

Deficits in Targeted and Comprehensive STI-Testing For Gay and Bisexual Men in 34 major European cities.

Results from the European MSM Internet Survey (EMIS)

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Background

Sexually transmitted infections (STIs) such as anal/genital warts, syphilis, and genital/rectal gonorrhoeal/chlamydial infections often compromise the health of men who have sex with men (MSM). Rectal bacterial STIs increase the per-contact risk of HIV infection. Early detection of asymptomatic STIs requires regular screening including physical examinations and collection of clinical specimens that allow for the detection of infections at specific sites specific to MSM's sexual practices. Comparable data for STI-testing services and their performance for MSM populations across European countries or cities has not yet been published.

Methods

From June-August 2010, the European MSM Internet Survey (EMIS) recruited 174,209 men from 38 European countries to an anonymous online questionnaire in 25 languages. Questions included STI-knowledge, recency of STI-testing; presence/absence of symptoms; and type of diagnostic approaches employed at last STI test. Multivariable regression models were used to compare the coverage of asymptomatic STI screening behaviour in 34 major cities, controlling for recruitment site, age, self-reported HIV-serostatus, and number of sexual partners. As sexual health care for MSM in most countries is organised locally, we chose cities for comparison.

Results

The proportion of respondents tested for STIs in the last twelve months in the absence of symptoms (i.e. screened for STIs) ranged from 9% in Istanbul to 48% in Amsterdam. At city level, STI-screening showed a near-perfect correlation with STI-knowledge ($R^2=96.6\%$, data not shown), and a substantial correlation with awareness of STI services ($R^2=42.3\%$, Figure 1). Awareness was highest in Copenhagen and English cities, and lowest in Istanbul. At individual level, unawareness was independently associated with an age < 25 (AOR=1.2), being born abroad (AOR=1.3), having no or only few gay friends (AOR=1.3), and being 'in the closet' (AOR=1.3). Having had an HIV test decreased unawareness of STI services by factor 5 (AOR=0.2). Figure 2 shows unadjusted patterns of STI-screening by country.

In all countries and all cities, STI-screening most commonly featured a blood test ("Have you provided blood as part of an STI test in the last 12 months?"), allowing for the detection of e.g. syphilis, or viral hepatitis; while the chance of having anus and penis inspected was rather low in most countries (Figure 5).

The inclusion of anal/penile inspection, or of anal swabbing in STI-screening, was most common for men in London, Amsterdam, Manchester, Dublin, and Stockholm. Compared to London, MSM in 25 cities had an adjusted odds ratio of 0.02-0.18 for anal swabbing (data not shown); and of 0.06-0.25 for anal/penile inspection ($p<0.001$, Figure 4).

At city level, having received an anal swab and having had anus and penis inspected showed an almost perfect correlation ($R^2=95.7\%$, Figure 3), suggesting that STI-testing sites either offer none or both.

Conclusions

This is the first study to compare STI-screening rates, awareness of STI services, STI-knowledge, and STI-testing performance (from the perspective of MSM clients) across Europe. Rectal infections with Chlamydia or Gonococci are typically asymptomatic, and anal/genital warts may remain untreated if inspection of genitals and anus is not part of STI-testing. STI-checks, or even more so sexual health check-ups are incomplete if only a blood test is performed.

Anal/genital warts and rectal infections (Gonorrhoea/Chlamydia) are likely to be profoundly underdiagnosed among MSM in most major European cities. This has implications for the sexual health of MSM, for HIV prevention, and for comparing European surveillance data. There is an urgent need to implement/improve sexual health care tailored to men at risk for STIs.

EMIS community reports, national EMIS reports, a brief overview of 5 UNGASS indicators, as well as academic outputs can be accessed at www.emis-project.eu.

Figure 1: City level analysis. Rates of STI-screening as a function of unawareness about STI-testing services in cities of West Europe, Northwest Europe, Southwest Europe, Central Europe (German-speaking), Central Europe (East), Northeast and East Europe, and Southeast Europe

