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UK Health Security Agency

Official Statistics

HIV testing, PrEP, new HIV diagnoses and care outcomes for people accessing HIV services: 2023 report

Updated 6 October 2023

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The annual official statistics data release (data to end of December 2022).

Main messages

This report presents data on HIV testing, HIV pre-exposure prophylaxis (PrEP), post-exposure prophylaxis (PEP), new HIV diagnoses, late diagnoses, and the care outcomes for people accessing HIV services. Data is mostly focused on activity in 2022 in England. The COVID-19 pandemic changed patterns of sexual behaviour, HIV testing and access to sexual health and HIV services in 2020 and 2021 with the mpox (monkeypox) outbreak having an impact on these patterns in 2022. This, combined with challenges in data collection and completeness, and for PrEP, improvements in data coding, means that trends remain difficult to interpret between 2019 and 2022.

HIV testing

The number of people having an HIV test in sexual health services (SHSs) in England rose by 10% from 1,048,551 in 2021 to 1,155,551 in 2022, but 15% fewer people tested in 2022 compared to 2019, prior to the COVID-19 pandemic. Among gay, bisexual, and other men who have sex with men (GBMSM), 192,503 had an HIV test in 2022, 7% higher than the 180,236 in 2021, the highest number ever reported. Among heterosexual men and women, 792,875 were tested in 2022, compared to 1,051,391 in 2019 and 735,402 in 2021.

Half of all HIV tests (50%; 580,172 of 1,155,551) in 2022 were undertaken through people ordering tests via internet services. This compares with 53% (553,341 of 1,048,551) in 2021 and 19% (255,492 of 1,325,983) in 2019.

In 2022, almost half of eligible attendees at specialist SHSs in England were tested for HIV (48%), a rise from 45% in 2021 but still below that observed in 2019 (65%). HIV test uptake was highest among eligible GBMSM (74% tested, 23% not offered a test, 3% declined a test) and lowest amongst eligible heterosexual and bisexual women (38% tested, 40% not offered a test, 22% declined a test).

Pre-exposure prophylaxis for HIV

The proportion of HIV negative people accessing specialist SHSs in England who were defined as having PrEP need increased from 7.5% (88,216 of 1,183,155) in 2021 to 9.7% in 2022 (121,547 of 1,249,511).

Among people with PrEP need (88,216 in 2021, 121,547 in 2022), the proportion of people who had the PrEP need identified increased from 79% (70,081) in 2021 to 83% (101,124) in 2022, with the largest increase observed among heterosexual and bisexual women, from 33% to 59%, followed by heterosexual men from 50% to 63% and GBMSM from 82% to 84%. In 2022, this equates to 83,223 GBMSM, 2,607 heterosexual men and 2,695 heterosexual and bisexual women.

Among people with PrEP need (88,216 in 2021 and 121,547 in 2022), the proportion of people who initiated or continued PrEP rose slightly from 70% (61,510) in 2021 to 71% (86,324) in 2022, with the largest increase observed among heterosexual and bisexual women from 24% to 36%, followed by heterosexual men from 35% to 38.5% and GBMSM from 72% to 74%. In 2022 this equates to 72,457 GBMSM, 1,599 heterosexual men and 1,676 heterosexual and bisexual women on PrEP.

HIV diagnoses

The number of HIV diagnoses in England rose by 22% from 3,118 in 2021 to 3,805 in 2022. Most of this increase is attributable to people previously diagnosed abroad, a 69% increase from 805 in 2021 to 1,361 in 2022. These infections were likely acquired abroad and therefore do not reflect a rise in transmission in England.

Of the people previously diagnosed abroad and having a subsequent diagnosis in England during 2022, 67% (911 of 1,361) arrived in England in 2022. Most were rapidly linked to care shortly after their England arrival. Provisional information shows 91% were linked within one month of diagnosis and 96% within 3 months. Furthermore, 87% were virally suppressed at the time of their England diagnosis, indicative of treatment access abroad, ensuring good health outcomes and preventing onward HIV transmission in England.

HIV diagnoses first diagnosed in England

The number of HIV diagnoses first made in England rose by 6% from 2,313 in 2021 to 2,444 in 2022, but variation between population groups remains.

First diagnoses made in England among GBMSM fell by 8% from 784 in 2021 to 724 in 2022. A 3% drop was observed in GBMSM living in London (252 to 244), with a 10% decline (532 to 480) among GBMSM living outside London. Trends in new diagnoses varied by ethnic group with the steepest fall in men of white ethnicity (17% from 508 to 420) between 2021 and 2022 but rises were observed among men of Asian (17% from 75 to 88) and mixed or other ethnicity (25% from 71 to 89).

Among heterosexual men and women living in London, diagnoses rose by 14% from 284 in 2021 to 325 in 2022. Outside London there was an 11% rise (from 586 to

651). The rise was particularly steep in women living outside London, who were exposed through sex with men (31% from 300 in 2021 to 393 in 2022). Of these women, 77% (301) were born abroad and 31% (122) arrived in England in 2022 (where year of arrival was provided). This information, combined with the rise in diagnoses among in people previously diagnosed abroad, suggests more infections in this group were probably acquired abroad compared to previous years. However, lower rates of HIV testing in women suggests HIV transmission is also still continuing.

Late HIV diagnoses and deaths

The proportion of new diagnoses in England that were made at a late stage remained relatively stable from 45% in 2021 to 44% in 2022. However, the number diagnosed late (865) in 2022 was 27% higher compared to 2020 (682) and 6% higher compared to 2021 (812), reflecting the rise in diagnoses. The increase between 2020 and 2022 was particularly apparent in women and is likely to reflect diagnoses delayed from 2020 due to the impact of COVID-19 on HIV testing.

Those diagnosed at a late stage in England in 2021, were 5 times more likely to die (deaths due to all causes among people with HIV) within a year of their diagnosis, compared to those who were diagnosed promptly. This is similar to 2019. In 2020, those diagnosed late were 13 times more likely to die within a year of diagnosis compared to those diagnosed promptly, which reflects the impact of COVID-19 prior to the availability of vaccinations.

Outcomes of people living with diagnosed HIV and accessing HIV care

There were 94,397 people living with diagnosed HIV infection and accessing care in England in 2022, a rise of 3% from 91,368 in 2021. Due to successful treatment, which ensures people with HIV have long healthy lives, half of people with diagnosed HIV were aged 50 years or over in 2022 compared to 27% in 2012. Overall, 98% (86,178 of 88,116) of people living with diagnosed HIV in England in 2022 (with a reported viral load) were virally suppressed and therefore unable to pass on the virus to sexual partners.

Introduction

This report provides an update on the latest HIV surveillance data and specifically provides an overview of trends in relation to HIV testing, pre-exposure prophylaxis (PrEP), new HIV diagnoses, late diagnoses, and the care outcomes for people accessing HIV services with population breakdowns focusing upon England. This report is accompanied by data tables and slide sets (https://www.gov.uk/government/statistics/hiv-annual-data-tables). More complete data for Scotland (https://publichealthscotland.scot/publications/) is published by Public Health Scotland.

The HIV Action Plan (https://www.gov.uk/government/publications/towards-zero-the-hiv-action-plan-for-england-2022-to-2025), published in 2020 set an ambition to reduce HIV transmission by 80% between 2019 and 2025. The UK Health Security Agency (UKHSA) will publish an update to the monitoring and evaluation framework (https://www.gov.uk/government/publications/hiv-monitoring-and-evaluation-framework) (MEF) to assess progress towards this goal, presenting other key indicators that must be met if the ambition is to be realised.

HIV testing in sexual health services

HIV testing is a key component of prevention. A negative HIV test result provides access to PrEP and health advice, and an HIV positive test result leads to care and life saving treatment. People with HIV who receive treatment and have an undetectable level of virus cannot pass the infection on to sexual partners even without condoms or PrEP.

Following a fall in the number of people having an HIV test at SHSs between 2019 and 2020 (30%, 1,325,983 to 927,241), related to COVID-19 service disruption, the number of people tested rose to 1,048,551 in 2021 and 1,155,551 in 2022. However, there were 170,432 (13%) fewer people tested in 2022 than in 2019 (Figure 1).

In 2022, 192,503 GBMSM had an HIV test, the highest number ever reported, 23% higher than the 156,865 tested in 2019, prior to the COVID-19 pandemic and 7% higher than the 180,236 tested in 2021. In heterosexual and bisexual women, a 5% increase was reported between 2021 and 2022 (487,977 to 512,108), placing levels of testing at 81% of 2019 testing levels (630,748). Testing in heterosexual men increased by 13% to 280,767 in 2022 compared to 2021 but 67% of 2019 testing levels (420,645).

In 2022, half of all HIV testing at SHSs was undertaken through people ordering a test online via internet services (50%, 580,172 of 1,155,551) rather than receiving a test in person at SHSs. Between 2021 and 2022, testing in specialist SHSs (specialist SHSs provide level 3 sexually transmitted infections (STI)-related care) rose by 16% (480,273 to 555,118), numbers testing in non-specialist settings (non-specialist SHSs provide non-specialist Level 2 STI related care) excluding internet

increased by 36% (14,937 to 20,261) and numbers testing using non-specialist internet services rose slightly (5%, 553,341 to 580,172).

