Public Health England

Protecting and improving the nation's health

Inequalities in sexual health: Update on HIV and STIs in men who have sex with men in London

February 2016

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. PHE is an operationally autonomous executive agency of the Department of Health.

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Contents

Summary

Compared to the rest of the United Kingdom (UK), London has a higher proportion of men who have sex with men (MSM) and they experience substantial inequalities in sexual health. This report provides a brief update to a previously published report.[1]

Sexually transmitted infections

Despite representing less than an estimated 2% of the London adult population (3.8% of the adult male population),[2] MSM constituted 28% of all London residents diagnosed with a new sexually transmitted infection (STI) in sexual health clinics in 2014.[3]

- the burden of syphilis and gonorrhoea is particularly high among MSM. The sustained transmission of these infections indicates high levels of risky sexual behaviour. In 2014, 90% and 69%, respectively, of all cases in London were diagnosed in MSM[3]
- MSM have much higher re-infection rates of gonorrhoea than heterosexuals[1]
- in recent years there have been large increases in the numbers of syphilis and gonococcal infections in MSM. Between 2010 and 2014 the number of gonorrhoea diagnoses in MSM increased three fold (320% rise) to 10,781 and there was a near doubling in syphilis diagnoses to 2,049 (180% rise).[3] For gonorrhoea, this is likely to be partly due to increased testing and improvements in diagnosis, including testing at extra genital sites, and the use of more sensitive tests
- antimicrobial resistance in gonorrhoea is also a concern, and is a greater problem among MSM compared to heterosexuals[4]
- large numbers of cases of lymphogranuloma venereum (LGV) in MSM continue to be reported[5]

HIV

Approximately 1 in 11 MSM aged 15 to 44 years in London are living with HIV (diagnosed and undiagnosed).[6] The number of MSM living with diagnosed HIV in London has increased by 68% over the past 10 years to 17,572 in 2014, partly a result of much improved life expectancy due to effective treatment.[7]

- over 63% of new diagnoses of HIV in London are among MSM[8]
- there is evidence of sustained transmission of HIV among MSM in the UK[9]
- the numbers of new HIV diagnoses in London are increasing, with the 1,586 diagnosed in 2014 representing a 31% rise since 2005[8]
- 25% of MSM in London are diagnosed late (2012 to 2014)[10]

- an estimated 2,400 MSM in London are undiagnosed (Credible Interval (CrI) 800-5,800) with the undiagnosed prevalence of HIV among MSM aged 15 to 44 years estimated to be 13.3 per 1,000 in London (CrI 4.1-35.2)[6]
- failure to prevent the 938 UK acquired infections in MSM diagnosed in London in 2014 has cost the health service an estimated £300 million in future direct health care costs

Other infections transmitted through sexual activity

In the past decade other infections that can be transmitted through sexual activity have emerged as of particular concern in MSM:

- *Shigella* infections, due to faecal-orally spread bacteria, are now endemic in MSM in London with an estimated excess of 275 cases in 2015 in adult males with no travel history, compared to adult females (a threefold increase since 2011).[11] Previous investigation of *Shigella* cases among MSM has shown cases often belong to sexual-networks engaged in multi-partner condomless sex at sex parties, sex under the influence of recreational drugs (chemsex) and with high levels of HIV positivity[12]
- Verocytotoxin-producing *Escherichia coli* O117, another bacteria transmitted faecal-orally, was also described for the first time in MSM in 2014.[13] The majority of cases were in London and chemsex and sex parties were also described by cases
- new infections with hepatitis C are higher in HIV positive MSM compared to the general population, however the incidence appears to be declining.[14, 15] A significant proportion described chemsex and also injecting drug use
- approximately one fifth of cases of acute hepatitis B in London were acquired through sex between men[16, 17]

Sexual behaviour

MSM report high levels of risky sexual behaviour, including higher numbers of sexual partners and unprotected anal intercourse (UAI). This is despite the majority being reached by HIV prevention activity and having access to condoms.[1]

Sero-adaptive behaviour, including selecting partners perceived to be of the same HIV sero-status, is complex and widespread. HIV positive men are more likely than HIV negative men to engage in risky sexual behaviour, including UAI, and they have higher levels of STIs, including gonorrhoea, syphilis, LGV and other infections such as *Shigella.*[1] Sero-adaptive behaviour can also lead to HIV transmission when HIV negative men choose to have UAI with a partner who they believe is HIV negative, as significant numbers of MSM do not know that they are infected with HIV.

We lack robust and timely data on ‘chemsex’, however, there is evidence that chemsex is associated with risky sexual behaviour and that MSM in London are more likely to use

common chemsex drugs eg crystal methamphetamine, GHB/GBL and mephedrone, than outside London.[1, 18]

Access to services

The majority of MSM appear to be engaged with sexual health services; most MSM have had an HIV test and HIV and STI screening is increasing,[1] however, less than half of MSM have had an HIV test in the last year.[1]

Implications for prevention

On-going transmission of STIs and HIV is occurring despite evidence that MSM are accessing and engaging with services. This may in part be explained by high levels of unsafe sexual behaviour, especially UAI in the context of both sero-adaptive behaviour and recreational drug use. Tackling this is complex and challenging and a holistic life-course approach is needed. The worsening of sexual health in MSM in London despite widespread measures to prevent infection implies that further sustained action is needed to reverse this trend.

Public Health England (PHE) has published an action plan for promoting the health and wellbeing of gay, bisexual and other MSM, using a whole system approach to promote health and wellbeing, including mental health.[19] PHE has also recently produced a strategic action plan to improve sexual health and reversing the HIV epidemic, which includes MSM as a key population group.[20]

Sex and relationship education needs to include non-judgemental discussion of same-sex relationships. Personal, social and health education (PSHE) that addresses self-esteem is also crucial to all children's confidence and in building confident adults who take fewer risks (including sex, drugs and alcohol). Education should include information on how alcohol and drug use impacts on decisions about sex, including negotiation of safer sex.

Improving sexual health in MSM should be made the highest sexual health priority in London. Health and Wellbeing Boards and Directors of Public Health in all London Boroughs are advised to ensure that the needs of MSM, with respect to sexual health are considered within Health and Wellbeing Strategies and the Joint Strategic Needs Assessment. To improve our understanding of the local needs of MSM, local authorities are advised to include sexual orientation in routine data collection systems.

There is a clear need to ensure that education, awareness raising and social marketing interventions for MSM include information about sexual risk-taking, signs and symptoms of STIs, HIV and *Shigella*, promoting regular STI screening and information on where to find services. To maximise the cost benefit, behavioural insight should be used to

improve the likelihood of uptake of messages in the higher risk groups. Online interventions should be considered as a method of sexual health promotion/STI prevention given the high use of the internet in sourcing sexual encounters by MSM.

Venues attracting MSM that may be involved in sex-on-premises should be supported in ensuring they provide a safe environment and be used for provision of venue-based outreach services to clients. Attention to hygiene and cleanliness is important to prevent spread of *Shigella* which can persist in the environment following faecal contamination.

Condoms should be promoted and provided at scale, with a strong communications message supporting condom use.

