

# HIV & AIDS

In Cumbria & Lancashire **2014**



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## Executive Summary

In 2014, 1,156 HIV positive Cumbria and Lancashire residents accessed treatment and care from statutory treatment centres in Cumbria, Lancashire, Greater Manchester and Liverpool, representing a 5% increase on the number reported in 2013 (1,098 individuals). Overall prevalence in Cumbria and Lancashire was 45 and 130 per 100,000 population respectively. One local authority in the region (Blackpool) has an adult prevalence of over 2 per 1,000 population; the threshold at which the British HIV Association recommend routine testing for all medical admissions and new GP registrants.<sup>[1]</sup>

There were 116 new cases reported in 2014, representing a 36% increase from 2013 (85 new cases) and continuing the fluctuating trend seen in recent years. New cases were classed as people who were new to the database in 2014, were not seen at a reporting statutory treatment centre in the north west of England since 1994 and included transfers from elsewhere in the country.

This is the nineteenth annual report of the North West HIV/AIDS Monitoring Unit, presenting data on HIV positive individuals accessing treatment and care in Cumbria and Lancashire. A total of 26 statutory centres provided treatment and care for HIV positive individuals. Information is provided by local authority (LA) and treatment centre. Due to limited space, not all analyses by LA can be included. However, additional breakdowns can be found on the North West HIV and AIDS Monitoring Unit website (<http://www.cph.org.uk/hiv/>).

New cases represented 10% of all cases; a slightly higher proportion to that seen in 2013 (8%). The dominant mode of HIV exposure is sex between men (MSM) at 59% of new cases, followed by heterosexual sex representing 34% of new cases (tables 2.1 and 2.2). The number infected through other routes (injecting drug use, blood tissue and mother to child) remained relatively low. The largest proportion of HIV positive individuals presenting for care whose stage of disease was known were categorised as asymptomatic (61%). However, one of two deaths among new cases in 2014 was due to an AIDS-related illness and 13% of new cases whose stage was known were diagnosed with AIDS by the end of 2014. This emphasises the need to ensure that HIV positive individuals seek treatment at an early stage of their disease so as to maximise the effectiveness of treatment and improve prognosis.

Sex between men (MSM) continues to be the predominant mode of exposure (60%) for all Cumbria and Lancashire residents who access treatment. The proportion of people infected through heterosexual sex has increased over the past

17 years, from 17% in 1996 to 34% in 2014. The percentage of individuals exposed by injecting drug use, contaminated blood or tissue and vertical transmission remains low at less than 2% for each transmission route.

The global HIV situation continues to influence Cumbria and Lancashire with over a fifth (22%) of all HIV cases exposed abroad and the largest proportion of these cases (48%) contracted in sub-Saharan Africa (figure 3.2 and table 3.8). A further quarter were infected in South and South-East Asia (25%) and ten percent were infected in Western Europe. Of those infected in Western Europe, the largest proportion (35%) were infected in Spain. The majority (69%) of individuals infected abroad were infected through heterosexual sex, with the vast majority of these infected in sub-Saharan Africa (61%). Among new cases, 26% were reported to have been infected abroad, with 17% of these cases contracted in Zimbabwe.

Amongst those for whom ethnicity was known, 84% of cases presenting for treatment and care in 2014 were of white ethnicity. Those from black and minority ethnic groups (BME) made up 16% of HIV positive individuals accessing treatment and care; a substantial over representation compared to the proportion of BME groups in the Cumbria and Lancashire population as a whole (8%). The characteristics of HIV positive individuals from BME groups, especially those from black African backgrounds, are distinctly different from those from the white population. Those from BME groups are younger, more likely to have been infected through heterosexual sex and more likely to be female (tables 2.1, 3.1 and 3.7). Among new cases, 31% of those infected through heterosexual sex were from BME/mixed background (table 2.1).

This report includes information on the residency status of those in treatment and care for HIV in the north west of England (table 2.9 and table 3.13). This level of information is not routinely collected at a national level, notwithstanding concern over the health of vulnerable population groups such as asylum seekers. The number of individuals classed as non-UK nationals represented 6% of all cases. Over a quarter of non-UK nationals were classified as asylum seekers (28%) and over half (54%) were female. Over half (53%) of non-UK nationals whose stage was known were asymptomatic compared with 42% of UK nationals.

During 2014, the largest proportion of individuals accessing treatment and care were using triple antiretroviral therapy (ART; 62%). Amongst those who were asymptomatic, 89% were using ART (table 3.6). During 2014, asymptomatic HIV positive individuals accumulated 1,435 outpatient visits; an

average of 4.5 per person. People diagnosed with AIDS had the highest mean number of outpatient visits (4.6) and also spent the greatest mean number of days as inpatients (2.2 days; table 3.12).

During 2014, 2,537 HIV positive individuals were reported to the North West HIV/AIDS Monitoring Unit by six community sector organisations. The overall number of individuals seen was 1% higher than in 2013. Of those accessing community sector organisations in 2014, 44% did not attend a statutory service during the same year and 26% had never been seen by the statutory sector (table 4.3). This illustrates the continuing contribution of community sector organisations to the care of HIV positive individuals for whom these organisations may be the sole provider of care. This has particular significance for regional funding of HIV services, since individuals exclusively accessing community sector organisations are not included in national statistics, which determine the distribution of funds for the care of HIV positive people.

In 2014, five social service departments in the north west of England were able to contribute information on 122 HIV positive individuals. The majority of individuals with HIV seen by social service departments also accessed statutory sector services in 2013 (table 5.1).

Information on trends for new and all cases of HIV in Cumbria and Lancashire from 2000 to 2014 are presented in chapter 6 and give an overall view of the changing pattern of HIV in the north west of England region.

It is hoped that the tables and figures presented in this report, and the extra analysis available on the website (<http://www.cph.org.uk/hiv/>) provide the relevant Cumbria and Lancashire HIV/AIDS information needed. In recognition of the evolving and dynamic nature of HIV, any comments and suggestions for improving the usefulness of this report in future years are welcomed.

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# 1. Introduction

Over the past nineteen years the North West HIV/AIDS Monitoring Unit has collected, collated, analysed and disseminated data on the treatment and care of HIV positive individuals in the region<sup>[2-18]</sup>. This report aims to provide a comprehensive and timely summary of the epidemiology of HIV in Cumbria and Lancashire. It begins with a global and national overview before focussing on Cumbria and Lancashire. In chapter 2, we present analyses of new HIV cases in Cumbria and Lancashire and in chapter 3, analyses of all HIV cases presenting for treatment and care across the two counties. Information on the community sector (previously known in these reports as voluntary agencies) and social care are presented in chapters 4 and 5, followed by trend data in chapter 6.

Due to limited space, not all analyses by local authority (LA) can be included here. However, additional tables can be found on the North West HIV Monitoring website: <http://www.cph.org.uk/hiv/>.

## Global Perspectives on HIV and AIDS<sup>\*[19]</sup>

Globally, continuing new diagnoses of HIV combined with reduced numbers of deaths, due to greater access to antiretroviral therapy (ART), means there are now more people than ever living with HIV. The proportion of individuals living with HIV has stabilised in the past decade and the number of new cases is declining. There were an estimated 36.9 [34.3 – 41.4]<sup>†</sup> million people infected with HIV globally at the end of 2014 and there were 2.0 [1.9–2.2] million new HIV infections, a 35% decrease since 2000. An estimated 220,000 [190,000 – 260,000] of these new infections were in children aged under 15 years; a 58% decline since 2000. This decline in new infections among children is mainly due to the expansion of services to prevent mother to child transmission of HIV, with many low and middle income countries approaching the same transmission rates seen in high income countries. There are an estimated 2.6 [2.4–2.8] million children aged under 15 years now living with HIV worldwide (around 88% live in sub-Saharan Africa). In 2014 coverage of antiretroviral regimens for pregnant women reached 73% [68-79%] and has reduced new infections among children by 58% between 2000 - 2014.

Sub-Saharan Africa remains the epicentre of the HIV pandemic with 25.8 [24.0 -28.7] million people living with HIV in the region. New infections in the region have declined by 39% since 2000, with 1.4 [1.2-1.5] million new infections in 2014. There has been a 43% decline in new infections among children in 21 priority countries since 2009. However, the region still accounts for 70% of the global total of new infections. In line with global trends the number of AIDS related deaths in the region has also declined; there were 790,000 [690,000-1 million] deaths due to AIDS related causes in 2014; a 48% decline on the number seen in 2005.

However, not all regions and countries conform to these global trends. The Middle East and North Africa and Eastern Europe and Central Asia have a growing HIV burden with rises in both the number of new HIV infections and AIDS related deaths in recent years. For example, in the Middle East and North Africa there has been a 66% increase in AIDS related deaths since 2005. In addition, across all global regions there are certain groups who do not have equitable access to HIV prevention, treatment and care due to marginalization, poverty, harmful gender norms and social and legal inequalities. In their 2014 Gap Report, UNAIDS identified 12 population groups who have been left behind by the global AIDS response, namely: people who are living with HIV; adolescent girls and young women; prisoners; migrants; people who inject drugs; sex workers; gay men and men who have sex with men (MSM); transgender people; children and pregnant women living with HIV; displaced persons; people with disabilities and, people aged 50 years and older. UNAIDS highlight that these groups continue to be disproportionately affected by HIV, for example HIV prevalence among female sex workers is 13.5 times higher than in the general female population and among the 12.7 million people who inject drugs globally, 13% are living with HIV. Despite this, these groups are frequently omitted from national AIDS strategies and often face significant barriers to accessing HIV services. The 2011-2015 Joint UN Strategy for HIV and AIDS calls for zero discrimination to achieve coverage for the most vulnerable groups<sup>[20]</sup>.

In response to the progress achieved over the past decades, UNAIDS developed an outcome framework for 2011-2015 with ten targets (box 1)<sup>[21, 22]</sup>. While UNAIDS celebrate the progress made in achieving these targets and those set out in the Millennium Development Goals (MDGs)<sup>[23, 24]</sup>, they also recognise that these advances cannot merely be maintained and that gaps in the global response still exist [25]. In particular, prevention coverage for key population groups including sex workers, people who inject drugs (PWIDs) and children remain inadequate and access to biomedical prevention tools such as voluntary circumcision and pre-

\* Unless otherwise stated, global data and information have been sourced from UNAIDS Report on the Global AIDS Epidemic 2014 and accompanying factsheets and data annexes.

<sup>†</sup> Figures in brackets indicate the reported range in estimated incidence from UNAIDS.

exposure prophylaxis (PrEP) need expansion. This progress cannot be made without sustainable programmes which address social and structural barriers to accessing services, mobilise communities, foster collaboration across the development sector and, most vitally, make an absolute commitment to the protection of human rights. UNAIDS has set new fast track targets which aim to build on the achievements of the 2011 Outcome Framework and achieve their 95-95-95 target by 2030 with: 95% of those living with HIV knowing their HIV status; 95% of those living with diagnosed HIV receiving sustained ART; and, 95% of those receiving ART achieving viral suppression. The Fast Track Targets also commit to reducing new infections to 200,000 and achieving zero discrimination<sup>[25]</sup>.

**Box 1: Ten Targets: UNAIDS Outcome Framework, 2011 – 2015**

- Reduce sexual transmission of HIV by 50%;
- Reduce transmission of HIV amongst IDUs by 50%;
- Eliminate new HIV infections among children and substantially reduce AIDS-related maternal deaths;
- Reach 15 million receiving ART;
- Reduce tuberculosis related deaths in those living with HIV by 50%;
- Close the global AIDS resource gap and reach US\$ 22-24 billion investment in low and middle income countries;
- Eliminate gender inequalities and empower women and girls to protect themselves from HIV transmission;
- Promote laws and policies that eliminate HIV-related stigma and discrimination;
- Eliminate HIV related restrictions on entry, stay and residency
- Integrate and strengthen the global response to the AIDS pandemic and eliminate parallel systems.

Since the development of the 2011-2015 UNAIDS outcome framework, low and middle incomes have been driving increasing investment in HIV and appear to be on track to achieve the US\$ 22-24 billion investment target set in the outcome framework by the end of 2015. Globally an estimated US\$ 20.2 billion was available for HIV spending in low and middle income countries by the end of 2014 and domestic spending surpassed international assistance; accounting for 57% of HIV expenditure. Eighty four out of 121 low and middle income countries increased their domestic spending between 2009-2014 with 35 countries reporting an increase of more than 100%. However, despite these advances, UNAIDS call on the international community not to abandon HIV investment; 44 countries looked for financial assistance for more than 75% of their HIV spending in 2014 and for countries with a heavy burden of HIV and few

resources, increased domestic spending will not be sufficient to close the HIV resource gap<sup>[19]</sup>.

## HIV and AIDS in the United Kingdom

New diagnoses of HIV, AIDS and deaths of HIV positive individuals in the UK are reported to Public Health England (PHE, formerly the Health Protection Agency) and Health Protection Scotland, who compile the data into six-monthly surveillance tables<sup>[26]</sup>. The data presented in this section is reported to the end of December 2013.

Public Health England (PHE) report the cumulative total of reported new HIV infections for the UK reached 133,767 by the end of 2013 (table 1.1). Of these, 6,000 were newly diagnosed in 2013. Figures 1.1 and table 1.1 compare the trend of new cases of HIV infection in the UK with those specific to the north west of England<sup>[27]</sup>. As with previous years, close to half of all individuals newly diagnosed with HIV reside in London (2,719 of 5,493 in England and of 6,000 in the UK). Similarly, 45% of all individuals accessing treatment and care for HIV reside in London (33,863 of 74,760 in England in 2013)<sup>[27]</sup>. National policy will thus continue to be shaped by a strong bias towards the needs of London and the South East, with an under-representation of other regions<sup>[28-33]</sup>. For the epidemiology of HIV in Cumbria and Lancashire, see chapters 2 and 3 of this report, which are based on surveillance data of treatment and care of HIV positive individuals in the region. An additional tool for monitoring the HIV epidemic in the UK is provided by the unlinked anonymous HIV seroprevalence programme conducted by PHE and the Institute of Child Health. Part of the programme involves the testing of blood samples that have been taken for other purposes (for example antenatal screening and syphilis serology) after having irreversibly removed patient identifying details. This allows estimations of the extent of undiagnosed HIV infection in high risk groups as well as in the general population. The monitoring programme has been operating throughout England and Wales since 1990 and provides low cost estimates of current HIV prevalence. Results of the programme, combined with other PHE surveillance programmes, suggest that by the end of 2013, there were an estimated 107,800 [101,600 – 115,800] persons (diagnosed and undiagnosed) living with HIV in the UK, of whom, approximately one in four (24%, 26,100) were unaware of their infection<sup>[34]</sup>.

### Men who have sex with men

PHE recorded a cumulative total of 59,728 estimated cases of HIV (45% of all diagnoses)<sup>[35]</sup>. The number of new diagnoses in MSM continues to rise; reaching an all-time high of 3,250 in 2013. This represented a modest 1% increase on the number seen in 2012. Newly diagnosed MSM in 2013 had a median

age of 33 years with one in ten diagnosed aged 50 years or over. However, the past decade has also seen an increase in new diagnoses among younger MSM (aged 15-24 years) with 16% of MSM diagnoses among young men in 2013 compared with 9% in 2004<sup>[34]</sup>. In recent years, the shape of the UK epidemic has changed; continuing the trend seen since 2011, the number of new infections attributable to MSM surpassed the number of heterosexual infections, representing 54% of new infections in 2013 (figure 1.2).

The increase in new diagnoses seen in MSM may be explained both by an increase in HIV testing amongst this group and on-going high rates of transmission<sup>[36]</sup>. The 1980s initially saw substantial reductions in risky behaviours amongst MSM in response to HIV/AIDS but by the end of the 1990s evidence suggested that high risk sexual behaviour was increasing among the MSM population. This is perhaps best illustrated by Dougan *et al.*'s longitudinal study recruiting males in gyms in London between 1998 and 2003, which found an increase in the number of males reporting high-risk sexual behaviour with a casual partner (from 6.7% to 16.1%). Dougan *et al.* recommended that sexual health promotion should target high-risk practices with casual partners since these, and not practices with steady partners, seemed to account for the recent increase in high-risk behaviour<sup>[37]</sup>. The levels of high risk behaviour observed by Dougan *et al.* appear to have been maintained; a repeat cross-sectional survey of men attending a London HIV clinic in 2000 and 2010 found that: while men in the 2010 cohort were more likely to be on ART with an undetectable viral load; levels of unprotected anal sex with a boyfriend remained unchanged and levels of unprotected anal sex with a casual partner has increased. One in five men participating believed that being on ART with an undetectable viral load eliminated the risk of onward transmission to a sexual partner. Disclosure of HIV status and recreational drug use were independently associated with casual unprotected anal sex and men engaged in casual sex irrespective of their viral load<sup>[38]</sup>.

Findings from the National Survey of Sexual Attitudes and Lifestyles found that relative to men who exclusively have sex with women, MSM reported larger numbers of sexual partners and were significantly more likely to report measures of poor sexual and mental health including: treatment for depression, health conditions which had a perceived effect on their sexual activity, STI diagnoses and higher levels of recreational drug use<sup>[39]</sup>. Nationally, there are increasing concerns about the impact of recreational drug use on the transmission of HIV; studies have found high levels of lifetime and recent recreational drug use among MSM<sup>[40, 41]</sup>. Among this cohort, drug use was found to be significantly associated with non-adherence to ART and polydrug use was independently associated with unprotected sex and unprotected sex with HIV serodiscordant partners<sup>[41]</sup>. There is

growing evidence that sexualised drug use, or Chemsex, among MSM is significantly associated with higher sexual risk taking behaviours<sup>[42]</sup>. The recent Chemsex Study published by Sigma research found that a quarter of HIV positive MSM surveyed had chosen to engage in UAI with men they believed to be serodiscordant and while drug use influenced the number of sexual partners, it was not the main driver for this sexual risk taking. In addition, whilst knowledge of HIV was high among the sample, around a third of HIV negative men engaged in unprotected anal intercourse under the influence of drugs and sometimes with a partner of unknown HIV status<sup>[43]</sup>.

The number of MSM testing for HIV in sexual health clinics increased by 8% from 2012 (70,580) to 2013 (76,330); however recent modelling by PHE suggests that HIV transmission among MSM has also remained high<sup>[34]</sup>. Late diagnosis among MSM (34%) is considerably lower than heterosexual men (65%) and women (57%)<sup>[36]</sup> and there has been a rise in the number new diagnoses which were recently acquired (30% of new MSM diagnoses in 2013)<sup>[34]</sup>. Recent research suggests that expansion of HIV testing in MSM has led to a decline in the mean-time to diagnosis; however, neither HIV incidence or undiagnosed HIV infection have changed despite this increase in testing and increased antiretroviral uptake in MSM<sup>[44]</sup>. A survey based study of MSM in Glasgow in 2000 and 2010 found a significant increase in: testing within the past 12 months (31%); and, in the perceived benefits and normalisation of testing. However, other barriers including fear of a positive result, HIV status of partner and barriers relating to clinics remained unchanged between 2000 and 2010 with fear of a positive result remaining a key barrier to testing<sup>[45]</sup>. Further analysis from this study also suggests that recent testing does not necessarily indicate risk, with MSM who had tested recently and those who had tested between six and 12 months reporting similar levels of unprotected anal sex and knowledge of their partners' HIV status<sup>[46]</sup>. A recent cross sectional study of London MSM found HIV prevalence of 12.8% of which 34% were undiagnosed at the time of the study; an estimated one in 20 MSM in the study were identified as being at risk of HIV transmission due to undiagnosed HIV and UAI without exclusive serosorting<sup>[47]</sup>.

The most recently published Sigma Research Gay Men's Sex Survey was carried out in 2010 and was conducted in partnership with health promotion organisations and websites across the UK. Participating men were those who reported having had sex with a man in the previous year and/or had a non-heterosexual sexual identity. The survey found that 28% of all males responding in England, and 36% of those in the north west of England, had never been tested for HIV<sup>[48, 49]</sup>. The latest national survey found that living with diagnosed HIV is most common amongst men in London and the north west of England; men with lower educational qualifications; men

with many sexual partners (particularly those with 30 or more partners per year) and men of black or non-British white ethnicity<sup>[50]</sup>. A recent survey of young MSM (aged 14-19 years) found low levels of HIV knowledge in this age group with 27% incorrectly identifying the ways in which HIV could be transmitted, 71% unaware of post-exposure prophylaxis (PEP) and 60% unaware that annual HIV tests were recommended for MSM. Overall, 57% of those surveyed were either unsatisfied or unsure about their level of HIV knowledge suggesting the need for HIV specific information for this age group<sup>[51]</sup>.

High ART coverage has also had a limiting effect on HIV incidence among MSM; modelling by Phillips et al<sup>[52]</sup> suggests that without the introduction of ART, incidence among MSM from 2006-2010 would have been 68% higher. Global Pre-Exposure Prophylaxis (PrEP) trials have led to growing interest in the role that PrEP could play in HIV prevention for MSM in the UK and survey data suggest that between 50-52% of MSM would be willing to use PrEP<sup>[45, 53]</sup>. Younger men and those with higher risk sexual behaviours, including unprotected anal intercourse, were more likely to report willingness to use PrEP

and these men were more likely to have attended a sexual health clinic in the past year, suggesting this would be an effective setting for PrEP distribution<sup>[53]</sup>. However, ad hoc prescribing of PrEP in the UK is not currently recommended, with the British HIV Association (BHIVA) suggesting PrEP should only currently be prescribed as part of a clinical trial<sup>[54]</sup>. The first PrEP RCT trial in the UK (PROUD) began recruitment in 2012 with 545 high risk MSM from sexual health clinics across England taking part in the trial. The trial was unrandomised in October 2014 when it became clear that the protection against HIV infection provided by PrEP was above the pre-set threshold and all participants were subsequently offered the daily treatment. The trial reported that daily PrEP reduced the risk of HIV infection by 86%; the highest reduction reported by any RCT to date<sup>[55, 56]</sup>. The full results of the trial are expected to be published in the next year and this will have important implications for national prevention guidance.

**Table 1.1:** Cumulative number of HIV diagnoses in the North West of England and the UK by infection route to December 2013  
Source: Adapted from PHE Centre and London sector HIV tables, PHE 2014

	Infection route						Total
	MSM*	Injecting Drug Use	Heterosexual	Blood/Tissue**	Mother to Child†	Other/ Undetermined	
North West	5297 (52.2%)	328 (3.2%)	3940 (38.8%)	206 (2%)	168 (0.1%)	214 (2%)	10153
Total UK††	59728 (44.7%)	5802 (4.3%)	59540 (44.5%)	2265 (1.7%)	2401 (1.8%)	4031 (3%)	133767

*Will include some records of the same individuals which are unmatchable because of differences in the information supplied.*

*Numbers will rise as further reports are received, particularly for recent years.*

\* Includes men who also reported injecting drug use.

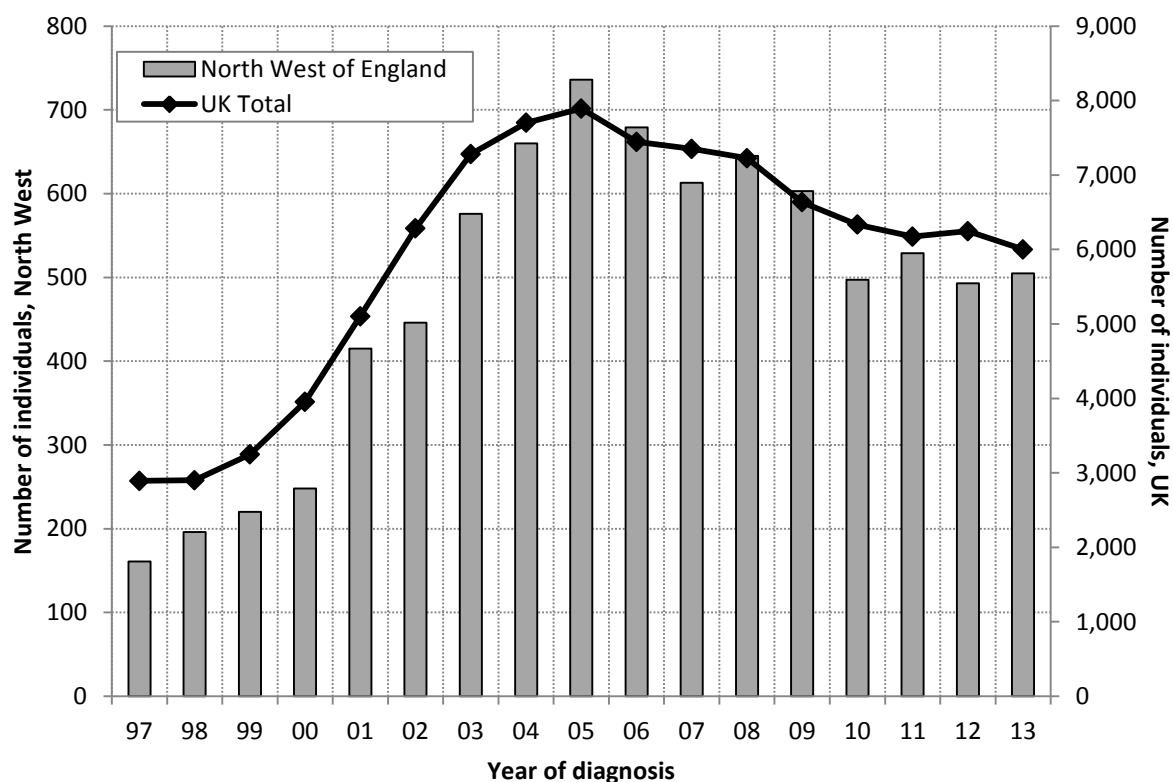
\*\* All infections acquired through receipt of blood/tissue products diagnosed since 2002 were acquired outside of the UK.

† Includes individuals born outside but diagnosed in the United Kingdom.

†† Includes cases where sex was not stated (the majority in earlier years).

**Figure 1.1:** Number of new HIV diagnoses in the north west of England and the UK, by year of diagnosis to December 2013

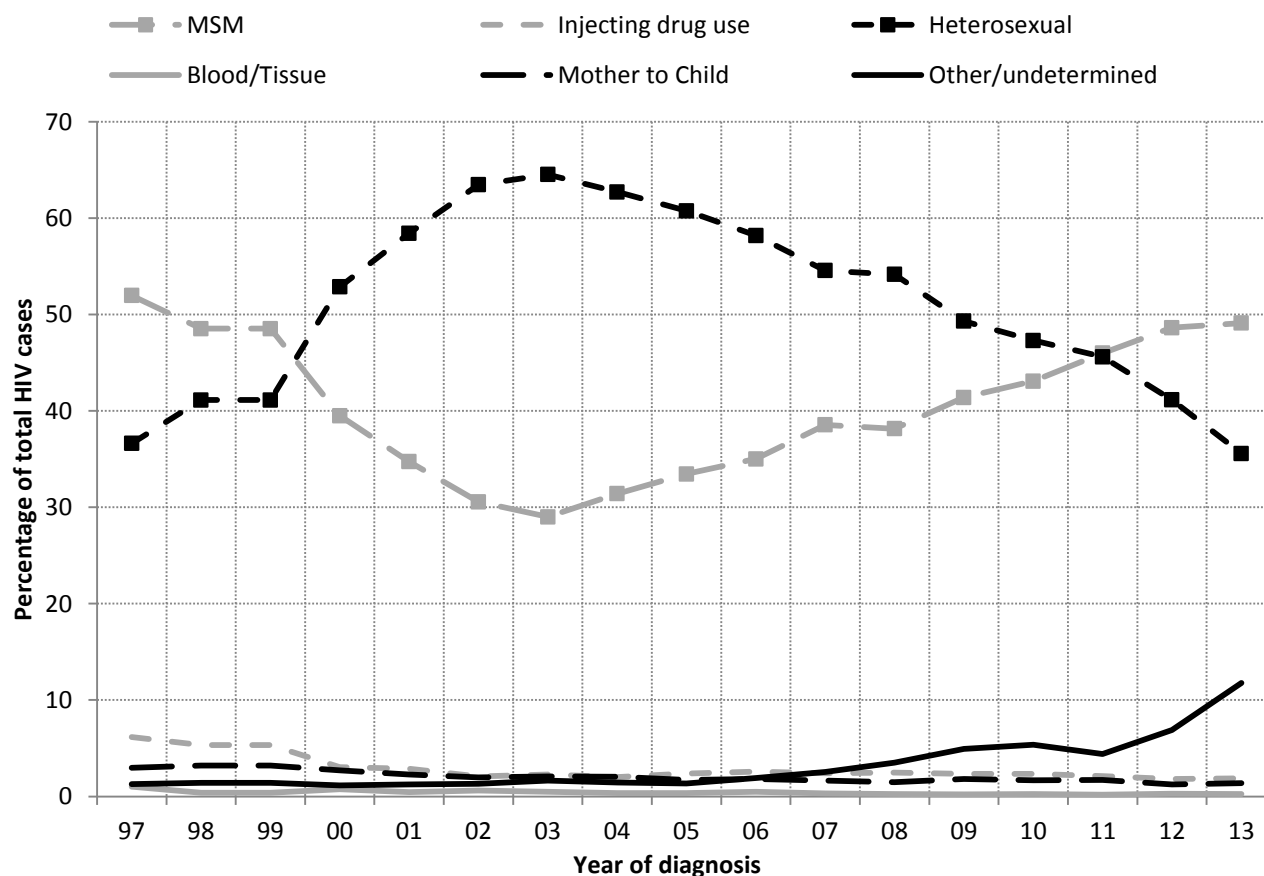
Source: Adapted from table 2, National HIV Surveillance Tables, PHE 2014 and PHE Centre and London sector HIV tables, PHE 2014



Numbers, particularly for recent years, will rise as further reports are received.

