Evidence from Public Health England

About Public Health England

Public Health England exists to protect and improve the nation’s health and wellbeing, and reduce health inequalities. We do this through world-leading science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

Executive summary

1. The Framework for Sexual Health Improvement in England (2013) set out the Government’s ambitions for improving sexual health outcomes. Local authorities have primary responsibility for sexual health improvement including commissioning sexual health services using the public health grant. The National Health Service (NHS) also has important responsibilities for commissioning specific sexual and reproductive health services.

2. While the overall number of new sexually transmitted infections (STI) and non-specific genital infections (NSGI) diagnoses has remained stable in the last two years, the number of syphilis and gonorrhoea diagnoses has risen for the same period.

3. Resistance to the antimicrobials used to treat gonorrhoea is a global public health concern.

4. Among young adults, chlamydia and Human Papilloma Virus (HPV) 16 and 18 diagnoses have decreased. Between 2013 and 2017, the diagnosis rates of gonorrhoea and chlamydia among black ethnic minorities were three times those of the general population. Diagnoses of gonorrhoea, chlamydia and syphilis also show an increase among gay, bisexual and other men who have sex with men (MSM).
5. Since 2015, new Human Immunodeficiency Virus (HIV) diagnoses in MSM have fallen due to increased testing particularly repeat testing among higher risk men, and improvements in the speed of commencement of anti-retroviral therapy. It is too early to quantify the additional impact from the scale-up of pre-exposure prophylaxis (PrEP) in 2016/2017.

6. A national survey of lead Genitourinary Medicine (GUM) physicians found that the majority of Sexual Health Services (SHS) could offer an appointment within 48-hours but there has been a decline in access. Only 12% of specialist SHS meet the British Association for Sexual Health and HIV (BASHH) standard of testing 80% of eligible attendees for HIV. Professional bodies are responsible for clinical standards alongside National Institute for health and Care Excellence (NICE) which form part of the Department of Health and Social Care national template service specification.

7. Between 2015/16 and 2020/21, the public health grant will decrease by 23% in real terms (7.5% cash terms). Spend on mandated sexual health services has fallen by £41m (7%) between 2014/15 and 2016/17 (the last reported period of spend) and non-prescribed sexual health functions spending (including prevention) reduced by £16.8m (24%).

8. Unplanned pregnancy and teenage pregnancy are key issues of intergenerational inequality, affecting the most disadvantaged in society. For every £1 spent on contraception, there is a £9 saving to NHS and social care. PHE is developing a cross-sectoral action plan to drive improvements across the life-course.

**Recent trends**

9. In England 422,147 new STI diagnoses were made in 2017 (a 0.3% decrease from 423,352 to 422,147).

10. Between 2016 and 2017, diagnoses of NSGI and first episode of genital warts decreased by 10% (from 37,028 to 33,473) and 7% (from 63,458 to 59,119), respectively. Over the same period diagnoses of gonorrhoea and syphilis increased by 22% (from 36,577 to 44,676) and 20% (from 5,955 to 7,137), respectively.

11. The number of infectious syphilis diagnoses made in England shows an increase of 1,182 diagnoses between 2016 and 2017 alone, the largest number reported since 1949.

12. Around 78% of syphilis diagnoses are made in MSM, but numbers have been increasing in heterosexuals and concerns about mother-to-child transmission have arisen.
Young adults

13. Between 2016 and 2017, gonorrhoea diagnoses increased from 8,887 to 11,261 and syphilis diagnoses from 228 to 278 in heterosexuals between 16-24.vi

14. HIV diagnoses fell from 734 in 2015, to 502 in 2017, largely due to reduced diagnoses in young MSM. HIV diagnoses in young black Africans have declined steadily over the past decade.viii

15. Between 2016 and 2017 the number of chlamydia tests declined from 1,417,836 to 1,302,649. In 2017 over 126,000 chlamydia diagnoses were made among young people (15 to 24 years), a reduction of 2% from 2016.vi

16. The rate of new genital warts diagnoses in 15-17 year-old women fell to 48.7 per 100,000 in 2017 (down from 436.5 in 2009) as a result of the Human Papilloma Virus (HPV) vaccination programme. There has also been a decline in young men.vi

17. Surveillance data shows a large reduction (86%) in prevalence of HPV16 and 18 infection since the introduction of vaccinationix with herd-protection benefitting the unvaccinated.

