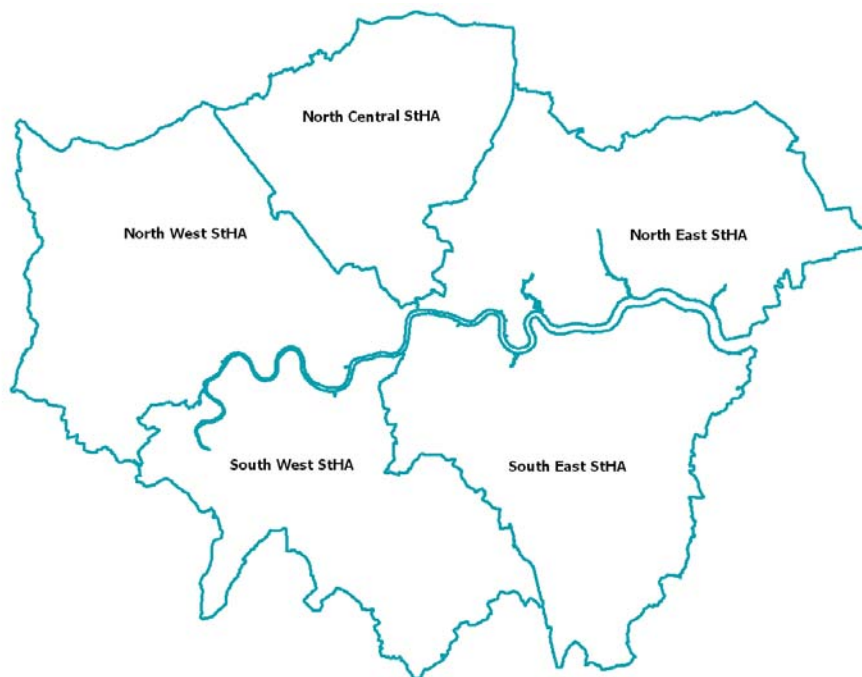


# Sexually transmitted infections in young Londoners 2004

## Health Protection Agency London Response to the London Assembly Scrutiny into Young People's Sexual Health - Access and Information



**Helen Maguire** (Regional Epidemiologist) & **Peter Trail** (Epidemiologist, HIV & STIs)

**Health Protection Agency London Regional Epidemiology Unit**

### Contributors:

Alison Brown	Survey Coordinator, Unlinked Anonymous Survey of GUM Attenders
Sarah Dougan	Senior Scientist, HIV/AIDS Surveillance
Lee Hendry	Information Assistant, Survey of Prevalent Diagnosed HIV Infections
Vivian Hope	Survey Coordinator, Unlinked Anonymous Survey of Injecting Drug Users
Scott LaMontagne	Chlamydia Screening Project Coordinator
Louise Logan	Survey Coordinator, Unlinked Anonymous Surveys of Pregnant Women
Neil Macdonald	Clinical Scientist (Epidemiology) & INSIGHT Project Coordinator
Brian Rice	Survey Coordinator, Survey of Prevalent Diagnosed HIV Infections
Elizabeth Rudd	Coordinator Gonococcal Resistance to Antimicrobials Surveillance Programme
Ian Simms	Clinical Scientist (Epidemiology)
Katy Sinka	HIV/AIDS Surveillance Coordinator
Helen Ward	Head of Preventions, Health Protection Agency Centre for Infections

## Executive Summary

This report from the Health Protection Agency in London is confined to Sexually Transmitted infections providing trend data for the past decade. It constitutes the Health Protection Agency London Regional Epidemiology Unit response to the London Assembly's Scrutiny into Young Peoples Sexual Health – Access and Information.

Sustained increases in Sexually Transmitted Infections (STI) diagnoses and workload have been observed in GUM clinics in London. This trend upward in STIs in young people has been observed since the mid-1990s and rates are higher among young women compared to young men. The increases have been larger for bacterial STIs especially gonorrhoea and chlamydia infections but HIV infections are increasing too.

This may in part reflect a rise in attendance at GUM clinics by low risk individuals but there have been marked increases observed in all STIs. Young people have been particularly affected. Recent surveys have shown that high STI rates are also found in young people in the community and not just at GUM clinics.

Available information to the end of 2003, indicate that London bears a disproportionate burden of the nation's STIs and whilst around one in seven of residents of England under 25 lived in London, in 2003:

- One in every two HIV-positive young people in England below the age of 25 seeking HIV treatment in 2003 was a Londoner.<sup>a</sup>

Diagnoses of key sexually transmitted infections continue to rise and in 2003:

- A total of 4, 001 gonorrhoea infections were identified in Londoners below the age of 25, a rise of over a third since 1999.<sup>b</sup>
- Similarly, over 11, 000 diagnoses of chlamydia were reported in under 25 year olds, a rise of approximately 68.2% on the number reported in 1999.<sup>c</sup>

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<sup>a</sup> **Source:** HIV and STI Department, Health Protection Agency Centre for Infections Survey of Prevalent Diagnosed HIV Infection 2003. A total of 2, 622 HIV-positive residents of England below the age of 25 sought HIV-related treatment and care in 2003, 1, 317 of whom were residents of London.

<sup>b</sup> **Source:** HIV and STI Department, Health Protection Agency Centre for Infections Körner (KC60) activity reports from genitourinary clinics in England. A total of 2, 990 gonorrhoea infections were diagnosed in young people below the age of 25 in London in 1999, rising to 4, 001 in 2003.

<sup>c</sup> **Source:** HIV and STI Department, Health Protection Agency Centre for Infections Körner (KC60) activity reports from genitourinary clinics in England.

Whilst much smaller in total, the number of syphilis infections in under 25 year olds has more than tripled from 20 diagnoses reported from open access specialist sexual health clinics in London in 1999 to 76 in 2003<sup>a</sup>.

One of the key features of the STI and HIV epidemic in London is its disproportionate impact on minority communities. Amongst Black-Africans for example, while around one in twenty Londoners comes from a (Black) African community, members of these communities represented more than one in three Londoners living with HIV in 2003. Young gay men are also particularly at risk.

Risk factors for infection include being younger, unmarried, having high partner concurrency and having two or more sexual partners in the past year. The observed reduction in age at first intercourse has led to exposure of young people at earlier stages of their lives when they are more vulnerable. In addition young people have been found to be less likely to comply with treatment.

The impact on Genitourinary Medicine (GUM) services has been considerable and recent surveys confirm that delays exist in accessing GUM services and these are worse for younger people.

The Health Protection Agency in London is committed to working in partnership with our colleagues in the statutory and voluntary sectors to support the implementation and monitoring of the government's sexual health strategy.<sup>1</sup> The HPA has an important role in monitoring and evaluation. Colleagues in Health Protection Units across London are also working with their local PCTs and other organisations with the same aim.

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<sup>a</sup> **Source:** HIV and STI Department, Health Protection Agency Centre for Infections Körner (KC60) activity reports from genitourinary clinics in England. A total of 6, 593 chlamydia infections were diagnosed in young people below the age of 25 in London in 1999, rising to 11, 091 in 2003.

**Introduction:**

This report forms The Health Protection Agency London Regional Epidemiology Unit response to the London Assembly's Scrutiny into Young Peoples Sexual Health – Access and Information. The Assembly is seeking information on how sexual health services for young people might be better provided and ways in which sexual health promotion and sex education might be made more relevant and accessible for young people, especially those young people who are not at school or in another educational setting.

The HPA has been specifically requested to provide information about the prevalence of different STIs in young people in London (aged 11-24 years) and as far as possible by age, ethnicity, social class, gender and geography [London Primary Care Trust]. We are also asked to describe those factors, which are drivers for the current levels of STIs in young people in London.

This paper describes current trends in the HIV/STI epidemic in London, particularly as it affects young people. The paper presents the most recent epidemiological data available for London – focussing on the young and where possible on ethnicity and place of residence. A number of surveillance systems collate information by pre-defined age groups and others have insufficient detail to allow analysis by social class or ethnic group. Sources of epidemiological information and a description of the surveys from which they are drawn appear in Appendix 1.

We do not refer to other data that might provide an insight into the sexual health of young people such as family planning and teenage pregnancy, though we briefly discuss some of the behavioural data available.

## 1. HIV infection

In this section we present information about both new diagnoses and people who are already receiving treatment for their HIV infection in London.

### 1.1 Londoners newly diagnosed with HIV infection – all ages

#### *Total numbers:*

Since the start of reporting of HIV infection in the 1980s to the end of 2003, over 36, 000 individuals have been diagnosed with HIV infection in London, almost sixty per cent (36, 625/63, 174) of all diagnoses made in the United Kingdom.<sup>a</sup>

#### *Trends over time:*

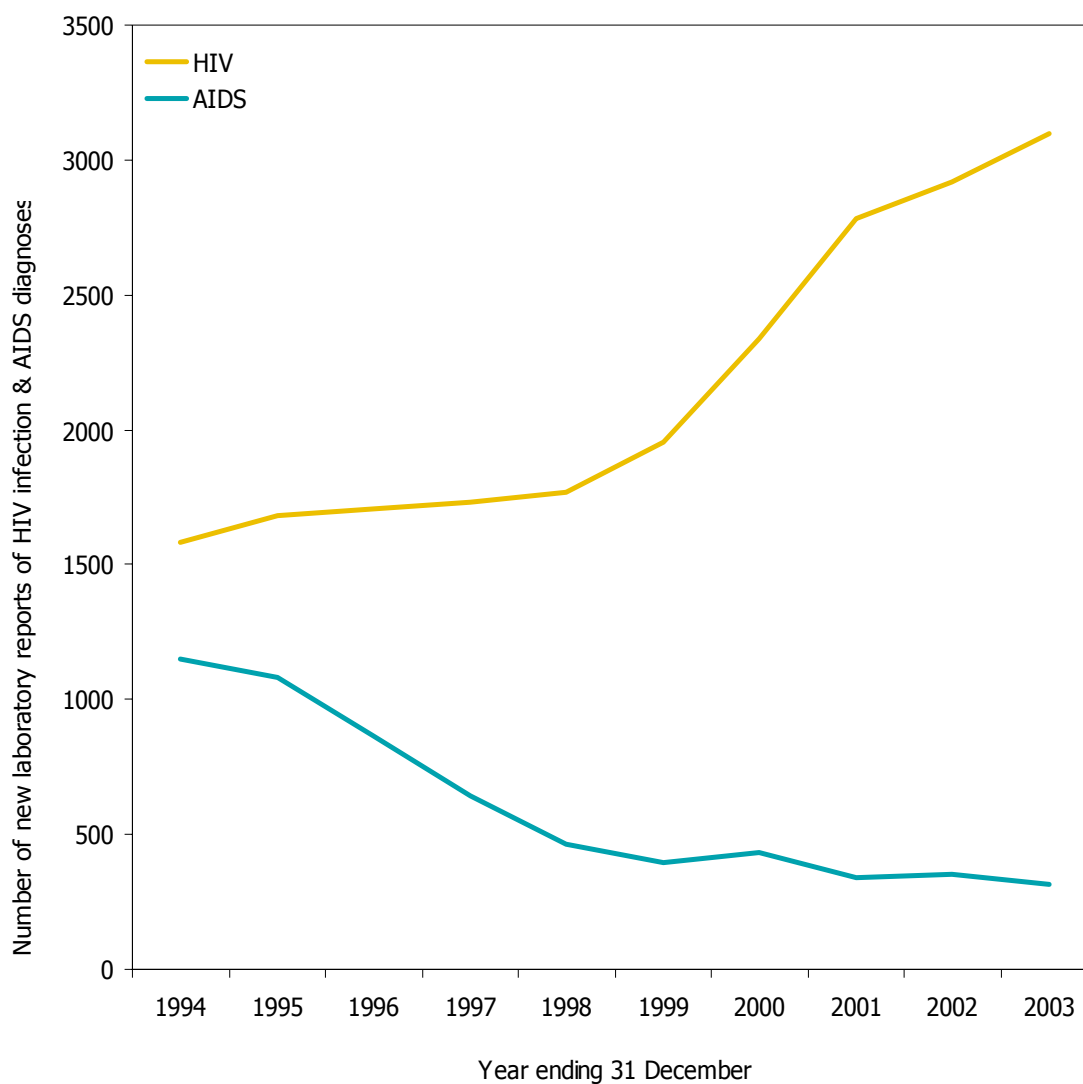
The number of new diagnoses reported from London continues to increase and in 2003 over 3,000 positive tests of HIV infection were reported to the Health Protection Agency, more than in any other year. By contrast - and following the introduction of highly active anti-retroviral therapy (HAART) in the late 1990s - the number of reports of AIDS (the most advanced stage of HIV infection) has fallen steadily (Figure 1.1) and AIDS reports have become more subject to underreporting in recent years.

