

# Vital statistics

***Findings from the  
National Gay Men's  
Sex Survey 1999***

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**Original Research Report**

# Acknowledgments

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- Big-Up
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## ABBREVIATIONS AND JARGON

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Letters	What they stand for	Further explanation of their use in this report
AI	anal intercourse	fucking between men
IAI	insertive anal intercourse	active or insertive AI; doing the fucking
RAI	receptive anal intercourse	passive or receptive AI; getting fucked
PAI	protected anal intercourse	AI always with a condom
UAI	unprotected anal intercourse	AI without a condom
sdUAI	sero-discordant unprotected anal intercourse	UAI between HIV infected and uninfected men
c/f	condom failure	condoms tearing or slipping during AI
HA	Health Authority	
HAM	homosexually active men	men who have sex with other men (in this instance, in the last year)
ExHAM	Exclusively homosexually active men	men who have sex ONLY with other men and not with women (in this instance, in the last year)
BB	behaviourally bisexual	men who have sex with men and women (in this instance, in the last year)
HIV	human immune deficiency virus	an infectious agent most commonly acquired in England during sex between men
HEQ	highest education qualification	
STI	sexually transmitted infection	infectious agents acquired during sex (including HIV)
<	less than	
>	more than	
NS	non significant	if we had done the survey multiple times, this difference would probably be observed in <i>more than one in a hundred</i> of the surveys, purely by chance
p<.01	probability less than 1%	if we had done the survey multiple times, this difference would probably be observed in <i>fewer than one in a hundred</i> of the surveys, purely by chance
p<.001	probability less than 0.1%	if we had done the survey multiple times, this difference would probably be observed in <i>fewer than one in a thousand</i> of the surveys, purely by chance

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# 1 Introduction

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## 1.1 CONTENT OF THE REPORT

This document reports the main findings of the third annual *National Gay Men's Sex Survey*, carried out during the summer of 1999 by Sigma Research in partnership with 71 health promotion agencies. The information contained in the report is about HIV infection, sex between men and HIV prevention needs. The audience for the report is people involved in planning HIV prevention programmes to address the HIV prevention needs of homosexually active men. This report complements those from the 1997 (Hickson, Reid *et al.*, 1998) and 1998 (Hickson, Weatherburn *et al.*, 1999) surveys.

As well as data from the survey, this report also draws attention to recently published research of interest to the above audience. These papers and reports are listed and very briefly described in boxes with dotted borders (see box). The boxes appear in various places in the report and a full listing of them is in the *References* section.

### Layout of 'recent publications boxes'

Authors surname and initial (date)  
Title of paper or report.  
Journal name, volume (issue), page reference OR  
City of publication; publisher (telephone number).  
  
A short description of the paper or report and usually some data pertinent to the section the box appears in.

## 1.2 BACKGROUND TO THE THIRD NATIONAL SURVEY

The *National Gay Men's Sex Survey (GMSS)* uses a short self-complete questionnaire to collect a limited amount of information from a substantial number of men. Its chief characteristics are the methods of recruitment, which are by community members making personal invitations to men to participate.

Sigma Research carried out GMSS at the London Lesbian & Gay Pride festival in 1993, 1994 and 1995. The first of these surveys was carried out with Gay Men Fighting AIDS with the aim of investigating sexual behaviour across the age range. The 1994 survey was commissioned by the statutory health promotion service in Camden & Islington, North London, to gather data on men's use of health promotion settings. We carried out the third survey in 1995 to look at population changes in sexual behaviour over time (or as it turned out, no change, but see Hickson *et al.*, 1996). No survey was undertaken in 1996.

Since 1997, GMSS has been funded by the Terrence Higgins Trust as part of the CHAPS initiative. In the three years since 1997 the surveys have become more national and the collaboration necessary to undertake them has become more complex and (hopefully) more inclusive. In 1997, we undertook the survey at Pride-type events in six areas of England: Birmingham, Brighton, Bristol, Leeds, London and Manchester. The surveys were undertaken with the collaboration of CHAPS partners in those towns and cities. Half the questions were identical in the six surveys, and together this data formed the first *National Gay Men's Sex Survey*, reported in *Making Data Count* (Hickson, Reid *et al.*, 1998).

Our second national survey was undertaken over the summer of 1998. This survey used a single questionnaire, and was designed to generate evidence of health promotion need for use within the collaborative planning framework *Making It Count* (Hickson, Nutland, Doyle *et al.*, 2000). The content of the survey was designed by Sigma Research in collaboration with a number of HIV prevention agencies working within the *Making It Count* framework. In addition to Pride events in CHAPS sites, additional recruitment occurred at similar events in Blackpool, Newcastle-upon-Tyne, Nottingham and St Albans. The data collected was reported in *Evidence for Change* (Hickson, Weatherburn *et al.*, 1999).

The third National survey was undertaken during the summer of 1999. The content of the survey was designed by Sigma Research in collaboration with 27 HIV health promotion agencies after we sent out a questionnaire to assess the priorities for the survey to all agencies listed in Nambase® as undertaking health promotion with gay men and other homosexually active men. The Pride event fieldwork was drawn back to our five most productive events from 1998 (see section 1.3), and the additional resources were used to reprint the entire questionnaire as a small leaflet which was self-sealing for Freepost return. The leaflet was directly distributed by 64 HIV health promotion agencies wherever they had contact with homosexually active men (see section 1.4).

### 1.3 PRIDE EVENTS: RECRUITMENT DATES, EVENTS AND RETURNS

Recruitment occurred at five community-based events in the summer of 1999. The anonymous survey was printed on two sides of A4 for self-completion and was distributed on a clipboard with a pen attached, invariably by personal request from a team of community members. Men completed the forms on the spot and immediately returned them to sealed boxes. The following table shows the events and the number of forms returned to boxes.

City	Event	Date in 1999	Returns		
			1997	1998	1999
Birmingham	Birmingham Pride	30th May	367	661	1228
Blackpool	Fiesta! Fiesta!	—	—	285	—
Newcastle	Pride on the Tyne	—	—	176	—
Leeds	HydeOut!	25th July	452	376	554
London	Mardi Gras	3rd July	1921	1582	2162
Brighton	Brighton Pride	14th August	762	1309	1081
Manchester	Mardi Gras	28th & 29th August	1253	2228	2454
Nottingham	Pink Lace	—	—	275	—
St. Albans	Pride of Herts.	—	—	56	—
Bristol	Pride West	—	167	no event	no event
<b>Total number of forms returned at Pride events</b>			<b>4,922</b>	<b>6,948</b>	<b>7,479</b>

In 1999 we recruited 7.6% more men compared with 1998, from fewer sites. Four of the five events showed an increase in the number of men recruited, notably almost double at Birmingham Pride. Fewer men were recruited at Brighton Pride in '99 than '98 due to intermittent rain. Both London Mardi Gras and Manchester Mardi Gras were fee paying events (£10 to enter the grounds in which the festival was held), the other three were free.

## 1.4 LEAFLET RECRUITMENT

In 1999, for the first time the *National Gay Men's Sex Survey* was also redesigned and produced as a small (A5) leaflet, containing exactly the same questions as the Pride survey, plus two questions about where the respondent got the leaflet from. This leaflet was made available to all HIV health promoters who work with gay men, bisexual men or other men who have sex with men.

The aim of using the leaflet was to recruit larger numbers of men in demographic groups to which smaller numbers of men are recruited using Pride events. Namely bisexual men, men living away from large urban centres, men at the bottom and top of the age range, men with lower levels of education and men from ethnic groups other than White British. This is not a question of representation, as we do not know the characteristics this sample is drawn from (homosexually active men resident in England and Wales). It is a question of recruiting large enough numbers of men to make estimates of the levels of need in these groups with greater confidence.

In the case of geography, the central aim of the leaflet method was to supply HIV health promoters in areas other than the cities used for clipboard recruitment, with a mechanism for collecting local data that did not require independent design, input and analysis.

In total, 29,045 leaflets were requested by and sent out to, 64 agencies (see Preface). Agencies were asked to distribute the leaflet to men they came into contact with in the course of their work. At the end of the recruitment period we contacted all agencies again and asked how many leaflets they had left. The average (mean) proportion of leaflets distributed was 71% (estimate based on 61 agency responses). We estimate 20,632 leaflets were distributed by agencies across England and Wales in this three month period. Leaflets were returned from 50 different distributing agencies. The average (median) number of leaflets returned per agency was 29 (range 1 to 311). We had responses from twenty or more men from 31 agencies. In February 2000, these agencies received a targeted data report on the men they had recruited.

The remainder of our 35,000 print run for the leaflet (approximately 6,000 leaflets) were inserted into the Northern edition of *Boyz*, a free gay weekly newspaper. There were insufficient leaflets remaining to insert one in every paper in the print run and insertion took place only two weeks prior to the closing date.

Overall 3,128 leaflets were returned via Freepost to the Sigma office, giving a completion and return rate of 12% of those leaflets actually distributed.

## 1.5 EXCLUSIONS

The table below gives the number of forms returned during recruitment and a summary of those excluded from the following analysis.

	1997	1998	1999	
			Prides	Leaflets
<b>Returns</b>	<b>4,922</b>	<b>6,922</b>	<b>7,479</b>	<b>3,128</b>
Less than 25% of questions completed	16 0.3%	100 1.4%	67 0.8%	84 2.7%
Residence missing	79 1.6%	103 1.5%	0 (see below)	0 (see below)
Visiting Britain from outside the UK	126 2.6%	133 1.9%	125 1.7%	20 0.6%
Visiting England from Scotland or Northern Ireland	69 1.4%	52 0.8%	120 1.6%	17 0.5%
Second forms from the same men	58 1.2%	0	187 2.5%	137 4.4%
No sex with men in the last year	204 4.1%	219 3.2%	368 4.9%	160 5.1%
<b>Sample size</b>	<b>4,370</b>	<b>6,315</b>	<b>6,612</b>	<b>2,710</b>
Homosexually active men resident in England & Wales	<b>88.8%</b>	<b>91.2%</b>	<b>88.4%</b>	<b>86.6%</b>
				<b>9,322</b> <b>87.9%</b>

The proportion of incomplete leaflets was higher than any year's clipboard recruitment, for a variety of reasons. A small number of leaflets were misprinted (missing pages that included key demographic questions) and a slightly larger number appear to have been page turning errors (turning two at once). One possibility is that men leave the first, demographic, section, until they have read the following questions, but forget to return to it.

In 1999, the question men were asked, to group them by area of residence, changed from the first half of their post-code to their Local Authority. This increased the proportion of men with missing data for this variable and we decided not to exclude men on this basis, as we had done in previous years. The proportion of leaflet returns that were from men visiting England from outside the UK was lower than any year's clipboard recruitment. This is not surprising, as some Pride events attract lesbians and gay men from around the globe. Conversely, repeat respondents were more common, presumably because the leaflet provided men with a much longer period to re-encounter the survey and in a number of settings.

Overall, the proportion of exclusions from the clipboard sample is similar to previous years.

# 2 Sample description

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This chapter describes the sample of 9,322 homosexually active men resident in England or Wales. Each section introduces a characteristic, describes how it varies within the sample and compares the answers from men recruited on-the-spot at Pride events with those from men recruited using the leaflet distributed by health promoters.

Four of the characteristics described below were used in the 1997 and 1998 *National Gay Men's Sex Survey*: where men live; their age; their highest education qualification; and their ethnicity. As in the 1998 survey, we again use the number of male sexual partners men had in the last year. In previous years we have reported data by men's preferred term for their sexuality as well as describing the sex they had with women. This year, we concentrate on whether or not men had sex with women as well as men and simply describe below the proportions using different terms to describe themselves. We did not ask men about their sexual assault history or current relationships in the 1999 survey. Two descriptive variables are used for the first time in the 1999 survey: who men live with and the types of (non-prescription) drugs they have taken in the last year.

## 2.1 REGION OF RESIDENCE

We first consider where the sample lived. The survey is national and the key change in the design this year was intended to impact on the geographic distribution of the sample. In previous surveys we asked men the first half of their home postcode and reported geographic differences using postcode areas and groupings of them. After discussions with health promoters and health authorities, in 1999 we aimed to group men according to their health authority of residence. As we felt men were less likely to know this than their local authority (and since in most cases health authority can be deduced from local authority) men were asked *Which Local Authority do you live in? (who bills your household for Council Tax?)*. They were asked for their post-code or home town if they did not know their local authority.

Overall, 96.5% supplied sufficient information to allocate them to a health authority of residence. We provided data reports to health authorities on the needs of the residents they are responsible for, to 59 health authorities from which at least fifty resident men were recruited. The ability to undertake at least 15 of these health authority reports was a direct consequence of the local distribution of leaflets through collaborating agencies.

Slightly more men (97.2%) gave us sufficient information to allocate them to one of eight regional health authorities. This regional breakdown is used for comparative purposes in the rest of this report.

The following table shows each of the English regional offices and Wales, the number of district health authorities each region covers, the number of men resident in each region recruited to GMSS 1999, the proportion of the overall sample they represent and the proportion of those men who were recruited using the leaflet.

One aim of augmenting our clipboard recruitment with the leaflet was to recruit men living in areas where the clipboard method recruited fewest men. From the table, we can see that the areas with fewest men recruited overall are Wales, Eastern, the South West and Trent. In three of these four areas the proportion of men recruited by leaflet was over 40%. We therefore judge the leaflet as having been successful in extending the geographic spread of the sample.

Region	Number of HAs	n	% of N	% leaflet
Wales	5	194	2.1	46.4
Eastern	8	364	4.0	44.2
South West	8	395	4.2	41.3
Trent	11	532	5.9	32.1
Northern & Yorkshire	13	1007	11.1	23.5
West Midlands	13	1131	12.5	32.4
North West	16	1552	17.1	24.7
South East	14	1703	18.8	42.6
London	16	2180	24.0	15.4
missing	—	264	2.8	

It is difficult to say how representative this sample is of the geographic distribution of homosexually active men in England and Wales. As we will see, the majority of these men are gay and have sex with men only. We would therefore probably want to compare this sample to gay men in England and Wales. Although we could use exclusive homosexuality as a surrogate for gay identity (or vice versa), our only denominator study for this sample (Johnson *et al.*, 1994) does not differentiate between exclusive homosexuality and behavioural bisexuality and did not ask about sexual identity.

## 2.2 GENDER OF PARTNERS & TERM USED FOR SEXUALITY

Men were asked *In the last year, have you had sex with: neither men nor women; women only; both men and women; or men only.* As we were trying to recruit homosexually active men (HAM), those who indicated no sexual partners or sex with women only, were excluded from the sample.

The majority of the sample were exclusively homosexually active (referred to as ExHAMs), that is they had sex with men only. The proportion who had sex with women as well as men in the last year is 5.3% (these are referred to as behaviourally bisexual (BB)). This proportion was significantly higher in the leaflet sample (7.7%) compared with the clipboard sample (4.3%;  $p < .01$ ). One aim of the leaflet was to recruit larger numbers of BB men and while it accomplished this, the majority were still ExHAMs.

Men were also asked *What term do you usually use to describe yourself sexually?* and asked to indicate one of *gay; bisexual; any other term or I don't usually use a term.* Those who indicated *Any other term* were asked to specify what term they used.

While the vast majority of men identified as gay, compared with the clipboard sample, significantly more of the leaflet sample identified as bisexual (7.0% versus 3.3%), used another term (2.6% versus 1.6%), or no term for their sexuality (4.5% versus 1.9%). This means 14.1% of the leaflet sample did not use the term gay, compared with

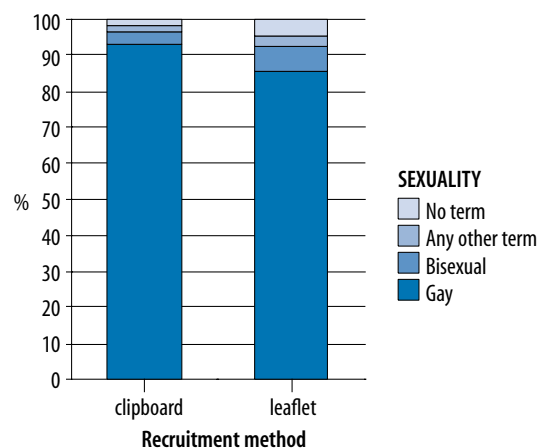


Figure 2.2: Term usually used for sexuality by recruitment method (N=6605, 2704)

the 6.8% of the clipboard sample. This difference was similar in all age groups and significant in all but the under 20s.

Since comparisons of other data by sexual identity were one basis for last years report (Hickson, Weatherburn *et al.*, 1999) comparisons in the rest of this report concentrate on differences between behaviourally bisexual and exclusively homosexually active men.

### 2.2.1 Region of residence & gender of partners

The proportion of men who were behaviourally bisexual significantly varied by region of residence ( $p < .01$ ), although it was relatively low in all areas (Figure 2.2.1).

Men who lived in Wales were most likely to have a female partner (8.3%), those who lived in London were least likely to have one (3.8%).