Figure 1. Number of attendees tested for HIV at all SHSs by service type, gender and sexual orientation, England, 2018 to 2022

(Different scales are used on the y-axes of the graphs in Figure 1.)

Overall, testing in London increased by 12% between 2021 and 2022 (358,550 to 400,313), constituting 93% of 2019 levels (430,804). Between 2021 and 2022, a 9% increase in the number of people tested was observed outside London (656,577 to 716,332), 83% of 2019 testing levels.

In 2022, testing among GBMSM living in London continued to exceed that seen in 2019 (70,639), increasing from 73,119 in 2021 to 87,298 in 2022. Outside London, while numbers testing rose between 2020 and 2021 (76,072 to 100,169), they fell by 2% to 98,562 in 2022 (Figure 2). However, testing in heterosexual and bisexual women and heterosexual men, both inside and outside London, remains below 2019 levels (Figure 3).

Figure 2. Number of GBMSM tested for HIV and proportion positive at all SHSs by SHS type, London and outside London, 2018 to 2022

Figure 3. Number of heterosexual and bisexual women and heterosexual men tested for HIV and proportion positive at all SHSs by SHS type, London and outside London, 2018 to 2022

From 2021 to 2022, the proportion of positive tests in all SHSs was relatively stable at 0.10% (1,084 of 1,048,551) in 2021, and 0.09% (999 of 1,155,551) in 2022. A similarly stable trend was seen in heterosexual and bisexual women (0.05%, 232 of 487,977 in 2021; 0.04%, 196 of 512,108 in 2022) and heterosexual men (0.09%, 220 of 247,425 in 2021; 0.07%, 191 of 280,767 in 2022) (Figure 2). Conversely, high levels of testing in GBMSM were coupled with a continued decline in the proportion testing positive (0.52%, 823 of 156,865 in 2019; 0.32%, 468 of 146,506, in 2020; 0.25%, 459 of 180,236, in 2021, 0.23% 438 of 192,503 in 2022) (Figure 3).

Overall, 48% of eligible attendees at specialist SHSs in England were tested for HIV in 2022, a rise from 45% in 2021 but still not reaching testing levels seen in 2019 (65%). An eligible attendee was defined as any patient attending SHSs at least once during a calendar year; excluding those patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being related to reproductive health care only.

In 2022, 35% of eligible attendees were not offered an HIV test, compared to 39% in 2021 but double the percentage in 2019 (16%). In 2022 74% of eligible GBMSM were tested for HIV compared to 61% heterosexual men and 38% heterosexual and bisexual women. The lower uptake of HIV testing in women is partially explained by data quality issues such as some reproductive health related attendances being miscoded as sexual health attendances. The percentage of eligible attendees declining an HIV test reduced between 2019 and 2021 (19% in 2019, 17% in 2020, 16% in 2021) but remained at the same level in 2021 and 2022 (16%). In 2022, only 3% of eligible GBMSM declined an HIV test compared with 12% of heterosexual men and 22% of heterosexual and bisexual women (Figure 4).

Figure 4. HIV testing offer and uptake among people tested at specialist SHS, by gender and sexual orientation, England, 2018 to 2022

In 2022 a total of 845 people attended specialist SHS as a contact following partner notification. Of these, 78% (663 of 845) were tested, and 5.3% (35 of 663) were newly diagnosed with HIV. By gender and sexual orientation, the largest group of people who attended following partner notification were GBMSM (39%, 332 of 845), who also accounted for the largest number of new diagnoses among contacts (51%,18 of 35), followed by heterosexual and bisexual women (20%, 7 of 35) and heterosexual men (9%, 3 of 35).

Pre-exposure prophylaxis (PrEP)

HIV pre-exposure prophylaxis (PrEP) is a key component of prevention (https://www.nejm.org/doi/full/10.1056/nejmoa1108524) and involves the use of antiretroviral medicines by HIV negative people to reduce the risk of HIV acquisition. Following the roll out of routine PrEP commissioning in autumn 2020, the PrEP monitoring and evaluation framework (https://www.gov.uk/government/publications/hiv-pre-exposure-prophylaxis-prep-monitoring-and-evaluation) was published in March 2022 and consists of a series of indicators to inform service improvement in PrEP commissioning and delivery, as well as the elimination of HIV transmission and broader sexually transmitted infections (STIs) control.

In 2022, 1,249,511 HIV negative people attended specialist SHSs in England compared to 1,183,155 in 2021 (excluding people accessing reproductive care only). Overall, 9.7% (121,547) people were defined as having a PrEP need (at substantial risk of HIV; see definition in Appendix) in 2022, compared to 7.5% (88,216) in 2021. Among people with PrEP need, 83% (101,124 of 121,547) had their PrEP need identified during a clinical consultation in 2022 compared to 79% (70,081 of 88,216) in 2021. Among people with PrEP need, 71% (86,324) initiated or continued PrEP in 2022 compared to 70% (61,510) in 2021.

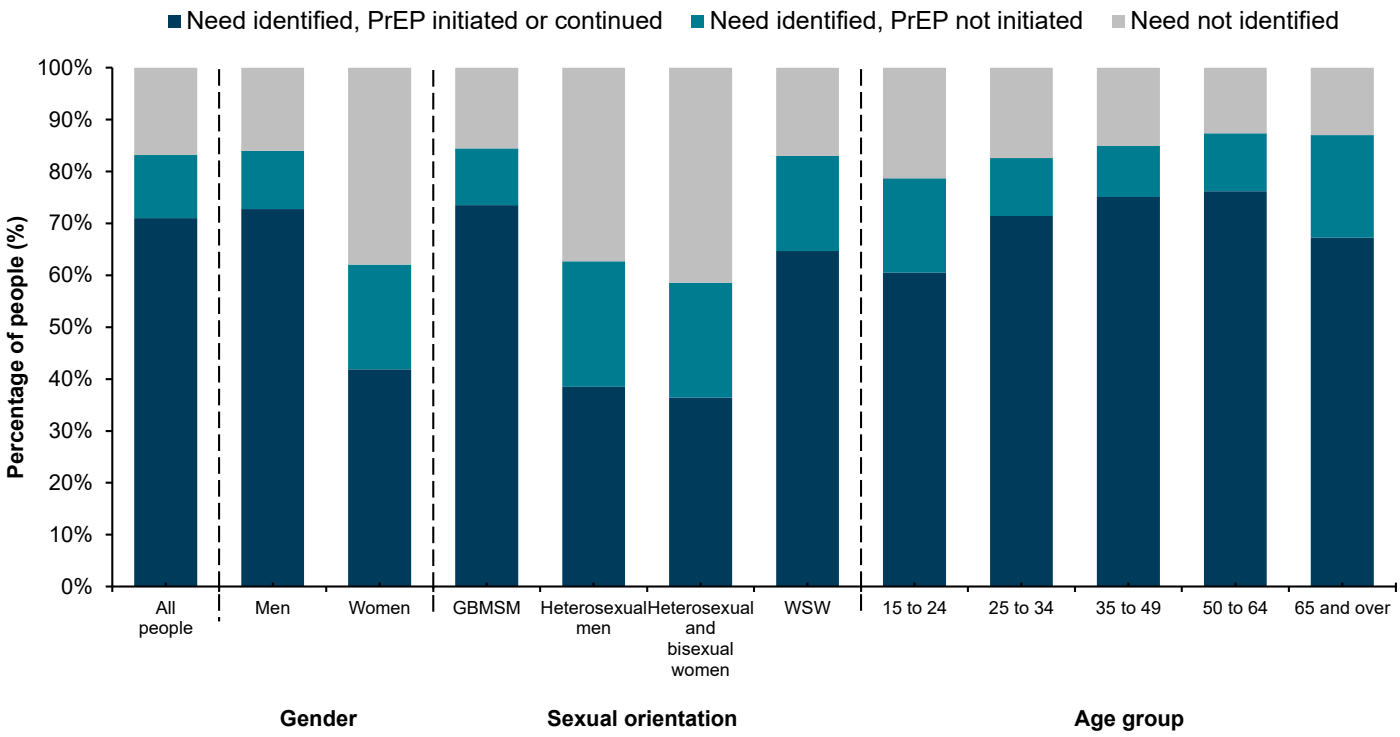
In 2022, the proportion of HIV negative people who were defined as having PrEP need, by gender and sexual orientation, remained highest in GBMSM at 69% (98,565 of 143,657) compared to 1.8% (4,156 of 228,668) in heterosexual men and 0.8% (4,602 of 595,303) in heterosexual and bisexual women (Figure 5 and Figure 6). Among HIV negative people, by gender and sexual orientation, the age group with the highest proportion of PrEP need were those aged 35 to 49 in GBMSM (69%, 30,129 of 43,654), 50 to 64 in heterosexual men (2.3%, 415 of 18,219), and 65 and over in heterosexual and bisexual women (1.8%, 46 of 2,500).

