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Official Statistics

# HIV testing, PrEP, new HIV diagnoses, and care outcomes for people accessing HIV services: 2022 report

Updated 1 December 2022

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The annual official statistics data release (data to end of December 2021).

## Main messages

This report presents data for 2021 on HIV testing, pre-exposure prophylaxis (PrEP), post-exposure prophylaxis (PEP), new HIV diagnoses, late diagnoses, and the care outcomes for people accessing HIV services. Data for the United Kingdom (UK) are used wherever possible, with further breakdowns focussed upon England. The impact of the coronavirus (COVID-19) pandemic on services and patient access means that it remains difficult to interpret the changes observed between 2019 and 2021.

Testing has recovered to pre-pandemic levels for gay, bisexual and other men who have sex with men (GBMSM). The number tested in England in 2021 (178,466) exceeded that observed in 2019 (156,631). Test positivity continued to fall in London, though it plateaued outside London. In other groups, the number tested rose slightly compared to 2020 but remained substantially lower than in 2019, particularly in heterosexual men. Test offer rates in specialist sexual health services (SHSs) remained at 2020 levels, lower than in 2019, especially for heterosexual men and heterosexual and bisexual women.

In 2021, 7% (87,828 of 1,180,923) of HIV negative people accessing specialist SHSs in England were defined as having PrEP need, among whom, 70% (61,092) initiated or continued PrEP.

The overall downward trajectory in new HIV diagnoses prior to the COVID-19 pandemic was sustained into 2021. In the UK, new HIV diagnoses fell slightly from 2,961 in 2020 to 2,955 in 2021 but rose by 1% (2,673 to 2,692) in England. This was due to a small increase among GBMSM (699 to 721), and heterosexual and bisexual women (392 to 429).

In the UK, the proportion and number diagnosed late rose between 2020 and 2021, from 44% (724 of 1,643) to 46% (786 of 1,715) in 2021. Comparison with 2019 data suggests that there may have been some delay to testing and diagnosis due to the pandemic, affecting heterosexual men and women in particular.

The number of deaths fell in 2021 whilst the number of AIDS diagnoses remained stable. In the UK, there were 797 deaths and 177 AIDS diagnoses reported in people living with HIV in 2021, compared with 814 deaths and 178 AIDS diagnoses in 2020.

HIV treatment and care provision continue to have high coverage and effectiveness. A total of 91,432 people attended HIV care in England in 2021, a small rise compared to 2019 (90,504) and 2020 (88,786). Among those with known treatment status, 99% (89,926 of 91,123) received treatment, and 98% (80,250 of 82,061 with a viral load result available) of those treated were virally suppressed, consistent with the proportions in 2019 and 2020.

The HIV Action Plan set an ambition to reduce HIV transmission by 80% by 2025. The UK Health Security Agency (UKHSA) will publish a monitoring and evaluation

framework (MEF) to assess progress towards this goal and presenting other key indicators that must be met if the ambition is to be realised. This framework will focus on identifying inequalities between different populations.

## Introduction

This annual report presents data for 2021 on HIV testing, pre-exposure prophylaxis (PrEP), post-exposure prophylaxis (PEP), new HIV diagnoses, late diagnoses, and the care outcomes for people accessing HIV services. Data for the United Kingdom (UK) is used wherever possible, with population breakdowns focussing upon England. Due to reporting delay as a consequence of COVID-19, figures for Scotland are preliminary, but are included in UK totals. Full data for Scotland will be published by Public Health Scotland at a later date. This report is accompanied by [6 sets of data tables and 2 slide set presentations](https://www.gov.uk/government/statistics/hiv-annual-data-tables) (<https://www.gov.uk/government/statistics/hiv-annual-data-tables>).

The HIV Action Plan, published in 2021 set an ambition to reduce HIV transmission by 80% by 2025 (1). The monitoring and evaluation framework for the HIV Action Plan will be published in due course, assessing our progress towards this goal and presenting other key indicators that must be met if the ambition is to be realised.

The COVID-19 pandemic continued to cause substantial disruption in 2021, including a third national lockdown at the start of the year, which was gradually relaxed in the summer months as COVID-19 vaccinations were rolled out across the adult population. As in 2020, the COVID-19 restrictions affected sexual behaviour, access to HIV testing, PrEP and PEP, and the delivery of HIV outpatient care (2). It also significantly affected other healthcare settings which may have impacted on several outcomes reported here.

## HIV testing in sexual health services

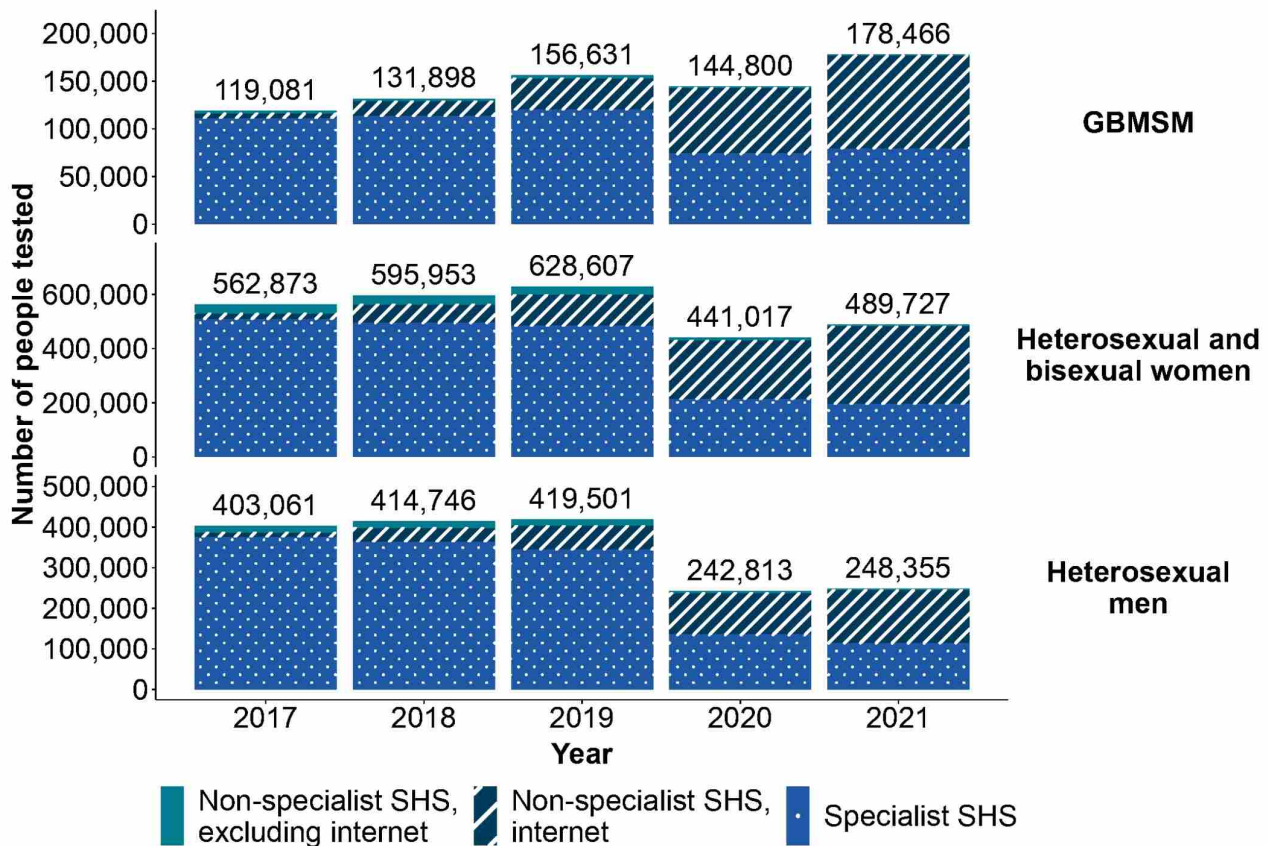
After the fall in the number of people having an HIV test between 2019 and 2020 (31%, 1,319,915 to 913,383), the number of people tested in 2021 showed a partial recovery with a 15% rise to 1,053,169. However, there were still 266,746 (20%) fewer people tested in 2021 than in 2019.