As *Shigella* is spread faeco-orally it cannot be prevented simply by wearing a condom and therefore different messages are needed. As awareness of *Shigella* is low, sexual health providers and outreach workers need to support work to make MSM aware of how *Shigella* is transmitted, how people can avoid it and what they should do if they think they are infected. Materials are available on the PHE website for this purpose.[21]

Drug and alcohol services providers should meet the specific needs of MSM. Commissioners and providers of these services are advised to use the PHE briefing on substance misuse services for MSM involved in chemsex to highlight where gaps in local provision may exist.[22]

Providers of sexual health services are advised to:

- offer sexual health screens including an HIV test annually to MSM, three monthly to MSM having unprotected sex with new or casual partners
- make the most of health promotion opportunities when a test result is negative
- review their uptake of HIV testing among MSM and where low they should explore possible reasons for this and aim to increase it
- train staff to rapidly assess drug and alcohol use in clients, provide harm minimisation advice and promptly refer to appropriate services if required
- provide information to MSM on emerging infections, such as *Shigella,* and how they can be prevented

Commissioners of sexual health services should explore opportunities for increasing HIV testing using home sampling. Expanding and normalising HIV testing is an important measure to increase uptake of testing, to ensure earlier diagnosis and access to HIV treatment, and therefore to prevent HIV transmission. HIV testing in settings outside of sexual health services should be expanded at scale and with pace in London.

HIV pre exposure prophylaxis (HIV–PrEP) is the use of antiretroviral agents by people who do not have HIV prior to a potential exposure to HIV to prevent acquisition of infection. Research studies have shown that consistent use of HIV-PrEP can be an

efficacious and effective prevention intervention. HIV–PrEP has the potential, within a combination prevention approach, to have a significant role in the control of HIV transmission. PHE is supporting NHS England and local authorities, as they prepare to make commissioning decisions about PrEP, through the delivery of data and intelligence, including an evidence review and health economic analyses.

The London HIV Prevention Programme, a London-wide sexual health promotion initiative funded by every London local authority, plays a vital role in reducing HIV and STIs in MSM. The Do It London sexual health campaign is aimed at increasing HIV testing and promoting safer sex in the capital http://doitlondon.org/.

PHE's messages for MSM

Early diagnosis of HIV infection enables better treatment outcomes and reduces the risk of transmitting the infection to others.

Have an HIV and STI screen at least annually and every three months if you are having unprotected anal intercourse with casual or new sexual partners.

Always use a condom correctly and consistently, and until all partners have had a sexual health screen.

Reduce the number of sexual partners and avoid overlapping sexual relationships.

Unprotected sex with partners believed to be of the same HIV status (serosorting) is unsafe. For the HIV positive person, there is a high risk of acquiring other STIs and hepatitis. For the HIV negative person, there is a high risk of acquiring HIV infection as well as acquiring STIs and hepatitis.

Ask your sexual health clinic where you can get support to reduce sexual health and other risks associated with recreational drug use. People who inject drugs are advised to use a full set of clean equipment for each injecting episode and make use of resources on the Harm Reduction Works website to keep themselves safe and reduce health harms www.harmreductionworks.org.uk/hep_c.html

Shigella can cause severe diarrhoea and is caught from bacteria in faeces getting into your mouth during sex. There is a risk from rimming or giving oral sex after anal sex. To avoid it, wash your hands after sex, especially if you're fingering or handling used condoms and sex toys, and change condoms between anal and oral sex. If you think that you have *Shigella,* tell your doctor that you may have picked up a gut infection from sex and avoid sex until a week after your symptoms stop. To find out more www.gov.uk/government/uploads/system/uploads/attachment_data/file/323532/Shigella_leaflet.pdf

Charts, tables and figures

Figure 1: SOPHID weighted estimates of the number of 16 to 44 year old MSM resident in each LA in London and the estimated proportion of males aged 16 to 44 years that are MSM[23, 24]

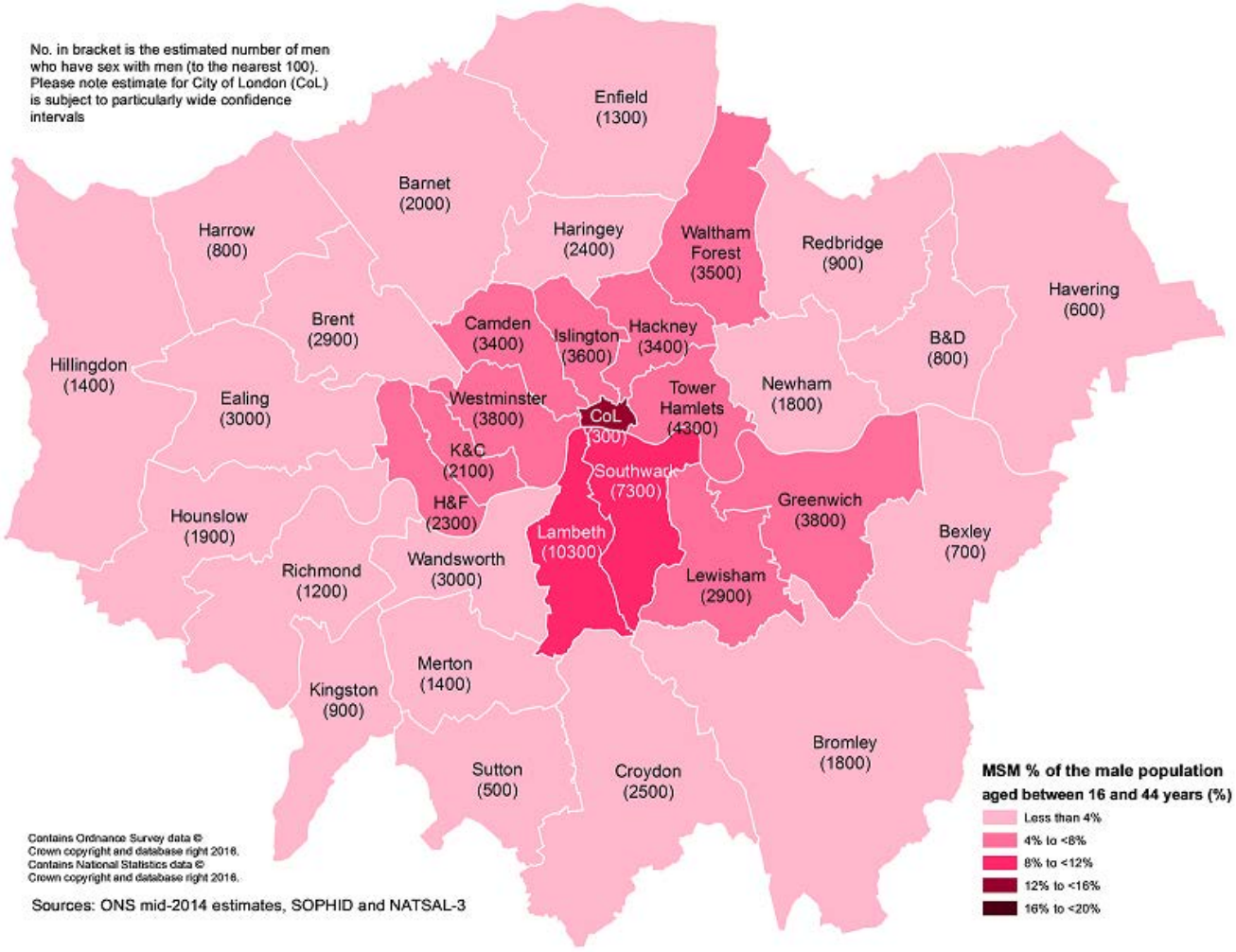


Table 1: percentage change in new STI, HIV and *Shigella* diagnoses in MSM from 2010 and 2013 to 2014. London. Data sources: for new STIs, Gonorrhoea, Chlamydia, Genital Herpes and Warts GUMCAD[3], for HIV HANDD[8], for Shigella Gastro Data Warehouse[11], for LGV STBRU laboratory returns[5]