Among people with PrEP need, the proportion who had their need identified during a clinical consultation increased slightly from 82% (58,464 of 71,581) in 2021 to 84% (83,223 of 98,565) in 2022 in GBMSM; there were larger increases in heterosexual men from 50% (1,554 of 3,125) in 2021 to 63% (2,607 of 4,156) in 2022 and in heterosexual and bisexual women from 34% (1,022 of 3,041) in 2021 to 59% (2,695 of 4,602) in 2022 (Figure 5 and Figure 6). Among people with PrEP need, by gender and sexual orientation, the age group with the highest proportion of their need identified were those aged 50 to 64 in GBMSM (88%, 9,730 of 11,058) and heterosexual and bisexual women (65%, 187 of 288), and 65 and over in heterosexual men (83%, 66 of 80).

Among people with PrEP need, the proportion who initiated or continued PrEP rose slightly in GBMSM from 72% (51,689 of 71,581) in 2021 to 74% (72,457 of 98,565) in 2022; there were larger increases in heterosexual men from 35% (1,080 of 3,125) in 2021 to 39% (1,599 of 4,156) in 2022 and in heterosexual and bisexual women from 24% (716 of 3,041) in 2021 to 36% (1,676 of 4,602) in 2022 (Figure 5 and Figure 6). Among people with PrEP need, by gender and sexual orientation, the age group with the highest proportion of PrEP initiated or continued, were those aged 35 to 49 (78%, 23,426 of 30,129) as well as 50 to 64 (78%, 8,598 of 11,058) in GBMSM, those aged 50 to 64 years in heterosexual and bisexual women (45%, 130 of 288), and those aged 65 years and over in heterosexual men (46%, 37 of 80).

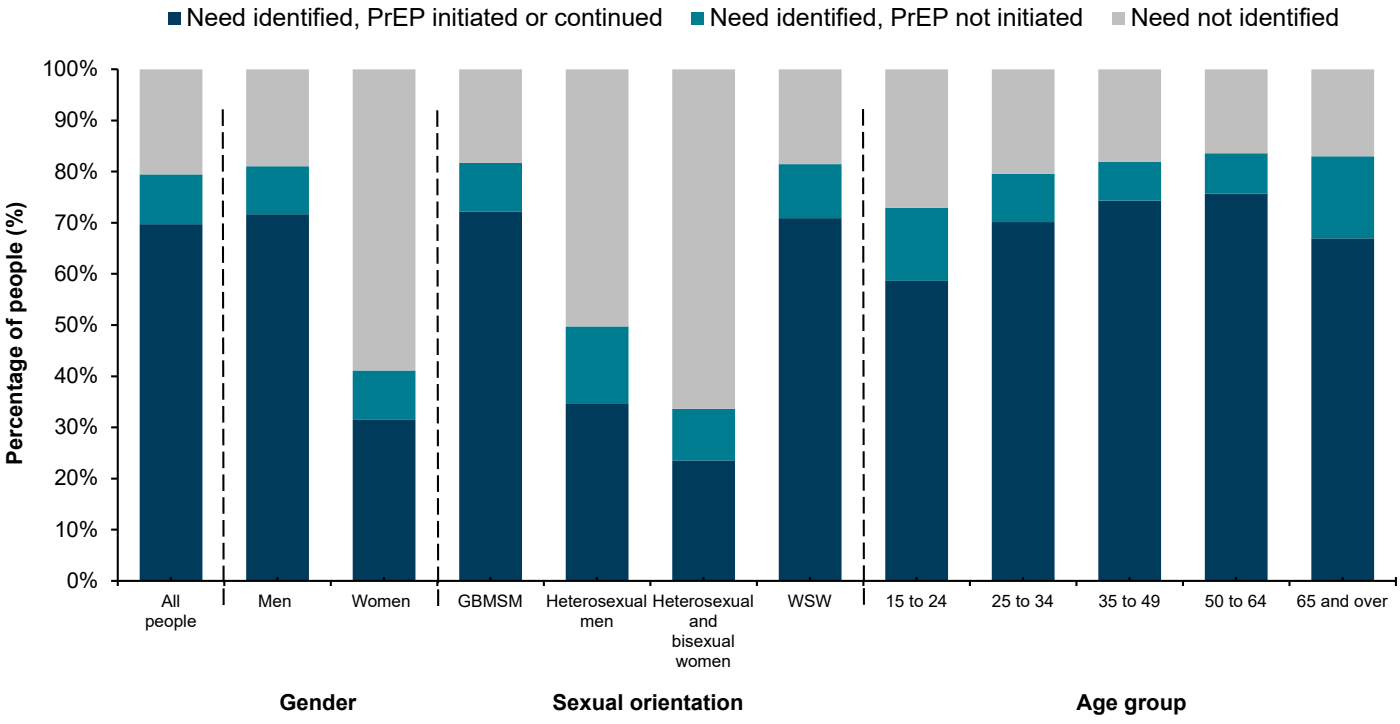
These rises are likely due to a combination of an increase in PrEP service delivery as well as improvements in the coding and reporting of PrEP activity at SHSs.

Figure 5. Proportion of people with a PrEP need identified (by initiation status) or not identified among people defined as having a PrEP need by demographics, England, 2022



Note for Figure 5: WSW refers to lesbians and other women who have sex with women exclusively.

Figure 6. Proportion of people with a PrEP need identified (by initiation status) or not identified among people defined as having a PrEP need by demographics, England, 2021



Note for Figure 6: WSW refers to lesbians and other women who have sex with women exclusively.

Post-exposure prophylaxis (PEP)

In 2022, 8,421 people received HIV post-exposure prophylaxis (PEP). This is a 3% increase in HIV PEP provision relative to 2021 (8,160) but represents a 30% decrease compared with 2019 (12,078). This drop was relatively consistent among GBMSM (39%, 8,136 to 4,966), heterosexual men (41%, 1,481 to 871) and heterosexual and bisexual women (40%,1,793 to 1,077). Whilst most of the increase in PEP provision between 2021 and 2022 was seen in GBMSM (4%, 4,785 to 4,966), it remained relatively stable in heterosexual men (1%, 880 to 871) and decreased slightly in heterosexual and bisexual women (6%, 1,148 to 1,077).

New HIV diagnoses

In 2022, there were 4,040 HIV diagnoses in the UK excluding Northern Ireland (Northern Ireland data for 2022 were not available for this publication). This was a 19% rise from 3,398 in 2021 and a 21% rise from 3,335 in 2020. Paediatric data (new diagnosis or HIV care from 2021 and 2022) were not available at the point of publication.

In England, there were 3,805 HIV diagnoses in 2022, a 22% rise from 3,118 in 2021 and 26% rise from 3,026 in 2020 (Figure 7). In 2022, of the 3,805 diagnoses, 64% (2,444) were diagnoses first made in England while 36% (1,361) were diagnoses among people previously diagnosed abroad (Figure 8). There were 12 HIV diagnoses among trans and gender diverse people in 2022 in England.

Figure 7. HIV diagnoses, AIDS at diagnosis, and all-cause deaths in people with HIV, England, 2003 to 2022