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<sup>a</sup> **Source:** HIV & STI Department, Health Protection Agency Centre for Infections and Scottish Centre for Infection and Environmental Health. Quarterly Surveillance Tables No, 64, 04/3; Table 3A.

**Figure 1.1:**<sup>ab</sup>

Individuals of all ages testing positive for HIV infection and those diagnosed with AIDS, in each year between 1991 and 2003.



The interpretation of these trends is not straightforward as there is a delay between initial infection and diagnosis. This delay can take many years and consequently the data do not necessarily reflect the time or the place of infection. Nevertheless they do provide some

<sup>a</sup> **Source:** HIV & STI Department, Health Protection Agency Centre for Infections and Scottish Centre for Infection and Environmental Health. Quarterly Surveillance Tables No, 64, 04/3 Tables 3A and 3AB.

<sup>b</sup> Information presented on this page and in figure 1.1 represents individuals with laboratory reports of HIV infection and those with AIDS or death reports for whom no matching laboratory report has been received. Reporting is ongoing and for this reason the number of reports received in recent years will increase as new reports are received. In a small number of instances, information presented will refer to the same individual as information collected will not allow for matching of separate reports of positive infection that refer to the same individual. Additionally, some individuals testing positive in 2003, will have left the country following diagnosis.

helpful indicators. Furthermore the average age at diagnosis of HIV infection has not changed much over the years and so the data may indeed reflect previous patterns of incidence.

### **1.1.1 Newly diagnosed HIV infections amongst the young**

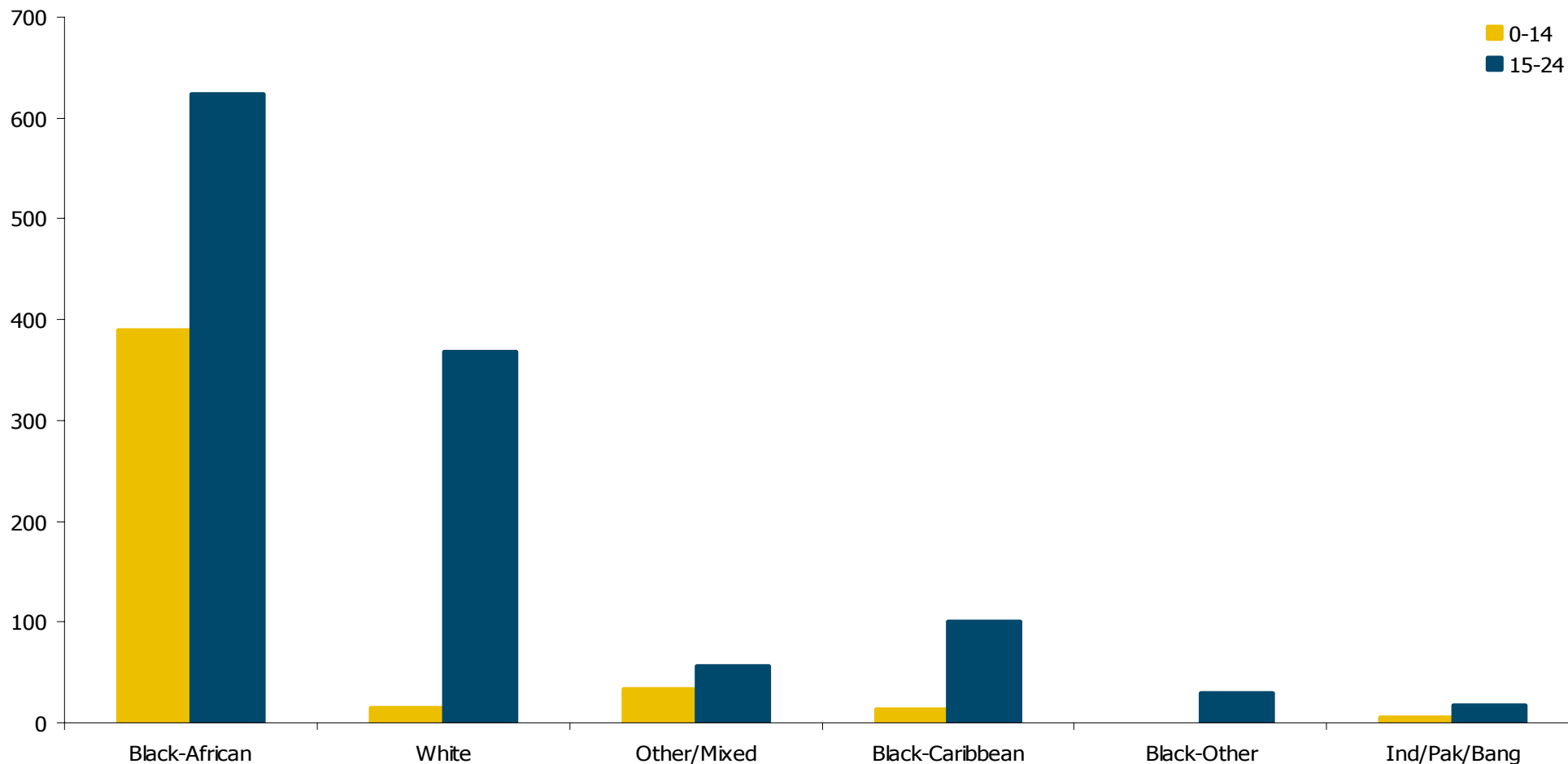
In seven more recent years between January 1997 and December 2003, a total of 16, 769 new diagnoses of HIV were reported in London, 2, 039 (12%) were aged less than 25 years of age. Over eighty per cent of newly diagnosed HIV infections in those under 15 and forty per cent of those aged 15 to 24 were Black Londoners of African origin (Fig 1.2).<sup>a</sup>

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<sup>a</sup> Source: Unpublished data, HIV & STI Department, Health Protection Agency Centre for Infections. Total excludes three individuals for whom ethnicity was not reported.

**Figure 1.2:**<sup>ab</sup>

Newly diagnosed HIV infections reported amongst Londoners aged less than 25 between 1997 and 2003 by age and ethnicity



<sup>a</sup> **Source:** Source: Unpublished data, HIV & STI Department, Health Protection Agency Centre for Infections. Total excludes three individuals for whom ethnicity was not reported. A total of 16,769 infections were reported between 1 January 1997 and 31 December 2004. Infections occurring in those above the age of 25 and those where ethnicity was not known (three individuals in total) have been excluded.

<sup>b</sup> Information presented on this page and in figure 1.1 represents individuals with laboratory reports of HIV infection and those with AIDS or death reports for whom no matching laboratory report has been received. Reporting is ongoing and for this reason the number of reports received in recent years will increase as new reports are received. In a small number of instances, information presented will refer to the same individual as information collected will not allow for matching of separate reports of positive infection that refer to the same individual. Additionally, some individuals testing positive in 2003, will have left the country following diagnosis.

Some of these infections in children may have been passed from mother to child earlier in life before rates of testing and treating HIV infected mothers became routine in London.

## **1.2 Previously diagnosed HIV infections – people who are having treatment for their HIV infection**

### *Total number:*

In 2003, there were 19, 103 Londoners of all ages receiving treatment of some kind for their HIV disease, mainly in London itself. This has increased by 80% since 1997 when there were just over 10, 000 people being treated. The total number aged under 25 receiving treatment was 1, 317 and represented half of all HIV positive residents being treated for HIV in England of the same age range in 2003.

### *Location in the city:*

There is substantial geographical variation across the city. In 2003, one in three residents below the age of 25 being treated for HIV lived in South East London Strategic Health Authority area (Figure 1.3).<sup>a</sup> PCTs in North East London and some in South West London also cater for a sizeable proportion of those HIV infected in this age group.

### **1.2.1 Risk groups affected - information about people having HIV treatment in London**

Men who have sex with men (MSM) accounted for 46 per cent (8, 831/19, 103) of those being treated (all ages) in 2003, with heterosexuals making up a further two fifths (8 248/19 103). The proportion of people having treatment for HIV, who acquired their infection homosexually, has declined since the late 1990s and conversely those infected heterosexually now comprise more cases. The actual number of heterosexuals in treatment increased threefold from 2, 598 in 1997 to 8, 248 in 2003 (Figure 1.4).

### **1.2.2 Ethnicity of people having treatment for HIV infection in London (all ages)**

One of the key features of the HIV epidemic in London is the disproportionate impact on minority communities. Amongst Black-Africans, for example, although around one in twenty Londoners comes from a (Black) African community, they constituted more than one in three

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<sup>a</sup> **Source:** HIV and STI Department, Health Protection Agency Centre for Infections Survey of Prevalent Diagnosed HIV Infection 2003.

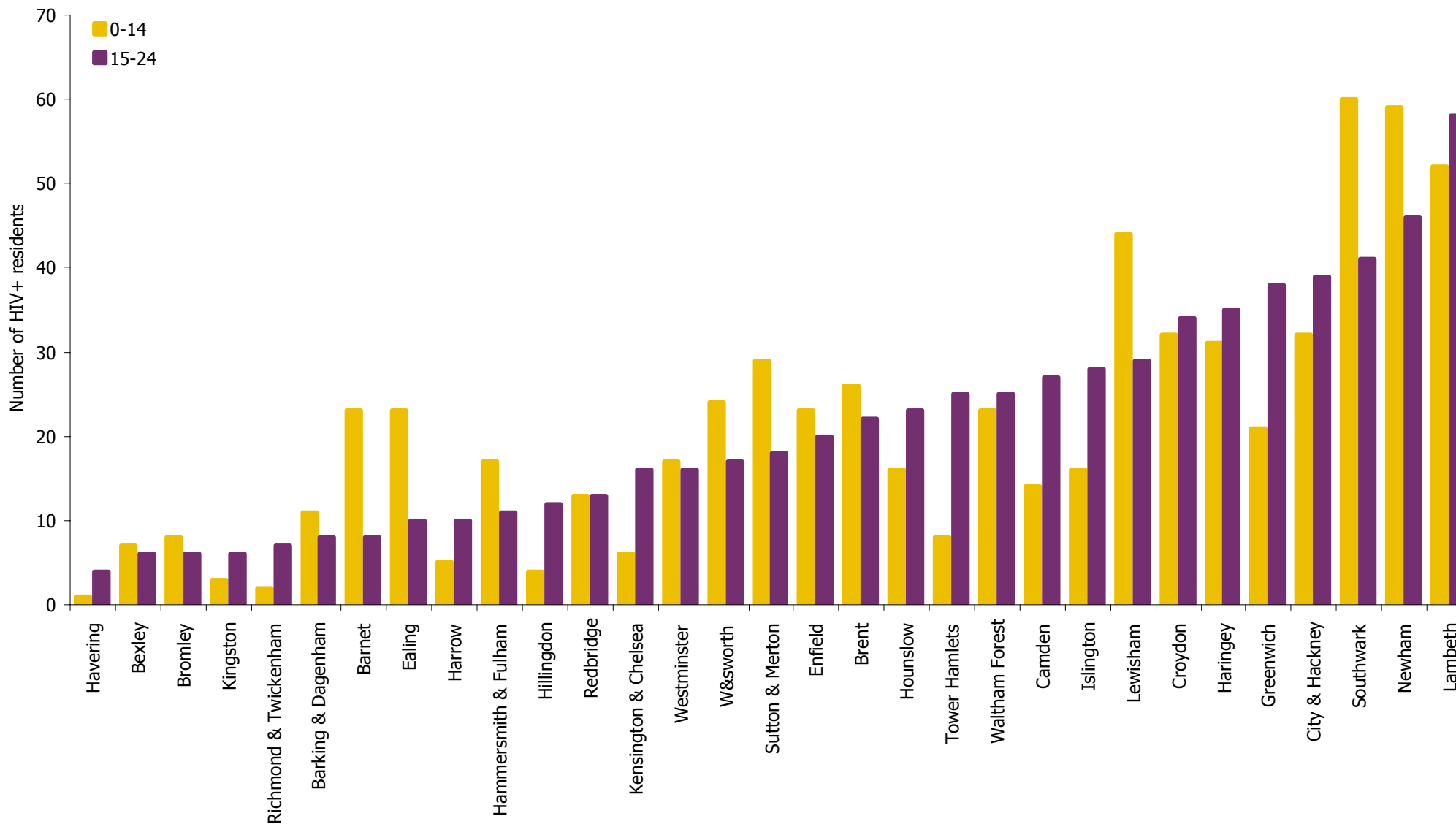
Londoners being treated for HIV in 2003. The increase has been from about 1 in 5 in 1997 to 1 in 3 in 2003 (Figure 1.5).