**Figure 1.2:** Infection route of HIV cases in the UK, by year of diagnosis to December 2013

Source: Adapted from table 2, United Kingdom National HIV surveillance data tables to end of December 2013, PHE



## Heterosexual sex

Over the past decade, there has been a year on year decline in the overall numbers of new heterosexually acquired HIV diagnoses in the UK. This decline is mainly due to a fall in the number of new diagnoses amongst heterosexuals acquiring HIV in high prevalence countries, whilst new diagnoses acquired heterosexually within the UK have remained stable<sup>[34]</sup>.

The majority (57%) of HIV positive individuals infected through heterosexual sex in 2013 were female<sup>[34]</sup>; however, the decline in heterosexual cases over the past ten years has been substantially steeper among women (from 3,100 in 2004 to 1,420 cases compared with 1,780 to 1,070 among men)<sup>[34]</sup>. The number of new diagnoses among older age groups are increasing, with one in five aged 50 years or over in 2013 (compared with 1 in 14 in 2004). A higher proportion of newly diagnosed men (26%) were aged 50 years and over when compared with women (16%)<sup>[34]</sup>. Figure 1.3 shows the number of cases acquired through heterosexual sex categorised by whether they were exposed in the UK through sex with high risk or lower risk partners or exposed abroad. The number of individuals exposed abroad peaked in 2002 and has since declined, accounting for 45% of new diagnoses in 2013. Heterosexuals acquiring their HIV in the UK now accounts for the majority of new heterosexual infections (57% in 2013) while the number of infections acquired abroad has more than halved over the past decade<sup>[34]</sup>.

Anonymous testing of all pregnant women can be used as an indicator of the prevalence of HIV in the general heterosexual population. Data from 2013 reveal that the prevalence of HIV amongst pregnant women in England was 250 per 100,000 population (figure 1.4), prevalence in the North West of England was lower than the national average at 140 per 100,000<sup>[57]</sup>.

Despite a steep decline in recent years, women still account for the majority of heterosexually acquired infections, with women representing 57% of new heterosexual diagnoses in 2013. Research suggests that women living with HIV experience poorer psychological health than men<sup>[58]</sup> and international research has found significant associations between women living with HIV and gender based violence. In the UK, HIV positive women living with gender based violence are faced with simultaneous, complex health and personal issues and can often be prevented from seeking assistance as a consequence of this abuse<sup>[59]</sup>. A recent study at an East London Hospital found that 52% of HIV positive women participating had experienced intimate partner violence at some point during their life with 14% of women reporting intimate partner violence in the past year<sup>[60]</sup>.

In 2013, 46% of heterosexual cases diagnosed were of black African ethnicity<sup>[61]</sup>. These communities will often have close connections with high prevalence sub-Saharan countries; the region which was home to 71% of people living with HIV worldwide by the end of 2013<sup>[24]</sup>. This is also reflected in the epidemiology of HIV in Cumbria and Lancashire; of those new cases in 2014 that were infected abroad, just under half (43%) were exposed in sub-Saharan Africa (see chapter 2, figure 2.2). However, HIV is often stigmatised within African communities, and disclosure of HIV status is perceived as a risk. A recent study found that the HIV status of 83% of black African men and 55% of black African women surveyed had been disclosed by a third party. The fear of disclosure can prevent individuals from accessing services and disclosing their status to friends and family for extra support<sup>[62]</sup>.

The most recent African Health and Sex Survey published by Sigma Research explored HIV testing, prevention need and sexual risk behaviour with a sample of 1,026 men and women identifying as black African or black African British. The survey found that 28% of respondents with a regular partner were in a HIV sero-discordant or potentially discordant relationship and 12% reported that they did not always use a condom with regular partners with a sero-discordant or unknown HIV status<sup>[63]</sup>. This concurs with recent research with married African born women which suggests that low coverage of HIV in health services and media (when compared to Africa) means that condom use and asking husbands to test for HIV is often seen as unnecessary<sup>[64]</sup>. Approximately one third of respondents in the African Health and Sex Survey reported casual sex with at least one partner in the past 12 months of which 26% reported condom breakage or failure in the past 12 months. Awareness of HIV was fairly low, with 73% unaware of the high HIV prevalence among black Africans living in the UK, 44% unaware of the impact of ART on reducing the risk of onward HIV transmission and 36% unaware that HIV medication was freely available to those in need. Over a third of respondents (35%) had never tested for HIV and only half of those who had never tested were very confident that they could access testing when they needed it<sup>[63]</sup>.

## Injecting drug use

Injecting drug use (IDU) accounts for 4.3% of the total diagnosed HIV infections in the UK to date<sup>[34]</sup> (table 1.1). The proportion of new infections acquired by this route in 2013 remained relatively stable at 1.8% (figure 1.2). The median age at diagnosis for people who inject drugs (PWID) has increased over the past decade from 33 years in 2004 to 47 years in 2013 and the proportion aged 50 years and over has also increased (from 3% in 2004 to 15% in 2013)<sup>[34]</sup>. Other blood borne infections, such as hepatitis B and C, are more infectious than HIV and can be transmitted during episodes of indirect sharing (for example sharing of filters, spoons or

water when preparing drugs); thus co-infection is common among injecting drug users.

Data on blood borne virus prevalence among PWIDs comes from the Public Health England Unlinked Anonymous Survey of People Who Inject Drugs. The survey recruits people who inject drugs through specialist support agencies across England, Northern Ireland and Wales. Participants provide an anonymous biological specimen: which is tested for HIV, hepatitis B and hepatitis C, and complete an accompanying anonymous questionnaire. During 2009 and 2010, changes were made to improve the sensitivity of testing in the survey through the collection of dried blood spot samples (DBS) rather than oral fluid. DBS sample sensitivity for HIV antibodies and Hepatitis C and B core antigen are all close to 100%. Since 2011, only DBS samples have been collected.

Public Health England data suggests that nationally HIV prevalence among people injecting psychoactive drugs has remained stable at 1.1% in 2013 and data from the UAM survey found that 5% of PWID participating were unaware of their HIV infection<sup>[65]</sup>. PHE in collaboration with the Centre for Public Health at Liverpool John Moores University have recently expanded the UAM survey to include a sub-survey of people who inject image and performance enhancing drugs (IPEDS). The 2012-13 survey found a slightly higher prevalence of 2% among people who inject IPEDs and 13% of respondents reported either direct or indirect equipment sharing. In addition 54% reported sexual intercourse with two or more partners in the past twelve months with just 13% of this group reporting always using a condom<sup>[66]</sup>. The level of sharing of injecting-related equipment among those who inject psychoactive drugs has declined over recent years coinciding with the expansion of Needle Syringe Programmes; however estimates suggest that around one in six (16%) people who inject drugs in the United Kingdom still directly share needles and syringes, with 31% of under 25 year olds reporting sharing, suggesting that further expansion of these services is needed<sup>[67]</sup>.

Anonymous testing of injecting drug users attending specialist agencies reveals that, in 2013, HIV prevalence in the north west of England was among the lowest in the country with no infections recorded by the UAMS (0% compared with 4.5% in London)<sup>[67]</sup>. Despite recent outbreaks of HIV among people who inject drugs elsewhere in Europe<sup>[68]</sup> prevalence amongst drug users in the UK remains low compared with other European countries. This has been attributed to harm reduction strategies such as needle and syringe programmes<sup>[69]</sup>. A recent systematic review indicates that

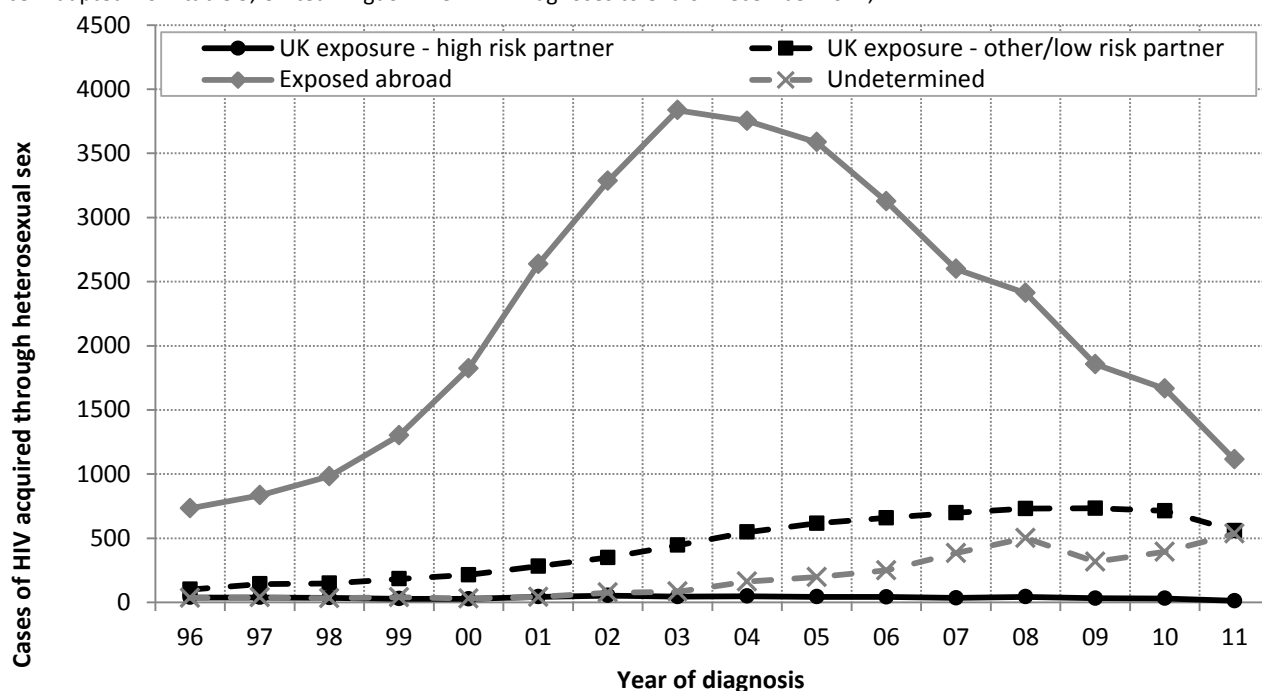
Needle and Syringe Programmes and opiate substitution treatment are the most successful interventions in reducing injecting risk behaviour and HIV transmission<sup>[70]</sup> and a second review suggests that opiate substitution treatment is associated with a 54% reduction in the risk of HIV among people who inject drugs<sup>[71]</sup>.

The north west of England has the highest prevalence of hepatitis B (32% in 2013) and hepatitis C in the country (68%)<sup>[67]</sup>. Since HIV is less infectious than hepatitis C, those individuals who have had sufficient high risk exposure via IDU to acquire HIV are also likely to have been infected with hepatitis C. Having both infections makes the treatment of each more difficult to manage, increases the progression of hepatic disease and, for women, increases the probability of transmission of HIV to an infant during pregnancy or birth<sup>[72]</sup>. Research suggests acute hepatitis C infection is increasing among the HIV positive population and this is particularly the case among MSM where changing risk behaviours including chemsex and club drug use are contributing to this increase<sup>[73, 74]</sup>. In 2013, 14% of people who inject drugs in the north west of England, participating in the UAMS, reported direct sharing of injecting equipment in the preceding four weeks<sup>[67]</sup>. Public Health England recommends diagnostic testing for HIV and Hepatitis C (and Hepatitis B where appropriate) in Drug Treatment Agencies and Primary Care services along with appropriate advice, interventions and care pathways for those infected<sup>[65]</sup>.

National estimates of HIV and Hepatitis C co-infection suggest an overall prevalence of 9% and this prevalence is substantially higher among PWID at just under 39%<sup>[75]</sup>. Modelled estimates have used the prevalence of HIV and Hepatitis C co-infection to estimate that, based on current prevalence, 77% of HIV infections among PWIDs are due to sexual HIV transmission<sup>[76]</sup> indicating higher sexual risk taking among this population<sup>[77]</sup>. Studies suggest that sexual risk behaviours are common among stimulant and PIED users<sup>[77, 78]</sup>. Women who inject drugs particularly experience a disproportionate burden of sexual ill health with a recent UK survey based study reported that 66% of responding women had had unprotected sex in the past 4 weeks and 55% reported that they had been forced to have sex against their will in their lifetime<sup>[79]</sup>.

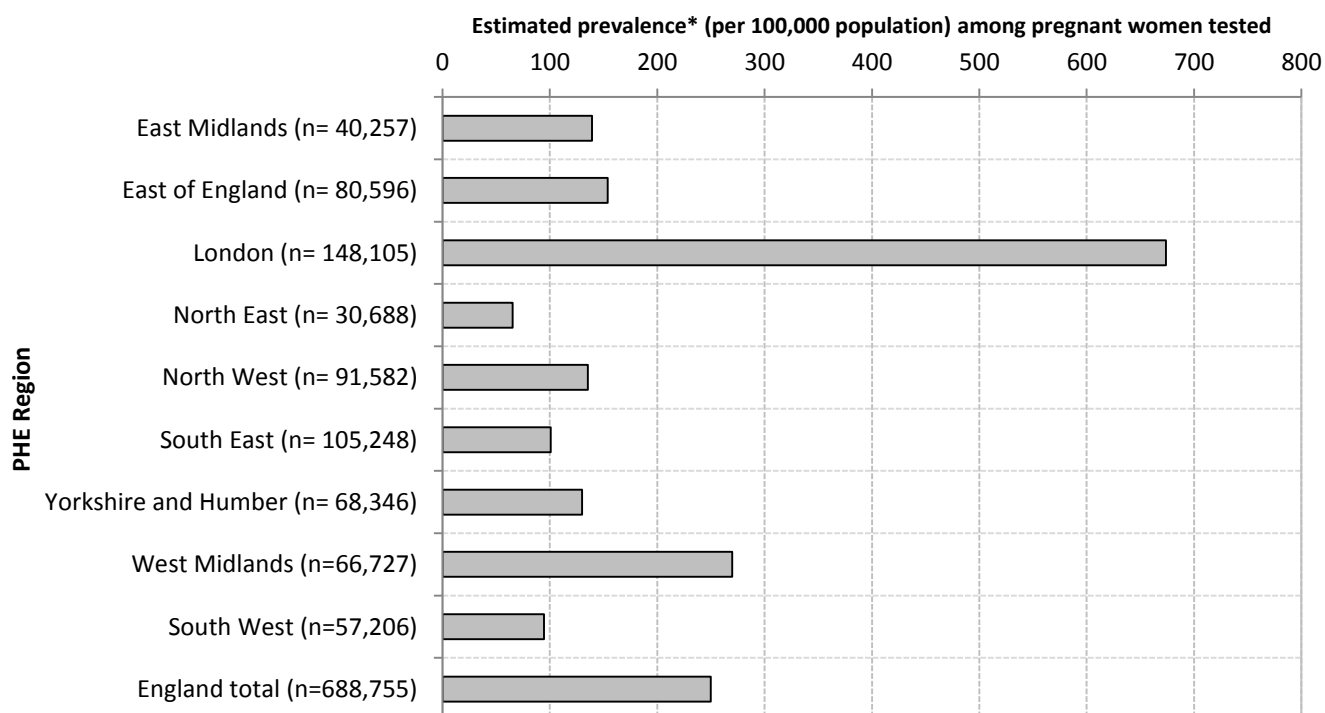
**Figure 1.3:** Number of heterosexually acquired HIV cases in the UK by year of report to December 2011

Source: Adapted from table 5, United Kingdom New HIV Diagnoses to end of December 2011, HPA



**Figure 1.4:** HIV prevalence amongst pregnant women in England, 2013 (newborn infant dried blood spots collected for metabolic screening)

Source: Adapted from National Antenatal Infections Screening Monitoring, England 2005-2013, PHE



\*estimated prevalence refers to those previously diagnosed and not retested in the current pregnancy, those who were previously diagnosed and retested in this pregnancy and newly diagnosed women.

## Blood or tissue

HIV screening and heat treatment were introduced for donated blood products in 1985 and since then HIV infection by this route has been rare. This is illustrated by the abrupt decline of HIV infection among blood and tissue product recipients from 8% of all infections reported before and during 1991 to just 0.3% in 2013 (figure 1.2). The small number of infections that have been diagnosed since 2002 were all acquired outside the UK<sup>[27]</sup>.

Between 1979 and 1985 about a fifth of patients with haemophilia in the UK were infected with HIV after treatment with contaminated clotting factor concentrates. Co-infection with the hepatitis C virus was also common and has contributed to high mortality amongst these individuals. A small proportion of individuals with haemophilia infected with HIV in the early 1980s are still alive and well, but there have been an increasing number of deaths from liver disease in this patient group as a consequence of co-infection with hepatitis C<sup>[80]</sup>.

After 1985, HIV infection via blood transfusions in the UK were rare occurrences and either the result of donations collected during the HIV infection window period (i.e. before antibodies had developed in the donor's blood) or people infected prior to screening who have only recently developed HIV-related disease<sup>[81]</sup>. A study of 5,579 transfusion recipients in North London published in 2000 found that at nine months none of the recipients had been infected with HIV as a result, suggesting that the current risk of transmission from a transfusion in the UK is very low<sup>[82]</sup>.

## Mother to child

During 2013, 688,755 HIV tests in England were conducted in antenatal settings. The proportion of pregnant women accepting recommended routine antenatal HIV tests was high, at just under 98%<sup>[57]</sup>. The prevalence of newly diagnosed HIV in women giving birth in 2013 was highest in London (340 per 100,000). The prevalence in the rest of England, despite doubling in the past decade, is relatively low (160 per 100,000 nationally)<sup>[57]</sup>. Between 2003 and 2013, 1,270 children have been born to HIV positive mothers in the UK of which an estimated 7% are known to be living with HIV<sup>[27]</sup>. In 2013, 90 mother to child infections were reported with the majority of these cases acquired abroad<sup>[34]</sup>. These figures will inevitably increase as the year progresses as the presence of maternal antibodies up to 18 months after birth confounds diagnosis.

The latest data on HIV testing uptake among pregnant women in the north west of England shows that, in 2011, the North West uptake rate was 97%, well above the 90% government target, and uptake has remained high since 2010 (also 97%).

The highest uptake was in Cumbria & Lancashire (99%) with Cheshire & Merseyside achieving an uptake rate of 98%, followed by Greater Manchester (95%); all above the government target<sup>[83]</sup>. In 2013, 91,582 women were tested for HIV at antenatal screening in the North West of England of which 124 were found to be positive. Overall, 30 in 100,000 antenatal tests among women were newly diagnosed with HIV<sup>[57]</sup>.

Interventions such as using antiretroviral therapy to keep down viral load, elective caesarean section (where there is a high detectable viral load) and avoidance of breast feeding can reduce the risk of mother to child transmission to 1%. The decrease in mother to child transmission nationally reflects the increase in the number of mothers on ART at conception; data from the National Study of HIV in Pregnancy shows that the risk of mother to child transmission is significantly higher among women with a higher viral load (50-399 copies/ml; 1%) compared with women with a viral load <50 (0.09%). The study also found that the probability of mother to child transmission declined with each additional week of treatment initiation, with the weekly decline most rapid up to 15 weeks<sup>[84]</sup>. The current BHIVA guidelines recommend that women should commence ART at 24 weeks (most frequently zidovudine or lamivudine monotherapy) providing she is not already taking or in need of combination therapy for her own health<sup>[85]</sup>. There has been some concern that zidovudine may lead to the emergence of drug resistant virus which could compromise the mother's future care; however, evidence from the UK suggests that using zidovudine monotherapy according to the BHIVA guidelines does not present any adverse outcomes for women's health once treatment is started<sup>[85, 86]</sup>.

In 2012, the British HIV Association (BHIVA) updated their guidelines for the treatment of pregnant women, and this included a recommendation that women with a viral load of <50 copies per mm at 36 weeks gestation should be offered a vaginal birth rather than a caesarean section<sup>[87]</sup>. A recent European study found that rates of vaginal deliveries have increased since the introduction of new guidelines, but that the proportion of women delivering via caesarean section with an undetectable viral load remained high at 55% suggesting that there are missed opportunities for women to have vaginal delivery<sup>[88]</sup>.

For those children who are born with HIV in the UK, the prognosis has improved due to the advent of triple therapy: they are living longer, are less likely to require hospital admission and are less likely to progress to AIDS, as is the case in other developed countries<sup>[89]</sup>. Consequently, services are being developed to address the needs of this group as they become young adults<sup>[90, 91]</sup>. This is particularly important as these young people transition from paediatric to adult

services where the difference in ethos and clientele can be particularly notable for young people. Research suggests that appropriate support is needed to ensure continued attendance and adherence to treatment<sup>[92]</sup>. Importantly, young adults who acquired HIV perinatally are now also at the age where they are having children of their own. These young adults will face additional HIV related relationship and parenting stressors including disclosure to both their partners and to their children in the future<sup>[93]</sup>. Currently around 6% of young women with perinatally acquired HIV in the UK have experienced one or more pregnancies<sup>[94]</sup>.

### **HIV in non-UK nationals**

Globally, migrants are at greater risk of HIV infection than resident populations, irrespective of their country of origin<sup>[95]</sup>. Migrant's risk of HIV is influenced by political, social, and economic factors in both their destination country and their country of origin. Both at their destination and in transit migrants are of increased vulnerability to HIV; the resultant stress and isolation many migrants experience can lead to engagement in risky behaviours including unsafe sex and drug use as well as being at risk of sexual violence and human rights abuses<sup>[22]</sup>. As Chimienti and Solomos<sup>[96]</sup> argue, the enforcement of international human rights to healthcare largely depend on their political and social reception in the destination country and this is generally framed around national interest rather than the international rights view of global citizenship.

In addition, migrant groups are often negatively portrayed in the media and in recent years in particular there has been increased political and media dialogue around HIV and the concept of "health tourism"<sup>[97]</sup>; those who are alleged to travel to the UK to deliberately make use of free of charge health services. Evidence suggests that the UK in fact exports more health tourists than it imports<sup>[98]</sup> and the number of HIV positive visitors to the UK accessing treatment and services is minimal<sup>[99, 100]</sup>. However, misconceptions in the media can have a significant effect on migrant communities who suffer heightened stigma in relation to HIV<sup>[101]</sup> which can prevent them from accessing healthcare services. As a consequence they are likely to have increased mortality and morbidity risks resulting in greater costs to the individual and the NHS as a whole, as well as increasing the risk of onwards transmission amongst those who are undiagnosed or not accessing treatment<sup>[101, 102]</sup>.

In the UK, asylum seekers suffer the highest levels of absolute material deprivation, marginalisation and stigmatisation<sup>[99]</sup>. The prevalence of HIV amongst this group is likely to reflect that of their country of origin. Asylum seekers in the UK currently have access to free of charge HIV care whilst seeking

asylum. In 2012, the House of Lords Select committee recommended an amendment to the Health and Social Care Bill which would add HIV to the list of conditions included in the NHS (Charges to Overseas Visitors) Regulations. This amendment would mean that HIV treatment would be provided free of charge to all those accessing care, regardless of their residency status<sup>[69]</sup>. In February 2012, the UK government indicated that it was willing to accept this amendment and the change in regulations came into force in October 2012; enabling asylum seekers to receive HIV treatment free of charge<sup>[103]</sup>.

Prior to 2009, dispersal policies in the UK meant that many asylum seekers found themselves in areas where medical services were unaware and unprepared for their health status and sometimes lacked sufficient expertise<sup>[104]</sup>. An inquiry by the All-Party Parliamentary Group on AIDS concluded dispersal was likely to impact on an asylum seeker's ability to comply with the 95% adherence to antiretroviral therapy necessary to ensure that treatment of the virus has greatest effect. Dispersal policies meant that while resident in the UK, asylum seekers were at an increased risk of developing HIV that is resistant to treatment if dispersed away from their source of treatment and support<sup>[105]</sup>. As a result of this, the National Asylum Support Service (NASS) produced new guidelines on the dispersal of HIV positive asylum seekers. These guidelines now mean that the consent of the person's consultant to dispersal is required and advance arrangements must be made for continuity of care where the person is to be relocated<sup>[106]</sup>. Further guidelines on the detention and removal of asylum seekers with HIV were published in June 2009 offering advice for healthcare and community sector professionals on ensuring continuity of care and antiretroviral therapy<sup>[107]</sup>.

During 2014, the UK received 24,914 asylum applications (including dependents), a 6% increase compared with 2013 (23,584, including dependents)<sup>[108]</sup>. The most recent data available show that between October and December 2014 7,100 asylum applicants resided in the north west of England of which 6,777 received supported accommodation from NASS. In Cumbria and Lancashire there were 373 asylum applications of which 343 were living in supported accommodation. Across the two counties, the local authority with the largest asylum seeking population was Blackburn with 302 people in supported accommodation<sup>[108]</sup>. At a national level, no data are collected on how many asylum seekers seek treatment for HIV. Information for Cumbria and Lancashire about those known to be non-UK nationals is presented in tables 2.9 (chapter 2) and 3.13 (chapter 3).

## Testing for HIV

An estimated 1,143,899 HIV tests were conducted in GUM services in England in 2014<sup>[109]</sup>. BHIVA Guidelines recommend that a test should be considered: for all individuals from high risk groups; for all those presenting with a HIV indicator condition and, in local authorities where HIV prevalence exceeds 2 in 1,000 population, for all men and women registering in general practice and all general medical admissions. A recent national audit of testing guidelines by BHIVA found that only 31% of high prevalence areas currently commission routine testing at registration in some general practices and in these areas on average only 20-30% of practices were participating<sup>[110]</sup>. The guidelines also recommend universal HIV testing in: GUM or sexual health clinics; antenatal services; termination of pregnancy services; drug dependency programmes; and, health care services for those diagnosed with TB, hepatitis B, hepatitis C and lymphoma<sup>[1]</sup>.

In response to the BHIVA guidelines, the Department of Health funded a number of pilot programmes to investigate the feasibility and acceptability of testing programmes outside traditional testing settings. The majority of the pilot sites found a positivity rate of at least one per thousand tests, which is the threshold for cost-effectiveness, with the highest rates reported in community based projects and expanding testing into all settings was viewed as both acceptable and feasible by patients and staff<sup>[111]</sup>. Home testing for HIV was made legal in the UK in April 2014<sup>[112]</sup>, with the first home testing kit (BioSure) made available for sale in the UK in April 2015.

Of the 193,462 eligible new GUM attendees in the north west of England in 2014, 84% (162,363) were offered an HIV test; just below the England average of 86%. Public Health England no longer publish figures at a county level for the north west of England but data from 2013 suggested that the level of test offer varies slightly across the north west of England with Cumbria and Lancashire having a higher level than the national average (91%) whilst Cheshire and Merseyside and Greater Manchester were slightly lower than the national average (83% and 82% respectively).

Figure 1.5 shows the uptake rate of HIV testing in north west England in GUM clinics by sexual orientation and gender. The uptake rate is the percentage of HIV tests offered to attendees at GUM that were accepted by the attendee. In total, 107,415 GUM clinic attendees were tested for HIV in the north west of England in 2014, an uptake rate of 56%. Little has changed in terms of uptake rates for each group between 2010 and 2014. Amongst men, the uptake rates were highest for those who identified as MSM (87% in 2014). Amongst

heterosexuals the coverage for females (46% in 2014) was lower than amongst men (70% in 2013). Uptake of testing in the north west of England was highest amongst those of black Caribbean ethnicity, with 79% accepting the offer of a test, and black African ethnicity with 74% accepting a test. Uptake was lowest among attendees of white and asian ethnicity (55% and 54% respectively). There is considerable variation in HIV testing at a Local Authority level with the highest coverage in Blackpool (72%) followed by Lancashire county (69%), Cumbria (69%) and Blackburn with Darwen (67%)<sup>[113]</sup>. Amongst the prisoner population in the north west of England, testing uptake was 79% in 2014, considerably higher than the England average (59%). Amongst sex workers, the uptake was 83% in the north west of England, slightly lower than the national average (85%)<sup>[109]</sup>.

## New developments in treatment and prevention

The “Political Declaration on HIV and AIDS” which was set out by the United Nations High Level Meeting on AIDS in 2011 included the commitment to achieve “universal access to HIV prevention, treatment, care and support by 2015”. The Declaration focused on three political directions; revolutionising HIV prevention, moving to the next phase of HIV treatment, care and support and advancing gender equality and human rights for the HIV response<sup>[114]</sup>. These global commitments were developed in line with the health-related United Nations Millennium Development Goals which alongside commitments to eradicate global poverty, established goals to halt and reverse the transmission of HIV/AIDS alongside other diseases by 2015<sup>[23]</sup>. In July 2014, UNAIDS announced that this goal had been met with over 15 million people worldwide on ART representing 72% of all those eligible<sup>[24]</sup>.