The increase in people having an HIV test between 2020 and 2021 was virtually all driven by a 32% rise in internet testing (423,287 to 560,130), which accounted for 98% of the testing increase. In the same period, testing in specialist SHSs rose by just 3% (465,781 to 478,203), and numbers testing in non-specialist settings fell by 39% (24,315 to 14,836). Consequently, non-specialist internet services were the single biggest contributor to HIV testing in 2021. As internet testing is often closely linked to specialist SHSs, this indicates that people are being effectively linked to internet testing.

The partial recovery in testing between 2020 and 2021 is not seen equally across different demographic groups ([Figure 1](#)). The number of GBMSM having an HIV test (in any SHS) increased by 23% from 144,800 in 2020 to 178,466 in 2021, 14%

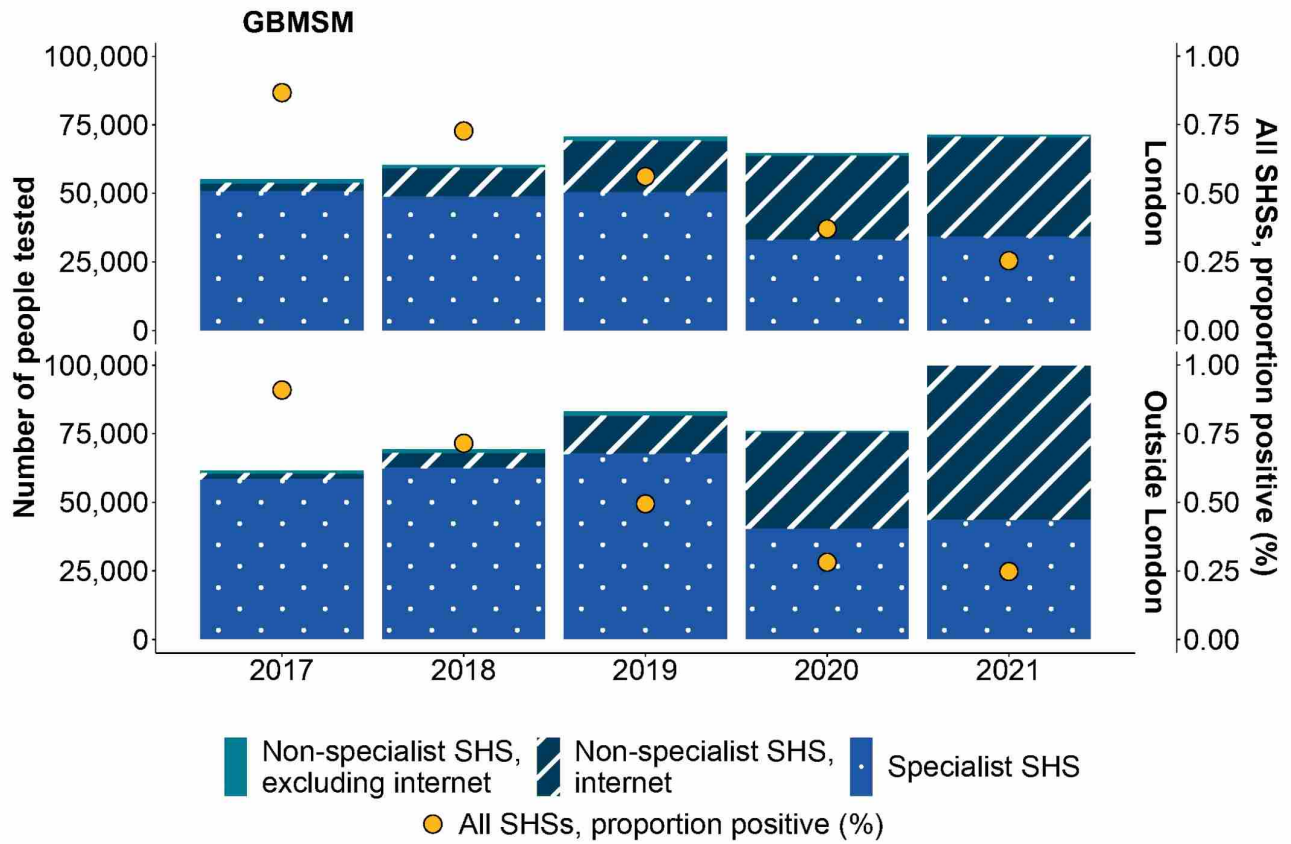
higher than the 156,631 people tested in 2019. In heterosexual and bisexual women, a smaller 11% increase was seen between 2020 and 2021 (441,017 to 489,727), placing levels of testing at 78% of 2019 testing levels (628,607). Despite a substantial fall between 2019 and 2020 (42%, 419,501 to 242,813), testing in heterosexual men increased by just 2% between 2020 and 2021 to 248,355; 59% of 2019 testing levels. Testing in London increased 12% between 2020 and 2021 (to 362,571), following a 25% decrease between 2019 and 2020 (431,253 to 322,636). Outside London a 15% increase in the number of people tested to 658,042 in 2021 was observed, following a 34% (867,319 to 569,869) decrease from 2019 to 2020.

**Figure 1. Number of attendees tested for HIV and new diagnoses at all SHSs by service type, gender and sexual orientation: England, 2017 to 2021**