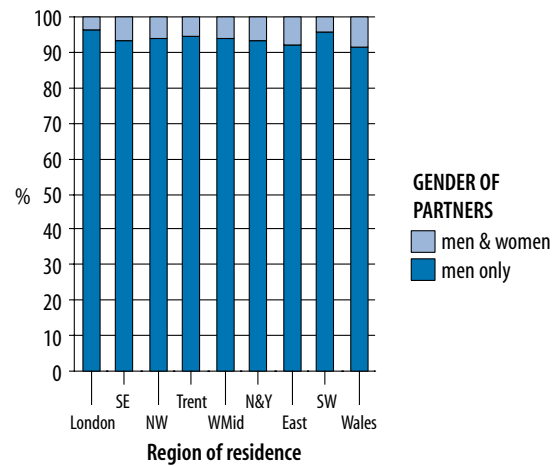


Figure 2.2.1: Gender of partners by region of residence (N=2181, 1703, 1552, 532, 1131, 1007, 364, 395, 193)

### 2.3 AGE

The average (mean) age of the entire sample was 33.3 years (standard deviation (sd) = 9.9, median 32, range 14 to 79). While a very wide age range was recruited, half are aged between 26 and 39.

The leaflet sample (mean age 34.7, median 33) was, on average, older than the clipboard sample (mean age 32.7, median 32). Figure 2.3 shows the proportion of each sub-sample in each of five age bands. The leaflet sample has higher proportions of both under 20s (6.7% compared with 4.4%) and over 50s (12.3% compared with 4.9%).

An aim of the leaflet was to recruit larger numbers of men at the bottom and top of the sexually active age range and these figures suggest this has been successful, especially for men over 50.

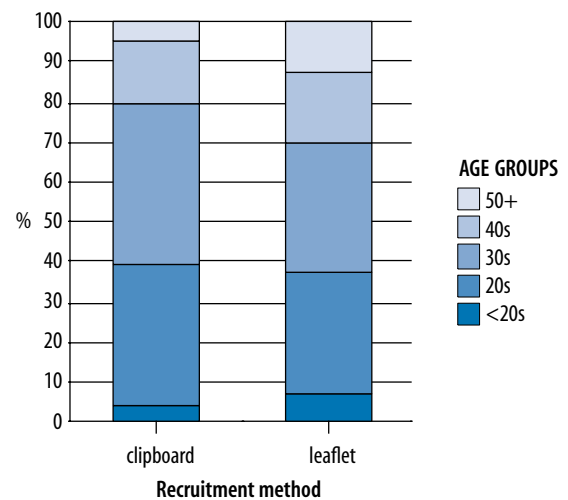


Figure 2.3: Age groups by recruitment method (N=6573, 2683)

### 2.3.1 Region of residence & age

The proportion of men in each age group significantly varied ( $p < .01$ ) among men living in different regions (Figure 2.3.1).

Fewer men living in London were under 20 or over 50 compared to men living in all other areas. Men under 20 were most common in Northern & Yorkshire and the West Midlands. Men over 50 were most common in Wales and Trent.

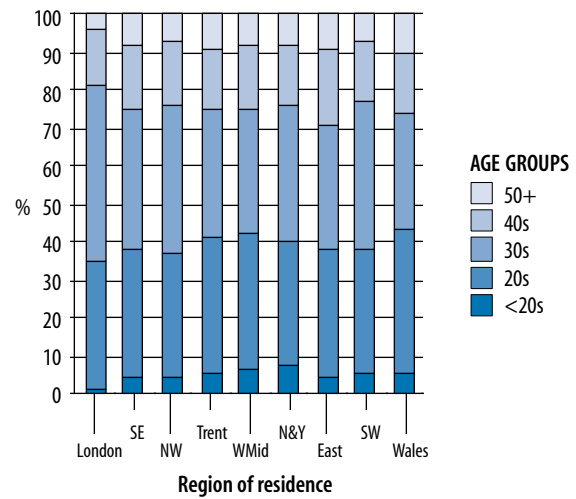


Figure 2.3.1: Age groups by region of residence (N=2168, 1703, 1541, 529, 1119, 1001, 362, 392, 193)

### 2.3.2 Gender of partners (and sexuality) & age

As a group, men who had sex with women and men were younger (mean age 28.8, median 27) than men who had sex with men only (mean age 32.9, median 32).

Figure 2.3.2a shows the larger proportion of men under 20 and in their 20s among those who had sex with women also.

In previous surveys bisexual identified men have, as a group, been younger than gay identified men. That this was the same in the 1999 clipboard sample can be seen by comparing the first and third columns of Figure 2.3.2b.

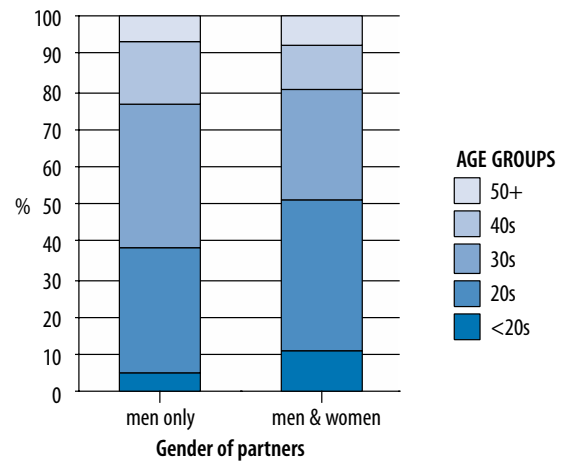


Figure 2.3.2a: Age groups by gender of partners (N=8722, 534)

Just considering the clipboard sample, 4.1% of gay men but 7.7% of bisexual men were under 20 years old and 35.1% of gay men but 43.2% of bisexual men were in their 20s. However, if we compare the gay and bisexual men in the leaflet sample, the bisexual men were older than the gay men.

This meant that the bisexual men recruited through the leaflet were, as a group, considerably older than the bisexual men recruited using the clipboard. Of the leaflet-recruited bisexuals 23.4% were over 50 and 22.3% in their 40s, compared with 5.9% over 50 and 11.8% in their 40s of the clipboard-recruited bisexuals. This suggests the leaflet was recruiting a group of homosexually active men not usually recruited by the clipboard: older bisexual identified men.

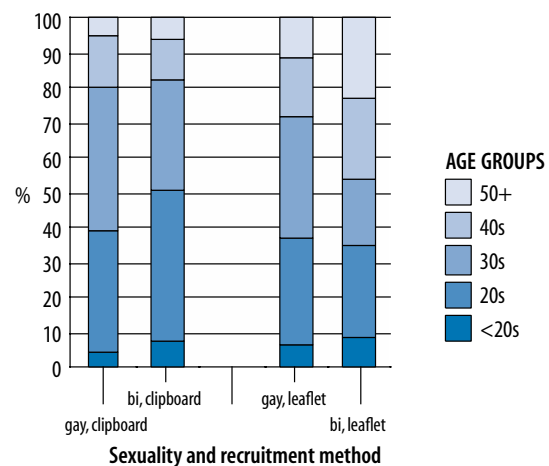


Figure 2.3.2b: Age groups by sexuality and recruitment method (N=6145, 220, 2322, 188)



## 2.4 HIGHEST EDUCATION QUALIFICATION (HEQ)

Men were asked *Which of the following educational qualifications do you have?* and instructed to tick each of: *I have no educational qualifications; O-levels / CSE / GCSE; A-levels or equivalent; Degree or higher; or Other qualification.* Those who indicated *other qualifications* were asked what they were.

Men were then allocated to one of three groups. Those with no qualifications (6.1%) or O-levels / CSE / GCSE (24.2%, usually leaving education at 16) were classified as 'low' HEQ. Those who indicated a degree were classified as 'high' HEQ (43.4%). The remaining men were classified as 'medium' HEQ (26.4%).

Figure 2.4 shows the proportions of the two sub-samples in these groups. A significantly higher proportion of the leaflet sample had low HEQ (and fewer had a degree) than the clipboard sample. This difference was independently significant among men in the 20s, those in their 30s and those in their 40s suggesting it is not simply a result of more older and younger men in the leaflet sample. Since one aim of using the leaflet was to recruit larger numbers of men with lower HEQ, this again confirms the success of the leaflet method.

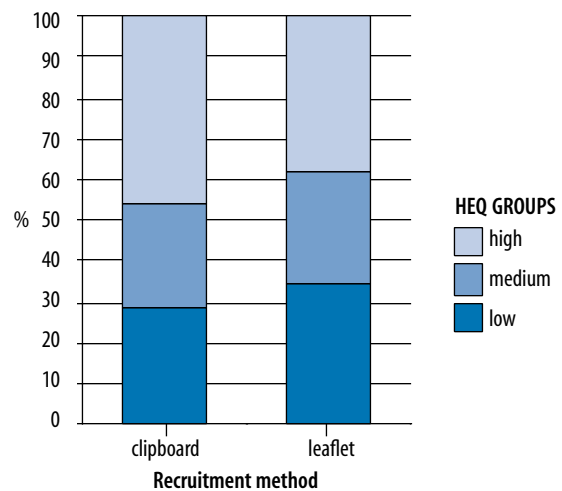


Figure 2.4: Highest educational qualification by recruitment method (N=6575, 2702)

### 2.4.1 Region of residence & HEQ

HEQ was significantly associated with where men lived ( $p < .01$ ).

Men who lived in London were more likely to have high HEQ (58.8%) and less likely to have low HEQ (20.4%) than men living elsewhere in the country.

### 2.4.2 Gender of partners & HEQ

We found no evidence of an association between HEQ and having female sexual partners as well as male partners in the last year.

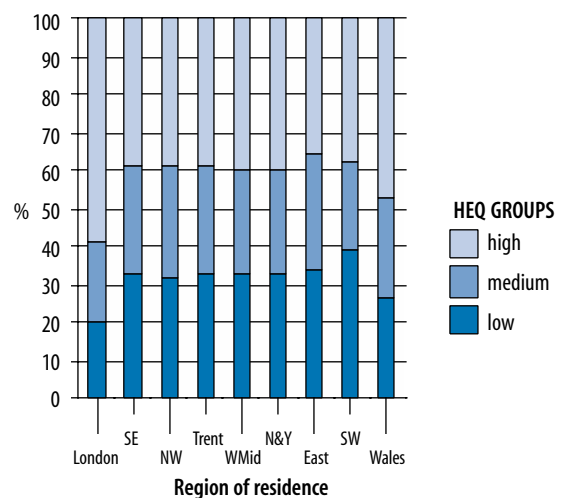


Figure 2.4.1: Highest educational qualification by region of residence (N=2173, 1700, 1549, 529, 1124, 999, 364, 395, 193)

### 2.4.3 Age & HEQ

HEQ was significantly associated with age ( $p < .01$ ) in the same pattern as the 1998 survey.

Figure 2.4.3 shows the HEQ groups across the age range. As we should expect, men under 20 had fewer educational qualifications. However, from the age of 20 onwards the proportion with 'low' education increases with increasing age.

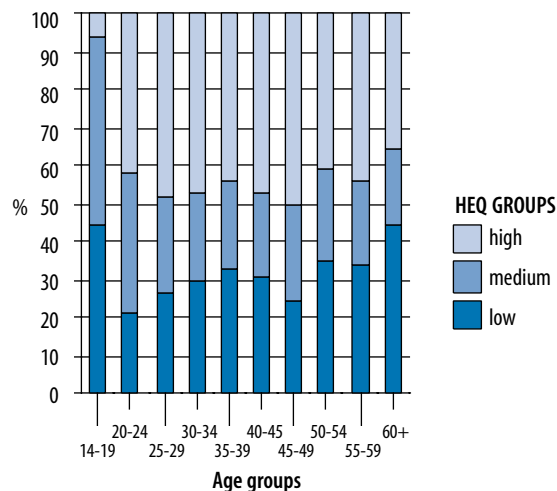


Figure 2.4.3: Highest educational qualification by age groups (N=465, 1258, 1873, 1983, 1533, 920, 533, 345, 145, 158)

### 2.5 ETHNICITY

The ethnic group question was derived from the Census (Coleman & Salt, 1996). Men were asked *What is your ethnic group?* and asked to indicate one of the following (the number in brackets is the number of men in that group): Chinese (49); Asian (135, composed of 68 Indians, 26 Pakistanis and 41 other Asians); Black (111, composed of 12 Black Africans, 78 Black Caribbeans and 21 Other Blacks); White (8794, composed of 7727 British, 298 Irish and 769 other Whites), Mixed ethnicity (127), or any other group (90). Men who ticked *Other* were asked to specify their ethnic group.

The pie in Figure 2.5 shows the proportion of men in the entire sample who indicated their ethnicity as White British (83.0% of the entire sample), White Irish (3.2%), other White (8.3%) or a non-White ethnicity (5.5%). The column on the right illustrates the ethnic diversity within the non-White group.

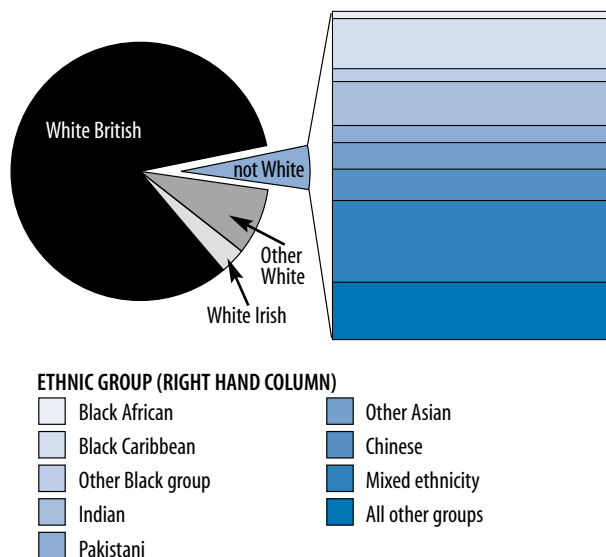


Figure 2.5: Ethnic group (N=9306)

The proportion of men from minority ethnic groups in the clipboard and leaflet samples did not significantly differ and were in fact remarkably similar. Hence, the leaflet method was not effective at recruiting larger numbers of men from groups other than White British compared to the clipboard method.

For ethnic group comparisons five groups are used in the rest of the report: Asian/ Asian British; Black/ Black British; White British; White other; and non-White other (including Chinese).

### 2.5.1 Ethnicity & region of residence

The proportion of men from ethnic groups other than White British significantly varied among men living in different regions ( $p < .01$ ).

London had a higher proportion of men from all ethnic minorities, with only 67.7% indicating White British. In addition to a larger number of Black and Asian men, London had the largest proportion of other White ethnicities (22.7%, see Figure 2.5.1).

### 2.5.2 Gender of partners & ethnicity

We found no evidence of an association between ethnicity and having female partners as well as male partners in the previous year.

### 2.5.3 Age & ethnicity

Figure 2.5.3 shows the proportions of each ethnic group in each of the age bands. The White British majority (median age 32 years) were the oldest group and the other White group (median age 31.5 years) was only marginally younger. The Black, Asian and the not White other group were all younger (median age 30 years old).

This difference was similar to last years survey and is commensurate with national differences in the age structure of ethnic groups in England.

### 2.5.4 HEQ & ethnicity

As in last years survey, the White British men and the Black/ Black British men had similar HEQ but both were less highly educated than the Asian/ Asian British men ( $p < .01$ ).

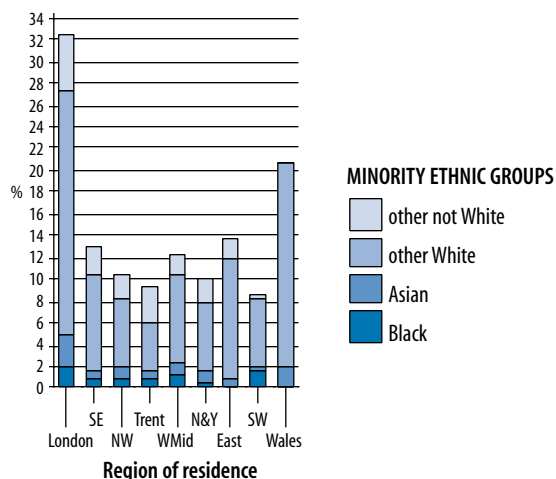


Figure 2.5.1: Ethnicity by region of residence (N=2177, 1699, 1548, 532, 1130, 1007, 364, 395, 193)

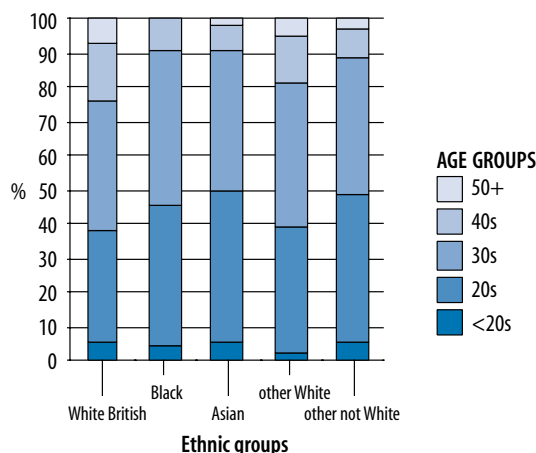


Figure 2.5.3: Age groups by ethnic groups (N=7675, 111, 133, 1062, 262)

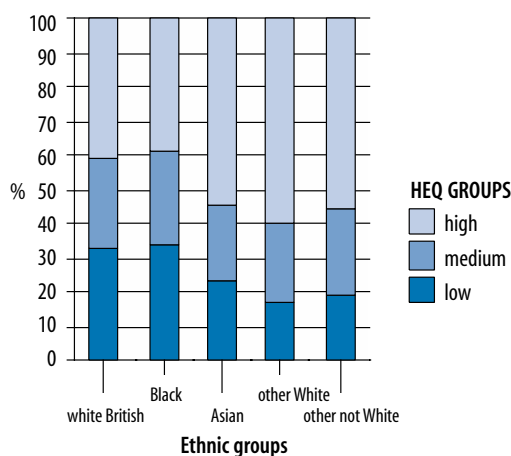


Figure 2.5.4: Highest education qualification by ethnic groups (N=7690, 111, 134, 1064, 265)

## 2.6 NUMBER OF MALE SEXUAL PARTNERS

This variable was used in the 1998 analysis and showed substantial associations with HIV testing history, sexual behaviour and HIV prevention need (also see box). All respondents were asked *In the last year, how many different men have you had sex with?* No definition of 'sex' or 'a sexual partner' was provided, so the criteria of who 'counts' as a sexual partner are men's own and will vary.

