Improved prevention measures fail to reduce HIV levels in men who have sex with men in England and Wales

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The rate of new HIV infections among men who have sex with men in England and Wales has remained unchanged over the past decade despite an almost four-fold increase in HIV testing, rising treatment coverage, and a 20 percent shortening of time-to-diagnosis, according to new research published Online First in the *Lancet Infectious Diseases*.

"Our findings highlight the limited effect of the national HIV strategy which aimed to reduce transmission by increasing the uptake of HIV testing in STI clinics, and suggest that high antiretroviral treatment (ART) coverage alone may not be enough to halt the spread of HIV among MSM", said lead investigator Daniela De Angelis from the UK Medical Research Council's Biostatistics Unit.

In England and Wales, MSM have the highest prevalence of HIV (9% in London and 3% elsewhere).

De Angelis and colleagues from the UK Medical Research Council's Biostatistics Unit developed a model for HIV incidence that, unlike previous models, allows for the estimation of both rates of infection and diagnosis by combining CD4 counts at diagnosis with information on the natural history of HIV infection. They applied the model to surveillance data on new HIV diagnoses in MSM, to estimate trends in time to diagnosis, rates of new infections and the number of undiagnosed infections among MSM between 2001 and 2010.

Over the decade, the estimated average time-to-diagnosis interval fell from 4 years to 3.2 years. However, the researchers noted no decline in HIV incidence, the number of new infections remaining at around 2300 a year, with little difference in the estimated number of undiagnosed MSM (7370 in 2001 and 7690 in 2010).

These results should be interpreted alongside a substantial increase in HIV testing in sexually transmitted infection clinics (16 000 men in 2001 to 59 300 in 2010), and a rise in ART uptake (from 69% in 2001 to 80% in 2010).

According to De Angelis, the most likely explanation for the continuing high level of HIV transmission in MSM is resurgence in unsafe sexual practices because of treatment optimism and insufficient coverage of HIV testing across the MSM population.

"We suggest that health-care services in England and Wales will need to improve targeting of testing to the most-at-risk groups and to initiate treatment earlier than currently recommended (irrespective of CD4 count), to bring about a drop in HIV incidence", she adds.

Writing in a linked Comment, Reuben Granich a senior advisor for care and treatment at UNAIDS in Geneva says, "the study findings regarding the flatlining HIV incidence, despite increased HIV testing and treatment rates, should be of considerable concern to men who have sex with men, their partners and families, the community, public health authorities, and policy makers."

"[The] call for earlier treatment initiation irrespective of CD4 cell count…is a bold conclusion—the conceptual shift to offering treatment initiation to all those with a positive diagnosis would be a significant innovation. [However], the analysis also clearly shows that increased testing and earlier treatment is no quick and easy solution. Given the

complexity of the epidemic, a comprehensive response including the full range of societal and public health interventions will be necessary to reduce incidence", he adds.

More information: Study online: www.thelancet.com/journals/lan … (12)70341-9/abstract

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