Black and ethnic minority groups

18. Among black ethnic minorities, between 2013 and 2017 diagnoses of chlamydia rose from 16,080 to 16,937 while those of gonorrhoea increased from 4,161 to 5,324. Black Caribbean and black non-Caribbean/non-African persons have the highest rates of bacterial STI diagnosis.x xi

19. Annual HIV diagnoses in black Africans have fallen from 2,697 in 2008 to 707 in 2017, in black Caribbeans from 328 to 93 and in other black ethnic groups from 143 to 81.vi

Gay, bisexual and other MSM

20. MSM are disproportionately affected by STIs including HIV, hepatitis B and C, and sexually transmissible enteric infections, such as *Shigella* and hepatitis A.xii,xiii,xiv,xxv,xxvi,xvii,xviii,xix Between 2016 and 2017, diagnoses of gonorrhoea (from 17,626 to 21,346), chlamydia (from 12,626 to 14,765) and syphilis (from 4,789 to 5,592) all increased in MSM.vi
21. The rise in diagnoses of gonorrhoea and chlamydia was initially due to greater use of more accurate tests. The continuing rise likely reflects increased transmission\textsuperscript{xx} due to group sex facilitated by geospatial networking applications, chemsex\textsuperscript{xxi,xxii}, and condomless anal intercourse. Shigella outbreaks in MSM have also been associated with the use of chemsex drugs.\textsuperscript{xxiii}

**Antimicrobial resistance**

22. Current first-line gonorrhoea treatment in the United Kingdom (UK) is dual therapy with ceftriaxone and azithromycin. Levels of azithromycin resistance have been increasing and an outbreak of high-level resistance to azithromycin began in 2015. This strain has become endemic.\textsuperscript{xxiv,xxv,xxvi}

23. Ceftriaxone resistance remains rare in the UK but PHE confirmed the first globally documented case of dual-therapy treatment failure in 2015 and \textsuperscript{xxvii} confirmed the first globally documented case of extensively drug-resistant gonorrhoea (XDRNg) in 2018. \textsuperscript{xxviii,xxix} Two similar cases of XDRNg were subsequently reported in Australia.

24. Implementation of policies, outlined in national, regional and global action plans that prolong the effectiveness of available antimicrobials is crucial to combat this threat. \textsuperscript{xxx,xxxi,xxxi}

**Trends in access to SHS**

25. The total number of attendances at SHS increased by 3% between 2016 and 2017 (from 3,227,254 to 3,323,275), variations in new and follow-up attendances are being explored.\textsuperscript{vi} Evidence from a survey of lead GUM physicians suggests that, while the majority of clinics could still offer an appointment within 48-hours, there has been a decline in access for symptomatic patients and even lower levels of access for asymptomatic women.\textsuperscript{v}

**HIV testing in SHS**

26. Although testing in SHS continues to increase, the number of HIV diagnoses is falling. 1,949 HIV infections were diagnosed in SHS in 2017, 17% fewer than 2016. \textsuperscript{vi}

27. Test coverage is much lower among heterosexual men and women (including those at increased risk) than MSM. The number of new HIV diagnoses among heterosexual men - black African and/or born in a country with high diagnosed HIV prevalence (more than 1%) - attending SHS has fallen by 21% between 2016
and 2017. The drop was even larger (33%) among ‘other heterosexual’ men (not black African, those who identify as trans- men or those born in a high prevalence country). vi

28. The number of new diagnoses among heterosexual women tested at SHS fell by 5% between 2016 and 2017. vi

Prevention

29. Prime responsibility for prevention rests with local authorities who commission and support a range of prevention work, often working in conjunction with PHE and the NHS.

National sexual health promotion

30. PHE runs national sexual health campaigns such as ‘Protect Against STIs Use a Condom’ sexual health campaign, which will run again in late 2018.

31. PHE also commissions specialist programmes to address HIV prevention and sexual health improvement. These include:

- web-based sexual and reproductive health information resource for the public and health professionals (‘Sexwise’ xxxiii currently provided by The Family Planning Association)
- multi-media and local outreach campaigns (including National HIV Testing Week) aimed at MSM and black African heterosexuals (run by HIV prevention England xxxiv)
- National HIV Self-Sampling service co-commissioned with local authorities provides on-line access to HIV testing xxxv
- HIV Innovation Fund, an annual grant scheme to fund innovative HIV intervention projects and generate evidence

Human papilloma virus

32. The HPV vaccination for adolescent and young women to prevent HPV 16 and 18 infection and cervical cancer introduced in 2008 has led to a reduction in HPV16 and 18 prevalence. These reductions are already leading to reductions in cervical abnormalities. xxxvi The impact of extending vaccination to adolescent males xxxvii and selective vaccination of MSM aged <46 attending SHS xxxviii is yet to be determined.
33. Opportunistic vaccinations for those at higher risk are delivered through SHS for HPV, Hepatitis A Virus (HAV) and Hepatitis B virus (HBV) for MSM; HBV for people with multiple sexual partners. National commissioning arrangements for these differ and improved data will increase the understanding gaps in uptake and measures needed to improve protection of MSM.