***Those aged under 25 years:***

In children below fifteen years of age, Black-Africans accounted for over eighty-five per cent (558/650) of cases being treated in 2003 (Figure 1.6 and Figure 1.7). These may reflect transmissions earlier from mother to child. In those aged 15-24 years, Black-African women are more affected but white young men predominate among the smaller numbers of young men diagnosed in this age group (Figure 1.6). The white males are mainly young MSMs and this preponderance of white men is much more evident in older age groups. In women of all ages, infections in Black-Africans predominate and heterosexually acquired HIV infections amongst Black-Africans outnumbered those in White women by a ratio of more than 7:1 (Figure 1.7). Some, though not all, of Black (African) London residents, have acquired their infection abroad.

**Figure 1.3:<sup>a</sup>**

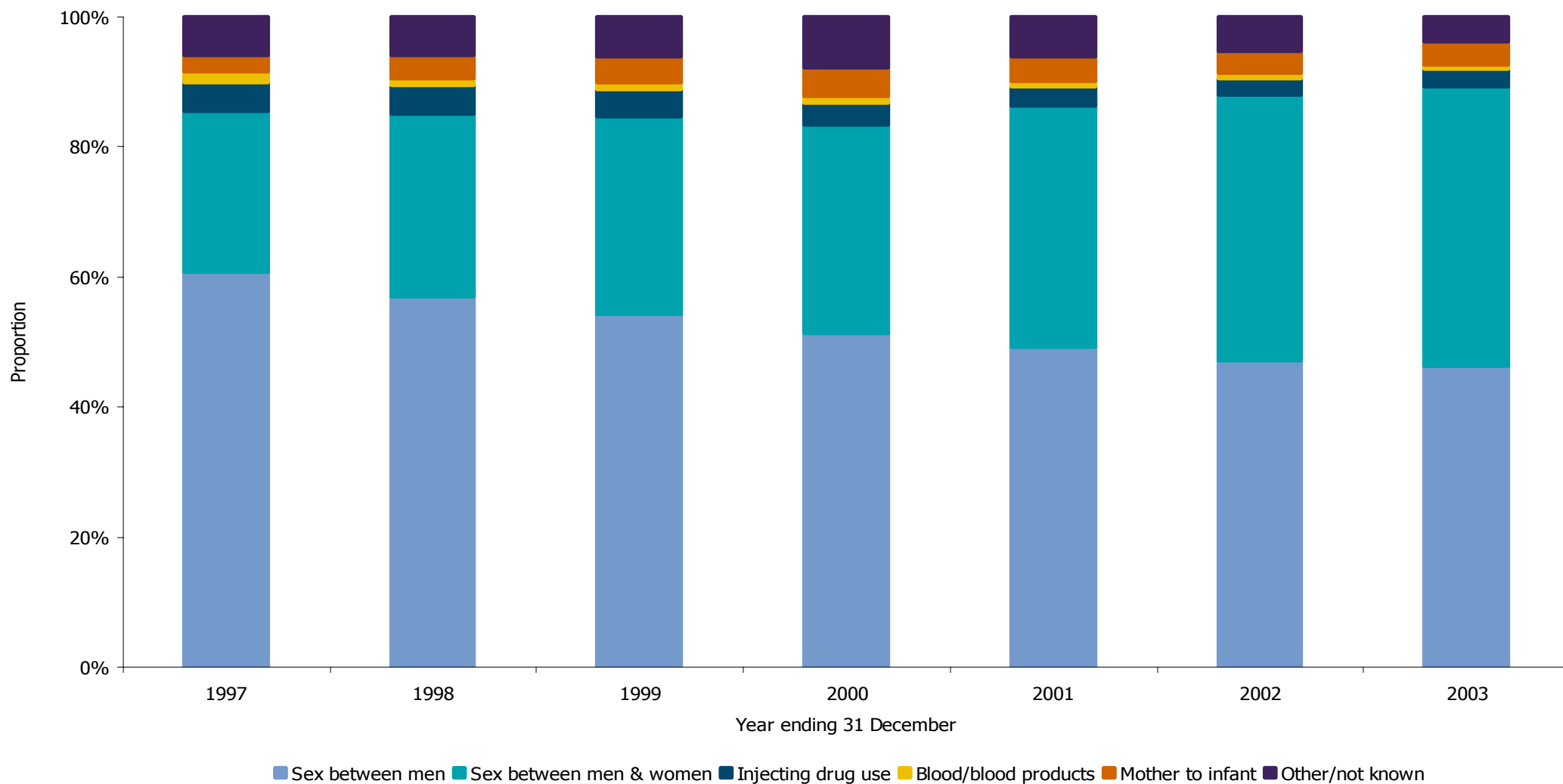
HIV positive residents of London aged under 25 years being treated for HIV in 2003 by age group and Primary Care Trust of Residence



<sup>a</sup> Source: HIV and STI Department, Health Protection Agency Centre for Infections Survey of Prevalent Diagnosed HIV Infection 2003.

**Figure 1.4:<sup>a</sup>**

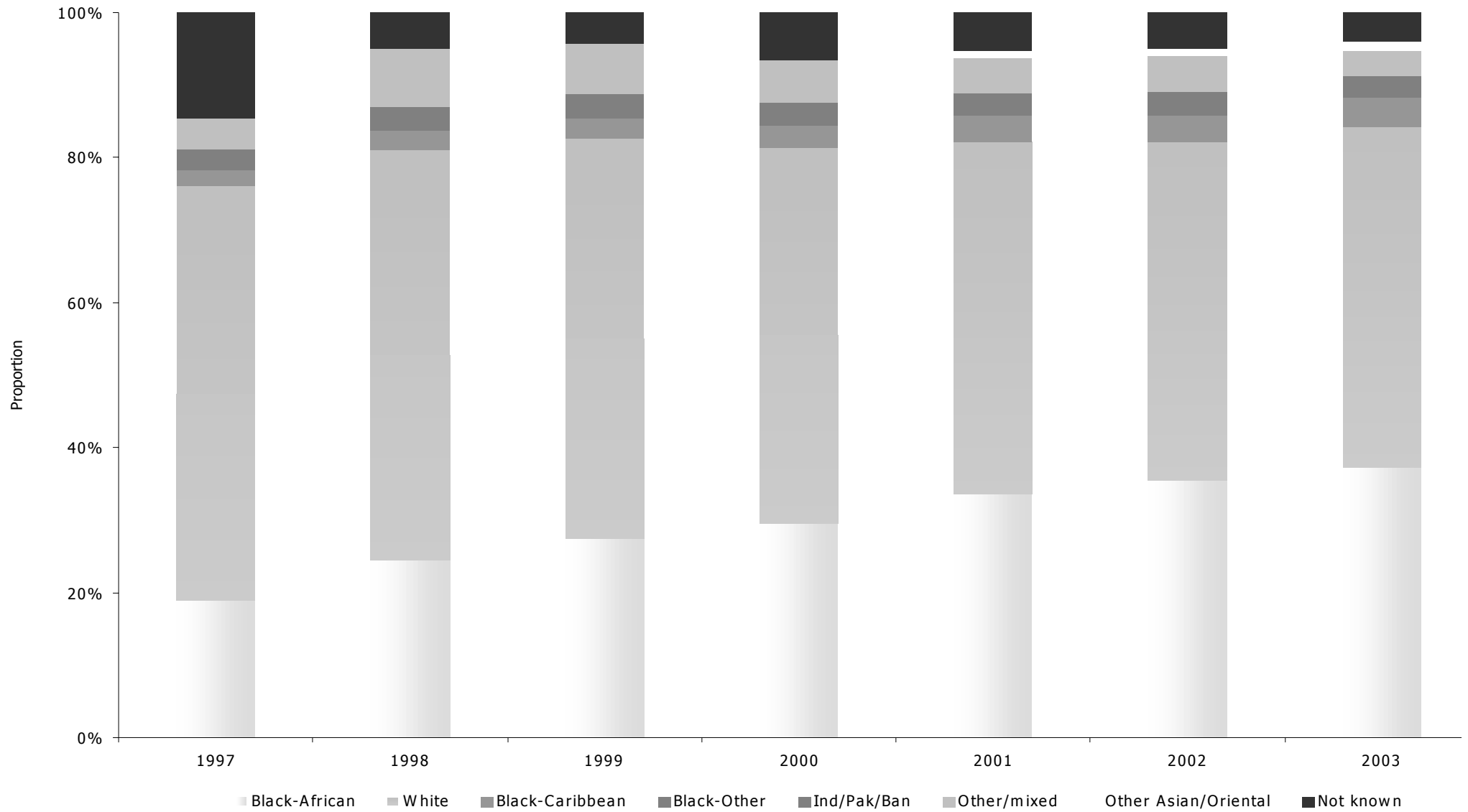
Change in proportion of HIV positive Londoners seeking care each year according to how infection was acquired, 1997 - 2003



<sup>a</sup> Source: HIV and STI Department, Health Protection Agency Centre for Infections Survey of Prevalent Diagnosed HIV Infection 2003.

**Figure 1.5:<sup>a</sup>**

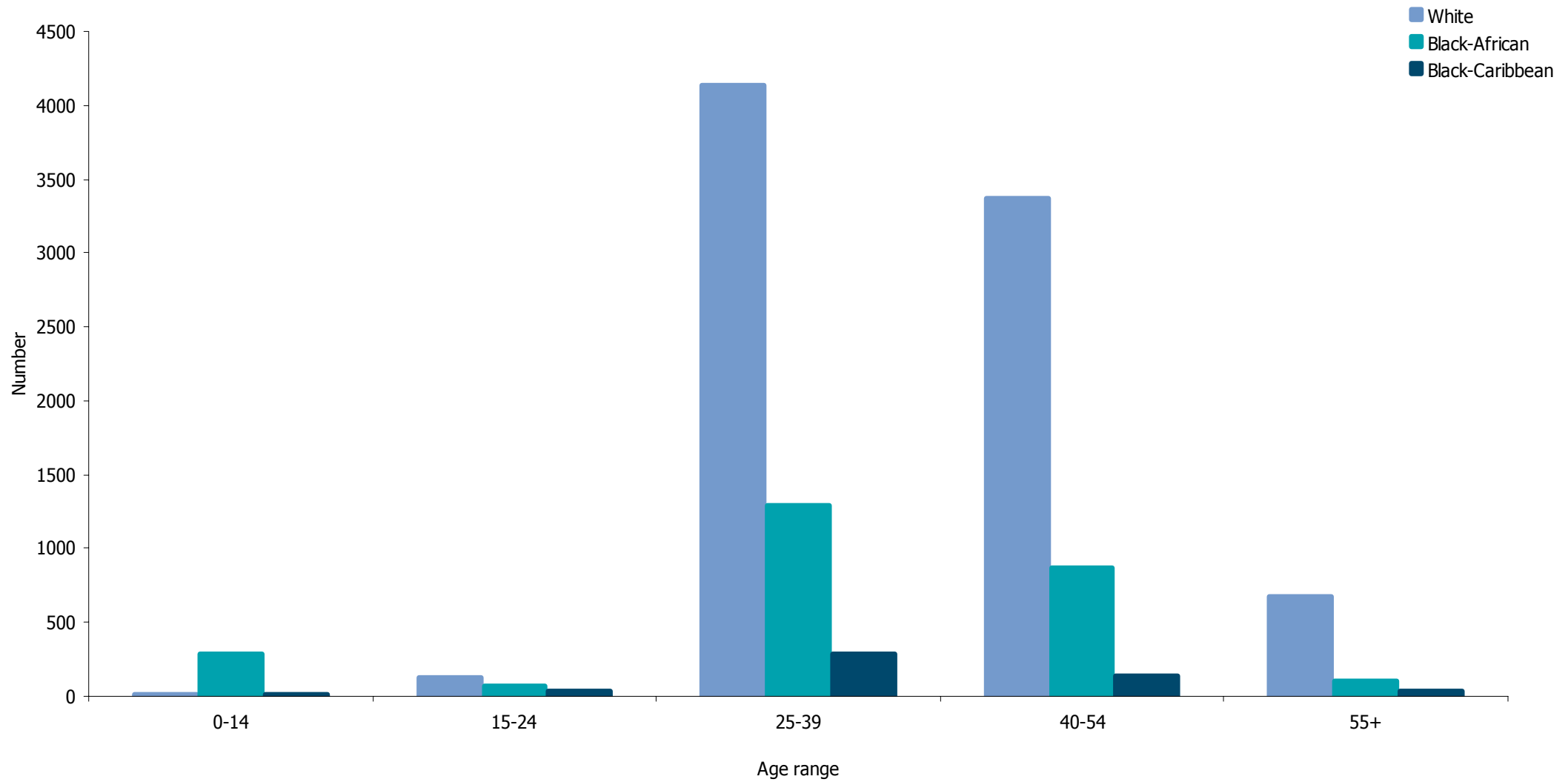
Change in proportion of HIV positive Londoners being treated each year by ethnic group (all ages), 1997 – 2003



<sup>a</sup> Source: HIV and STI Department, Health Protection Agency Centre for Infections Survey of Prevalent Diagnosed HIV Infection 2003.

