



Public Health
England

Protecting and improving the nation's health

HIV New Diagnoses, Treatment and Care in the UK 2015 report

About Public Health England

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

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Key findings

The number of people living with diagnosed HIV in the UK continues to rise, with 85,489 people seen for HIV care by the end of 2014. This reflects the longer life expectancy conferred by effective antiretroviral therapy (ART), ongoing HIV transmission and steady numbers of new diagnoses. Consistent with this, the age of people accessing care for HIV continues to increase, with almost one in six now aged over 55. The aging cohort of people living with HIV emphasises the importance of integrated care pathways to manage co-morbidities and other complications.

HIV specialist treatment and care in the UK remains excellent. Of all people attending for care in 2014, 91% were on ART, of whom 95% were virally suppressed and very unlikely to be infectious to others. This puts the UK ahead of time for two of the three ambitious UNAIDS 90/90/90 goals, which set a global target of 90% of people living with HIV being diagnosed, 90% diagnosed on ART and 90% viral suppression for those on ART by 2020.

This year new evidence from clinical trials has demonstrated benefits for people with HIV who start ART before their CD4 count drops below 500 cells/mm³. These data have been reflected in the 2015 WHO [1] and UK BHIVA [2] treatment guidelines, both of which recommend starting ART as soon as possible after diagnosis. There has already been a trend towards earlier starting of ART in the UK, with 26% of all people initiating in 2013 having a CD4 count >500 cells/mm³ when starting treatment, up from 10% in 2009.

A total of 6151 people were newly diagnosed with HIV in the UK during 2014. Although a slight increase on 2013, this figure is in line with new diagnoses reported in recent years. The number of men who have sex with men (MSM) newly diagnosed with HIV continued to rise from 2,860 men in 2010 to 3,360 men diagnosed HIV positive in 2014. New diagnoses acquired through heterosexual sex has declined over the same time period (3,440 to 2,490), largely due to a reduction in diagnoses among black African men and women (1,801 in 2010 to 1,044 in 2014).

Of all new HIV diagnoses acquired through heterosexual sex the estimated proportion of those acquired in the UK has risen from 52% (1,646/3,183) in 2010 to 59% (1,460/2,490) in 2014, with the proportion of HIV diagnoses acquired in the UK among MSM stable over time at 76% (2,550/3,360).

A major challenge for the UK remains the timely diagnosis of HIV infection in order to start lifesaving ART and prevent onwards transmission of infection. Two out of five people newly diagnosed with HIV in 2014 had “late stage” HIV, evidenced by a CD4 count below 350, and this remains stubbornly and unacceptably high (56% in 2005).

Being diagnosed late is associated with a tenfold increased risk of death within one year of diagnosis. In 2014, 613 people with HIV died, most of who were diagnosed late.

Of 85,489 people accessing HIV care in 2014, 41% lived in London. 70 of 326 (21%) English local authorities had a diagnosed HIV prevalence above 2 per 1,000 in 2014, the threshold for expanded testing into general practice new registrants and hospital admissions. This included all but one London borough. There is an urgent need to increase HIV testing opportunities and uptake for people living in these areas, in line with national HIV testing guidelines [3,4,5].