A break through study by Cohen et al<sup>[115]</sup> trialled early initiation of ART among HIV serodiscordant couples in nine African countries found that early initiation of ART led to a 96% reduction in HIV transmission. As a consequence of this emerging evidence, WHO produced new guidelines on ART which made three key recommendations: that those with a dual TB diagnosis should begin treatment immediately; that pregnant women should be offered lifetime treatment and, that all those living with HIV should initiate antiretroviral therapy at a CD4 count below 500 cells/ mm<sup>3</sup><sup>[116]</sup>. Early release guidance published by WHO in 2015 further expanded this recommendation; advising that ART should be initiated in all individuals living with HIV regardless of CD4 count<sup>[117]</sup>. The global focus has shifted to ensuring that people living with HIV are provided with treatment as soon as possible with interim findings recently released from the Strategic Timing of Antiretroviral Treatment (START) study finding that starting ART sooner (with a CD4 above 500 cells/mm<sup>3</sup>) significantly reduces individuals risk of developing AIDS and other serious

illnesses<sup>[118]</sup>. As a result, the latest British HIV Association (BHIVA) guidelines recommend that adults living with HIV should begin ART at any CD4 count; as soon as they are ready to commit to taking therapy<sup>[119]</sup>.

Globally, it has been estimated that achieving 80% coverage of the new WHO guidelines could reduce the number of people acquiring HIV from the 2.4 million seen in 2011 to 800,000. However, these new guidelines mean that the 15 million people who were receiving ART globally represented just 41% (32-37%) of those eligible in 2014. Children and marginalised groups are still less likely to receive antiretroviral therapy. Without access to ART, one half of children living with HIV die by their second birthday, whilst starting on ART by 12 weeks old reduces HIV related mortality by 75%. Globally only 32% of children eligible for ART were receiving it in 2014 and the rate of increase is substantially slower than the rate for adults.

UNAIDS recognise that in order to meet their prevention goals work will need to combine rapid global adoption of scientific breakthroughs to ensure equitable access to cost-effective and high quality prevention programmes. The development of a HIV vaccine remains challenging; the RV144 trial conducted in Thailand<sup>[120]</sup> was the first to report modest protection against the acquisition of HIV in low risk populations<sup>[121]</sup> and while there are no existing phase III trials, a small number of phase II prime-boost trials are currently underway<sup>[122]</sup>.

Research has also increasingly focused on the role of treatment in prevention and has broadened the scientific agenda beyond vaccine development. Early initiation trials along with successful pre-exposure prophylaxis trials are unifying prevention and treatment programmes. Pre-exposure prophylaxis (PrEP) trials are gradually developing a body of evidence demonstrating the effectiveness of PrEP in HIV prevention with several trials demonstrating a significant reduction in HIV transmission when compared with a placebo<sup>[123, 124]</sup>. The first PrEP trial among MSM in the United Kingdom, which compared immediate versus deferred PrEP, began in 2013 with the results finding that effectiveness was 86%; the highest effectiveness seen in any PrEP trial to date<sup>[125]</sup>. Additional findings from the Partners in PrEP study have also found that PrEP appears to be safe in pregnancy and further research could confirm the role of PrEP in reducing HIV infection during conception<sup>[126]</sup>. Small scale studies from the UK suggest PrEP is a safe and effective option for serodiscordant couples wishing to conceive<sup>[127]</sup>. Early release guidelines from WHO published in 2015 recommend daily use of oral PrEP for people at substantial risk of HIV infection as part of combination prevention approaches<sup>[117]</sup>.

Research in recent years has also considered what is termed a “functional cure” for HIV. Several studies have presented evidence that initiating treatment at primary HIV infection can

result in maintained long term control of the virus and an undetectable viral load on discontinuation of treatment<sup>[128-130]</sup>. Perhaps the most well-known of these is the case of the “Mississippi baby”, in which a child who had commenced on intensive ART from birth to 18 months appeared to have an undetectable viral load after two years of ART discontinuation<sup>[130]</sup>. However, in a news conference on 14<sup>th</sup> July 2014, it was announced that at four years old the child’s HIV was once again detectable. Similarly, experimental research has explored what has been termed the “kick and kill” approach which involves the possibility of stimulating latent cells in the HIV reservoir to become active and thus controllable with antiretroviral drugs. This would then be combined with the development of drugs to seek out and kill any residual reservoir cells. The most publicised of this early trial research is the use of HDAC inhibitors to stimulate latent cells<sup>[131]</sup>. However, results presented at the 20<sup>th</sup> International AIDS conference found that whilst HDAC inhibitors were successful in activating latent HIV, this did not result in a reduction of the viral reservoir<sup>[132]</sup>. Discussions at the conference concluded that vaccine and cure research should not become opposed, rather that they represented “two sides of the same coin” and that both were needed for an adequate preventative response to HIV.

## **HIV and AIDS in Cumbria and Lancashire, 2014**

Figure 1.1 and table 1.1 use data taken from the PHE New HIV Diagnoses Surveillance Tables to illustrate the status of the HIV/AIDS epidemic in the north west of England in comparison with the rest of the UK. This information is useful for monitoring trends both nationally and regionally. For the most accurate and detailed information about people living with HIV in Cumbria and Lancashire, see the comprehensive overview in chapters 2 to 6 of this report.

By the end of 2013, a cumulative total of 10,153 HIV infections in the north west of England had been reported to PHE (figure 1.1), including 505 new diagnoses during 2013<sup>[27]</sup>. There were 33 newly diagnosed AIDS cases recorded in the north west of England in 2013, bringing the cumulative total to 1,901, 7% of the total number of AIDS cases reported in the UK<sup>[133]</sup>.

The pattern of HIV exposure amongst people living with HIV in Cumbria and Lancashire differs from that of the UK. Cumbria and Lancashire have a higher proportion of infections amongst MSM (60%, compared with the UK figure of 45%), and a lower proportion of people infected through heterosexual sex (39% compared with 45%) (table 1.1).

The data in figure 1.4 are derived from the anonymous seroprevalence survey conducted by PHE and use newborn infant dried blood spots to show the level of HIV infection in

pregnant women. Annual figures for 2011, the most recent year for which data are available, show an HIV prevalence of 222 per 100,000 population amongst women giving birth in England. The prevalence amongst pregnant women in the north west of England has remained stable at 159 per 100,000 population<sup>[134]</sup>.

### **Sexual health in the north west of England**

The epidemiology of HIV in the north west of England needs to be set in the context of general sexual health in the region. The total number of new STIs in the north west of England remain high; most recent STI data from PHE show that there were 59,219 new STI diagnoses in 2014. Between 2012 and 2014 the rate of all new STI diagnoses per 100,000 population remained stable at just under 834 per 100,000 population<sup>[135]</sup>. High rates of STIs also place a significant burden on the economy: it has been estimated that the direct medical cost of newly acquired STIs in the north west of England was almost £60 million in 2003<sup>[31]</sup>. This estimate was based on the lifetime cost of treating STIs and included the expense of treating acute STIs and the sequelae of untreated or inadequately treated acute STIs. The presence of STIs in the population not only serves as an indicator of sexual risk-taking behaviour, but also increases the probability of HIV transmission<sup>[136, 137]</sup>.

### **Monitoring HIV and AIDS in the north west of England**

Over the past 19 years, the North West HIV/AIDS Monitoring Unit has collected, collated, analysed and disseminated data on the treatment and care of HIV positive individuals in the north west of England. This level of clinical and public health monitoring is supported by the NHS Information Strategy 2012. The strategy recognises that transparent and open data are essential to make informed and evidence-based decisions on health services<sup>[138]</sup>. In view of the sensitive nature of the information collected, data are anonymised and the Caldicott principles and recommendations (relating to data confidentiality and security) applied<sup>[139]</sup>.

Data were collected from 8 statutory treatment centres including GUM clinics; haematology clinics and infectious disease units across Cumbria and Lancashire<sup>[2-17]</sup>. Data on Cumbria and Lancashire residents was also included from 20 other statutory treatment centres across Greater Manchester, Liverpool and the Isle of Man. The data form part of the Survey of Prevalent Diagnosed HIV infections (SOPHID) national dataset. In addition data are used at Local Authority (LA) and regional level to assist in service planning, development and evaluation. Figure 1.6 shows the number of Cumbria and Lancashire residents living with HIV who contacted statutory treatment centres in the North West between 1996 and 2013. The data collected by the North

West HIV/AIDS Monitoring Unit from across the region over the last 19 years illustrate the increasing number of people accessing HIV services. The number of HIV positive individuals attending treatment centres has increased (5%) from 2013 to 2014. The continuing increase in size of the HIV positive population is in part due to the decreased number of people dying from AIDS-related illness, but is also due to continuing numbers of new cases. A full account of the epidemiology of HIV and AIDS in Cumbria and Lancashire is given in chapters 2 and 3 of this report.

The North West HIV/AIDS Monitoring Unit also collects data from HIV/AIDS community sector organisations across the region (chapter 4). Data are also included from social services departments from across the north west of England, providing data on HIV positive service users (chapter 5).

### **Methodology of monitoring HIV and AIDS in the north west of England**

Statutory treatment centres are prompted to report electronic data on all HIV positive individuals seen at their clinic with up-to-date details from the most recent reporting period including all new cases either transferred from another clinic or newly diagnosed. The names of HIV positive individuals are not collected: a one-way encryption of the individual's surname, the soundex code, is used. This in combination with sex and date of birth defines a unique individual.

Demographic data collected for each person include: hospital number; soundex; date of birth; sex; postcode; ethnicity; residency status; transmission route of HIV; vital status; whether they were exposed abroad and country of exposure. For the purposes of this report, men who acquired HIV through sex with men (MSM) and who were also injecting drug users (IDUs) were included in the MSM category. Male to female transsexuals who acquired HIV through sex with men were recorded as male and age groups refer to the age of individuals at the end of December 2014, or at death. Ethnic group classifications are those used by the HPA HIV and STI Department, for SOPHID. Residency categories are adapted from the National Asylum Support Service (NASS) categories. The data requested on each individual include: number of outpatient visits; inpatient stays; home visits; day cases; latest CD4 counts and viral loads and dates taken; details of any antiretroviral therapy (ART) they are being prescribed; whether they are pregnant; clinical stage and the date they were last seen. Individuals are categorised as receiving the highest level of ART and as the most advanced stage of disease reported from any treatment centre during the period. Additionally, for those who died, information on cause and date of death is requested.

Community sector organisations are prompted annually to send basic data on the individuals attending their service. This information includes: soundex code, date of birth, sex, route of infection, ethnicity, residency status and pregnancy status. Data are collected from social service departments in a similar way to community organisations. Individuals reported to community sector and social services are matched to the statutory sector database by soundex, date of birth and sex, and any unknown information is updated from the statutory sector database.

New cases are classed as individuals who are new to the north west of England database in 2014 and have not been seen at a statutory treatment centre in the north west since 1994. New cases include transfers from outside of the region so new cases in the north west of England treatment and care database are not necessarily new diagnoses. However, whilst slightly overestimating the number of new diagnoses, new cases remain an accurate proxy measure of new diagnoses in the north west of England.

We encourage service providers to download a spreadsheet with pre-defined data collection fields from our secure document gateway and upload their completed data in the

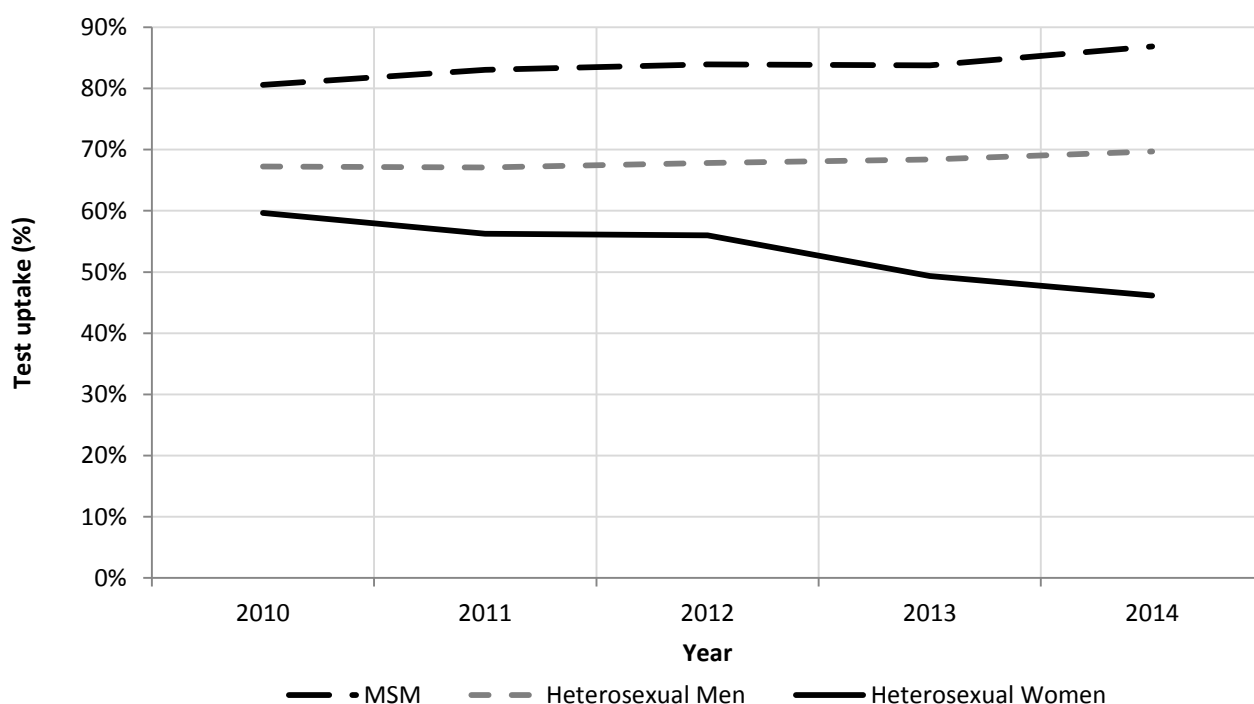
same way. All the large north west centres provide data this way and an increasing number of the smaller centres now submit data electronically. The remainder send details on paper forms. The vast majority of community sector organisations and social services departments send electronic data via the document gateway.

All service providers are asked to provide full postcodes to enable mapping to LA of residence (using postcode data from ONS). Partial postcodes are mapped to a particular LA if more than 90% of individual partial postcodes sit within a single LA. This method provides a good degree of accuracy when all but the last digit of the postcode is available. However, if only the first part of the postcode (e.g. M12) is provided this allows only 85% to match, and some first part postcodes do not even match to a single region. Partial postcodes that could not be mapped to a LA were allocated to a county if possible, or coded as unknown. Analyses are displayed by county, and LA.

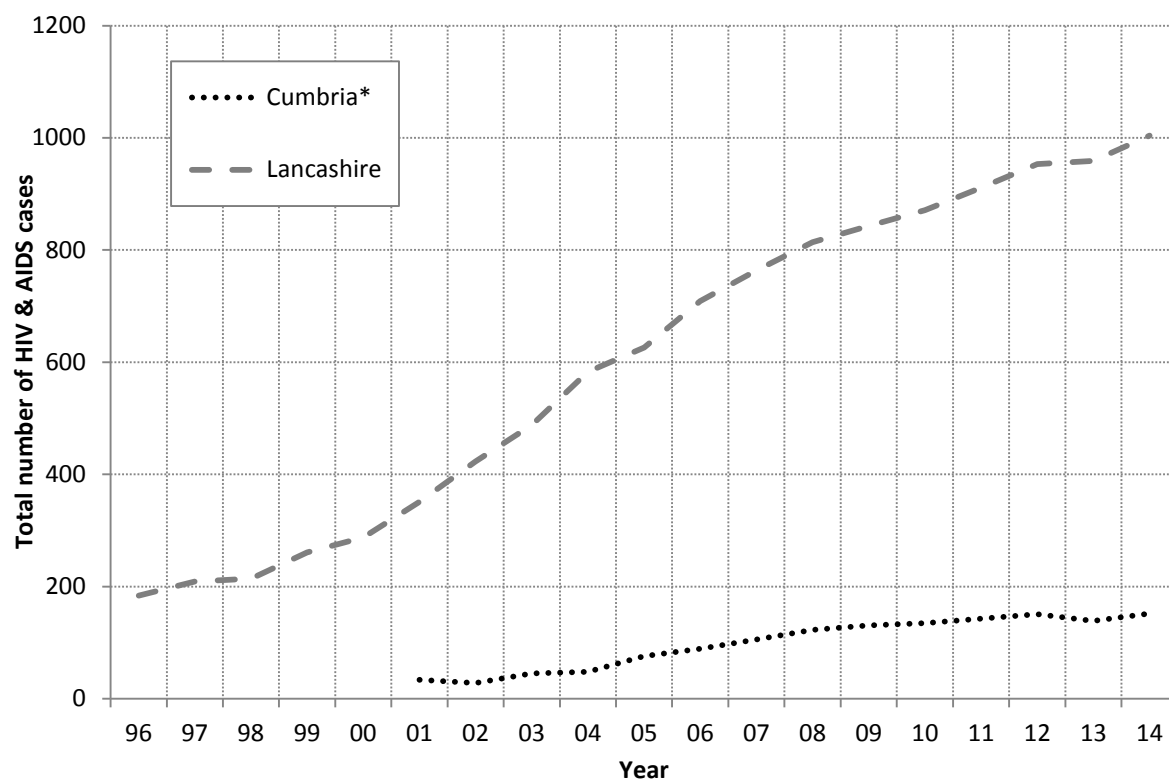
For reasons of space, it is not possible to present all breakdowns at LA level. However, additional tables are available on the North West HIV and AIDS monitoring website <http://www.cph.org.uk/hiv/>.

**Figure 1.5:** Uptake of HIV testing in north west England by sex and male sexual orientation, 2010 - 2014

Source: adapted from table 5: HIV Testing Coverage and Uptake, 2010 – 2014, PHE



**Figure 1.6:** Total number of HIV and AIDS cases seen in statutory treatment centres in Cumbria and Lancashire, 1996-2014  
Source: HIV & AIDS in the North West of England annual reports<sup>[2-17]</sup>



\*Prior to 2001, area of residence was by health authority and did not include Cumbria

## 2. New Cases 2014

During 2014, 116 new HIV and AIDS cases resident in Cumbria and Lancashire presented to reporting statutory treatment centres in the north west of England. This number represents a 36% increase from 2013 (85 cases)<sup>[18]</sup> and is in line with the fluctuating trend seen in recent years. New cases are defined as Cumbria and Lancashire residents seen in reporting north west treatment centres in 2014 but not during the years 1995 to 2013 and include new cases who died during the year.

Data on newly reported cases of HIV assist in the identification of trends and represent the most up to date information on the characteristics of HIV infection and transmission. Such information is valuable not only for planning and evaluating the success of prevention activities, but also for predicting future cases of HIV and its impact on treatment and care services in Cumbria and Lancashire. The aim of this chapter is to present information relating to new cases and, where appropriate, references are made to corresponding data from previous north west reports. For reasons of confidentiality and space, it is not possible to present all breakdowns at local authority (LA). However additional tables are available on the North West HIV and AIDS Monitoring Unit website (<http://www.cph.org.uk/hiv/>).

For the purposes of this report, men who acquired HIV through sex between men (MSM) and who are also injecting drug users (IDU) are included in the MSM category. Male to female transsexuals who acquired HIV through sex with men are recorded as males, and age groups refer to the age of individuals at the end of December 2014, or at death.

**Figure 2.1** illustrates the number of new HIV cases per 100,000 adult population (aged 15-59 years) who attended statutory centres and resided in Cumbria and Lancashire during 2014<sup>‡</sup>. The population sizes for each LA used in the calculations are from the Office for National Statistics and are mid-2014 estimates based on 2011 census data. The incidence per 100,000 population of diagnosed HIV in 2014 across Cumbria was 3.6 per 100,000 population and across Lancashire it was 11.3 per 100,000 population. Blackpool had the highest incidence at 31.1 per 100,000 population.

**Figure 2.2** shows the probable global region and country of HIV infection for Cumbria and Lancashire new cases of HIV which were probably acquired outside the UK and who presented treatment and care in 2014. Twenty six percent of new cases (30 individuals) contracted their infection abroad, of which the largest proportion (43%) were acquired in sub-

Saharan Africa. A further 27% were exposed in South and South East Asia followed by Eastern Europe and Central Asia (13%). Of the 30 new cases who acquired their infection abroad, the probable country of exposure is available for 29 individuals (97%). Individuals reported to have been infected in Zimbabwe continue to dominate the statistics, accounting for 17% of newly reported infections thought to have been acquired abroad (5 cases). There were also a number of new cases acquired in Thailand (4 cases).

**Table 2.1** illustrates the age distribution, stage of HIV disease and ethnicity of the new HIV and AIDS cases by infection route and sex. Ten percent of all reported cases in 2014 were seen for the first time in the region in this year. The majority of newly reported cases (57%) occur in people between the ages of 30 and 49 years, with the greatest proportion amongst those aged between 30 and 34 years (17%). Exposure through sex between men accounts for the highest proportion (59%) of new cases. Eighty percent of young people aged 15-24 years, for whom route of exposure is known, were infected with HIV during sex (either sex between men or heterosexual sex) with 70% being infected through MSM.

The number of new infections attributed to IDU remains at a low level with two individuals in 2014 compared with one individual in 2013. During the year, two new cases of vertical transmission (mother to child) were reported in Cumbria and Lancashire again continuing the low level seen in recent years (one new case in 2013). The infection route for five new cases (4%) has not yet been determined.

The stage of HIV disease is unknown for 78 (67%) of new cases which may lead to an underreporting of figures on stage of disease. Where stage of disease is known, positive individuals categorised as asymptomatic continue to represent the largest proportion of new cases (61%), maintaining the observation that many HIV positive individuals are contacting services at a relatively early stage of their HIV disease. Of the two new cases who died during 2014, one had an AIDS-defining illness and overall 13% of new cases whose stage of disease was known were diagnosed with AIDS by the end of 2013 (including those who had died from an AIDS-related illness). This was a slightly lower proportion than seen in 2013 (18%); however, despite continued efforts to raise awareness, a minority of individuals continue to present to services too late to benefit from life-prolonging treatment.

As in previous years, the majority of new HIV cases, for whom ethnicity is known, were of white ethnicity (81%), with 19% of cases occurring in a minority ethnic group. Black Africans account for 59% of minority ethnic cases, with black Africans

<sup>‡</sup> Rate of new cases per 100,000 adult population (age 15-59 years) calculations exclude those with unknown area of residence and those living outside the region.

exposed through heterosexual sex making up 9% of all new cases reported in 2014. Among females infected through heterosexual sex, 53% were white, compared with 40% who were of black African ethnicity whilst among men there was greater disparity with white ethnicity being recorded for 79% of males infected through heterosexual sex. Of all the individuals infected through MSM, 90% were of white ethnicity.

**Table 2.2** shows the LA of residence and the infection route of new Cumbria and Lancashire HIV cases presenting for treatment and care in 2014. The predominant route of infection for new cases was MSM (59%). The proportion of new MSM cases was slightly higher in Cumbria (68%) than in Lancashire (56%); where heterosexual cases accounted for a further 35% of new cases. There were also considerable variations across local authorities; for example 68% of new cases in Blackpool, an area with a large gay community, were acquired through MSM whilst 44% of new cases in Blackburn with Darwen were acquired heterosexually.

**Table 2.3** presents the breakdown of stage of HIV disease by LA. The widespread distribution of new HIV positive individuals demonstrates the importance of HIV prevention initiatives in every local authority across Cumbria and Lancashire. Residents of Lancashire accounted for 81% of new cases while residents of Cumbria accounted for 19%. Lancashire accounted for all of the reported AIDS cases and AIDS related deaths.

**Table 2.4** illustrates new Cumbria and Lancashire HIV and AIDS cases by stage of HIV disease, infection route and sex presenting for treatment and care in 2014. The figures show that 61% of new cases residing in Cumbria and Lancashire (where stage of disease was known) were asymptomatic. The predominant route of HIV exposure amongst female new cases seen for treatment and care in Cumbria and Lancashire continues to be heterosexual sex (83%).

**Table 2.5** shows new Cumbria and Lancashire HIV and AIDS cases presenting for treatment and care in 2014 by ethnicity and age group. Those aged between 30 and 34 years represented the largest group of new cases accessing treatment and care (17%) and over half (57%) of those with HIV were aged between 30 and 49 years. New cases tend to be younger (median age of 40 years) than all cases (median age 47 years), demonstrating the continuing need to encourage younger people at risk of HIV exposure to access services. The majority of new cases treated in the region in 2014 whose ethnicity was known were white (81%), a similar level as the corresponding data for all cases (84%; chapter 3, table 3.5). Of those HIV positive individuals whose ethnicity was known, 19% are from a black and minority ethnic (BME)

group. This indicates a substantial over-representation of new HIV cases within BME communities, when compared to their overall proportion within the Cumbria and Lancashire population (8%)<sup>[140]</sup>. The incidence of diagnosed HIV is 2.8 times higher in BME communities than in the white population in Cumbria and Lancashire. This illustrates the need for specialist services and specialist projects within the voluntary sector to provide care and support for communities that have already been identified as having shorter life expectancies, together with poorer physical and mental health<sup>[141]</sup>.

**Table 2.6** illustrates the sex, stage of HIV disease and infection abroad by ethnicity of new Cumbria and Lancashire HIV cases presenting for treatment and care in 2014. The majority of women for whom ethnicity was known and who were treated in the region for the first time in 2014 were from a BME group (53%). Black Africans account for 47% of all new cases in women for whom ethnicity is known. Whilst in the white population the gender distribution is highly biased towards males (91%), 41% of the new cases in the BME group are female.

Twenty seven percent of new cases of HIV and AIDS in 2014 (where area of exposure is known) were infections reported to have been contracted outside the UK. For those whose exposure was known, 84% of those of white ethnicity were infected in the UK, while 83% of black Africans with HIV were infected outside the UK.

**Table 2.7** shows the global region of HIV exposure by infection route for new Cumbria and Lancashire HIV cases who presented for treatment and care in 2014. Of those infected abroad, the proportion infected through sex between men is 30%. For those new individuals reported to have been infected with HIV in the UK, and for whom infection route is known, sex between men is the predominant mode of exposure (71%). The vast majority (65%) of individuals with heterosexually acquired HIV, whose infections were contracted abroad, were acquired in sub-Saharan Africa, with a further 24% in South and South-East Asia.

Cases acquired through sex between men abroad (30%; 9 individuals) were fairly evenly dispersed across a number of global regions with East Asia and Pacific, Eastern Europe and Central Asia, South and South East Asia and Western Europe all accounting for 22% of cases.. There was a single case infected by IDU who acquired their infection in Eastern Europe and Central Asia reflecting the continuing high prevalence of HIV among IDUs in this region<sup>[142]</sup>.

**Table 2.8** illustrates the distribution of new HIV cases between Cumbria and Lancashire treatment centres by infection route.

The treatment centre with the largest number of new cases in 2014 was Blackpool Sexual Health Services (BLAG) with approximately 30% of Cumbria and Lancashire's new cases (35). A large number of new cases were also seen at East Lancashire sexual health services (ELANC, recorded in previous editions of this report as BLKG and BURG; 24) and Royal Preston Hospital (PG; 20). Despite an overall increase in the number of new Cumbria and Lancashire cases, the change in the number of new cases by treatment centre between 2013 and 2014 was mixed; for example BLAG saw a 3% decrease in new cases on the previous year while PG saw a 25% increase (from 16 cases in 2013 to 20 cases in 2014). Cumberland Partnership Trust (CUMB) saw the greatest increase in new cases with 15 cases reported in 2014 compared with zero in the previous year.

**Table 2.9** presents the residency status of new HIV cases categorised by sex, age group, infection route, ethnicity, stage of HIV disease and area of residence. Of the 74 new cases for whom residency status is known, the majority (92%) were UK Nationals. The residency status of 36% of new cases is currently unknown which may lead to underreporting of residency status.



### Cumbria

Although the prevalence of HIV is low there is a high rate of late diagnosis in Cumbria. The local authority has been working with primary care to explore possible missed opportunities. There is also ongoing work with Terrence Higgins Trust, local provider and 3rd sector to increase testing and peer-to-peer condom distribution with MSM.