**Figure 1.6:<sup>a</sup>**

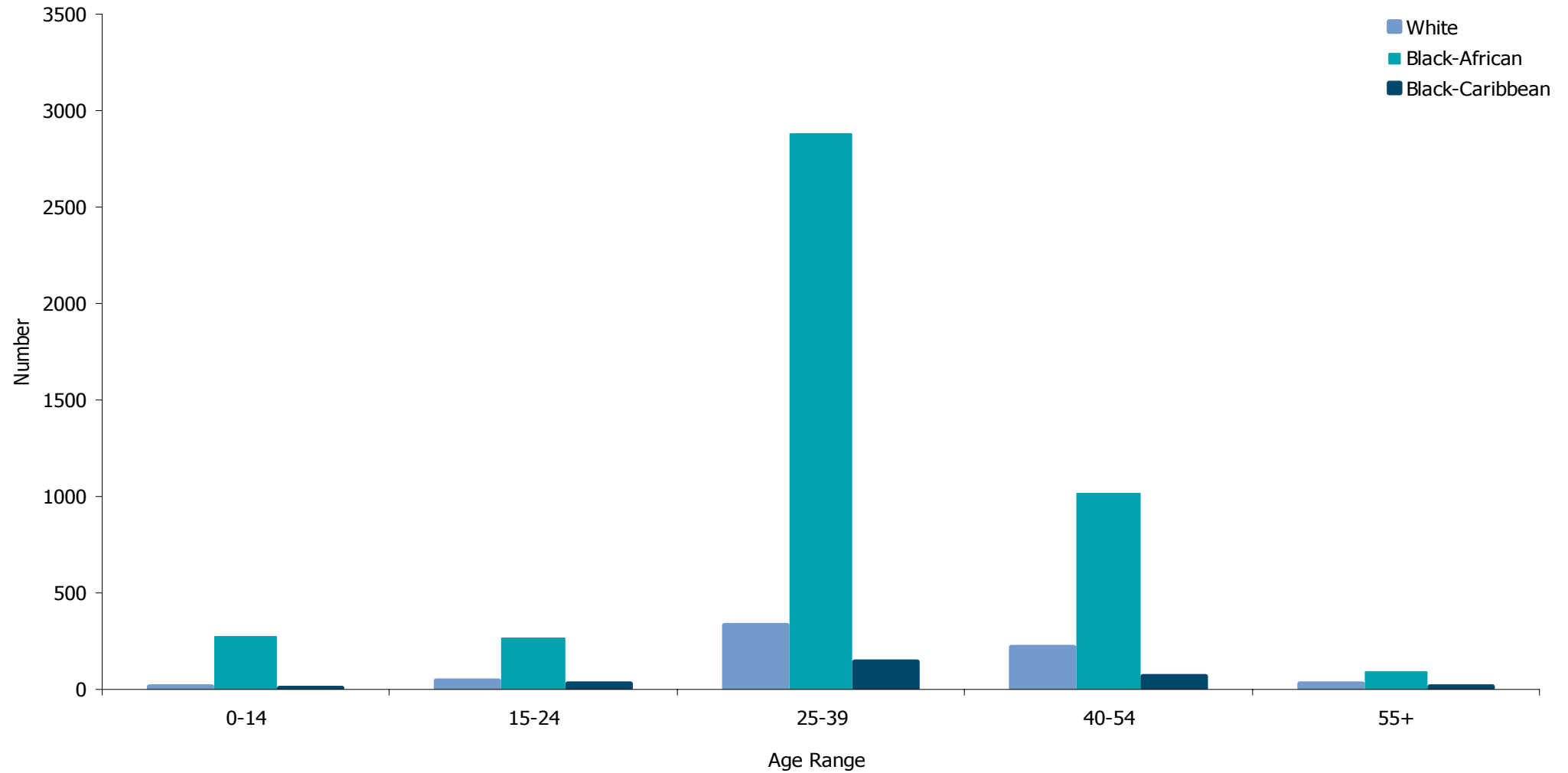
HIV-positive male residents of London seeking treatment and care in 2003 by age range and ethnicity (three main ethnic groups)



<sup>a</sup> Source: HIV and STI Department, Health Protection Agency Centre for Infections Survey of Prevalent Diagnosed HIV Infection 2003.

**Figure 1.7:<sup>a</sup>**

Female residents of London living with HIV infection who sought treatment and care in 2003 by age range and ethnicity (three main ethnic groups)



<sup>a</sup> Source: HIV and STI Department, Health Protection Agency Centre for Infections Survey of Prevalent Diagnosed HIV Infection 2003.

### 1.3 Undiagnosed HIV infections

A key target in the national HIV strategy and of the London Sexual Health Framework<sup>2</sup> is to increase Voluntary Confidential Testing (VCT). An HIV diagnosis can prevent further HIV transmission since it allows access to antiretroviral therapy, reduced viral load and provides an opportunity for behaviour change counselling.

#### *Men who have sex with men*

In 2003, amongst MSM aged under 25 years attending eight London GUM clinics, the prevalence of previously undiagnosed HIV infection<sup>a</sup> was just under 3% (20/749), this compares to a lower prevalence of 1.6% among young MSM attending clinics outside London. Although a proportion of these MSM will have had their HIV infection diagnosed during that course of clinical care, some attenders will have left the clinic remaining unaware of their HIV infection.<sup>b</sup>

#### *Heterosexuals*

The level of previously undiagnosed HIV infection was lower amongst heterosexuals (of all ages) attending eight London GUM clinics. Prevalence was measured at less than 1% amongst heterosexual men (114/16, 000) and women (1445/23 288).<sup>c</sup> These data emphasise the importance of ensuring all young people – especially MSM are tested.

### 1.4 Voluntary Confidential HIV testing in genitourinary medicine clinics

From 1998 to 2003, the uptake of Voluntary Confidential HIV testing (VCT) in London GUM clinics has increased (in all ages) from 32% to 58% amongst MSM, and from 30% to 58% amongst heterosexuals.<sup>d</sup> While these improvements are welcome, there is more to do to make sure that young people at highest risk are tested. There are anecdotal reports from clinical colleagues in London that some at risk clients resist testing and they need to be encouraged to take the test regularly. There are recommendations (British Association of Sexual Health and HIV – BASHH) that

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<sup>a</sup> Previously undiagnosed HIV infection – undiagnosed on arrival at clinic. This includes those who were diagnosed at the clinic visit as well as those who remained unaware of their HIV infection, but it excludes those who had an HIV infection diagnosed previously.

<sup>b</sup> **Source:** HIV & STI Department, Health Protection Agency Centre for Infections and Scottish Centre for Infection and Environmental Health, Unlinked Anonymous Prevalence Monitoring Programme Survey of Genitourinary Medicine Clinic Attenders data to the end of 2003, surveillance update 2004; Supplementary Table GUM-3A.

<sup>c</sup> **Source:** HIV & STI Department, Health Protection Agency Centre for Infections and Scottish Centre for Infection and Environmental Health, Unlinked Anonymous Prevalence Monitoring Programme Survey of Genitourinary Medicine Clinic Attenders data to the end of 2003, surveillance update 2004; Supplementary Table GUM-2A.

<sup>d</sup> **Source:** HIV & STI Department, Health Protection Agency Centre for Infections and Scottish Centre for Infection and Environmental Health, Unlinked Anonymous Prevalence Monitoring Programme Survey of Genitourinary Medicine Clinic Attenders data to the end of 2003, surveillance update 2004; Supplementary Data GUM-19 and GUM-21.

all MSM attending a clinic should be offered HIV testing. In England, Wales and Northern Ireland, uptake varies and has remained lower amongst attenders with an acute STI, 66% vs 77% amongst MSM and 69% vs 73% amongst heterosexuals. Additionally, HIV prevalence was 8.4% amongst MSM not accepting a VCT compared to 2.8% amongst MSM accepting a test, indicating that those at higher risk of HIV infection are less likely to accept VCT.

### 1.5 HIV infection in Injecting Drug Users

The overall prevalence of HIV infection in injecting drug users in London in 2003 was just under 3% a fall from 6% in 1990.

In young people in 2003, prevalence was 3.3% in the under 25 year olds and 2.6% and 2.9% in those aged 25-34 years and over 34 respectively. Comparable figures outside London are 0%, 0.11% and 1.5% for these age groups.<sup>a</sup>

The prevalence of self-reported sharing of needles and syringes among current injectors in London in those aged under 25 years has ranged between 43% and 68% since 1999 compared to a range of between 32% and 41% in all age groups. This represents a continuing risk with a higher proportion of young (likely new injectors) reporting sharing.<sup>b</sup>

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<sup>a</sup> **Source:** HIV & STI Department, Health Protection Agency Centre for Infections and Scottish Centre for Infection and Environmental Health, Unlinked Anonymous Prevalence Monitoring Programme Survey of Genitourinary Medicine Clinic Attenders data to the end of 2003, surveillance update 2004; Supplementary Tables IDU-1.

<sup>b</sup> **Source:** HIV & STI Department, Health Protection Agency Centre for Infections and Scottish Centre for Infection and Environmental Health, Unlinked Anonymous Prevalence Monitoring Programme Survey of Genitourinary Medicine Clinic Attenders data to the end of 2003, surveillance update 2004; Supplementary Tables IDU-4.