Overall, 24.8% of men had one male partner in the last year, 22.7% had two, three or four; 23.4% had from five to twelve; 12.0% had 13 to 29; and the remaining 17.2% had thirty or more.

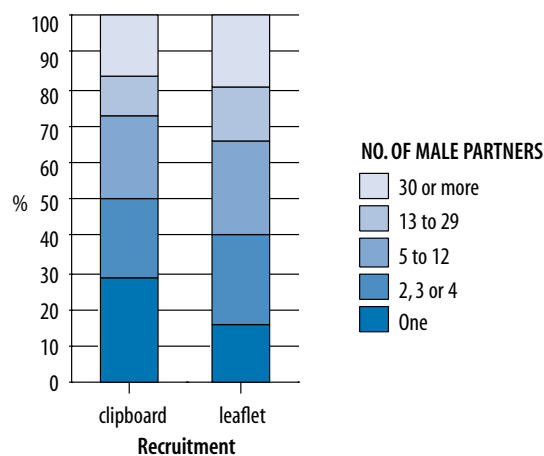


Figure 2.6: Number of partners groups by recruitment method (N=6309, 2657)

Clift SM, Forrest SP (1999)

Factors associated with gay men's sexual behaviour and risk on holiday.

*AIDS Care*, 11(3), 281-95.

Findings from a self completion survey of 562 men recruited in summer 1996, on-the-spot in Brighton gay bars/clubs and through GScene magazine with a freepost envelope: 69% were resident in 'the Brighton area' (only 38.4% of the 925 men recruited to the National Gay Men's Sex Survey 1999 at Brighton Pride lived in East Sussex, Brighton and Hove Health Authority), 38.6% were under 30 (38.9% in the National Gay Men's Sex Survey 1999 Brighton Pride sample). Data is from 395 men who had a holiday in the last year.

- Men who went on holiday for sex and who expected to have sex on holiday were more likely to have sex on holiday than men who went for sight-seeing or rest and did not expect to have sex.
- Men who had many sexual partners at home were more likely to have sex on holiday than men who had fewer partners at home.

- Men who had many new sexual partners on holiday were more likely to have anal intercourse with at least one of them than men who had fewer partners on holiday.

- Men who took condoms on holiday were more likely to have AI with new partners on holiday than men who did not take them.

- Men who did not take condoms with them were less likely to use condoms if they had AI on holiday compared to men who did take condoms with them.

- Men with diagnosed HIV infection were more likely to have UAI on holiday with new partners than men who did not have diagnosed HIV.

"Previous research has shown that consistent condom use abroad is associated with consistency of condom use 'at home' with casual partners but unfortunately no data on condom use at home was gathered in the current survey" (p.292). Overall, men's sexual behaviour on holiday was similar to the sexual behaviour at home.

- Meeting men's HIV prevention needs will reduce sexual HIV exposure on holiday as well as at home.

### 2.6.1 Region of residence & number of partners

The number of male sexual partners men had in the last year significantly varied according to their region of residence ( $p < .01$ ).

Most notably, men living in London were most likely to have very large number of partners, with an average (median) number of seven.

Men in Eastern had an average (median) of six partners and men in all other regions had an average (median) of five or four.

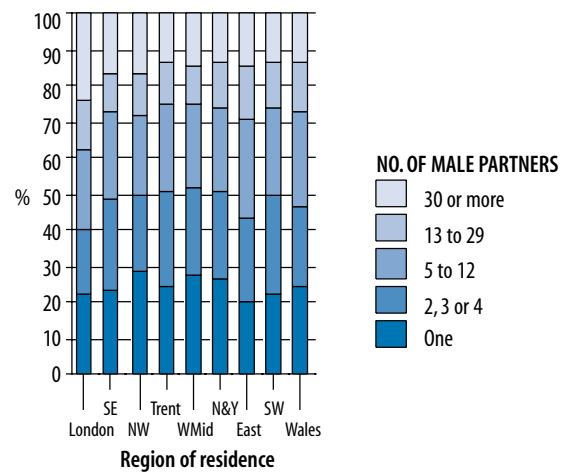


Figure 2.6.1: Number of partners groups by region of residence (N=2068, 1634, 1496, 520, 1099, 978, 358, 387, 190)

### 2.6.2 Gender of partners & number of partners

Behaviourally bisexual men had more male partners than exclusively homosexually active men (ExHAMs).

Figure 2.6.2 shows the number of male partners of ExHAMs, male partners of BBs, female partners of BBs and BBs' total number of sexual partners (male and female partners added together). By definition, no BBs had one partner only.

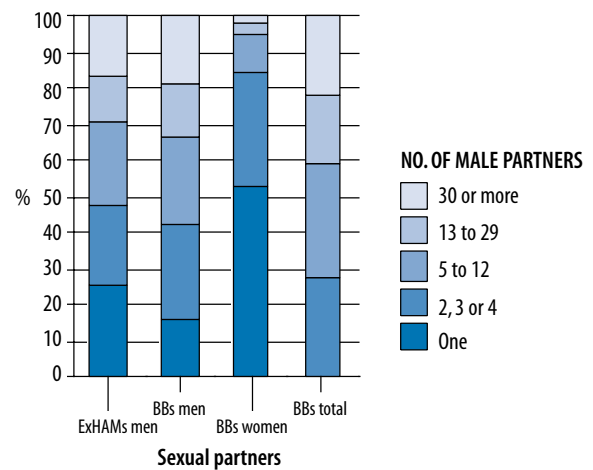


Figure 2.6.2: Number of male & female sexual partners by gender of partners groups (N=8501, 453, 453, 453)

### 2.6.3 Age & number of partners

Figure 2.6.3 shows how the numbers of men's sexual partners varied across the age range. As can be seen from the boundary between 2, 3 or 4 and 5 to 12 partners, the average number of partners men had did not vary greatly across the age range.

However, with increasing age men were increasingly likely to have either one partner, or 13 or more partners. Men were most likely to have 30 or more partners in their 30s and 40s.

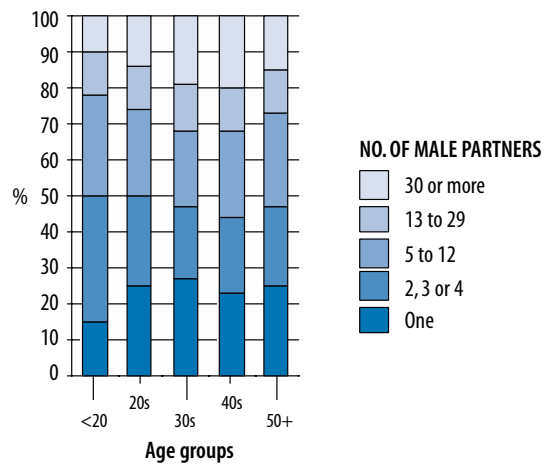


Figure 2.6.3: Number of partners groups by age groups (N=457, 3035, 3386, 1402, 623)

### 2.6.4 HEQ & number of partners

In the 1998 survey, men with high HEQ had more sexual partners. A similar and significant ( $p < .01$ ) but less pronounced pattern was evident in this years survey (Figure 2.6.4).

Men with low HEQ were more likely to have one partner and less likely to have over 12. Men in the low HEQ group had an average (median) of four partners while men with medium or high HEQ have an average of five.

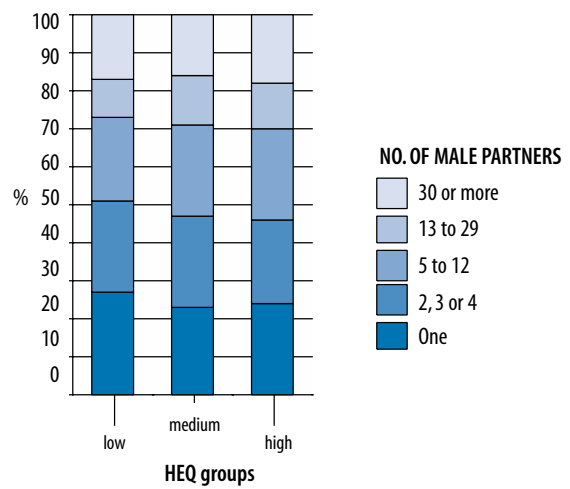


Figure 2.6.4: Number of partners groups by highest education qualification (N=2675, 2355, 3897)

### 2.6.5 Ethnicity & number of partners

Men in different ethnic groups had significantly different numbers of male sexual partners ( $p < .01$ ).

Asian and Black men had an average (median) of six partners compared with four among White British men. This is in contrast to the 1998 survey where all ethnic groups had a median of four partners.

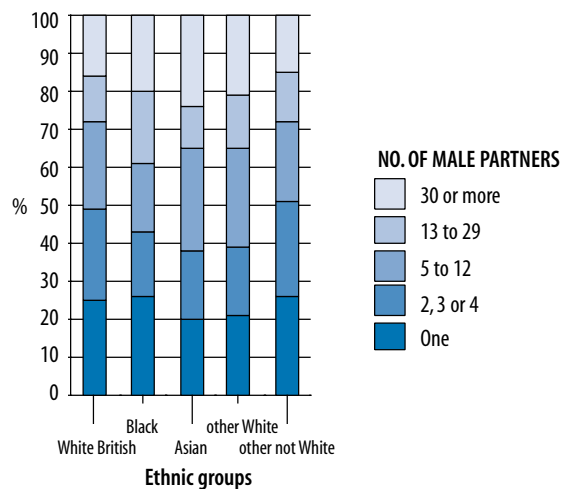


Figure 2.6.5: Number of partners groups by ethnic groups (N=7466, 95, 123, 1016, 250)

## 2.7 DRUG USE

Men were asked *In the last year, which drugs have you used recreationally?* and were asked to tick as many as apply from the drugs in the table below, which also gives the overall proportion indicating each one.

drug	% used	drug	% used	drug	% used	drug	% used
alcohol	82.4	speed	19.8	ketamine	5.0	Viagra®	3.6
poppers	48.4	ecstasy	19.2	GHB / GBH	3.4	steroids	1.4
cannabis	35.5	cocaine	15.0	crack cocaine	1.6	other drug	1.9
		acid	6.6	heroin	0.9		

Men were allocated to one of five categories on the basis of which drugs they had used apart from Viagra®, steroids or other drugs listed (mostly nicotine and caffeine).

Overall, 11.4% indicated they used no drugs in the last year and these men form the first 'drug user' group. A further 26.2% had used alcohol only and these form the second group. Almost half the men (48.4%) had used poppers in the last year. Men who had used poppers but no other drug except alcohol form the third group (18.1% of the sample). The majority of these (84.3%) also used alcohol. The fourth group (15.5%) were those men who used cannabis and who may have also used alcohol (89.9% had) or poppers (57.3%) but who used none of the other drugs listed. The remaining men (28.7%) formed the fifth drug user group who had used any of the following: speed, ecstasy, cocaine, acid, ketamine, GHB/ GBH, crack or heroin. This group is referred to as 'class A' drugs (although it also includes ketamine which is unclassified or GHB/ GBH which is not illegal).

In the remainder of this report we look at the interaction of these drug user groups with other variables, as well as differences based on the use of individual drugs in the last year.

Figure 2.7 shows the proportions of the clipboard and leaflet samples in each drug user group. The two recruitment groups were equally likely to have used no drugs, or to have used alcohol, poppers, cannabis, speed, acid, heroin or crack.

However, the clipboard sample was significantly ( $p < .01$ ) more likely to have used ecstasy, cocaine, ketamine or GHB/GBH.

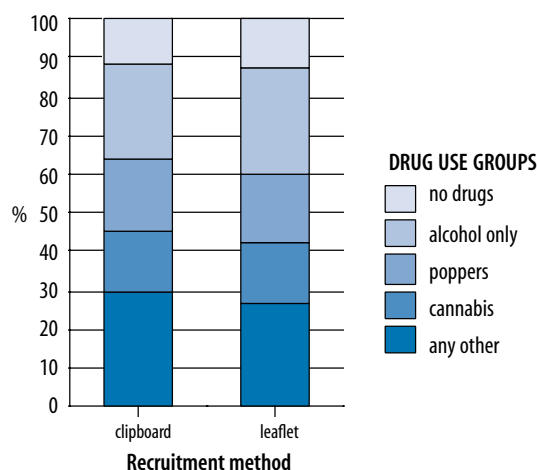


Figure 2.7: Drug use groups by recruitment method (N=6326, 2681)

### 2.7.1 Region of residence & drug use

Figure 2.7.1 shows the proportions in each regional sub-sample in each of the drug user groups. Among men under 30, using no drugs was equally common in the regional sub-samples. Among men over 30, those living in London or Northern & Yorkshire were most likely to have used any drug, those in Eastern or the South East were least likely to have used any.

Apart from alcohol and heroin, men living in London were significantly more likely to use all the drugs asked about: poppers (52.2%), cannabis (43.0%), ecstasy (29.6%), acid (11.0%), speed (22.4%), cocaine (28.1%), ketamine (11.0%), GHB (5.9%) and crack (2.5%).

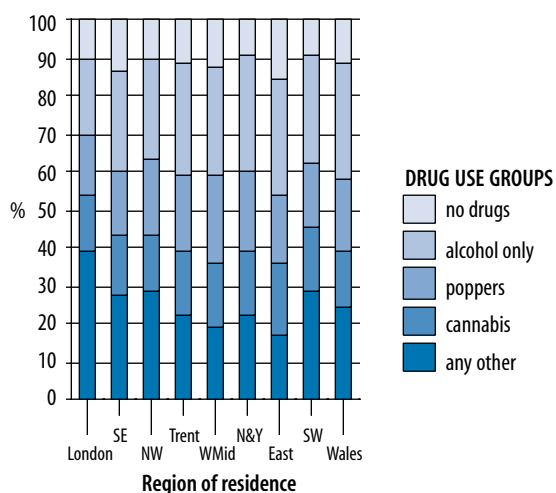


Figure 2.7.1: Drug use groups by region of residence (N=2085, 1648, 1500, 528, 1107, 976, 356, 389, 191)

### 2.7.2 Gender of partners & drug use

Behaviourally bisexual men were as likely as exclusively homosexually active men to have taken alcohol, poppers or GHB. They were significantly more likely ( $p < .01$ ) to have used all other drugs: cannabis (48.8% versus 34.8%), ecstasy (28.0% versus 18.7%), acid (12.7% versus 6.3%), speed (28.6% versus 19.3%), cocaine (23.1% versus 14.5%), ketamine (8.4% versus 4.8%), crack cocaine (4.9% versus 1.4%) and heroin (3.1% versus 0.7%). This overall pattern is reflected in Figure 2.7.2 where more behaviourally bisexual men are in the 'class A' group than those having sex with men only.

This pattern was particularly apparent among men under 30. Among those 30 and older, the proportions in each drug user group were identical for behaviourally bisexual men and exclusively homosexually active men.

### 2.7.3 Age & drug use

After the age of 20, use of all drugs became significantly ( $p < .01$ ) less common with increasing age.

Alcohol, poppers and heroin were most commonly used by the under 20s, then the proportion using them decreased steadily. Use of cannabis, ecstasy, acid, speed, cocaine, ketamine and crack cocaine peaked among 20 to 24 year olds, then declined. Use of GHB peaked among men in their late 20s and early 30s.

### 2.7.4 HEQ & drug use

We found no evidence that use of acid, crack cocaine or GHB varied by HEQ. Use of all other drugs significantly varied by HEQ ( $p < .01$ ) but in a variety of ways.