**Written by Roberto Vivancos, Consultant Epidemiologist, Field Epidemiology Services, Public Health England, with contributions from the Consultants in Health Protection, PHE North West Centre, and Cumbria & Lancashire Commissioners.**

### Work to reduce late diagnosis of HIV in Cumbria

Whilst Cumbria's HIV prevalence is well below the national average, the rate of late diagnosis is significantly higher. There has been an increased focus on encouraging earlier testing through primary care and other health settings, helping healthcare workers to identify missed opportunities, and ensuring that appropriate pathways are in place. However, more was needed in terms of improving HIV prevention amongst high risk groups in an area where prejudice and stigma around homosexuality still pervades. A partnership approach has been established to work specifically with men who have sex with men, many of whom do not identify as gay/bisexual, and may be in long-term relationships with women. Public Health is now working collaboratively with Solway Clinic, Terrence Higgins Trust, and local voluntary sector organisations Outreach Cumbria and Pride in North Cumbria, to share resources and expertise. Research is being conducted with users of the men's sauna in Carlisle and free condoms and lube have been provided. Work is also underway to create a dedicated private outreach room to offer sexual health advice/testing, and self-sampling will soon be available for men visiting the sauna on other days. Regular outreach sessions offering advice, testing and free condoms are now offered at a local LGBT café, and peer to peer condom distribution is also being explored, along with raising awareness around the effectiveness and availability of PEP/PEPSE.

**Written by Cathryn Beckett-Hill, Public Health Locality Manager, Cumbria County Council**

### Work to reduce late diagnosis of HIV in the North West

In the last 10 years the number of new HIV diagnosis has continued to fall in the North West of England and this reduction is consistent across all North West areas. This encouraging trend should not detract attention from the fact that there is great variation across the region in the proportion of late diagnosis, ranging from 66% to 31% of new diagnosis made late. Therefore, efforts to reduce late diagnosis of HIV need to continue, as early diagnosis is key for more successful management of the illness. Here are some examples of the ongoing work from public health organisations across Cumbria and Lancashire:

#### Lancashire

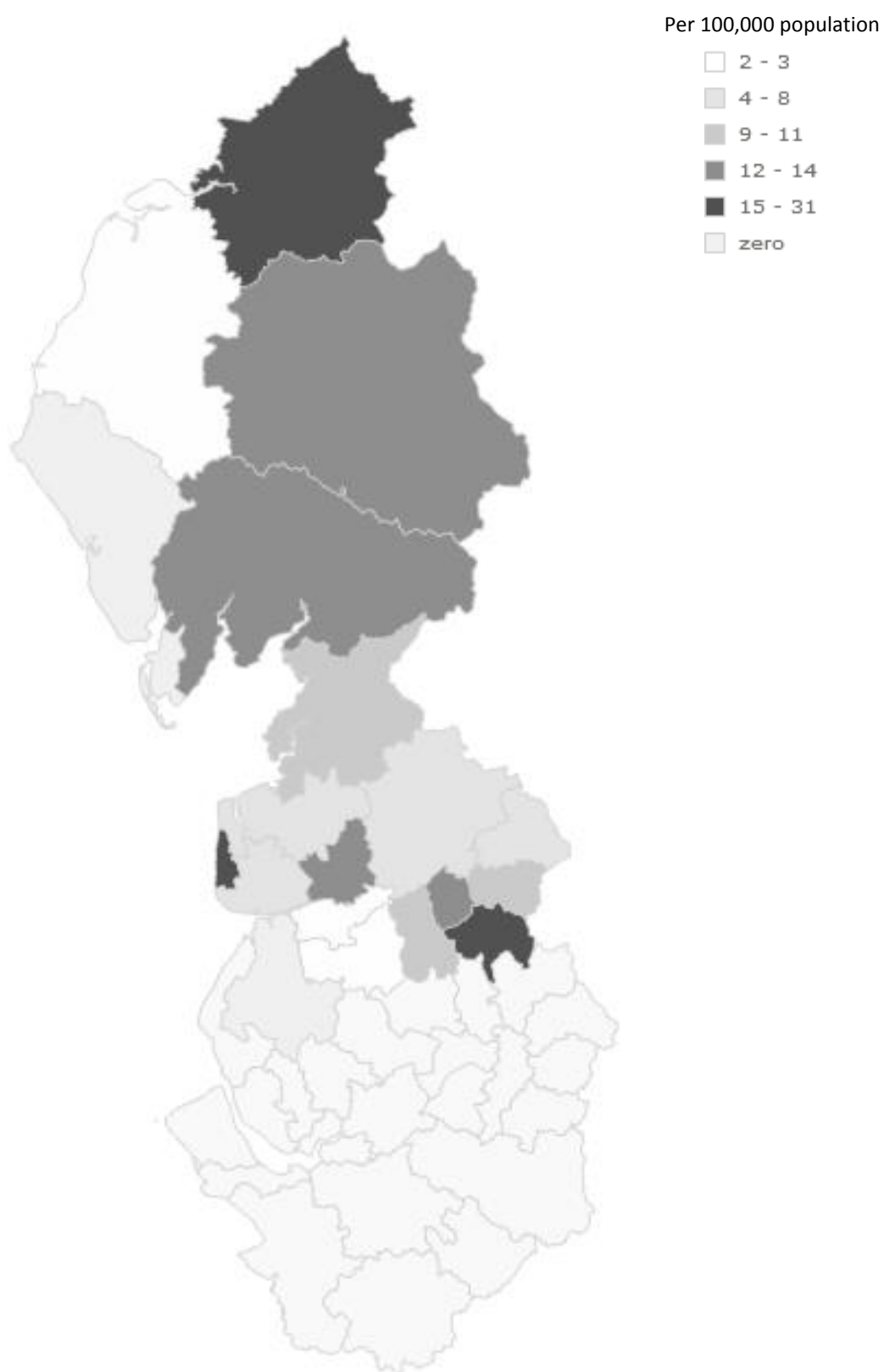
Lancashire County Council and local authorities across Lancashire are widening access to HIV screening by taking part in the Public Health England HIV Home Sampling Programme which targets populations at most risk of contracting HIV. There is also ongoing education and training for clinicians in primary care and this has significantly increased the uptake of HIV screening in this setting.

Renaissance at Drugline Lancashire offer point of care testing to MSM within the Blackpool locality. Over a hundred tests have been done in 2014/15. Workers have been trained in pre and post-test counselling techniques and there is a clear direct referral pathway in place to clinical GUM services. The service expanded its offer of HIV tests in September 2014, to include dry blood spot testing and between March 2015 and July 2015 45 tests have been undertaken.

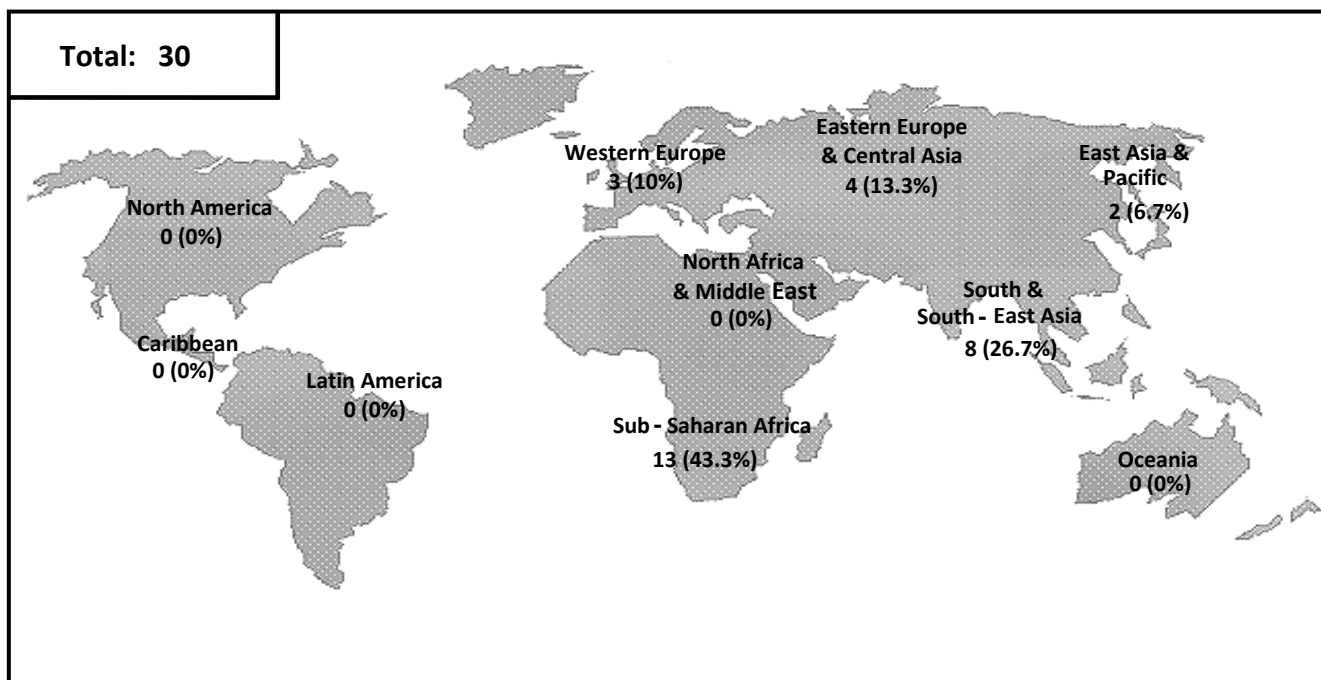
In Blackpool, where prevalence of HIV is higher, the local authority is working with GPs to ensure HIV testing is offered to new patients as part of the 'new patient' checks.

**Figure 2.1:** Number of new cases of HIV per 100,000 adult population by local authority of residence, Cumbria and Lancashire, 2014

*Crude rate based on the number of new cases of HIV and AIDS residing in Cumbria and Lancashire and accessing the region's treatment centres per 100,000 of the adult (aged 15- 59 years) population*



**Figure 2.2:** Global region and country of infection for new HIV and AIDS cases in Cumbria & Lancashire who probably acquired their infection outside the UK, 2014



Sub-Saharan Africa	13 (43.3%)
Botswana	1 (3.3%)
Ghana	1 (3.3%)
Malawi	1 (3.3%)
Nigeria	2 (6.7%)
South Africa	1 (3.3%)
Zambia	1 (3.3%)
Zimbabwe	5 (16.7%)
Unknown	1 (3.3%)

East Asia & Pacific	2 (6.7%)
China	1 (3.3%)
Taiwan	1 (3.3%)

South & South-East Asia	8 (26.7%)
Bangladesh	1 (3.3%)
India	1 (3.3%)
Malaysia	1 (3.3%)
Pakistan	1 (3.3%)
Thailand	4 (13.3%)

Eastern Europe & Central Asia	4 (13.3%)
Latvia	1 (3.3%)
Poland	3 (10%)

Western Europe	3 (10%)
France	1 (3.3%)
Germany	1 (3.3%)
Portugal	1 (3.3%)

Total	30
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**Table 2.1:** Age distribution, stage of HIV disease and ethnic group of new HIV and AIDS cases by infection route and sex, 2014

		Infection Route											Total (100%)
		MSM	Injecting Drug Use		Hetero- sexual		Blood/ Tissue		Mother to Child		Undeter- mined		
			M	M	F	M	F	M	F	M	F	M	
Age Group	0-14												
	15-19								1				1
	20-24	7			1				1		2		11
	25-29	7			1	3							11
	30-34	11	1		4	3					1		20
	35-39	4	1		7	2							14
	40-44	8			4	2							14
	45-49	14			2	2							18
	50-54	7			1	1					1		10
	55-59	3			2								5
	60+	7			3	1					1		12
Stage of HIV Disease	Asymptomatic	13			6	3					1		23
	Symptomatic	5			1	1			1		1		9
	AIDS	2			2								4
	AIDS Related Death	1											1
	Death Unrelated to AIDS				1								1
	Unknown	47	2		14	11			1		2	1	78
Ethnicity	White	61	2		19	8					3		93
	Black Caribbean												
	Black African				5	6			2				13
	Black Other												
	Indian/Pakistani/Bangladeshi	1				1					1		3
	Other Asian/Oriental	2											2
	Other/Mixed	4											4
	Unknown										1		1
	Total	68	2		24	15			2		4	1	116
	%	58.6%	1.7%		20.7%	12.9%			1.7%		3.4%	0.9%	

Men who were exposed through sex with men (MSM) and are also injecting drug users are included in the MSM category.

Age groups refer to the age of individuals at the end of December 2014, or at death.

**Table 2.2:** Local authority of residence of new HIV and AIDS cases by infection route, 2014

	Local Authority of Residence	Infection Route					Total (100%)
		MSM	Injecting Drug Use	Hetero-sexual	Mother to Child	Undetermined	
Cumbria	Carlisle	8 (80%)	1 (10%)	1 (10%)			10
	Allerdale	2 (100%)					2
	Eden	2 (66.7%)		1 (33.3%)			3
	Copeland						
	South Lakeland	3 (42.9%)		4 (57.1%)			7
	Barrow-in-Furness						
	<b>Cumbria Total</b>	<b>15 (68.2%)</b>	<b>1 (4.5%)</b>	<b>6 (27.3%)</b>			<b>22</b>
Lancashire	Lancaster	5 (55.6%)		3 (33.3%)	1 (11.1%)		9
	Wyre	2 (40%)		3 (60%)			5
	Fylde	1 (25%)		3 (75%)			4
	Blackpool	19 (67.9%)		8 (28.6%)		1 (3.6%)	28
	Blackburn with Darwen	4 (44.4%)		4 (44.4%)		1 (11.1%)	9
	Ribble Valley	1 (100%)					1
	Pendle	1 (50%)				1 (50%)	2
	Hyndburn	4 (57.1%)		3 (42.9%)			7
	Burnley	2 (40%)	1 (20%)	2 (40%)			5
	Rossendale	6 (75%)		2 (25%)			8
	Preston	6 (50%)		4 (33.3%)	1 (8.3%)	1 (8.3%)	12
	South Ribble	1 (100%)					1
	Chorley	1 (50%)		1 (50%)			2
	West Lancashire						
	Unknown Lancashire					1 (100%)	1
	<b>Lancashire Total</b>	<b>53 (56.4%)</b>	<b>1 (1.1%)</b>	<b>33 (35.1%)</b>	<b>2 (2.1%)</b>	<b>5 (5.3%)</b>	<b>94</b>
<b>Total</b>		<b>68 (58.6%)</b>	<b>2 (1.7%)</b>	<b>39 (33.6%)</b>	<b>2 (1.7%)</b>	<b>5 (4.3%)</b>	<b>116</b>

*Men who were exposed through sex with men (MSM) and are also injecting drug users are included in the MSM category.*

**Table 2.3:** Local authority of residence of new HIV and AIDS cases by stage of HIV disease, 2014

	Local Authority of Residence	Stage of Disease						Total (100%)
		Asymptomatic	Symptomatic	AIDS	AIDS Related Death	Death Unrelated to AIDS	Unknown	
Cumbria	Carlisle						10 (100%)	10
	Allderdale						2 (100%)	2
	Eden						3 (100%)	3
	Copeland							
	South Lakeland	6 (85.7%)	1 (14.3%)					7
	Barrow-in-Furness							
	<b>Cumbria Total</b>	<b>6 (27.3%)</b>	<b>1 (4.5%)</b>				<b>15 (68.2%)</b>	<b>22</b>
Lancashire	Lancaster	6 (66.7%)	2 (22.2%)				1 (11.1%)	9
	Wyre	1 (20%)		1 (20%)			3 (60%)	5
	Fylde						4 (100%)	4
	Blackpool		3 (10.7%)	1 (3.6%)			24 (85.7%)	28
	Blackburn with Darwen		1 (11.1%)			1 (11.1%)	7 (77.8%)	9
	Ribble Valley						1 (100%)	1
	Pendle						2 (100%)	2
	Hyndburn	1 (14.3%)		1 (14.3%)	1 (14.3%)		4 (57.1%)	7
	Burnley	1 (20%)		1 (20%)			3 (60%)	5
	Rossendale						8 (100%)	8
	Preston	8 (66.7%)	1 (8.3%)				3 (25%)	12
	South Ribble						1 (100%)	1
	Chorley						2 (100%)	2
	Unknown Lancashire		1 (100%)					1
	<b>Lancashire Total</b>	<b>17 (18.1%)</b>	<b>8 (8.5%)</b>	<b>4 (4.3%)</b>	<b>1 (1.1%)</b>	<b>1 (1.1%)</b>	<b>63 (67%)</b>	<b>94</b>
<b>Total</b>		<b>23 (19.8%)</b>	<b>9 (7.8%)</b>	<b>4 (3.4%)</b>	<b>1 (0.9%)</b>	<b>1 (0.9%)</b>	<b>78 (67.2%)</b>	<b>116</b>

**Table 2.4:** New HIV and AIDS cases by stage of HIV disease, infection route and sex, 2014

	Stage of disease	Infection Route										Total (100%)	
		MSM	Injecting Drug Use		Heterosexual		Blood/ Tissue		Mother to Child		Undetermined		
		M	M	F	M	F	M	F	M	F	M	F	
Cumbria & Lancashire Residents	Asymptomatic	13			6	3					1		23
	Symptomatic	5			1	1			1		1		9
	AIDS	2			2								4
	AIDS Related Death	1											1
	Death Unrelated to AIDS				1								1
	Unknown	47	2		14	11			1		2	1	78
	Total	68	2		24	15			2		4	1	116
	%	58.6%	1.7%		20.7%	12.9%			1.7%		3.4%	0.9%	100%

Men who were exposed through sex with men (MSM) and are also injecting drug users are included in the MSM category.

**Table 2.5:** New HIV and AIDS cases by age category and ethnic group, 2014

	Age Group	Ethnicity								Total (100%)
		White	Black Caribbean	Black African	Black Other	Indian/ Pakistani/ Bangladeshi	Other Asian/ Oriental	Other/ Mixed	Unknown	
Total Cumbria & Lancashire Residents	0-14									
	15-19			1						1
	20-24	7		2		2				11
	25-29	11								11
	30-34	14		2			1	2	1	20
	35-39	9		4			1			14
	40-44	10		3		1				14
	45-49	15		1				2		18
	50-54	10								10
	55-59	5								5
	60+	12								12
	<b>Total</b>	<b>93</b>		<b>13</b>		<b>3</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>116</b>
	<b>%</b>	<b>80.2%</b>		<b>11.2%</b>		<b>2.6%</b>	<b>1.7%</b>	<b>3.4%</b>	<b>0.9%</b>	

Age groups refer to the ages of individuals at the end of December 2014, or at death.

**Table 2.6:** Sex, stage of HIV disease and HIV exposure abroad of new HIV and AIDS cases by ethnic group, 2014

		Ethnicity								Total (100%)
		White	Black Caribbean	Black African	Black Other	Indian/ Pakistani/ Bangladeshi	Other Asian/ Oriental	Other/ Mixed	Unknown	
Sex	Male	85 (86.7%)		5 (5.1%)		2 (2%)	2 (2%)	4 (4.1%)		98
	Female	8 (44.4)		8 (44.4%)		1 (5.6%)			1 (5.6%)	18
Stage of Disease	Asymptomatic	19 (82.6%)		3 (13%)			1 (4.3%)			23
	Symptomatic	6 (66.7%)		1 (11.1%)		1 (11.1%)	1 (11.1%)			9
	AIDS	4 (100%)								4
	AIDS Related Death	1 (100%)								1
	Death Unrelated to AIDS	1 (100%)								1
	Unknown	62 (79.5%)		9 (11.5%)		2 (2.6%)		4 (5.1%)	1 (1.3%)	78
HIV Exposure Abroad	UK	76 (92.7%)		2 (2.4%)		1 (1.2%)	1 (1.2%)	2 (2.4%)		82
	Abroad	15 (50%)		10 (33.3%)		2 (6.7%)	1 (3.3%)	1 (3.3%)	1 (3.3%)	30
	Unknown	2 (50%)		1 (25%)				1 (25%)		4
	<b>Total</b>	<b>93 (80.2%)</b>		<b>13 (11.2%)</b>		<b>3 (2.6%)</b>	<b>2 (1.7%)</b>	<b>4 (3.4%)</b>	<b>1 (0.9%)</b>	<b>116</b>

**Table 2.7:** Global region of exposure by infection route for new HIV and AIDS cases, 2014

Region of HIV Exposure	Infection Route						Total (100%)
	MSM	Injecting Drug Use	Hetero-sexual	Blood/Tissue	Mother to Child	Undetermined	
Abroad	9 (30%)	1 (3.3%)	17 (56.7%)		1 (3.3%)	2 (6.7%)	30
Caribbean							
East Asia & Pacific	2						2
Eastern Europe & Central Asia	2	1	1				4
Latin America							
North Africa & Middle East							
North America							
South & South-East Asia	2		4			2	8
Sub-Saharan Africa	1		11		1		13
Western Europe	2		1				3
Multiple							
Unknown							
UK	56 (68.3%)	1 (1.2%)	22 (26.8%)		0 (0%)	3 (3.7%)	82
Unknown	3 (75%)	0 (0%)	0 (0%)		1 (25%)	0 (0%)	4
<b>Total</b>	<b>68 (58.6%)</b>	<b>2 (1.7%)</b>	<b>39 (33.6%)</b>		<b>2 (1.7%)</b>	<b>5 (4.3%)</b>	<b>116</b>

Men who were exposed through sex with men (MSM) and are also injecting drug users are included in the MSM category.

**Table 2.8:** Distribution of treatment for new HIV and AIDS cases by infection route, 2014

Treatment Centre	Infection Route						Total (100%)
	MSM	Injecting Drug Use	Hetero-sexual	Blood/Tissue	Mother to Child	Undetermined	
BLAG	20 (57.1%)		14 (40%)			1 (2.9%)	35
ELANC	13 (54.2%)	1 (4.2%)	9 (37.5%)			1 (4.2%)	24
CUMB	12 (80%)	1 (6.7%)	2 (13.3%)				15
FGH	2 (100%)						2
PG	10 (50%)		7 (35%)		1 (5%)	2 (10%)	20
RLI	4 (44.4%)		4 (44.4%)		1 (11.1%)		9
WGH	3 (50%)		3 (50%)				6

For a definition of the abbreviated statutory treatment centres please refer to the glossary at the back of the report.  
Columns cannot be totalled as some individuals may attend two or more treatment locations, thus exaggerating the totals.  
Men who were exposed through sex with men (MSM) and are also injecting drug users are included in the MSM category.

**Table 2.9:** Residency status of new cases by sex, age group, infection route, ethnicity, stage of HIV disease and area of residence, 2014

		Residency Status							Total
		UK National	Asylum Seeker	Overseas Student	Temporary Visitor	Refugee	Other*	Unknown	
Sex	Male	56 (82.4%)		1 (100%)	1 (100%)		2 (66.7%)	38 (90.5%)	98
	Female	12 (17.6%)				1 (100%)	1 (33.3%)	4 (9.5%)	18
Age Group	0-14								
	15-19	1 (1.5%)							1
	20-24	5 (7.4%)						6 (14.3%)	11
	25-29	5 (7.4%)						6 (14.3%)	11
	30-34	8 (11.8%)			1 (100%)			11 (26.2%)	20
	35-39	9 (13.2%)				1 (100%)	1 (33.3%)	3 (7.1%)	14
	40-44	8 (11.8%)		1 (100%)			2 (66.7%)	3 (7.1%)	14
	45-49	10 (14.7%)						8 (19%)	18
	50-54	8 (11.8%)						2 (4.8%)	10
	55-59	5 (7.4%)							5
	60+	9 (13.2%)						3 (7.1%)	12
Infection Route	MSM	38 (55.9%)			1 (100%)			29 (69%)	68
	Injecting Drug Use							2 (4.8%)	2
	Heterosexual	25 (36.8%)		1 (100%)		1 (100%)	3 (100%)	9 (21.4%)	39
	Mother to Child	2 (2.9%)							2
	Unknown	3 (4.4%)						2 (4.8%)	5
Ethnicity	White	58 (85.3%)					1 (33.3%)	34 (81%)	93
	Black Caribbean								
	Black African	6 (8.8%)		1 (100%)		1 (100%)	2 (66.7%)	3 (7.1%)	13
	Black Other								
	Indian/Pakistani/Bangladeshi	1 (1.5%)						2 (4.8%)	3
	Other Asian/Oriental	1 (1.5%)			1 (100%)				2
	Other/Mixed	2 (2.9%)						2 (4.8%)	4
Stage of HIV Disease	Unknown	0 (0%)						1 (2.4%)	1
	Asymptomatic	19 (27.9%)			1 (100%)		3 (100%)		23
	Symptomatic	9 (13.2%)							9
	AIDS	4 (5.9%)							4
	AIDS Related Death	0 (0%)						1 (2.4%)	1
	Death Unrelated to AIDS	0 (0%)						1 (2.4%)	1
Area	Unknown	36 (52.9%)		1 (100%)		1 (100%)		40 (95.2%)	78
	Cumbria	5 (7.4%)					2 (66.7%)	15 (35.7%)	22
	Lancashire	63 (92.6%)		1 (100%)	1 (100%)	1 (100%)	1 (33.3%)	27 (64.3%)	94
Total (100%)		68		1	1	1	3	42	116

Men who were exposed through sex with men (MSM) and are also injecting drug users are included in the MSM category.

Age groups refer to the age of individuals at the end of December 2014, or at death.

\* Includes residency status defined as 'Migrant Worker', 'Dependent', and 'Other'.

### 3. All Cases 2014

During 2014, a total of 1,156 Cumbria and Lancashire residents living with HIV accessed treatment and care from reporting treatment centres in north west of England, representing a 5% increase in the size of the HIV positive population (from 1098 individuals in 2013). This is in contrast to the 1% decrease seen between 2012 and 2013. The aim of this chapter is to provide information on the demographics and characteristics of these 1,156 individuals and, where appropriate, references are made to corresponding data from previous reports<sup>[1-18]</sup>. For reasons of confidentiality and space, it is not possible to present all breakdowns at local authority (LA) level. However, additional tables are available on the North West HIV and AIDS Monitoring Unit website: (<http://www.cph.org.uk/hiv/>).

#### Epidemiology of HIV in Cumbria and Lancashire

**Figure 3.1** illustrates the crude adult population prevalence (aged 15 -59 years) of HIV based on all cases residing in Cumbria and Lancashire and attending reporting statutory treatment centres within the north west of England during 2014<sup>§</sup>. The population sizes for each LA used in the prevalence calculations are taken from the Office for National Statistics and are mid-2014 estimates based on 2011 census data. Across Cumbria and Lancashire, the prevalence of HIV was 45.1 and 129.5 per 100,000 population aged 15 to 59 years respectively. There were considerable differences between LAs. Blackpool had the highest prevalence at 383.1 per 100,000 population and was the only LA in Cumbria and Lancashire above the threshold whereby testing is recommended in general settings including all medical admissions and all new registrations in general practice (2 per 1,000, i.e. 200 per 100,000). This threshold (based on analysis from the USA) is deemed to be the level at which it is cost effective to screen the whole population<sup>[1]</sup>. The areas with the lowest prevalence were West Lancashire (13 per 100,000), Allerdale (30 per 100,000) and Copeland (35 per 100,000 population).

**Figure 3.2** illustrates the global region and country of infection for those 259 individuals living with HIV who presented for treatment in 2014 and who probably acquired their HIV abroad. Of all the infections contracted outside the United Kingdom, 48% were contracted in sub-Saharan Africa. This high proportion reflects the impact of the pandemic in sub-Saharan Africa where the prevalence of HIV is extremely high<sup>[24]</sup>. A quarter of people who were infected abroad were infected in South and South-East Asia (25%), with a further

10% in Western Europe. The exact country of infection is known for 237 individuals (92%). The infections acquired outside the UK were spread across 47 different countries, with just over a fifth contracted in Zimbabwe (21%). Exposure in sub-Saharan Africa was spread across 19 countries. Thailand represents the second largest number of infections acquired outside the UK (52 individuals; 20%). Of those exposed in Western Europe, the largest number were infected in Spain (9 individuals), reflecting the extent of the Spanish epidemic<sup>[143]</sup>, the large number of people who travel between the United Kingdom and Spain, and the increased propensity to take risks when on holiday<sup>[144, 145]</sup>.

**Table 3.1** shows the infection route and sex of all Cumbria and Lancashire HIV and AIDS cases presenting for treatment in 2014, categorised by age group, stage of HIV disease and ethnicity. Sex between men (MSM) remains the most common route of infection amongst people with HIV (60% of all cases). However the proportion of people infected through heterosexual sex has increased over the past 18 years, from 17% in 1996 to 34% in 2014. The percentage of individuals exposed to HIV via injecting drug use (IDU), those infected by contaminated blood or tissue and vertical transmission all remain low at less than 2% for each transmission route.

On average, those who were infected through heterosexual sex and IDU were slightly younger (median age 45 years each) than those infected through MSM (48 years). The overall age distribution is concentrated in the 40-54 year age range, accounting for half of all cases (50%). New cases were more likely to be under 25 years (10%, see chapter 2, table 2.1) compared to all cases (4%). The proportion of HIV positive individuals in the older age groups (50 years and over) has increased slightly each year (from 31% in 2012 to 35% in 2013 and 38% in 2014). This ageing cohort effect is likely to be due to the effectiveness of antiretroviral therapy and subsequent improved prognosis and longevity of many HIV positive individuals.

The proportion of individuals with HIV who died during the year decreased to under 1% in 2014. Of the 8 individuals who died in 2014, half (50%) died of an AIDS-related condition (a decrease from 2013 when all five deaths were AIDS related).

Amongst those for whom ethnicity was known (1,151 individuals), 84% were white. Those from black and minority ethnic (BME) communities make up 16% of the total Cumbria and Lancashire HIV positive population accessing care, with black Africans representing the greatest proportion within BME groups (63%).