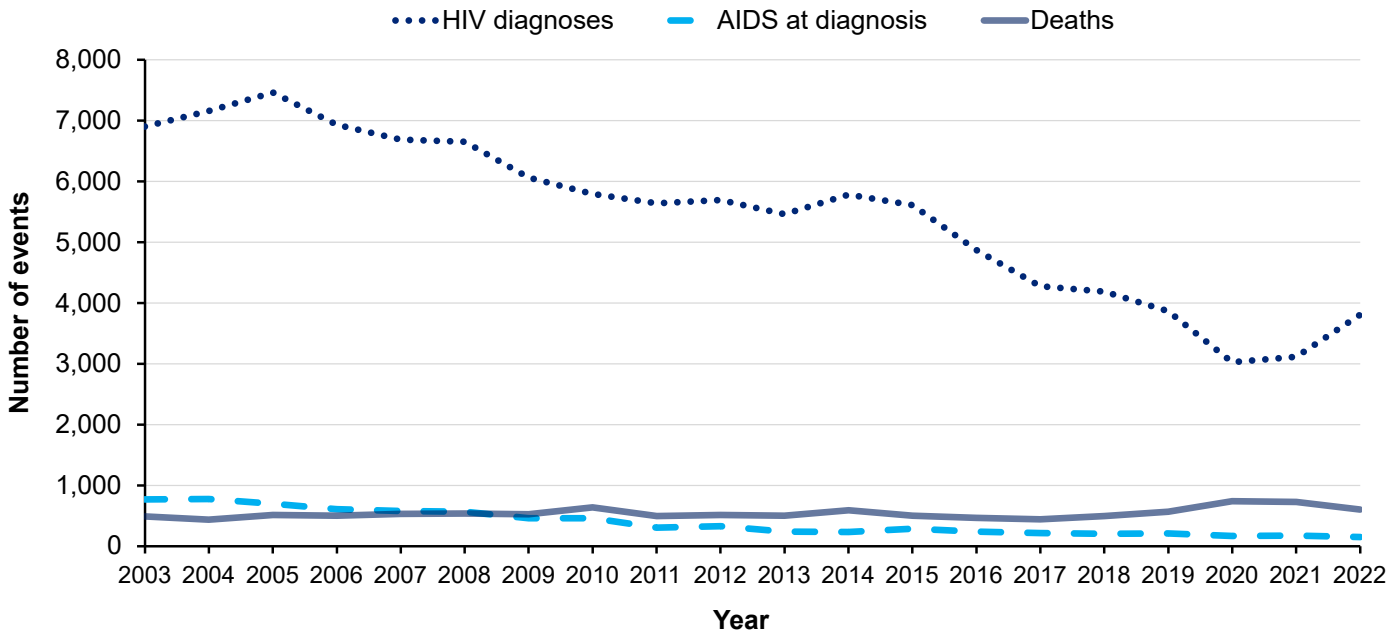
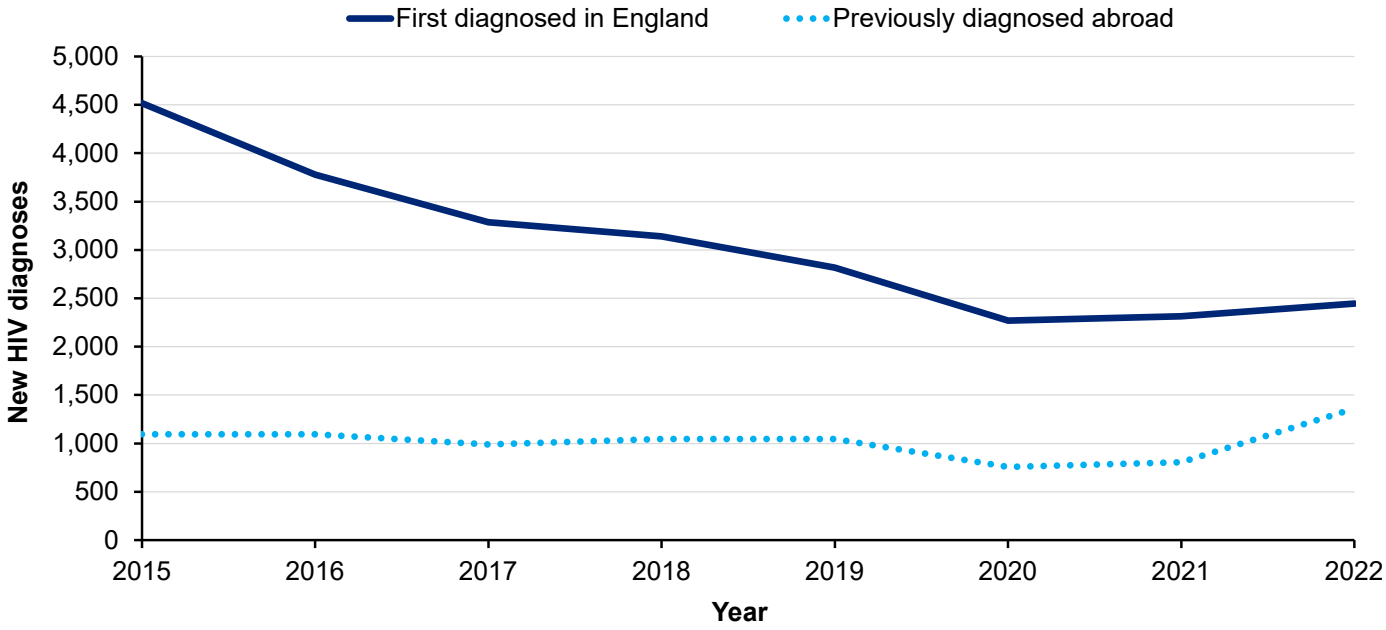


Figure 8. HIV diagnoses by location of diagnosis, England, 2015 to 2022



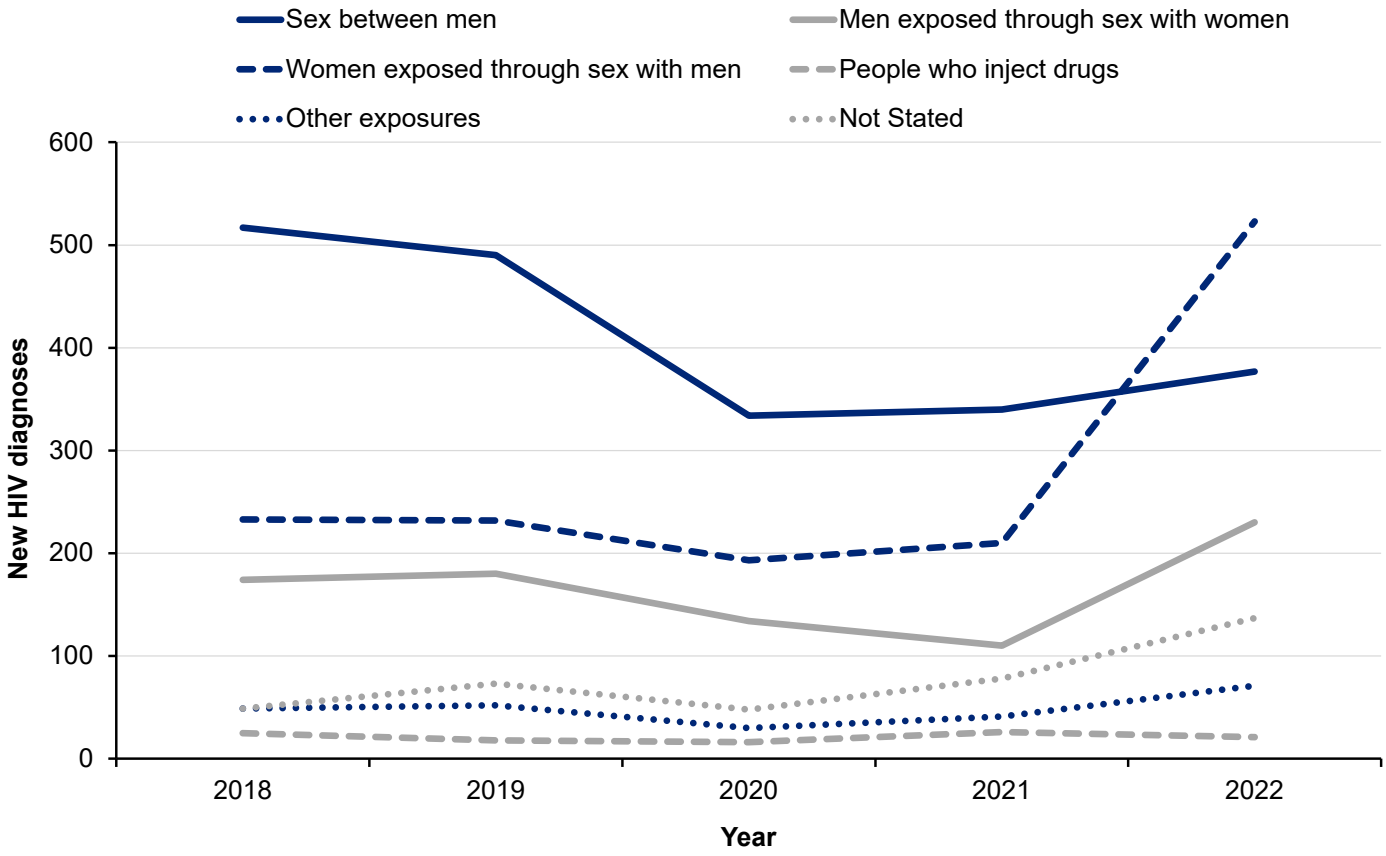
In England, in 2022, 36% (1,361 of 3,805) of all HIV diagnoses were among individuals previously diagnosed abroad, an increase from 26% (805 of 3,118) of all diagnoses in 2021 (Figure 8). This proportion had previously remained between 22% to 27% since 2016. Among the 1,361 individuals who were previously diagnosed abroad, where country of arrival was provided, 67% (911) arrived in England in 2022. Among the 1,361 people previously diagnosed abroad, 49% (661) reported Africa as their region of birth followed by both Europe (excluding UK) and Asia, each of which reported 12% (162).

Diagnoses previously made abroad are unlikely to reflect HIV acquired in England. Most people were rapidly linked to care shortly after their England arrival, ensuring good health outcomes and preventing onward HIV transmission. For instance, in 2022, 91% of those previously diagnosed abroad were linked to care in England within one month of their England diagnosis and 96% within 3 months. Furthermore, provisional analysis indicates that 87% of those with viral load information available at their England diagnosis, were virally suppressed, indicating access to antiretroviral therapy (ART) abroad prior to arrival in England.

Among those previously diagnosed abroad, and subsequently diagnosed in England in 2022, 523 diagnoses were among women exposed through sex with men (149% increase from 210 in 2021) and 230 were among men exposed through sex with women (109% increase from 110 in 2021). Diagnoses among GBMSM previously diagnosed abroad rose by 11% from 340 in 2021 to 377 in 2022 (Figure 9).

Among those previously diagnosed abroad, in 2022, 44% (605) diagnoses were among people of black African ethnicity, 23% (312) among those of white ethnicity, 12% (159) among people of Asian ethnicity and 9% (122) among those of mixed or other ethnicity.