As all drugs cost money, we might expect men with higher levels of education (and higher disposable incomes) to be more likely to take them. An expectation that people with high HEQ are more likely to know drugs are 'bad for you' would lead to the opposite hypothesis. We did find that alcohol, cannabis and cocaine were used by larger proportions of men with high HEQ than with low HEQ. Poppers was most commonly used by men with medium HEQ, as was speed. Ecstasy and ketamine were least likely to be used by men with low HEQ, while men with high HEQ were least likely to use heroin.

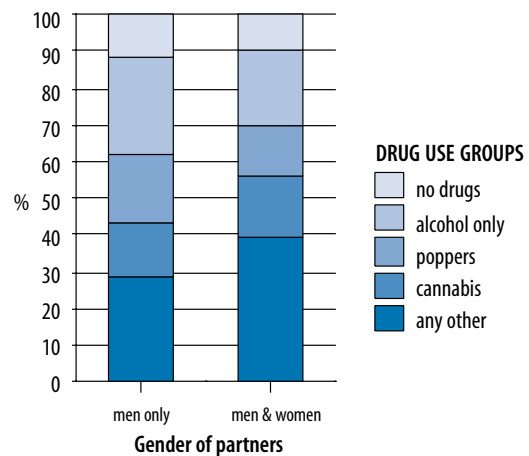


Figure 2.7.2: Drug use groups by gender of partners (N=8497, 510)

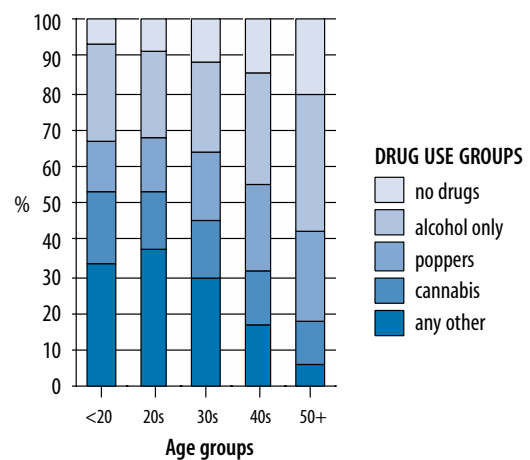


Figure 2.7.3: Drug use groups by age groups (N=456, 3029, 3411, 1414, 634)

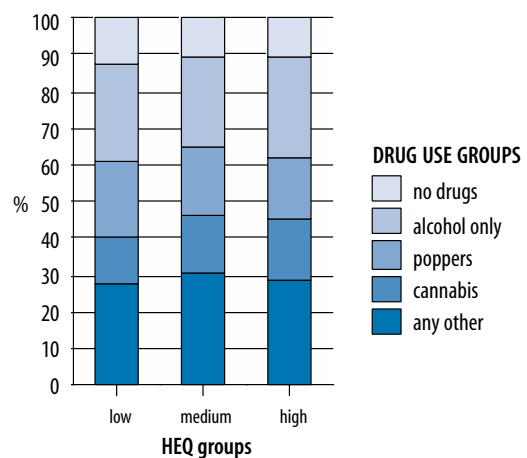


Figure 2.7.4: Drug use groups by highest education qualification groups (N=2684, 2377, 3912)



### 2.7.5 Ethnicity & drug use

Drug use significantly varied in the ethnic groups ( $p < .01$ ). Compared to all other groups, Asian men were less likely to have used alcohol and cannabis but were equally likely to have used any other drug.

Compared to all other groups, Black men were less likely to have used alcohol but were more likely to have used ecstasy, ketamine or crack cocaine.

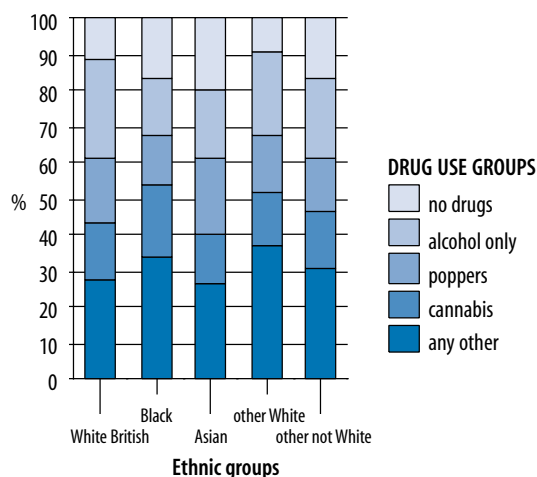


Figure 2.7.5: Drug use groups by ethnic groups (N=7496, 97, 125, 1029, 247)

### 2.7.6 Number of partners & drug use

For every drug asked about, men who used the drug had, on average, significantly more male sexual partners in the last year than men who did not use the drug ( $p < .01$ ).

Figure 2.7.6 shows men grouped by their number of sexual partners in the last year, and the proportions in each drug user group. Not using any drugs became less common with more sexual partners, as did the proportion using alcohol only. The proportion using class A drugs increases with more sexual partners.

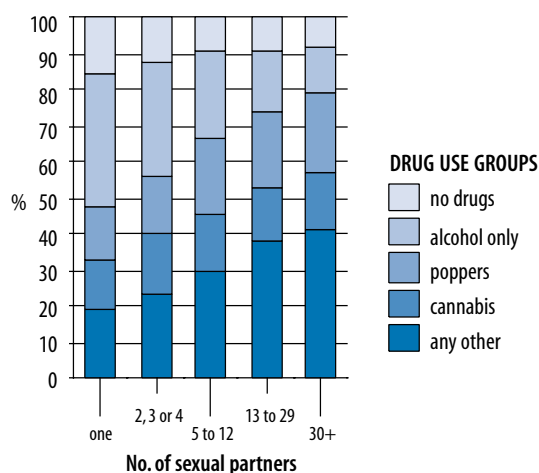


Figure 2.7.6: Drug use groups by number of partners groups (N=2150, 2002, 2071, 1053, 1513)

## 2.8 HOUSEHOLD

Men were asked *Who do you live with?* and asked to tick all that applied from the following list: *I live by myself; male partner; female partner; children; other family members; friends; and other people.* Those who indicated either *other family* or *other people* were asked to specify who.

Overall, a third (34.1%) indicated they lived alone. Slightly more (36.1%) lived with a male partner. Only 1.3% (n=125) lived with a female partner and 0.9% (n=88) lived with children (fewer than half the men who lived with children also lived with a female partner). 'Other family members' was ticked by 10.9%, who specified parents, grandparents, siblings and cousins. Fifteen per cent lived with friends, and 4.3% lived with other people including ex-partners, other house mates, lodgers, landlords.

Five households groups were constructed: those who lived alone; those who lived with a male partner, irrespective of who else they lived with (although the majority (95.1%) lived with their male partner only). Those who lived with family members other than a male partner; those who lived with friends but not family; and those who lived with people other than family or friends.

Figure 2.8 shows the proportion of men in each household group by the two recruitment methods. Compared with the clipboard sample, men in the leaflet sample were more likely to live alone or with family other than a male partner and less likely to live with a male partner or with friends.

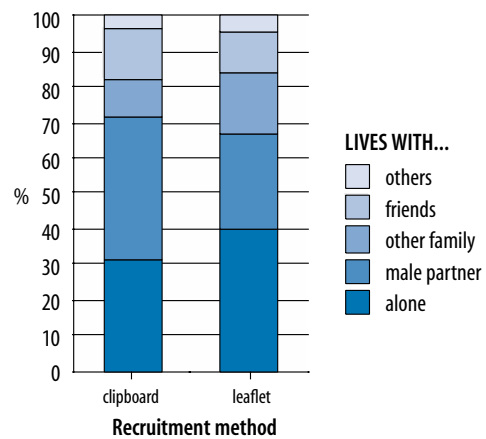


Figure 2.8: Household groups by recruitment method (N=6589, 2705)

### 2.8.1 Region of residence & household

Where men lived was associated with who they lived with. Men who lived in Wales were most likely to live alone, both among those under and over 30 years. Compared to men living elsewhere in the country, those living in London were as likely to be cohabiting with a male partner, but were significantly ( $p < .01$ ) less likely to live alone, or with female partner, children or other family members. They were also more likely to live with friends or people other than friends or family.

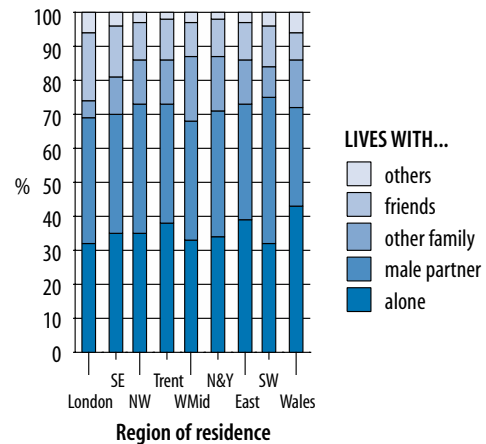


Figure 2.8.1: Household groups by region of residence (N=2176, 1702, 1548, 531, 1127, 1005, 364, 394, 193)

### 2.8.2 Gender of partners & household

Household was significantly associated ( $p < .01$ ) with gender of sexual partners. Men who had sex with women as well as men were as likely to live alone or with friends or non-family members as were men who had sex with men only. However, behaviourally bisexual men were far less likely to live with a male partner and far more likely to live with other family members.

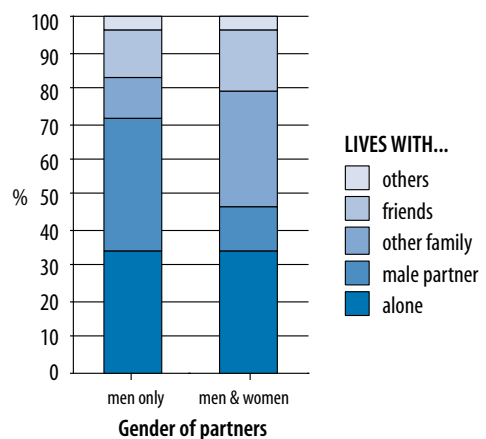


Figure 2.8.2: Household groups by gender of partners (N=8758, 536)

### 2.8.3 Age & household

Figure 2.8.3 shows changes in household across the age range. The proportion of men who live alone rises steadily with increasing age: 9.9% of those under 20 years, 24.8% of those in their 20s, 38.3% in the 30s, 43.2% in the 40s and over 51.8% among those over 50 years old.

Living with a male partner was increasingly common until the 30s and 40s, when over 40% are cohabiting, after which cohabitation declines. Living with friends was most common among men in their 20s.

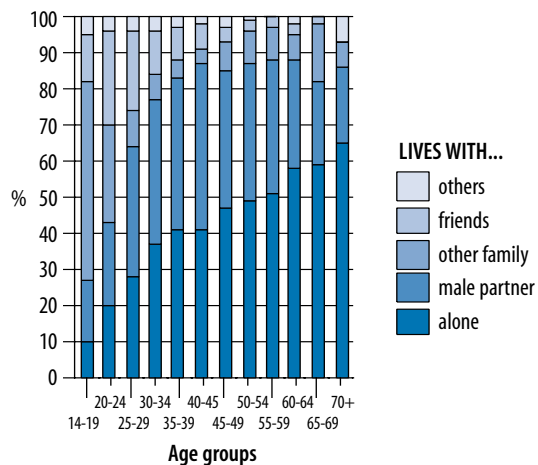


Figure 2.8.3: Household groups by age groups (N=464, 1261, 1874, 1990, 1533, 924, 537, 346, 144, 92, 39, 28)

### 2.8.4 HEQ & household

Figure 2.8.4a shows differences in household in the three education groups. The main overall difference was that men with high HEQ were less likely to live with other family and more likely to live with friends.

Differences in household by HEQ varied across the age range suggesting the overall pattern described above is partly attributable to the interaction between age and HEQ.

Among men in their twenties, those with high HEQ were far more likely to live with friends than with family, presumably because going to university is a reason for many men to leave home.

While this pattern was still apparent among men in their 30s, it was not among men in their 40s, by which age men with degrees were slightly more likely to live alone.

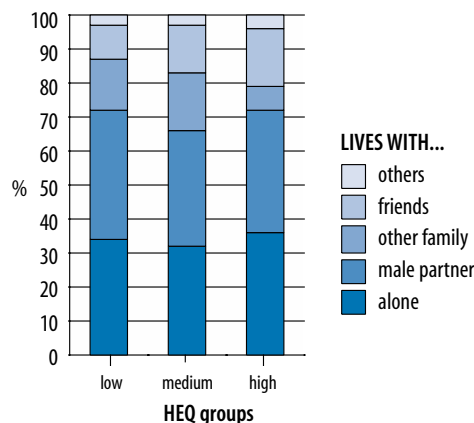


Figure 2.8.4a: Household groups by highest education qualification (N=2800, 2440, 4016)

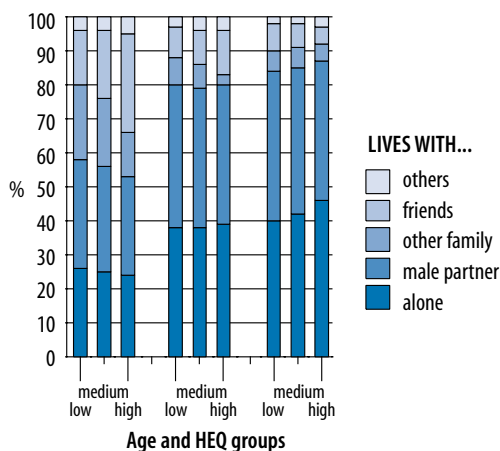


Figure 2.8.4b: Household groups by highest education qualification among men in their 20s (left), 30s (centre) and 40s (right) (N=3127, 3509, 1452)

### 2.8.5 Ethnicity & household

Household varied by ethnic group. Compared to all other groups, Asian men were significantly ( $p < .01$ ) less likely to live with a male partner and more likely to live with family members. This difference was particularly apparent among the under 30 year olds. No differences were found in household between Black and White men.

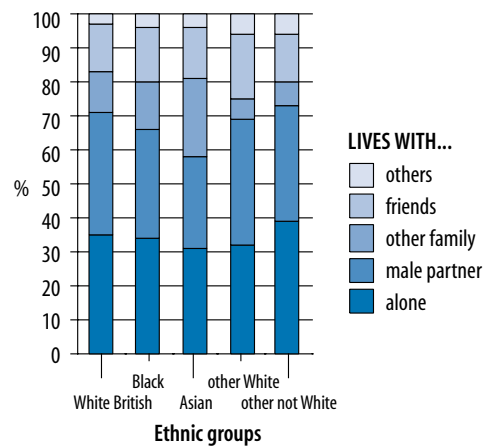


Figure 2.8.5 Household groups by ethnic groups (N=7703, 111, 135, 1066, 266)

### 2.8.6 Number of partners & household

The number of sexual partners a man had in the last year was associated ( $p < .01$ ) with who he lived with (Figure 2.8.6).

Men who lived alone, with friends (but not family) or with people other than friends or family had similar numbers of sexual partners.

Those who lived with a male partner were much more likely to have only one sexual partner in the last year, although more than half (55.4%) had more than one partner in the last year.

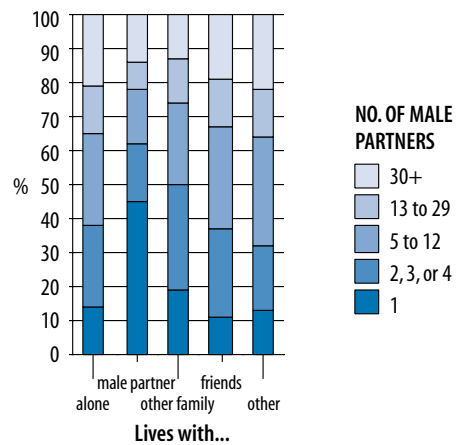


Figure 2.8.6 Number of sexual partners by household groups (N=3072, 3195, 1099, 1238, 337)

### 2.8.7 Drug use & household

Drug use was significantly associated with household (Figure 2.8.7).

Those who lived with friends were most likely to have used 'class A' drugs, followed by men who lived with people other than family or friends. This pattern was apparent among both those over and under 30 years of age.

