HIV TESTING AMONG YOUTH ATTENDING SECONDARY SCHOOL IN KENYA: A MULTI-LEVEL ANALYSIS

OBJECTIVE
The policy framework that guides Kenya’s response to the AIDS pandemic identifies voluntary counseling and testing as crucial to risk reduction and HIV preventive activities among Kenyans. Yet, like most sub-Saharan countries, voluntary testing especially among young people in Kenya is low. Using hierarchical linear models, we identify both individual and teacher/school level factors that affect voluntary HIV testing among young people attending secondary schools in Kenya.

BACKGROUND
While differences exist between regions and various demographic groups, recent estimates of the overall HIV prevalence (6.3%) in Kenya indicate the epidemic has stabilized in the past few years (NASCOP, 2008; UNGASS, 2010). The contributions of safer sexual behaviors (sexual abstinence, condom use and reductions in sexual partners) to the recent declines and stability of the pandemic in Kenya have been widely acknowledged (see Cheluget et al. 2006; Muula, 2010; Hallet et al. 2006; Kirby, 2008). In the more recent years, testing has become very crucial in reducing the risks of HIV infection, and even in the case of an infection, counseling patients on how to live healthily with the disease including providing anti-retroviral treatment (ART). There is also evidence that knowledge gained on one’s HIV serostatus as a result of testing could elicit sexual behavioral change (see Bunnell et al. 2006; Allen et al. 2003; Cribier et al. 1996; Wong et al. 2009). In their ‘National Guidelines for HIV testing and counseling’, the Kenyan Ministry of Public Health and Sanitation described HIV testing as ‘the main entry point to prevention, care and treatment’ (NASCOP, 2008: V) and has since been working vigorously towards achieving universal access, part of which includes ensuring that about 80% of Kenyans know their status by 2010 (NASCOP, 2008). In line with achieving universal access, the Kenyan government has expanded the methods of testing from what used to be primarily client-based models to a wide array of approaches such as the mobile ‘moonlight’ and door-to-door testing.

While government’s efforts to increase access to HIV testing in Kenya continue to yield positive results, some challenges exist. For instance, many young Kenyans cite stigma, confidentiality and inaccuracy of test results, and the testing process itself as barriers to HIV testing and counseling (McCauley, 2004; Kabiru et al. 2010; NASCOP, 2008). Also, proximity to testing facilities continues to be a major challenge especially for youth in remote areas of the country who are interested in knowing their sero-status. Negin et al. (2009) reported that about 46% of young Kenyans who wanted to get tested could not do so due to lack of proximity to a testing facility. The factors that determine HIV testing among youth in sub-Saharan Africa and Kenya in particular are complex and go beyond those identified at the individual level. Yet, to date, very few studies, if any, have considered and examined structural factors that affect HIV testing among young people in Kenya. Using hierarchical linear models, this study contributes to existing knowledge by examining both individual and teacher/school level factors that determine HIV testing among young boys and girls attending secondary schools in Kenya.

DATA AND METHODS
In December 2005 and January 2006, all form 1-3 students (equivalent to North American grades 9-11) in 154 secondary schools in 5 of Kenya’s 8 provinces1 were invited to complete questionnaires. Schools were selected using stratified random sampling to insure proportional representation from each province. Questionnaires were completed by 14,195 students attending the selected secondary schools in the

1 North Eastern province was not included for security reasons and Nyanza and Western provinces were excluded because there were multiple HIV/AIDS programmes being delivered by diverse non-government organizations in the primary and secondary schools in these regions, so the Ministry of Education decided to concentrate on provinces that were underserved by prevention programming.
Central, Coast, Eastern, Nairobi and Rift Valley provinces. Students completed surveys in English, in gender-segregated groups under the supervision of research staff from Steadman Research Services Incorporated. In each surveyed school, the head teacher and teachers tasked with guiding and counseling students also completed survey.

We used binary logit models given the dichotomous nature of the dependent variable. Logit models and other standard regression techniques are built under the assumption of independence of subjects, but the data used here are hierarchical in nature (pupils nested within teachers and schools). The use of multi level modeling not only corrects the methodological problem of clustering resulting from the hierarchical nature of the data, but also allows us to partition the variance and covariance of the data at both individual and school/teacher levels (see Raudenbush and Bryk, 2002; Tenkorang et al. 2011; Maticka-Tyndale and Tenkorang, 2010).

SIGNIFICANCE OF FINDINGS

The importance of voluntary testing to HIV prevention among youth is underscored by researchers and remains a priority for policy makers in sub-Saharan Africa. This notwithstanding, HIV testing remains low in most sub-Saharan Africa countries, including Kenya (see Luseno & Wechsberg, 2009; Tenkorang and Owusu, 2010; Grabbe et al. 2010; Kabiru et al. 2011). Past studies have attempted identifying factors that influence HIV testing among young people, most of these have however, focused solely on individual-level factors (see Kabiru et al. 2010; Kabiru et al. 2011; MacPhail et al. 2009; Venkatesh et al. 2011; Tolou-Shams et al. 2007). We fill an important research gap with this paper by examining both individual- and structural (school-level factors) that affect HIV testing among young people in Kenya. Arguing that schools are a location where the largest proportion of youth can be reached, Gallant and Maticka-Tyndale (2004) underscored the relevance of school-based programs in reducing risky sexual behaviors and promoting HIV preventive activities in sub-Saharan Africa. Results from the null model (not shown) indicate that school-level factors are relevant to explaining HIV testing among young men and women attending secondary schools in Kenya. In particular, young women in schools where teachers had counseling certificates recognized by the Ministry of Education (MoE) were more likely to test for their HIV serostatus. Similarly, young women in schools with more HIV activities outside of class were more likely to test for their HIV status. These findings underscore the centrality of schools and teachers to delivering messages related to HIV prevention in Kenya. It provides evidence for equipping teachers with the relevant skills and expertise, and schools with the needed resources to deliver HIV/AIDS messages effectively.

The finding has important policy implications including directing HIV intervention programs not only at the individual but also school levels. This recommendation is in line with calls from research that emphasize both individual and structural factors in addressing HIV risks in sub-Saharan Africa (see Harrison et al. 2010; Maticka-Tyndale and Tenkorang, 2010; Tenkorang et al. 2011). A counter-intuitive finding however, is that young women in schools where teachers reported having addressed the importance of going for STD testing/and or treatment were less likely to test for HIV. We are unable to provide an explanation for this finding which clearly requires further investigation.

Recommendations

This study identified individual and school-level factors associated with HIV testing among a large sample of secondary school students in Kenya. Based on these results, we recommend that attention be given to providing HIV programming in secondary schools that contributes to realistic perceptions of personal risk; improved knowledge not only about HIV transmission and prevention but specifically about the importance and role of HIV testing in prevention, care and treatment. In addition, it is important to improve the resourcing of schools, ensuring that teachers tasked with providing student counseling are trained and certified to do so and that schools are provided with specific resources related to teaching about HIV and AIDS.
REFERENCES


