

In Burkina Faso, a Sharp Decline in HIV Prevalence Coincides with a Shift Toward Safer Sexual Behaviors

HIV prevalence in Burkina Faso has declined sharply in recent decades in tandem with a shift toward safer sexual practices, finds an analysis of data from antenatal care surveillance and population-based surveys.¹ The proportion of pregnant women aged 15–49 testing positive for HIV fell by roughly 70% overall between 1998 and 2014, with the greatest reductions seen in younger age-groups; declines were also evident among men, but were more marked in older age-groups. In addition, there was an increase in the proportion of never-married 15–24-year-olds who delayed sexual debut and a decrease in the share having multiple sexual partners in the past year, as well as an uptick in condom use at last sex with nonmarital, noncohabiting partners among 15–49-year-olds with such partners.

Investigators analyzed data on HIV prevalence from nine antenatal care surveillance sites in Burkina Faso that were consistently included in surveillance between 1998 and 2014 (totaling 2,010–3,129 pregnant women aged 15–49 per year). In addition, they analyzed data on HIV prevalence and sexual behaviors from three population-based Demographic and Health Surveys (DHS) conducted in 1998–1999, 2003 and 2010, mainly among men and women aged 15–49. With the DHS data, the researchers assessed five sexual behavior indicators (sexual inexperience among never-married youth; multiple partners in the past year among sexually active youth; sex with a nonmarital, noncohabiting partner among all sexually active respondents; condom use at last sex with a nonmarital, noncohabiting partner among all sexually active respondents with such partners; and sexual debut before age 15 among youth) and two general HIV-related indicators among youth (ever having been tested for the virus and knowledge of a formal source of condoms). They calculated survey-specific HIV prevalence, and used chi-square tests to compare HIV prevalence across survey years and to ascertain trends in sexual behaviors.

Results of analyses of the antenatal care surveillance data indicated that the proportion of pregnant women aged 15–49 testing positive for HIV fell dramatically in Burkina Faso between 1998 and 2014, by 72% in urban areas (from 7% to 2%) and by 75% in rural areas (from 2% to less than 1%). The greatest reductions during 2007–2014 (the years when age-specific data were available) occurred among younger women: some 55% among 15–19-year-olds, 72% among 20–24-year-olds and 40% among 25–29-year-olds, compared with just 7% among those aged 30 years or older.

Analyses of the DHS data showed a similar pattern among women between 2003 and 2010: HIV prevalence fell by 89% among women aged 15–19 (from 1% to nearly zero), by 78% among those aged 20–24 (from 2% to less than 1%) and by 52% among those aged 25–29 (from 3% to 1%), with minimal change among those aged 30 or older. However, the pattern among men was somewhat different, as reductions were more marked in older age-groups: For example, HIV prevalence fell by 43% among men aged 15–19 (from 1% to less than 1%), but by 82% among those aged 25–29 (from 3% to less than 1%).

During the same period, the proportion of youth reporting never having had sex increased. Among 15–19-year-olds, this proportion rose for both females (from 76% to 82%) and males (from 74% to 82%); however, among 20–24-year-olds, it rose for women (from 33% to 40%), but remained unchanged for men (33–34%). In addition, sexual debut before age 15 fell among 15–24-year-olds between 1998–1999 and 2010. The percentage initiating sex before this age dropped from 11% to 9% among women and from 8% to 2% among men.

Between 1998–1999 and 2010, the share of sexually active females who had had more than one sexual partner in the past year declined substantially among 15–19-year-olds (from 8% to 2%), and somewhat less so among 20–24-year-olds (from 2% to 1%). Similar declines were seen among young

men, from 44% to 13% among those aged 15–19, and from 36% to 17% among those aged 20–24. The proportion of sexually active women aged 15–49 who reported having had sex with a nonmarital, noncohabiting partner in the last year was low (approximately 8% overall) in both surveys; this behavior was reported by roughly 30% of women aged 15–19, 10% of those aged 20–24 and 3% of those aged 25–49. On the other hand, sex with a nonmarital partner was nearly universal among sexually active males aged 15–19 (94% at both time points); the behavior declined among men aged 20–24 (from 74% to 66%) and those aged 25–49 (from 20% to 17%). Among all 15–49-year-olds who had had sex with a nonmarital partner in the past year, use of a condom at last intercourse with such a partner increased among both women (from 39% to 59%) and men (from 57% to 74%); sizable increases were seen among both female youth (from 39% to 53%) and male youth (from 45% to 68%).

Dramatic increases were seen in HIV testing rates among men aged 15–49 between 2003 and 2010, on the order of 64–67% across age-groups; by the end of that period, about one in 10 teenaged men and one in four older men had been tested at some time in their lives. Similarly, approximately one in four women aged 15–24 had ever undergone HIV testing in 2010 (the measure was not assessed among female respondents in 2003.) During the same period, knowledge of a formal source of condoms increased among 15–19-year-olds; the proportion who knew of a source rose from 44% to 73% among females and from 63% to 85% among males. There were also sizable gains among 20–24-year-old women (from 50% to 80%) and men (from 83% to 97%).

Study limitations included the potential influence of desirability bias on the reporting of risk behaviors, the fact that pregnant women differ from the general population, and the possibility that the DHS data may have been affected by nonresponse or exclusion of individuals at highest risk, the

investigators acknowledge. Nonetheless, they maintain that the temporal patterns observed suggest that initiatives in Burkina Faso to reduce HIV risk behaviors—using approaches such as national media campaigns and school- and work-based activities—may be having the intended impact and, thereby, helping to

reduce viral transmission. “Results were particularly encouraging among young women; stronger interventions targeting young men are needed to reinforce the control of the HIV epidemic in Burkina Faso,” the investigators conclude.—*S. London*

REFERENCE

I. Kirakoya-Samadoulougou F et al., Declining HIV prevalence in parallel with safer sex behaviors in Burkina Faso: evidence from surveillance and population-based surveys, *Global Health: Science and Practice*, 2016, 4(2):326–335.