

2017

Rates of HIV and HSV-2 among young people in Machinga, Malawi

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Recommended Citation

Mensch, Barbara and Erica Soler-Hampejsek. 2017. "Rates of HIV and HSV-2 among young people in Machinga, Malawi," Project SOAR Results Brief. Washington, DC: Population Council.

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Rates of HIV and HSV-2 among Young People in Machinga, Malawi

The DREAMS (Determined, Resilient, Empowered AIDS-free, Mentored, and Safe) partnership aims to significantly reduce new HIV infections in adolescent girls and young women (AGYW) in Malawi and other sub-Saharan African countries. DREAMS is delivering, through local and international partners, a package of evidence-based interventions that go beyond the health sector, addressing the structural drivers that fuel AGYW's HIV risk. However, in order to have the greatest impact on the HIV epidemic, DREAMS needs to reach the most-at risk AGYW.

To better understand the epidemiological context for the DREAMS programming, Project SOAR analyzed previously collected quantitative cohort data from the Population Council's Malawi Schooling and Adolescent study (MSAS) to identify the prevalence and incidence of HIV and HSV-2 (herpes simplex virus, commonly referred to as genital herpes). SOAR's analysis provides a deeper understanding of the changing epidemiological and gendered context of the HIV epidemic in Machinga.

Understanding the changing HIV epidemic among young people

- Examining prevalence and incidence data together can provide information on both the burden of the epidemic and the risk of infection in a certain population.
- Most studies examining HIV infection among young people in sub-Saharan Africa are based on cross-sectional data, and are therefore unable to assess HIV incidence.
- The youth cohort data from the MSAS provides accurate estimates of HIV prevalence over time and HIV incidence, thereby filling important data gaps.

Why look at HSV-2?

- HSV-2, which is almost always sexually transmitted, is considered a reliable marker of sexual behavior among youth, who often underreport sexual activity.
- HSV-2 co-infection increases the risk of HIV transmission to uninfected partners
- HSV-2 is a cause of neonatal morbidity and mortality due to exposure in the genital tract during childbirth.

WHAT IS THE MSAS?

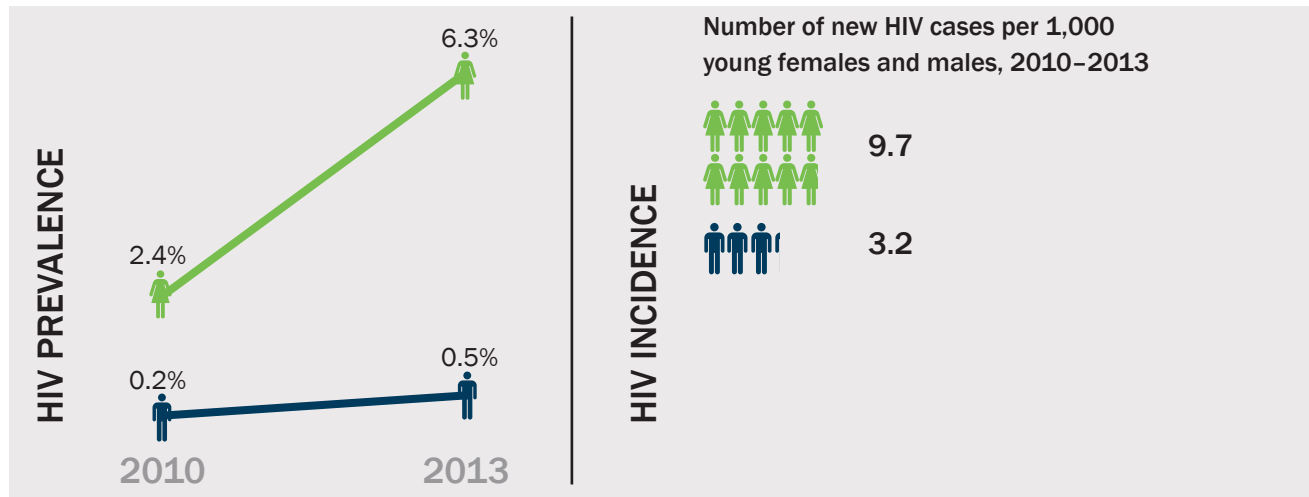
MSAS is a six-round longitudinal survey of 2,649 female and male adolescents that began in 2007 when respondents were aged 14–17.¹ The study re-interviewed the original sample at one to two year intervals from 2008 to 2013. The MSAS survey includes questions on household and family characteristics, educational attainment, schooling history and experiences, household labor and employment, health, marriage, and sexual behavior. SOAR analyzed data from Round 4 (2010), when respondents were aged 17–20 and began being tested for HIV and HSV-2², Round 5 (2011), and Round 6 (2013).

