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## TEACHERS MATTER: BASELINE FINDINGS ON THE HIV-RELATED NEEDS OF KENYAN TEACHERS

As part of the Millennium Development Goals, the United Nations seeks to achieve “Education For All” by 2015. However, many educational systems in Africa may be unable to provide an adequate number of teachers to meet this goal because of HIV and AIDS. In several countries, the education sector has already been profoundly affected by the disease. It is estimated that the number of teacher deaths in Kenya tripled between 1995 and 1999, with HIV and AIDS thought to be the largest contributor to teacher mortality (Kelly 2000). A recent analysis by the International Labor Organization on the impact of HIV and AIDS on human capital suggests that Kenya will be second only to South Africa in the sheer number of teachers dying from HIV infection by 2010, well ahead of Nigeria, Zimbabwe, and Uganda (Cohen 2002).

Most school-based HIV interventions in sub-Saharan Africa rely on teachers as behavior-formation and behavior-change agents to deliver prevention messages to children. Few target teachers as the direct beneficiaries even though teachers themselves are at risk of HIV infection. In a study of primary school teachers in Rachuonyo District in Nyanza Province, Kenya, Mumah et al. (2003) found that 36 percent of married respondents had sex with more than one partner in the year preceding the survey. There is therefore an urgent need to understand the dynamics of risk-taking behavior among this population in order to develop appropriate interventions. This is particularly crucial in Kenya because teachers represent the country’s single largest workforce, comprising 240,000 professionals.

Fortunately, a number of groups in Kenya have begun to take action to address this gap. The Ministry of Education, Science and Technology (MOEST) has made HIV testing services available to teachers at its headquarters (Daily Nation 2006). The Kenya National Union of Teachers (KNUT), in collaboration with the American Federation of Teachers (AFT), is imple-



*An official from the Teachers Service Commission’s AIDS Control Unit discusses the impact of HIV and AIDS on Kenyan teachers during a meeting of head teachers from Thika District.*

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menting HIV workplace programs for teachers in selected regions (Davies and Barimbui 2006). In addition, the Horizons Program, in partnership with MOEST, the Teachers Service Commission (TSC), the Kenya Institute of Education (KIE), and UNICEF, has begun a PEPFAR-funded operations research project to test a model of HIV prevention and care activities directed at teachers in schools.

Specifically, the Horizons study is assessing changes in teachers' knowledge of HIV and AIDS, risk behaviors (e.g., multiple partners and unprotected sex), and utilization of voluntary counseling and testing (VCT). The workplace model will also aim to assist teachers who are infected with and affected by the disease by helping them to identify and access available treatment, care, and support community resources. To guide the intervention, a baseline study was conducted in October 2004. It comprised a questionnaire survey and focus group discussions (FGDs). This research update summarizes the study's findings to date.

## Study Methods

The survey covered four districts in Kenya: Thika, Kiambu, Kwale, and Kilifi. The primary sampling unit was the school. A total of 120 randomly selected public schools—80 primary and 40 secondary—participated in the study. They comprised 9 percent of the public schools in these districts. Most (over 80 percent) were mixed (co-ed) day schools, which is the typical school in Kenya. In each school, all teachers were invited to complete a self-administered, structured questionnaire; 1,255 teachers completed the questionnaire, about 70 percent of eligible respondents. Only about ten teachers refused to participate; the others who did not take part in the survey were away from school for official (e.g., traveling to get examination papers) or personal (e.g., maternity leave) reasons. A total of 24 FGDs were also held with teachers to supplement the information from the quantitative survey. All teachers gave written informed consent prior to participating in the study.

The questionnaires were double entered using EPIDATA and analyzed using SPSS and STATA. Tests of significance were based on the chi-square. The FGDs were transcribed and analyzed using NUDI\*ST (N6).

Prior to the fieldwork, the proposal was approved for ethical adherence by the Kenya National Council for Science and Technology, and Population Council's ethical review board.

## Characteristics of the Sample

Table 1 shows that the participants were evenly divided between males and females and had a mean age of 38 years (range: 18–55). Nearly nine out of ten teachers had attended college, an expected finding since teachers in Kenya have to attend teacher training college before they can be employed.

**Table 1 Demographic characteristics of the sample (n = 1,255)**

<b>Characteristics</b>	<b>All</b>
<b>% female</b>	50
<b>Mean age (years)</b>	38
<b>% Christian</b>	89
<b>% married</b>	79
<b>% have children</b>	84
<b>Level of education</b>	
% secondary	11
% college/university	87
<b>Mean length of employment in index school (years)</b>	6
<b>Type of school</b>	
% primary	64
% secondary	36

## Key Findings

### **Teachers are directly affected by HIV and AIDS, and many shoulder a heavy care and support burden.**

One in five teachers reported having someone in their immediate family currently infected with HIV, and a third had an immediate family member die of the disease. Almost half of the teachers (44 percent) said they have ever helped a family member or friend with HIV and among these, 26 percent were currently providing care. More female than male teachers reported an AIDS-related death in the family (36 percent vs. 30 percent,  $p = 0.07$ ) and that someone in the family was currently infected with HIV (22 percent vs. 17 percent;  $p = 0.04$ ).