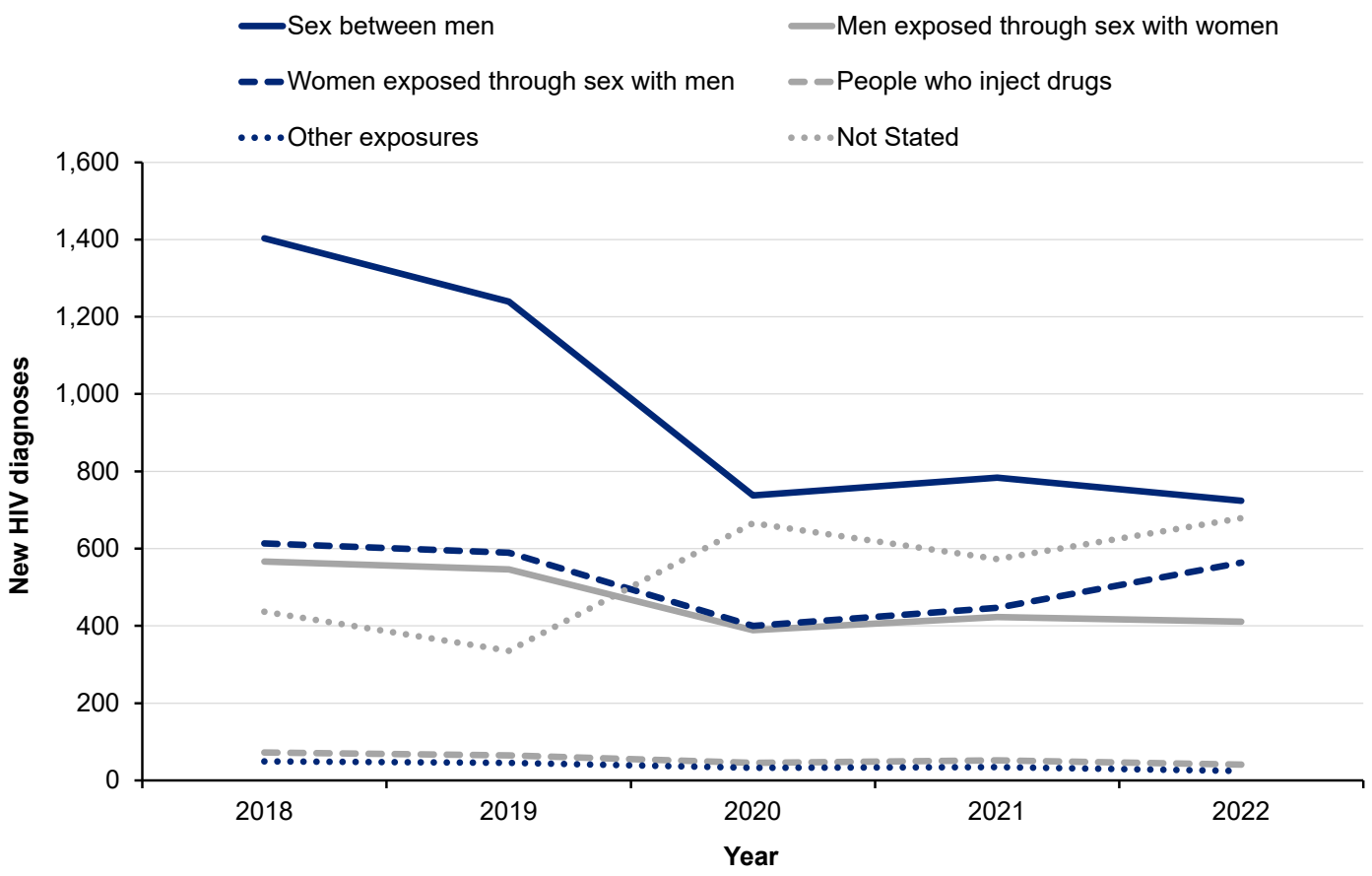
Figure 9. New HIV diagnoses among people previously diagnosed abroad by probable route of exposure, England, 2018 to 2022



Diagnoses first made in England

HIV diagnoses first made in England (see definition in Appendix), increased by 6% from 2,313 in 2021 to 2,444 in 2022. In 2022, men exposed through sex between men accounted for 30% (724), women exposed by sex with men for 23% (564), men exposed by sex with women for 16.8% (411), those exposed by injecting drug use for 1.7% (41), those exposed by vertical transmission for 0.5% ((13) majority of the infants were born abroad), and those exposed by other exposures for a further 0.5% (11). People with probable exposure not stated accounted for 28% (679) (Figure 10).

Figure 10. New HIV diagnoses among people first diagnosed in England by probable route of exposure, England, 2018 to 2022



Among those first diagnosed in England in 2022, 9% (232) were aged between 15 to 24, 31% (750) were aged between 25 to 34, 37% (904) were aged between 35 to 49, 19% (467) were aged between 50 to 64 and 4% (91) were aged 65 and over.

Diagnoses first made in England among people living in London increased by 12% (886 to 994) between 2021 and 2022 and increased by 2% (1,427 to 1,450) among people living outside London. This rise was driven by an increase in diagnoses made among women exposed through sex with men.

HIV diagnoses first made in England among men exposed through sex between men

The number of diagnoses among GBMSM first diagnosed in England decreased by 8% from 784 in 2021 to 724 in 2022 (Figure 10). A 3% decrease was observed in GBMSM living in London (252 to 244) (Figure 11), with a 10% decline (532 to 480) seen among GBMSM living outside London (Figure 12). This latter decline was highest among GBMSM aged 35 to 49 (26% decrease from 189 to 140).

Over half of GBMSM were of white ethnicity, constituting 58% (420 of 724) of diagnoses. In this group, new HIV diagnoses decreased by 17% (508 to 420) between 2021 and 2022. In contrast, the number of diagnoses remained relatively stable among men of black African ethnicity (27 in 2021 and 26 in 2022) and rose

slightly by 17% (75 to 88) among those of Asian ethnicity and by 25% (71 to 89) among those of mixed or other ethnicity.

The fall in diagnoses among GBMSM together with high and sustained numbers in testing for HIV, suggest that HIV transmission continues to decline in GBMSM. The mpox outbreak may also have impacted access to HIV testing services and sexual behaviour (1) . There are inequalities in the decline between different GBMSM ethnic groups, with 40% of diagnoses occurring in ethnic groups other than white in 2022 compared to 35% of diagnoses in ethnic groups other than white in 2021.

HIV diagnoses first made in England among people exposed through sex between men and women

The number of diagnoses among people exposed through sex between men and women increased by 12% from 870 in 2021 to 976 in 2022. Between 2021 and 2022, the number of new HIV diagnoses first made in England in women exposed through sex with men rose by 26% from 447 to 564 but fell by 3% (423 to 411) among men exposed through sex with women (Figure 10).

Among men, new diagnoses increased by 12% (137 in 2021 to 154 in 2022) among those living in London (Figure 11) whilst diagnoses decreased by 10% (286 to 257) among those living outside London (Figure 12).

Among women living in London, diagnoses increased by 16% (147 to 171) between 2021 and 2022 (Figure 11). This compares to a rise of 31% (300 to 393) among women living outside London (Figure 12). Of the women living outside London and diagnosed in 2022, 77% (301) were born abroad and 31% (122) also arrived in England the same year as their diagnosis. This compares to under 19% between 2015 to 2021 (between 2015 and 2019 Together this information, combined with the rise in number of people previously diagnosed abroad with HIV in 2022, suggests the rise is partially accounted for by infections acquired abroad. However, the lower HIV testing rates in women also suggests HIV transmission continues within England.

Figure 11. New HIV diagnoses among people first diagnosed in England by probable route of exposure among those living in London, England, 2018 to 2022