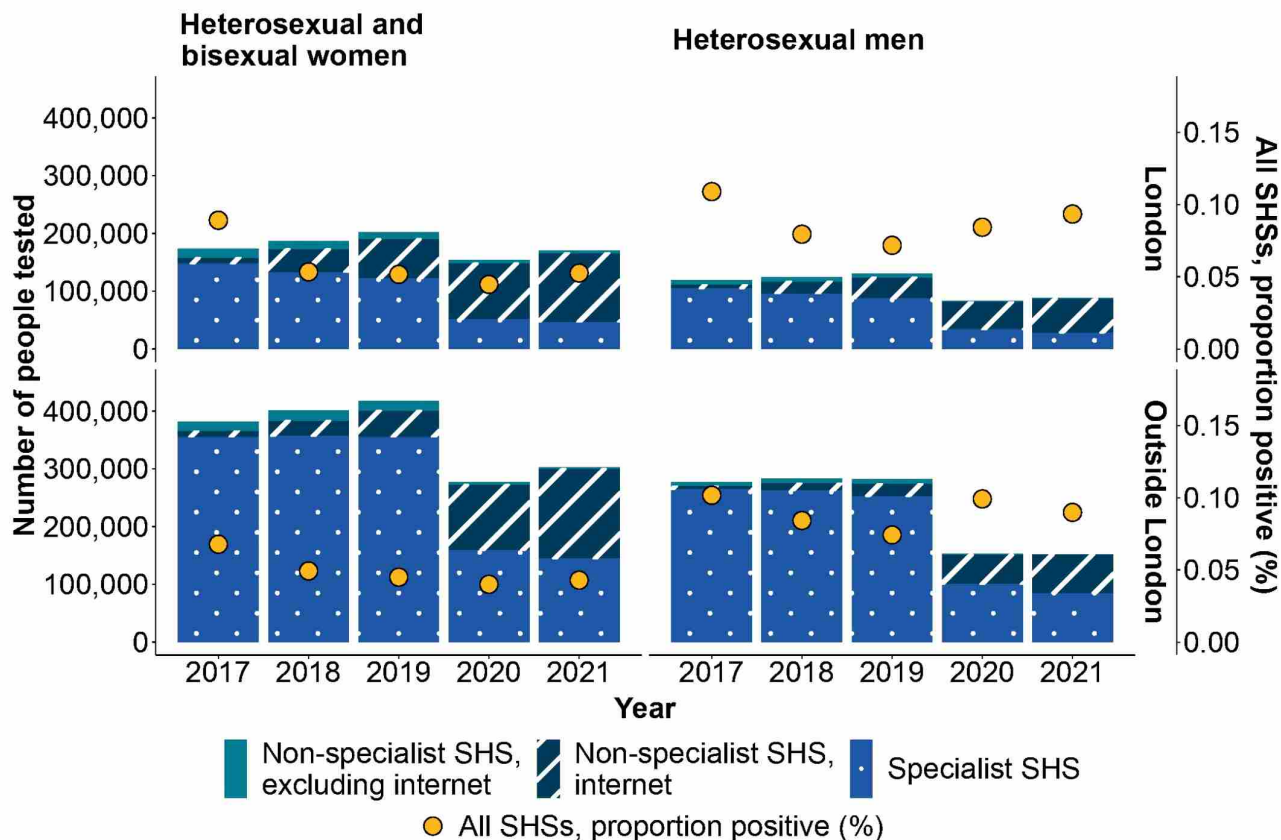


The partial recovery in numbers tested seen in different groups varied by geography. Testing in GBMSM in 2021 exceeded that seen in 2019, increasing from 70,716 in 2019 to 71,534 in 2021 for those living in London, and from 83,336 to 100,180 for those outside London, respectively (Figure 2). For heterosexual and bisexual women and heterosexual men, similar patterns of decrease and partial recovery were seen between 2019 and 2021, but the initial decrease was greater, and partial recovery smaller, or absent, in those outside London (Figure 3).

**Figure 2. Number of GBMSM tested for HIV and proportion positive at all SHSs by SHS type: London and outside of London, 2019 to 2021**



**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 of London, 2019 to 2021**



From 2019 to 2021, the percentage of testing delivered by internet services has increased from 26% (18,705 out of 70,716) to 51% (36,244 out of 71,534) in GBMSM in London, and from 16% (13,522 out of 83,336) to 56% (55,980 out of 100,180) outside London. Similar expansions in the role of internet testing can be seen for heterosexual and bisexual women, but were not as pronounced for heterosexual men (Figure 3).

In both 2021 and 2020, 46% of eligible attendees at specialist SHSs in England were tested for HIV, a fall from 65% in 2019, and 38% of eligible attendees were not offered an HIV test in 2021 and 2020, compared with 16% in 2019. The percentage of eligible attendees declining an HIV test remained relatively stable (19% in 2019, 17% in 2020 and 16% in 2021).

From 2020 to 2021, the proportion of positive tests in all SHSs was stable at 0.11% (1,005 out of 913,383) in 2020, and 0.10% (1,076 out of 1,053,169) in 2021. Similar stability was seen in both heterosexual and bisexual women (0.04%, 185 out of 441,017 in 2020; 0.05%, 228 out of 489,727 in 2021) and heterosexual men (0.09%, 225 out of 242,813 in 2020; 0.09%, 223 out of 248,355 in 2021). Conversely, high levels of testing in GBMSM were coupled with a continued decline in the proportion testing positive (0.52%, 822 out of 156,631 in 2019; 0.32%, 461 out of 144,800, in 2020; 0.25%, 445 out of 178,466 in 2021) (Figure 2).

In 2021 a total of 820 people attended specialist SHS as a contact following partner notification. Of these, 76% (622 out of 820) were tested, and 4.5% (28 out of 622) were newly diagnosed with HIV. The largest group of people who attended following partner notification were GBMSM (287 out of 622), but the greatest



number of new diagnoses amongst those who were tested was seen in heterosexual men (11 out of 28, 40%) and heterosexual and bisexual women (8 out of 28, 29%).

## Pre-exposure prophylaxis (PrEP)

Between October 2017 and July 2020, PrEP was available in England through the Impact Trial (3), which recruited 24,268 participants. The roll out of routine PrEP commissioning, as part of a combination approach to HIV prevention, began in England in the autumn of 2020. SHSs are responsible for the delivery of PrEP to those at higher risk of acquiring HIV.

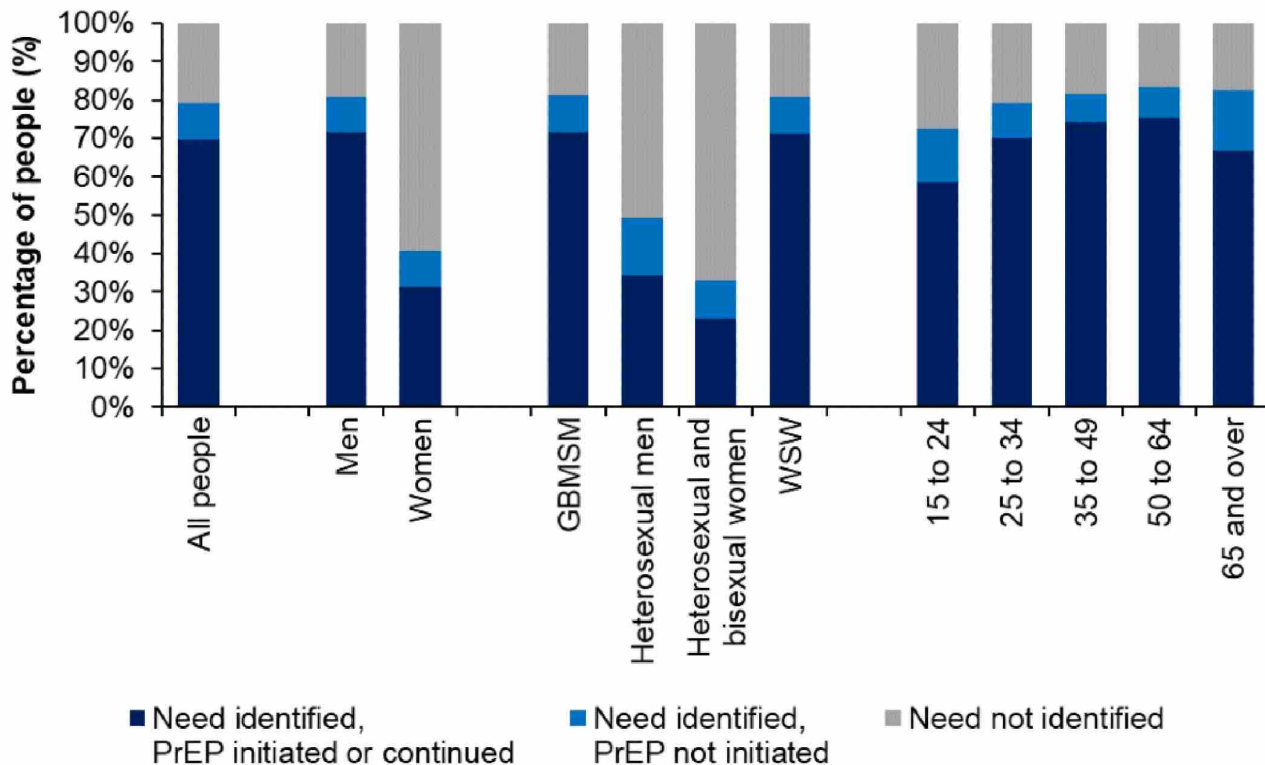
The PrEP monitoring and evaluation framework (4) was published in March 2022 and consists of a series of indicators to inform service improvement in PrEP commissioning and delivery, as well as the elimination of HIV transmission and broader STI control ([see definition in Appendix](#)).