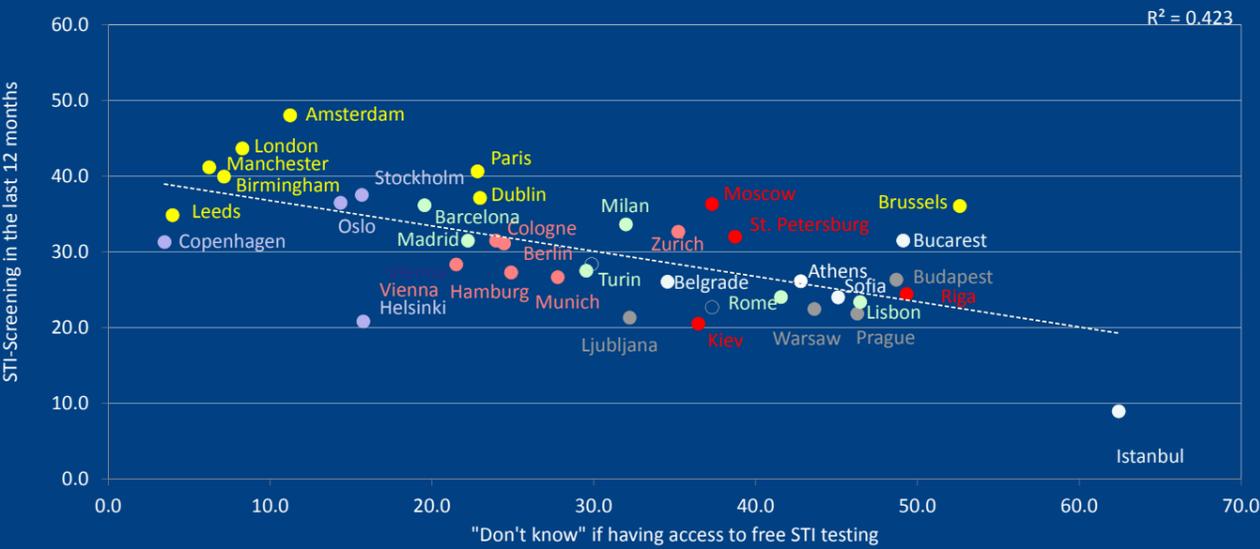


Figure 2: Percentage of EMIS (2010) respondents screened for STIs other than HIV in the last 12 months

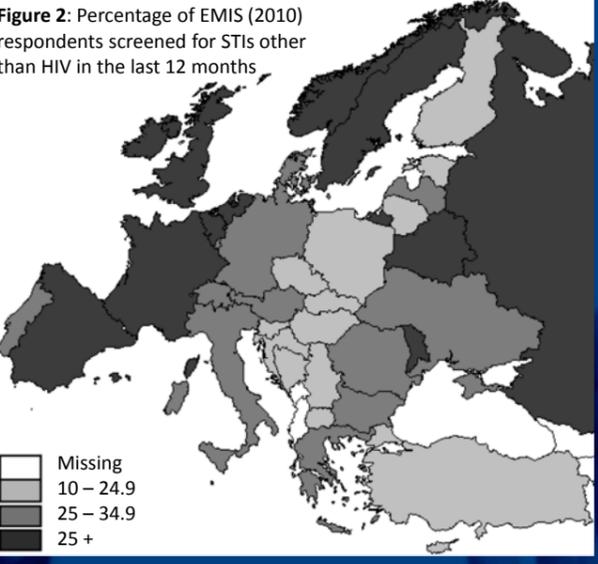


Figure 4: City level analysis. Adjusted Odds Ratio for a physical examination for STIs (inspection of anus and penis), compared to London (Reference). Adjusted for age, HIV diagnosis, and number of sexual partners.



Figure 3: City level analysis. Adjusted Odds Ratio (AOR) for a physical examination for STIs (inspection of anus and penis), vs. AOR for having received an anal swab ("As part of an STI-test in the last 12 months, has something been inserted into the opening of your anus?").

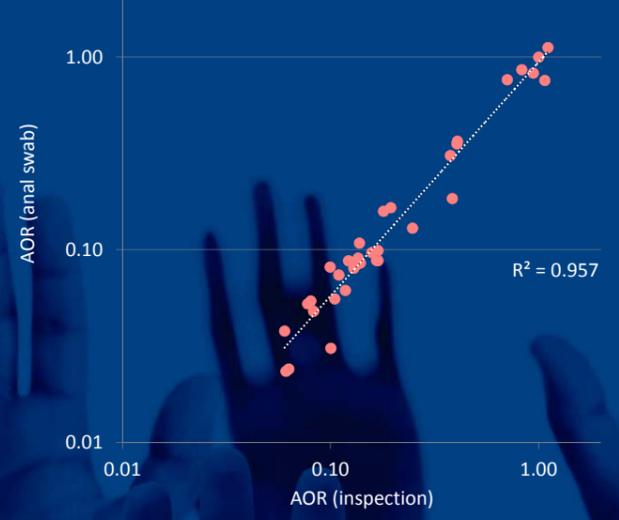
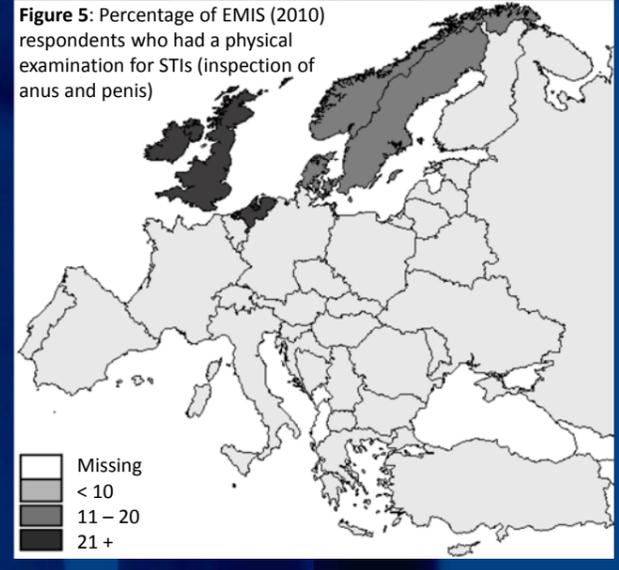