Diagnoses	2014	% change 2010 to 2014	% change 2013 to 2014
New STIs	26,714	131%	26%
Syphilis	2,049	180%	54%
Gonorrhoea	10,871	320%	31%
Chlamydia	6,460	154%	34%
Genital Herpes	732	42%	3%
Genital Warts	1,395	37%	14%
HIV**	1,586	23%	1%
Shigella*	329	227%	60%
LGV***	487	47%	38%

GUMCAD started in 2009. Reporting of sexual orientation is less likely to be complete for earlier years, so rises seen may be partly artefactual.
Any increase in gonorrhoea diagnoses may be due to the increased use of highly sensitive nucleic acid amplification tests (NAATs) and additional screening of extra-genital sites in MSM.
Any decrease in genital wart diagnoses may be due to a moderately protective effect of HPV-16/18 vaccination.
Any increase in genital herpes diagnoses may be due to the use of more sensitive NAATs.
Any increase or decrease may reflect changes in testing.

*The number of *Shigella* diagnoses in MSM is estimated by calculating the excess male cases aged 16 to 60 years diagnosed with *Shigella* with no known history of travel outside the UK

** Numbers adjusted for missing information on route of transmission

*** Lymphogranuloma venereum, numbers reflect all LGV, however previous analysis has indicated that 99% are in MSM

Figure 2: MSM as the proportion of different populations, including populations of people with STIs and HIV. Data sources: Natsal[2], GUMCAD[3] and HANDD[8]

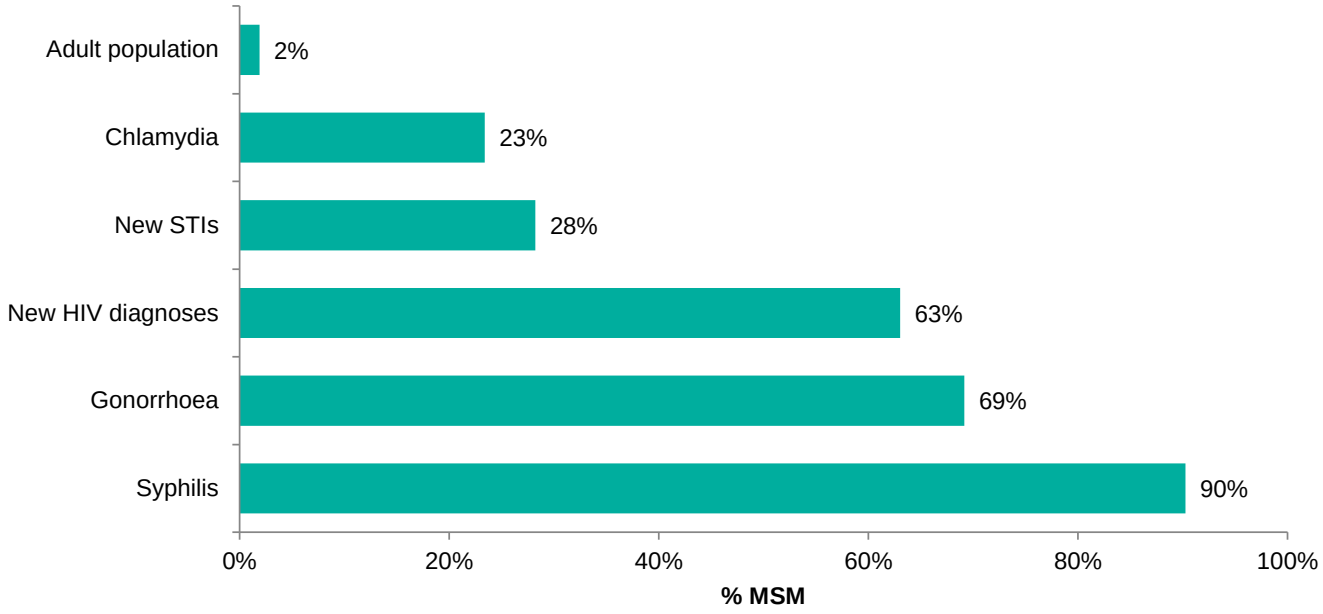


Figure 3: MSM as a proportion of male local authority residents with a known sexual orientation diagnosed with a new STI in sexual health clinics: London, 2014. Data source: GUMCAD[3]. **Sexual health clinic diagnoses only. Males with no information on sexual orientation are excluded from the calculation, Please note City of London has small numbers and has been excluded from this figure.)**

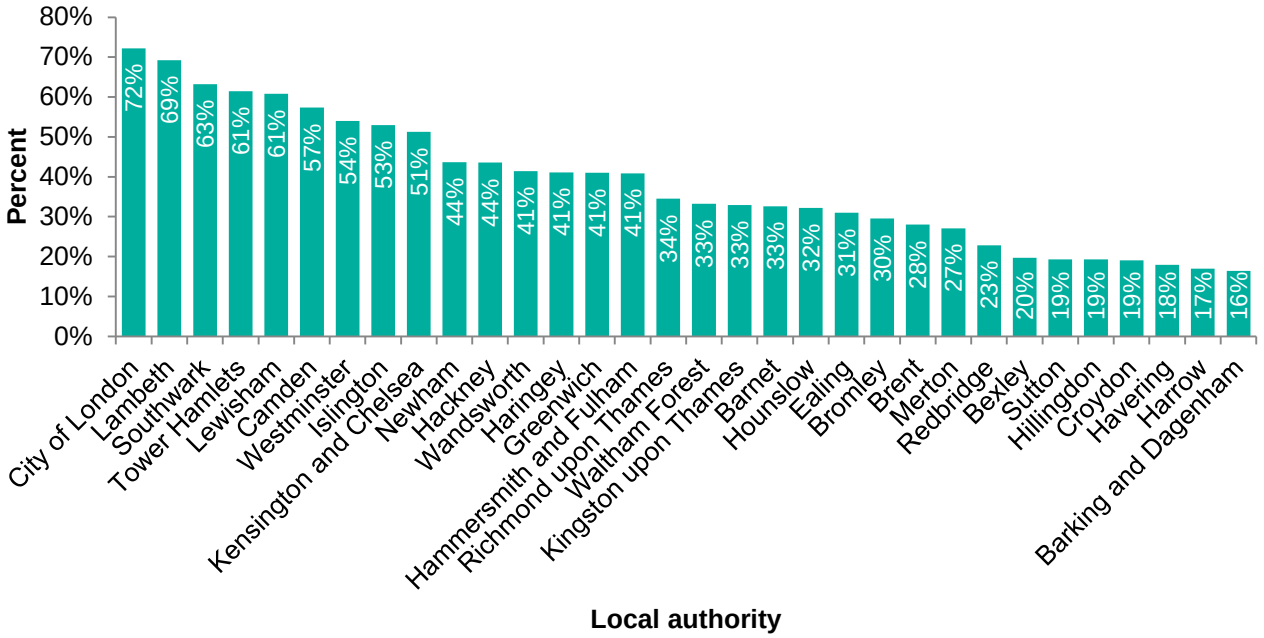


Figure 4: MSM and heterosexual males diagnosed with a new STI in sexual health clinics, age distributions compared: London residents, 2014. Data source: GUMCAD[3]