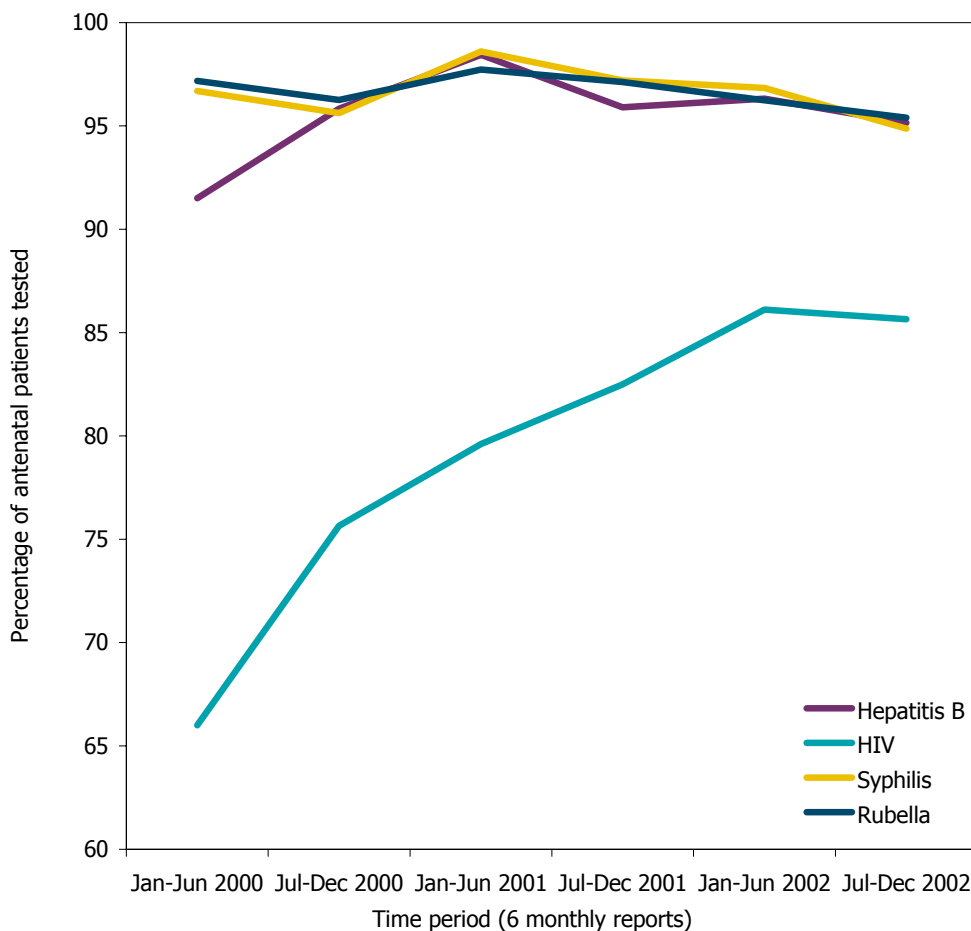
## 2. Antenatal testing and prevalence of HIV, hepatitis B, and syphilis

Universal antenatal testing for STIs does not yet occur in London but things are improving. The Health Protection Agency London Regional Epidemiology Unit has carried out antenatal infection prevalence monitoring in collaboration with maternity staff half-yearly since 2000. Data for 2003 are incomplete, as not all Trusts have reported yet.

HIV testing rose from 71% of all those booking in 2000 to 86% at the end of 2002 (figure). In 2002, average HIV testing in London Strategic Health Authorities ranged between 80% in London's North East sector and 96% in the South West sector of London. Uptake of testing for hepatitis B and syphilis is above 90% since 2000 (Figure 2.1)

**Figure 2.1:**<sup>a</sup>

Antenatal testing uptake in pregnant women of all ages across London in 2000, 2001 and 2002



<sup>a</sup> Source: Health Protection Agency London Regional Epidemiology Unit Antenatal Infection Surveillance System (AISS), 2000, 2001 and 2002.

## 2.1 Prevalence of HIV infection amongst antenatal clinic attenders and those having terminations of pregnancy

Overall approximately one in every 220 women tested antenatally was infected in 2002, an increase from 1 in every 5770 women in 1994. South East sector has the highest rate of seropositivity (6.6 seropositives per 1,000 women tested) with the South West consistently having the lowest rate (3.7 per 1,000).

HIV infection in pregnant women has increased steadily in all age groups including girls aged under 19 years. The prevalence rose just under fourfold from 13/10,000 in 1994 to 50/10,000 in 2003 (Table 2.1) but the numbers affected were very small.

**Table 2.1:<sup>a</sup>**

Prevalence of HIV infection (per 10, 000) amongst pregnant women receiving antenatal care, by age group in London 1994-2003

Year	Age		
	<19 prevalence per 10, 000 (number of women)	20-24 prevalence per 10, 000 (number of women)	All ages prevalence per 10, 000 (number of women)
1994	13 (4)	22 (21)	28 (145)
1995	16 (5)	28 (27)	33 (173)
1996	13 (4)	30 (29)	33 (179)
1997	25 (9)	34 (33)	31 (169)
1998	26 (9)	29 (27)	40 (214)
1999	28 (10)	32 (27)	40 (207)
2000	12 (4)	41 (33)	50 (247)
2001	19 (6)	38 (33)	60 (309)
2002	25 (9)	47 (46)	57 (325)
2003	50 (17)	47 (45)	63 (361)

<sup>a</sup> **Source:** HIV & STI Department, Health Protection Agency Centre for Infections and Scottish Centre for Infection and Environmental Health, Unlinked Anonymous Prevalence Monitoring Programme Surveys of Pregnant Women, data to the end of 2003, surveillance update 2004; Supplementary Table PW-3.

### 2.1.1. Success in prevention of transmission of HIV to unborn babies

In recent years, there has been an encouraging improvement in antenatal testing and in the proportion of infections diagnosed before delivery, which has increased steadily from 23% in 1994 to 88% in 2003. The majority of exposed babies can now be spared becoming infected, by mother receiving antiretrovirals in pregnancy and other interventions.

### 2.1.2. HIV in young women in London who are having terminations

In girls having terminations there is a higher prevalence of HIV than in pregnant women. This is shown in studies at seven inner London centres when surveys have been carried out (Table 2.2). Again the numbers affected are very small.

**Table 2.2:** <sup>a</sup>

Prevalence of HIV infection (per 10, 000) amongst pregnant women having terminations of pregnancy, by age group in London between 1994 and 2003 at seven inner London NHS centres

Year	Age		
	<19 prevalence per 10, 000 (number of women)	20-24 prevalence per 10, 000 (number of women)	All ages prevalence per 10, 000 (number of women)
1994	47 (5)	66 (16)	62 (54)
1995	29 (3)	59 (14)	79 (65)
1996	18 (2)	51 (11)	64 (50)
1997	0	63 (63)	56 (41)
1998	16 (2)	49 (10)	86 (65)
1999	16 (2)	56 (11)	86 (63)
2000	39 (4)	134 (21)	102 (58)
2001	43 (5)	63 (11)	103 (65)
2002	26 (3)	67 (11)	99 (58)
2003	59 (5)	25 (3)	129 (56)

<sup>a</sup> **Source:** HIV & STI Department, Health Protection Agency Centre for Infections and Scottish Centre for Infection and Environmental Health, Unlinked Anonymous Prevalence Monitoring Programme Surveys of Pregnant Women, data to the end of 2003, surveillance update 2004; Supplementary Table PW-4.

### 3. Sexually transmitted infections other than HIV

There has been a rise in STIs in London especially among young people and London bears most of the national burden. In 2003 around one in every two (720/1,519) syphilis diagnoses, more than one third (8, 816/23, 584) of all gonorrhoea infections and one in four (20, 020/85, 580) chlamydia diagnoses in people of all ages identified at genitourinary clinics in England in 2003 were in London.

#### 3.1 Gonorrhoea

*Neisseria gonorrhoeae* (gonorrhoea) is the second most common bacterial STI. Between 1995 and 2003, just over 153, 350 gonorrhoea cases were reported from GUM clinics in England, approximately 70% of these in men, of whom approximately one in five (21, 564) were men who had sex with men.<sup>a</sup> In total, 4, 001 gonorrhoea infections were identified in Londoners of both sexes below the age of 25 in 2003, 2, 184 in men and 1, 817 in women. In men, there has been a rise every year in gonorrhoea until 2002 after which there was a slight fall (Figure 3.1). However, in gay men the numbers of gonorrhoea reports from GUM clinics have risen steadily nearly doubling since 1995.

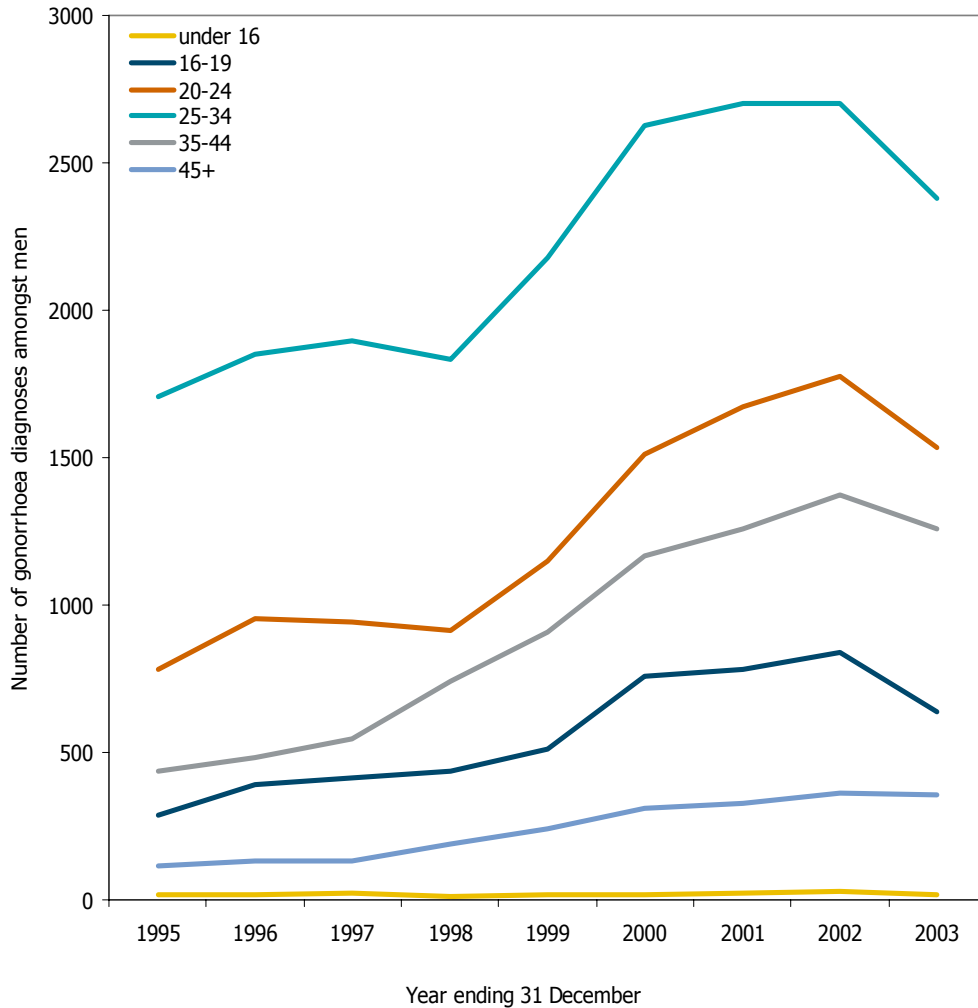
Younger people experienced marked rises especially in 16 to 19 year olds and 20 to 24 year olds, where there was almost a doubling (Figure 3.1).

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<sup>a</sup> **Source:** HIV and STI Department, Health Protection Agency Centre for Infections Körner (KC60) activity reports from genitourinary clinics in England.

**Figure 3.1:**<sup>a</sup>

Diagnoses of gonorrhoea in men reported from genitourinary clinics in London in each year between 1995 and 2003, by age group

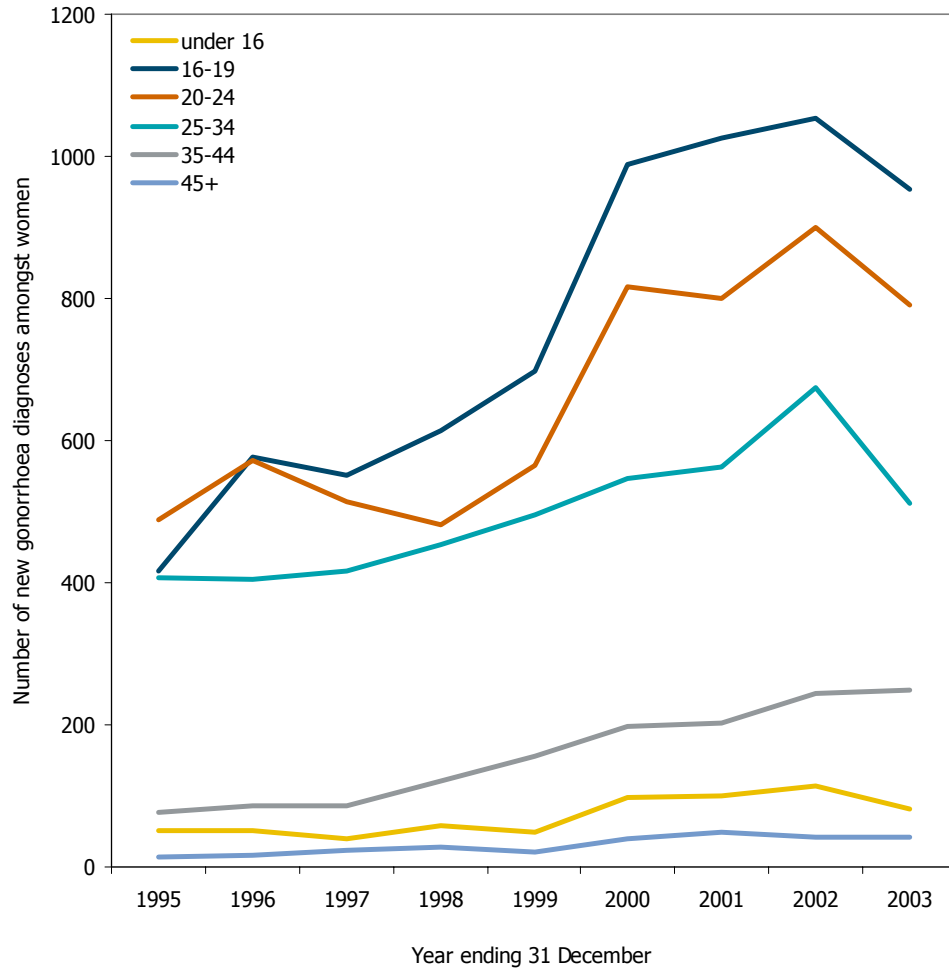


In women, gonorrhoea reports also rose more than 80% since 1995, with a slight fall from 2002 to 2003. There were 2,632 reports across all age ranges in London in 2003 (Figure 3.2).