Quality of HIV care

People living with diagnosed HIV and accessing care

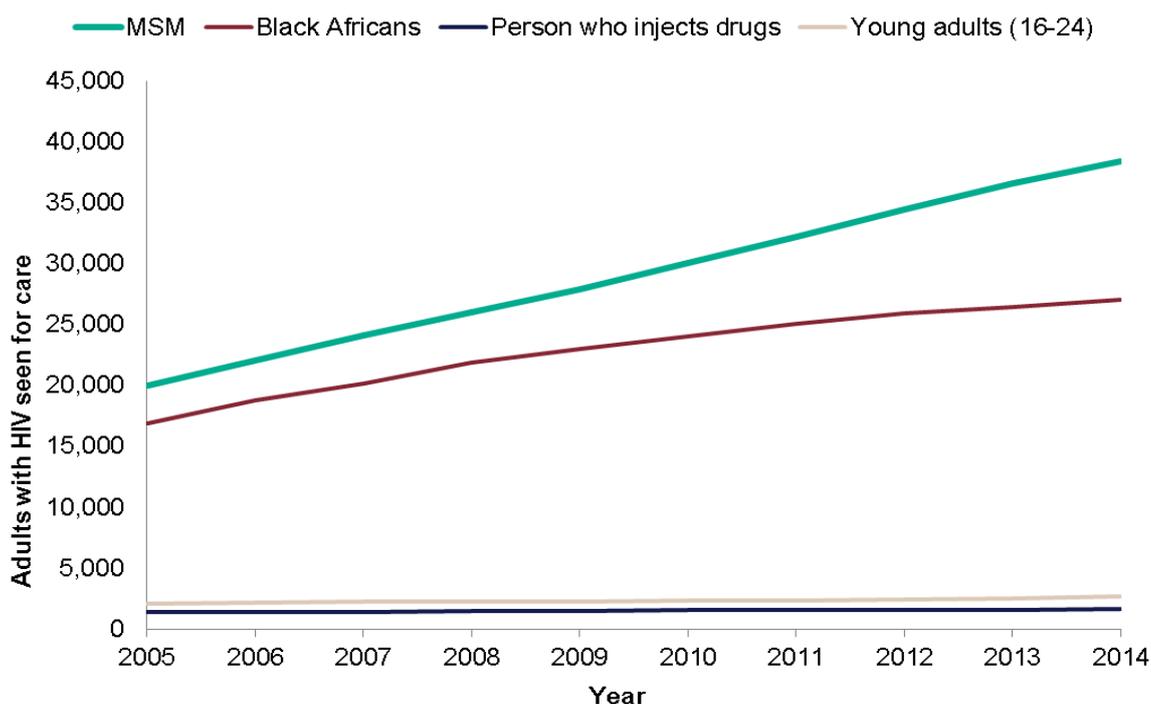
In 2014, 85,489 people were living with diagnosed HIV and had accessed care (57,347 men and 28,142 women). This represents nearly a doubling in the last decade and an increase of 5% over the preceding year.

In total, almost half (48%, 40,842) of all people accessing HIV care acquired their infection through heterosexual sex (15,383 men and 25,459 women) (Figure 1). Among heterosexuals, 60% of people were of black African ethnicity, 24% white, 4% black Caribbean, 3% other black ethnicity, 2% Indian/Pakistani/Bangladeshi, and 2% of other Asian ethnicity.

MSM made up 45% (38,432) of people accessing HIV care in 2014 and 67% of all men. The majority of MSM were white 86% (33,077), with the next most common single ethnic group being black Caribbean 2% (837).

A minority of people accessing HIV care in 2014 (1,654 (2%)) had acquired their infection through sharing injecting drug equipment (PWID) or through mother to child transmission (1,709 (2%)).

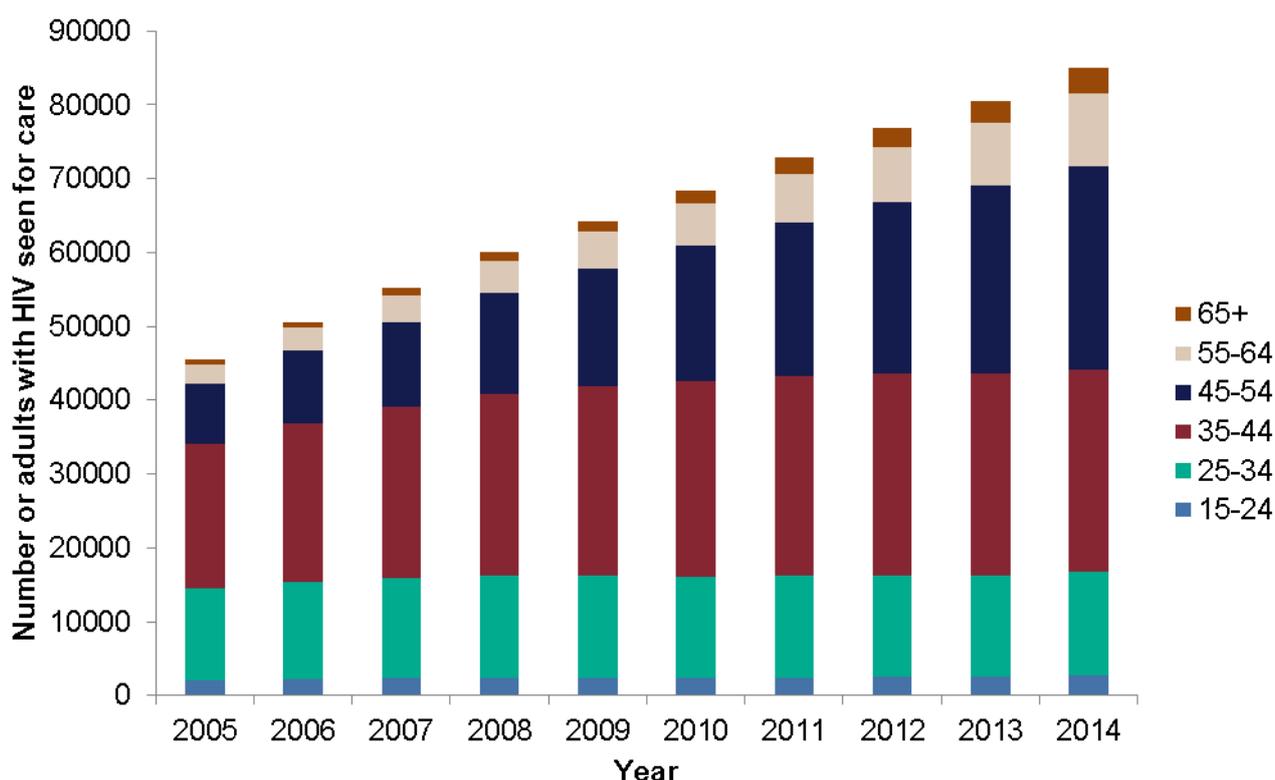
Figure 1: Number of adults seen for HIV care over time by key prevention groups¹; 2005-2014