In 2021, 7.4% (87,828 out of 1,180,923) of people who were HIV negative and accessing specialist SHSs in England (excluding people accessing reproductive health services only) were defined as having PrEP need ([see definition in Appendix](#)). This proportion represents people who were at substantial HIV risk and therefore might benefit from receiving PrEP ([Figure 4](#)). Among people with PrEP need, 79.1% (69,507 out of 87,828) had their need identified during a clinical consultation, and 69.6% (61,092 out of 87,828) initiated or continued PrEP.

Among people accessing specialist SHSs, the proportion who were defined as having PrEP need was 64.5% (70,076 out of 108,605) in GBMSM compared to 1.4% (3,119 out of 229,926) in heterosexual men and 0.5% (3,009 out of 624,856) in heterosexual and bisexual women. Among people with need, the proportion who had their need identified was 81.0% (56,793 out of 70,076) in GBMSM, 49.4% (1,542 out of 3,119) in heterosexual men and 33.0% (994 out of 3,009) in heterosexual and bisexual women ([Figure 4](#)). Similarly, the proportion who initiated or continued PrEP was 71.6% (50,152 out of 70,076), 34.2% (1,068 out of 3,119) and 23.3% (700 out of 3,009) in GBMSM, heterosexual men and heterosexual and bisexual women, respectively.

Broken down by age, the proportion who were defined as having PrEP need was 4.0% (16,088 out of 403,643) among 15 to 24 year olds, 8.2% (35,956 out of 440,173) in 25 to 34 year olds, 10.0% (25,800 out of 256,846) in 35 to 49 year olds, 13.3% (8,793 out of 66,012) in 50 to 64 year olds and 12.5% (1,161 out of 9,271) in people aged 65 years and over. People of younger age had a lower proportion of people with PrEP need who had their need identified ([Figure 4](#)): 72.5% (11,662 out of 16,088) of 15 to 24 year olds had their need identified compared to 79.3% (28,513 out of 35,956) of 25 to 34 year olds, 81.6% (21,045 out of 25,800) of 35 to 49 year olds, 83.3% (7,323 out of 8,793) of 50 to 64 year olds and 82.5% (958 out of 1,161) of people aged 65 years and over.

**Figure 4. Proportion of people who were HIV negative accessing specialist SHSs with PrEP need who had their need identified, and who initiated or continued PrEP by demographics, England, 2021**



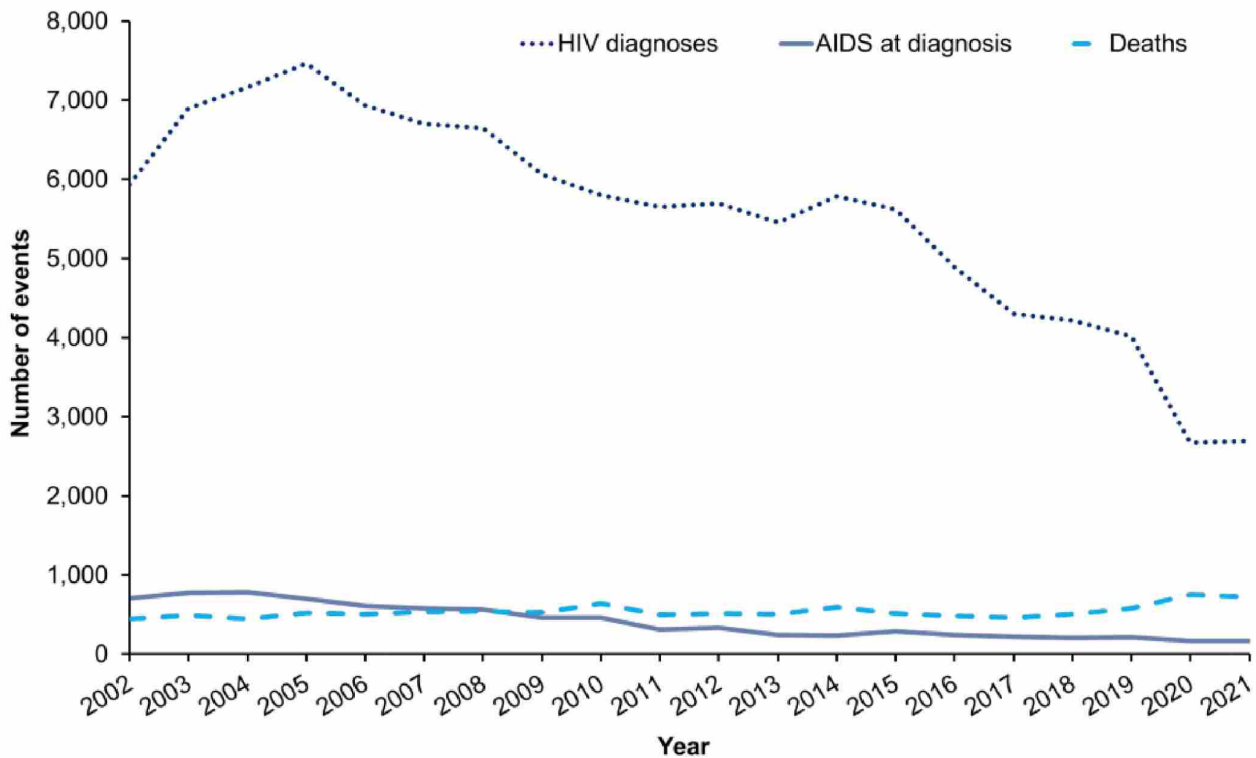
## Post-exposure prophylaxis (PEP)

In 2021, 8,115 people received post exposure prophylaxis for HIV (PEP). This is a 13% increase in PEP activity relative to 2020 (7,193), but represents a 33% decrease compared with 2019 (12,038).

## New HIV diagnoses

In 2021, 2,955 people were newly diagnosed with HIV in the UK (includes people previously diagnosed abroad), of whom 90% (2,692) were diagnosed in England. For the UK, this is a 0.2% fall from 2,961 in 2020 and a 33% fall from 4,408 in 2019. For England, the equivalent figures were a 0.7% rise from 2,673 (2020) and a 33% fall from 4,017 (2019) ([Figure 5](#)).

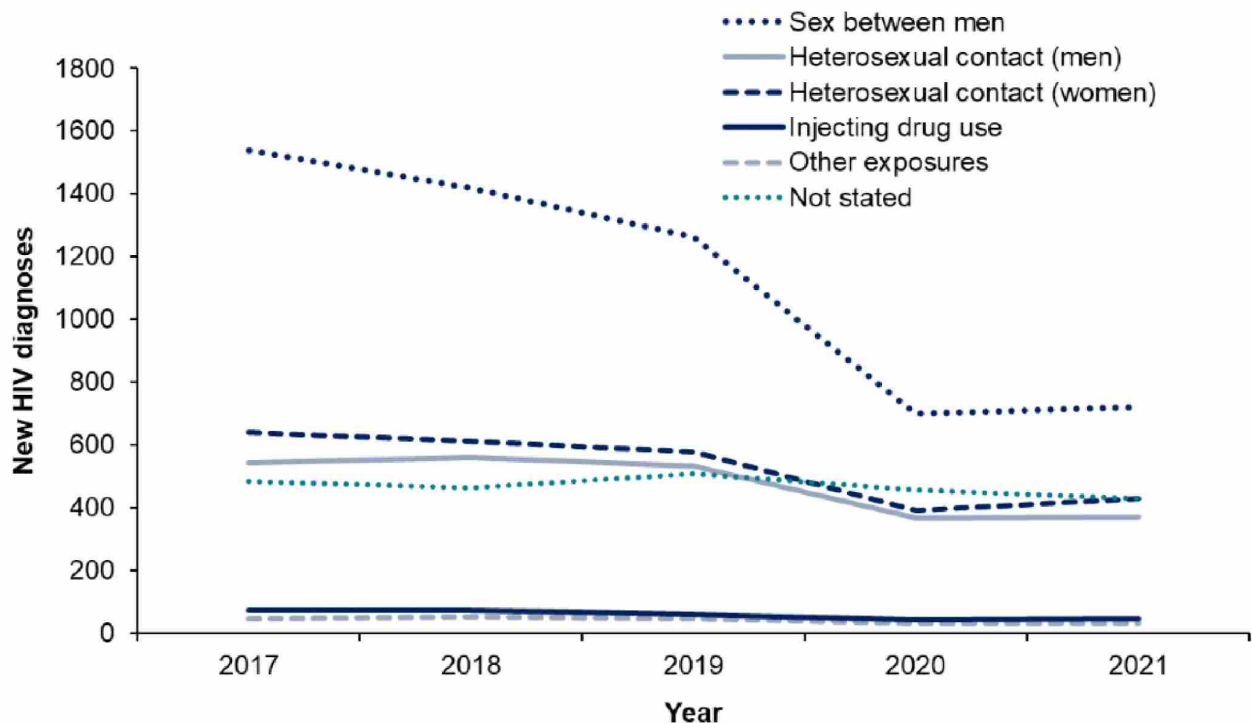
**Figure 5. New HIV diagnoses, AIDS at diagnosis, and all-cause deaths in people with HIV: England, 2002 to 2021**