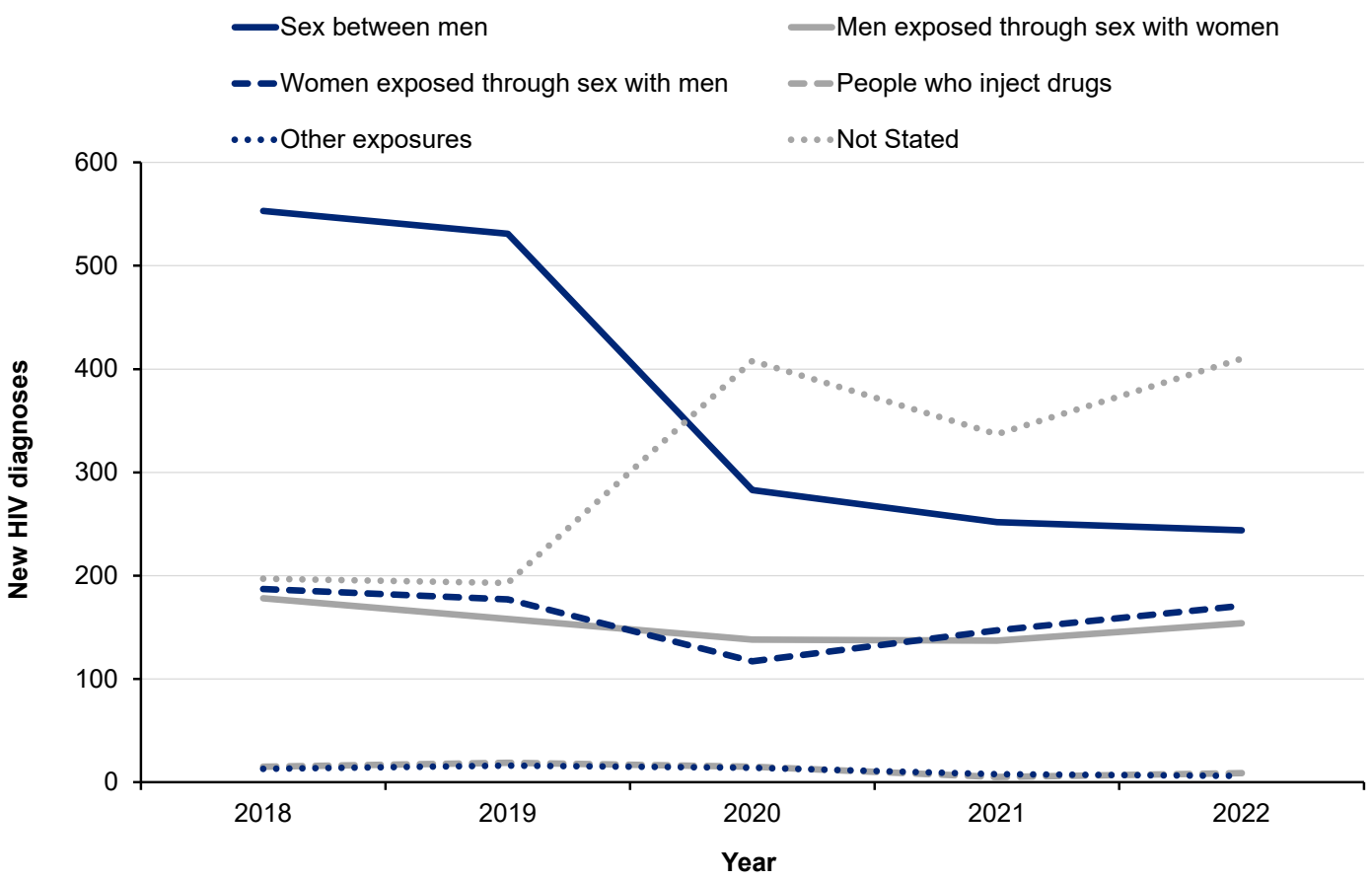
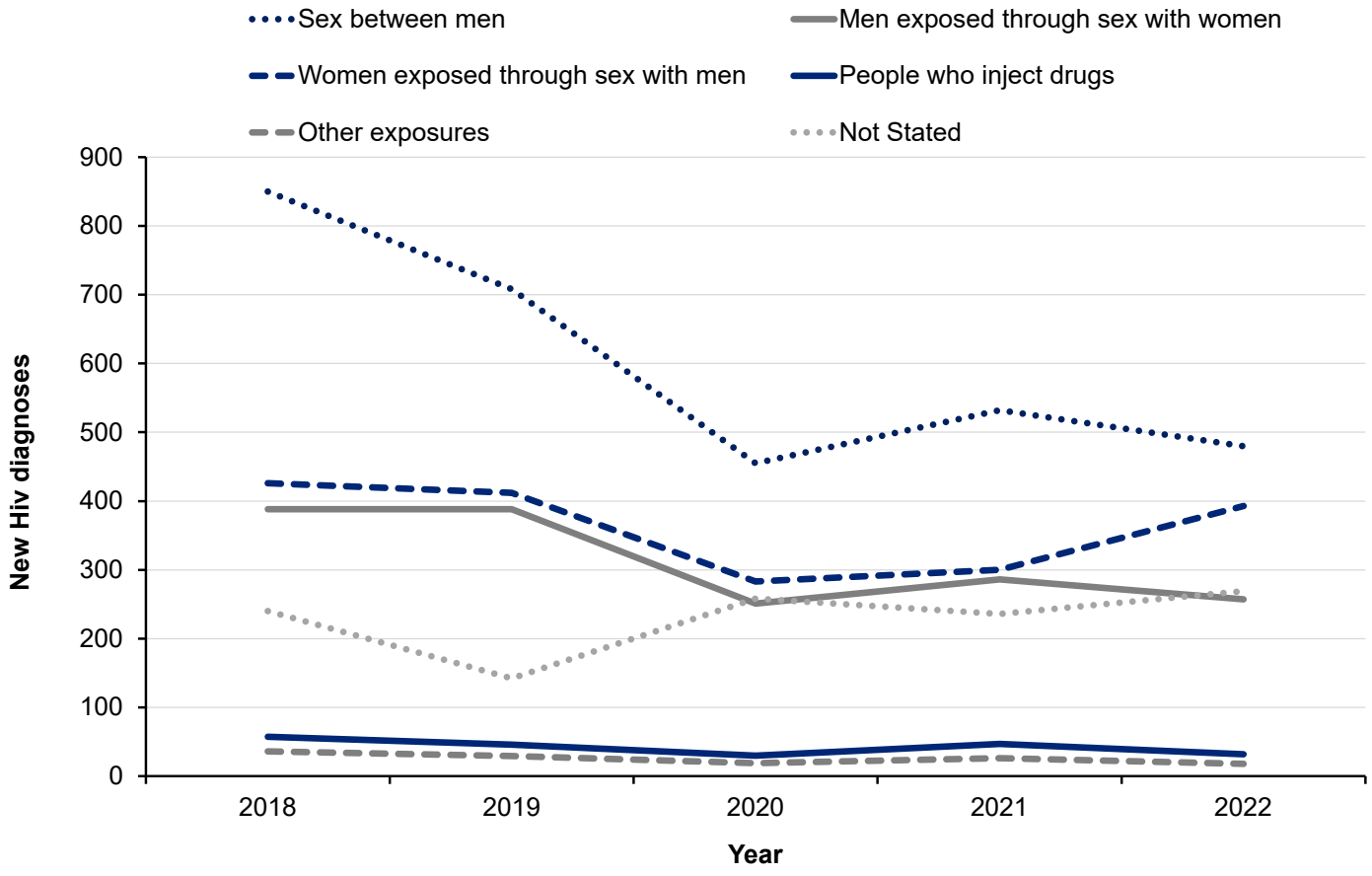


Figure 12. New HIV diagnoses among people first diagnosed in England by probable route of exposure among those living outside London, England, 2018 to 2022



Among people exposed by sex between men and women, diagnoses among those first diagnosed in England were highest among those of black African ethnicity (38%, 374 of 976) followed by those of white ethnicity (29%, 281 of 976). Between 2021 and 2022, among people exposed by sex between men and women, first diagnoses in England decreased by 1% (285 to 281) among those of white ethnicity and 34% (29 to 19) among those of black Caribbean ethnicity, whilst increasing by 15% (325 to 374) among those of black African ethnicity, 21% (52 to 63) among those of Asian ethnicity and 46% (65 to 95) among those of mixed or other ethnicity.

Impact of emergency department opt out testing on new HIV diagnoses first made in England

The opt-out blood borne viruses (BBVs) testing in emergency department (ED) programme launched in April 2022. It included trusts in Manchester, Blackpool, Brighton and Sussex which met the HIV prevalence criteria, with London adopting a city-wide implementation approach to ED testing.

In 2022 a total of 153 people were reported as having been first diagnosed in England in an ED setting (based on the first setting of diagnosis as collected in the HIV and AIDS reporting system (HARS)). Analysis matching ED test results from sentinel surveillance of blood borne virus testing in England (SSBBV) to the HIV and AIDS Reporting System (HARS) and HIV and AIDS New Diagnoses Database (HANDD) indicates that this likely reflects an underestimate. Those with a reactive HIV test result from ED testing are referred to a SHS or HIV clinic for confirmatory testing and therefore in many of these cases it is likely that SHS or HIV clinic is recorded as their first setting of diagnosis. Additional information on ED testing will be made available in the upcoming ED testing 12-month report.

Late HIV diagnoses

In 2022, 79% (2,075 of 2,629) of diagnoses first made in the UK had a CD4 count reported within 91 days of diagnosis. Among those first diagnosed in England, the equivalent figure was 81% (1,972 of 2,444). The median CD4 count at diagnosis in England was 361 cells per mm^3, an increase from 347 cells per mm^3 in 2021.

In England, the proportion of diagnoses made at a late stage of infection (definition of late HIV diagnosis in Appendix) remained stable, from 45% in 2021 to 44% in 2022. However, the total number of late diagnoses in England in 2022 (865) were 27% higher than seen in 2020 (682) and 6% higher than those seen in 2021 (812). The increase between 2020 and 2022 is likely to, in part, reflect diagnoses delayed from 2020 due to the impact of COVID-19 on HIV testing among heterosexual men and

women (Figure 13) as well as a rise in diagnoses among people likely to have acquired HIV abroad.

Figure 13. Number and proportion of people diagnosed late by age, ethnicity, gender, probable route of exposure and region, England, 2020 to 2022

In GBMSM in England, the proportion diagnosed late increased both in proportion and number, from 30% (178 of 602) in 2020 to 36% (238 of 668) in 2021; this rise was sustained in 2022 (37%, 233 of 627). In men exposed through sex with women, the proportion diagnosed late increased from 58% (183 of 315) in 2020 to 62% (214 of 347) in 2021 and decreased to 57% (200 of 351) in 2022 (Figure 13). In both groups, the number of late diagnoses remained below what was seen in 2019.