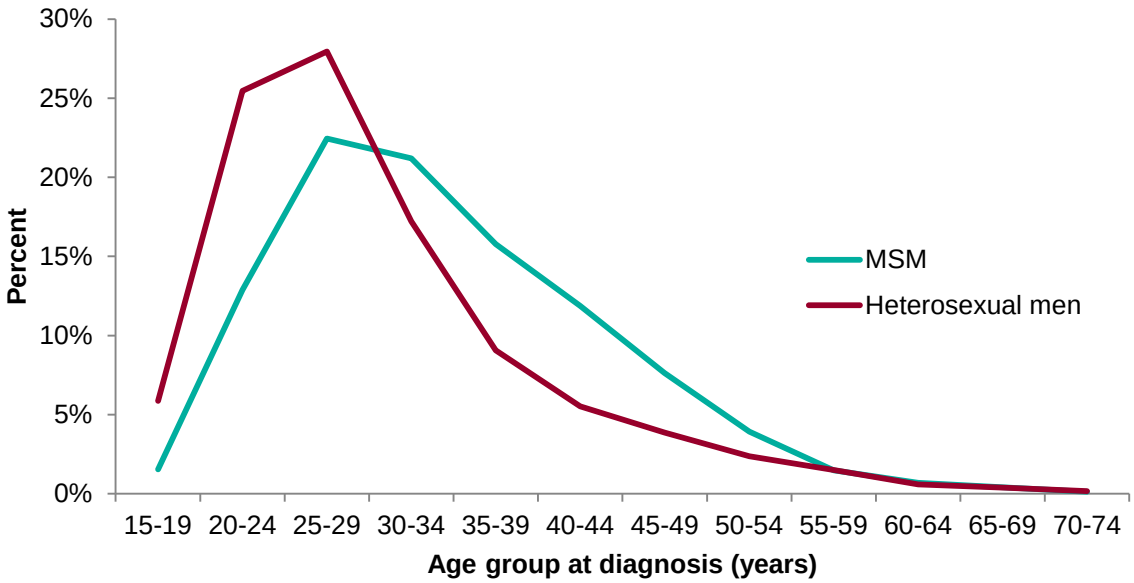


Figure 5: MSM diagnosed with a new STI in London by ethnicity, 2014. Data source: GUMCAD[3]

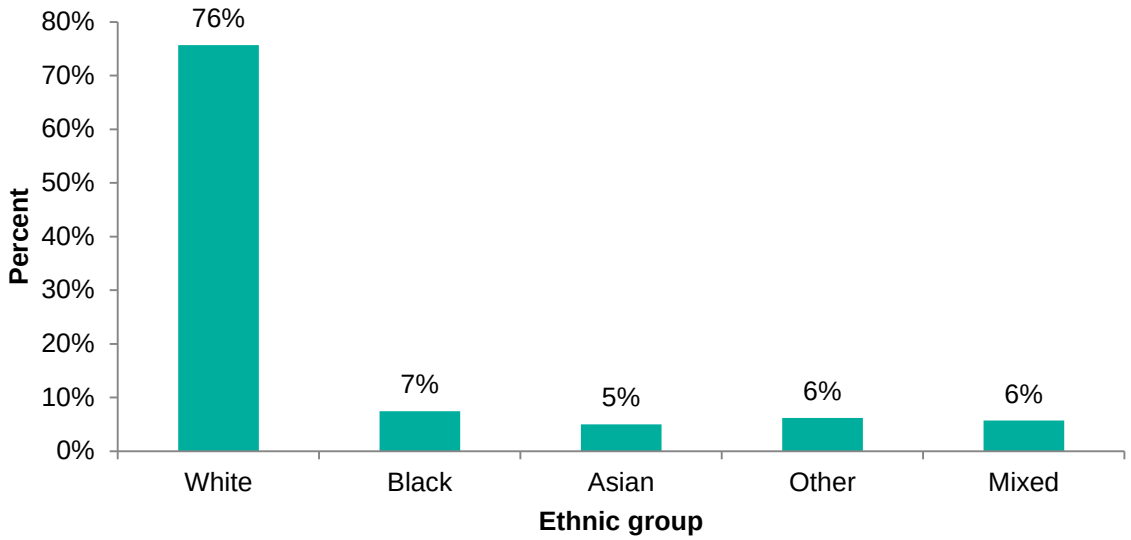
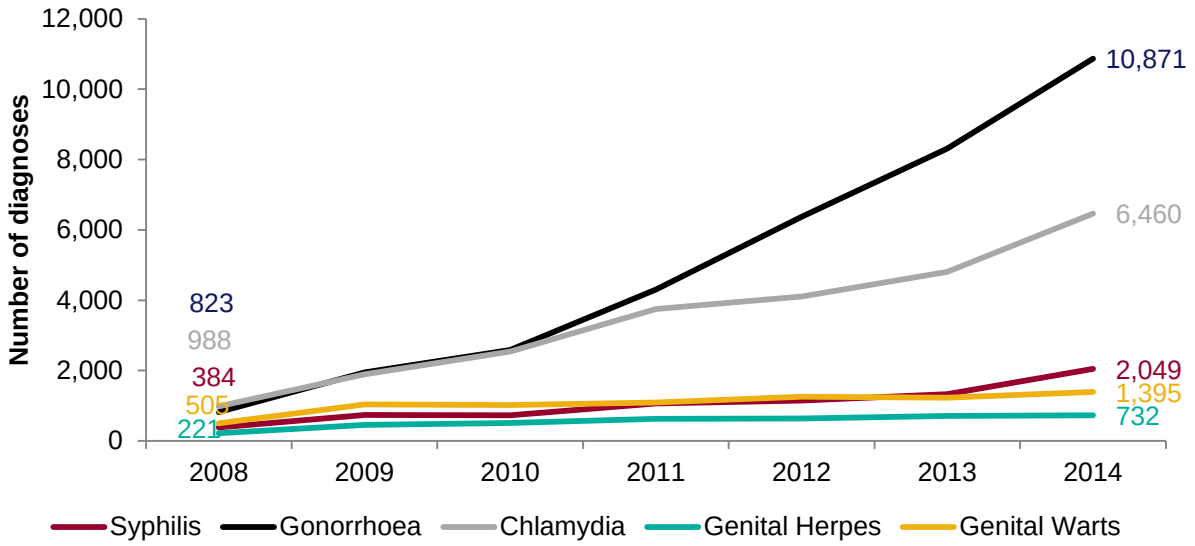


Figure 6: number of diagnoses of acute STIs in MSM in sexual health clinics in London residents, 2008-2014. Data source: GUMCAD[3]



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Any increase in genital herpes diagnoses may be due to the use of more sensitive NAATs.
Any increase or decrease may reflect changes in testing.