In England in 2021, 25% (669 out of 2,692) of new diagnoses were in individuals previously diagnosed abroad; a similar proportion to previous years. These diagnoses are unlikely to reflect HIV transmission in the UK, and so would not be preventable by public health measures taken in the UK. Among the 2,023 new diagnoses first made in England ([see definition in Appendix](#)), men exposed through sex between men accounted for 36% (721), women exposed by heterosexual contact for 21% (429), men exposed by heterosexual contact for 18% (369), injecting drug use for 2% (45), those exposed by vertical transmission, for 0.7% (15), and those exposed by blood products for a further 0.4% (10) ([Figure 6](#)).

Among GBMSM first diagnosed in England, the number of diagnoses increased 3% (699 in 2020 to 721 in 2021). This contrasts with previous years when continued decreases in diagnoses were observed in this population. It is likely the steeper decline observed between 2019 and 2020 was due to the impact of COVID-19 related restrictions on sexual and testing behaviour. However, the recovery in number of people tested (beyond pre-pandemic levels) and decreasing proportion testing positive among GBMSM in 2021 suggests that the previous trend of declining new diagnoses observed in this group has been sustained, with an exaggerated dip in 2020.

**Figure 6. New HIV diagnoses among people first diagnosed in England by probable route of exposure: England, 2017 to 2021**



Between 2020 and 2021, the number of new HIV diagnoses first made in England in women exposed by heterosexual contact rose by 9% (392 to 429), and increased slightly from 367 to 369 among men exposed by heterosexual contact. This is despite only modest increases in HIV testing in these groups, especially men exposed by heterosexual contact, suggesting transmission has not declined in these populations.

In GBMSM first diagnosed in England living in London, new diagnoses decreased slightly between 2020 and 2021 (247 to 204), while an increase was seen in those living outside London (452 to 517). This outside London increase was seen only in GBMSM aged 25 to 34 (244 to 282) and 35 to 49 (180 to 231). Similarly, the slight increase in new diagnoses in men exposed by heterosexual contact was seen only outside London (233 to 261), with new diagnoses in London declining (134 to 108). In women exposed by heterosexual contact, new diagnoses increased both in (117 to 140) and outside London (275 to 289).

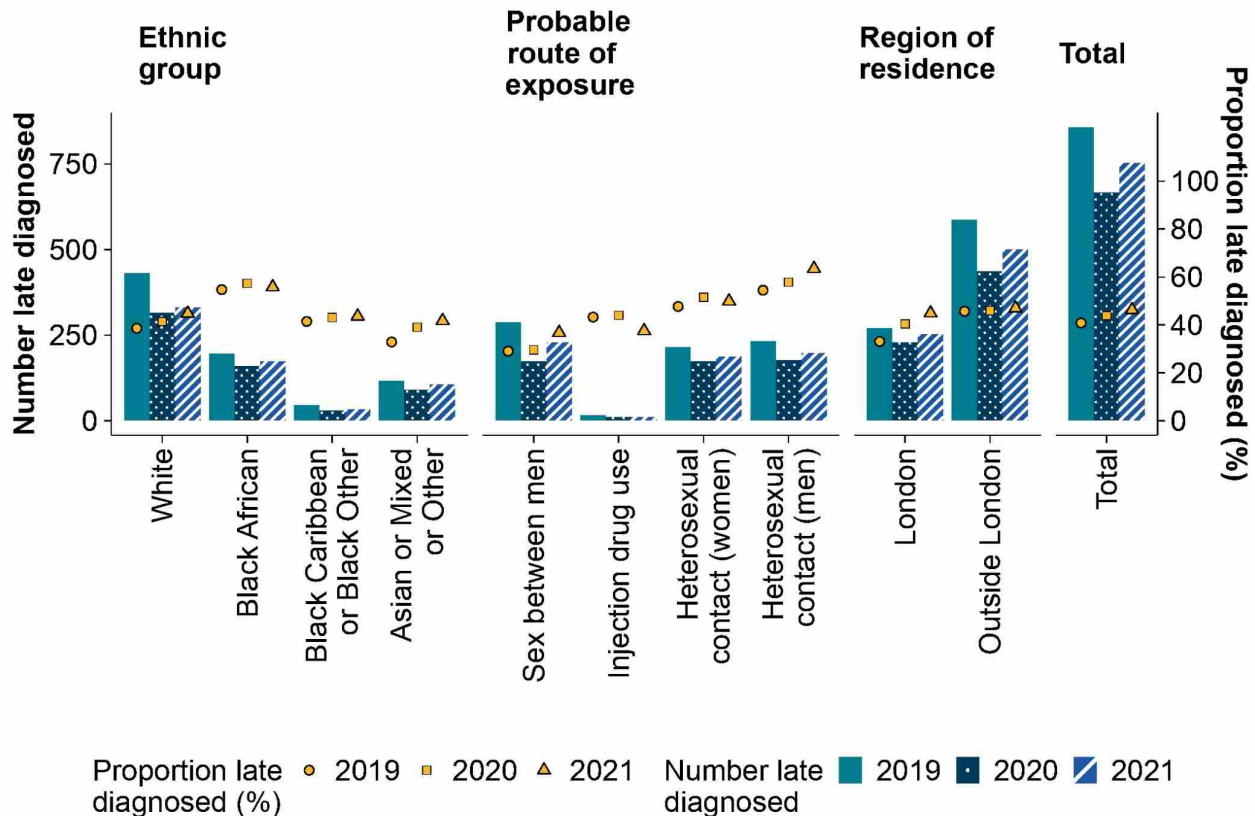
People of White ethnicity constituted 43% (871 out of 2,023) of those first diagnosed in England, remaining the largest ethnic group, followed by 19% (382 out of 2,023) in people of Black African ethnicity. Among GBMSM first diagnosed in England, people of White ethnicity constituted 65% (466 out of 721). Among people exposed by heterosexual contact, diagnoses among those first diagnosed in England were highest among those of Black African ethnicity (37%, 294 out of 798) followed by those of White ethnicity (32%, 252 out of 798).

# CD4 count at diagnosis and late HIV diagnoses

In 2021, 77% (1,715 out of 2,239) of diagnoses first made in the UK ([see definition in Appendix](#)) had a CD4 count reported within 91 days of diagnosis. For those first diagnosed in England, the equivalent figure was 81% (1,630 out of 2,023). The median CD4 count at diagnosis amongst those first diagnosed in England in 2021 was 337 cells per mm<sup>3</sup>, the lowest since 2009 (330 cells per mm<sup>3</sup>; the highest being 412 cells per mm<sup>3</sup> in 2014). Median CD4 at diagnosis was especially low in men exposed by heterosexual contact (221 cells per mm<sup>3</sup>), people of Black African ethnicity (265 cells per mm<sup>3</sup>), and those over the age of 65 (167 cells per mm<sup>3</sup>), all having fallen since 2019.