<sup>§</sup> Prevalence per 100,000 adult population (aged 15-59 years) calculations exclude those with unknown area of residence and those living outside the region.

**Table 3.2** shows LA and county of residence by infection route. Although MSM continues to be the dominant mode of HIV transmission (60%) amongst those with HIV who are resident in Cumbria and Lancashire, there is considerable variation at local authority level. The proportion of all cases infected through sex between men ranged from 85% in Rossendale, 84% in Allerdale (although absolute numbers were relatively low; 33/39 and 16/19 respectively) and 77% in Blackpool (271/351) to 31% in Hyndburn and 32% in Blackburn with Darwen. Hyndburn was the LA with the greatest proportion of infections acquired via heterosexual sex (62%), although absolute numbers were, again, relatively low (26/42); therefore the percentage should be interpreted with caution. Blackpool had the largest number of HIV positive residents infected through MSM (271 cases) and through heterosexual sex (69 cases). The county of Lancashire had the highest number of HIV positive individuals infected through IDU (11 individuals) which accounts for 73% of all residents of Cumbria and Lancashire infected by this route.

**Table 3.3** illustrates the LA, county of residence and clinical stage of HIV disease for all HIV and AIDS cases presenting to a treatment centre in 2014. The data refer to the clinical condition of individuals when last seen in 2014; individuals who died are presented in separate categories. The largest proportion of people living with HIV reside in Lancashire (87% of the total number of Cumbria and Lancashire residents seen in 2014) with three tenths of individuals living with HIV across the two counties residing in Blackpool (30%). The proportion of people at different stages of HIV disease will impact on the funding of HIV treatment and care, since those at a more advanced stage require more hospital care<sup>[146]</sup>. The proportion of residents presenting as asymptomatic (where stage of HIV was known) was higher in Cumbria (61%) when compared to Lancashire (41%).

**Table 3.4** gives a breakdown of ethnicity and county by infection route and sex. Whilst individuals of white ethnicity represented the majority of cases acquired through both MSM (97%) and heterosexual sex (62%), those from BME/Mixed background represented a larger proportion of cases acquired through heterosexual sex (37%). Individuals of BME/mixed ethnicity are over-represented amongst the HIV positive population when compared to their proportion in the population as a whole (16% of all cases, compared to 8% of Cumbria and Lancashire population)<sup>[140]</sup>. Prevalence in BME communities is just over two times higher than in the white population. The proportion of the HIV positive population from BME/mixed backgrounds varies between the two counties; with Lancashire having the largest proportion (at 17%) whilst in Cumbria the proportion is slightly smaller (10%).

**Table 3.5** shows a breakdown of age by ethnicity for all residents. Of all those who accessed treatment and care, white individuals tended to be older (41% aged 50 years and over) than black African individuals (21% aged 50 years and over).

**Table 3.6** shows the distribution of total HIV and AIDS cases by stage of HIV disease, county and level of antiretroviral therapy (ART). The largest proportion of individuals (62%) were using triple therapy, followed by 27% using quadruple or more. Amongst those residents of Cumbria and Lancashire with AIDS, 89% were on ART. Amongst those who were asymptomatic, 89% were on ART. There was no variation in the proportion of individuals on ART between counties, with 89% of individuals receiving ART in both Cumbria and Lancashire.

**Table 3.7** gives a breakdown of ethnicity by sex, stage of HIV disease and whether or not individuals acquired HIV abroad. Although overall there were more males (81%) than females living with HIV, nearly two thirds (64%) of black Africans and 56% of those defined as other Asian/Oriental were female. The largest proportion of HIV positive individuals were asymptomatic (28%), followed by symptomatic individuals (22%). Amongst white HIV positive individuals, where stage of disease was known, 42% were asymptomatic while a slightly higher proportion of black Africans (46%) were asymptomatic. In contrast to the 13% of white individuals infected abroad, 72% of those classed as from BME groups were exposed to HIV abroad.

**Table 3.8** illustrates the global region of exposure and route of infection of all HIV cases. Twenty two percent of all cases reported were exposed to HIV abroad. The majority (69%) of those infected abroad were infected through heterosexual sex and the largest proportion of these cases were infected in sub-Saharan Africa (61%). Heterosexual sex was the most common route of infection in those infected in sub-Saharan Africa (88%), the Caribbean (100%), South and South-East Asia (70%). In contrast, those infected in North America (100%), Oceania (100%), East Asia and Pacific (100%), Eastern Europe and Central Asia (58%) and Western Europe (54%) were more likely to be infected via MSM.

#### Care of HIV positive people by statutory treatment centres

**Table 3.9** presents the number of HIV positive people seeking care by infection route and treatment centre (for a definition of the abbreviated treatment centres, see the glossary). Blackpool Sexual Health Services (BLAG) provides care for the greatest number of HIV positive individuals (451) followed by the Department of GUM at Royal Preston Hospital (PG; 224) and East Lancashire Sexual Health Service (ELANC; 157).

There is some variation in the profile of HIV positive individuals between treatment centres. Seventy five percent of individuals attending BLAG had been exposed to HIV via sex between men compared to the overall rate of 60% (table 3.1) for all HIV cases. In contrast 59% of individuals attending ELANCS acquired HIV through heterosexual sex compared to the overall rate of 34% (table 3.1).

**Table 3.10** refers to the highest level of ART prescribed by specific treatment centres during 2014. Blackpool Sexual Health Service (BLAG, which sees the most individuals) prescribed triple or more ART to 86% of their patients. There are few individuals prescribed mono or dual therapy in accordance with the latest British HIV Association guidelines [119].

**Table 3.11** illustrates the distribution of all Cumbria and Lancashire HIV cases presenting for treatment in 2014 by LA of residence and the number of statutory treatment centres attended. The majority (97%) attended only one treatment centre. It should be noted that these numbers refer only to reporting treatment centres across Cumbria and Lancashire, Greater Manchester and Liverpool. Attendance at multiple treatment centres could be due to a change in residence or simultaneously accessing treatment and care from more than one treatment centre.

**Table 3.12** shows the total and mean number of outpatient visits, day cases, inpatient episodes, inpatient days and home visits per HIV positive individual treated at each centre. BLAG provided the highest number of outpatient visits, followed by PG (44% and 22% respectively) of all attendances. BLAG and PG also accounted for all day cases and BLAG provided the highest proportion of inpatient episodes for all Cumbria and Lancashire residents (33%) whilst PG provided the greatest number of inpatient days (43%).

Asymptomatic HIV positive people accumulated a total of 1,435 outpatient visits, an average of 4.5 per person.

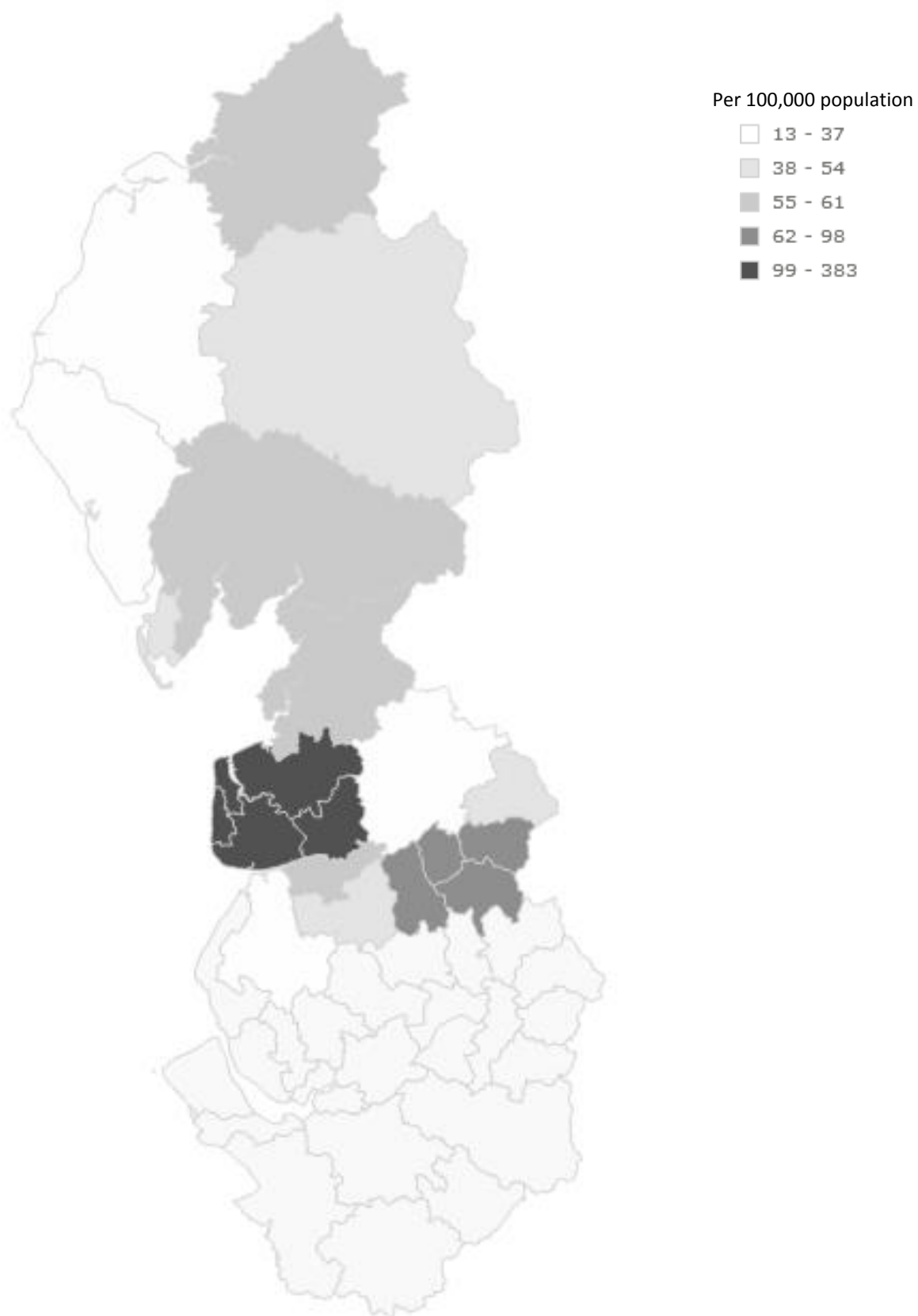
Individuals diagnosed with AIDS had the highest mean number of outpatient visits (4.6) and also spent the greatest mean number of days as inpatients (2.2 days).

### HIV in non-UK nationals

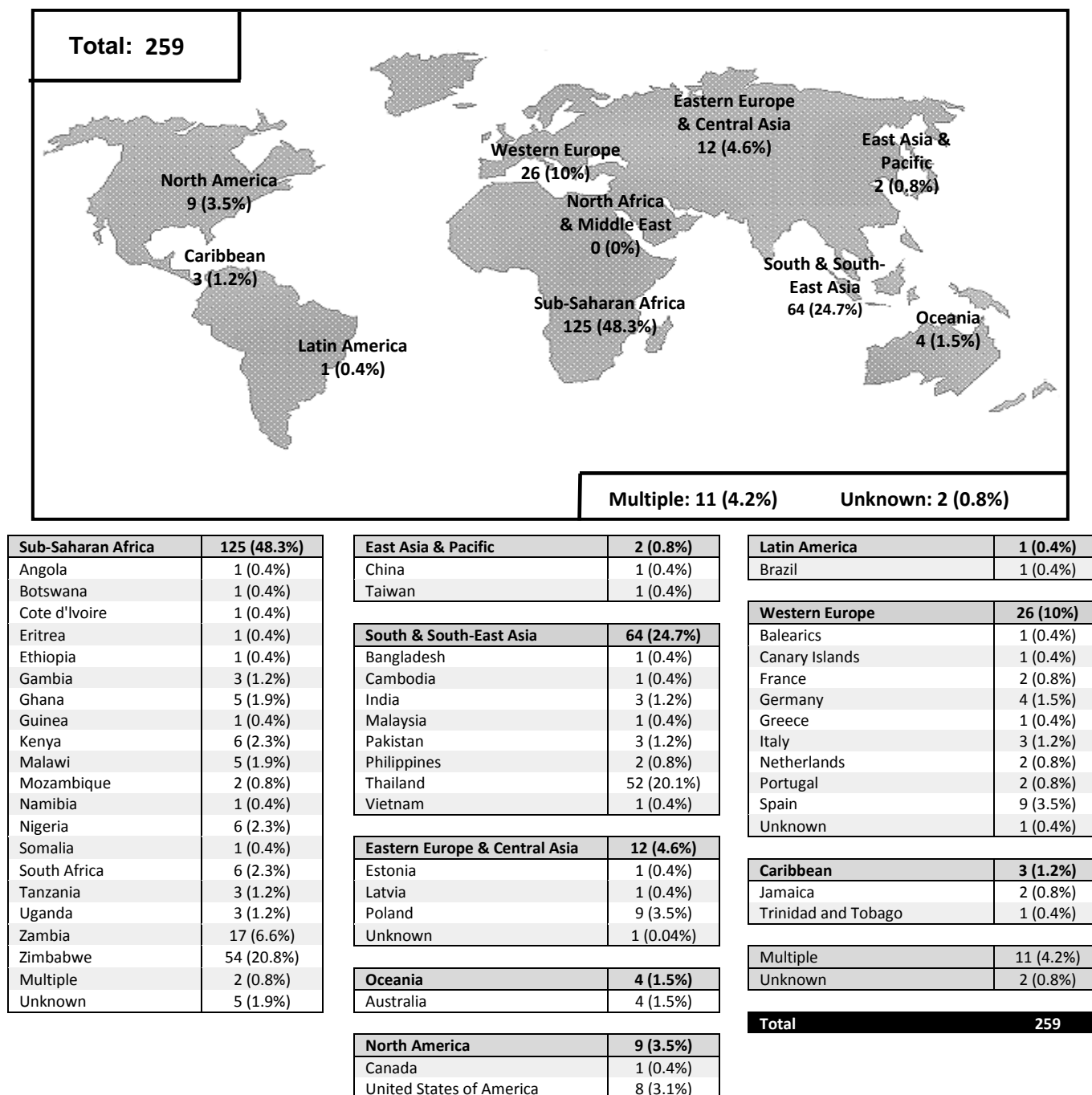
**Table 3.13** shows the residency status of all individuals who accessed treatment and care in 2014 by sex, age group, infection route, ethnicity, stage of HIV disease and area of residence. A total of 72 individuals were known to be non-UK nationals (6% of the total HIV positive population). The residency status of a further 6% was unknown. Over a quarter of non-UK nationals were classified as asylum seekers (28%). Other (including dependents and migrant workers; 32%) and refugees (21%) were the other main categories. Just over half (54%) of HIV positive non-UK nationals were female, compared with 16% of UK-national HIV positive individuals. There is also a large difference in the proportion of heterosexual cases between UK national and non-UK nationals (30% compared with 79%). Non-UK nationals were younger (median age 44) than UK-national HIV positive population (median age 48 years). All recorded refugees (100%) and the majority of asylum seekers (75%) were black African. Most of the known HIV positive non-UK nationals were resident in Lancashire (89%).

Fifty three percent of non-UK nationals whose stage was known were reported to be asymptomatic, suggesting that individuals usually access treatment while still healthy and thus may benefit from life-prolonging treatment. In UK nationals, 42% of those whose stage of infection was known were classified as asymptomatic. A similar proportion of non-UK and UK nationals for whom stage was known had an AIDS diagnosis including those who died of an AIDS related cause; (26% and 24% respectively). All of the individuals who died in 2014 were UK nationals.

**Figure 3.1:** Number of cases of HIV per 100,000 population by local authority of residence, Cumbria and Lancashire, 2014  
*Crude rate based on the number of adult cases of HIV and AIDS (aged 15 – 59) residing in north west of England and accessing the region’s treatment centres per 100,000 of the population*



**Figure 3.2:** Global region and country of infection for all HIV and AIDS cases in the North West who probably acquired their infection outside the UK, 2014



**Table 3.1:** Age distribution, stage of HIV disease and ethnicity of all HIV and AIDS cases by infection route and sex, 2014

		Infection Route											Total (100%)
		MSM	Injecting Drug Use		Hetero- sexual		Blood/ Tissue		Mother to Child		Undeter- mined		
		M	M	F	M	F	M	F	M	F	M	F	
Age Group	0-14								1	2			3
	15-19								2	3	1		6
	20-24	24			4				3	5	2		38
	25-29	44			5	13							62
	30-34	61	2		9	24	2				1	1	100
	35-39	53	1		27	25	1				1		108
	40-44	92	5		36	50	1				1	1	186
	45-49	138	5	1	27	38	2	2			4	1	218
	50-54	116	1		30	22	1				5		175
	55-59	77			20	12					2		111
	60+	92			40	9	3	1			4		149
Stage of HIV Disease	Asymptomatic	209	3		46	54	1		2	1	5		321
	Symptomatic	168	2		26	39	4	1	4	6	1		251
	AIDS	103	4	1	36	21	2	2			6	1	176
	AIDS Related Death	2			2								4
	Death Unrelated to AIDS	2			2								4
	Unknown	213	5		82	83	2	1	3		9	2	400
Ethnicity	White	673	13	1	142	101	8	2	4		17	2	963
	Black Caribbean	3			5	3							11
	Black African				37	71			5	4	1		118
	Black Other	1			1								2
	Indian/Pakistani/Bangladeshi	5	1		3	5	1		1		1		17
	Other Asian/Oriental	5			2	9	1	1					18
	Other/Mixed	9			4	6			1	1	1		22
	Unknown	1			1	1					1	1	5
	Total	697	14	1	194	197	9	4	6	10	21	3	1156
	%	60.3%	1.2%	0.1%	16.8%	17.0%	0.8%	0.3%	0.5%	0.9%	1.8%	0.3%	

Men who were exposed through sex with men (MSM) and are also injecting drug users are included in the MSM category.

Age groups refer to the age of individuals at the end of December 2014, or at death.

**Table 3.2:** Local authority of residence of all HIV and AIDS cases by infection route, 2014

	Local Authority of Residence	Infection Route						Total (100%)
		MSM	Injecting Drug Use	Hetero-sexual	Blood/Tissue	Mother to Child	Undetermined	
Cumbria	Carlisle	26 (60.5%)	2 (4.7%)	12 (27.9%)	1 (2.3%)		2 (4.7%)	43
	Allerdale	16 (84.2%)		3 (15.8%)				19
	Eden	11 (73.3%)		4 (26.7%)				15
	Copeland	6 (40%)		4 (26.7%)	1 (6.7%)	1 (6.7%)	3 (20%)	15
	South Lakeland	20 (46.5%)	2 (4.7%)	18 (41.9%)	1 (2.3%)	1 (2.3%)	1 (2.3%)	43
	Barrow-in-Furness	7 (41.2%)		10 (58.8%)				17
	<b>Cumbria Total</b>	<b>86 (56.6%)</b>	<b>4 (2.6%)</b>	<b>51 (33.6%)</b>	<b>3 (2%)</b>	<b>2 (1.3%)</b>	<b>6 (3.9%)</b>	<b>152</b>
Lancashire	Lancaster	25 (46.3%)		25 (46.3%)		2 (3.7%)	2 (3.7%)	54
	Wyre	46 (66.7%)		21 (30.4%)	1 (1.4%)	1 (1.4%)		69
	Fylde	31 (57.4%)	2 (3.7%)	20 (37%)		1 (1.9%)		54
	Blackpool	271 (77.2%)	3 (0.9%)	69 (19.7%)	3 (0.9%)	1 (0.3%)	4 (1.1%)	351
	Blackburn with Darwen	29 (31.5%)	1 (1.1%)	56 (60.9%)	2 (2.2%)	2 (2.2%)	2 (2.2%)	92
	Ribble Valley	5 (33.3%)		9 (60%)	1 (6.7%)			15
	Pendle	22 (64.7%)	1 (2.9%)	9 (26.5%)	1 (2.9%)		1 (2.9%)	34
	Hyndburn	13 (31%)		26 (61.9%)		2 (4.8%)	1 (2.4%)	42
	Burnley	17 (47.2%)	1 (2.8%)	18 (50%)				36
	Rossendale	33 (84.6%)	1 (2.6%)	5 (12.8%)				39
	Preston	70 (53.4%)	1 (0.8%)	52 (39.7%)		4 (3.1%)	4 (3.1%)	131
	South Ribble	22 (55%)	1 (2.5%)	14 (35%)		1 (2.5%)	2 (5%)	40
	Chorley	20 (58.8%)		13 (38.2%)			1 (2.9%)	34
	West Lancashire	6 (60%)		2 (20%)	2 (20%)			10
	Unknown Lancashire	1 (33.3%)		1 (33.3%)			1 (33.3%)	3
	<b>Lancashire Total</b>	<b>611 (60.9%)</b>	<b>11 (1.1%)</b>	<b>340 (33.9%)</b>	<b>10 (1%)</b>	<b>14 (1.4%)</b>	<b>18 (1.8%)</b>	<b>1004</b>
<b>Total</b>		<b>697 (60.3%)</b>	<b>15 (1.3%)</b>	<b>391 (33.8%)</b>	<b>13 (1.1%)</b>	<b>16 (1.4%)</b>	<b>24 (2.1%)</b>	<b>1156</b>

Men who were exposed through sex with men (MSM) and are also injecting drug users are included in the MSM category.

**Table 3.3:** Local authority of residence of all HIV and AIDS cases by stage of HIV disease, 2014

	Local Authority of Residence	Stage of HIV Disease						Total (100%)
		Asymptomatic	Symptomatic	AIDS	AIDS Related Death	Death Unrelated to AIDS	Unknown	
Cumbria	Carlisle						43 (100%)	43
	Allerdale						19 (100%)	19
	Eden	3 (20%)	1 (6.7%)		1 (6.7%)		10 (66.7%)	15
	Copeland	1 (6.7%)		2 (13.3%)			12 (80%)	15
	South Lakeland	25 (58.1%)	9 (20.9%)	8 (18.6%)			1 (2.3%)	43
	Barrow-in-Furness	12 (70.6%)	1 (5.9%)	4 (23.5%)				17
	<b>Cumbria Total</b>	<b>41 (27%)</b>	<b>11 (7.2%)</b>	<b>14 (9.2%)</b>	<b>1 (0.7%)</b>		<b>85 (55.9%)</b>	<b>152</b>
Lancashire	Lancaster	37 (68.5%)	9 (16.7%)	6 (11.1%)			2 (3.7%)	54
	Wyre	20 (29%)	14 (20.3%)	15 (21.7%)	1 (1.4%)		19 (27.5%)	69
	Fylde	9 (16.7%)	13 (24.1%)	11 (20.4%)	1 (1.9%)		20 (37%)	54
	Blackpool	98 (27.9%)	98 (27.9%)	62 (17.7%)		3 (0.9%)	90 (25.6%)	351
	Blackburn with Darwen	7 (7.6%)	10 (10.9%)	7 (7.6%)		1 (1.1%)	67 (72.8%)	92
	Ribble Valley	1 (6.7%)	1 (6.7%)	2 (13.3%)			11 (73.3%)	15
	Pendle	4 (11.8%)	3 (8.8%)	2 (5.9%)			25 (73.5%)	34
	Hyndburn	6 (14.3%)	5 (11.9%)	7 (16.7%)	1 (2.4%)		23 (54.8%)	42
	Burnley	5 (13.9%)	8 (22.2%)	4 (11.1%)			19 (52.8%)	36
	Rossendale	8 (20.5%)	10 (25.6%)	3 (7.7%)			18 (46.2%)	39
	Preston	58 (44.3%)	43 (32.8%)	21 (16%)			9 (6.9%)	131
	South Ribble	12 (30%)	13 (32.5%)	13 (32.5%)			2 (5%)	40
	Chorley	9 (26.5%)	9 (26.5%)	7 (20.6%)			9 (26.5%)	34
	West Lancashire	4 (40%)	3 (30%)	2 (20%)			1 (10%)	10
	Unknown Lancashire	2 (66.7%)	1 (33.3%)					3
	<b>Lancashire Total</b>	<b>280 (27.9%)</b>	<b>240 (23.9%)</b>	<b>162 (16.1%)</b>	<b>3 (0.3%)</b>	<b>4 (0.4%)</b>	<b>315 (31.4%)</b>	<b>1004</b>
	<b>Total</b>	<b>321 (27.8%)</b>	<b>251 (21.7%)</b>	<b>176 (15.2%)</b>	<b>4 (0.3%)</b>	<b>4 (0.3%)</b>	<b>400 (34.6%)</b>	<b>1156</b>

**Table 3.4:** All HIV and AIDS cases by infection route, sex, county of residence and ethnicity, 2014

	Ethnicity	Infection Route										Total (100%)	
		MSM	Injecting Drug Use		Hetero-sexual		Blood/Tissue		Mother to Child		Undeter-mined		
		M	M	F	M	F	M	F	M	F	M		F
Cumbria	White	85	4		26	13	2		1		4	2	137
	BME/mixed	1			5	7	1		1				15
	Total	86	4		31	20	2	1	1	1	4	2	152
	%	56.6%	2.6%		20.4%	13.2%	1.3%	0.7%	0.7%	0.7%	2.6%	1.3%	
Lancashire	White	588	9	1	116	88	6	2	3		13		826
	BME/mixed	22	1		46	88	1	1	5	6	3		173
	Unknown	1			1	1					1	1	5
	Total	611	10	1	163	177	7	3	5	9	17	1	1004
	%	60.9%	1.0%	0.1%	16.2%	17.6%	0.7%	0.3%	0.5%	0.9%	1.7%	0.1%	
Total	White	673	13	1	142	101	8	2	4		17	2	963
	BME/mixed	23	1		51	95	1	2	6	6	3		188
	Unknown	1			1	1					1	1	5
	Total	697	14	1	194	197	9	4	6	10	21	3	1156
	%	60.3%	1.2%	0.1%	16.8%	17.0%	0.8%	0.3%	0.5%	0.9%	1.8%	0.3%	

Men who were exposed through sex with men (MSM) and are also injecting drug users are included in the MSM category.

**Table 3.5:** Age group of all HIV and AIDS cases by ethnicity, 2014

	Age Group	Ethnicity								Total
		White	Black Caribbean	Black African	Black Other	Indian/ Pakistani/ Bangladeshi	Other Asian/ Oriental	Other/ Mixed	Unknown	
Total North West Residents	0-14	2		1						3
	15-19	2		2				2		6
	20-24	23	1	8		3	1	1	1	38
	25-29	58	1	1		1		1		62
	30-34	80	1	9		2	5	2	1	100
	35-39	82	1	19		1	2	3		108
	40-44	139	2	31		2	6	6		186
	45-49	186	2	22		3	2	3		218
	50-54	148	2	16	1	3	2	1	2	175
	55-59	102		6	1	1		1		111
	60+	141	1	3		1		2	1	149
	<b>Total</b>	<b>963</b>	<b>11</b>	<b>118</b>	<b>2</b>	<b>17</b>	<b>18</b>	<b>22</b>	<b>5</b>	<b>1156</b>
	<b>%</b>	<b>83.3%</b>	<b>1.0%</b>	<b>10.2%</b>	<b>0.2%</b>	<b>1.5%</b>	<b>1.6%</b>	<b>1.9%</b>	<b>0.4%</b>	

Age groups refer to the ages of individuals at the end of December 2014, or at death.

**Table 3.6:** All HIV and AIDS cases by stage of HIV disease, level of antiretroviral therapy and county of residence, 2014

	Stage of HIV Disease	Level of Antiretroviral Therapy					Total (100%)
		None	Mono	Dual	Triple	Quadruple or More	
Cumbria	Asymptomatic	4		2	25	10	41
	Symptomatic				8	3	11
	AIDS				11	3	14
	AIDS Related Death	1					1
	Death Unrelated to AIDS						
	Unknown	11		3	46	25	85
	<b>Cumbria Total</b>	<b>16 (10.5%)</b>		<b>5 (3.3%)</b>	<b>90 (59.2%)</b>	<b>41 (27%)</b>	<b>152</b>
Lancashire	Asymptomatic	31			189	60	280
	Symptomatic	11		1	164	64	240
	AIDS	3	1	1	96	61	162
	AIDS Related Death	1			1	1	3
	Death Unrelated to AIDS	3	1				4
	Unknown	63			172	80	315
	<b>Lancashire Total</b>	<b>112 (11.2%)</b>	<b>2 (0.2%)</b>	<b>2 (0.2%)</b>	<b>622 (62%)</b>	<b>266 (26.5%)</b>	<b>1004</b>
	Asymptomatic	35		2	214	70	321
	Symptomatic	11		1	172	67	251
	AIDS	3	1	1	107	64	176
	AIDS Related Death	2			1	1	4
	Death Unrelated to AIDS	3	1				4
	Unknown	74		3	218	105	400
	<b>Total</b>	<b>128 (11.1%)</b>	<b>2 (0.2%)</b>	<b>7 (0.6%)</b>	<b>712 (61.6%)</b>	<b>307 (26.6%)</b>	<b>1156</b>

NB. Some individuals who are on unusually high or low ART combinations may be taking part in clinical trials.