¹ Groups not mutually exclusive, Black African and Young Adults include all exposure categories, MSM and PWID include all ethnicities

Almost half (48%, 40,834) of all people seen for HIV care in 2014 were aged 45 and over, up from 25% over the past decade, whilst those aged 55 or over and 65 or over now account for 15%, and 4% respectively (Figure 2). Among MSM the proportion over 55 accessing care has increased from 9% in 2005 to 17% in 2014, with similar trends amongst heterosexuals, 6% to 15% respectively. The aging cohort of people living with HIV emphasises the importance of integrated care pathways to manage co-morbidities and other complications.

Figure 2: People seen for HIV care by age group over time; 2005-2014



As the number of people living with HIV continues to increase so too does the prevalence of diagnosed HIV infection. In 2014, one in five (21%) English local authorities had a diagnosed prevalence above the 2 per 1,000 threshold recommended in national guidelines as the cut-off for expanded HIV testing into new registrants in general practice and general hospital admissions (Figure 7). In London all but one of the 33 local authorities had prevalence above this threshold. Outside London, the five local authorities with the highest prevalence in order were: Brighton and Hove, Manchester, Salford, Luton and Blackpool.

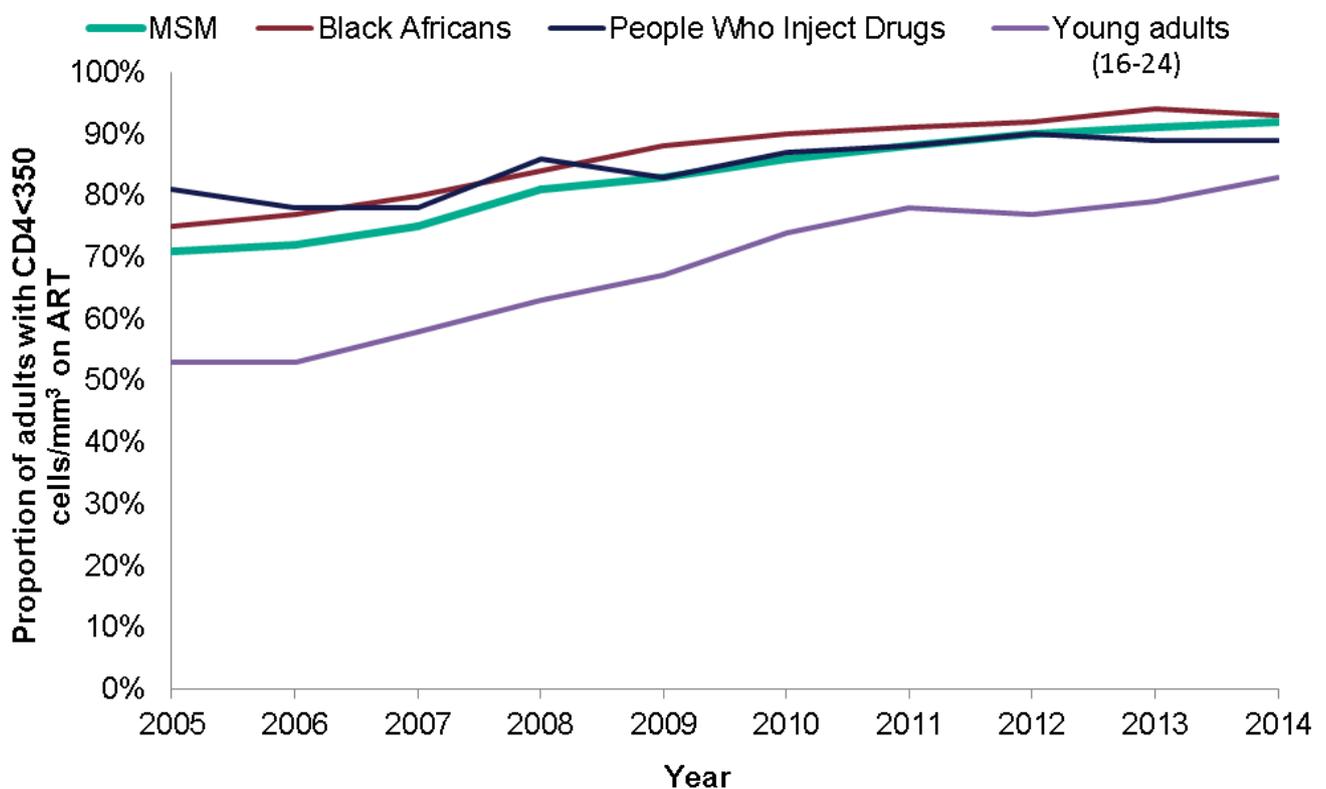
Treatment coverage