The proportion of diagnoses first made in the UK which were diagnosed late ([see late diagnosis definition in Appendix](#)) has increased from 41% (961 out of 2,343) in 2019, to 44% (724 out of 1,643) in 2020, to 46% (786 out of 1,715) in 2021. Equivalent figures for diagnoses first made in England were 41% (857 out of 2,101), 44% (667 out of 1,520) and 46% (754 out of 1,630) respectively. Though the proportion of late diagnoses in England increased from 2019 to 2021, the total number of late diagnoses in 2021 remained below that seen in 2019, despite an increase between 2020 and 2021. The increase between 2020 and 2021 is likely to, in part, reflect diagnoses deferred from 2020 due to factors including access to SHSs, access to general healthcare, and changes in health-seeking behaviour. This pattern is seen across a wide range of groups ([Figure 7](#)), though varying in magnitude.

**Figure 7. Number and proportion of people diagnosed late by age, ethnicity, gender, probable route of exposure and region: England, 2019 to 2021**



In GBMSM in England, the proportion diagnosed late increased, from 29% (288 out of 992) in 2019, to 30% (174 out of 588) in 2020, to 37% (229 out of 623) in 2021 (Figure 7). In men exposed by heterosexual contact, the proportion late diagnosed had similarly increased since 2019, from 54% (232 out of 426) in 2019, to 58% (178 out of 308) in 2020, and 63% (198 out of 312) in 2021. In both groups, the number of late diagnoses decreased between 2019 and 2020, before increasing between 2020 and 2021, but remaining below what was seen in 2019. Among women exposed through heterosexual contact in contrast, the proportion diagnosed late was relatively stable, increasing from 48% (216 out of 453) in 2019 to 51% (174 out of 338) in 2020, before declining to 50% (187 out of 375) in 2021, with total late diagnoses remaining below the number seen in 2019.

The proportion diagnosed late was highest among people of Black African ethnicity, 55% (197 out of 360) in 2019 to 57% (160 out of 279) in 2020, to 56% (174 out of 312) in 2021, compared to people of White ethnicity, 39% (431 out of 1,117) in 2019, 41% (315 out of 762) in 2020, and 45% (331 out of 739) in 2021.

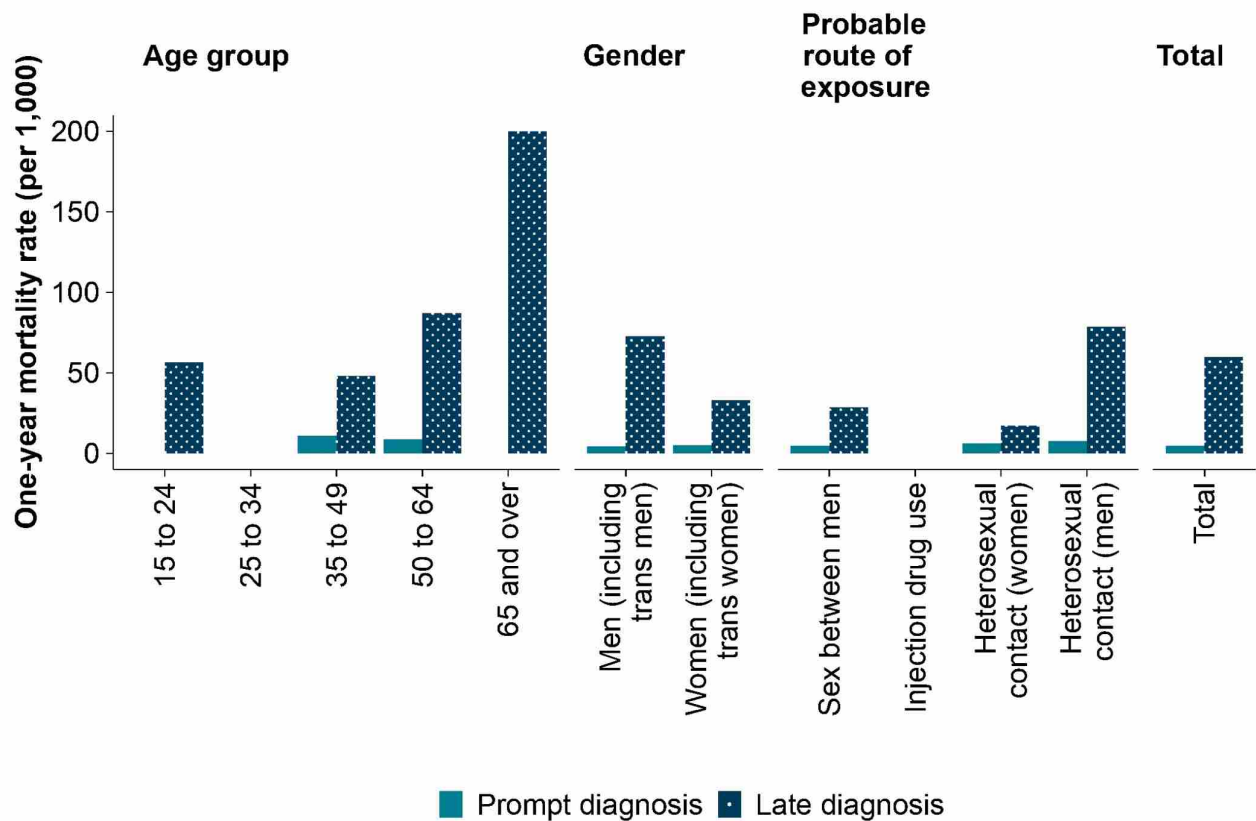
Since 2019, the proportion of late HIV diagnoses in London rose from 33% (270 out of 816) to 40% (230 out of 570) in 2020, to 45% (254 out of 566) in 2021, whilst the total number of late diagnoses decreased (Figure 7). Outside London, the proportion remained relatively stable, 46% (587 out of 1,285) in 2019, to 46% (437 out of 950) in 2020, to 47% (500 out of 1,064) in 2021, again with an overall decrease in the number of people diagnosed late.

Those first diagnosed late in the UK in 2020 were 11 times more likely to die within a year of their diagnosis, compared to those who were diagnosed promptly, with

those first diagnosed late in England 13 times more likely to die within a year. These figures are substantially higher than those for people diagnosed at a late stage of infection in 2019, who were 6 times more likely to die within a year, and 8 times more likely to die within a year respectively. This increase reflects the higher than usual number of deaths among those diagnosed late in 2020 (40, the highest number since 51 in 2014), and the sharp reduction in new diagnoses in 2020. This may in turn reflect the direct impact of COVID-19 infection, as well as its indirect impact through disruption to healthcare services.

In those diagnosed late in England the highest mortality rates were amongst those over the age of 65 (200 deaths per 1,000), those between 50 and 64 years old (87 deaths per 1,000), and those who were men (73 deaths per 1,000), in particular those exposed by heterosexual contact (79 deaths per 1,000) ([Figure 8](#)).

**Figure 8. One-year mortality (per 1,000) among adults newly diagnosed with HIV, by diagnosis stage, age, gender and probable route of exposure: England, 2021**



## All-cause mortality

The total number of deaths due to all causes among people with HIV in the UK in 2021 was 797, with 723 of these in England. From 2019 to 2020 deaths in England increased by 29%, from 584 in 2019 to 754 in 2020. Since 2019 the National HIV Mortality Review (5) has been used to supplement reports of deaths, contributing to the increase seen. In addition, deaths also increased due to the COVID-19

pandemic. Though the average number of deaths per month in 2020 and 2021 (63 and 60 respectively) exceed that of 2019 (49), spikes in mortality occurred in April 2020 (121), and January and February 2021 (100 and 72 respectively). These months coincide with peaks in COVID-19 mortality in England, and lockdowns. Furthermore, 73 of the deaths reported in April 2020 included mentions of COVID-19 as a primary or contributing cause of death, with 31 and 18 in January and February 2021. As such, the increase in mortality at these times likely reflects both the direct impact of COVID-19 infection, as well as disruption to healthcare services.