At the time of the survey, 29 percent of the respondents were fostering children. This figure was similar for males and females. However, fostering children was more prevalent among primary school teachers compared to those teaching secondary school (31 percent vs. 23 percent;  $p < 0.001$ ).

### **Many teachers are “very concerned” that they could contract HIV in the school environment, yet awareness of post exposure prophylaxis (PEP) is extremely limited.**

In order to assess the extent of their fears about contracting HIV at school, teachers in the study were asked whether they were “very concerned,” “somewhat concerned,” “not concerned at all,” and “don’t know/can’t tell.” Similar proportions of men (62 percent) and women (64 percent) were “very concerned,” but primary school teachers were more likely to be “very concerned” than secondary school teachers (74 percent vs. 47 percent;  $p < 0.001$ ). Comments from the teachers illustrate some of their fears.

*Teachers in primary schools are exposed to HIV, especially when giving first aid to children in case of minor accidents in school.*

Female teacher, Thika

*I would like to request that primary school teachers be issued with gloves and first aid kits to cater for injuries in school.*

Female teacher, Kiambu

Despite the fear that teachers have of contracting HIV at school, only 3 percent ( $n = 37$ ) were aware of PEP and only eight of these respondents could accurately describe it.

### **Many teachers have gaps in knowledge.**

The survey assessed teachers’ knowledge of HIV and AIDS by asking several questions. The results, presented in Table 2, suggest that although many teachers are informed about certain aspects, improvements could be made, particularly among primary school teachers. For example, less than half were aware that one could be infected with different strains of HIV simultaneously, suggesting that teachers may not be aware of the importance of protection even if one is already infected. The data also suggest that more than half of teachers were not familiar with their options regarding VCT, since they believed that one must be tested for HIV if one accesses VCT services; they did not realize that one can simply get counseling and choose to take the test at a later date or not at all.

Teachers’ understanding about the effectiveness of condoms in preventing HIV infection was also limited. The survey results showed that only 61 percent of the teachers agreed with the statement that “condoms are effective against HIV.” Females were less likely to report confidence in condoms than males (58 percent vs. 64 percent;  $p = 0.02$ ) Comments made during FGDs highlight teachers’ concerns about condom effectiveness.

*I once read that condoms have microscopic pores that pass out the HIV virus. Yet it is still publicly insisted that the condom is a safeguard. How true or false is this?*

Female teacher, Kwale

*I feel it's not good to encourage people to use condoms because this promotes prostitution and spread of AIDS. These condoms are not safe.*

Male teacher, Kilifi

**Table 2 Teachers' knowledge about HIV/AIDS: Percent who answered correctly**

	School		Sex		All n = 1,255
	1° n = 800	2° n = 455	Male n = 623	Female n = 632	
HIV and AIDS are the same thing (false).	69*	84*	79*	71*	75
If an HIV+ mother gets pregnant, the chances of infecting her baby are 100% (false).	67*	84*	73	75	74
More women in Kenya are infected with HIV than men (true).	59*	70*	61*	66*	64
If one goes for VCT, one must take the HIV test (false).	46*	65*	56	50	53
One can be infected with different types of HIV at the same time (true).	43*	57*	50	47	49
There is now a cure for AIDS (false).	72	76	74	73	73
STIs increase the risk of HIV (true).	93	95	94	94	94
Condoms are effective in preventing HIV if used properly (agree).	59	64	64*	58*	61

Note: 1° = primary; 2° = secondary

For the first 7 items, options were "true", "false," or "don't know". For the last item, options were "agree", "disagree," or "don't know".

\*Differences by sex or by school level statistically significant ( $p < 0.05$ )

### **Although most teachers are supportive of children living with HIV, a sizable number have stigmatizing attitudes toward others who are infected.**

Teachers were generally empathetic toward children living with HIV; the vast majority (93 percent) felt that an HIV-positive student who was otherwise well should be allowed to attend school and over half (59 percent) would allow their children to attend school with an HIV-positive child without conditions.

However, a sizable proportion of respondents, especially females, harbored stigmatizing attitudes toward people living with HIV. For example, 33 percent and 22 percent of female and male teachers, respectively, would not eat food prepared by a person whom they knew was HIV-positive. Thirty-eight percent of female teachers and 28 percent of male teachers are "afraid" or "very afraid" of HIV-positive people. And 32 percent of female teachers and 28 percent of male teachers would not buy items from a shopkeeper who was HIV-positive.