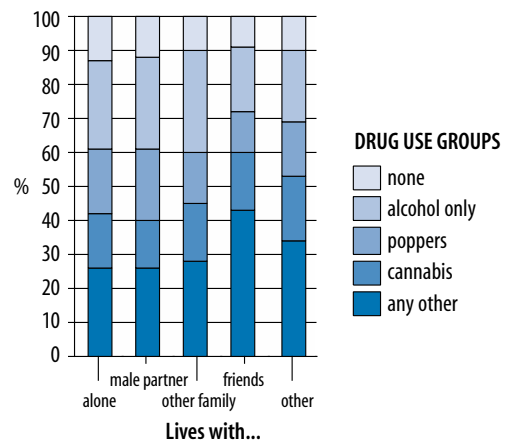


Figure 2.8.7 Drug use by household (N=3069, 3231, 1099, 1241, 345)

## 2.9 SUMMARY

	Variation by recruitment method	Association with...						
		Region of residence	Gender of partners	Age	HEQ	Ethnicity	No. male partners	Drug use
<b>Region of residence</b>	Leaflet sample is more geographically diverse							
<b>Gender of partners</b>	More of the leaflet sample had sex with women also (8% versus 4%)	Men in London were least likely to have sex with women also.						
<b>Age</b>	Leaflet had higher % of both younger and older men	London had least under 20's or over 50s	BBs were younger. ExHAMs were older					
<b>HEQ</b>	Leaflet sample less well educated	Londoners were best educated.	No association found	Older men left school earlier				
<b>Ethnicity</b>	No significant difference	London had most ethnic diversity	No association found	Minority ethnic groups were younger	Asian men were better educated			
<b>No. male partners</b>	Leaflet sample had more partners than clipboard sample	London residents had most male partners	BBs had more male partners than ExHAMs	Varies but 30s and 40s had most male partners	Better educated men have more partners	Asian and Black men have more male partners than white men		
<b>Drug Use</b>	Clipboard sample more likely to use ecstasy, cocaine, ketamine, GHB/GBH	London residents took most drugs except alcohol and heroin	BBs more likely than ExHAMs to take most drugs	Varies but drug use declines after 40	Various relationships between HEQ and use of specific drugs	Various relationships between ethnicity and use of specific drugs	Men who take each drug have more partners than men who do not take it	
<b>Household</b>	Fewer of leaflet sample live with a male partner, more live with other family or alone	Varies but men in Wales most likely to live alone	BBs less likely to live with a male partner	Living alone increases with age	Various relationships between HEQ and living arrangements	Asian men more likely to live with family other than a male partner	Men who live with male partner have less partners	Men who lived with friends most likely to have used 'class A' drugs

# 3 HIV testing and HIV status belief

This survey adds to our picture of HIV prevalence and incidence by asking men about their HIV testing history and for the first time in 1999, about their perceptions of their own current HIV status. In this chapter, we first look at men’s responses to the HIV testing and HIV status questions, then at the associations between these and the descriptive variables in Chapter 2.

Public Health Laboratory Services, Institute of Child Health, Scottish Centre for Infection & Environmental Health (1999)  
*Unlinked Anonymous Prevalence Monitoring Programme of HIV in the United Kingdom: Data to the end of 1998.*  
 London; Department of Health.

The PHLS’s unlinked anonymous surveys directly measure HIV prevalence in a variety of populations. The population of homosexually active men in the study are GUM clinic attenders having blood taken for syphilis testing.

Among 4,305 homosexually active men attending one of seven clinics in London, 362 (8.4%) were found to be infected with HIV, although the range at individual clinics taking part in the study was from 5.2% to 14.0%.

Of 1,573 men attending one of eight clinics elsewhere in England, Wales or Northern Ireland, 42 were infected (2.7%) with a range of zero to 8.1%.

The study estimates that at the end of 1998 there were 16,100 homosexually active men with HIV infection resident in the UK, of whom 11,600 (72.5%) have had their infection diagnosed, a similar proportion as two years ago.

## 3.1 HIV TESTING HISTORY

Men were asked, *Have you ever received an HIV test result?* (yes or no). Only 0.8% (n=76) declined to answer this question. Of those who answered, 57.6% had ever tested. These men were then asked *What was your most recent test result?* (Negative or Positive). Of those who had tested, 7.3% (or 4.2% of the entire sample) declined to tell us their result. Of those who did tell us the result, 9.3% (n=458, or 4.9% of the entire sample) indicated they had tested positive.

These figures represent the ‘HIV testing histories’ of the men in the sample (Figure 3.1). The proportion who declined to tell us whether they had tested is small. However, the proportion who declined to tell us their result is as large as those who told us they had tested positive. If men declined to tell us the result because it was positive, this would mean we are seriously underestimating the proportion of men with a HIV positive diagnosis (but see below for data that suggests this is not the case).

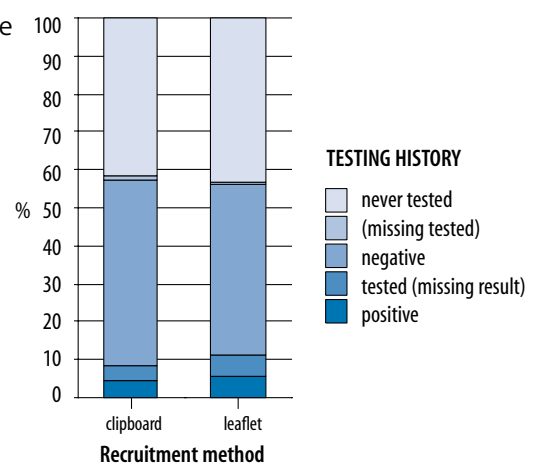


Figure 3.1: HIV testing history by recruitment method (N=6612, 2710)

### 3.2 CURRENT STATUS BELIEF

After being asked about their HIV testing history, all men were asked *What do you believe your HIV status is currently?* and asked to indicate one of the following: *don't know/couldn't say; definitely negative; probably negative; probably positive; definitely positive; or other.* Men who indicated *other* were asked to specify what they meant. Overall, 4.1% of men declined to answer this question, 74.3% thought they were definitely or probably negative, 5.9% thought they were definitely or probably positive and the remaining 15.8% were unsure (including a small number who gave other answers). These responses were not co-terminus with men's HIV testing histories. The following table shows the proportions of men in each of the HIV testing history groups who indicated each of the status beliefs, including men missing one or both answers.

What men in each testing history thought their current status was		HIV testing history (% in each belief group)				
		Missing tested or not (n=76)	Never tested (n=3923)	Tested negative (n=4477)	Tested missing result (n=388)	Tested positive (n=458)
Current status belief	[missing]	46.1	4.7	2.5	4.6	7.6
	Definitely -ve	26.3	32.4	51.4	52.6	2.0
	Probably -ve	10.5	36.4	35.2	23.5	1.5
	DK / not sure	17.1	25.3	9.6	8.5	1.5
	Probably +ve	0.0	0.8	0.7	1.5	2.4
	Definitely +ve	0.0	0.4	0.6	9.3	84.9

Most men who had tested positive thought they were currently positive (94.4% of those who answered the status belief question). Of the men who indicated they had tested positive and who answered the status question (ie. excluding the 7.6% in the last column), 3.8% thought they were currently HIV negative (n=16) and 1.6% were unsure of their status (n=7).

Most men who had tested negative in the past thought they were currently HIV negative (88.8%, ie. excluding the 4.7% who declined the second question). A small group (1.3%) thought they were currently HIV positive (n=58) and 9.6% were unsure of their current status (n=419).

Most men who had never tested for HIV thought they were currently HIV negative (72.2%). Only a very small group (1.2%) thought they were positive (n=46) but a quarter (26.5%) were unsure of their status (n=991).

Among men who had not tested positive, the overall differences in what men thought their current status was did not vary greatly by whether they had tested negative in the past: 72.2% of those never tested thought they were negative, compared with 88.8% of those who had previously tested negative.

Almost half the men who declined to answer whether they had ever tested (the first column of figures), did tell us what they thought their current status was and the majority of those thought they were negative. Men who had tested but who declined to tell us their test result (the fourth column), were no more likely to decline the status belief question than were men who had told us their result. Again, the majority of these men thought they were HIV negative. However, a larger proportion thought they were definitely positive (9.3%, n=36) than other testing history groups.

This is the same proportion of those who had tested who had tested positive (see 3.1). This suggests that the majority of men who declined to tell us their result had received similar results to men who told us the result. Hence, we are not seriously underestimating the prevalence of positive diagnoses.

The following table excludes those men (8.5% of the total) who declined to answer any of the three questions (ever tested, result or current status belief). It also simplifies current status belief to three categories. The table shows the **proportion of all men** in each cell.

% of total: men with each combination of testing history and current status belief		HIV testing history		
		Never tested	Tested negative	Tested positive
<b>current status belief</b>	Thinks negative	31.7	45.5	0.2
	Don't know / not sure	11.6	5.0	0.1
	Thinks positive	0.5	0.7	4.7

Overall, the largest group (45.5%) were men whose last test was negative and who currently believed themselves negative, followed by another 31.7% who thought they were negative but who had never tested. A small proportion of men (0.2%) had received positive tests which they believed false and considered themselves negative. This adds up to 77.4% of men who thought they were uninfected (first row).

In the second row are 16.7% of men who were unsure of their HIV status. About two thirds of these had never tested and a third had tested negative in the past. Again, a small proportion had received a positive result in the past but were currently unsure of their status.

Of the 5.9% of men who thought they were HIV positive, 80% had been diagnosed positive.

### 3.2.1 Addressing men on the basis of their HIV infection status

At the level of population monitoring for HIV prevention planning, HIV testing history is probably the best indicator we have of HIV infection status, but a more graduated measure may be achieved using current status belief as well. However, at the level of individuals, HIV testing history, current status belief and actual infection status are not the same thing. Although past testing history clearly influences current status belief, it does not determine it. HIV prevention texts themselves often maintain, if not generate, the confusion between HIV infection, HIV testing and current status belief. For instance, introducing leaflets as being “for all gay men whether you’re HIV negative, HIV positive or unsure” suggests there are three groups. But it is unclear as to what the groups actually are.

If we think about the size of these three groups we can see there are not three groups at all: “HIV negative” could mean last test negative, or believe negative or, both tested negative and believe negative; “HIV positive” could mean tested positive, or believe they are positive, or both; and “unsure” could mean never tested, or tested and still not sure/ don’t know their current status. As shown above, most men who had never tested did ‘know their status’. The confusion arises because the statement collapses infection status, testing history and status belief. Each of the following statements would be preferable to the one above. Which one to use would depend on why they are being addressed:

- For all gay men whether you’ve got HIV or not.
- For all gay men whether you’ve ever tested or not and whatever the result was.
- For all gay men whether you know you’ve got HIV, know you haven’t, or are unsure.



### 3.3 WHEN MEN TESTED POSITIVE

The 1999 survey recruited 458 men who had tested positive for HIV. These men were asked the month and year in which they had received their first positive test result.

Figure 3.3 shows the number who had first tested positive in each year since 1983. The pattern shows a gradual increase, with depressions in 1987 (the year following the first National mass media awareness campaign) and in 1992. There appears to have been an unusually large number having their infection diagnosed in 1997, the first year of widespread availability of combination therapy.

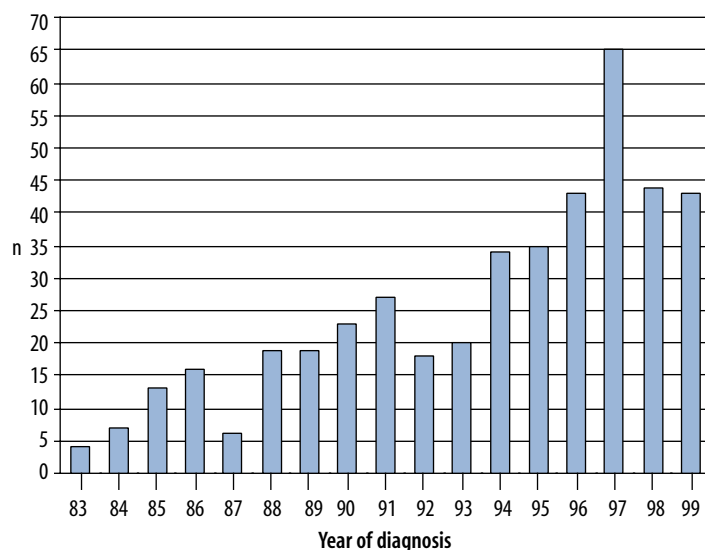


Figure 3.3: The year in which the men who had tested HIV positive were first diagnosed (N=434)

### 3.4 TESTING HISTORY ACROSS THE SAMPLE

This section looks at how HIV testing history varied by each of the characteristics described in Chapter 2. This shows the demographic differences between men with different testing histories.

#### 3.4.1 Region of residence & HIV testing history

The following table shows how HIV testing history varied by region of residence.

Region of residence	Number	HIV testing history (%)		
		Never tested	Last test negative	Tested positive
London	2084	35.9	55.6	8.5
Eastern	351	41.9	56.1	2.0
South East	1603	44.4	51.2	4.5
South West	379	48.5	47.2	4.2
West Midlands	1050	51.2	44.9	3.9
Trent	511	45.0	50.9	4.1
North West	1491	46.2	48.2	5.6
Northern & Yorkshire	963	48.9	49.1	2.0
Wales	188	47.9	46.3	5.9

As in previous years, the survey suggests that ever having tested for HIV and having been tested positive are both most common among men resident in London. The proportion having ever tested is substantially higher in London than any other region, with Eastern and the South East having the next highest rates of ever having tested.

However, the proportion of tested men with a positive diagnosis varies less substantially. If we consider the proportion of men tested that have tested positive London has the highest rate (13.3%), followed by Wales (11.3%) and then the North West (10.4%). All the other regions have a rate between 7.5% and 8.7% except Northern & Yorkshire (3.9%) and Eastern (3.4%) which have substantially lower prevalence of HIV.

As with the 1997 and 1998 surveys we would also underline the general similarity in levels of having tested and having tested positive in the different regions of the country. In all regions there are men living with diagnosed HIV infection and in all regions those men are in the minority. Of the entire sample, 24% lived in London but 40% of the positive men lived in London. Hence, the majority of men living with diagnosed HIV infection in this sample did not live in London.

- HIV testing history varies across England and Wales, with both ever testing and testing positive being most common in London.

### 3.4.2 Gender of partners & HIV testing history

Testing history significantly varied by gender of partners. Men who had sex with men only were significantly ( $p < .01$ ) more likely to have ever tested (58.1%) than men who had sex with both men and women (49.1%).

Among men who had ever tested, men who had sex with men only were more likely ( $p < .01$ ) to have tested positive (9.5%) than behaviourally bisexual men (5.5%). Overall then 5.3% of the ExHAMs had tested positive compared with 2.6% of the BBs.

- Exclusively homosexually active men are both more likely to have ever tested and to have tested positive than behaviourally bisexual men.

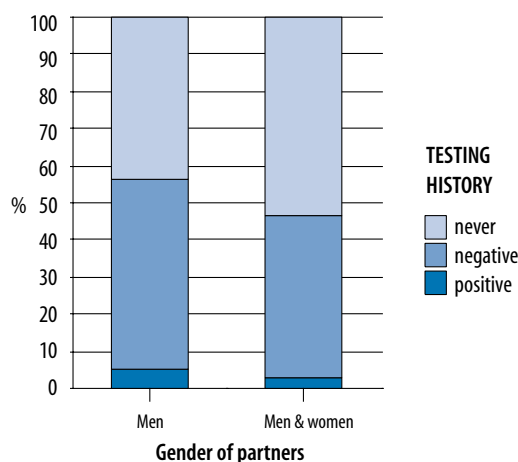


Figure 3.4.2: HIV testing history by gender of partners (N=8352, 506)

### 3.4.3 Age & HIV testing history

Testing history varied across the age range in a similar pattern to previous years. Men who never tested (mean age 32.7 years) were, as a group, significantly younger than those who had tested (mean age 33.7). Among those who had tested, those who had tested positive (mean age 35.7) were significantly older than those who had tested negative at their last test (mean age 33.4).

Ever having tested was least common among men under 20 (31.9% had tested) and increased to a peak of 61.4% among men between ages 35 to 39. It became less common again among older men.

- Men in their 30s were most likely to have ever tested and men aged 35-44 were most likely to have tested positive.

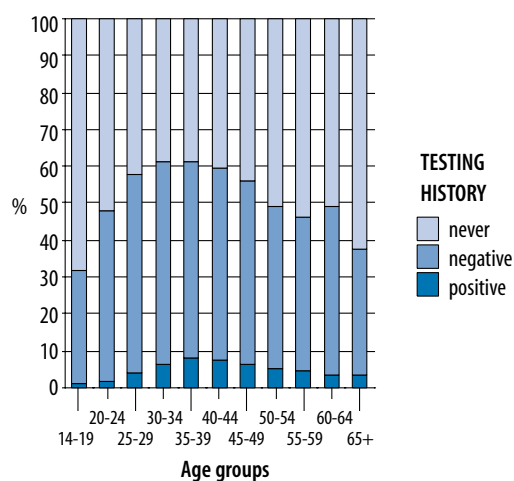


Figure 3.4.3: HIV testing history by age groups (N=452, 1204, 1795, 1887, 1453, 874, 514, 329, 135, 88, 64)

### 3.4.4 HEQ & HIV testing history

Both the 1997 and 1998 surveys showed a clear association between low HEQ and having tested HIV positive (see also Weatherburn, Davies *et al.*, 1999). The 1999 survey shows a similar pattern.

Although there was no significant difference in the proportion who had ever tested, among those who had tested, 11.0% of men with low HEQ had tested positive, compared with 9.9% of men in the middle group and 7.7% of those with high HEQ ( $p < .01$ ).

- Among men testing for HIV, testing HIV positive was more common among men with lower levels of education.