Figure 5: Percentage of EMIS (2010) respondents who had a physical examination for STIs (inspection of anus and penis)



National Collaborating Partners: Austria .at: Aids-Hilfe Wien | Belarus .by: Vstrecha | Belgium .be: Institute of Tropical Medicine; Facultés Universitaires Saint-Louis; Ex Aequo; Sensoa; Arc-en-ciel | Bulgaria .bg: National Centre of Infectious and Parasitic Diseases; Queer Bulgaria Foundation | Cyprus .cy: Research Unit in Behaviour & Social Issues | Czech Republic .cz: Charles University, Institute of Sexology | Croatia .hr: University of Zagreb, Faculty of Humanities & Social Sciences | Denmark .dk: Statens Serum Institut, Department of Epidemiology; stopaids | Estonia .ee: National Institute for Health Development | Finland .fi: University of Tampere, Department of Nursing Science; Finnish AIDS council | France .fr: Institut de veille sanitaire (InVS); AIDES; Act UP Paris; Sida Info Service; Le kiosque; The Warning | Germany .de: Berlin Social Science Research Center (WZB); Deutsche AIDS-Hilfe (DAH); Federal Centre for Health Education, Cologne (BZgA) | Greece .gr: Positive Voice | Hungary .hu: Hungarian Civil Liberties Union; Háttér | Ireland .ie: Gay Men's Health Service, Health Services Executive | Italy .it: University of Bologna; Italian Lesbian and Gay Association (Arcigay); Istituto Superiore di Sanità (National AIDS Unit) | Latvia .lv: The Infectiology Centre of Latvia; Mozaika | Lithuania .lt: Center for Communicable Diseases and AIDS | Luxembourg .lu: Centre de Recherche Public de la Santé | Macedonia .mk: Equality for Gays and Lesbians (EGAL) | Malta .mt: Public Health Regulation Department, Ministry for Social Policy | Moldova .md: GenderDoc-M | Netherlands .nl: schorer | Norway .no: Norwegian Knowledge Centre for the Health Services; The Norwegian Institute of Public Health | Poland .pl: National AIDS Centre; Lamda Warszawa | Portugal .pt: GAT Portugal; University of Porto, Inst. of Hygiene and Tropical Medicine | Romania .ro: PSI Romania | Russia .ru: PSI Russia; La Sky | Serbia .rs: Safe Pulse of Youth (SPY) | Slovakia .sk: OZ Odyseus | Slovenia .si: National Institute of Public Health; ŠKUC-Magnus; Legebitra; DIH | Spain .es: National Centre of Epidemiology; stopaida | Ministerio de Sanidad, Política Social e Igualdad | Sweden .se: Malmö University, Health and Society; RFSL; National Board of Health and Welfare | Switzerland .ch: Institut universitaire de médecine sociale et préventive; Aids-Hilfe Schweiz | Turkey .tr: Turkish Public Health Association; Siyah Pembe Üçgen İzmir; KAOS-GL; Istanbul-LGBT | Ukraine .ua: Gay Alliance; Nash Mir; LIGA; National Center London; NAM; Trade Sexual Health; Yorkshire MESMAC | International Partners: PlanetRomeo.com; Manhunt and Manhunt Cares; Qguys.ru | International Gay and Lesbian Organization (ILGA) | European AIDS Treatment Group (EATG) | Advisory Partners: Executive Agency for Health and Consumer Protection (EAHC); European Centre for Disease Prevention and Control (ECDC); World Health Organization, Europe (WHO Europe) | Project Funding: EU Health Programme 2008-2013 (2009-2011); CEISCat (2009-2012); Terrence Higgins Trust (CHAPS) /Dept. of Health for England (2009-2012); Maastricht University (2009-2012); Regione del Veneto (2009-2012); Robert Koch Institute (2009-2012); BzGA (Bundeszentrale für gesundheitl. Aufklärung, Köln: 2010-2011); German Ministry of Health (2010); Finnish Ministry of Health (2010); Norwegian Institute of Public Health (2010-2011); Swedish Board of Health and Welfare (2010-2011).