

LETTER/OP-ED

PrEP and condom use: A tale of unintended consequences?

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Last year marked the 4th consecutive record year for new cases of sexually transmitted diseases (STDs) in the United States, with 2.3 million diagnosed cases of chlamydia, gonorrhea, and syphilis.¹ Ohio continues to have one of the highest prevalence of STDs, ranking 14th in reported chlamydia cases and 11th in reported gonorrhea cases in 2016.² Gonorrhea is of particular concern to public health professionals, as the prevalence of antibiotic resistant strains has increased significantly over the last 20 years.³ The mainstays of STD prevention continue to include barrier protection (e.g., latex condoms and dental dams), and yet condom use remains low with only 23.8% of women and 33.7% of men wearing condoms at their last sexual encounter in the past 12 months.⁴ To be fair, persuading people to use condoms has never been easy but the stakes are getting even higher as our treatment options dwindle.

Public health professionals protect the health of the public, which can at times include assessing the inadvertent outcomes of medical progress. One example of an important biomedical breakthrough in the area of human immunodeficiency virus (HIV) prevention is PrEP, short for pre-exposure prophylaxis, which is a daily oral medication used to prevent the acquisition of HIV in high-risk individuals. When taken consistently, PrEP reduces the risk of HIV acquisition by as much as 90%, and is even more effective when used with other prevention methods, such as condoms.⁵

Among men who have sex with men (MSM), the highest-risk population for HIV, reducing the fear of HIV through PrEP has the potential to increase risky sexual behavior, such as condomless sex. In a 2018 systematic review of PrEP use and sexual behavior in MSM, researchers found an increase in self-reported condomless sex among PrEP users in some, but not all, of the studies included for review.⁶ These findings speak to the theory of risk compensation, whereby individuals adjust their behaviors in response to perceived level of risk. As other researchers have also noted, as we continue to take perceived risk of HIV out of the equation we may be losing ground on prevention of other STDs.^{7,8}

Of course we cannot determine why new cases of STDs continue to increase without adequate funding and attention from Congress. Funding for STD prevention programs supported by the Centers for Disease Control and Prevention has decreased 50% over the last 15 years.⁹ We are left dealing with the consequences of an area of public health left underfunded and ignored. The research is not yet clear what effect, if any, PrEP has on condom use and risk compensation, especially for high-risk populations other than MSM, but there is a growing consensus among public health professionals that increased rates of STDs are an unintended

consequence of an important medical innovation.^{6,7,8} Public health professionals, as well as PrEP users, must now decide if the benefit of PrEP, a lifesaving drug, outweighs the costs of acquiring other less harmful STDs, many of which are routinely screened for and easily treated with well-tolerated antibiotics. The cost-benefit ratio is delicate but having access to adequate STD services is an essential step in preventing further morbidity. Ohio's public health community should demand support for STD prevention, screening, and treatment from the state legislature, especially as STDs continue to reach record highs.

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