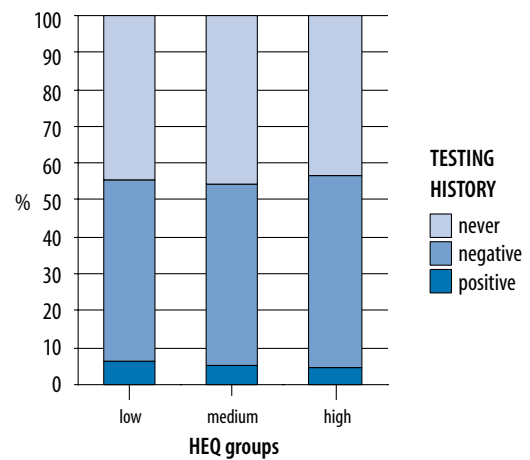


Figure 3.4.4: HIV testing history by HEQ groups (N=3906, 4459, 455)

### 3.4.5 Ethnicity & HIV testing history

Asian men were least likely to have tested for HIV (51.5% had) followed by White British men (55.8%). Other White (68.7%) and Black men were most likely to have tested (67.9% had).

Among men who had tested, we found no evidence that test results varied by ethnic group.

- Black men were most likely to have tested for HIV.

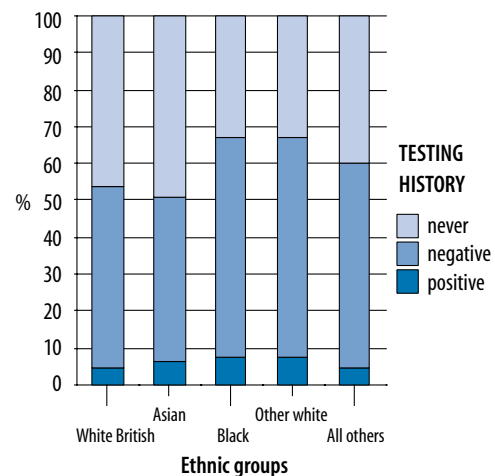


Figure 3.4.5: HIV testing history by ethnic groups (N=7356, 132, 104, 1003, 249)

### 3.4.6 Number of partners & HIV testing history

As in the 1998 survey, numbers of male sexual partners varied across the three testing history groups. Men who had never tested had fewest partners (median 4 in the last year), followed by men who had tested negative (median 6) and men who had tested positive had most partners (median 10).

- Men who had tested positive had more sexual partners in the last year than men who had tested negative, who had more than men who had never tested.

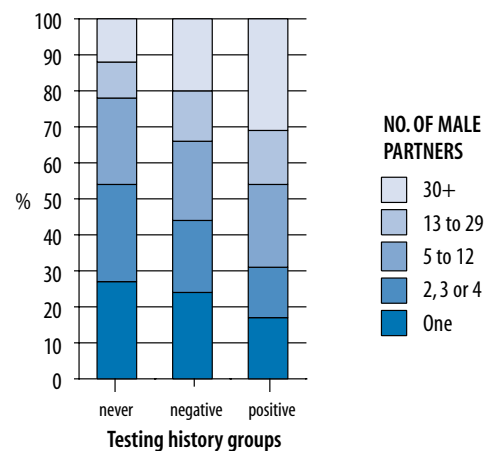


Figure 3.4.6: Numbers of male sexual partners by HIV testing history (N=3794, 4307, 446)

### 3.4.7 Drug use & HIV testing history

Alcohol was the most commonly used drug in the last year and was used by similar proportions of all three testing history groups.

All of the other drugs asked about (including poppers and cannabis) were least likely to be used by men who had never tested and most likely to have been used by men who had tested positive.

#### *Viagra® and testing history*

Men who had tested positive were most likely to use Viagra® (8.5% had used it in the last year), men who tested negative were less likely to have used it (4.0%) and men who had never tested were least likely to (2.4%).

#### *Steroids and testing history*

As with all recreational drugs (except alcohol), using anabolic steroids in the last year was least common among men who had never tested for HIV (0.9%) and most common among men who had tested positive (4.9%). Men who had tested negative were more like men who had never tested than those who had tested positive, with 1.4% indicating they used steroids in the last year.

This survey found only 1.4% had used steroids in the last year. Among men resident in London who said they had been to a gym in the last month, this figure was still only 2.5%. This is much lower than the 13.5% found in a recent study among gay men using gyms in London (see box).

- Positive men are substantially more likely to have taken most drugs in the last year compared to men who had tested negative, who are more likely to have taken them than men who had never tested.

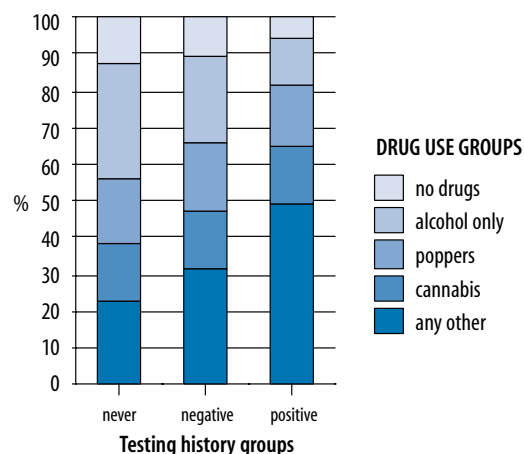


Figure 3.4.7: Drug use by HIV testing history groups (N=3811, 4331, 448)

Bolding G, Sherr L, Maguire M & Elford J (1999) HIV risk behaviour among gay men who use anabolic steroids. *Addiction*, 94(12), 1829-1835.

Cross-sectional data from 1004 gay men (94% had sex with a man in the last 3 months), recruited in Central London gyms during September – October 1997. Average (mean) age was 33 years, 72% had a degree, 12% were from ethnic minorities, 54% were partnered.

13.5% currently used anabolic steroids (AS), of whom, 60% injected and none shared needles.

Both the proportion using AS and the proportion injecting varied across the five gyms (3% – 21% and 48% – 83% respectively). An additional 4% were ex-users and 82.5% had never used AS.

Current users, compared with those who had never used, went to the gym more often (averaging 3.5 versus 3.0 times per week) and were more likely to be unemployed (19% vs. 11%), to have ever sold sex (39% vs. 14%) and to have ever tested for HIV (84% vs. 70%). HIV test results were not asked about.

### 3.5 SUMMARY AND IMPLICATIONS FOR PROGRAMME PLANNING

These implications for programme planning should be read in conjunction with those at the end of Chapter 4. They are intended to suggest where the emphasis in HIV prevention programmes might have the greatest impact on HIV incidence, rather than where they might have the greatest impact on inequality of HIV prevention aims.

Men resident in the London region were most likely to have tested and were most likely to have tested positive. The incidence of HIV diagnoses suggest the incidence of HIV infection is highest among men resident in London. In order to increase their short term impact on incidence, national HIV prevention programmes should:

- Prioritise the HIV prevention needs of men resident in London (and those who will live in London) before those who live elsewhere.

We would qualify this implication by pointing out that most gay men who live in London moved there from somewhere else in the UK and that many of their needs would be better met before they moved to London.

Compared with behaviourally bisexual men, those that have sex with men only (that is, those who are exclusively homosexually active) are both most likely to have ever tested and to have tested positive. This suggests the incidence of HIV infection is higher among exclusively homosexually active men than behaviourally bisexual men, and that in order to increase their impact on incidence, HIV prevention programmes should:

- Prioritise the HIV prevention needs of exclusively homosexually active men before those of behaviourally bisexual men.

Men in their 30s were most likely to have tested, men aged 35 to 44 were most likely to have tested positive. The incidence of HIV diagnoses suggest the incidence of HIV infection is highest among gay men in their 20s and 30s. Hence, in order to increase their impact on incidence:

- Programmes should concentrate on the HIV prevention needs of men under 40.

Men with low HEQ were not more likely to test for HIV but were more likely to have tested positive, compared to men with high HEQ. This is probably because the incidence of HIV infection is higher among gay men with lower education. Hence, in order to increase their impact on incidence:

- Programmes should prioritise the HIV prevention needs of men who have less formal education before those of men with higher education.

As in the 1998 survey, Black men are most likely to have tested. However, unlike last years survey Black men are not significantly more likely to have tested positive. Hence our previous, tentative recommendation regarding prioritisation of Black men is not confirmed by these data.

Men who had tested positive had more sexual partners in the last year than men who had tested negative, who had more than men who had never tested. It is likely that higher numbers of partners precede a positive diagnosis, as well as follow it. This leads us to conclude that the incidence of HIV

infection is higher among men with larger numbers of sexual partners and that in order to increase their impact on incidence, HIV prevention programmes should:

- Prioritise the HIV prevention needs of men with larger numbers of sexual partners before those of men with fewer partners.

Men who had tested positive were significantly more likely to have taken most of the recreational drugs in the last year, compared to men that had tested negative, who were more likely to have taken most of them than men who had never tested. It is feasible that higher levels of drug use precede a positive diagnosis, as well as follow it. This leads us to conclude that the incidence of HIV infection is higher among men who take a wider variety of recreational drugs and that in order to increase their impact on incidence, HIV prevention programmes should:

- Prioritise the HIV prevention needs of men who take 'class A' drugs before of men those who do not take them.

The recommendations to prioritise three of these groups (younger, less well educated and men with higher numbers of partners) are identical to those made from the 1998 survey, and can be considered especially robust.

Last years recommendation regarding Black men is not confirmed, although a similar pattern is observed in the data regarding ethnicity. While the previous recommendation regarding this group may still prove to be correct, further evidence is necessary. The other recommendation made from the 1998 survey concerned men who have been sexually assaulted. Since no data was gathered on this matter in 1999, we repeat the recommendation:

- Programmes should pay particular attention to the HIV prevention needs of men who have been sexually assaulted.

Finally, it should be noted that this data points to associations between certain groups and HIV incidence. For each association, there may be variety of relationships between incidence and membership of that group. Hence while we can use the above data to make recommendations for prioritising population groups, they cannot tell us what those men's needs are. Data from previous National surveys explore some of the needs of these groups, and the next chapter explores their needs further.

# 4 Health promotion targets

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The three strategic targets identified in *Making It Count* (Hickson, Nutland, Doyle *et al.*, 2000) are a reduction in:

- The number of occasions unprotected anal intercourse occurs between HIV infected and uninfected men.
- The rate of condom failure.
- The average duration of gonorrhoea and NSU infections.

This chapter reports data about the level of the first two of these targets.

## 4.1 INDICATORS OF HIV SERO-DISCORDANT UNPROTECTED ANAL INTERCOURSE (sdUAI)

Target 1 of *Making It Count* is the number of occasions sdUAI occurs. We can think about this as the number of HIV infected men involved in sdUAI multiplied by the average number of times they do so, or the number of uninfected men involved in sdUAI multiplied by the average number of times they do so (these two numbers must be the same).

In the survey, we attempt to assess the proportion of men involved in sdUAI but not the number of times it occurs. It would, of course, be possible for the proportion of men engaging in sdUAI in a year period to go down while the number of occasions of sdUAI goes up, if those who did it, did so more frequently.

The same analysis was carried out as for the 1998 survey. Responses to questions about sexual behaviour and HIV testing history were used to allocate men to one of five groups. To assess whether a man has engaged in sdUAI, we first ask them *In the last year, have you fucked a man (been the active partner in anal intercourse) OR been fucked by a man (been the passive partner)?* Men who indicated no to this question were grouped as 'no anal intercourse' (no AI).

Men who indicate yes were then asked *In the last year, have you fucked or been fucked WITHOUT a condom (with a man)?* Men who answered no were allocated to a second group, protected anal intercourse (PAI) only.

Men who had any UAI were then asked three questions:

- In the last year, have you fucked without a condom with a man you knew at the time was HIV positive?*
- In the last year, have you fucked without a condom with a man you knew at the time was HIV negative?*
- In the last year, have you fucked without a condom with a man whose HIV status you did not know at the time?*

From all the men who had UAI, we separated those who were more likely to have had UAI only with men with the same HIV status as themselves. Those who had tested positive and who indicated yes to (a) and no to (b) and (c) were allocated as 'known concordant UAI only'. Similarly, those whose last test was negative and who indicated yes to (b) and no to (a) and (c) were also allocated as 'known concordant UAI only'.

We also separated those men who appear more likely to have had sdUAI. Those men who had tested positive who indicated yes to (b) and those who whose last test was negative who indicated yes to (a) were both grouped as 'any known discordant UAI'.

All other men who had UAI (including all those who had never tested) formed the final group of 'unknown UAI'. Men who indicated they had engaged in UAI in the last year but indicated no to all three of these questions were allocated to the 'unknown UAI' group.

The following table summarises these measures for the entire sample.

Entire sample		1999
% had any AI (N=9110, missing 212)		82.3
% had any UAI (of those who had AI, N=7372, missing 129)		54.6
% with 1, 2 or 3+ UAI partners (of those who had UAI, N=3622, missing 400)	One	69.1
	Two	14.8
	Three +	14.8
Thought sero-concordancy of UAI partners (of those who had UAI, N=4022, missing none)	Concordant only	26.2
	Any Unknown (no discordant)	69.3
	Any Discordant	4.5

Anal intercourse is the norm, with four out of five men having done it in the last year. Among men who had AI, always using a condom was not the norm, with over half having done UAI in the last year. (Many men who had UAI also had PAI – it is worth noting that more of the men who had UAI (66.2%) also used a condom for insertive AI in the last year than had men who did not have any UAI (54.0%)).

Figure 4.1 shows these figures for the whole sample. Overall, 18.0% had no AI in the preceding year. The most common of these five behaviours during the last year was to have anal intercourse and to always use a condom when doing so (37.1% did this). The next largest group were men who had some UAI in circumstances where they did not know whether they were being involved in HIV exposure or not (31.1%), and about a third as many men had 'known concordant UAI only' (11.8%). Finally, 2.0% of men had UAI with known discordant partners. Overall, 44.9% of men had some UAI in the last year.

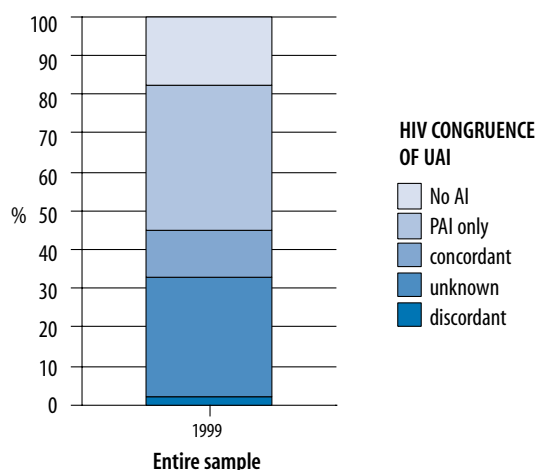


Figure 4.1: Indicator of sdUAI in the last year across the entire sample (N=8957)

Most men who had UAI did so with one partner only, while one in six had UAI with three or more partners. At the most, only a quarter of those having UAI could be said to be following the rules of negotiated safety (see box overleaf).



Elford J, Bolding G, Maguire M, Sherr L (1999)  
Sexual risk behaviour among gay men in a  
relationship.  
*AIDS, 13, 1407-1411.*

Further data from a self-completion survey of 1004  
men recruited in five London gyms during Autumn  
1997 (see section 3.4.7). Of the 986 men providing  
complete information about relationships, HIV  
testing and UAI, 24.9% had UAI in the last three  
months. Of these men, 43.5% indicated they had  
'status known UAI' only (ie. they only had UAI with  
men whose HIV status they knew: this includes both  
known concordant and known discordant), while

56.5% had 'status unknown UAI'. (Of men who had  
UAI in the last year in the National Gay Men's Sex  
Survey 1999, 30.7% had 'status known UAI' only;  
26.2% had known concordant UAI only and 4.5% had  
known discordant UAI). Both status known and  
status unknown UAI became less common with  
increasing age, and both were more common  
among the 54.7% who were currently in a  
relationship compared with those who were not.

- Most men having UAI do not know whether or  
not they are HIV sero-concordant with their  
partners.

We now look at these measures of involvement in sdUAI across the HIV testing history as described in Chapter 3 and then by the groups described in Chapter 2. The purpose of this analysis is to identify groups of men most likely to be involved in sexual HIV exposure in order to prioritise their needs relative to men less likely to be involved. Here, we are concerned with men's knowledge (or ignorance) of their involvement in exposure only in as much as it is an obstacle to determining whether they were involved. That is, the following data tell us little (if anything) about why men are involved in exposure, nor about which HIV prevention needs interventions should be aiming to change.

#### 4.1.0 HIV testing history & sdUAI

The following table shows how the sexual behaviour and HIV concordance measures varied across the three testing histories.

		Never Tested	Tested Negative	Tested Positive	p. value
% had any AI		76.7	86.5	91.2	<.001
% who had not always used a condom (of those who had AI)		49.5	57.9	58.8	<.001
Number of UAI partners (of those who had UAI)	One	73.0	70.2	39.0	<.001
	Two	13.8	14.9	19.7	
	Three +	13.3	15.0	41.3	
Thought sero- concordancy of UAI partners (of those who had UAI)	Concordant	0.0	45.5	26.3	<.001
	Unknown	100.0	49.5	43.8	
	Discordant	0.0	5.0	30.0	

All four measures varied by HIV testing history, showing the same differences as in the 1998 survey (see also Keogh *et al.*, 1999).