Figure 7: region of birth of MSM and heterosexual males diagnosed with a new STI in London 2014. Data source: GUMCAD[3]

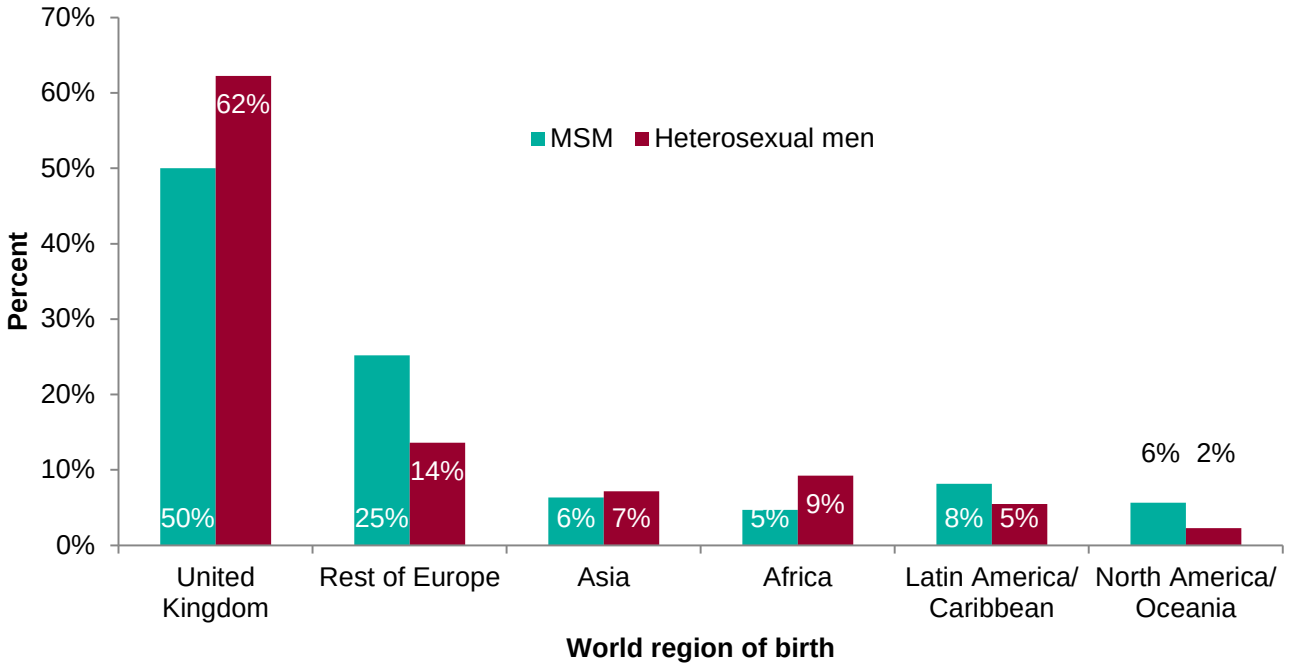


Figure 8: number of gonorrhoea diagnoses in MSM by London local authority of residence, 2014. Data source: GUMCAD[3]

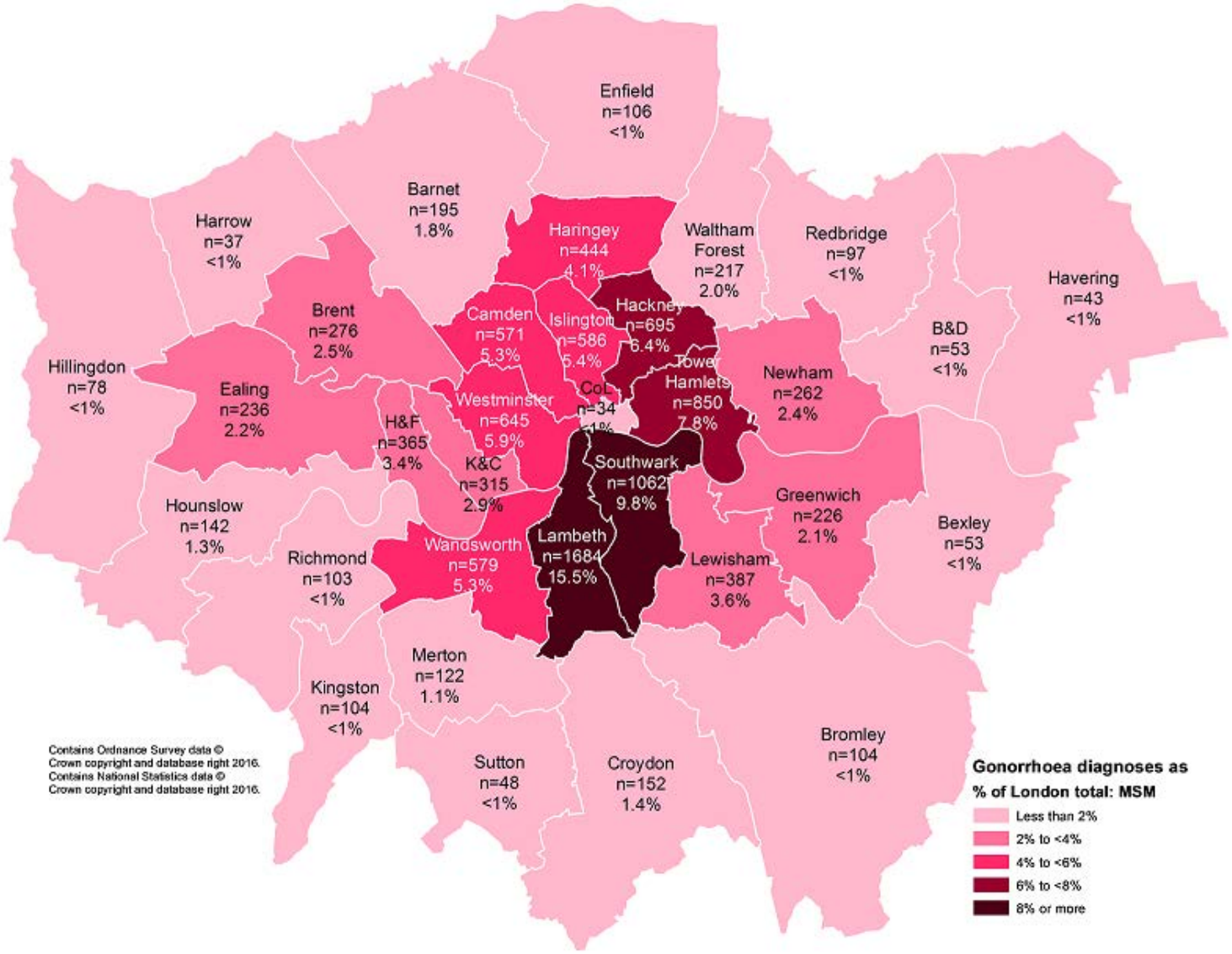


Figure 9: LGV diagnoses by sexual health clinics in London, 2004 to 2015. Data source: STBRU Laboratory Returns[5]