Both the number and proportion of people diagnosed with HIV on ART continues to increase over time from 84% (57,867) in 2010 to 91% (76,462) in 2014. The overall

ART coverage was high across key prevention groups; MSM (90%), black African (92%) and PWID (90%) population groups, but remains proportionally lower in young adults aged 16-24 (74%).

Over the same period the proportion of people on ART with a CD4 less than 350 cells/mm³ has increased from 84% in 2010 to 91% in 2014, suggesting that there may have been improvements in starting ART promptly, along with fewer people with immunological failure on ART (Figure 3).

Figure 3: Proportion of adults with CD4<350 cells/mm³ on ART over time by key prevention group¹; 2005-2014



¹ Groups not mutually exclusive, Black African and Young Adults include all exposure categories, MSM and PWID include all ethnicities

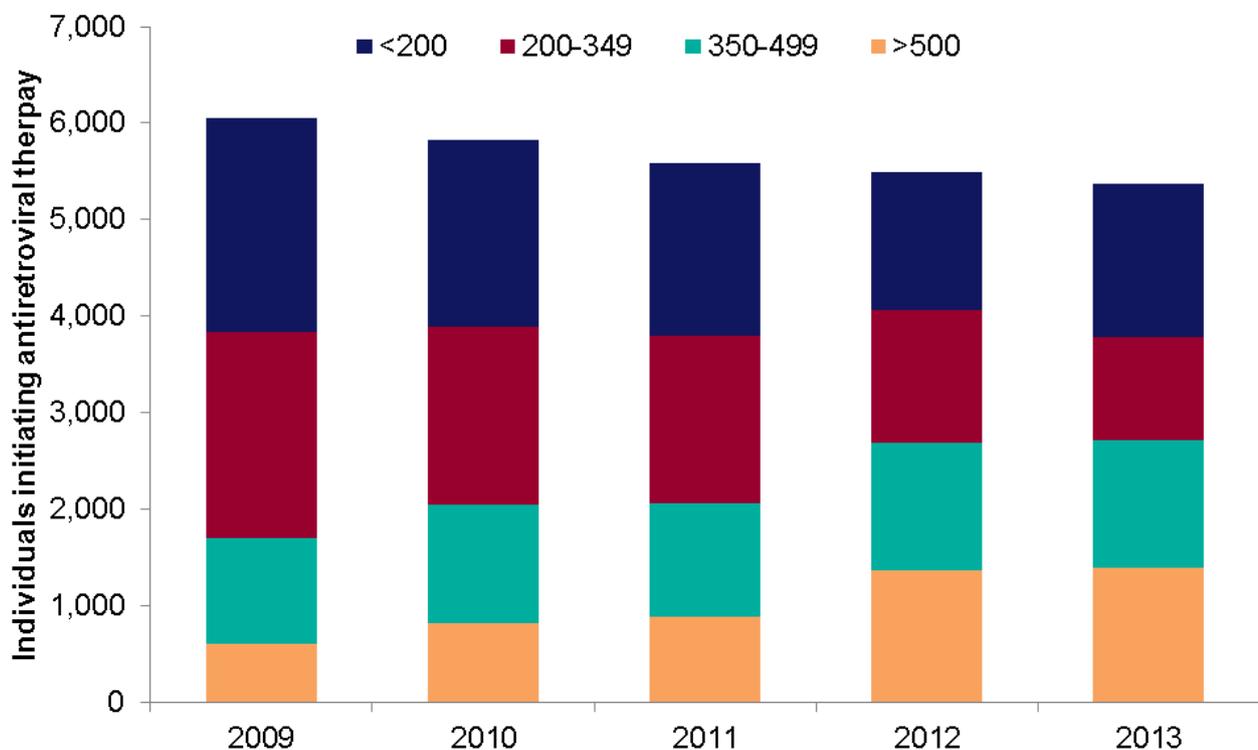
In 2013, 26% of the 5,370 people who initiated ART had a CD4 count above 500 cells/mm³ compared to 10% in 2009 (Figure 4). This may reflect the uptake into UK clinical practice of scientific results showing the effectiveness of ART at preventing onwards transmission in serodiscordant heterosexual couples [6,7]. New evidence from clinical trials adds to these findings by demonstrating clinical benefit to those individuals who start ART before their CD4 drops below 500 cells/mm³ [8] or start ART immediately versus delaying [8], findings reflected in the 2015 BHIVA and WHO treatment guidelines.