**Table 3.7:** Ethnic distribution of all HIV and AIDS cases by sex, stage of HIV disease and exposure abroad, 2014

		Ethnicity							Total (100%)
		White	Black Caribbean	Black African	Black Other	Indian/Pakistani/Bangladeshi	Other Asian/Oriental	Other/Mixed	
Sex	Male	853 (90.6%)	8 (0.9%)	43 (4.6%)	1 (0.1%)	10 (1.1%)	8 (0.9%)	15 (1.6%)	941
	Female	110 (51.2%)	3 (1.4%)	75 (34.9%)	1 (0.5%)	7 (3.3%)	10 (4.7%)	7 (3.3%)	215
Stage of HIV Disease	Asymptomatic	270 (84.1%)	5 (1.6%)	29 (9%)	1 (0.3%)	4 (1.2%)	5 (1.6%)	6 (1.9%)	321
	Symptomatic	210 (83.7%)	3 (1.2%)	20 (8%)	1 (0.4%)	4 (1.6%)	4 (1.6%)	8 (3.2%)	251
	AIDS	153 (86.9%)	3 (1.7%)	13 (7.4%)		3 (1.7%)	3 (1.7%)	1 (0.6%)	176
	AIDS Related Death	3 (75%)		1 (25%)					4
	Death Unrelated to AIDS	4 (100%)							4
	Unknown	323 (80.8%)		55 (13.8%)		6 (1.5%)	6 (1.5%)	7 (1.8%)	400
Exposure Abroad	UK	812 (95.2%)	6 (0.7%)	11 (1.3%)	1 (0.1%)	8 (0.9%)	3 (0.4%)	9 (1.1%)	853
	Abroad	123 (47.5%)	3 (1.2%)	97 (37.5%)	1 (0.4%)	9 (3.5%)	15 (5.8%)	10 (3.9%)	259
	Unknown	28 (63.6%)	2 (4.5%)	10 (22.7%)				3 (6.8%)	44
<b>Total</b>		<b>963 (83.3%)</b>	<b>11 (1%)</b>	<b>118 (10.2%)</b>	<b>2 (0.2%)</b>	<b>17 (1.5%)</b>	<b>18 (1.6%)</b>	<b>22 (1.9%)</b>	<b>1156</b>

**Table 3.8:** Global region of HIV exposure by infection route of all HIV and AIDS cases, 2014

Region of HIV Exposure	Infection Route						Total (100%)
	MSM	Injecting Drug Use	Hetero-sexual	Blood/Tissue	Mother to Child	Undetermined	
Abroad	57 (22%)	3 (1.2%)	180 (69.5%)	6 (2.3%)	8 (3.1%)	5 (1.9%)	259
Caribbean			3				3
East Asia & Pacific	2						2
Eastern Europe & Central Asia	7	1	4				12
Latin America			1				1
North Africa & Middle East							
North America	9						9
Oceania	4						4
South & South-East Asia	14		45	3		2	64
Sub-Saharan Africa	1	1	110	2	8	3	125
Western Europe	14	1	10	1			26
Multiple	6		5				11
Unknown			2				2
UK	619 (72.6%)	11 (1.3%)	192 (22.5%)	7 (0.8%)	7 (0.8%)	17 (2%)	853
Unknown	21 (47.7%)	1 (2.3%)	19 (43.2%)		1 (2.3%)	2 (4.5%)	44
<b>Total</b>	<b>697 (60.5%)</b>	<b>15 (1.3%)</b>	<b>391 (33.8%)</b>	<b>13 (1.1%)</b>	<b>16 (1.4%)</b>	<b>24 (2.1%)</b>	<b>1156</b>

Men who were exposed through sex with men (MSM) and are also injecting drug users are included in the MSM category.

**Table 3.9:** Distribution of treatment for all HIV and AIDS cases by infection route, 2014

Treatment Centre	Infection Route						Total (100%)
	MSM	Injecting Drug Use	Hetero-sexual	Blood/Tissue	Mother to Child	Undetermined	
BLAG	337 (74.7%)	4 (0.9%)	101 (22.4%)	3 (0.7%)	2 (0.4%)	4 (0.9%)	451
ELANC	59 (37.6%)	3 (1.9%)	93 (59.2%)		1 (0.6%)	1 (0.6%)	157
CUMB	40 (65.6%)	2 (3.3%)	16 (26.2%)	1 (1.6%)		2 (3.3%)	61
FGH	13 (50%)	1 (3.8%)	11 (42.3%)	1 (3.8%)			26
PG	115 (51.3%)	2 (0.9%)	91 (40.6%)	1 (0.4%)	6 (2.7%)	9 (4%)	224
RLI	25 (47.2%)	1 (1.9%)	24 (45.3%)		2 (3.8%)	1 (1.9%)	53
WGH	21 (61.8%)	1 (2.9%)	11 (32.4%)			1 (2.9%)	34
WORK	13 (56.5%)		6 (26.1%)	1 (4.3%)	1 (4.3%)	2 (8.7%)	23

For a definition of the abbreviated treatment centres please refer to the glossary at the back of the report.

Columns cannot be totalled vertically as some individuals may appear in more than one row (i.e. those attending two or more treatment locations), thus exaggerating the totals.

Men who were exposed through sex with men (MSM) and are also injecting drug users are included in the MSM category.

**Table 3.10:** Distribution of treatment for all HIV and AIDS cases by level of antiretroviral therapy, 2014

Treatment Centre	Level of Antiretroviral Therapy					Total (100%)
	None	Mono	Dual	Triple	Quadruple or More	
BLAG	66 (14.3%)		1 (0.2%)	286 (61.8%)	110 (23.8%)	463
ELANC	29 (17.4%)	1 (0.6%)		75 (44.9%)	62 (37.1%)	167
CUMB	9 (13.6%)		3 (4.5%)	36 (54.5%)	18 (27.3%)	66
FGH	2 (7.7%)		1 (3.8%)	15 (57.7%)	8 (30.8%)	26
PG	18 (7.2%)	1 (0.4%)		170 (68.6%)	60 (24.1%)	249
RLI	8 (14.5%)			35 (63.6%)	12 (21.8%)	55
WGH	2 (5.7%)		1 (2.9%)	25 (71.4%)	7 (20%)	35
WORK	4 (16.7%)			12 (50%)	8 (33.3%)	24

NB Some individuals who are on unusually high or low ART combinations may be taking part in clinical trials.

Columns cannot be totalled vertically as some individuals may appear in more than one row (i.e. those attending two or more treatment locations), thus exaggerating the totals.

**Table 3.11:** Local authority of residence of all HIV and AIDS cases by number of treatment centres attended, 2014

	Local Authority of Residence	Treatment Centres Attended		Total (100%)
		One	Two	
Cumbria	Carlisle	42 (97.7%)	1 (2.3%)	43
	Allerdale	19 (100%)		19
	Eden	13 (86.7%)	2 (13.3%)	15
	Copeland	15 (100%)		15
	South Lakeland	41 (95.3%)	2 (4.7%)	43
	Barrow-in-Furness	16 (94.1%)	1 (5.9%)	17
	<b>Cumbria Total</b>	<b>146 (96.1%)</b>	<b>6 (3.9%)</b>	<b>152</b>
Lancashire	Lancaster	52 (96.3%)	2 (3.7%)	54
	Wyre	69 (100%)		69
	Fylde	52 (96.3%)	2 (3.7%)	54
	Blackpool	346 (98.6%)	5 (1.4%)	351
	Blackburn with Darwen	87 (94.6%)	5 (5.4%)	92
	Ribble Valley	14 (93.3%)	1 (6.7%)	15
	Pendle	32 (94.1%)	2 (5.9%)	34
	Hyndburn	39 (92.9%)	3 (7.1%)	42
	Burnley	34 (94.4%)	2 (5.6%)	36
	Rossendale	36 (92.3%)	3 (7.7%)	39
	Preston	130 (99.2%)	1 (0.8%)	131
	South Ribble	40 (100%)		40
	Chorley	33 (97.1%)	1 (2.9%)	34
	West Lancashire	9 (90%)	1 (10%)	10
	Unknown Lancashire	3 (100%)		3
	<b>Lancashire Total</b>	<b>976 (97.2%)</b>	<b>28 (2.8%)</b>	<b>1004</b>
	<b>Total</b>	<b>1122 (97.1%)</b>	<b>34 (2.9%)</b>	<b>1156</b>

**Table 3.12:** Distribution of total and mean number of outpatient visits, day cases, inpatient episodes, inpatient days and home visits by treatment centre and stage of HIV disease, 2014

		Outpatient Visits		Day Cases		Inpatient Episodes		Inpatient Days		Home Visits	
		Total	Mean	Total	Mean	Total	Mean	Total	Mean	Total	Mean
Treatment Centre	BLAG	2288	4.94	3	0.01	18	0.04	150	0.32	2	
	ELANC	682	4.08								
	CUMB	226	3.42								
	FGH	66	2.54							1	0.04
	PG	1118	4.49	3	0.01	10	0.04	243	0.98		
	RLI	211	3.84								
	WGH	111	3.17								
	WORK	100	4.17			3	0.13	57	2.38		
Stage of HIV Disease	Asymptomatic	1435	4.47	8	0.03					1	
	Symptomatic	1070	4.26	3	0.01	17	0.07	79	0.31	12	0.05
	AIDS	817	4.64	6	0.04	29	0.16	380	2.16		
	AIDS Related Death	11	2.75			1	0.25	3	0.75		
	Death Unrelated to AIDS	17	4.25							2	0.5
	Unknown	1796	4.49	1		7	0.02	104	0.26		
	<b>Total</b>	<b>5146</b>	<b>4.45</b>	<b>18</b>	<b>0.02</b>	<b>54</b>	<b>0.05</b>	<b>566</b>	<b>0.49</b>	<b>15</b>	<b>0.01</b>

**Table 3.13:** Residency status of all cases of HIV and AIDS by sex, age group, infection route, ethnicity, stage of HIV disease and area of residence, 2014

		Residency Status							Total
		UK National	Asylum Seeker	Overseas Student	Temporary Visitor	Refugee	Other*	Unknown	
Sex	Male	853 (84.2%)	9 (45%)	5 (55.6%)	4 (80%)	3 (20%)	12 (52.2%)	55 (77.5%)	941
	Female	160 (15.8%)	11 (55%)	4 (44.4%)	1 (20%)	12 (80%)	11 (47.8%)	16 (22.5%)	215
Age Group	0-14	3 (0.3%)							3
	15-19	5 (0.5%)						1 (1.4%)	6
	20-24	27 (2.7%)		2 (22.2%)		1 (6.7%)		8 (11.3%)	38
	25-29	53 (5.2%)		1 (11.1%)			1 (4.3%)	7 (9.9%)	62
	30-34	80 (7.9%)	2 (10%)		1 (20%)	1 (6.7%)	2 (8.7%)	14 (19.7%)	100
	35-39	88 (8.7%)	6 (30%)	1 (11.1%)		3 (20%)	5 (21.7%)	5 (7%)	108
	40-44	157 (15.5%)	5 (25%)	3 (33.3%)	1 (20%)	3 (20%)	3 (13%)	14 (19.7%)	186
	45-49	189 (18.7%)	6 (30%)	1 (11.1%)		4 (26.7%)	7 (30.4%)	11 (15.5%)	218
	50-54	164 (16.2%)			1 (20%)	2 (13.3%)	4 (17.4%)	4 (5.6%)	175
	55-59	108 (10.7%)		1 (11.1%)		1 (6.7%)		1 (1.4%)	111
	60+	139 (13.7%)	1 (5%)		2 (40%)		1 (4.3%)	6 (8.5%)	149
Infection Route	MSM	651 (64.3%)	1 (5%)	2 (22.2%)	1 (20%)		5 (21.7%)	37 (52.1%)	697
	Injecting Drug Use	13 (1.3%)						2 (2.8%)	15
	Heterosexual	307 (30.3%)	17 (85%)	6 (66.7%)	3 (60%)	14 (93.3%)	17 (73.9%)	27 (38%)	391
	Blood/Tissue	10 (1%)	2 (10%)				1 (4.3%)		13
	Mother to Child	12 (1.2%)		1 (11.1%)		1 (6.7%)		2 (2.8%)	16
	Undetermined	20 (2%)			1 (20%)			3 (4.2%)	24
Ethnicity	White	907 (89.5%)	3 (15%)	1 (11.1%)	1 (20%)		8 (34.8%)	43 (60.6%)	963
	Black Caribbean	9 (0.9%)	1 (5%)					1 (1.4%)	11
	Black African	50 (4.9%)	15 (75%)	7 (77.8%)	3 (60%)	15 (100%)	12 (52.2%)	16 (22.5%)	118
	Black Other	2 (0.2%)							2
	Indian/Pakistani/Bangladeshi	13 (1.3%)					2 (8.7%)	2 (2.8%)	17
	Other Asian/Oriental	12 (1.2%)	1 (5%)	1 (11.1%)	1 (20%)		1 (4.3%)	2 (2.8%)	18
	Other/Mixed	17 (1.7%)						5 (7%)	22
	Unknown	3 (0.3%)						2 (2.8%)	5
Stage of HIV Disease	Asymptomatic	292 (28.8%)	1 (5%)	4 (44.4%)	1 (20%)	5 (33.3%)	9 (39.1%)	9 (12.7%)	321
	Symptomatic	238 (23.5%)	2 (10%)	1 (11.1%)	1 (20%)		4 (17.4%)	5 (7%)	251
	AIDS	162 (16%)	4 (20%)		2 (40%)	2 (13.3%)	2 (8.7%)	4 (5.6%)	176
	AIDS Related Death	3 (0.3%)						1 (1.4%)	4
	Death Unrelated to AIDS	3 (0.3%)						1 (1.4%)	4
	Unknown	315 (31.1%)	13 (65%)	4 (44.4%)	1 (20%)	8 (53.3%)	8 (34.8%)	51 (71.8%)	400
Area	Cumbria	127 (12.5%)		1 (11.1%)	2 (40%)		5 (21.7%)	17 (23.9%)	152
	Lancashire	886 (87.5%)	20 (100%)	8 (88.9%)	3 (60%)	15 (100%)	18 (78.3%)	54 (76.1%)	1004
Total (100%)		1013	20	9	5	15	23	71	1156

Men who were exposed through sex with men (MSM) and are also injecting drug users are included in the MSM category.

Age groups refer to the ages of individuals at the end of December 2014, or at death.

\*Includes residency status defined as 'Migrant worker', 'Dependant' and 'Other'.

## 4. Community Sector 2014

Community Sector organisations continue to play a fundamental role in providing support to people living with HIV in the United Kingdom<sup>[69]</sup>. In the north west of England, community sector organisations provide a wide range of services to people living with HIV including information, financial assistance, outreach support, counselling, training, complementary therapies, advocacy, support groups and help lines as well as awareness-raising campaigns, free condoms and fundraising. Some also offer medical services such as nurse-led sessions and outreach testing run by local NHS staff. These organisations provide services for a wide variety of people living with HIV and many run special sessions for women, gay men, black Africans and young people. Many organisations also provide care and support to the friends and family of those affected by HIV.

Data continue to show that there is a small cohort of individuals who access community services in the north west of England and who do not appear to be known to the statutory sector in the region. Past research has shown that these individuals are significantly more likely to be living in areas of high deprivation than those who accessed the statutory sector alone, or statutory and community sector<sup>[147]</sup>, suggesting that community sector organisations continue to provide support to some of the most susceptible people living with HIV in the region.

During 2014, 2,537 HIV positive individuals were reported to the North West HIV/AIDS Monitoring Unit by six community sector organisations in the north west of England. There was a slight increase in the overall number of individuals seen by the community sector from 2013 to 2014 (1%; 2,537 compared with 2,513).

The numbers included in this section are based on attributable data provided by each community sector organisation. It is important to note that this data will not necessarily fully reflect the overall service provision since organisations often provide support for all those affected by HIV (including families, partners and carers of HIV positive people). Where information relating to infection route and ethnicity was not available from community sector providers, data have been updated from the data submitted by statutory care providers. Matching between databases relies on the same attributable data being provided by the community and statutory sector, underlining the need for accuracy in recording of soundex codes, dates of birth and sex. Tables 4.1 and 4.2 illustrate the key characteristics of individuals accessing care from each community sector organisation, and will include some duplicate counting as individuals may attend more than one organisation. Table 4.3 presents the overall characteristics of

individuals accessing the community sector as a whole and contains only unique individuals. Where appropriate, reference is made to corresponding data from previous north west of England reports<sup>[2-18]</sup>.

Community sector organisations have contributed data to the North West HIV/AIDS Monitoring Unit since 1995 and as previously mentioned consistently appear to provide services to a broader constituency than the statutory sector alone<sup>[2-18]</sup>. In 2014, 44% of individuals seen by community sector organisations did not access care in the statutory sector and 26% of individuals have never been treated by the statutory sector in the north west of England (table 4.3). This proportion is higher than seen in previous years; however caution must be taken when interpreting this increase as statutory services in Cheshire and Merseyside (with the exception of Liverpool) no longer commission the monitoring system. Individuals accessing treatment at a Cheshire and Merseyside (outside of Liverpool) treatment centre for the first time in 2014 are not included in this data and the loss of information from these services may account for some of this increase.

**Table 4.1** illustrates demographic information on the number of HIV positive individuals presenting to six community sector organisations in the north west of England during 2014, and the number who also presented at statutory agencies during 2014 or prior to 2014 (but not in 2014). The proportion of clients seen by each community sector organisation fluctuated considerably compared with the previous year; Renaissance (23%), Body Positive Cheshire and North Wales (12%) and George House Trust (1%) and saw an increase on client numbers compared with 2013 while Sahir House (1%) Barnardos (33%) and Armistead (65%) all saw a decrease in client numbers.

There is some variation in the proportion of community sector clients also seen by the statutory sector in 2014, ranging from 83% at Renaissance to 4% at Body Positive Cheshire and North Wales. This figure for BPCNW must be interpreted with caution; as previously noted, data was not provided for Cheshire and Merseyside statutory treatment centres (with the exception of Liverpool) in 2014 and this along with the service also providing support for clients in Wales will contribute to this small percentage. A notable number of individuals have never been seen at statutory centres, for example, 464 individuals seen at GHT have never had contact with the statutory sector. These data suggest that the community sector may be the sole provider of care and support for a substantial number of HIV positive individuals.

Table 4.1 also categorises individuals accessing community sector organisations in 2014 according to sex, age group, infection route, ethnicity and residency. The majority of clients seen at community organisations in 2014 were infected through sex with men (54%; table 4.3) and MSM represented the largest proportion of individuals presenting for support at four community organisations providing data in 2014 (Body Positive Cheshire & North Wales, 56%; GHT, 56%; ARM, 50%; and Renaissance, 49%). For Sahir House the main route of infection was heterosexual sex, (44%). At BARM the main route of infection was mother to child (49%) followed by heterosexual sex (36%) and a high proportion of service users at BARM were female (80%). Four out of the six community sector organisations (GHT, BPCNW, Sahir House and Renaissance) reporting in 2014 had clients infected via injecting drug use.

The majority of clients at all community sector organisations were aged between 25 and 49 years with the exception of BARM. BARM treated the most clients aged 14 years or under (8 individuals, 13% of all those seen at BARM), as would be expected for an organisation specialising in the needs of young people. BARM provides support for families with young people affected by HIV; in some cases the HIV positive client is a parent, in other cases the young person. GHT saw the highest number of clients aged 50 years or over (459 individuals).

The differing profiles and characteristics of HIV positive clients accessing the north west of England community sector organisations in part reflects the different range of services provided and the varying strategies used to encourage HIV positive people to use the services.

For most community sector organisations, the majority of individuals seen in 2014 were of white ethnicity, (Body Positive Cheshire & North Wales, 84%; Renaissance, 81%; Sahir House, 65% GHT, 61%). BARM provided care for a high proportion of HIV positive black Africans (95%) while GHT provided care for the largest number of HIV positive black Africans (629 individuals).

The majority of clients seen by community sector organisations in 2014 were resident in the north west of England, ranging from 99% at Renaissance, to 83% at ARM. BP Cheshire and North Wales had the highest proportion of clients from outside the region (30%), reflecting the proximity of the organisation to Wales and the West Midlands and the specific services it provides in North Wales.

**Table 4.2** illustrates the crossover of care for HIV positive individuals between the north west of England community sector organisations and the statutory organisations during 2014. The distribution of statutory treatment and care of community sector clients in part reflects the geographical location of the community sector organisations. However, the Infectious Disease Unit at North Manchester General Hospital (NMG) and the Manchester Centre for Sexual Health (MRIG), the two largest HIV treatment centres in the north west of England, account for a significant number of presentations by individuals accessing community sector organisations across the whole region (441 and 459 presentations respectively).

**Table 4.3** illustrates the sex, infection route, ethnicity and residency status of HIV positive individuals accessing the community sector in the north west of England in 2014 by attendance at the statutory sector during the year. Unlike table 4.1 and 4.2, this table only contains one record for each individual rather than all those attending all organisations. Due to the relatively high proportion of individuals for whom infection route is unknown, the percentages in the table are taken from those for whom the information is known. The predominant route of exposure to HIV amongst community sector clients during 2014 was sex between men, accounting for 54% of cases. This is similar to the proportion for the previous year (55%). Forty one percent of clients seen in the community sector were infected through heterosexual sex (a similar proportion to the previous year; 42%). This has increased since 2001 when only 19% of community sector clients acquired their HIV heterosexually. In 2014, the majority of community sector clients were male (71%), primarily due to the relatively high rates of HIV infection acquired through sex between men. The majority of community sector clients are of white ethnicity (64%) but this varies between services (table 4.1).

Table 4.3 also shows that 44% of individuals (1,105 out of 2,537) using community sector organisations did not attend a statutory sector service during 2014 and 26% have never been seen by the statutory sector. As previously stated some of this increase on previous years can be accounted for by data no longer being collected from Cheshire and Merseyside (with the exception of Liverpool) treatment centres in 2014. However, previous research suggests that the profile of those who have never presented to the statutory sector is quite distinct: they are less likely to be MSM; more likely to be black African and more likely to be an asylum seeker<sup>[2-18,147]</sup>

**Table 4.1:** Attendance by HIV positive individuals at community sector organisation in the North West, by statutory sector attendance, sex, age group, infection route, ethnicity, residency status and North West residency, 2014

		Community Sector Organisation					
		ARM	BARM	BP Cheshire N. Wales*	GHT	Renaissance <sup>†</sup>	Sahir
Statutory Sector Attendance	Never seen	3 (50%)	28 (45.9%)	127 (43.8%)	464 (24.2%)	13 (14.9%)	41 (17.9%)
	Seen in 2014	1 (16.7%)	31 (50.8%)	11 (3.8%)	1216 (63.4%)	72 (82.8%)	139 (60.7%)
	Seen prior to 2014	2 (33.3%)	2 (3.3%)	152 (52.4%)	237 (12.4%)	2 (2.3%)	49 (21.4%)
Sex	Male	4 (66.7%)	12 (19.7%)	230 (79.3%)	1369 (71.4%)	64 (73.6%)	147 (64.2%)
	Female	2 (33.3%)	49 (80.3%)	60 (20.7%)	548 (28.6%)	23 (26.4%)	82 (35.8%)
Age Group	0-14		8 (13.1%)	1 (0.4%)	3 (0.2%)		
	15-19		17 (27.9%)	5 (2.1%)	7 (0.4%)		2 (0.9%)
	20-24		6 (9.8%)	19 (7.8%)	51 (2.7%)	3 (3.4%)	13 (5.7%)
	25-29	1 (16.7%)		20 (8.2%)	118 (6.2%)	5 (5.7%)	19 (8.3%)
	30-34	1 (16.7%)	8 (13.1%)	30 (12.3%)	224 (11.7%)	9 (10.3%)	30 (13.1%)
	35-39		10 (16.4%)	28 (11.5%)	346 (18%)	11 (12.6%)	32 (14%)
	40-44	3 (50%)	4 (6.6%)	38 (15.6%)	364 (19%)	13 (14.9%)	33 (14.4%)
	45-49	1 (16.7%)	4 (6.6%)	37 (15.2%)	345 (18%)	17 (19.5%)	36 (15.7%)
	50-54		1 (1.6%)	24 (9.9%)	248 (12.9%)	10 (11.5%)	31 (13.5%)
	55-59			18 (7.4%)	115 (6%)	13 (14.9%)	22 (9.6%)
	60+		3 (4.9%)	23 (9.5%)	96 (5%)	6 (6.9%)	11 (4.8%)
Infection Route	MSM	3 (50%)		161 (55.5%)	1076 (56.1%)	43 (49.4%)	69 (30.1%)
	Injecting Drug Use			7 (2.4%)	35 (1.8%)	2 (2.3%)	4 (1.7%)
	Heterosexual	1 (16.7%)	22 (36.1%)	95 (32.8%)	784 (40.9%)	41 (47.1%)	100 (43.7%)
	Blood/Tissue			3 (1%)	7 (0.4%)		3 (1.3%)
	Mother to Child		30 (49.2%)	4 (1.4%)	15 (0.8%)		3 (1.3%)
	Undetermined	2 (33.3%)	9 (14.8%)	20 (6.9%)		1 (1.1%)	50 (21.8%)
Ethnicity	White	3 (50%)	1 (1.6%)	244 (84.1%)	1167 (60.9%)	70 (80.5%)	148 (64.6%)
	Black Caribbean		1 (1.6%)		28 (1.5%)	4 (4.6%)	4 (1.7%)
	Black African	3 (50%)	58 (95.1%)	30 (10.3%)	629 (32.8%)	10 (11.5%)	66 (28.8%)
	Black Other				14 (0.7%)		1 (0.4%)
	Indian/Pakistani/Bangladeshi		1 (1.6%)		21 (1.1%)	2 (2.3%)	
	Other Asian/Oriental			6 (2.1%)	21 (1.1%)		5 (2.2%)
	Other/Mixed			7 (2.4%)	34 (1.8%)	1 (1.1%)	5 (2.2%)
	Unknown			3 (1%)	3 (0.2%)		
Residency	UK National	3 (50%)	13 (21.3%)	262 (90.3%)	1323 (69%)	79 (90.8%)	108 (47.2%)
	Asylum Seeker	2 (33.3%)	8 (13.1%)	2 (0.7%)	147 (7.7%)	5 (5.7%)	44 (19.2%)
	Overseas Student		2 (3.3%)	1 (0.3%)	48 (2.5%)		
	Migrant Worker			2 (0.7%)	96 (5%)		2 (0.9%)
	Temporary Visitor		1 (1.6%)	3 (1%)	14 (0.7%)		1 (0.4%)
	Other		15 (24.6%)	9 (3.1%)	92 (4.8%)		1 (0.4%)
	Refugee	1 (16.7%)	4 (6.6%)	2 (0.7%)	168 (8.8%)	3 (3.4%)	6 (2.6%)
	Dependent		18 (29.5%)	1 (0.3%)	2 (0.1%)		
	Unknown			8 (2.8%)	27 (1.4%)		67 (29.3%)
North West Resident	Resident Outside North West	1 (16.7%)	3 (4.9%)	87 (30%)	50 (2.6%)	1 (1.1%)	6 (2.6%)
	North West Resident	5 (83.3%)	58 (95.1%)	203 (70%)	1867 (97.4%)	86 (98.9%)	223 (97.4%)
Total (100%)		6	61	290	1917	87	229

For a definition of the abbreviated community sector organisation, please refer to the glossary at the back of the report.

Men who were exposed through sex with men (MSM) and are also injecting drug users are included in the MSM category.

Age groups refer to the ages of individuals at the end of December 2013, or at death.

Rows cannot be totalled horizontally as some individuals may appear in more than one row or column (i.e. those attending two or more organisations), thus exaggerating the totals.

\*Date of birth was unavailable for 47 clients at Body Positive Cheshire & North Wales so age categories cannot be totalled vertically.