Figure 10: excess male cases aged 16 to 60 years diagnosed with *Shigella* with no known history of travel outside the UK, by sex, London, 2011 to 2015. Data source: Gastro Data Warehouse[11]

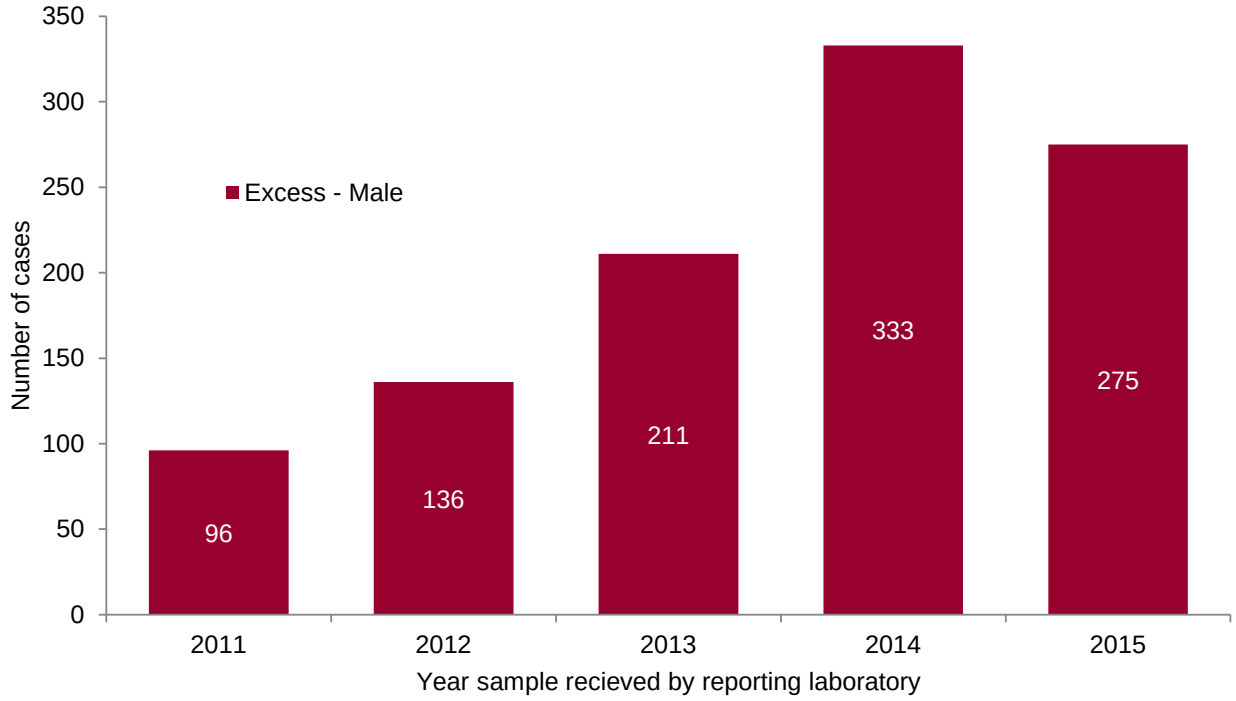


Figure 11: proportions of MSM living with diagnosed HIV in London by age group, 2004, 2009 and 2014. Data source: SOPHID[7]

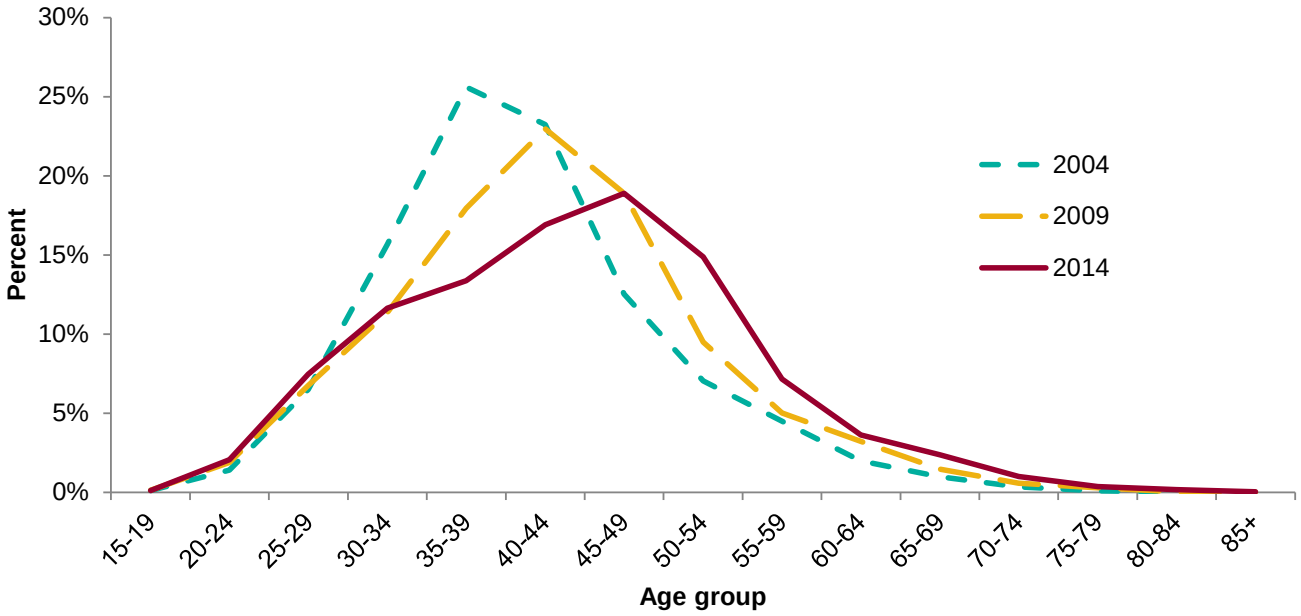


Figure 12: numbers of MSM accessing care for diagnosed HIV by London local authority, 2014. Data source: SOPHID[7]