<sup>a</sup> Source: HIV and STI Department, Health Protection Agency Centre for Infections Körner (KC60) activity reports from genitourinary clinics in England.

**Figure 3.2:<sup>a</sup>**

Diagnoses of gonorrhoea in women reported from genitourinary clinics in London in each year between 1995 and 2003, by age group



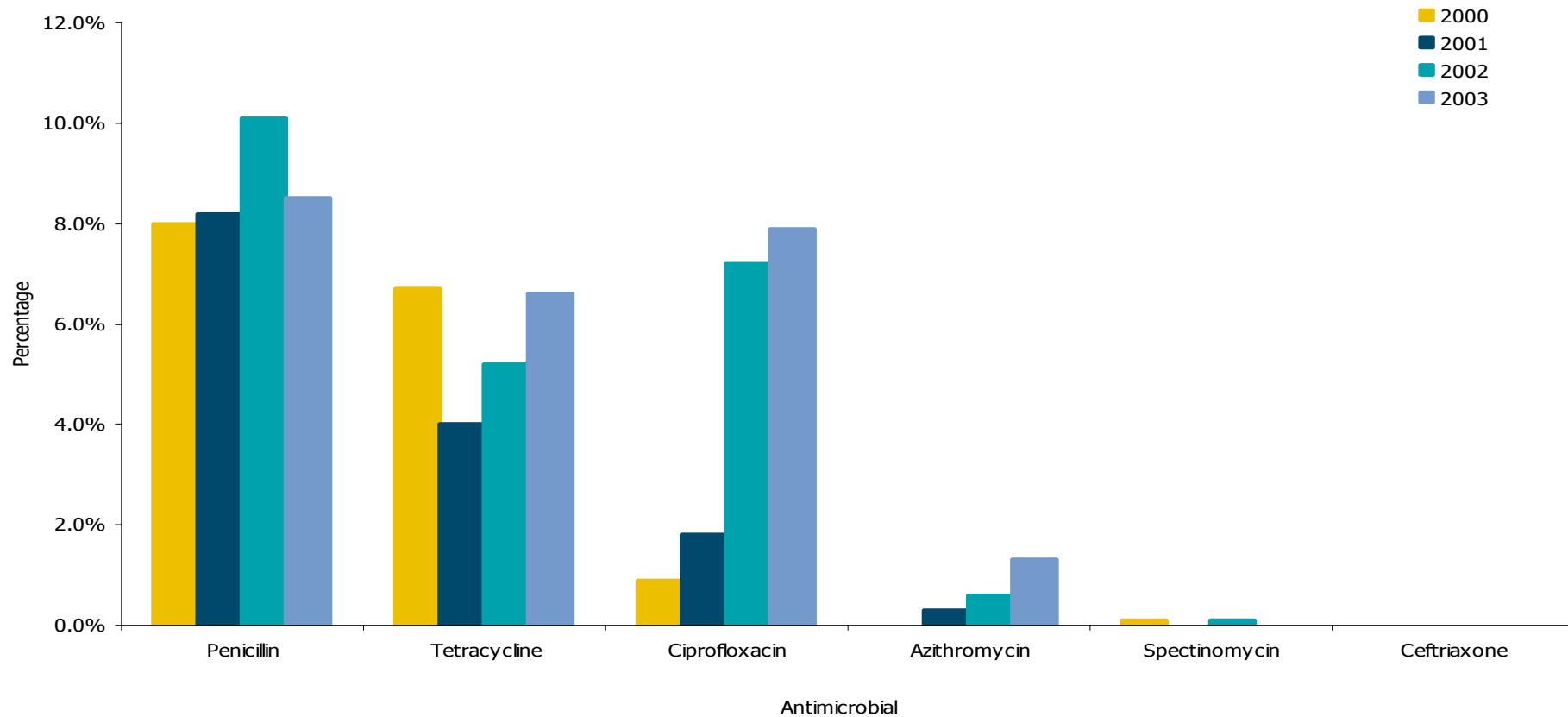
<sup>a</sup> Source: HIV and STI Department, Health Protection Agency Centre for Infections Körner (KC60) activity reports from genitourinary clinics in England.

### 3.1.1 Antimicrobial resistant gonorrhoea – all ages

Resistance to ciprofloxacin in England and Wales rose from 2% in 2000 to 10% in 2003.<sup>3</sup> Ciprofloxacin resistance has been identified in gonococcal isolates irrespective of sex, mode of acquisition or confirmation of recent sexual contact abroad. Results from the 2003 GRASP survey indicate that London, which previously had low ciprofloxacin resistance prevalence of less than 1% in 2000, has seen a marked increase to 7.9% in 2003 (Figure 3.3).

**Figure 3.3:** <sup>abc</sup>

The prevalence of gonococcal antimicrobial resistance for selected antimicrobials, at participating GRASP London GUM clinics, 2000 to 2003.



<sup>a</sup> Resistance Definitions: <sup>2</sup>**Penicillin** (PPNG or PP/TRNG and CMRNG):  $\beta$ -lactamase positive or Penicillin MIC  $\geq$  1mg/l. **tetracycline**: (TRNG or PP/TRNG) Tetracycline MIC  $\geq$  16mg/l, **ciprofloxacin**: Ciprofloxacin MIC  $\geq$  1mg/l, **spectinomycin**: spectinomycin MIC  $\geq$  128mg/l. **azithromycin**: Azithromycin MIC  $\geq$  1mg/l. **ceftriaxone**: (Decreased Susceptibility) ceftriaxone MIC  $\geq$  0.125mg/l.

<sup>b</sup> The GRASP survey consists of nine participating GUM clinics in London.

<sup>c</sup> **Source:** HIV and STI Department, Health Protection Agency Centre for Infections Gonococcal Resistance to Antimicrobials Surveillance Programme (GRASP).

Individual results have been conveyed to each participating clinic and changes made to their prescribing policies as appropriate. This is thought to have played a part in the fall in observed gonococcal infections in 2003 in London, as using the right antibiotics reduces the infectious period in cases.<sup>a</sup>

### 3.2 Chlamydia

Genital Chlamydia is caused by *Chlamydia trachomatis* bacterium. Since 1995 to 2003, over 121, 000 cases have been reported from GUM clinics in London. The rise in chlamydia since 1995 has been greater than for gonorrhoea.

In 2003, there were over 20, 000 diagnoses in all ages in London. In men Chlamydia more than trebled to a total of 9, 850 cases in 2003. In women the increase was 140% (10,170 cases in 2003). In men and women the greatest rise was seen in those aged 16 to 19 years, a nearly six-fold increase in men and a trebling in women between 1995 and 2003 (Figures 3.4 and 3.5).

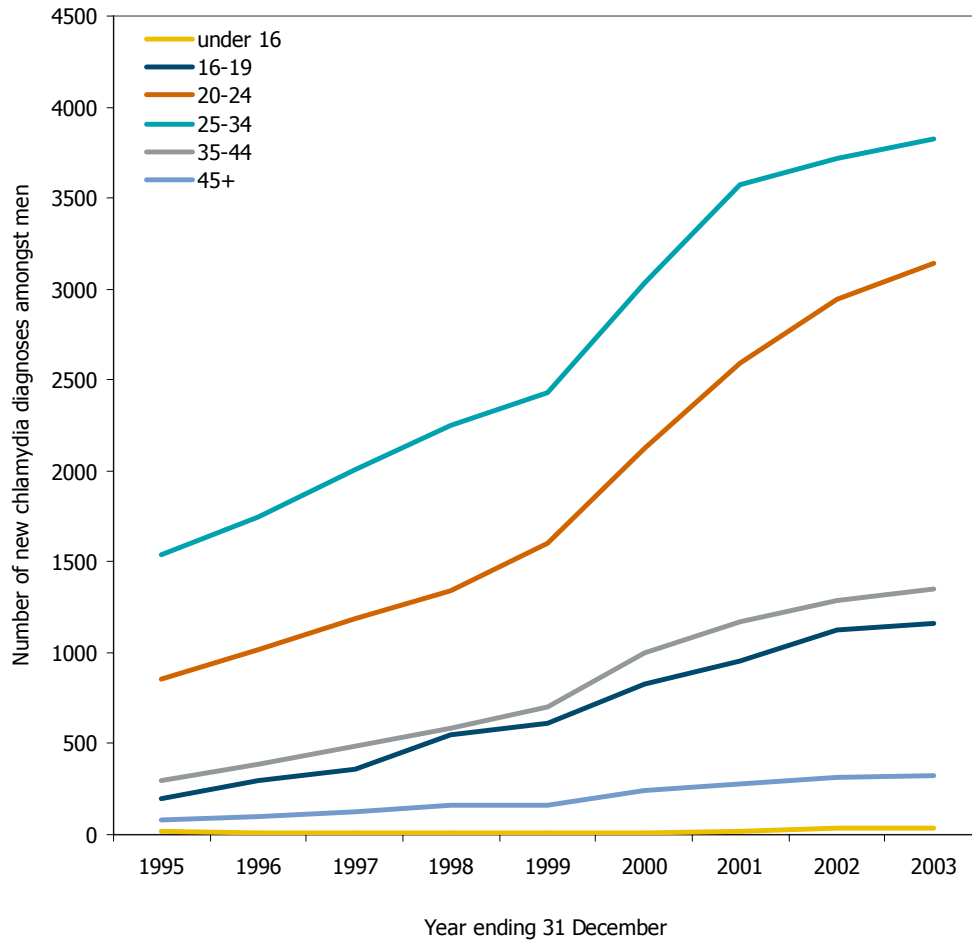
In total, over 11, 000 diagnoses of chlamydia were reported in both men and women under the age of 25 in 2003.

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<sup>a</sup> London NHS Hospital Trusts participating in the GRASP survey in 2003 were: Charing Cross, Homerton, King's, St George's, St Mary's, University College and Woolwich.