**Improving early detection**

34. SHSs are working to improve the early detection of STIs and PHE is working with BASHH, BHIVA, FSRH and local incident teams to support providers. PHE has developed a toolkit\(^{xxxix}\) and the updated GUMCAD STI surveillance system will improve the collection of behavioural data.

**National Chlamydia Screening Programme review**

35. Chlamydia screening is commissioned by local government in a variety of health and non-health settings including online testing. In the light of international evidence PHE commissioned a group of external experts to review policy on the national chlamydia screening programme (NCSP) with a view to recommending policy revisions. PHE will be consulting publicly on proposed revisions to NCSP policy in Spring 2019.

**HIV treatment as prevention (TasP)**

36. Since 2010, increasing uptake of HIV testing and early HIV treatment as prevention (TasP) has continued. PHE analyses has shown that the observed fall in new HIV diagnoses among MSM since 2015 followed the earlier fall in underlying HIV infections that began in 2012.\(^{xl,xli,xlii}\)

**PrEP**

37. The PrEP Impact Trial\(^{xliii}\), is addressing outstanding questions on PrEP eligibility, uptake, duration of use, and impact on HIV and other STIs. Between mid-October 2017 and end August 2018, almost 9,000 participants have been enrolled in over 140 clinics across England.

**Teenage pregnancy**

38. Over the last 18 years the under-18 conception rate in England has fallen by almost 60%. The biggest declines have been in areas of highest deprivation.\(^{xliv}\)

39. This has been achieved through a long-term evidence based teenage pregnancy strategy delivered by local government and their health partners.\(^{xlv}\)
40. However, inequalities remain between local areas and England’s teenage birth rate in higher than Western European countries. PHE has published updated national guidance \textsuperscript{xlvi}, \textsuperscript{xlvii} in collaboration with local authorities to help local areas sustain and accelerate progress.

**Reproductive health**

41. In England, 45% of pregnancies, 33% maternities are unplanned (6%) or ambivalent (27%) which represents over 200,000 deliveries and at least 50% of abortions per year. Poorer outcomes occur amongst the most deprived, at the extremes of reproductive age and by ethnicity. PHE’s return on investment (ROI) tool demonstrates a ROI of £9 for every £1 spent on contraception \textsuperscript{v}.

42. There is an 11% reduction in the uptake of the most cost effective long acting reversible contraceptive in General Practice and 3% over all since 2014 with 1/3 of women unable to access contraception from their preferred source. \textsuperscript{xlviii,xlix,l}

43. PHE is developing a cross-sectoral reproductive health action plan to support an integrated approach to pregnancy planning and reproductive well-being.\textsuperscript{li}

**Funding, commissioning, delivery and improvement of services**

44. The Public Health Grant (£3.2 billion in 2018/19) funds core public health services commissioned by local government and often delivered by the NHS (including sexual health services) and other health improvement activities. Between 2015/16 and 2020/21, the public health grant will have decreased by 23% in real terms (by 7.5% in cash terms). Spend on mandated sexual health services fell by £41m (7%) between 2014/15 and 2016/17 (the last reported period of spend) and non-prescribed sexual health functions spending (including prevention) fell by £16.8m (24%).

45. Local authorities have brought a greater focus on contracting for sexual health services and often achieved improvements in value for money. PHE continues to support local systems with data provision, guidance and leadership. National (HIV self-sampling) and local online services are being implemented to help manage overall increases in demand for services particularly among asymptomatic patients. Since 2013 the HPV vaccination of adolescent and young women has been part of the Section 7A agreement through which NHS England, supported by PHE, commission vaccination services from local providers.
46. In 2015, PHE and partner agencies, published *Making It Work – A guide to whole system commissioning for sexual health, reproductive health and HIV* for local authorities, NHS England and Clinical Commissioning Groups to support the delivery of patient pathways through collaborative commissioning.

47. PHE and partner agencies developed a commissioning action plan in response to the results of the sexual health commissioning survey, which documented the impact of separation of commissioning responsibilities and in many cases revealed fragmentation of commissioning activity and lack of joined up services for local people. The plan aims to meet the needs of the local population without changing responsibilities and funding streams between the NHS and local government. PHE is supporting two areas to pilot approaches to collaborative commissioning with local authorities and the local NHS.

48. PHE’s Health Economics Evidence Resource summarises cost-effectiveness evidence for sexual health interventions while tools such as the chlamydia care pathway supports commissioners and providers with data and examples of best practice to inform local action.

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