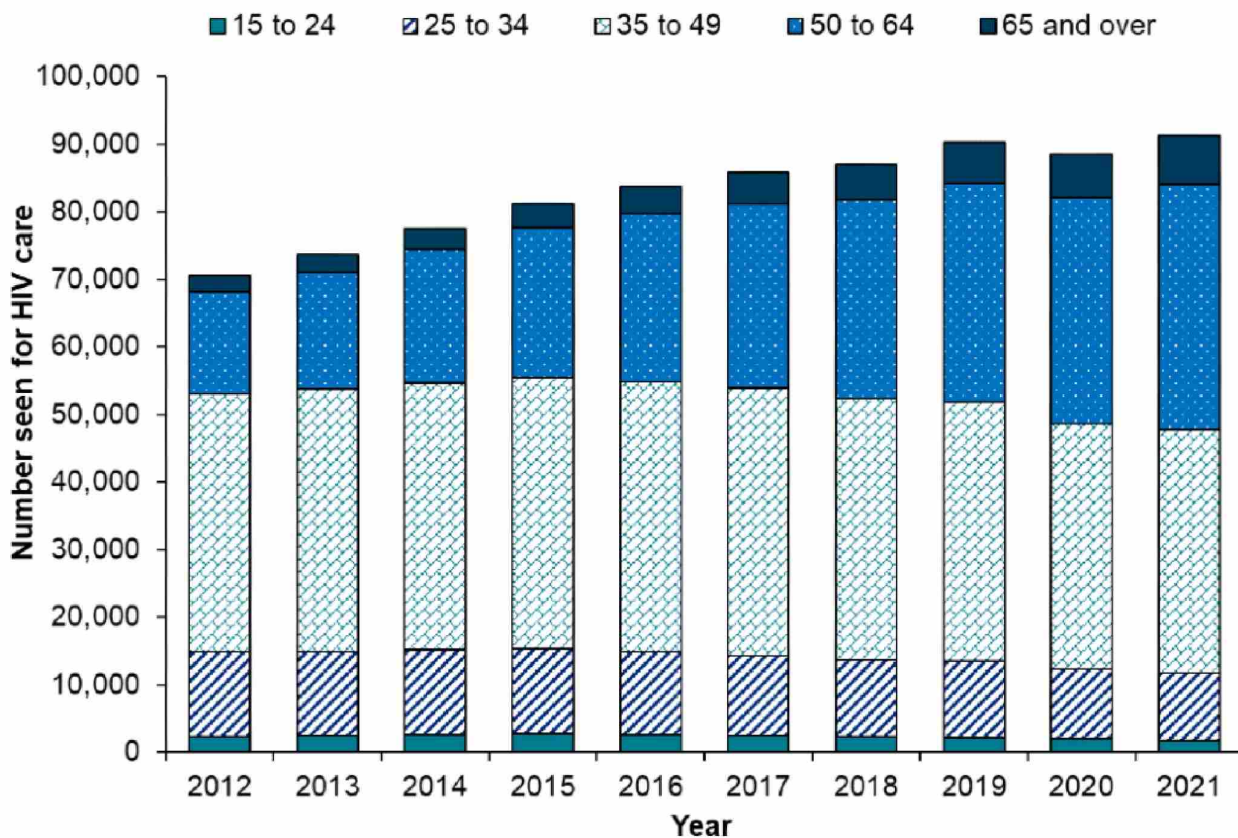
## HIV care outcomes

### People living with diagnosed HIV and accessing care

In 2021 a total of 91,432 people were accessing HIV care in England. This is compared with 88,786 in 2020 and 90,504 in 2019 and suggests a near full recovery in the number of people in care following the drop seen between 2019 and 2020 ([Figure 9](#)).

The age profile of those receiving HIV care in 2021 continues to reflect an ageing population living with HIV. Those aged 50 years or over constituted nearly half of all people living with diagnosed HIV in 2021 (48% 43,584 out of 91,432) compared with 25% (17,499 out of 71,253) in 2012 ([Figure 9](#)).

**Figure 9. Number of adults seen for HIV care by age: England, 2012 to 2021**

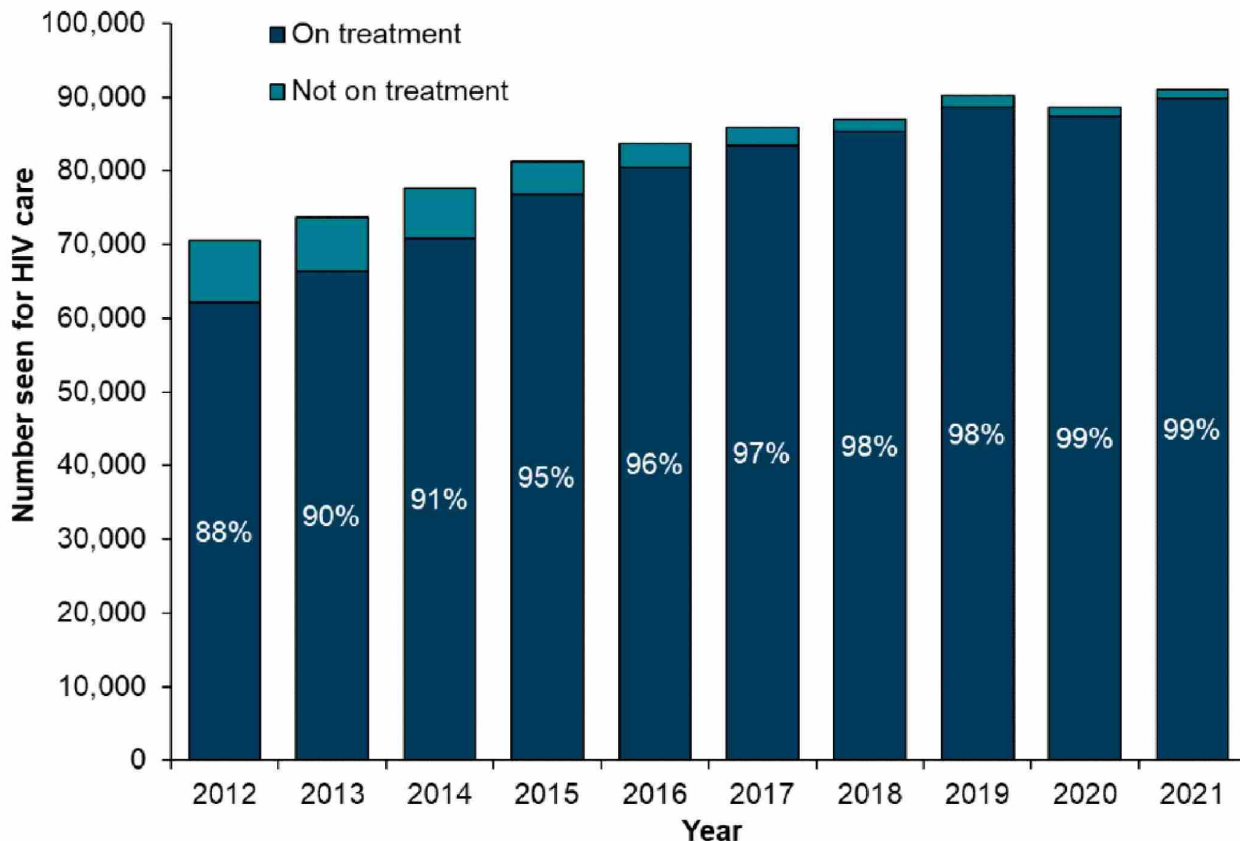




## Treatment coverage

Treatment coverage in adults accessing care in England remained high in 2021 at 99% (89,926 out of 91,123 with known treatment status) (Figure 10) and consistent across all exposure groups, with the lowest treatment coverage, 98% (1,319 out of 1,352), seen amongst those exposed by injecting drug use. Treatment coverage between ethnic groups showed little variation, from a maximum of 99% (46,484 out of 46,982) in White ethnic groups, to a minimum of 98% (5,677 out of 5,772) in those of other or mixed ethnicity.