**Figure 3.4:**<sup>a</sup>

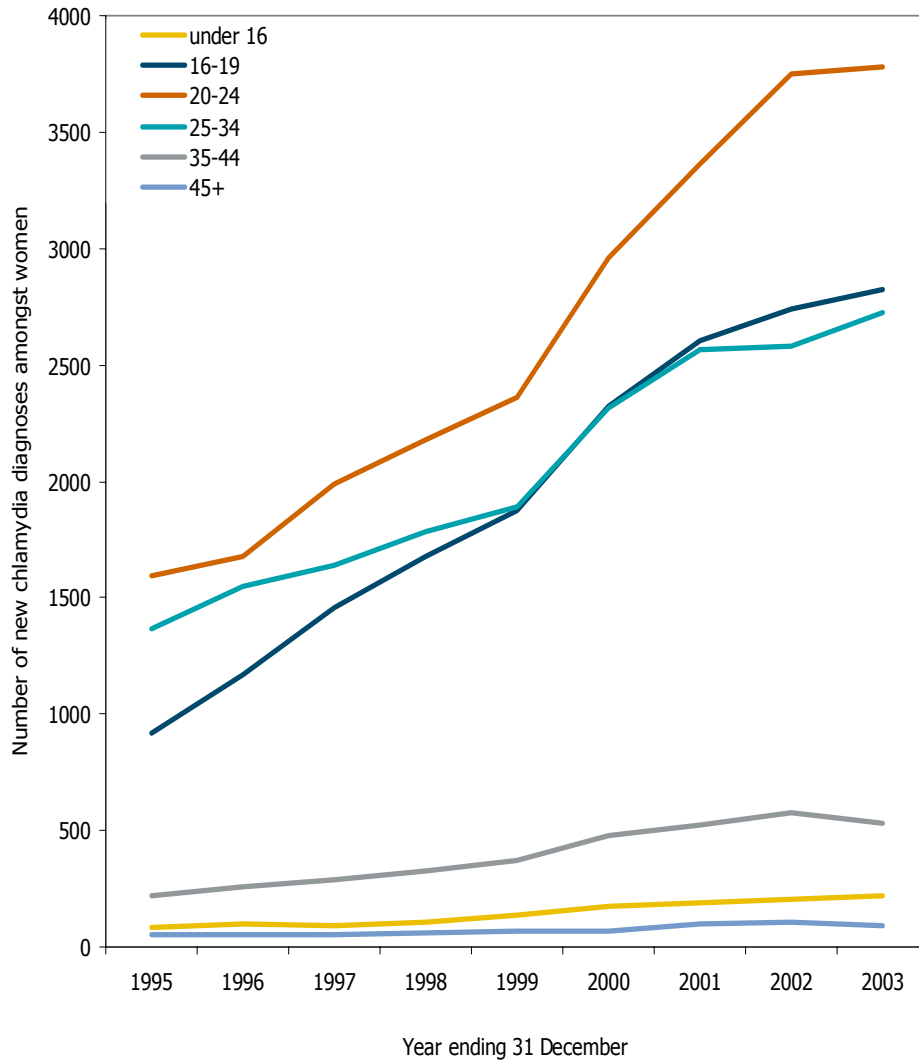
Diagnoses of chlamydia in men reported from genitourinary clinics in London in each year between 1995 and 2003, by age



<sup>a</sup> Source: HIV and STI Department, Health Protection Agency Centre for Infections Körner (KC60) activity reports from genitourinary clinics in England.

**Figure 3.5:**<sup>a</sup>

Diagnoses of chlamydia in women reported from genitourinary clinics in London in each year between 1995 and 2003, by age



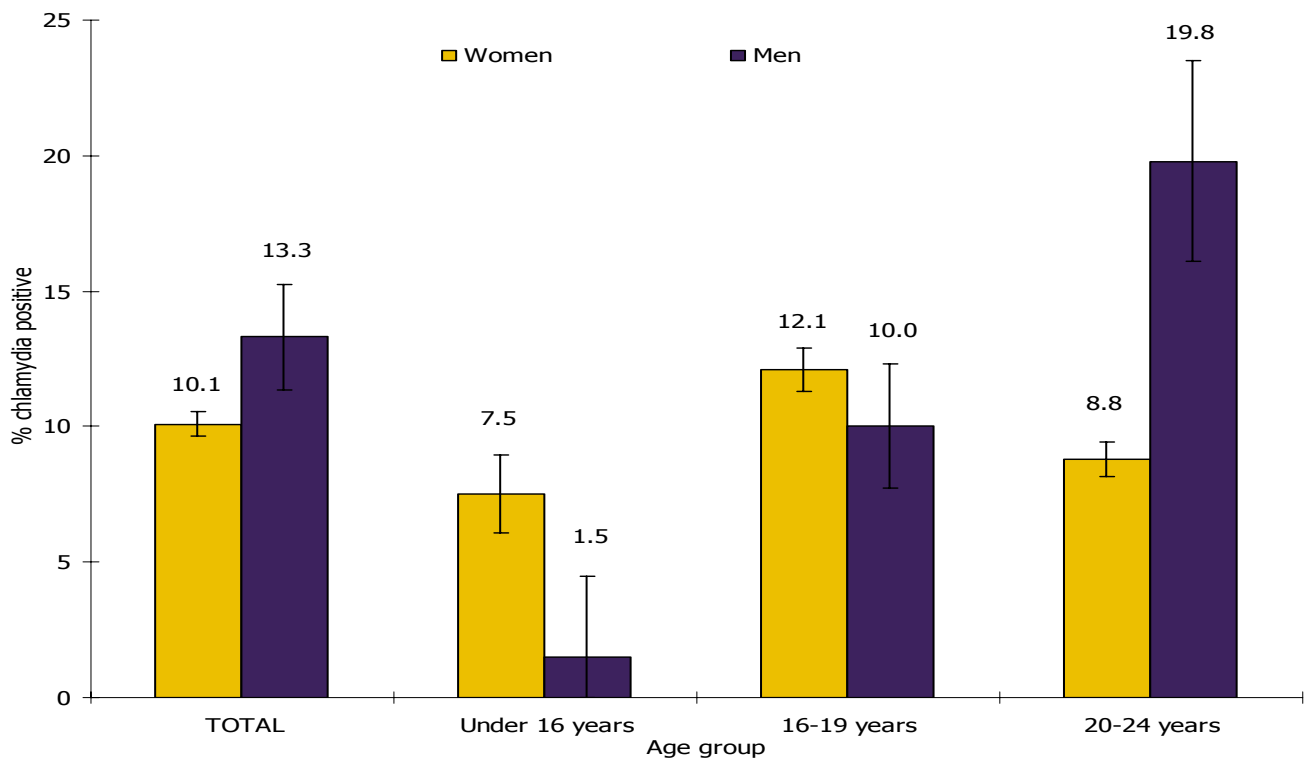
<sup>a</sup> Source: HIV and STI Department, Health Protection Agency Centre for Infections Körner (KC60) activity reports from genitourinary clinics in England.

### 3.3 National Chlamydia Screening Programme

Results from the National Chlamydia Screening Programme highlight the benefit of testing people with no symptoms. Two of the pilot sites were in London and it's intended to roll this out nationally to all PCTs in the next few years and across the whole of England by 2007.<sup>4</sup> The target population for screening is sexually active young men and women aged under 25 years who attend healthcare facilities that are not traditionally associated with providing specialist sexual health services. These sites are places where people might not normally have been tested and who potentially represent a hidden reservoir of asymptomatic infections in the young adult population. Among those aged under 25 years, 10% females and 13% males were positive. Women aged 16-19 were more likely to test positive than those aged 20-24; males aged 20-24 were twice as likely to be infected as younger men<sup>5</sup> (Figure 3.6).

**Figure 3.6:**<sup>a</sup>

Chlamydia positive rate at opportunistic screening settings outside GUM clinics, by sex and age group (England, April 2003 – March 2004)



In London as a whole we know that results for the first full year of screening are similar to those nationally.

<sup>a</sup> Source: National Chlamydia Screening Programme.

### 3.7 Syphilis

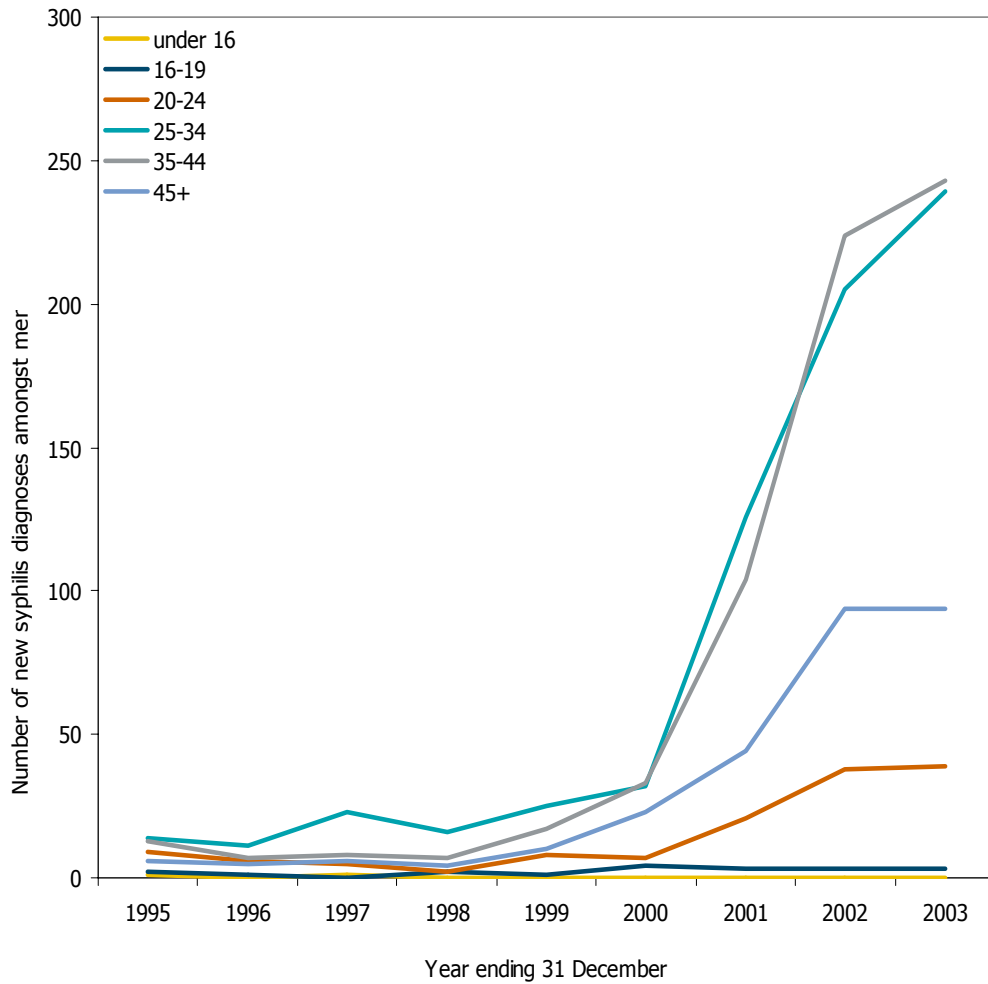
Syphilis results from infection with the *Treponema pallidum* spirochete. Reports have increased both in England as a whole and at regional levels with recent outbreaks in London and Manchester.

Since 1995, diagnoses of syphilis in both men and women have increased more than ten-fold reaching to 720 cases in London in 2003. This was nearly half the national total (1,519) of all syphilis infections diagnosed in GUM clinics in England.

In men, syphilis infections rose nearly 14-fold from 1995 to a total of 619 in 2003, and six-fold in women to 101 cases that year. More than two-fifths of male cases were in those aged 20 to 34 (Figure 3.7).

**Figure 3.7:<sup>a</sup>**

Diagnoses of syphilis in men reported from genitourinary clinics in London in each year between 1995 and 2003, by age group

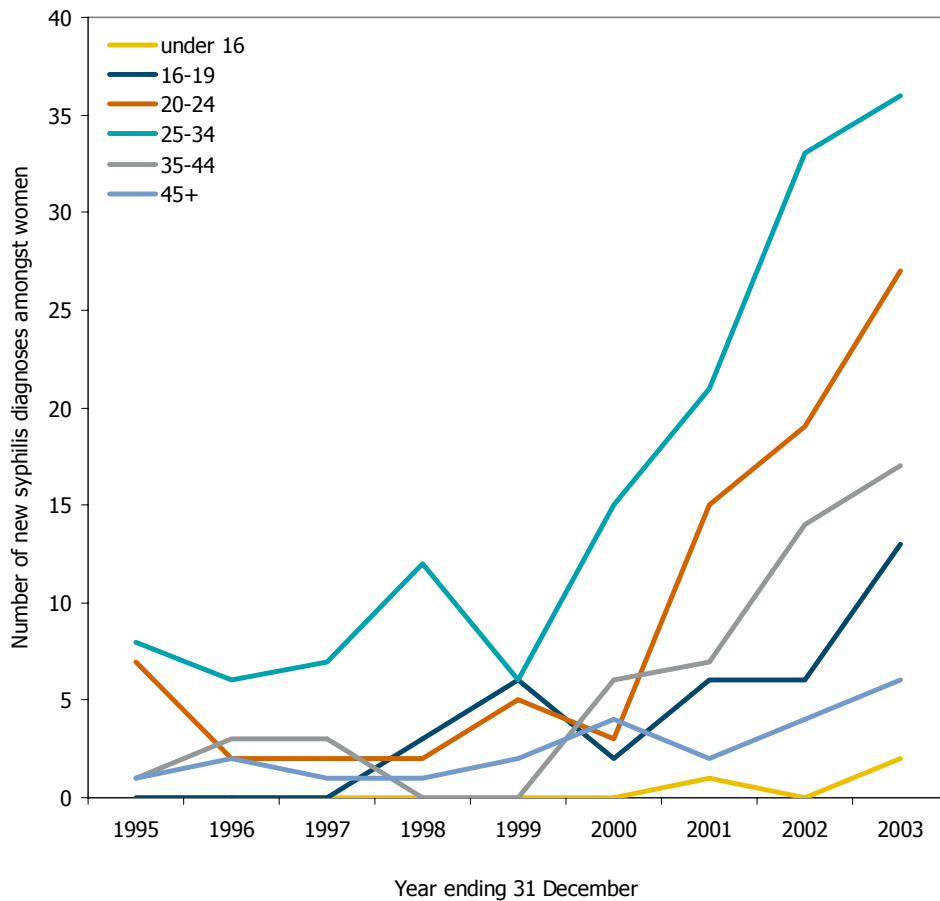


Over 60% of syphilis cases in women were in those between the ages of 20 and 34 (Figure 3.8).