¹The data collection reported in this brief was supported by grants from the Eunice Kennedy Shriver National Institute of Child Health and Human Development (R01HD047764 and R01HD062155), and the Spencer Foundation. The content is solely the responsibility of the authors and does not necessarily represent the official views of the funding institutions. For more information about MSAS, please visit popcouncil.org/research/malawi-schooling-and-adolescent-study.

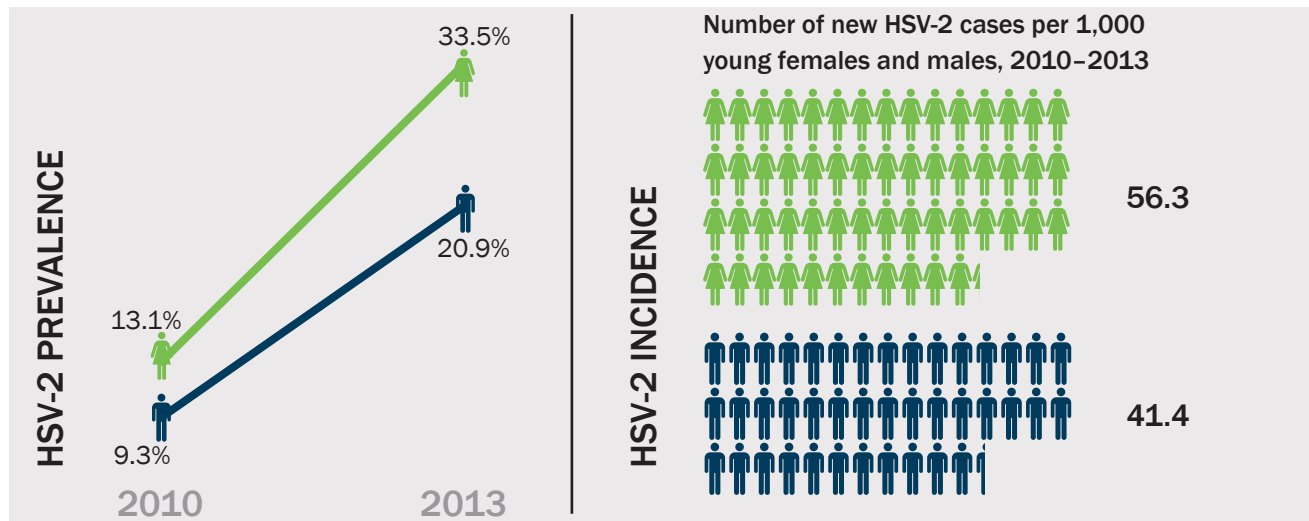
²Both HIV and HSV-2 specimens were collected via finger pricks. A serial algorithm was used for HIV rapid testing. The HSV-2 samples were tested using the Kalon ELISA HSV-2 antibody test.

RESULTS

The prevalence of HIV increased among young people aged 17–23 years. Females were more likely to be living with HIV compared to males. HIV prevalence increased at a significantly higher rate among females, compared to males, over time. HIV incidence was three times higher among females, compared to males in Machinga.



Among males and females in Machinga, there is a significant increase in HSV-2 prevalence over time. By 2013, a third of females and a fifth of males were living with HSV-2. Females had higher HSV-2 incidence than males, although the incidence is quite high for both.



NEXT STEPS

Project SOAR is conducting additional analyses to examine risk characteristics associated with HIV and HSV-2 prevalence and incidence.

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Suggested citation: Mensch, Barbara S., and Erica Soler-Hampejsek. 2017. "Rates of HIV and HSV-2 among young people in Machinga, Malawi," *Project SOAR Results Brief*. Washington, DC: Population Council.