- ▶ Men who had never tested were less likely to have AI than those who had tested;
  - ▶ men who had never tested were less likely to have UAI than those who had tested;
  - ▶ men who had tested positive had more UAI partners than those who had not tested positive; and
  - ▶ men who had tested positive were most likely to have UAI they thought was discordant.
- Men who have tested HIV positive are more likely to be involved in sdUAI than men who have not tested positive.

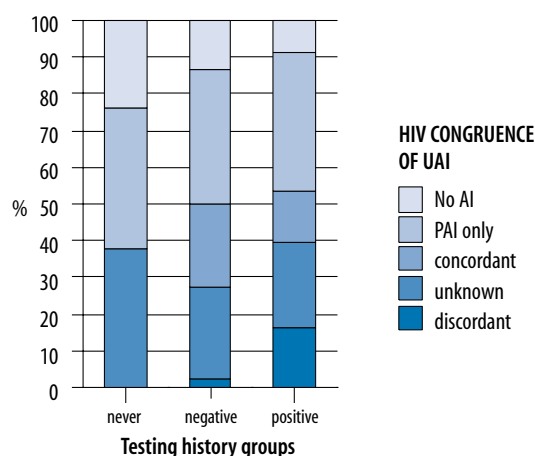


Figure 4.1.0: Indicator of sdUAI in the last year by testing history (N=3791, 4340, 448)

### 4.1.1 Region of residence & sdUAI

The following table shows how the sexual behaviour and HIV concordance measures varied across men resident in regional health authorities.

		London	South East	North West	Trent	West Mids.	North & Yorkshire	Eastern	South West	Wales	p. value
% had any AI		85.3	80.9	81.3	85.3	80.7	81.1	78.8	84.9	84.5	<.001
% who had not always used a condom (of those who had AI)		50.8	54.8	56.0	57.2	53.3	57.6	56.7	58.1	54.7	NS
Number of UAI partners (of those who had UAI)	One	68.2	67.8	66.5	70.8	72.0	68.9	71.0	76.0	73.8	NS
	Two	14.5	15.2	16.3	17.3	15.3	13.9	11.7	10.3	15.0	
	Three +	17.2	17.0	17.2	11.9	12.6	17.2	17.2	13.7	11.3	
Thought sero-concordancy of UAI partners (of those who had UAI)	Concordant	26.6	25.9	24.5	26.8	24.1	29.0	36.3	27.7	25.3	NS
	Unknown	66.6	69.7	71.4	69.3	71.8	67.5	61.1	69.6	72.4	
	Discordant	6.8	4.4	4.1	3.9	4.1	3.5	2.5	2.6	2.3	

The region of residence of men was significantly related to whether they engaged in anal intercourse. Anal intercourse was most common among men resident in London and Trent (closely followed by the South West and Wales). It was least common among residents of Eastern. However, the region of residence of men was not related to the proportion not always using condoms for anal intercourse, or the number of men they had UAI with, if they did so. Similarly there was no significant relationship between region of residence and concordance of UAI.

### 4.1.2 Gender of partners & sdUAI

The following table shows how the sexual behaviour and HIV concordance measures varied among men who had sex with men only (ExHAMs) and those who had sex with both men and women (BBs) (see also Weatherburn & Reid, 1995; Weatherburn *et al.*, 1996).

		Exclusively homosexual	Behaviourally bisexual	p. value
% had any AI		82.6	78.7	NS
% who had not always used a condom (of those who had AI)		54.6	53.8	NS
Number of UAI partners (of those who had UAI)	One	70.1	51.8	<.001
	Two	14.6	17.1	
	Three +	15.3	31.1	
Thought sero-concordancy of UAI partners (of those who had UAI)	Concordant	26.9	14.0	<.001
	Unknown	68.7	80.5	
	Discordant	4.4	5.6	

Two of the measures of homosexual behaviour varied by men's heterosexual activity:

- ▶ When they had UAI with men, behaviourally bisexual men did so with more partners.
- ▶ When they had UAI, behaviourally bisexual men were more likely to do so with partners of unknown HIV concordancy.

These measures suggest contradictory hazards for behaviourally bisexual men and exclusively homosexually active men. ExHAMs are more likely to have UAI because although they are no more likely to always use a condom, they are more likely to have AI in the first place. However, when they have UAI they are more likely to be doing so with a partner of concordant HIV status. Overall then, these data suggest little difference in the probability of involvement in sdUAI between exclusively homosexually active and behaviourally bisexual men.

- It is not possible to say whether behaviourally bisexual or exclusively homosexually active men are more likely to be involved in sdUAI.

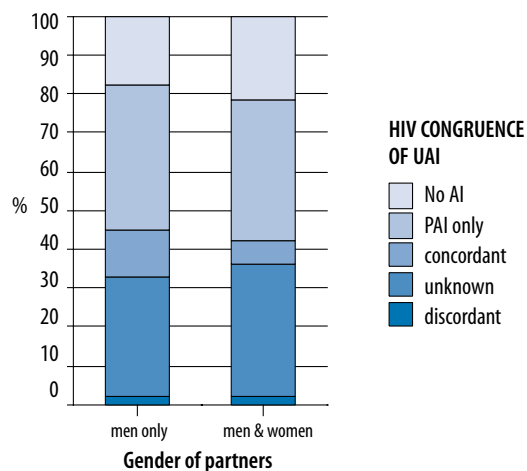


Figure 4.1.2: Indicator of sdUAI in the last year by gender of partners (N=8447, 510)

### 4.1.3 Age & sdUAI

The following table shows how the sexual behaviour and HIV concordance measures varied across the five age groups.

		<20	20s	30s	40s	50+	p. value
% had any AI		84.7	85.7	82.5	78.7	72.0	<.001
% who had not always used a condom (of those who had AI)		58.4	56.4	53.9	52.3	51.9	NS
Number of UAI partners (of those who had UAI)	One	58.3	70.7	69.7	69.5	66.0	NS
	Two	22.6	14.7	14.4	13.0	14.0	
	Three +	19.1	14.6	15.9	17.5	20.0	
Thought sero-concordancy of UAI partners (of those who had UAI)	Concordant	14.6	25.9	29.5	26.6	17.9	<.001
	Unknown	82.3	70.3	64.5	69.3	80.8	
	Discordant	3.1	3.8	6.0	4.1	1.3	

The age group of men was significantly related to whether they engaged in anal intercourse. AI was most common among men under 30 (closely followed by men in their 30s). It was least common among men over 50.

The next two measures approached significance with men under 20 most likely not always to use a condom for AI and most likely to do UAI with multiple partners. Finally men under 20 were least likely only to have known concordant UAI and most likely to have unknown UAI (men in their 30s were most likely to have both known discordant UAI and concordant only UAI).

- ▶ Anal intercourse became less common with increasing age.
- ▶ Concordant UAI only was least common among men under 20.

Overall then any UAI becomes less common with increasing age, as both AI becomes less common and (to a lesser extent) consistent condom use becomes more common. The proportion of men having unknown UAI declines and then increases again, with men in their 30s being most likely to know the concordancy of their UAI (be it concordant or discordant).

- The probability of involvement in sdUAI decreases with increasing age (but this trend is reversed in men over 50).

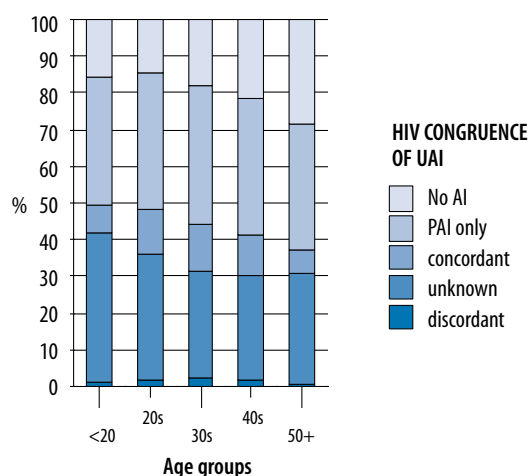


Figure 4.1.3: Indicator of sdUAI in the last year by age groups (N=458, 3021, 3378, 1409, 628)

#### 4.1.4 HEQ & sdUAI

The following table shows how the sexual behaviour and HIV concordance measures varied across the three HEQ groups.

		Low	Medium	High	p. value
% had any AI		81.0	84.6	81.9	<.01
% who had not always used a condom (of those who had AI)		58.8	55.4	51.1	<.001
Number of UAI partners (of those who had UAI)	One	65.5	69.7	71.6	NS
	Two	17.2	13.9	13.4	
	Three +	17.3	16.3	15.0	
Thought sero-concordancy of UAI partners (of those who had UAI)	Concordant	22.7	25.2	29.8	<.001
	Unknown	71.9	71.6	65.5	
	Discordant	5.4	3.2	4.7	

Three of the measures varied by highest educational qualification (HEQ). Anal intercourse was least common among men in the low HEQ group, as was condom use for AI. Men with low HEQ were least likely only to have known concordant UAI and most likely to have unknown and known discordant UAI. The measure on numbers of UAI partners also approaches significance ( $p < .02$ ) with men with low HEQ most likely to have multiple UAI partners.

- ▶ Men in with medium HEQ were most likely to have any AI.
- ▶ Consistent condom use became increasingly common with increasing education.
- ▶ Men with low HEQ were less likely to have concordant UAI only and more likely to have known discordant UAI.
- Men with lower HEQ are more likely to be involved in sdUAI.

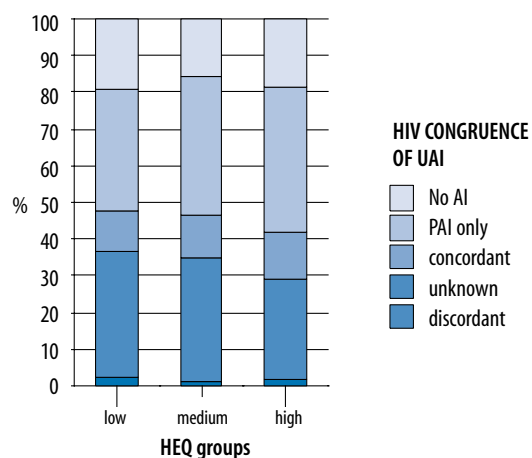


Figure 4.1.4: Indicator of sdUAI in the last year by highest education groups (N=2671, 2351, 3899)

#### 4.1.5 Ethnicity & sdUAI

The following table shows how the sexual behaviour and HIV concordance measures varied across the five ethnic groups.

		Asian/ Asian British	Black/ Black British	White British	Other White	Others not White	p. value
% had any AI		79.1	77.5	81.9	86.8	82.4	<.001
% who had not always used a condom (of those who had AI)		54.1	53.9	54.7	54.4	0.7	NS
Number of UAI partners (of those who had UAI)	One	50.0	53.3	70.2	65.5	64.9	<.01
	Two	16.7	23.3	14.5	15.5	16.0	
	Three +	33.3	23.3	15.2	19.1	19.1	
Thought sero-concordancy of UAI partners (of those who had UAI)	Concordant	17.0	24.4	25.9	28.5	30.8	NS
	Unknown	73.6	70.7	69.8	66.3	63.5	
	Discordant	9.4	4.9	4.3	5.1	5.8	

The ethnic group of men was significantly related to whether they engaged in anal intercourse. Anal intercourse was most common among Other White men (followed by Other not White). It was least common among Black/ Black British men and Asian/ Asian British men.

While the ethnic group of men was not related to the proportion not always using condoms for anal intercourse, the number of men they had UAI did vary by ethnic group. Asian/ Asian British and Black/ Black British who did UAI were most likely to have multiple UAI partners and White British men were least likely to have multiple UAI partners.

There was no significant relationship between ethnic group and concordance of UAI, among men that did UAI.

#### 4.1.6 Number of partners & sdUAI

The following table shows how the sexual behaviour and HIV concordance measures varied by the volume of sexual partners men had in the previous year.

		one	two to four	five to twelve	thirteen to twenty nine	thirty or more	p. value
% had any AI		76.2	76.4	84.8	89.4	91.5	<.001
% who had not always used a condom (of those who had AI)		69.8	48.7	46.6	50.1	55.6	<.001
Number of UAI partners (of those who had UAI)	One	100.0	74.7	63.6	48.5	38.3	<.001
	Two	0.0	20.8	18.6	24.9	19.2	
	Three +	0.0	4.5	17.7	26.6	42.5	
Thought sero-concordancy of UAI partners (of those who had UAI)	Concordant	36.4	25.4	25.6	19.0	17.5	<.001
	Unknown	61.2	71.5	71.0	74.9	73.3	
	Discordant	2.4	3.1	3.4	6.1	9.2	

All these measures significantly varied by the number of male sexual partners men had in the last year. While the pattern is not simple it is identical to that revealed in the 1998 data (Hickson *et al.*, 1999). That is:

- ▶ having any AI became more common with increasing numbers of sexual partners;
- ▶ men who had one partner were less likely to always use a condom for AI than men who had more than one partner;
- ▶ men with more partners had more UAI partners; and
- ▶ men with more partners were less likely to have only thought concordant UAI and more likely to have known discordant UAI.

Figure 4.1.6 shows men with one partner were most likely to have UAI, with a sharp drop among those who had two to four. However, the proportion having UAI rises again with increasing volume of partners. Since most men who had UAI had engaged in unknown UAI, this suggests that:

- The probability of engagement in sdUAI increases with an increasing volume of sexual partners.

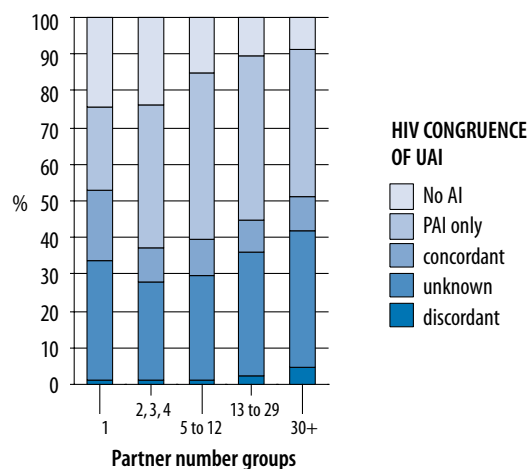


Figure 4.1.6: Indicator of sdUAI in the last year by number of partners groups (N=2149, 1980, 2056, 1058, 1505)

### 4.1.7 Drug use & sdUAI

The following table shows how the sexual behaviour and HIV concordance measures varied in each of the drug user groups.

		no drugs	alcohol only	poppers (+/- alc)	cannabis (+/- alc & poppers)	any others	p. value
% had any AI		75.1	73.7	86.6	84.1	89.3	<.001
% who had not always used a condom (of those who had AI)		50.0	53.0	54.0	49.9	59.6	<.001
Number of UAI partners (of those who had UAI)	One	73.0	82.4	69.2	71.5	58.2	<.001
	Two	12.3	9.7	15.3	14.4	18.9	
	Three +	14.7	7.8	15.5	14.2	22.9	
Thought sero-concordancy of UAI partners (of those who had UAI)	Concordant	26.8	31.4	26.5	28.6	21.8	<.001
	Unknown	70.5	67.3	70.5	68.1	69.7	
	Discordant	2.6	1.3	2.9	3.3	8.6	

All these measures significantly varied by drug use.

- ▶ Having any AI became more common among men that used any drugs other than alcohol. It was most common among men who used 'class A' drugs (see section 2.7 for description).
- ▶ men who used 'class A' drugs were least likely to always use a condom for AI
- ▶ men who used 'class A' drugs had higher numbers of UAI partners; and
- ▶ men who used 'class A' drugs were least likely to have only thought concordant UAI and most likely to have known discordant UAI.

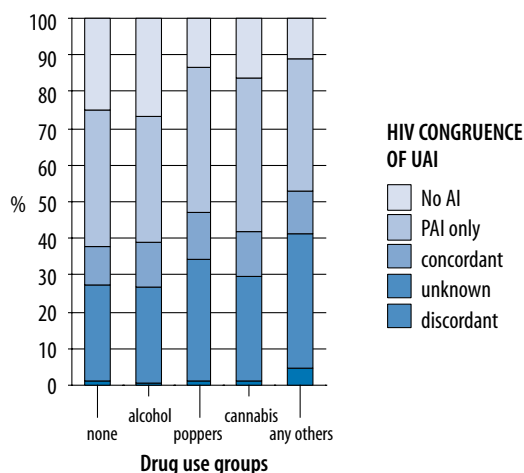


Figure 4.1.7: Indicator of sdUAI in the last year by drug user groups (N=1012, 2302, 1602, 1367, 2530)

Figure 4.1.7 shows the overall proportions who had UAI in each drug user group. Men who used 'class A' drugs are most likely to have UAI, to do so with more partners, and to do so with known discordant partners. This would suggest that:

- The probability of engagement in sdUAI is higher among men who use 'class A' drugs.