The efficacy and effectiveness of antiretrovirals in preventing the acquisition of HIV through their use as pre-exposure prophylaxis (PrEP) has also been demonstrated in recent landmark trials [10,11]. A national PrEP policy is under development by NHS England.

HIV viral load suppression

Treatment success in the UK remains excellent with 95% of all people on ART demonstrating virological suppression (VL<200) at their last viral load reading in 2014. These proportions are stable over time and across all the major exposure groups.

Figure 4: Number¹ of adults starting ART by CD4 count at initiation²; UK 2009-13



¹ Adjusted for CD4 count not reported.

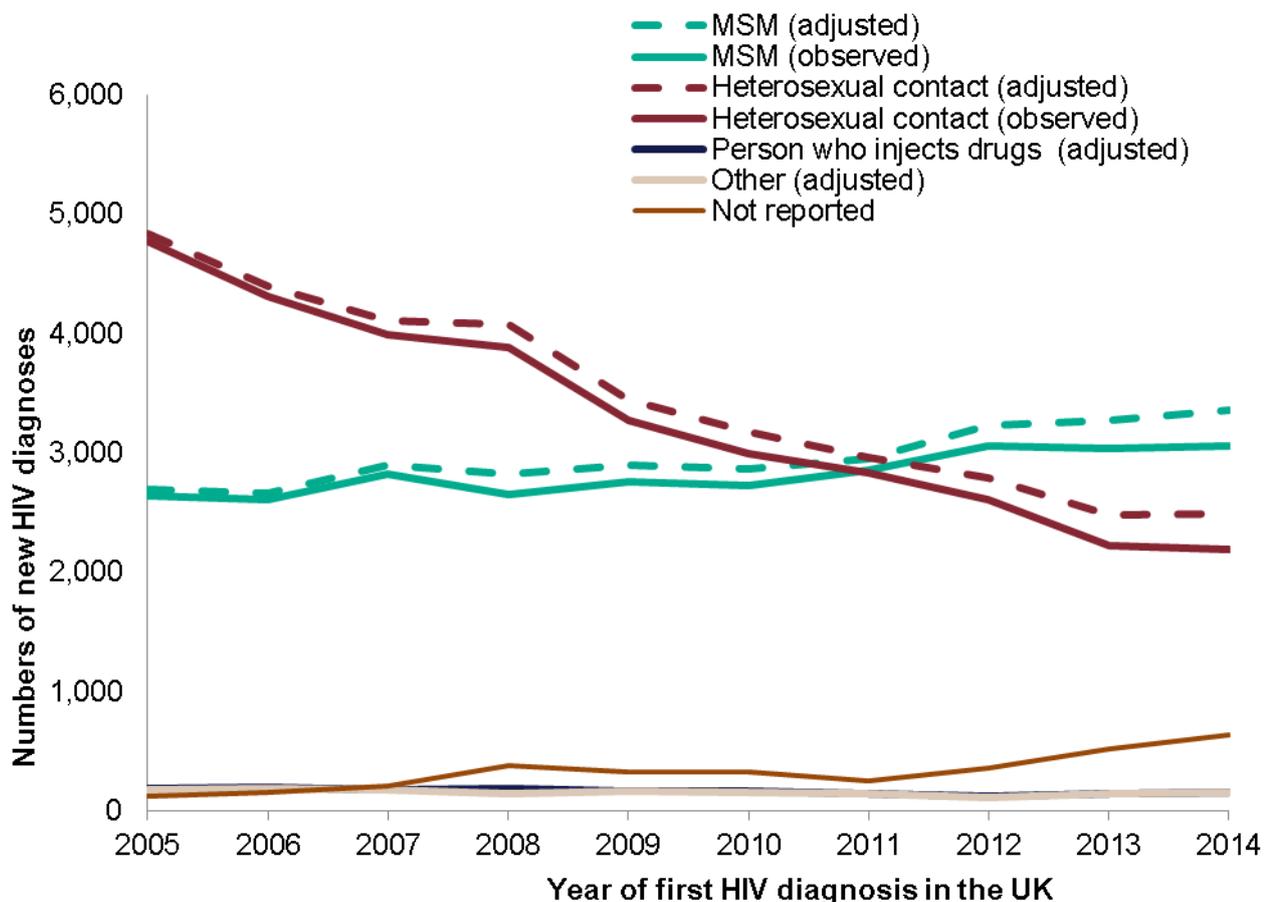
² CD4 count available up to 9 months before ART initiation