About a fourth of male and female teachers felt that people living with HIV should be identified publicly "so that others can avoid them." Teachers in primary schools were more likely to harbor this sentiment compared

to those in secondary schools (30 percent vs. 19 percent;  $p < 0.001$ ). Comments from FGD participants illustrate strong opinions felt by some teachers.

*Infected people must have a label put on them to put a halt to the spread of this killer disease.*

Male teacher, Kiambu

*AIDS victims should be publicized so that their status can be known and avoided for sexual partnership.*

Male teacher, Kwale

### **Teachers lack trust in school management for maintaining confidentiality and safeguarding their jobs.**

Over three quarters (77 percent) of respondents did not feel certain that the school management could keep HIV matters about teachers confidential. Females were more likely to distrust the school management than males (82 percent vs. 73 percent;  $p < 0.001$ ). This discomfort extended to other teachers as well; 55 percent would be only “somewhat comfortable” or “not comfortable at all” in sharing information on their HIV-positive status with fellow teachers. When asked what they thought would happen to their jobs if they were found to be HIV-positive, 41 percent felt that they would either be fired or if retained, discriminated against. Only a third felt that “nothing would happen” and a quarter were uncertain of what would happen. These sentiments were similar for males and females, and for primary and secondary school teachers.

Less than half (41 percent) of the teachers had heard of the Education Sector Policy on HIV/AIDS that was launched by the government in September 2004. This policy provides guidance for HIV prevention, care, and support programs and states that all employees “living with HIV and AIDS will not be discriminated against in access to or continued employment, training, promotion or employee benefits on the basis of their HIV status...” (p. 24). Secondary school teachers were more likely to have heard of the policy compared to their primary school counterparts (50 percent vs. 36 percent;  $p < 0.001$ ). But only 26 percent of those who had heard of the policy had actually seen it. Since the policy had only been launched the month before the survey, the low level of exposure to it by the teachers was anticipated.

### **Most teachers have not been tested for HIV and many do not wish to be tested.**

Although nearly all (90 percent) of the teachers knew where to get tested for HIV, only 25 percent of the sample had been tested. The proportion who had been tested was similar for males and females. Primary school teachers were less likely to have ever been tested than their secondary school counterparts (19 percent vs. 34 percent;  $p < 0.05$ ).

Of those who had not been tested, only a third (34 percent) desired to be tested; the remainder did not wish to be tested or had not made up their minds. Never-tested primary school teachers were less likely to express interest in testing than their secondary school counterparts (34 percent vs. 40 percent;  $p = 0.01$ ).

Those who had not tested for HIV were asked to give a reason why they had not been tested. About 37 percent said “no reason,” i.e., they said they had no explanation as to why they had not been tested. About a third (31 percent) felt they were not at risk of HIV, a fifth (19 percent) were not interested in knowing their status, and 13 percent said that they were afraid of the results.

All respondents, regardless of their testing status, were asked whether they were afraid of the HIV test. The results show that over half (51 percent) said they were “very afraid.” Similar proportions of males and females were afraid of the test. Comments from the FGDs shed light on the reasons for this fear and the extent to which respondents would go to avoid the HIV test.

*...some people say that these people who are tested and are positive, they die quickly because of stress*  
Male teacher, Kiambu

*Even now, I do not want to go. I would prefer to stay ignorant for now.*  
Male teacher, Kiambu

Another reason cited for not testing was inconsistent test results.

*...when a person goes to this VCT and finds he is positive and when he goes to another he finds he is negative, i.e. different result. What happens? That makes people lose interest [in] VCT.*  
Male teacher, Kilifi

Some teachers wanted to find out if it was possible to avoid the test and still know one's status.

*How can someone remove suspicion about HIV/AIDS without taking a test?*  
Female teacher, Thika

*How can expectant mothers protect their newborn babies from getting infected without necessarily [the mother] getting tested for HIV?*  
Female teacher, Thika

Teachers' responses suggest that some might be more responsive to testing if their fears were addressed and questions answered.

*I would suggest that the ones organizing this [research] help people who are afraid of testing HIV-positive like me. That is, come up with a way to help them accept their results without much panic, which can even cause immediate death.*  
Female teacher, Kiambu

*I do not know how many times I should go for a test. Is it every time before or after sex with my wife?*  
Male teacher, Kiambu

*I would like to take a test with my husband but he may refuse. What will I do?*  
Female teacher, Kiambu

Teacher's knowledge of the HIV status of their sexual partners is low. Of those with a sexual partner, only 24 percent said their partner had been tested; the remaining 76 percent said their partner had either not been tested or they were not sure. Thus over three-quarters of teachers are sexually active with a partner whose HIV status they did not know.

