BMJ

BMJ 2012;344:e501 doi: 10.1136/bmj.e501 (Published 7 February 2012)

EDITORIALS

Increased HIV testing in men who have sex with men

The key to building effective HIV prevention strategies

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Health Protection Agency (HPA) data suggest that by the end of 2012 more than 100 000 people will be living with HIV in the United Kingdom.[1] Almost a quarter will be unaware of their infection. This figure may be small compared with countries in sub-Saharan Africa, but for a resource rich country it represents a serious failure in HIV prevention.

Men who have sex with men (MSM) remain the group most at risk of acquiring HIV in the UK, North America, Australasia, and much of western Europe. Annual HIV diagnoses in MSM have doubled over the past decade, with about 3000 new diagnoses in the UK in 2010.[1] One in four of these infections will probably have been acquired recently; and in men under 35 years, this figure is one in three. In London, one in 11 MSM is estimated to be HIV positive.[1]

Although at a population level no single intervention is likely to control HIV, effective prevention strategies should start with HIV testing. A negative test supports individual vigilance to remain uninfected. A positive test result opens up treatment options and enables planning to prevent partners from becoming infected. However, a community based survey of MSM in London in 2008-9 showed that about half had not had an HIV test in the past year, and about one in 10 had never been tested (D Mercey, personal communication, 2011).

Low and infrequent levels of testing have important consequences. People who are unaware of their HIV infection contribute disproportionately to transmission of the virus. A recent US study estimated that the 21% of HIV positive people who were undiagnosed were responsible for 50% of new infections.[2] Once on treatment, people with HIV are likely to be less infectious,[3] but simply being diagnosed HIV positive improves transmission risk behaviour. In San Francisco, unprotected insertive anal intercourse with partners who were HIV negative or of unknown serostatus decreased from 39% before diagnosis to 2% in the four weeks after diagnosis.[4] In London, 76% of gay male seroconverters posed no transmission risk three months after diagnosis.[5]

The effectiveness of antiretroviral drugs means that HIV positive people can now expect near normal life expectancy if diagnosed and treated early.[6] Late diagnosis is the single most preventable factor associated with HIV related death and disease in the UK, with death in the year after diagnosis being 10 times higher in those diagnosed late than in those diagnosed promptly (4.0% *v* 0.4%).[1] HIV treatment promises to be an important public health measure for the prevention of HIV transmission. A large randomised controlled trial showed early initiation of treatment reduced the risk of sexual transmission by 96%.[7] Although few MSM were enrolled in this trial, the results engender optimism that early treatment strategies could underpin future prevention. Importantly, the first trial of pre-exposure prophylaxis in MSM using orally administered antiretroviral drugs has also shown a protective effect.[8]

The above strategies can be successful for MSM only if they regularly test for HIV and thus know what interventions are appropriate for them as individuals. Epidemiological and modelling data suggest that annual testing at the minimum is needed to reduce transmission of HIV.[9-11] MSM who attend sexual health clinics may be at higher risk of acquiring HIV than other MSM, and testing these men more often may have additional benefit. In Glasgow and Edinburgh, HIV testing in a community sample increased from 33.2% in 2005 to 48.3% in 2008 (P<0.001) after testing became routinely offered in sexual health clinics. Among HIV positive men, undiagnosed infection fell from 41.7% in 2005 to 26.3% in 2008 (P<0.08).[12] Robust efforts can therefore produce large changes in the uptake of testing.

The promotion of regular and frequent HIV testing as a means of limiting the transmission of infection is a core component of prevention efforts in the United States. The Centers for Disease Control and Prevention has recommended that routine HIV testing should be performed in all healthcare settings. In the UK, HIV testing has played a smaller part in prevention, but its promotion has been central to recent campaigns. The chief medical officer of England has advocated extension of HIV testing to all healthcare settings, and the UK national guidelines for HIV testing and recent National Institute for Health and Clinical Excellence guidelines are designed to facilitate this.[13 14] The HPA's 2011 report recommends prioritising the implementation of routine universal HIV testing for general medical admissions and new registrants in general practice in

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areas of high HIV prevalence. MSM, as the group most at risk of HIV infection, should consider annual or more frequent testing.[1]

Establishing a culture of frequent HIV testing in distinct (and sometimes hidden) population groups such as MSM will require sustained intervention at multiple levels, and there is little evidence to guide strategies. Social marketing and enhanced community mobilisation should be used to increase opportunities for and awareness of HIV testing among gay men in specific communities. Increased community testing and availability of home sampling kits need to be evaluated for their clinical and cost effectiveness.

The year 2012 marks the beginning of the fourth decade of AIDS in the UK. Increasing the frequency and numbers of MSM tested for HIVcould help improve HIV prevention in the group in which the disease was first recognised.

Competing interests: All authors have completed the ICMJE uniform disclosure form at www.icmje.org/coi_disclosure.pdf (available on request from the corresponding author) and declare: no support from any organisation for the submitted work; FB has received a research grant from Gilead Sciences; no other relationships or activities that could appear to have influenced the submitted work.

Provenance and peer review: Commissioned; not externally peer reviewed.

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Cite this as: *BMJ* 2012;344:e501