**Figure 10. Number of adults seen for HIV care by treatment status: England, 2012 to 2021**



## HIV viral load suppression

People living with HIV who maintain an undetectable viral load (also known as virally suppressed) cannot pass on the virus to sexual partners (6), characterised as Undetectable = Untransmissible (U = U).

Overall, 98% (80,250 out of 82,061) of people living with HIV in England with a viral load reported in 2021 were virally suppressed; slightly higher than the proportion of viral suppression seen in both 2019 and 2020 (97%). The number of people living with HIV who were virally suppressed in 2021 (80,250) exceeded the total in both 2019 and 2020 (79,242 and 70,632, respectively).

Viral suppression was high among men exposed through sex between men (98%, 37,377 out of 37,964), men exposed through heterosexual contact (98%, 14,290

out of 14,643) and women exposed by heterosexual contact (98%, 22,839 out of 23,424). Lower proportions of viral suppression were seen in those exposed through vertical transmission (92%, 1,325 out of 1,434), and injecting drug use (94%, 1,076 out of 1,143).

The highest proportions of viral suppression were seen in those of White or Asian ethnicity at 98% (41,909 out of 42,682 and 3,580 out of 3,655, respectively). Comparatively, 97% (23,574 out of 24,193 and 5,087 out of 5,220 respectively) of those of Black African or of other or mixed ethnicity were virally suppressed. The proportion virally suppressed was slightly lower among people of Black Caribbean, and Black other ethnicities, at 97% and 96% (2,377 out of 2,460 and 1,796 out of 1,862 respectively).

## Conclusion

The COVID-19 pandemic continued to impact the HIV epidemic in the UK in 2021. While numbers of people tested, of diagnoses and of people seen for care showed signs of a partial recovery, and overall pre-pandemic trends were sustained, this was not homogenous between different populations.

HIV testing among GBMSM in 2021 exceeded the testing levels seen in 2019, whilst testing in other groups such as heterosexual men remained at the reduced levels in 2021 that they were in 2020. In 2021, internet testing was the main route of access to HIV testing in England but is disproportionately accessed by GBMSM, especially outside London. This apparent inequity in access to internet testing needs to be addressed ([7](#)), and should be accompanied by increased access to testing in other settings as outlined in the government's HIV Action plan, for example opt-out testing in emergency departments in areas of high and very high prevalence and full implementation of HIV testing among people presenting with indicator conditions.

Among people accessing specialist SHSs who were defined as having PrEP need, 79.1% had their need identified at a clinical consultation, and 69.6% initiated or continued PrEP. These proportions were greatest among GBMSM and people of older age groups. As a key route into PrEP access, it is vital that access to testing is expanded to facilitate this.

Many people who may have tested in 2020 in the absence of the COVID-19 pandemic service disruptions, appear to, in effect, have had their diagnosis deferred to 2021. This is supported by a fall in median CD4 count, a rise in the proportion testing positive for some groups despite decreased testing, and a rise in the number of people diagnosed late. The one-year mortality rate increased in those diagnosed late in 2020, and may be due to both the direct and indirect impacts of COVID-19 infection.

While numbers of new diagnoses have plateaued, it is reassuring that excluding 2020, pre-pandemic trends in the decline in new HIV diagnoses were sustained into 2021. The small increase in HIV diagnoses between 2020 and 2021 in GBMSM may be a temporary departure from the trend, and the result of deferred tests from

2020. However, the plateauing of diagnoses in heterosexual men and women, in the context of sub-optimal test coverage is of concern and reinforces the need for awareness of the need to test, and access to testing.

The number of people seen for care in 2021 in England increased beyond pre-pandemic levels. However, people exposed by vertical transmission and injecting drug use continue to display significantly lower levels of viral suppression. These points highlight the need for interventions to maintain and re-engage people in care, thereby increasing the number of people on treatment with undetectable levels of virus to reduce the potential for onwards transmission.

In conclusion, the data for 2021 shows signs of a partial, but uneven recovery. The recovery of testing in GBMSM indicates that it is likely that HIV incidence in this group continues to fall. Meanwhile, in heterosexual men, and heterosexual and bisexual women, there are weaker indications of recovery, and opportunities to identify need for PrEP and other prevention interventions that are missed; this requires urgent action. The data reinforces the need for increased levels of and expanded access to HIV testing across a wider range of settings.

The HIV Action Plan monitoring and evaluation framework will explore in detail the inequalities and gaps in HIV prevention, testing and care and indicators of progress required to achieve the ambition to end HIV transmission by 2030 in England.

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## Appendix

### Methods and data sources

#### 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 BASHH Standards for the Management of STIs (8).

#### Pre-exposure prophylaxis (PrEP)

Data is sourced from the GUMCAD STI Surveillance System which includes comprehensive data on people accessing SHSs providing STI related care, therefore 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 this time. These data quality issues should

be considered when interpreting current 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 2021, with a 12-month lookback period for each consultation. These measures therefore represent a broad and inclusive approach to measuring PrEP need and initiation or continuation of PrEP.

As described in the PrEP monitoring and evaluation framework (4), 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)

This indicator estimates the proportion of people who were HIV negative accessing specialist SHSs (excluding those who access reproductive health services only) who were at substantial HIV risk, and therefore could benefit from receiving PrEP. This assessment of risk is based on a combination of clinical codes reported through GUMCAD within the previous 12 months of each consultation including PrEP surveillance codes, and other clinical or behavioural markers that are known to indicate higher risk of HIV seroconversion in the year following an attendance. PrEP need is defined separately for GBMSM and other population groups. Further details are available in the PrEP monitoring and evaluation framework (4).

### 2. PrEP need identified (indicator 1.1.1)

This indicator measures the proportion of people who were HIV negative accessing specialist SHSs with PrEP need (indicator 1.1) who had their need for PrEP identified at a clinical consultation. PrEP need identified is based on a combination of PrEP surveillance codes reported through GUMCAD within the previous 12 months of each consultation including a PrEP eligibility code, being offered PrEP, or being prescribed PrEP.

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

This indicator assesses what proportion of people who were HIV negative accessing specialist SHSs with PrEP need (indicator 1.1) initiate or continue PrEP. Initiation or continuation of PrEP is based on a combination of PrEP surveillance codes reported through GUMCAD within the previous 12 months of each consultation, including being offered and accepting PrEP, or being prescribed PrEP.

## **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<sup>3</sup> 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. People diagnosed late are estimated to have lived with HIV unaware for at least 3 to 5 years (9, 10). Late diagnosis is an important metric for HIV

surveillance, as those diagnosed late are at greater risk of ill-health and death, but also of onward transmission. However, though a CD4 count below 350 cells per mm<sup>3</sup> alone is a useful indicator of late diagnosis, it is an imperfect one, with a proportion of recent infections also displaying this low count (10). As a result, a proportion of late diagnoses identified are not late and should be reclassified as not late, as their inclusion risks masking trends in late diagnosis and the health outcomes of people diagnosed late, hence the exclusions applied.

## 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 which were not previously made abroad, made in those living in the UK.

## Lost to follow-up

We estimate the number of people living with HIV who are lost to follow-up in a given year as the number of people (all ages) seen for care at least once during the previous year and who were not seen for HIV care during the year in question, excluding people who died in this year, or the previous year.

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