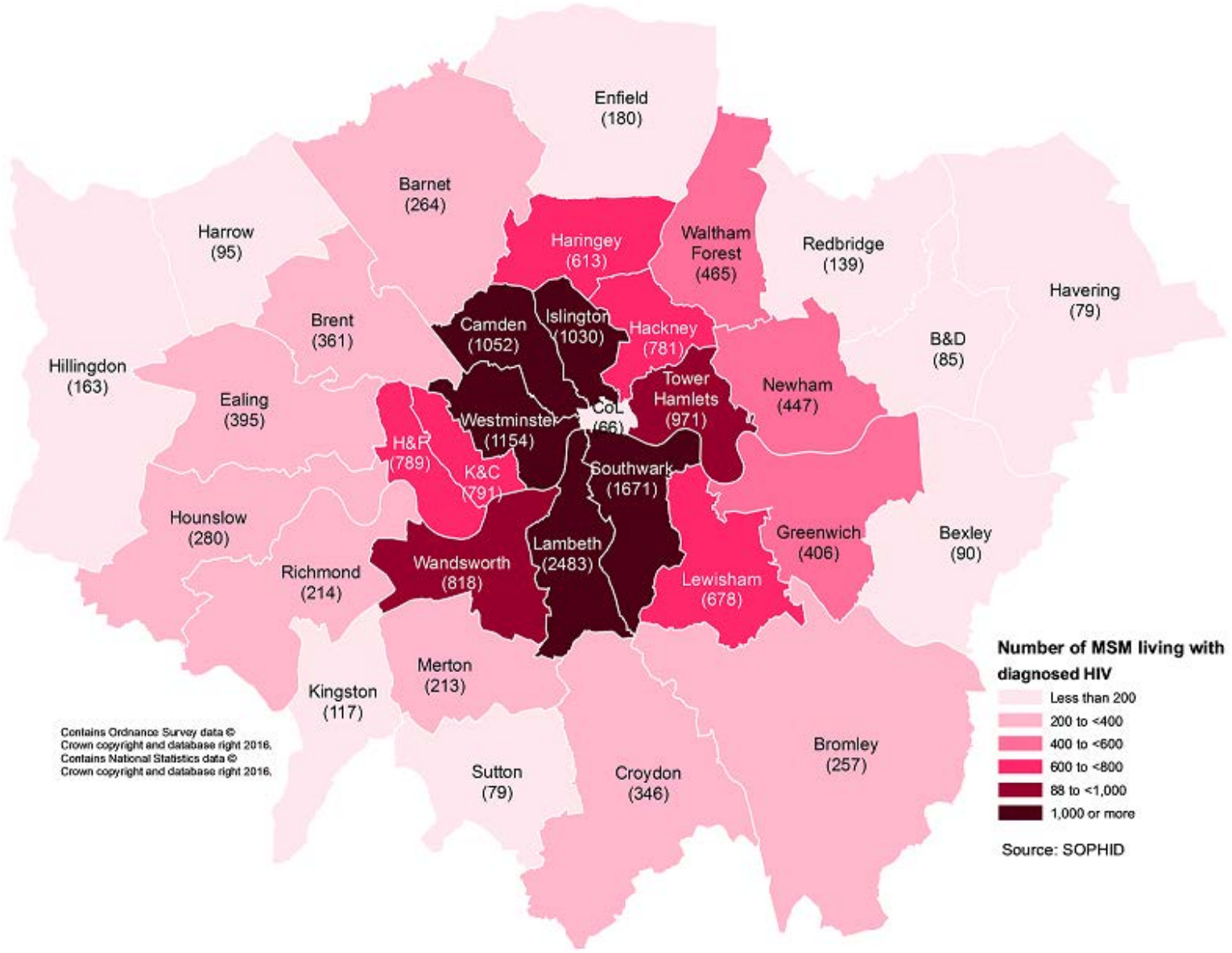
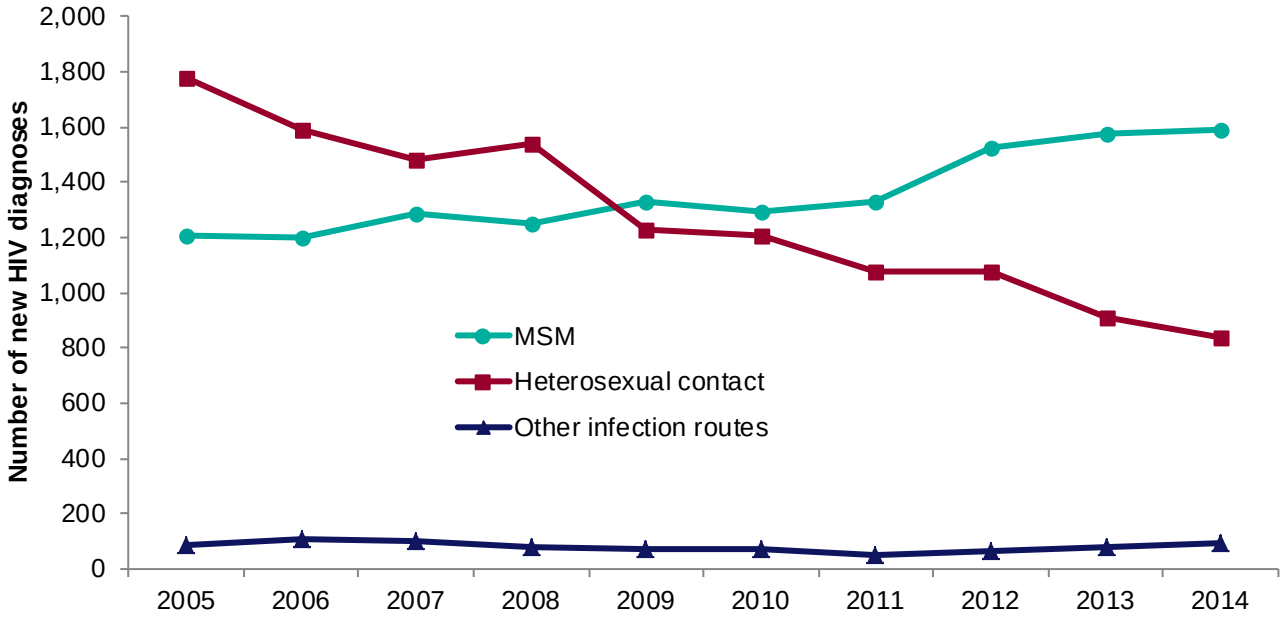


Figure 13: new HIV diagnoses by probable route of infection (adjusted for missing route of infection information), London residents, 2005 to 2014 (please see footnote on interpreting trends)*. Data source: HANDD[8]



Source: Public Health England, HIV and Aids New Diagnosis Database (HANDD).

The number of new diagnoses will depend on accessibility of testing as well as infection transmission. *Numbers may rise as further reports are received and more information is obtained on area of residence of those diagnosed. This is more likely to affect more recent year, particularly 2014. Please see important note on data earlier in this report. This will impact on interpretation of trends in more recent years.

Figure 14: number of new HIV diagnoses in MSM by London local authority of residence, 2014. Data source: HANDD[8]