Among women exposed through sex with men in contrast, the proportion diagnosed late was relatively stable, decreasing from 51% (173 of 338) in 2020 to 50% (191 of 379) in 2021 to 49% (239 of 492) in 2022 (Figure 13). However, the number of late diagnoses among women exposed through sex with men in 2022 (239) was the highest since the 265 seen in 2018.

Those first diagnosed late in England in 2021, were 5 times more likely to die (deaths due to all causes) within a year of their diagnosis, compared to those who were diagnosed promptly. This was slightly lower than in 2019 whereby those diagnosed late were 6 times more likely to die within a year of diagnosis compared to those diagnosed promptly. This compares to 2020 where those diagnosed late were 13 times more likely to die within a year of diagnosis compared to those diagnosed promptly. The 2020 figure reflects the higher than usual number of deaths among those diagnosed late in 2020 (41, the highest number since 51 in 2014) and may in turn reflect the direct impact of COVID-19 infection, as well as its indirect impact through disruption to healthcare services.

Among those diagnosed late in England the highest mortality rates were amongst those exposed by injecting drug use (125 deaths per 1,000), those aged 65 and over (91 deaths per 1,000), those aged between 50 and 64 years (70 deaths per 1,000), and men (47 deaths per 1,000), in particular those exposed by sex with women (37 deaths per 1,000) and those living outside London (53 deaths per 1,000) (Figure 14).

Figure 14. One-year all-cause mortality (per 1,000) among adults newly diagnosed with HIV, by diagnosis stage, age, ethnicity, gender, probable route of exposure and region of residence, England, 2022

All-cause mortality

Mortality figures presented in this report are provisional and an update will be provided in the next MEF update for the HIV Action Plan. The total number of deaths due to all causes among people with HIV in the UK in 2022 was 688, with 603 of these occurring in England.

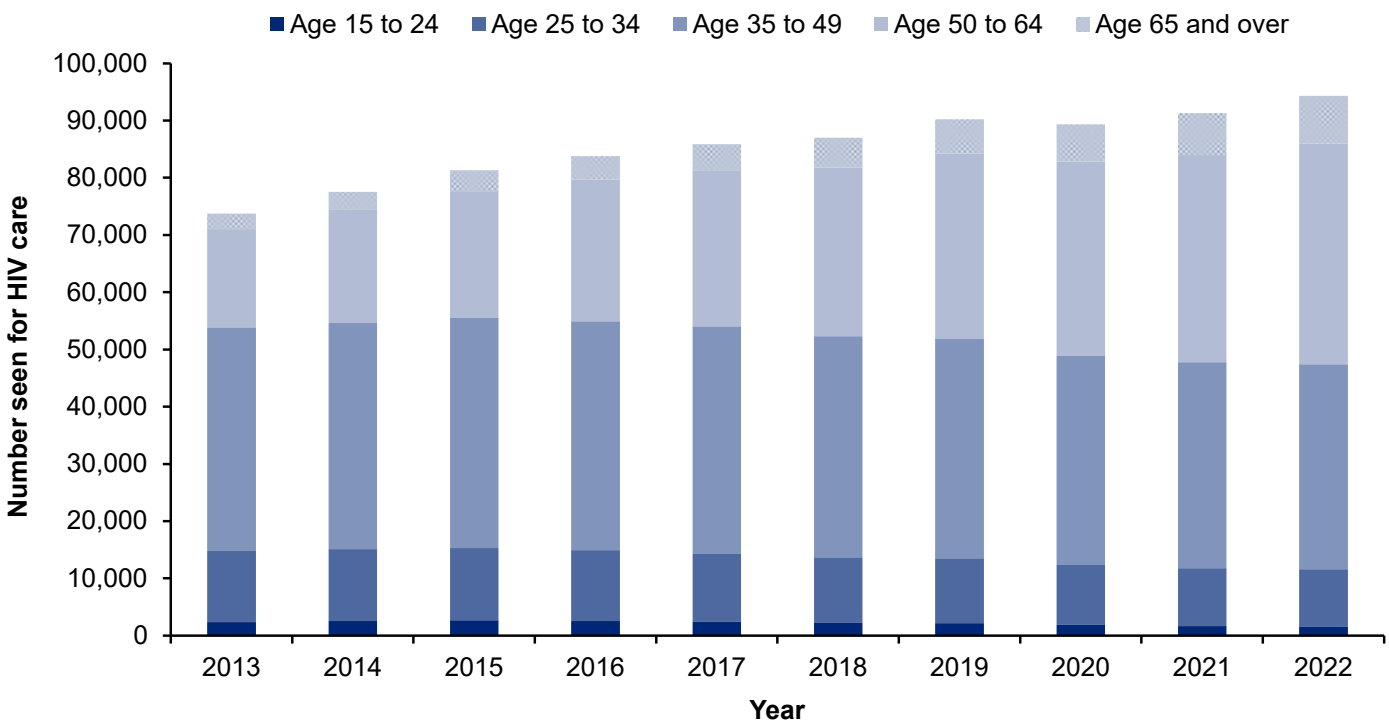
In England, this represents a 18% decrease from the 732 deaths in 2021 and 19% decrease from the 741 deaths in 2020 (Figure 7), and this decrease is likely due to the higher numbers of COVID-19 related deaths in 2020 and 2021, before vaccination was readily available. The National HIV Mortality Review has been used to supplement reports of deaths from 2019, contributing to the increase seen since 2019 (571). Spikes in mortality occurred in April 2020 (118) and January and February 2021 (99 and 70 respectively) with these months coinciding with peaks in COVID-19 mortality and COVID-19 lockdowns in England. Moreover, 70 of the deaths reported in April 2020 included mentions of COVID-19 as a primary or contributing cause of death, with 31 and 17 in January and February 2021, these likely reflects both the direct impact of COVID-19 infection.

HIV care outcomes

People living with diagnosed HIV and accessing care

In 2022, 94,397 people were accessing HIV care in England compared to 91,368 in 2021 and 89,547 in 2020. The age profile of those that received HIV care in 2022 continues to reflect an ageing population living with HIV. Those aged 50 years or over constituted half of all people living with diagnosed HIV in 2022 (50%, 46,961 of 94,397) compared with 27% (19,951 of 74,223) in 2013 (Figure 15). There were 212 trans and gender diverse people seen for HIV care in England in 2022.

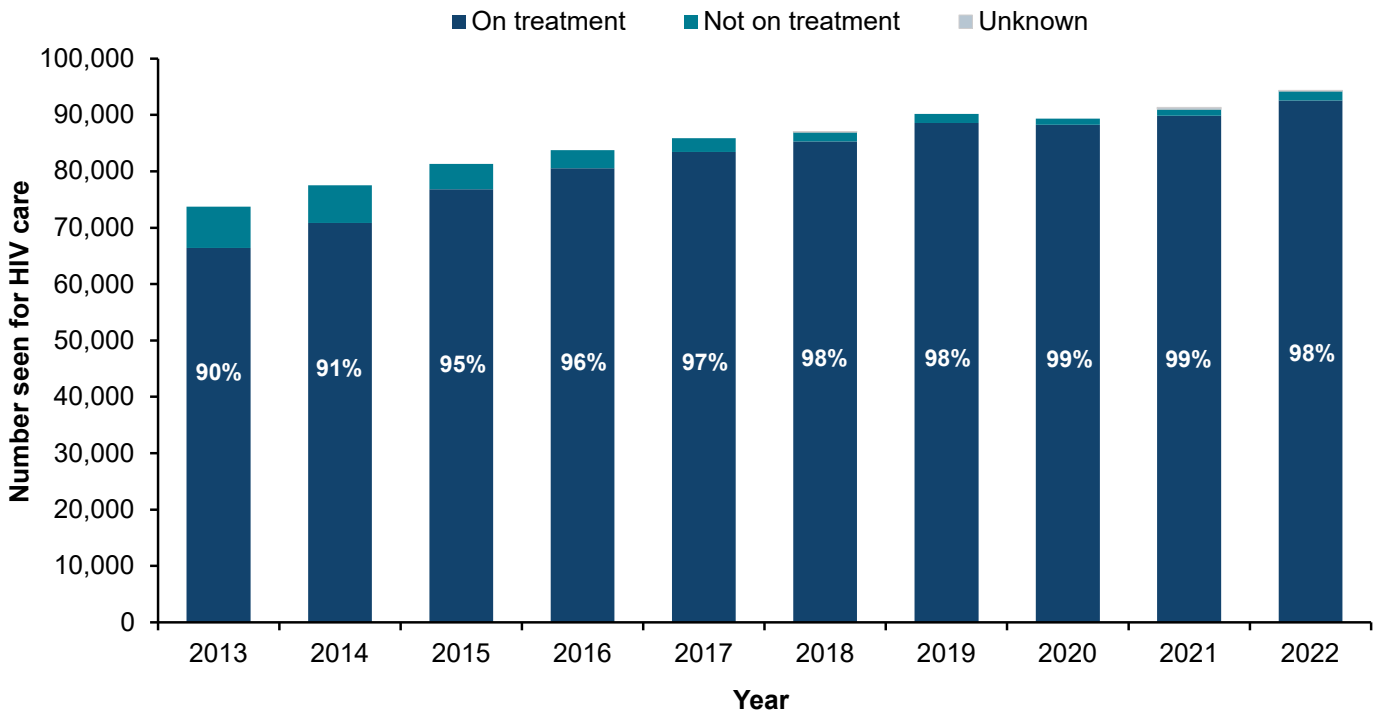
Figure 15. Number of adults seen for HIV care by age, England, 2013 to 2022



Treatment coverage

Treatment coverage in adults accessing care in England remained high in 2022 at 98% (92,542 of 94,358) however was slightly lower than the 99% (89,830 of 91,323) in 2021 (Figure 16). Treatment status was unknown for 308 adults in 2021 and unknown for 147 adults in 2022. In 2022, treatment coverage was consistently high across all exposure groups, with the lowest treatment coverage, 97% (1,311 of 1,354) seen amongst those exposed by injecting drug use. Treatment coverage between ethnic groups showed no variation with all ethnic groups having a coverage of 98% except the white ethnic group which had a coverage of 99%.

