

04 HIV INCIDENCE AMONG PEOPLE WHO ATTEND SEXUAL HEALTH CLINICS IN ENGLAND IN 2012: ESTIMATES USING A BIOMARKER FOR RECENT INFECTION

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Introduction In England, 80% of HIV diagnoses are in sexually transmitted infection (STI) clinics. Since 2009, Public Health England offered testing for recent HIV infection.

Aim To estimate HIV incidence among STI clinic attendees in 2012.

Methods The AxSYM avidity assay, modified to determine antibody avidity, was conducted on aliquots of newly diagnosed persons and results linked to the national HIV database. An incident case was defined as avidity <0.8, no antiretroviral treatment or AIDS and viral load ≥ 400 copies/mL at diagnosis. The number of persons tested for HIV was assessed using the Genitourinary Medicine Clinic Activity Dataset. We estimated and adjusted for a 1.9% (95% C.I. 1.0%–3.4%) false recent rate and used 202 days as the mean duration of recent infection to calculate incidence rates.

Results Of 212 STI clinics in England, 150 (71%) submitted specimens for recent infection testing, comprising 3,930 persons newly diagnosed; 50% were MSM. The number of HIV tests/diagnosis was 210 for all clinic attendees, 38 for MSM, 403 for all heterosexuals and 46 for black African heterosexuals. HIV incidence was 0.15% (95% C.I. 0.13–0.18%) for all attendees, 1.22% (95% C.I. 1.07–1.42%) for MSM, 1.41% (95% C.I. 1.21%–1.66%) for MSM in London, 0.03% (95% C.I. 0.02–0.04%) for heterosexuals and 0.13% (0.05–0.22%) for black African heterosexuals.

Discussion/conclusion Testing for recent HIV infection combined with routinely collected clinical data provides robust and timely national estimates of HIV incidence. HIV incidence among MSM and black African heterosexuals attending STI clinics was 40 and nine times higher respectively than among all heterosexuals, and exceeds the WHO-defined elimination threshold of 0.1%.

05 UNDERSTANDING CONTINUING HIGH HIV INCIDENCE: SEXUAL BEHAVIOURAL TRENDS AMONG MSM IN LONDON, 2000–2013

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Introduction HIV incidence among men who have sex with men (MSM) has remained unchanged over the last decade despite increases in HIV testing and antiretroviral (ARV) coverage, suggesting sexual risk behaviours have increased.

Aim To examine trends in sexual behaviours among MSM and potential transmitters and acquirers of HIV.

Methods Ten serial cross-sectional surveys using self-completed questionnaires and HIV antibody testing among MSM in London gay social venues between 2000 and 2013.

Results Of 11,876 MSM, 12.8% (n = 1494) were HIV+ of whom 34% (n = 513) were undiagnosed. The proportion

reporting unprotected anal intercourse (UAI) the previous year increased from 43.2% (513/1187) in 2000 to 52.6% (394/749) in 2013 (p < 0.001); serosorting increased from 21.4% (242/1132) to 32.6% (208/639) (p < 0.001). One in 20 (4.6%, n = 527) were at risk of transmitting HIV (defined as undiagnosed MSM reporting UAI or diagnosed MSM reporting UAI and not exclusively serosorting). Over the period, their median number of UAI partners increased from 2 (IQR1, 10) to 10 (IQR2,20) compared to from 0 (IQR0,1) to 1 (IQR 0,1) among other MSM. One in four (25.4%, 2633/10364) were at risk of acquiring HIV (defined as HIV – MSM reporting ≥ 1 casual UAI partner in the previous year or not exclusively serosorting with any partner type).

Discussion/conclusion Between 2000 and 2013, the proportion of MSM reporting recent UAI increased, as has serosorting. We found a core group of MSM at risk of transmitting or acquiring HIV, the former with increasing UAI partner numbers. This may explain the sustained HIV incidence over the decade.

06 MEASURING THE IMPACT OF SOCIO-ECONOMIC DEPRIVATION ON RATES OF SEXUALLY TRANSMITTED INFECTION (STI) DIAGNOSES AMONG BLACK CARIBBEANS IN ENGLAND

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Background/introduction Surveillance data show high rates of bacterial STIs among people of black and mixed ethnicity and those living in deprived areas.

Aim(s)/objectives To determine whether variations in bacterial STI diagnosis rates across ethnic groups are accounted for by socio-economic deprivation (SED).

Methods Data on STI diagnoses made in genitourinary medicine (GUM) clinics in England in 2013 were obtained through the GUM Clinic Activity Dataset-v2. SED was derived using the Index of Multiple Deprivation (IMD), a measure of area-level deprivation for each Lower Super Output Area of residence. Incidence rate ratios (IRRs) for each STI were derived using Poisson regression, adjusting for IMD.

Results Black Caribbeans and those of 'black other' ethnicity had the highest crude rates (per 100,000 population) of chlamydia (812.5 and 629.8), gonorrhoea (291.0 and 208.0) and syphilis (43.8 and 35.0), respectively, while rates in those of 'white British' ethnicity were 151.1, 36.3, and 5.0, respectively. Relative to 'white British', unadjusted IRRs [95% CI] for black Caribbean and 'black other' ethnicity were 10.67 [9.34–12.19] and 9.91 [8.01–12.25] for syphilis, 8.18 [7.77–8.61] and 5.76 [5.28–6.29] for gonorrhoea and 6.18 [5.99–6.37] and 5.61 [5.34–5.90] for chlamydia. After adjustment for IMD, IRRs decreased to 7.62 [6.65–8.72] and 7.26 [6.17–8.55] for syphilis, 5.77 [5.48–6.08] and 3.92 [3.60–4.28] for gonorrhoea and 4.97 [4.82–5.12] and 4.38 [4.17–4.61] for chlamydia.

Discussion/conclusion SED only partially explains the disparity in STI diagnoses rates observed across ethnic groups. The role of sexual behaviour, attitudes to risk and contextual factors should be explored to inform development of appropriate interventions.