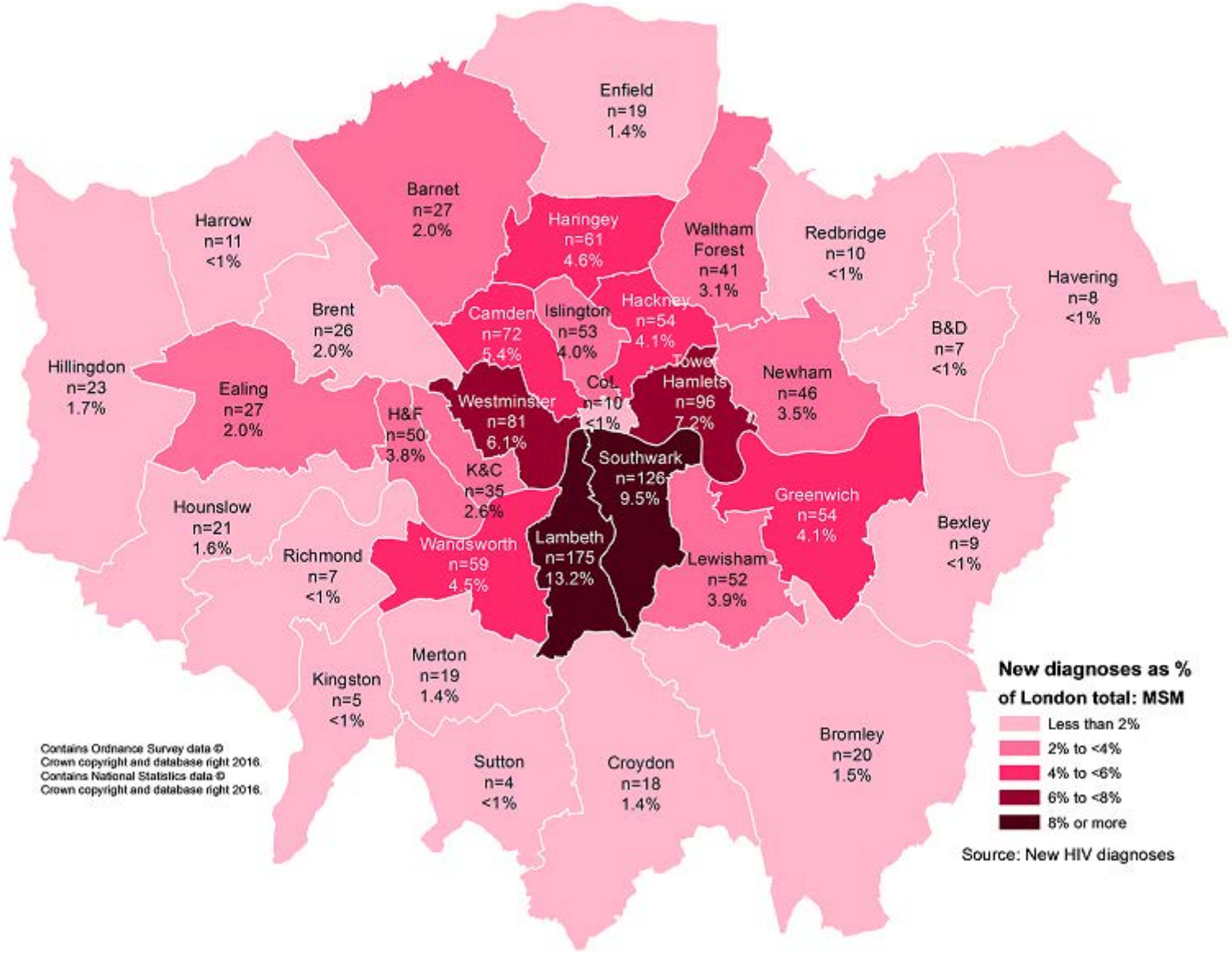
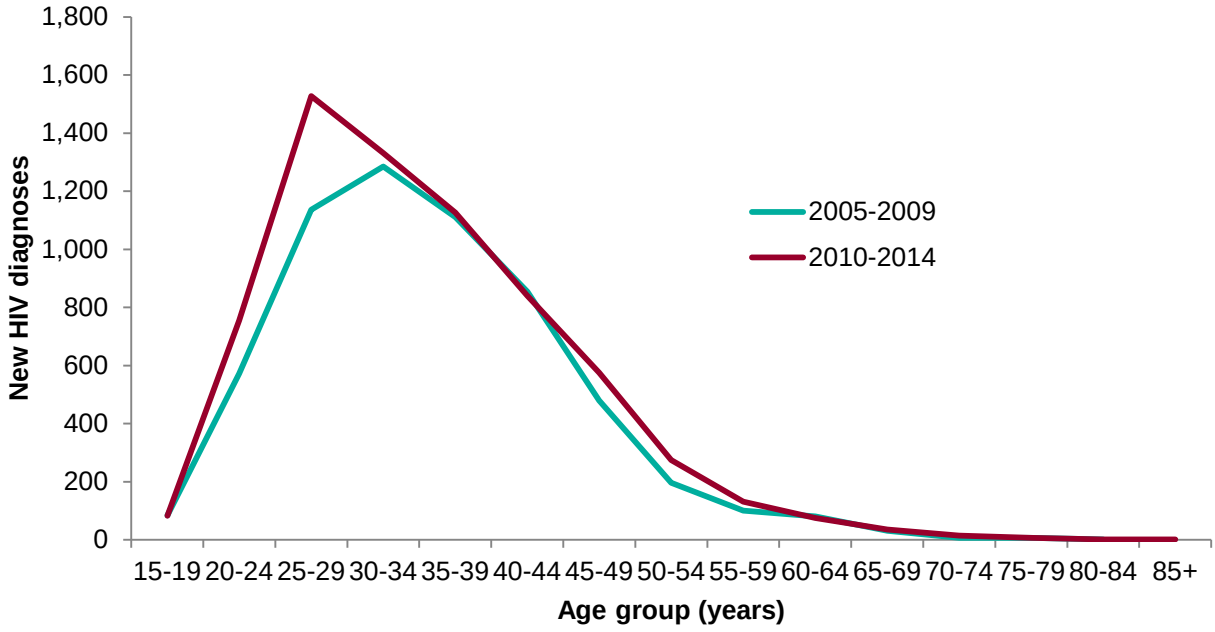


Figure 15: comparison of new HIV diagnoses in MSM by age group in five year periods, 2005 to 2009 and 2010 to 2014. Data source: HANDD[8]



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- PHE CIDSC Gastrointestinal bacterial reference unit (GBRU) for *Shigella* data
- Stefano Conti of the PHE CIDSC modelling team for providing estimates of the number of MSM with HIV that remain undiagnosed

Further information

Please access the online ‘Sexual and Reproductive Health Profiles’ for further information on a whole range of sexual health indicators:
http://fingertips.phe.org.uk/profile/sexualhealth

For more information on local sexual health data sources please access the PHE guide:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/395207/PHE_Guide_to_National_Local_Sexual_Reproductive_Health_Data.pdf

For an epidemiology summary of STIs in London
https://www.gov.uk/government/publications/sexually-transmitted-infections-london-2014-data

For an epidemiology summary of HIV in London
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/483335/2015_12_03LondonHIVSpotlight.pdf

Local authorities have access to local authority HIV, sexual and reproductive health epidemiology reports (LASERs) and other HIV and STI intelligence via the HIV and STI portal. They should contact josh.forde@phe.gov.uk if they do not have access to this information.

About Field Epidemiology Services

The Field Epidemiology Service (FES) supports Public Health England Centres and partner organisations through the application of epidemiological methods to inform public health action.

FES does this in two main ways, firstly by providing a flexible expert resource, available, as and when needed, to undertake epidemiological investigations for key health protection work and secondly through the expert analysis, interpretation and dissemination of surveillance information to PHE Centres, local health partners, service providers and commissioners of services.

Within the FES network, excellence and innovation is encouraged, we foster academic collaborations and take active part and lead in research, development and training.

You can contact your local FES team at fes.seal@phe.gov.uk.

If you have any comments or feedback regarding this report or the FES service, please contact josh.forde@phe.gov.uk.

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