New HIV diagnoses in 2014

A total of 6,151 people (4,611 men and 1,540 women) were diagnosed with HIV in 2014, a marginal increase on 2013, but consistent with other recent years. This represents a new diagnosis rate of 0.10 per 1,000 population (0.15 per 1,000 men and 0.05 per 1,000 women). The trend overall remains of a decline from a peak of 7,893 in 2005, with a plateau since 2010 stabilising around 6,000 per year. Almost half of all new HIV diagnoses were made in London (2,671).

Adjusting for information missing from case reporting, in 2014 an estimated 3,360 men acquired HIV through sex between men, with 2,490 people (1065 men, 1425 women) acquiring HIV through heterosexual sex (Figure 5). New diagnoses among MSM continue to gradually rise reflecting high levels of ongoing transmission and increases in HIV testing. New diagnoses acquired through heterosexual sex have declined by almost half since 2005 (4,840), likely as a result of changing migration patterns with fewer people born in sub-Saharan Africa being diagnosed with HIV in the UK.

Figure 5: New HIV diagnoses by exposure group over time; 2005-2014



In total, 42% (1,044/2,490) of new HIV diagnoses acquired heterosexually were among people of black African ethnicity. Heterosexual sex continues to be the main risk exposure reported among black African and black Caribbean people newly diagnosed with HIV, 85% (1044/1233) and 53% (80/150) respectively.

Almost half of all people newly diagnosed HIV positive in 2014 in whom data for country of birth was available were born in the UK (2,632/5,517 (48%)). The number reporting an African country of birth has declined from 2,035 (34%) in 2010 to 1,258 (23%) in 2014, while there has been a slow rise in the number of people from the rest of Europe over the same time period, 681 (11%) to 900 (16%). Of note, the majority of those newly diagnosed in 2014 were likely to have acquired their infection in the UK, with 76% (2,550/3,360, credible interval 74-79%) of new HIV diagnoses made among all MSM and 59% (1,460/2,490, credible interval 53%-64%) of those made in all heterosexual people calculated as having been acquired in the UK respectively.

A low and stable number of people (131/6,151 (2%)) acquired HIV through shared use of injecting drug equipment in 2014.

The majority (55%) of people newly diagnosed with HIV in 2014 were aged between 25 and 44, the proportion of people acquiring HIV over the age of 45 has increased from 16% in 2005 to 30% in 2014. Age at diagnosis is lower among MSM, which may reflect both a higher incidence and a higher rate of uptake of HIV testing.

Pregnant women and children

The number of children newly diagnosed with HIV annually in the UK has declined substantially in recent years from 131 in 2005 to 29 in 2014. About two-thirds of newly diagnosed children were born abroad and arrived in the UK at older ages.

The UK continues to have a very low rate of mother to child transmission (MTCT). The overall vertical transmission rate from women diagnosed with HIV before delivery in the UK declined to below 0.5% by 2010/11, and current reports provide convincing evidence that these very low rates are being maintained [12]. By the end of 2014, 3 children born in 2014 were known to have perinatally acquired HIV. Children currently classified as having 'indeterminate' infection status are very unlikely to be infected as almost all were born to women who were already aware of their HIV status and receiving effective therapy at the time.

