Among Women, HIV May Often Transmit Through Anal Sex

Reacting to the findings of their mathematical modeling–based study, researchers encouraged women to use condoms for anal and vaginal sex.

October 24, 2016

A considerable proportion of women who contract HIV may do so through anal sex, the National AIDS Treatment Advocacy Project (NATAP) reports.

Researchers conducted a mathematical modeling study based on data from the Centers for Disease Control and Prevention's (CDC) 2010 and 2013 National HIV Behavioral Surveillance surveys. They looked at data on 9,304 women who were at the poverty level or had a high school education or less. The women lived in 20 U.S. cities with a high prevalence of HIV. They reported anal or vaginal sex or both with at least one man over the past year, during which time they did not inject drugs.

Thirty-two percent of the women said they had had anal sex during the past year, a figure ranging from 19 to 60 percent in the cities where the surveys were conducted. Twenty-seven percent of the women said they had had anal intercourse the last time they had sex.

Compared with the women who reported only vaginal sex, those who had anal sex had about a three times greater annual rate of sexual partners, were 50 percent more likely to have had their last sexual experience with a casual partner and were 63 percent less likely to use a condom the last time they had sex.

Using mathematical modeling, the researchers estimated that 38 percent of the HIV infections among the overall group of women transmitted through anal sex. This proportion ranged from 20 percent in Denver to 50 percent in San Juan, Puerto Rico, with the New York City women very close to the high end of this range.

These figures could be affected by various uncertainties, including the number of sex acts women have and the degree to which anal intercourse is more likely to transmit HIV than vaginal sex.

© 2026 Smart + Strong All Rights Reserved.