<sup>†</sup>Renaissance at Drugline Lancashire Ltd is a Sexual Health and Substance Misuse Service covering Lancashire and Blackpool. The Lancashire service falls under the umbrella of Healthier Living and our Blackpool service Horizon

**Table 4.2:** Distribution of statutory treatment for HIV and AIDS cases presenting to community sector organisations, 2014

Treatment Centre	Community Sector Organisation					
	ARM	BARM	BPCNW	GHT	Renaissance <sup>†</sup>	Sahir
AHC			2			
BLAG				11	11	
BOLG		1	1	53	1	
BURG				13	26	
BURY		1		20		
CUMB				3		
FGH				1	1	
LCN				2		35
MGP				54		
MRIG		8	2	448		1
NMG		22	1	408	4	6
NMGG		1		25	2	
OLDG				18		
PG				16	19	
RLG	1		4	24		131
RLH						1
RLI				5	11	
ROCG				17		
SALG			1	48		
STP				44		
TAMG				17		
TRAG				1		
WGH				4		
WITG				95		
WORK				1		

*For a definition of the abbreviated treatment centres and community sector organisations please refer to the glossary at the back of the report.*

*Columns cannot be totalled vertically or horizontally as some individuals may appear in more than one row or column (i.e. those attending two or more treatment locations or community sector organisations), thus exaggerating the totals.*

<sup>†</sup>Renaissance at Drugline Lancashire Ltd is a Sexual Health and Substance Misuse Service covering Lancashire and Blackpool. Our Lancashire service falls under the umbrella of Healthier Living and our Blackpool service Horizon

**Table 4.3:** HIV and AIDS cases presenting to the community and statutory sector by sex, infection route, ethnicity and residency status, 2014

		Statutory Sector Attendance			Total
		Never Seen	Seen in 2014	Seen Prior to 2014	
Sex	Male	450 (67.3%)	1031 (72%)	318 (72.9%)	1799 (70.9%)
	Female	219 (32.7%)	401 (28%)	118 (27.1%)	738 (29.1%)
Infection Route	MSM	311 (51.9%)	778 (54.6%)	242 (55.9%)	1331 (54.1%)
	Injecting Drug Use	5 (0.8%)	33 (2.3%)	10 (2.3%)	48 (2%)
	Heterosexual	264 (44.1%)	576 (40.4%)	177 (40.9%)	1017 (41.4%)
	Blood/Tissue	3 (0.5%)	9 (0.6%)	1 (0.2%)	13 (0.5%)
	Mother to Child	16 (2.7%)	30 (2.1%)	3 (0.7%)	49 (2%)
	<b>Sub Total (100%)</b>	599	1426	433	2458
	Undetermined	70	6	3	79
Ethnicity	White	400 (60.3%)	905 (63.2%)	304 (69.7%)	1609 (63.6%)
	Black Caribbean	7 (1.1%)	26 (1.8%)	3 (0.7%)	36 (1.4%)
	Black African	224 (33.8%)	440 (30.7%)	105 (24.1%)	769 (30.4%)
	Black Other	7 (1.1%)	7 (0.5%)	1 (0.2%)	15 (0.6%)
	Indian/Pakistani/Bangladeshi	2 (0.3%)	17 (1.2%)	4 (0.9%)	23 (0.9%)
	Other Asian/Oriental	11 (1.7%)	14 (1%)	7 (1.6%)	32 (1.3%)
	Other/Mixed	12 (1.8%)	23 (1.6%)	12 (2.8%)	47 (1.9%)
	<b>Sub Total (100%)</b>	663	1432	436	2531
	Unknown	6			6
Residency	UK	362 (60%)	1046 (74.7%)	349 (80.2%)	1757 (72.1%)
	Asylum Seeker	24 (4%)	150 (10.7%)	27 (6.2%)	201 (8.2%)
	Overseas Student	8 (1.3%)	29 (2.1%)	13 (3%)	50 (2.1%)
	Migrant Worker	44 (7.3%)	49 (3.5%)	7 (1.6%)	100 (4.1%)
	Temporary Visitor	3 (0.5%)	6 (0.4%)	10 (2.3%)	19 (0.8%)
	Other	63 (10.4%)	41 (2.9%)	9 (2.1%)	113 (4.6%)
	Refugee	89 (14.8%)	71 (5.1%)	19 (4.4%)	179 (7.3%)
	Dependent	10 (1.7%)	8 (0.6%)	1 (0.2%)	19 (0.8%)
	<b>Sub Total (100%)</b>	603	1400	435	2438
	Unknown	66	32	1	99
<b>Total</b>		<b>669</b>	<b>1432</b>	<b>436</b>	<b>2537</b>

*Men who were exposed through sex with men (MSM) and are also injecting drug users are included in the MSM category*

## 5. Social Care Providers 2014

This is the thirteenth year that the North West HIV/AIDS Monitoring Unit has collected data related to the care and support of HIV positive individuals who contact social service departments in the north west of England. Five social service departments were able to participate in this report. Data were gathered on 122 individuals accessing HIV care and support during 2014.

Social services play a vital role overseeing and ensuring the needs of HIV positive people are met. They offer assistance with housing, financial needs, advocacy and health & wellbeing. Together with this they give guidance to those dealing with the immigration system and support to individuals who suffer with feelings of loneliness and isolation. For many this service is a lifeline and an essential source of support for those living with HIV (table 5.1). It is important to note that not all clients will reveal their HIV status to social services; therefore these data represent only the number of people known to be living with HIV and accessing social services.

**Table 5.1** shows the number of HIV positive individuals presenting to each social service department who provided us with data by sex, infection route, residency status and statutory sector attendance. Of the five social service departments that reported in 2014 more females (53%) than males (47%) attended. The majority of individuals accessing

social care acquired HIV through heterosexual sex (54% overall); however the majority of those seen by Salford Social Services acquired their HIV through sex between men (83%).

At all social service departments the residency category with the largest proportion was UK national (40%). Although Liverpool also saw a large number of asylum seekers (34%) and refugees (28%).

The majority of individuals seen by each social service department had been seen at statutory services in the north west of England since monitoring began in 1995. Two out of five social service departments had a number of clients who were never seen by the statutory sector ranging from 50% of individuals seen by Blackburn social service department (one of two individuals) to 19% seen by Liverpool social service department. This indicates that social services may be the sole provider of care and support to some individuals who do not contact statutory services.

**Table 5.2** illustrates those social service attendees who also accessed north west of England community service organisations in 2014. Four social service departments (Knowsley, Liverpool, Salford and Warrington) had service users who also used community service organisations, with the largest number (34) seen at Sahir House.

**Table 5.1:** HIV and AIDS cases presenting to five social service departments by sex, infection route, residency status and statutory sector attendance, 2014

		Social Service Department					
		Blackburn	Knowsley	Liverpool	Salford	Warrington	Total
Sex	Male	1 (50%)	1 (33.3%)	49 (45%)	5 (83.3%)	1 (50%)	57 (46.7%)
	Female	1 (50%)	2 (66.7%)	60 (55%)	1 (16.7%)	1 (50%)	65 (53.3%)
Infection Route	MSM			22 (20.2%)	5 (83.3%)	1 (50%)	28 (23%)
	Injecting Drug Use			3 (2.8%)			3 (2.5%)
	Heterosexual		3 (100%)	62 (56.9%)		1 (50%)	66 (54.1%)
	Undetermined	2 (100%)		22 (20.2%)	1 (16.7%)		25 (20.5%)
Residency	UK National	1 (50%)	3 (100%)	40 (36.7%)	4 (66.7%)	1 (50%)	49 (40.2%)
	Asylum Seeker			37 (33.9%)		1 (50%)	38 (31.1%)
	Migrant Worker			1 (0.9%)			1 (0.8%)
	Temporary Visitor				1 (16.7%)		1 (0.8%)
	Refugee			30 (27.5%)	1 (16.7%)		31 (25.4%)
	Dependent			1 (0.9%)			1 (0.8%)
	Unknown	1 (50%)					1 (0.8%)
Statutory Sector Attendance	Never seen	1 (50%)		21 (19.3%)			22 (18%)
	Seen in 2014	1 (50%)	3 (100%)	61 (56%)	5 (83.3%)		70 (57.4%)
	Seen prior to 2014			27 (24.8%)	1 (16.7%)	2 (100%)	30 (24.6%)
Total (100%)		2	3	109	6	2	122

*Men who were exposed through sex with men (MSM) and are also injecting drug users are included in the MSM category.*

**Table 5.2:** Distribution of social service care for HIV and AIDS cases presenting to community organisations, 2014

	Community Agency			
	BPCNW	GHT	SAHIR	Total
Knowsley			3	3
Liverpool		5	31	36
Salford		2		2
Warrington	1			1

## 6. HIV Trends

The North West HIV/AIDS Monitoring Unit has been collecting and collating data on the treatment and care of HIV positive individuals since 1996. This chapter presents trends for Cumbria and Lancashire broken down by county and local authority of residence. Data from 1996 cannot be presented here due to space restrictions and it should be noted that some variables were introduced to the surveillance system in later years.

The number of Cumbria and Lancashire residents accessing HIV services in north west England has increased year on year since recording began, and has risen by 528% since 1996 (from 184 individuals in 1996 to 1156 individuals in 2014). There has been a continued increase (5%) in the size of the HIV positive population from 2013 to 2014. This is a change from 2012-2013 when there was a small decrease in the HIV positive population of less than 1%. The rate of increase has been slowing from its peak between 2003-2004 (18%).

The number of new cases in Cumbria and Lancashire rose annually between 2000 and 2005. Since 2005, the numbers of new cases have fluctuated with an increase of 36% between 2013 -2014.

**Figure 6.1** shows proportional changes in the number of new cases from 2000 to 2014 by sexual route of HIV infection. Overall there has been an increase in new cases by 142% since 2000. The most striking change is the 200% increase in heterosexual infections. This is a trend that has been noted nationally<sup>[34]</sup> and is accompanied by a national rise in the proportion of heterosexual cases acquired in the UK

It should be noted that although this rise in heterosexual cases dominates the statistics, the annual number of new cases acquired through MSM has also seen a 113% increase between 2000 and 2013. This again reflects the continuing rise in new cases among MSM nationally<sup>[34]</sup> and stresses the need to maintain and develop prevention strategies amongst this group.

**Table 6.1** shows the infection route of new HIV and AIDS cases from 2005 to 2014 subdivided by county of residence. The most common route of infection has altered over the years. In 2001, MSM accounted for the majority of new HIV infections (57%) but by 2002 heterosexual sex overtook MSM for the first time as the main mode of HIV exposure and this trend continued until 2008<sup>[13]</sup>. In recent years the gap between MSM and heterosexual cases has closed and there are once again more new cases infected through MSM (59%) than heterosexual (34%) once again. The number of infections acquired through IDU has remained low over the years; this

may partly be due to the early implementation of syringe exchange programmes across north west England. The data from 2014 show a 33% decrease since 2005 of new cases of HIV transmitted through injecting drug use. The number of mother to child infections has remained steady from 2005 to 2014 with two new cases reported each year. The continuing occurrence of new cases in mother to child transmission is linked to the high number of heterosexually infected HIV positive females, which in turn is linked to migration from high prevalence countries. Were it not for large improvements in diagnosis during pregnancy and effective prevention of HIV transmission to the infant (see chapter 1), the number of infected children would be much higher. The majority of new cases of mother to child transmission have occurred overseas prior to arrival in the UK (see table 2.7).

Across the two counties, Cumbria saw an increase in new cases since 2005 (83%) whilst Lancashire saw a decrease in new cases over the same time period (14%). Both counties saw an increase in the number of cases between 2013 and 2014; Cumbria saw the largest increase in new cases (120%) whilst in Lancashire this increase was smaller (25%). The overall number of new MSM cases has declined since 2005 (13%) while the number of new heterosexual cases has increased (15%). Both Cumbria and Lancashire saw an increase in the number of new heterosexual cases between 2013 and 2014 (200% and 74% respectively). There was an increase in the number of new cases acquired through MSM between 2013 and 2014 in Cumbria (114%) and Lancashire (8%). The greatest overall number of MSM cases is in Lancashire (53 cases).

**Figure 6.2** illustrates proportional changes in the level of antiretroviral therapy (ART) prescribed to HIV positive individuals attending treatment and care between 2000 and 2014. Individuals are categorised by the highest level of combination therapy they received in a given year. Since 2003, the number of individuals on triple and quadruple or more therapy has increased in line with the increasing number of HIV cases whilst the numbers on no ART have decreased. There has been a slight increase in mono and dual therapy use but overall numbers have remained low, in line with research<sup>[148]</sup> and guidelines which define triple or more antiretroviral drugs as the most effective form of therapy<sup>[149]</sup>.

**Table 6.2** refers to the level of ART received by all HIV positive individuals accessing treatment and care between 2005 and 2014 by county of residence. Between 2005 and 2014, those receiving triple or more therapy has increased from 66% in 2005 to 88% in 2014. From 2005 to 2007, around one third (33%) of HIV positive individuals did not receive ART at the

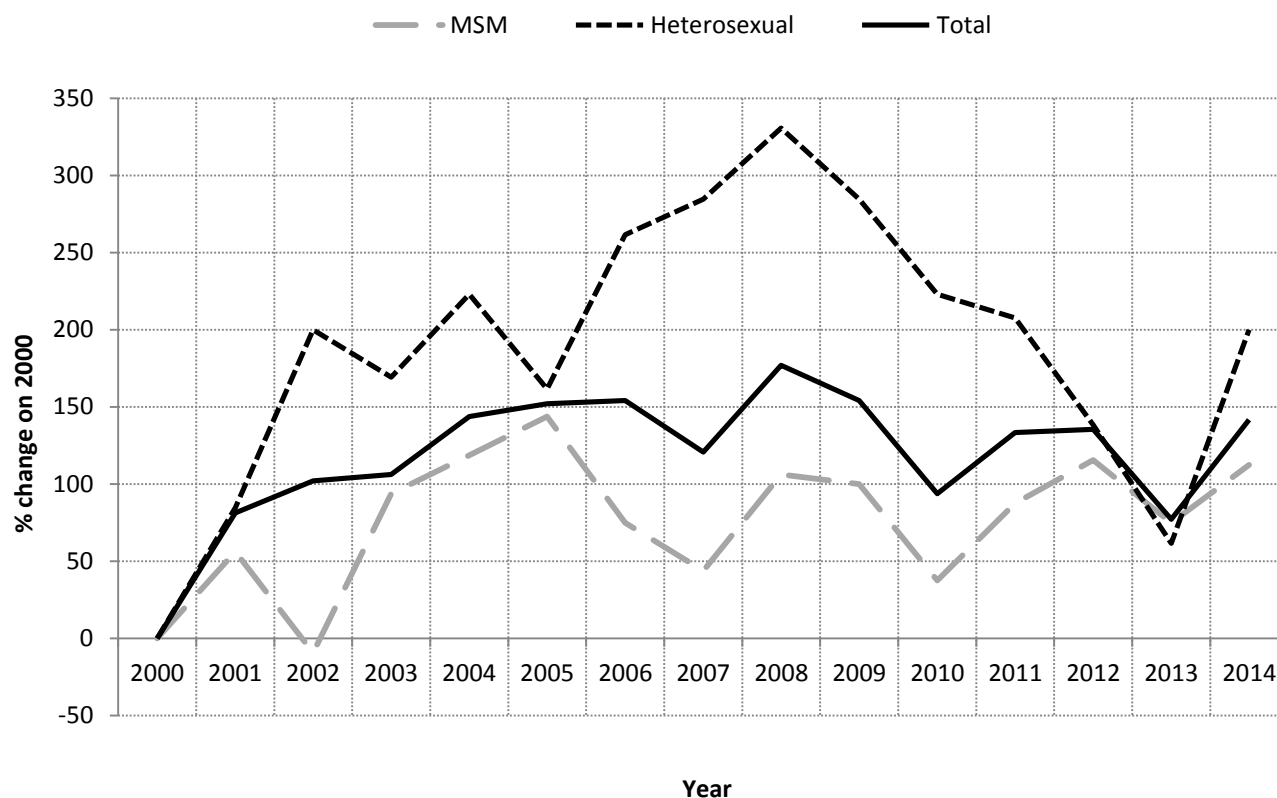
reporting time. Since then, this proportion has decreased to 11% in 2014. Relatively few people are in receipt of monotherapy; this type of therapy is still used during pregnancy and so its use continues to fluctuate over time. As outlined in the most recent BHIVA guidelines, giving HIV positive pregnant women a single antiretroviral drug (e.g. Zidovudine) during pregnancy significantly reduces the chance of the infant becoming infected, and remains a valid option for treatment during pregnancy (where a woman is not already on an effective HAART regimen at conception)<sup>[150]</sup>. With the ongoing high number of females with HIV infection, the use of mono therapy may continue to fluctuate in the future. The proportion taking dual therapy has remained constant since 2005 (at around 1% of all cases). Between 2005 and 2014, the largest percentage increase in the number of people receiving treatment for HIV was seen in Cumbria (178%), followed by Lancashire (113%). Across the two counties, Lancashire remains the country with the largest number of people receiving treatment with 892 people receiving treatment in 2014 compared with 419 in 2005.

**Table 6.3** shows the number of new cases of HIV from 2009 to 2014 subdivided by local authority (LA) of residence. Caution is needed when interpreting the percentage change for LAs with a small number of new cases. For example, some of the LAs with the largest proportional increases and decreases

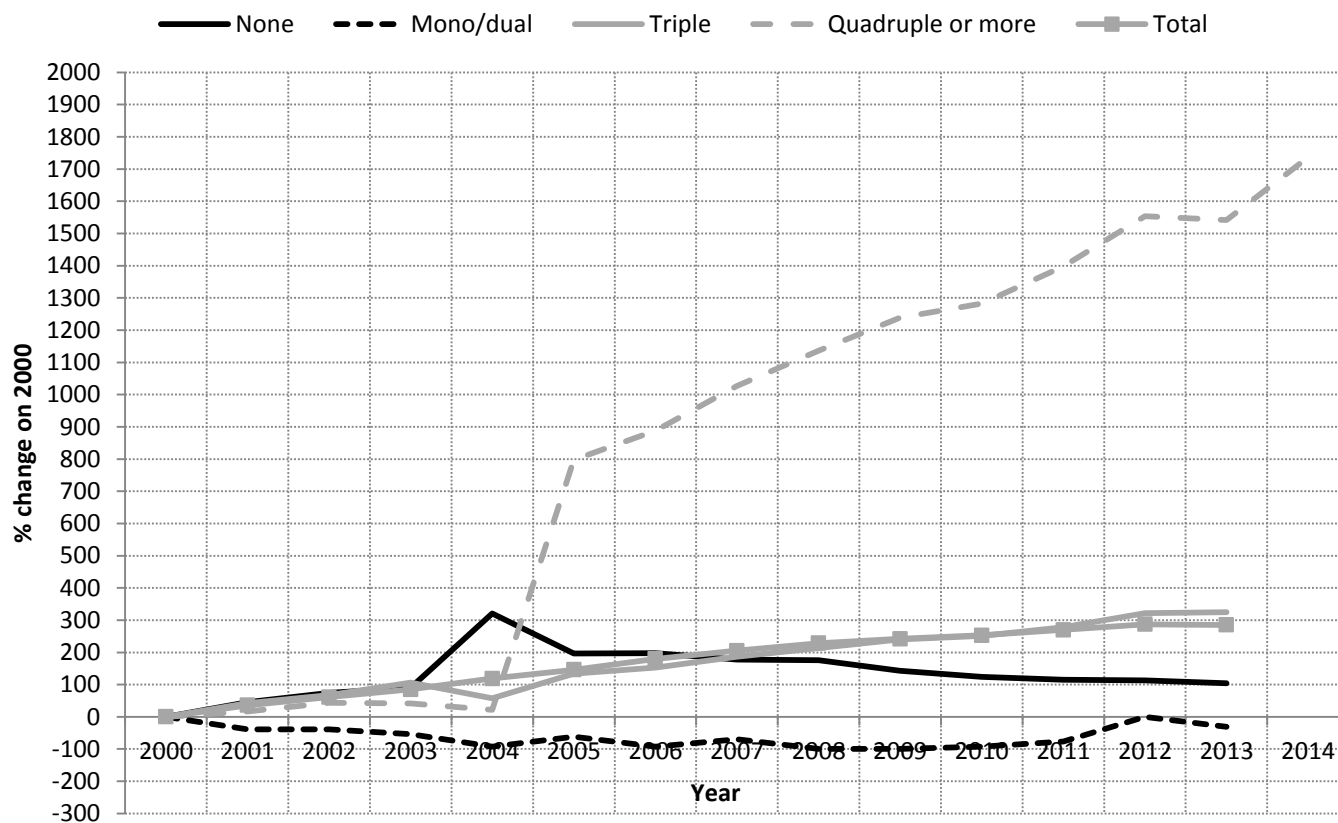
from 2009 to 2014 (e.g. South Lakeland, Eden, Allerdale, Barrow-in-Furness, Copeland, West Lancashire) are those that have consistently had very few cases.

**Table 6.4** shows data for all cases of HIV presenting for treatment between 2009 and 2014, subdivided by LA of residence. Again, caution is needed when interpreting the percentage changes for those LAs with relatively small numbers of HIV cases. The total numbers of HIV cases have increased annually. Both counties have seen an increase in cases since 2009 (Lancashire, 19%; Cumbria, 16%) although this five year rate of increase does appear to be slowing compared with previous years<sup>[1-18]</sup>. Blackpool LA had the largest number of HIV positive residents in 2014 (351 individuals; a 13% increase since 2008 and a 13% increase from 2013). None of the LAs had fewer than 10 cases of HIV in 2014. The largest percentage increases since 2009 were seen in Hyndburn (from 26 to 42; 62%), South Lakeland (from 27 to 43; 59%), Wyre (from 45 to 69; 53%) South Ribble (from 27 to 40; 48%) and Pendle (from 23 to 34; 48%).

**Figure 6.1:** Percentage change in new cases of HIV by selected infection route of HIV, Cumbria and Lancashire, 2000-2014



**Figure 6.2:** Percentage change in total cases of HIV by level of antiretroviral therapy, Cumbria and Lancashire, 2000-2014



**Table 6.1:** Number of new HIV and AIDS cases by infection route of HIV and county of residence, 2005-2014

	Infection Route	Year										% Change 2005-2014	% Change 2013-2014
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		
Cumbria	MSM	10	8	8	7	11	7	8	15	7	15	50	114
	Injecting Drug Use			1	1			1			1		
	Heterosexual	1	5	6	14	4	4	7	2	2	6	500	200
	Blood/Tissue		1	1									
	Mother to Child			1									
	Undetermined	1	2		1	1	1	3	1	1		-100	-100
	<b>Cumbria Total</b>	<b>12</b>	<b>16</b>	<b>17</b>	<b>23</b>	<b>16</b>	<b>12</b>	<b>19</b>	<b>18</b>	<b>10</b>	<b>22</b>	<b>83</b>	<b>120</b>
Lancashire	MSM	68	48	38	59	53	37	52	54	49	53	-22	8
	Injecting Drug Use	3	3	1		1	1	2	1	1	1	-67	
	Heterosexual	33	42	44	42	46	38	33	29	19	33		74
	Blood/Tissue				1			1	2				
	Mother to Child		2	1	1	2		2	1	1	2		100
	Undetermined	5	11	5	7	4	5	3	8	5	5		
	<b>Lancashire Total</b>	<b>109</b>	<b>106</b>	<b>89</b>	<b>110</b>	<b>106</b>	<b>81</b>	<b>93</b>	<b>95</b>	<b>75</b>	<b>94</b>	<b>-14</b>	<b>25</b>
Total	MSM	78	56	46	66	64	44	60	69	56	68	-13	21
	Injecting Drug Use	3	3	2	1	1	1	3	1	1	2	-33	100
	Heterosexual	34	47	50	56	50	42	40	31	21	39	15	86
	Blood/Tissue												
	Mother to Child	2	2	2	2	2	2	2	2	2	2		
	Undetermined	5	5	5	5	5	5	5	5	5	5		
	<b>Total</b>	<b>121</b>	<b>122</b>	<b>106</b>	<b>133</b>	<b>122</b>	<b>93</b>	<b>112</b>	<b>113</b>	<b>85</b>	<b>116</b>	<b>-4</b>	<b>36</b>

Men who were exposed through sex with men (MSM) and are also injecting drug users are included in the MSM category.

**Table 6.2:** Total number of HIV and AIDS cases by level of antiretroviral therapy and county of residence, 2005-2014

	ART	Year										% Change 2005-2014	% Change 2013-2014
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		
Cumbria	None	27	26	29	34	29	20	18	21	38	16	-41	-58
	Mono												
	Dual						1	1	5	2	5		150
	Triple	36	43	51	59	70	81	85	88	72	90	150	25
	Quadruple or more	13	20	26	30	32	33	39	37	27	41	215	52
	<b>Cumbria Total</b>	<b>76</b>	<b>89</b>	<b>106</b>	<b>123</b>	<b>131</b>	<b>135</b>	<b>143</b>	<b>151</b>	<b>139</b>	<b>152</b>	<b>100</b>	<b>9</b>
Lancashire	None	207	209	190	184	163	157	152	147	123	112	-46	-9
	Mono	1						1			2	100	
	Dual	4	1	4				1	8	7	2	-50	-71
	Triple	319	342	385	418	447	453	490	553	574	622	95	8
	Quadruple or more	95	157	185	212	233	261	267	245	255	266	180	4
	<b>Lancashire Total</b>	<b>626</b>	<b>709</b>	<b>764</b>	<b>814</b>	<b>843</b>	<b>871</b>	<b>911</b>	<b>953</b>	<b>959</b>	<b>1004</b>	<b>60</b>	<b>5</b>
Total	None	234	235	219	218	192	177	170	168	161	128	-45	-20
	Mono	1						1			2	100	
	Dual	4	1	4			1	2	13	9	7	75	-22
	Triple	355	385	436	477	517	534	575	641	646	712	101	10
	Quadruple or more	108	177	211	242	265	294	306	282	282	307	184	9
	<b>Total</b>	<b>702</b>	<b>798</b>	<b>870</b>	<b>937</b>	<b>974</b>	<b>1006</b>	<b>1054</b>	<b>1104</b>	<b>1098</b>	<b>1156</b>	<b>65</b>	<b>5</b>

**Table 6.3:** New cases of HIV and AIDS by local authority of residence, 2009-2014

	Local Authority of Residence	Year						% change 2009-2014	% change 2013-2014
		2009	2010	2011	2012	2013	2014		
Cumbria	Carlisle	7	3	3	6		10	43	
	Allerdale	1	3	5	3	2	2	100	
	Eden	1	1		1		3	200	
	Copeland	2	2	4	4	1		-100	-100
	South Lakeland	1		7	4	3	7	600	133
	Barrow-in-Furness	4	3			4		-100	-100
	<b>Cumbria Total</b>	<b>16</b>	<b>12</b>	<b>19</b>	<b>18</b>	<b>10</b>	<b>22</b>	<b>38</b>	<b>120</b>
Lancashire	Lancaster	9	4	1	8	6	9		50
	Wyre	3	3	5	9	3	5	67	67
	Fylde	7	1	4	6	5	4	-43	-20
	Blackpool	32	33	24	25	28	28	-13	
	Blackburn with Darwen	18	10	14	9	4	9	-50	125
	Ribble Valley	1	1	1	2	1	1		
	Pendle	4	4	6	2	5	2	-50	-60
	Hyndburn			2	5	3	7		133
	Burnley	5	4	6	1	4	5		25
	Rossendale	5	4	4	1	3	8	60	167
	Preston	8	9	14	11	7	12	50	71
	South Ribble	4	3	6	7	1	1	-75	
	Chorley	7	3	2	6	3	2	-71	-33
	West Lancashire	2	1	3	3	2	0	-100	-100
	Unknown Lancashire	1	1	1			1		
	<b>Lancashire Total</b>	<b>106</b>	<b>81</b>	<b>93</b>	<b>95</b>	<b>75</b>	<b>94</b>	<b>-11</b>	<b>25</b>
<b>Total</b>		<b>122</b>	<b>93</b>	<b>112</b>	<b>113</b>	<b>85</b>	<b>116</b>	<b>-5</b>	<b>36</b>

**Table 6.4:** All cases of HIV and AIDS by local authority of residence, 2009-2014

	Local Authority of Residence	Year						% change 2009- 2014	% change 2013-2014
		2009	2010	2011	2012	2013	2014		
Cumbria	Carlisle	36	38	37	40	35	43	19	23
	Allerdale	19	20	22	20	18	19		6
	Eden	14	13	15	14	13	15	7	15
	Copeland	15	14	15	16	16	15		-6
	South Lakeland	27	28	33	39	39	43	59	10
	Barrow-in-Furness	19	21	20	22	18	17	-11	-6
	Unknown Cumbria	1	1	1			0	-100	
	<b>Cumbria Total</b>	<b>131</b>	<b>135</b>	<b>143</b>	<b>151</b>	<b>139</b>	<b>152</b>	<b>16</b>	<b>9</b>
Lancashire	Lancaster	41	45	43	47	51	54	32	6
	Wyre	45	47	49	63	64	69	53	8
	Fylde	52	48	43	47	42	54	4	29
	Blackpool	310	312	319	320	310	351	13	13
	Blackburn with Darwen	89	98	102	103	105	92	3	-12
	Ribble Valley	16	17	15	15	15	15	-6	
	Pendle	23	24	30	30	33	34	48	3
	Hyndburn	26	26	28	33	35	42	62	20
	Burnley	28	25	34	35	38	36	29	-5
	Rossendale	31	34	39	39	35	39	26	11
	Preston	99	103	111	118	125	131	32	5
	South Ribble	27	32	34	40	39	40	48	3
	Chorley	28	29	32	33	33	34	21	3
	West Lancashire	26	25	26	29	30	10	-62	-67
	Unknown Lancashire	2	6	6	1	4	3	50	-25
	<b>Lancashire Total</b>	<b>843</b>	<b>871</b>	<b>911</b>	<b>953</b>	<b>959</b>	<b>1004</b>	<b>19</b>	<b>5</b>
<b>Total</b>		<b>974</b>	<b>1006</b>	<b>1054</b>	<b>1104</b>	<b>1098</b>	<b>1156</b>	<b>19</b>	<b>5</b>

## Glossary of Service Providers

### Statutory Treatment Centres

<b>BLAG</b>	Blackpool Sexual Health Services, Whitegate Health Centre, 150 Whitegate Drive, Blackpool, FY3 9ES. Tel: (01253) 303 238
<b>ELANC</b>	GUM Clinic, St Peter's Centre, Church St, Burnley, Lancashire, BB11 2DL. Tel: (01282) 805 979
<b>CUMB</b>	Cumberland Partnership NHS Trust, Solway Clinic, Centre for Sexual Health, Hilltop Heights, London Road, Carlisle, CA1 2NS. Tel: (01228) 814 814
<b>FGH</b>	Furness General Hospital, Department of GUM, Dalton Lane, Barrow in Furness, Cumbria, LA14 4LF. Tel: (01229) 404 464
<b>PG</b>	Royal Preston Hospital, Department of GUM, Sharoe Green Lane North, Fulwood, Preston, PR2 9HT. Tel: (01772) 716 565
<b>RLI</b>	Royal Lancaster Infirmary, Ashton Road, Lancaster, LA1 4RP. Tel: (01524) 65944
<b>WGH</b>	Westmorland General Hospital, Outpatients Department, Burton Road, Kendal, Cumbria, LA9 7RG. Tel: (01539) 732 288
<b>WORK</b>	Workington Community Hospital, Department of GUM, Park Lane, Workington, Cumbria, CA14 2RW. Tel: (01900) 705 050

### **Community Sector Organisations**

<b>ARM</b>	The Armistead Project	Tel: (0151) 227 1931
<b>BARM</b>	Barnardo's (Manchester)	Tel: (0161) 273 2901
<b>BP Cheshire and N. Wales</b>	Body Positive Cheshire and North Wales	Tel: (01270) 653 150
<b>Healthier Living</b>	Drugline Lancashire (Preston)	Tel: (01772) 253840
<b>GHT</b>	George House Trust	Tel: (0161) 274 4499
<b>Sahir</b>	Sahir House	Tel: (0151) 237 3989
<b>Horizon</b>	Drugline Lancashire (Blackpool)	Tel: (01253) 311431

### **Social Service Departments**

<b>Blackburn</b>	Tel: (01254) 585 585
<b>Knowsley</b>	Tel: (0151) 443 5626
<b>Liverpool</b>	Tel: (0151) 706 2000
<b>Salford</b>	Tel: (0161) 909 6517
<b>Warrington</b>	Tel: (01925) 573 489

## List of Abbreviations

**AIDS** - Acquired immunodeficiency syndrome

**ART** – Antiretroviral therapy

**BME** – Black and minority ethnic groups

**CPH** – The Centre for Public Health based at Liverpool John Moores University

**GUM** - Genito-Urinary Medicine

**HIV** - Human immunodeficiency virus

**HPA** – Health Protection Agency (now Public Health England)

**IDU** – Injecting drug use/user

**LA** – Local authority

**LSOA** – Lower super output area

**MSM** – Men who have sex with men

**NASS** – National Asylum Support Service

**NAT** – National AIDS trust

**ONS** – Office of national statistics

**PHE** – Public Health England

**PrEP** – Pre-exposure Prophylaxis

**SCIEH** – Scottish Centre for Infection and Environmental Health

**SOPHID** - Survey of Prevalent HIV Infections Diagnosed

**STI** – Sexually transmitted infection

**UNAIDS** – Joint United Nations Programme on HIV/AIDS

**WHO** – World Health Organisation

### **Definition: New Cases**

New cases are classed as individuals who are new to the north west database in 2014 and have not been seen at a statutory treatment centre in north west England since 1994. New cases include transfers from outside of the region so new cases in the north west treatment and care database are not necessarily new diagnoses. However, whilst slightly overestimating the number of new diagnoses, new cases remain an accurate proxy measure of new diagnoses in north west England.