### **Most teachers with multiple partners are having unprotected sex.**

Eighty-two percent of teachers had been sexually active in the preceding 12 months. Of these, 12 percent reported having had more than one partner (18 percent of males and 6 percent of females;  $p < 0.001$ ). However, despite the questionnaire being confidential and anonymous, 21 percent of respondents declined to answer the question about multiple partners.

When asked about condom use, only 13 percent of teachers with multiple partners said they used condoms "with these partners all the time." Males with multiple partners were less likely to use condoms "all the time" than their female counterparts (10 percent vs. 21 percent;  $p = 0.04$ ).

## Conclusions and Recommendations

This study was motivated by concerns that teachers are an important national resource yet have been overlooked by workplace HIV and AIDS programs. Study findings show that teachers are in need of teacher-centered programs that provide education and services related to HIV prevention, care and support, and stigma reduction.

Although well educated, many teachers are confused or uninformed about important aspects of HIV prevention. For example, many teachers are uncertain about the effectiveness of condoms in protecting against HIV infection. This means that they are not likely to advocate for their use despite the existence of a generalized HIV epidemic in Kenya. There is also a particular lack of awareness about re-infection and infection with multiple strains, which means that teachers who are already infected may be unaware that continued high-risk practices could expose them to additional infections. Because so many teachers are caring or have cared for infected loved ones, they also need information on antiretroviral therapy, palliative care, management of opportunistic infections, positive living, and available care and support resources. Accurate information about HIV and AIDS is particularly important since teachers are often sources of information for the community, and attend numerous fora where they can share information with members of the public.


The survey documented that many teachers are concerned about contracting HIV in the workplace. This is likely because of the need to handle emergencies, such as sports injuries or laboratory accidents, where there is a likelihood of contact with body fluids. Primary school teachers were particularly anxious about this, in part because they work with younger children who are more dependent on adult care than secondary school students. Therefore, teachers need to be educated about modes of HIV transmission so that they can know how to assess a situation and respond appropriately without causing undue alarm. Information about HIV transmission may also be helpful in reducing teachers' stigmatizing attitudes toward people living with HIV that center around fear of contagion. Teachers also need to be educated on how to handle emergencies in the school setting to minimize their chances of getting infected.

The Education Sector Policy on AIDS recognizes teachers' potential risk of infection and states that "an education sector employee who accidentally contracts HIV in the course and scope of his/her employment will be entitled to immediate post-exposure prophylaxis and follow-up in the form of compensation according to the prevailing law" (p. 31). Annexure C of the policy provides extensive information for schools regarding infection control and how to handle potentially contaminated products such as blood. It recommends the availability of first aid kits and provides details on what the contents should be (p. 42–45). If successfully implemented, this policy will go a long way in allaying teachers' fears and empowering them so that they can play their part as confident role models in the school, and be a source of reassurance, not panic and prejudice.

The study results indicate a significant level of distrust of school management in maintaining privacy on HIV-related matters. There is also uncertainty regarding the rights of teachers if they were infected, and whether they would be summarily dismissed. The new education sector policy should be distributed widely to schools and explained to teachers. Such a move will empower them and inform them about their rights in the workplace related to HIV and AIDS.

Three-fourths of teachers surveyed have not been tested and many are afraid of knowing the results. Programs need to inform teachers that the majority of Kenyans are not infected with HIV, and to emphasize the benefits of early testing so that one can access care and treatment, which is now available and affordable. Making HIV testing available to teachers through mobile VCT services could be an important motivator. These services could be deployed near schools, or at sites where teachers attend trainings, seminars, and other activities.

## Ongoing Activities

The Horizons operations research project mentioned earlier is already under way in 120 schools. Named “Teachers Matter,” the project revolves around a self-directed workplace manual developed by UNICEF<sup>1</sup>. Horizons has prepared a series of brochures and other behavior change education materials specifically for teachers that address various topics such as HIV prevention; management of STIs and HIV, including opportunistic infections; care and support; and condom use. Program staff have distributed copies of the workplace policy and trained peer educators in each school to reach fellow teachers. The program is addressing four major areas: prevention, HIV status awareness, stigma, and care and support. Mobile VCT services have been made available during peer educator training, and a third of the 111 training participants underwent testing for the first time. The intervention started in April 2006 and will be ongoing for about a year, after which a follow-up survey will be undertaken in the intervention schools and in a similar number of comparison schools. The successful elements of the intervention will be replicated in the comparison schools after analysis of the follow-up survey data. 

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<sup>1</sup>This manual benefited from a similar one being used by the Kenya Girl Guides Association to train Guide Leaders.

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