prevention campaign materials places the burdens of HIV upon the most vulnerable in society. Although it is effective to encourage females to take responsibility for their health, the implicit message in these curricula is that males need not, or cannot, take equal responsibility. By unevenly focusing on the women’s role in HIV prevention, it places a double burden on women in sub-Saharan Africa as females have a higher infection rate than men, and are often cast as being chiefly responsible for stemming the spread of the disease, at times to a stereotypical level. For example, one adult curriculum (Window of Hope, Revised Trainee manual for Teacher Training Colleges, p. 99) lists ‘women wearing inappropriate and seductive dress’ as a behaviour that puts them at risk for HIV/AIDS. At the same time, the curricula portray men as predators who are incapable of controlling their sexual urges, placing responsibility on women to curtail male behaviour. As seen in Figure 3, from Facing AIDS Together, Facilitator Guide (p. 63), a school boy is leering over a female student while she studies. The message may caution females, but it also may imply absolution of males’ responsibility for their actions and does not address cultural misogynic behaviours that such beliefs may promote. These stereotypes are presented as pictures, stories, and examples. Across the scenarios in the curricula, boys get girls drunk, men are unfaithful to their wives, and women are the ones left to plan for the future.

Figure 3. Example of disproportionate burden on females (Facing AIDS Together, Facilitator Guide, p. 63)
This message creates a gendered representation where males are portrayed as predators, incapable of controlling their sexual urges and, consequently, women are disempowered victims that have to deal with the consequences of male behaviour. The raped-by-the-boss story mentioned earlier focuses on the female employee contracting HIV but does not discuss how the boss has HIV and is putting numerous individuals at risk by his behaviours. Instead, the message oversimplifies complex gender roles and behaviours that put individuals at risk.

**Misrepresentation/distortion of risk**

As shown in the final column of Table 1, just over one half of both the school-based and adult curricula fail to provide the target populations with a way to accurately assess their individual risk, opting instead for the simplified and generic message ‘everyone is at risk, all the time’. Additionally, some curricula serve to distort and misrepresent risks of infection. Many interventions contain pictures and statements that invoke the notion that no one is safe from HIV infection, and statements such as ‘we’re all at risk’ or ‘everyone is at risk’ are commonly used. While technically accurate, the implicit message is one of a scare tactic of looming risk, portrayed as a fate disconnected from individual choice and behaviour. Risk is over emphasized, and takes the place of more substantial discussions of practices that can decrease or increase risk.

For example, the ‘risk assessment quiz’ in one curriculum (Peer Education Training Manual, GSMF, Commercial Drivers Programme, pp. 29–30) includes nine questions, followed by the assessment that if any question was answered positively, the respondent had engaged in high risk behaviour that ‘could have given you the virus’. These questions include ‘are you sexually active or have you ever had sex before?’, ‘have you ever had sex without a condom?’, and ‘do you frequently have sex without a condom?’. If the respondent is sexually active and has unprotected sex with one faithful, uninfected partner, s/he has not engaged in high risk behaviour as the quiz would suggest. The problem with this portrayal of any sexual act as a high-risk behaviour is that it fails to address the complexities of sexual risk. Understanding levels of risks in different types of sexual relationships, the need for communication between sexual partners, and testing are not addressed in an over-simplified presentation of general universal risk. Although intended to be a tool to aid learners, the quiz ends up being a poor measure of risk assessment and does not provide skills or tools for learners to effectively assess their personal behaviour in a context of actual risk.

**Discussion**

This systematic document analysis of the prevention programme curricula finds a range of problems in information, implicit messages, and in the approach to assisting people in Ghana to learn more about HIV infection and how to prevent it. Each curriculum assessed had one or more of the six following problems: (1) factual errors and omitted information; (2) oversimplified facts; (3) promotion of fear-based abstinence; (4) confusing condom information; (5) a presentation of infection as women’s problem; and (6) misrepresentation of individual risk. Past analyses of curricula find similar issues; however, they tended to be limited to specific areas within a country or provide a between-country perspective. Our multi-programme within-country analysis speaks to the wider state of information in Ghana, permitting us to formulate the following nationwide policy suggestions.
Information review

From our analysis, it was clear that the primary goal for most programmes was to supply people with basic facts about HIV and its modes of infection, in as simple a format as possible. However, oversimplification can lead to false beliefs about transmission, and ultimately affect risk-taking behaviour. There is a growing body of research that shows that unschooled and under-schooled have a difficult time extrapolating from highly simple (abstract) material to a general lesson or rule and then translating that into a behaviour strategy. Factual errors and oversimplification of facts can be ‘easily avoided by having a medical doctor review the curricula’. Some steps have already been taken in this area within the NGO community in Ghana. For example, in 2009 three large NGOs came together to establish the Department for International Development (DFID) Youth Project. One of the three project objectives is to increase knowledge through the use of ‘multiple strategies to provide adequate and accurate information’.

Curriculum expansion

Some of the curricula examined are limited in scope, by transmitting messages that all sex leads to AIDS and ‘everyone is at risk all the time’. This fear-inducing atmosphere can lead to hurried implementation, unchecked information, and irrational behavioural choices. Furthermore, there are obvious omitted groups when giving such an abstinence-focused message. Similar to the studies of Ngarari and Lopez and Speizer, we found no programme that addressed the issues of sexually active youth. In order to improve health outcomes for the population, curricula must become less fear-based and more inclusive of those who do chose (or are forced) to have sex.

Standardized information

Our analysis revealed that similar parts of the same curricula were frequently found embedded along with other material, often reproducing misinformation or omitting the important context of the messages. In other cases, there were egregious gaps where crucial information in the original had not made it in to the copy. For example, when several errors or omissions in some programme curricula were traced back to their original sources, we could judge that the ‘cut and paste’ process was likely responsible. The creation of nationwide standardized information from a reputable source that can be used across the public, private and non-profit sectors would help eliminate some of the inconsistencies across curricula and promote a unified prevention message. This would alleviate issues such as the contrasting approach to condoms seen between adult programmes (which see condoms as a silver bullet) and youth programmes (which largely under-emphasize their importance). Additionally, more standardized curricula would ensure that issues such as the gender bias is addressed at a central level and more accurate representations of responsibility between sexes is established.

Conclusion

These three propositions require an increase in focus and resources to HIV prevention in Ghana. The Ghana AIDS Commission is aware of the link between knowledge and behaviour, claiming that ‘comprehensive knowledge is the first step for the adoption of behaviour that reduces the risk of HIV transmission’. What is still needed is the recognition that comprehensive knowledge...
is dependent on the availability and provision of accurate information. Although formally there is a belief that ‘prevention must . . . remain the cornerstone of Ghana’s response to halt and reverse the HIV epidemic in the long term’,13, p. 42 financially resources between 2006 and 2008 have shifted away from prevention activities to treatment. Without a reallocation of resources back to prevention efforts, the quality of the informational environment will remain poor, limiting the likelihood that prevention programmes will increase accurate knowledge of the disease and ultimately change attitudes and behaviours.

Note
i. Because most of these programmes are run by peer educators who are not health experts, the extent to which teachers supplement textbooks with their own explanations is questionable.

References