## References

1. British HIV Association, British Association of Sexual Health and HIV and British Infection Society (2008). UK National Guidelines for HIV Testing 2008, British HIV Association.
2. McCullagh, J., Syed, Q. and Bellis, M.A. (1997). HIV and AIDS in the North West of England 1996, University of Liverpool, Department of Public Health.
3. McVeigh, J., et al. (1998). HIV and AIDS in the North West of England 1997, Liverpool John Moores University, Public Health Sector.
4. McVeigh, J., et al. (1999). HIV and AIDS in the North West of England 1998, Liverpool John Moores University, Public Health Sector.
5. McVeigh, J., et al. (2000). HIV and AIDS in the North West of England 1999, Liverpool John Moores University, Public Health Sector.
6. Cook, P.A., et al. (2001). HIV and AIDS in the North West of England 2000, Liverpool John Moores University, Public Health Sector.
7. Cook, P.A., et al. (2002). HIV and AIDS in the North West of England 2001, Liverpool John Moores University, Public Health Sector.
8. Cook, P.A., et al. (2003). HIV and AIDS in the North West of England 2002, Liverpool John Moores University, Centre for Public Health.
9. Cook, P.A., et al. (2004). HIV and AIDS in the North West of England 2003, Liverpool John Moores University, Centre for Public Health.
10. Cook, P.A., et al. (2005). HIV and AIDS in the North West of England 2004, Liverpool John Moores University, Centre for Public Health.
11. Cook, P.A., et al. (2006). HIV and AIDS in the North West of England 2005, Liverpool John Moores University, Centre for Public Health.
12. Downing, J., et al. (2007). HIV and AIDS in the North West of England 2006, Liverpool John Moores University, Centre for Public Health.
13. Downing, J., et al. (2008). HIV and AIDS in the North West of England 2007, Liverpool John Moores University, Centre for Public Health.
14. Hargreaves, S.C., et al. (2009). HIV and AIDS in the North West of England 2008, Liverpool John Moores University, Centre for Public Health.
15. Hargreaves, S.C., et al. (2010). HIV and AIDS in the North West of England 2009, Centre for Public Health Liverpool John Moores University.
16. Harris, J., et al. (2011). HIV & AIDS in the North West of England 2011. Liverpool, Centre for Public Health, Liverpool John Moores University.
17. Harris, J., et al. (2013). HIV & AIDS in the North West of England 2012. Liverpool, Centre for Public Health, Liverpool John Moores University.
18. Harris, J., et al. (2014). HIV and AIDS in the North West of England 2013. Liverpool, Centre for Public Health, Liverpool John Moores University.
19. UNAIDS (2014). Global Report. UNAIDS Report on the Global AIDS Epidemic 2013. Geneva, UNAIDS.

20. Joint United Nations Programme on HIV/AIDS (UNAIDS) (2010). Getting to zero: 2011-2015 strategy Joint United Nations programme on HIV/AIDS (UNAIDS). Geneva, UNAIDS.
21. UNAIDS (2011). HIV in Asia and the Pacific: Getting to Zero. Bangkok, UNAIDS.
22. UNAIDS (2014). The Gap Report. Geneva, UNAIDS.
23. United Nations (2014). The Millennium Development Goals Report 2014. New York, UN.
24. UNAIDS (2014). How AIDS changed everything 2014 Global Statistics Fact Sheet. Geneva, UNAIDS.
25. UNAIDS (2014). FAST TRACK Ending the AIDS Epidemic by 2030. Geneva, UNAIDS.
26. Public Health England (PHE) (2013). United Kingdom National HIV Surveillance Tables. PHE. Colindale, PHE.
27. Public Health England (2014). United Kingdom National HIV surveillance data tables. PHE. Centers for Infection, Colindale.
28. Health Protection Agency (HPA) (2010). United Kingdom new HIV diagnoses to end of December 2009 No. 2: 2009, Centre for Infections, HPA.
29. Bellis, M.A., et al. (1997). Inequality in funding for AIDS across England threatens regional services. British Medical Journal **315**: 950-951.
30. Bellis, M.A., et al. (1999). The national lottery. Health Service Journal: 22-23.
31. Cosgrove, P., Lyons, M. and Bellis, M.A. (2001). Economics of HIV and AIDS in the North West of England. Liverpool, Liverpool John Moores University, Public Health Sector.
32. Cosgrove, P., Thomson, R. and Bellis, M.A. (2000). Equitable strife. Health Service Journal(4): 23.
33. HPA (2011). United Kingdom New HIV Diagnoses to end of December 2010. H. HIV/STI Department. Colindale.
34. Public Health England (PHE) (2014). HIV in the United Kingdom: 2014 Report. UK, PHE.
35. Public Health England (PHE) (2013). United Kingdom Prevention Group HIV data tables. PHE. Colindale.
36. Adamma Aghaizu, A.B., Anthony Nardone, O.Noel Gill and Valerie Delpech (2013). HIV in the United Kingdom: 2013 Report. London, Public Health England.
37. Dougan, S., et al. (2008). HIV in gay and bisexual men in the United Kingdom: 25 years of public health surveillance. Epidemiology and Infection(136): 145-156.
38. Wayal, S., et al. (2013). Repeat cross-sectional survey of sexual behaviour and partnerships of HIV-positive MSM attending a HIV clinic in London, UK: implications for HIV prevention among MSM. The Lancet **382**: S101.
39. Mercer, C., et al. (2015). O8 The sexual health and well-being of men who have sex with men (MSM): evidence from Britain's national surveys of sexual attitudes and lifestyles (NATSAL). Sexually Transmitted Infections **91**(Suppl 1): A3-A3.
40. Hunter, L.J., et al. (2014). Recreational drug use in men who have sex with men (MSM) attending UK sexual health services is significantly higher than in non-MSM. Postgrad Med J **90**(1061): 133-138.
41. Daskalopoulou, M., et al. (2014). Recreational drug use, polydrug use, and sexual behaviour in HIV-diagnosed men who have sex with men in the UK: results from the cross-sectional ASTRA study. The Lancet HIV.

42. Lee, M., et al. (2015). O11 Chemsex and the city: sexualised substance use in gay bisexual and other men who have sex with men. Sexually Transmitted Infections **91**(Suppl 1): A4-A4.
43. Bourne, A.R., D.; Hickson, F.; Torres Rueda, S.; Weatherburn, P. (2014). The Chemsex Study: drug use in sexual settings among gay and bisexual men in Lambeth, Southwark & Lewisham. London, Sigma Research, London School of Hygiene and Tropical Medicine.
44. Birrell, P.J., et al. (2013). HIV incidence in men who have sex with men in England and Wales 2001–10: a nationwide population study. The Lancet Infectious Diseases **13**(4): 313-318.
45. Flowers, P., et al. (2013). Has testing been normalized? An analysis of changes in barriers to HIV testing among men who have sex with men between 2000 and 2010 in Scotland, UK. HIV Med **14**(2): 92-98.
46. Knussen, C., McDaid, L.M. and Flowers, P. (2013). Measures of risk do not discriminate between MSM tested for HIV within the previous 6 months and MSM tested 6-12 months previously: data from Glasgow, Scotland, in 2010. Sex Transm Infect **89**(5): 382.
47. Aghaizu, A., et al. (2015). O5 Understanding continuing high hiv incidence: sexual behavioural trends among msm in london, 2000-2013. Sexually Transmitted Infections **91**(Suppl 1): A2-A2.
48. Sigma Research, CHAPS and Terence Higgins Trust (THT) (2011). The UK Gay Men's Sex Survey. Vital Statistics 2010. The European MSM Internet Sex (EMIS) survey. London, London School of Hygiene and Tropical Medicine.
49. Sigma Research, CHAPS and Terence Higgins Trust (THT) (2011). The UK Gay Men's Sex Survey. Vital Statistics 2010. North West region of residence data report. The European MSM Internet Survey (EMIS). London, Sigma.
50. Hickson, F., et al. (2010). Tactical Dangers. Findings from the United Kingdom Gay Men's Sex Survey 2008. London, Sigma Research, London School of Hygiene and Tropical Medicine.
51. National AIDS Trust (2015). Boys who like boys. London, NAT.
52. Phillips, A.N., et al. (2013). Increased HIV incidence in men who have sex with men despite high levels of ART-induced viral suppression: analysis of an extensively documented epidemic. PLoS One **8**(2): e55312.
53. Aghaizu, A., et al. (2013). Who would use PrEP? Factors associated with intention to use among MSM in London: a community survey. Sex Transm Infect **89**(3): 207-211.
54. McCormack, S., et al. (2012). The British HIV Association/British Association for Sexual Health and HIV Position Statement on pre-exposure prophylaxis in the UK. Int J STD AIDS **23**(1): 1-4.
55. MRC Clinical Trials Unit and Public Health England (PHE) (2014). "Examining the Impact on gay men of using Pre-Exposure Prophylaxis (PrEP) (PROUD)." Retrieved 15/09/14, 2014, from <http://www.proud.mrc.ac.uk/default.aspx>.
56. Cambiano, V., et al. (2015). O1 Is pre-exposure prophylaxis for hiv prevention cost-effective in men who have sex with men who engage in condomless sex in the uk? Sexually Transmitted Infections **91**(Suppl 1): A1-A1.
57. Public Health England (2014). National Antenatal Infections Screening Monitoring. Data tables : England 2005 - 2013. N.A.I.S.M.N. Programme and U.N.S.C.U. NSC). UK, PHE.
58. Sherr, L., et al. (2012). Gender and mental health aspects of living with HIV disease and its longer-term outcomes for UK heterosexual patients. Women Health **52**(3): 214-233.
59. The Sophia Forum (2012). GBV and HIV. Violence as a Cause or Consequence of HIV for Women in England. A Feasibility Study Regarding a Potential National Investigation. London, Sophia Forum.
60. Dhairyawan, R., et al. (2013). Intimate partner violence in women living with HIV attending an inner city clinic in the UK: prevalence and associated factors. HIV Med **14**(5): 303-310.

61. Public Health England (2014). Prevention Group HIV data tables. PHE. Centre for Infections, Colindale.
62. Owour, J.O.A., Locke, A. and Heyman, B. (2013). When Talking or Not Talking Becomes a Risk: A Grounded Theory Study Exploring the Impact of HIV on Immigrant Black African Families in the UK. Sex Transm Dis **89**: A302.
63. Bourne, A.R., D.; Weatherburn, P. (2014). African Health and Sex Survey 2013-2014. London, Sigma Research, London School of Hygiene and Tropical Medicine.
64. Tabeth Timba-Emmanuel, T.K.a.M.R. (2015). P252 Till death do us part: marriage, african born women and hiv prevention in the united kingdom. Sex Transm Infect **91**(1): A98-A99.
65. Public Health England (PHE) (2014). Shooting Up 2013 Accompanying Data Tables. London, PHE.
66. Public Health England (PHE), Public Health Wales, Centre for Public Health LJM, (2014). Data tables of the Unlinked Anonymous Monitoring Survey of HIV and Hepatitis in People Who Inject Drugs People who inject image and performance enhancing drugs. PHE. Colindale.
67. Public Health England (PHE) (2014). Data tables of the Unlinked Anonymous Monitoring Survey of HIV and Hepatitis in People Who Inject Drugs. PHE. Colindale.
68. European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) and European Centre for Disease Prevention and Control (ECDC) (2011). Joint EMCDDA and ECDC rapid risk assessment. HIV in injecting drug users in the EU/EEA, following a reported increase of cases in Greece and Romania. Portugal, EMCDDA.
69. House of Lords, Select Committee on HIV and AIDS in the United Kingdom, (2011). No vaccine, no cure: HIV and AIDS in the United Kingdom. London, TSO. 1st Report of Session 2010-12.
70. MacArthur, G.J., et al. (2014). Interventions to prevent HIV and Hepatitis C in people who inject drugs: a review of reviews to assess evidence of effectiveness. Int J Drug Policy **25**(1): 34-52.
71. MacArthur, G.J., et al. (2012). Opiate substitution treatment and HIV transmission in people who inject drugs: systematic review and meta-analysis. Bmj **345**(oct03 3): e5945-e5945.
72. National AIDS Trust (NAT) (2012). Hepatitis C and HIV Co-infection. London, NAT.
73. Marongiu, A., et al. (2012). Male IDUs who have sex with men in England, Wales and Northern Ireland: are they at greater risk of bloodborne virus infection and harm than those who only have sex with women? Sex Transm Infect **88**(6): 456-461.
74. Ward, C. and Lee, V. (2014). Experience of acute hepatitis C and HIV co-infection in an inner city clinic in the UK. J Int AIDS Soc **17**(4 Suppl 3): 19639.
75. Turner, J., et al. (2010). The prevalence of hepatitis C virus (HCV) infection in HIV-positive individuals in the UK - trends in HCV testing and the impact of HCV on HIV treatment outcomes. J Viral Hepat **17**(8): 569-577.
76. Vickerman, P., et al. (2013). Is the HCV-HIV co-infection prevalence amongst injecting drug users a marker for the level of sexual and injection related HIV transmission? Drug Alcohol Depend **132**(1-2): 172-181.
77. Tavitian-Exley, I., et al. (2015). Influence of different drugs on HIV risk in people who inject: systematic review and meta-analysis. Addiction **110**(4): 572-584.
78. Hope, V.D., et al. (2013). Prevalence of, and risk factors for, HIV, hepatitis B and C infections among men who inject image and performance enhancing drugs: a cross-sectional study. BMJ Open **3**(9): e003207.
79. Edelman, N.L., et al. (2014). Sexual health risks and health-seeking behaviours among substance-misusing women. J Adv Nurs **70**(12): 2861-2870.

80. Sabin, C.A., et al. (2005). Twenty five years of HIV infection in haemophilic men in Britain: an observational study. BMJ **331**(7523): 997-998.
81. Mortimer, J.Y. and Spooner, R.J. (1997). HIV infection transmitted through blood product treatment, blood transfusion, and tissue transplantation. Commun Dis Rep CDR Rev **7**(9): R130-132.
82. Regan, F.A., et al. (2000). Prospective investigation of transfusion transmitted infection in recipients of over 20 000 units of blood. TTI Study Group. BMJ **320**(7232): 403-406.
83. Health Protection Agency (HPA) North West Regional Epidemiology Service (2012). Antenatal Screening of Infectious Diseases in the North West. Annual Report 2012. 2003-2011 Surveillance Data. Liverpool, HPA North West.
84. Townsend, C.L., et al. (2014). Earlier initiation of ART and further decline in mother-to-child HIV transmission rates, 2000-2011. AIDS **28**(7): 1049-1057.
85. de Ruiter, A., et al. (2014). British HIV Association guidelines for the management of HIV infection in pregnant women 2012 (2014 interim review). HIV Med **15** Suppl 4: 1-77.
86. Huntington, S., et al. (2014). Response to antiretroviral therapy (ART): comparing women with previous use of zidovudine monotherapy (ZDVm) in pregnancy with ART naive women. BMC Infect Dis **14**: 127.
87. Taylor, G.P., et al. (2012). British HIV Association guidelines for the management of HIV infection in pregnant women 2012. HIV Medicine **13**: 87-157.
88. Aebi-Popp, K., et al. (2013). Missed opportunities among HIV-positive women to control viral replication during pregnancy and to have a vaginal delivery. J Acquir Immune Defic Syndr.
89. Vijayan, T., et al. (2009). We never thought this would happen: transitioning care of adolescents with perinatally acquired HIV infection from pediatrics to internal medicine. AIDS Care **21**(10): 1222-1229.
90. Prime, K.P., Jungmann, E.A. and Edwards, S.G. (2004). Decline in mortality in children with HIV in the UK and Ireland: HIV positive adolescents urgently need dedicated services. BMJ **328**(7438): 524; author reply 524.
91. Foster, C., et al. (2009). Young People in the United Kingdom and Ireland with Preinately Acquired HIV: The Pediatric Legacy for Adult Services. AIDS Patient Care and STDS **23**(3): 159-166.
92. Hamblin, E. (2011). Just Normal Young People. Supporting young people living with HIV in their transition to adulthood A report from the Children and Young People HIV Network. London, National Children's Bureau.
93. Evangeli, M., et al. (2014). Parenting considerations in young adults with perinatally acquired HIV. AIDS Care **26**(7): 813-816.
94. Byrne, L., et al. (2014). Pregnancy outcomes in women growing up with perinatally acquired HIV in the United Kingdom and Ireland. J Int AIDS Soc **17**(4 Suppl 3): 19693.
95. Office of the United Nations High Commissioner for Human Rights and Joint United Nations Programme on HIV/AIDS (UNAIDS) (2006). International Guidelines on HIV/AIDS and Human Rights. 2006 Consolidated Version. Geneva, UNAIDS.
96. Chimienti, M. and Solomos, J. (2015). How Do International Human Rights Influence National Healthcare Provisions for Irregular Migrants?: A Case Study in France and the United Kingdom. Journal of Human Rights: 1-21.
97. Butler, P. (2015). Do foreigners come to the UK to get HIV treatment? The Guardian. online.
98. Arie, S. (2013). Are migrant patients really a drain on European health systems? BMJ **347**: f6444.

99. Allsop, J.S., N.; Phillimore, J. (2014). Poverty among refugees and asylum seekers in the UK An evidence and policy review. IRIS Working Paper Series. I.f.R.i. Superdiversity. Birmingham, University of Birmingham. **1**.
100. Delpech, V.C., et al. (2013). Migrant patients' access to HIV care: testing should always be free. BMJ **347**: f7056.
101. Chinouya, M., et al. (2014). Migrants and HIV stigma: findings from the Stigma Index Study (UK). Health Soc Care Community.
102. Potter, J.L. (2015). Providing accessible healthcare to migrants is morally right and cost effective. BMJ **351**: h3775.
103. UK Parliament Publications (2012). Lords Hansard Text for 29 February 2012 Column 1393. [www.parliament.uk](http://www.parliament.uk).
104. Creighton, S., et al. (2004). Dispersal of HIV positive asylum seekers: national survey of UK healthcare providers. BMJ **329**(7461): 322-323.
105. All Party Parliamentary Group on AIDS (APPGA) (2003). Migration and HIV: improving lives in Britain. An Inquiry into the impact of the UK nationality and immigration system on people living with HIV. London, APPGA.
106. National AIDS Trust (NAT) (2006). Dispersal of Asylum Seekers living with HIV. London, NAT.
107. British HIV Association (BHIVA) and National AIDS Trust (NAT) (2009). Detention, Removal and People Living with HIV. Advice for healthcare and voluntary sector professionals. London, BHIVA.
108. Home Office (HO) (2014). Immigration Statistics - October to December 2014.
109. Public Health England (2014). Table 5 HIV test uptake coverage 2010-2014. G. PHE. London.
110. Hartney, T., et al. (2014). Expanded HIV testing in high-prevalence areas in England: results of a 2012 audit of sexual health commissioners. HIV Med **15**(4): 251-254.
111. Health Protection Agency (HPA) (2011). Time to test for HIV: Expanding HIV testing in healthcare and community services in England. Colindale, HPA.
112. Public Health England (PHE) (2014). HIV Testing and Self Testing Frequently Asked Questions. London, PHE.
113. Public Health England (2015). Sexual and Reproductive Health Profiles.
114. United Nations (UN) General Assembly (2011). Political Declaration on HIV and AIDS: Intensifying Our Efforts to Eliminate HIV and AIDS. 65/277.
115. Cohen, M.S., et al. (2011). Prevention of HIV-1 Infection with Early Antiretroviral Therapy. N Engl J Med **365**(6): 494-505.
116. World Health Organisation (WHO) (2013). Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection. Recommendations for a public health approach. Geneva, WHO.
117. World Health Organisation (WHO) (2015). Guideline on when to start antiretroviral therapy and on pre-exposure prophylaxis for HIV. Geneva, WHO.
118. National Institute of Allergy and Infectious Disease (NIAID) (2015). Starting Antiretroviral Treatment Early Improves Outcomes for HIV-Infected Individuals.
119. British HIV Association (BHIVA) (2015). British HIV Association guidelines for the treatment of HIV-1-positive adults with antiretroviral therapy 2015. London, BHIVA.
120. Rerks-Ngarm, S., et al. (2009). Vaccination with ALVAC and AIDSVAX to Prevent HIV-1 Infection in Thailand. N Engl J Med **361**: 2209-2220.

121. Pitisuttithum, P., Excler, J.-L. and Kim, J. (2013). Beyond RV144 Efficacy Results: An Update. Procedia in Vaccinology **7**: 49-56.
122. HIV Vaccines and Microbicides Resource Tracking Working Group (2012). Investing to End the AIDS Epidemic- A New Era for HIV Prevention Research & Development>. New York, AVAC.
123. Robert M. Grant, M.D., M.P.H., Javier R. Lama, M.D., M.P.H., Peter L. Anderson, Pharm.D., Vanessa McMahan, B.S., et al. (2010). Preexposure Chemoprophylaxis for HIV Prevention in Men Who Have Sex with Men. N Engl J Med **363**(27).
124. Baeten, J.M., et al. (2012). Antiretroviral prophylaxis for HIV prevention in heterosexual men and women. N Engl J Med **367**(5): 399-410.
125. McCormack, S., et al. (2015). Pre-exposure prophylaxis to prevent the acquisition of HIV-1 infection (PROUD): effectiveness results from the pilot phase of a pragmatic open-label randomised trial. Lancet.
126. Mugo, N., et al. (2013). Pregnancy incidence and birth outcomes among African women in a clinical trial of pre-exposure prophylaxis: the Partners PrEP Study. International AIDS Society (IAS) on HIV Pathogenesis, Treatment and Prevention. Kuala Lumpur.
127. Whetham, J., et al. (2014). Pre-exposure prophylaxis for conception (PrEP-C) as a risk reduction strategy in HIV-positive men and HIV-negative women in the UK. AIDS Care **26**(3): 332-336.
128. van Lunzen, J., et al. (2013). Functional cure after long term HAART initiated during early HIV infection: a comprehensive case study. International AIDS Society (AIDS) Conference on HIV Pathogenesis, Treatment and Prevention. Kuala Lumpur. **TUPE246**.
129. Saez-Cirion, A., et al. (2013). Post-treatment HIV-1 controllers with a long-term virological remission after the interruption of early initiated antiretroviral therapy ANRS VISCONTI Study. PLoS Pathog **9**(3): e1003211.
130. Persaud, D., et al. (2013). Absence of detectable HIV-1 viremia after treatment cessation in an infant. N Engl J Med **369**(19): 1828-1835.
131. Rasmussen, T.A., et al. (2013). Comparison of HDAC inhibitors in clinical development: effect on HIV production in latently infected cells and T-cell activation. Hum Vaccin Immunother **9**(5): 993-1001.
132. S, S. (2014). The HDAC inhibitor romidepsin is safe and effectively reverses HIV-1 latency in vivo as measured by standard clinical assays. 20th International AIDS Conference. Melbourne. **TUAA0106LB**.
133. (PHE), P.H.E. (2013). United Kingdom PHE centre and London Sector HIV data tables. PHE. Colindale.
134. Health Protection Agency (HPA) (2012). Data Tables of the Unlinked Anonymous Dried Blood Spot Survey of Newborn Infants - Prevalence of HIV in Women Giving Birth. Surveillance Update: 2012. Colindale, HPA.
135. Public Health England (2014). Table 2: STI diagnoses and rates by gender, sexual risk and age group, 2010-2014. London, PHE.
136. Royce, R.A., et al. (1997). Sexual transmission of HIV. N Engl J Med **336**(15): 1072-1078.
137. Hayes, R., et al. (2010). Treatment of sexually transmitted infections for HIV prevention: end of the road or new beginning? AIDS **24**(suppl 4): 515-526.
138. Department of Health (DH) (2012). The Power of Information. Putting all of us in control of the health and care information we need. London, DH.
139. Walker, P. (1999). Protecting and using patient information: a national framework. Consultation Paper, NHS Executive.

140. Office for National Statistics (ONS) (2012). 2011 Census: Key Statistics for local authorities in England and Wales. ONS. London, ONS.
141. Marmot, M. (2008). Fair Society, Healthy Lives. The Marmot Review. London, UCL.
142. United Nations Office on Drugs and Crime (UNODC) (2014). World Drug Report 2014. Vienna, United Nations Office on Drugs and Crime
143. Ministerio de Sanidad, S.S.e.I. (2012). Informe National sobre los Progresos Realizados en la Aplicacion del UNGASS, Espana. UNAIDS Country AIDS Progress Report. UNAIDS. Madrid, Ministerio de Sanidad, Espana.
144. Downing, J., et al. (2011). Factors associated with risky sexual behaviour: a comparison of British, Spanish and German holidaymakers to the Balearics. Eur J Public Health **21**(3): 275-281.
145. Hughes, K., et al. (2009). Alcohol, drugs, sex and violence: health risks and consequences in young British holidaymakers to the Balearics. Adicciones **21**(4): 265-277.
146. Mandalia, S., et al. (2010). Rising population cost for treating people living with HIV in the UK, 1997-2013. PLoS One **5**(12): e15677.
147. Madden, H.C., et al. (2011). Access to HIV community services by vulnerable populations: evidence from an enhanced HIV/AIDS surveillance system. AIDS Care **23**(5): 542-549.
148. Jordan, R., et al. (2002). Systematic review and meta analysis of evidence for increasing numbers of drugs in antiretroviral combination therapy. British Medical Journal **324**: 757-767.
149. BHIVA (2015). BHIVA guidelines for the treatment of HIV--1--positive adults with antiretroviral therapy 2015, BHIVA.
150. BHIVA (2013). Summary of BHIVA guidelines HIV treatment for pregnant women: HIV treatment. London, NAM Publications.



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