Late diagnosis, AIDS and death

The proportion and number of people diagnosed late (with a CD4 count <350 cells/mm³ within three months of their diagnosis) declined from 56% (3,596/6,365) in 2005 to 40% (1,975/4,877) in 2014. In tandem the median CD4 count at diagnosis has increased

from 308 cells to 414 cells over the same time period. Whilst late diagnoses have reduced, 40% remains unacceptably high and further work to expand HIV testing and diagnosis is needed.

There was considerable variation of late diagnosis by exposure group and ethnicity with higher proportions among black African people (569/978 (58%)), heterosexual men (488/805 (61%)) and PWID (66/101 (65%)). London had the lowest proportions of people diagnosed late, 33% compared to 48% in the North of England and >50% in Wales and Northern Ireland.

People living with HIV can expect a near-normal life span if they are diagnosed promptly. People diagnosed with HIV late continue to have a ten-fold increased risk of death in the year following diagnosis compared to those diagnosed promptly. In 2014, 346 were diagnosed with AIDS for the first time and 613 people with HIV infection were reported to have died (Figure 6), most of whom were diagnosed late.

Figure 6: New HIV diagnoses, AIDS and deaths over time; 1999-2014

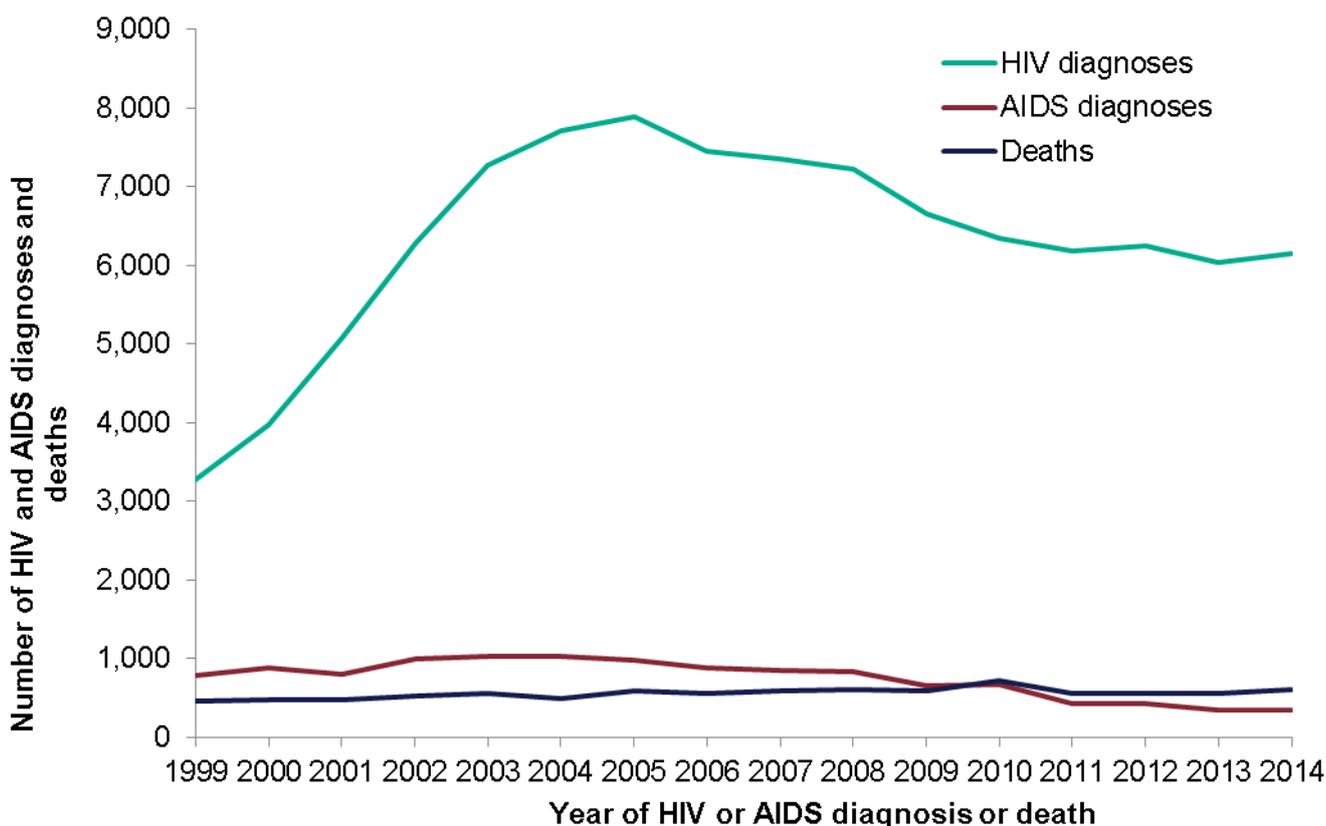
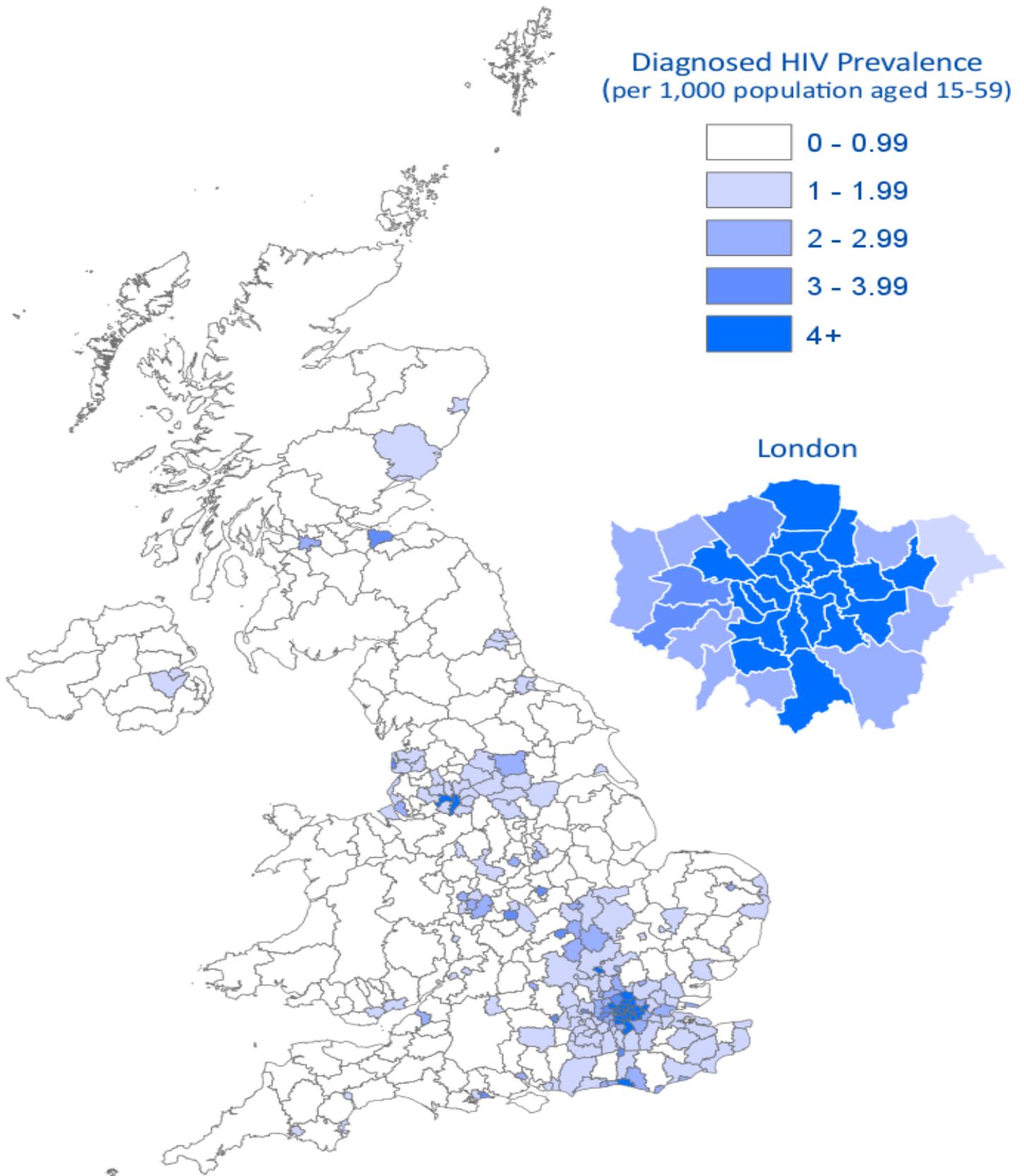


Figure 7: Prevalence of diagnosed HIV infection by region of residence among population aged 15-59 years; UK, 2004



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