<sup>a</sup> Source: HIV and STI Department, Health Protection Agency Centre for Infections Körner (KC60) activity reports from genitourinary clinics in England.

**Figure 3.8:**<sup>ab</sup>

Syphilis diagnoses in women reported from genitourinary clinics in London 1995 to 2003, by age group



### *Syphilis outbreak*

Beginning in 2000, there has been an outbreak of syphilis in London affecting MSM, half of who were co-infected with HIV. Intensive investigation led to the establishment of 'enhanced' syphilis surveillance by the HPA. Interventions and health promotion messages were targeted to the MSM community. Voluntary organisations, including the Terrence Higgins Trust, the NHS and the HPA worked collaboratively to control the outbreak. The level of syphilis in MSM in London has plateaued in the past two years.

<sup>a</sup> **Source:** HIV and STI Department, Health Protection Agency Centre for Infections Körner (KC60) activity reports from genitourinary clinics in England.

<sup>b</sup> Five syphilis infections diagnosed in women attending GUM clinics in London between 1995 and 2002, but whose age was not known, have been omitted.

More recently, there has been an outbreak of syphilis affecting heterosexual men and women associated with commercial sex working in London. The investigation and management of these outbreaks, centred in South and North East London has highlighted the difficulty of engaging commercial sex workers (CSWs) in healthcare and the need for sensitive and targeted outreach work to achieve it. Interventions including locally led targeted outreach work are important and will be evaluated. It is recognised that control can be difficult to achieve in these circumstances.<sup>6</sup>

### **3. The impact on GU services**

The HPA recently completed an audit of GUM clinics waiting times for nearly 14,000 attenders at nearly 200 clinics in England. Only 72% of emergencies were seen within 48 hours and 8% waited longer than two weeks.

In London, clinics fared somewhat better than outside London in spite of the greater caseload, but there still is room for much improvement. On average across London only 54% patients who were waiting for any sexual health service were seen within 48 hours. Waiting times were associated with age and sex; lower proportions of 16-24 year olds and women were seen within 48 hours.

#### 4. Factors affecting increases in STIs in young people

##### *National research studies*

##### National Survey of Sexual Attitudes and Lifestyles (NATSSAL 2000)

The second large national population based National Survey of Sexual Attitudes and Lifestyles (NATSSAL 2000)<sup>789</sup> conducted between 1999 and 2001 provides the most comprehensive information available on sexual attitudes, lifestyle and risk behaviour and follows on from a similar national survey conducted ten years earlier.<sup>10</sup> Results from detailed interviews of more than 11, 000 respondents in the 2000 survey indicated an increase in sexual behaviour associated with an increased risk of HIV and sexually transmitted infection, including; concurrent partnerships (two or more relationships occurring simultaneously), increasing numbers of heterosexual and homosexual partnerships, heterosexual anal sex and payment for sex.<sup>6</sup>

In London, over eighteen per cent of men reported having a concurrent sexual relationship in the last year, though the proportion reporting this behaviour had remained the same since 1990. Among women, the proportion rose from seven per cent to almost twelve per cent in 2000. Importantly, overall national results indicate that this pattern was most marked amongst the young with more than one in five men and fifteen per cent of women between the ages of 16 and 24 reporting concurrent sexual partnerships during the last year.

The study also confirmed that younger age is significantly associated with the risk of acquiring an STI. Risk factors for infection identified in these studies included: younger age, being non-married, partner concurrency and having two or more sexual partners in the past year.<sup>6</sup> High rates of sexually transmitted infection are also found in young people in the community as well as those attending genitourinary clinics.<sup>6</sup> This suggests that GUM clinic data showing a rise in STIs does not only reflect patterns of health care access and increased utilisation but also suggest a real increase in burden of infection in the community.

Young people are more likely to report a higher number of new sexual partners and concurrent partnerships than other groups. Higher rates of sex partner acquisition have also been observed in young people and they are more likely to report acquiring new sexual partners from outside the UK than other age groups, both through having partners in the UK and through trips overseas. Migration and overseas travel are both common and there are consequential expanding 'sexual marketplaces', including those which are Internet based.

### Health Protection Agency survey of waiting times at GUM clinics

The impact on Genito-Urinary Medicine (GUM) services in London has been considerable and recent surveys carried out by the HPA confirm that delays exist in accessing GUM services and that these are worse for younger people. Any barriers to obtaining health care services are likely to be a contributing problem and should be removed. This is especially important, as young people have been found to be less likely to comply with treatment.

#### *Research and surveillance locally in London*

We know from local surveillance systems in South East London that in one year<sup>a</sup>, more than one quarter of all new diagnoses of both gonorrhoea and chlamydia reported from genitourinary clinics in Lambeth, Southwark and Lewisham Primary Care Trusts were diagnosed in Black-Caribbean men and women aged between 15 and 24 years.<sup>11</sup>

We know from research conducted across the same three Primary Care Trusts that *rates* of infection differ substantially by ethnic group. Amongst women in one study, diagnosis rates of gonorrhoea were highest in Black-Caribbean women aged between 15 and 19 years of age, the rate in this group, being ten times higher than in White women of the same age. Similarly, in the same age group, chlamydia rates were highest in Black-Caribbean women, with rates of infection also around ten times higher than in White counterparts.<sup>12</sup>

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<sup>a</sup> Diagnoses identified and reported between 1 January and 31 December 1998.

## **5. Discussion and conclusion**

The surveillance data we have presented have limitations since GUM clinics are not the only location where young people may present with symptoms or be seen for care. Thus the picture is likely to be incomplete. The data for HIV should be more complete but suffer from the drawback that there is a delay from infection to diagnosis sometimes taking many years and recent information may reflect patterns of transmission some time ago. AIDS is subject to underreporting and it is thought that this is higher in London than elsewhere.

There are variations across the city too that are not well reflected here due to the absence of detailed individual (for example place of residence) information on people attending GUM clinics or elsewhere with STIs.

However, the data do imply that in recent years the sexual health of young Londoners has declined as sexual infections have increased. Within some sectors and PCTs the sexual health burden is disproportionate and is borne by a small number of minority communities particularly in the young.

## **What is to be done? Effectiveness of interventions to prevent further transmission**

Prevention strategies must include actions that will help limit high rates of STI acquisition, limit onward transmission, and reduce re-infection as well as prevent progression to complications. Poorer compliance with treatment increases the risk of complications and chronic sequelae.

Changes to behaviour that would make a difference:

- minimising risks of unprotected sex by using condoms
- reduction in frequency of sexual partner change

Important elements of a good control programme include:

- sex education to improve negotiation skills and understanding
- good access to services.

There is a social dimension too, with overlapping risks for teenage pregnancy, substance abuse and social exclusion. The response must not only be a medical one. The responsibility to take action to improve sexual health of young people rests with all sections of society right across London. There is an important role to be played within our education services and voluntary organisations have a crucial role as well.

Specific actions that are needed within the NHS and other organisations in London:

- **Acknowledge the need for intervention**
- **Facilitate existing activities and new initiatives to reach young people**
- **Further develop educational strategies for young people**
- **Particular focus on preventing un-intended consequences of unprotected sex – e.g. pregnancy or STI**
- **Further develop surveillance data to Primary Care Trust of residence level as far as possible**
- **Improve our understanding of STI infection, re-infection and their determinants to inform interventions**

- **Implement as soon as possible the monitoring and evaluation of chlamydia screening for all young adults aged 16-24 attending outpatient settings**
- **Improve testing rates and early diagnosis of HIV infection especially in young gay men**
- **Increase GUM clinic based and outreach interventions for young people**

## **Appendix 1:**

### **Sources of surveillance data:**

At national, regional and local levels, the HPA plays a role in monitoring trends in HIV and STIs and publishes relevant surveillance and monitoring information on its website as well as in a number of different reports and nationally in the annual report of the UK Collaborative Group for HIV and STI Surveillance.<sup>13</sup>

#### **1. The London Antenatal Infection Surveillance Scheme (AISS)**

The scheme was first piloted in January 2000 in response to concerns over the potential for undiagnosed infection in pregnancy in London. Information is obtained directly from maternity units about the uptake and results of testing for hepatitis B, HIV, syphilis and rubella. The surveillance scheme is now well established. Every six months, midwifery heads for each London trust are asked to supply data on the number of booked pregnant women tested in their trust for each of the infections. This information is fed to the local HPA CCDC and also forwarded to the HPA London Regional Epidemiology Unit.

The Health Protection Agency London Regional Epidemiology Unit also regularly accesses data from a number of **national surveillance systems** maintained by HPA CDSC Colindale, such as the KC60 returns from Genito-Urinary Medicine clinics, HIV/AIDS clinical reporting and unlinked anonymous surveillance programmes.

#### **2. KC60 genitourinary medicine clinic activity reports**

The KC60 (or Körner) activity report is the mainstay of STI surveillance and collects data from all NHS genito-urinary medicine (GUM) clinics in England through a paper-based numerical return providing aggregate data on the number of diagnoses of key conditions each quarter by sex, with additional information available by age group and - for men - by sexual orientation. These data are limited as information relating to ethnicity and area of residence are unavailable. Additionally, reported data is aggregated and relates to the number of diagnoses made, not the number of individuals in whom these conditions were diagnosed. Identification of individuals who have presented with more than one infection, or who have presented more than once in a quarter or more than once in a year is not therefore possible. Data are reported from clinics to the Centre for Infections and are also available at regional level.

Disaggregate sexually transmitted infection surveillance systems were initially implemented in Scotland and the former North and South Thames regions<sup>14</sup> The Centre for Infections has now undertaken to build on these using the North Thames model and establish a national surveillance system, the Programme for Enhanced Surveillance of Sexually Transmitted Infections II (ProgrESS II). Disaggregate sexually transmitted infection data for London is not currently available.

### **3. Surveillance systems for HIV infection**

Reports are collected using paper forms, which are completed by clinicians following a positive HIV diagnosis. These forms are sent directly to the HIV and STI Department at the HPA's Centre for Infections who maintain a national database of reports made and provide regional summaries on a quarterly basis. The report of laboratory diagnosis of HIV infection is supplemented by a comprehensive programme of **unlinked anonymous testing** for HIV in attendees at GUM clinics, among injecting drug users, pregnant women, women having termination of pregnancy, and infants. Reports are made to the HPA Colindale of **diagnoses of new HIV infections at laboratories** in London.

In addition the **Survey of Prevalent Diagnosed HIV infection** (SOPHID) is a national annual prevalence survey undertaken by the HPA Colindale collecting information on area of residence and treatment for every person treated in the previous year.

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<sup>4</sup> Department of Health. Choosing health: making healthier choices easier. London: Department of Health, 2004. A full copy of the report can be downloaded from the Department of Health Website:

[www.dh.gov.uk/publicationsandstatistics/](http://www.dh.gov.uk/publicationsandstatistics/)

Additionally, the Department of Health website includes full information on the chlamydia screening programme and information can also be downloaded from the website here:

<http://www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/SexualHealth/>

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