Modeling Study Predicts PrEP Scale-Up Would Drive Down Gonorrhea

The research is based on the HIV and gonorrhea epidemics in the Netherlands.

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According to a modeling study based on Dutch data, scaling up the use of pre-exposure prophylaxis (PrEP) among men who have sex with men (MSM) at risk for HIV would lead to a dramatic fall in new gonorrhea diagnoses, aidsmap reports. Such an outcome would be driven by the increased rate of testing for sexually transmitted infections (STIs) that tends to occur when men start taking PrEP.

Publishing their findings in the journal AIDS, researchers at the Dutch National Institute for Public Health and the Environment developed a mathematical model based on 2017 data for HIV prevalence (how many people have the virus) and new diagnoses, gonorrhea incidence (the number of people diagnosed annually) and condom use rates among Dutch MSM.

The model considered what the study authors called the base case, in which 75% of Dutch gay and bisexual men who were eligible for PrEP all began taking it in 2018. To be PrEP eligible in the Netherlands, MSM need to have reported at least one casual condomless sex partners within the previous six months; have been diagnosed with rectal or urethral gonorrhea during the previous six months; or have a steady sexual partner who is living with HIV and has a detectable viral load.

If 75% of men fitting this criteria were to go on PrEP, this would amount to about 5.5% of the overall Dutch population of MSM, or about 11,000 people.

The model presumed that men would stop taking PrEP if they stopped meeting any of those criteria and that men who newly met the criteria would go on PrEP.

PrEP would reduce the PrEP-using population's risk of HIV by 86% overall, the model presumed.

The base-case scenario would reduce the number of new HIV infections among Dutch MSM by a projected 61% over 10 years, including a 69% reduction in the 2027 incidence compared with the 2018 incidence.

During this same period, gonorrhea incidence among men starting PrEP would decline by 97%, from 0.782% to 0.023%.

Even if going on PrEP led men to reduce their use of condoms such that the median reported number of condomless sex acts per month increased from 11 to 13, gonorrhea incidence would still decline by 73%, the model projected.

To read the aidsmap article, click here.

To read the study abstract, click here.

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