Figure 16. Number of adults seen for HIV care by treatment status, England, 2013 to 2022



HIV viral load suppression

People living with HIV that are virally suppressed (who maintain an undetectable viral load) cannot pass on the virus to sexual partners, even without PrEP or condoms. This is known as Undetectable = Untransmissible (U = U).

Overall, 98% (86,178 of 88,116) of people living with HIV in England with a reported viral load in 2022 were virally suppressed; the same as seen in 2021 and higher than the proportion in 2020 (97%). Viral suppression was equally high among men exposed through sex between men and adults exposed through sex between men and women. Lower proportions of viral suppression were seen in those exposed through vertical transmission (91%, 1,430 of 1,570) and those exposed by injecting drug use (94%, 1,111 of 1,182).

The highest proportions of viral suppression were seen in those of white or Asian ethnicity at 98% (43,830 of 44,588 and 3,994 of 4,076 respectively). Almost as high, 97% of people in each of the following ethnic groups were virally suppressed: black African (25,892 of 26,562), black Caribbean (2,599 of 2,673), mixed or other (5,586 of 5,762) and black other (1,983 of 2,054).

Conclusion

The year 2022 saw improvements in HIV testing and PrEP provision but inequalities persist, particularly in relation to ethnicity and gender. HIV testing numbers among GBMSM in 2022 were the highest ever reported. However, HIV testing levels among heterosexual men and women remained lower than those observed in 2019 and women were most likely to not be offered and to decline a test.

Among HIV negative people with PrEP need, the overall proportion who had their need identified and PrEP initiated or continued, increased between 2021 and 2022 with this rise particularly apparent among heterosexual adults, although the proportion remained lower than among GBMSM.

In 2022, there was a rise in the number of people previously diagnosed with HIV abroad and subsequently diagnosed in England. Most individuals likely acquired HIV abroad, were virally suppressed at the time of their diagnosis in England and were rapidly linked to care after arrival. This ensured good health outcomes and the prevention of onward HIV transmission.

There was an increase in the number of women first diagnosed in England in 2022 who acquired HIV through sex with men. Of these women diagnosed in 2022, almost 4 in 5 were born abroad, of whom a third arrived in England in 2022, suggesting these women were likely to have acquired HIV abroad. However, the rise in numbers first diagnosed in England overall, combined with sub-optimal HIV testing levels among heterosexual adults suggests HIV transmission continues. The overall number of people diagnosed late was the highest observed since 2018, and this rise was focused in women. This is likely to reflect infections acquired abroad together with lower rates of HIV testing among all women since 2020. There is an urgent need to improve access to and uptake of PrEP and HIV testing in women and particularly women of black African ethnicity.

Among GBMSM, the fall in new HIV diagnoses continues to plateau. The high levels of testing in men outside London and steeper fall in diagnoses in this group suggests particular improvement among men outside the capital. Inequalities persist however, with men from ethnic groups other than white having a slower rate of decrease in diagnoses.

HIV outpatient services continue to provide excellent care with 98% of people living with HIV in England virally suppressed. Over half of people with diagnosed HIV were aged 50 years or over in 2022, reflecting the success of HIV treatment in ensuring people with HIV have long, healthy lives.

The one-year all-cause mortality rate decreased in those diagnosed late in 2021 compared to the extremely high rate in 2020; this is likely due to higher levels of mortality in 2020 due to the COVID-19 pandemic, before COVID-19 vaccination was readily available.

The HIV Action Plan monitoring and evaluation framework to be published later in 2023 will provide further narrative on the extent to which England is likely to meet the HIV Action Plan ambition to reduce HIV infection by 2025. It will include additional information, such as modelled estimates of incidence, undiagnosed HIV infection

together with details on retention in care. However, the official statistics presented here show that some progress has been made in 2022, but disparities between ethnic groups have widened, regardless of sexual orientation. Further improvements are particularly needed for women and people from ethnic minority groups, both in PrEP provision and access to HIV testing.

Reference

1. Ogaz, D and others. 'Mpox diagnosis history, behavioural risk modification, and vaccination uptake in gay, bisexual, and other men who have sex with men in the UK: findings from a large, online community cross-sectional survey (RiiSH-Mpox) undertaken November to December 2022 (https://www.medrxiv.org/content/10.1101/2023.05.11.23289797v1)'. medRxiv May 2023

Appendix

Gender identity

Gender identity reporting began in 2015 and is as reported by the clinic. Data relating to men or boys includes trans men and boys and data relating to women includes trans women and girls. Where gender identity information is not reported, gender at birth is used in the graphs. 'Trans' data relate to all those who identify with a different gender to that assigned at birth. This includes trans men, trans women, and gender diverse (genderqueer, non-binary, other gender and prefer not to say).

HIV testing: levels of sexual health services

Sexual health services (SHS) include both specialist (Level 3) and non-specialist (Level 1 and 2) SHS. Specialist SHS refers to genitourinary medicine (GUM) and integrated GUM or sexual and reproductive health (SRH) services. Non-specialist SHS refers to SRH services, young people's services, internet-based services, termination of pregnancy services, pharmacies, outreach and general practice, and other community-based settings. Further details on the levels of sexual healthcare provision are provided in Appendix B of the British Association for Sexual Health and HIV (BASHH) Standards for the Management of STIs (https://www.bashh.org/about-bashh/publications/standards-for-the-management-of-stis/).

Pre-exposure prophylaxis (PrEP)

Data is sourced from the GUMCAD STI Surveillance System which includes comprehensive data on people accessing specialist SHSs; however, the data is not representative of the general population.

2021 data represent the first full year of data for routine NHS provision of PrEP at specialist (Level 3) SHSs providing STI related care. There is likely to be under reporting and inconsistent use of PrEP surveillance codes reported through the GUMCAD STI Surveillance System at that time. These data quality issues should be considered when interpreting data on PrEP service provision. UKHSA is actively working with service providers to support PrEP reporting and the quality of coding. All data will be updated on an annual basis.

The data presented in this report relate to consultations between January 2021 and December 2022, with a 12-month lookback period for each consultation. These measures therefore represent a liberal approach to measuring PrEP need and initiation or continuation of PrEP.

More details of the indicators below are described in the PrEP monitoring and evaluation framework (https://www.gov.uk/government/publications/hiv-pre-exposure-prophylaxis-prep-monitoring-and-evaluation), and a phased approach to publication of PrEP data is taking place. This year, UKHSA has published data for 3 indicators:

1. Determining PrEP need (indicator 1.1)

Definition: proportion of all HIV negative individuals accessing specialist SHSs with PrEP need, that is at substantial risk of HIV acquisition and will benefit from receiving PrEP.

Numerator: the number of HIV negative individuals accessing specialist SHSs with PrEP need.

Denominator: the number of HIV negative individuals accessing specialist SHSs.

2. PrEP need identified (indicator 1.1.1)

Definition: proportion of all HIV negative individuals with estimated PrEP need (indicator 1.1) who had this need identified.

Numerator: the number of HIV negative individuals accessing specialist SHSs with PrEP need identified.

Denominator: the number of HIV negative individuals accessing specialist SHSs with PrEP need (numerator of indicator 1.1).

3. Initiation or continuation of PrEP among those with need (indicator 1.1.2)

Definition: proportion of all HIV negative individuals with estimated PrEP need (indicator 1.1) who started or continued PrEP.

Numerator: the number of HIV negative individuals accessing specialist SHSs who started or continued PrEP.

Denominator: the number of HIV negative individuals accessing specialist SHSs with PrEP need (numerator of indicator 1.1).

Late diagnoses corrected for recency of infection

The definition of late HIV diagnosis currently used in the UK is a CD4 count below 350 cells per mm^3 of blood within 91 days of diagnosis, excluding those with evidence of recent infection. This evidence is either a negative test within the 24 months prior to their first positive HIV test, or the result of a Recent Infection Testing Algorithm (RITA), which combines serological recency test results with clinical data.

Diagnoses first made in the UK or England

The term ‘diagnoses first made in England’ refers to diagnoses which were not previously made abroad, and which were instead first made in the UK in those living in England. Likewise, ‘people first diagnosed in England’ refers to people who first received a diagnosis in the UK, living in England. Similarly, ‘diagnoses first made in the UK’ refers to diagnoses that were not previously made abroad, made in those living in the UK.

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