#### 4.1.8 Prioritising population groups likely to be involved in sdUAI

The preceding sections have examined the possible extent of sdUAI across the population groups. The data suggests that in order to increase their impact on HIV incidence, both National and local HIV health promotion programmes should concentrate on the sdUAI related needs of:

- men who have tested HIV positive;
- younger men;
- men with lower levels of formal education;
- men with larger numbers of sexual partners; and
- men who use 'class A' drugs (or GBH/ GHB or ketamine)

The first four of these priority target groups are identical to those recommended on the basis of the 1998 survey (Hickson *et al.*, 1999). The recommendation on drug users is new, since we have not previously collected any comparable data.

Last year's survey also recommended that National and local HIV health promotion programmes should concentrate on the sdUAI related needs of:

- men who have been sexually abused or assaulted.

Since this research is cumulative and no new data is available on men who have been sexually abused or assaulted, we re-iterate this priority target group.

Finally, it remains important to recognise that these are behavioural data, qualified to some extent by men's knowledge of HIV infection in themselves and their partners. They do not tell us why sdUAI may be more common in these groups.

Also this data show that there are different reasons for variation in sdUAI across groups. For example, sdUAI becomes less common with increasing age because AI becomes less common. Alternately sdUAI becomes less common with increasing education because condom use becomes more common.

## 4.2 INDICATORS OF CONDOM FAILURE

Sexual HIV exposure can occur when condoms fail during protected sero-discordant anal intercourse. *Making It Count* proposes reducing the overall rate of condom failure in order to reduce failure when partners are sero-discordant. In order for health promotion to reduce condom failure it can prioritise the needs of men who experience failure.

In the 1998 survey we asked men who had used condoms for insertive anal intercourse (IAI) whether *any of the condoms you've worn in the last year split or come off while you were fucking?* At the request of Rubberstuffers (a dedicated gay men's HIV prevention agency in London specialising in free condom distribution, which is now closed), we asked men about condoms slipping and about them tearing in the 1999 survey.

Men who had engaged in anal intercourse were asked *Have you fucked a man (been the active partner) WITH a condom in the last year?* Those who had done so were asked two questions about condom failure:

- (a) *Have any of the condoms YOU have worn in the last year TORN OR SPLIT while you were fucking?*
- (b) *Have any of the condoms YOU have worn in the last year SLIPPED OFF while you were fucking?*

The following table gives these measures for the entire sample.

Entire sample		%
% used condoms for insertive anal intercourse (IAI) (N=8868, missing 454)		59.4
% experienced failure (of IAI condom users) (N=5099, missing 169)		21.2
Type of failure (of those experiencing failure) (N=1081, missing none)	% torn only	27.3
	% both torn & slipped	17.0
	% slipped only	55.7

The proportion of IAI condom users who experienced any failure (21.2%) was higher in this survey than in the 1998 survey (15.7%). The more recent question was, however, more specific and wider ranging and this could easily account for the difference.

Slippage was more common than breakage. Of those who used a condom for IAI, 15.7% had experienced slippage compared 9.1% who had experienced tearing or splitting (breakage).

Figure 4.2 shows how these proportions look in the entire sample. The top band shows men who had not used a condom for IAI (they had either not engaged in IAI or did so only without a condom). Slightly more men had used condoms without experiencing failure (the second band down). Overall, 12.4% of men indicated they had experienced condom failure in the last year (the bottom three bars).

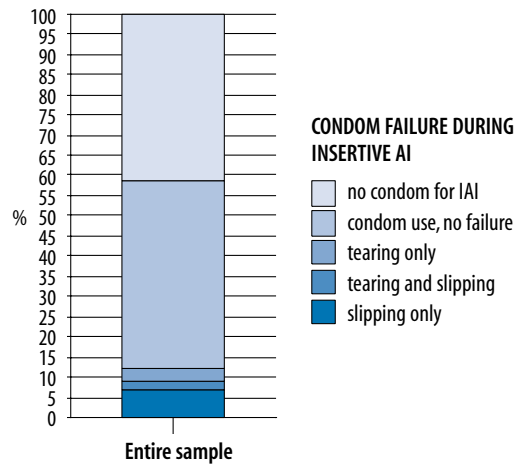


Figure 4.2: Experience of condom failure during IAI (N=8699)

The rest of this section looks at how these measures of IAI and condom failure vary across the sample, first by men's HIV testing history and then by the characteristics described in Chapter 2.

#### 4.2.0 HIV testing history & condom failure

The following table shows how the condom failure measures varied across the three HIV testing history groups.

		Never Tested	Last test Negative	Tested Positive	p. value
% used condoms for insertive anal intercourse (IAI)		53.0	64.1	70.4	<.001
% experienced failure (of IAI condom users)		18.8	22.2	25.1	<.01
Type of failure (of those experiencing failure)	% torn only	26.4	27.0	32.0	NS
	% both torn & slipped	13.9	19.4	18.7	
	% slipped only	59.7	53.6	49.3	

Men who had tested positive were most likely to have used a condom for IAI, men who had never tested were least likely to. Among condom users, men who had tested positive were most likely to have experienced failure, those who had never tested were least likely to. The types of failure experienced did not significantly vary by testing history.

Figure 4.2.0 shows the extent of condom failure in each group overall. Because they were both more likely to have used condoms and more likely to experience failure if they had, overall 17.5% of men who had tested positive experienced condom failure, compared with 9.8% of men who had never tested.

- Prioritise the condom failure needs of men who have tested positive for HIV, before those of men who have never tested.

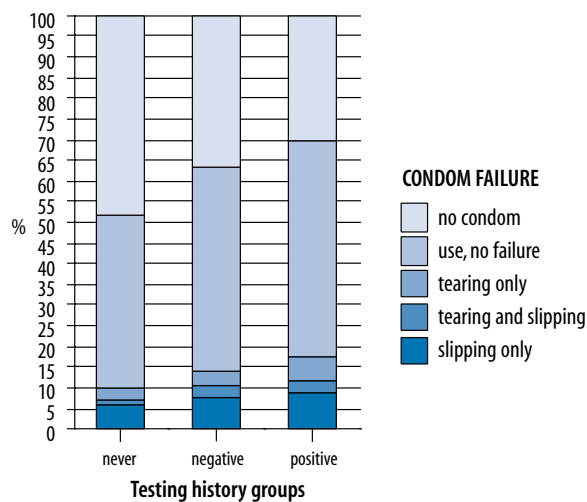


Figure 4.2.0: Experience of condom failure during IAI by testing history group (N=3682, 4240, 430)

#### 4.2.1 Region of residence & condom failure

The following table shows how the condom failure measures varied across the region of residence groups.

Entire sample		London	South East	North West	Trent	West Mids.	North & Yorkshire	Eastern	South West	Wales	p. value
% used condoms for insertive anal intercourse (IAI)		65.7	58.5	56.8	59.8	56.6	56.4	57.1	60.6	58.5	<.001
% experienced failure (of IAI condom users)		22.4	20.7	21.9	20.6	21.7	19.8	21.7	16.2	17.3	NS
Type of failure (of those experiencing failure)	% torn only	23.1	35.8	28.1	22.6	21.1	24.8	30.2	32.4	33.3	NS
	% both torn & slipped	16.2	13.7	16.9	21.0	17.2	21.9	20.9	21.6	5.6	
	% slipped only	60.7	60.5	55.1	56.5	61.7	53.3	48.8	45.9	61.1	

The region of residence of men was significantly related to whether they engaged in IAI with a condom. Condom use for IAI was most common among men resident in London, followed by men resident in the South West. However, the region of residence of men was not related to the proportion who had experienced condom failure in the last year, or the types of failure experienced, if they had experienced any.

#### 4.2.2 Gender of partners & condom failure

The following table shows how the condom failure measures varied by the gender of men's sexual partners in the last year.

		Exclusively homosexual	Behaviourally bisexual	p. value
% used condoms for insertive anal intercourse (IAI)		59.3	61.9	NS
% experienced failure (of IAI condom users)		20.7	28.7	<.001
Type of failure (of those experiencing failure)	% torn only	27.2	28.7	NS
	% both torn & slipped	16.6	21.8	
	% slipped only	56.2	49.4	

Whether men in the sample were behaviourally bisexual or exclusively homosexually active in the last year, was not related to whether they engaged in IAI with a condom with a man.

Figure 4.2.2 shows the extent of condom failure by gender of partners. Among men who used condoms, behaviourally bisexual men were more likely to experience failure than men who had sex with men only. The proportions experiencing different types of failure (slippage and breakage) were identical however.

- Condom failure was more common among behaviourally bisexual men, than among exclusively homosexually active men.

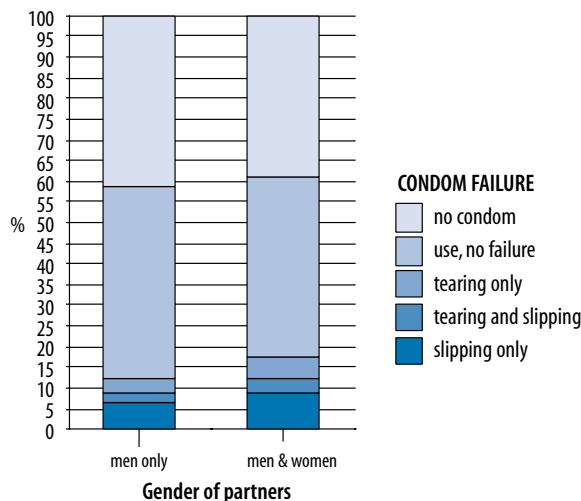


Figure 4.2.2: Experience of condom failure during IAI by gender of partners (N=8204, 495)

### 4.2.3 Age & condom failure

The following table shows how the condom failure measures varied across the age groups .

		<20	20s	30s	40s	50+	p. value
% used condoms for insertive anal intercourse (IAI)		64.4	62.6	59.6	54.9	48.4	<.001
% experienced failure (of IAI condom users)		30.1	21.5	20.7	18.6	17.8	<.001
Type of failure (of those experiencing failure)	% torn only	35.3	27.5	26.4	23.4	25.5	NS
	% both torn & slipped	20.0	15.0	19.6	16.1	11.8	
	% slipped only	4.7	57.5	54.0	60.6	62.7	

Section 4.1.3 suggested that younger men were more likely to have UAI. The above table demonstrates they are also significantly more likely to have protected IAI.

Figure 4.2.3 shows the overall level of condom failure across the age range. Among condom users, younger men were substantially more likely to experience condom failure. However, age has no impact on the proportions experiencing different types of failure (slippage and breakage).

- Experience of condom failure becomes decreasingly likely with increasing age. Experience of condom failure is most common among men under 20.

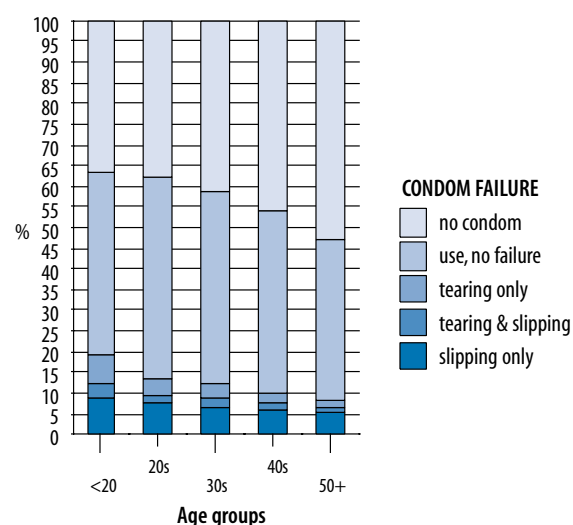


Figure 4.2.3: Experience of condom failure during IAI by age group (N=444, 2951, 3271, 1363, 607)

#### 4.2.4 HEQ & condom failure

The following table shows how the condom failure measures varied across the HEQ groups.

		Low	Medium	High	p. value
% used condoms for insertive anal intercourse (IAI)		56.0	60.7	60.9	<.001
% experienced failure (of IAI condom users)		22.0	21.9	20.1	NS
Type of failure (of those experiencing failure)	% torn only	27.6	25.0	28.6	NS
	% both torn & slipped	15.9	17.0	17.9	
	% slipped only	56.5	58.0	53.5	

HEQ was significantly related to whether men engaged in IAI with a condom. Condom use for IAI was significantly less common among men with low HEQ, compared to men of medium and high HEQ. However, HEQ was not related to the proportion who had experienced condom failure in the last year, or the types of failure experienced, if they had experienced any.

#### 4.2.5 Ethnicity & condom failure

The following table shows how the condom failure measures varied across the ethnic groups.

		Asian/ Asian British	Black/ Black British	White British	Other White	Others not White	p. value
% used condoms for insertive anal intercourse (IAI)		62.1	65.7	58.2	67.0	61.5	<.001
% experienced failure (of IAI condom users)		25.4	23.1	20.2	24.7	27.9	NS
Type of failure (of those experiencing failure)	% torn only	27.8	26.7	27.1	28.4	24.4	NS
	% both torn & slipped	11.1	6.7	17.4	17.3	17.1	
	% slipped only	61.1	66.7	55.5	54.3	58.8	

The ethnic group of men was significantly related to whether they engaged in IAI with a condom. Condom use for IAI was least common among White British men and most common among Other White and Black/ Black British men. The relationship between ethnic group and experience of condom failure in the last year, approached significance ( $p < .02$ ). White British men seemed least likely to experience condom failure and Others not White and Asian/ Asian British men were most likely. There was no relationship between the types of failure experienced and ethnic group.

#### 4.2.6 Number of partners & condom failure

The following table shows how the condom failure measures varied by how many male sexual partners men had in the last year.

		one	two to four	five to twelve	thirteen to twenty nine	thirty or more	p. value
% used condoms for insertive anal intercourse (IAI)		38.0	53.6	67.1	72.9	78.1	<.001
% experienced failure (of IAI condom users)		17.8	17.1	19.6	24.4	27.1	<.001
Type of failure (of those experiencing failure)	% torn only	29.5	27.2	28.4	22.1	28.4	NS
	% both torn & slipped	18.0	15.0	11.9	19.3	20.3	
	% slipped only	52.5	57.8	59.8	58.6	51.3	

There is a significant relationship between numbers of male sexual partners and condom use for IAI. Men with higher numbers of partners (especially those with 5 or more) are most likely to engage in IAI with a condom and men with one partner are least likely to do so.

There is also a relationship between partner numbers and experience of condom failure in the last year. Again men with higher numbers of partners (especially those with 13 or more) are most likely to experience condom failure and men with one partner are least likely to do so.

There is no relationship between the types of failure experienced and partner number groups.

- Experience of condom failure becomes increasingly likely with increasing numbers of male partners.

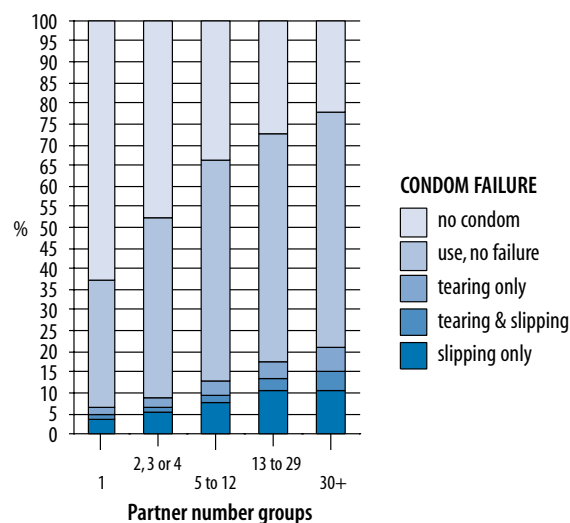


Figure 4.2.6: Experience of condom failure during IAI by partner number groups (N=2095, 1929, 2001, 1025, 1454)

### 4.2.7 Drug use & condom failure

The following table shows how the condom failure measures varied by the types of drugs taken in the last year.

		no drugs	alcohol only	poppers (+/- alc)	cannabis (+/- alc & poppers)	any others	p. value
% used condoms for insertive anal intercourse (IAI)		50.8	48.9	63.4	62.6	69.1	<.001
% experienced failure (of IAI condom users)		18.0	15.4	19.9	22.5	26.2	<.001
Type of failure (of those experiencing failure)	% torn only	28.4	27.5	28.9	34.9	23.0	NS
	% both torn & slipped	17.0	12.6	12.7	16.1	20.9	
	% slipped only	54.5	59.9	58.4	48.9	56.1	

Figure 4.2.7 shows the extent of condom failure across drug user groups. There is a significant relationship between extent of drug use and condom use for IAI. Men who use poppers, cannabis and 'class A' drugs (or GHB/ GBH or ketamine) are most likely to engage in IAI with a condom and men who use no drugs or alcohol only are least likely to do so.

There is also a relationship between drug use and experience of condom failure. Men who used 'class A' drugs are most likely to experience condom failure followed by men who use cannabis (+/- poppers).

There is no relationship between the types of failure experienced and drug user groups.

- Experience of condom failure becomes increasingly common among men with higher rates of drug use.

### 4.2.8 Prioritising population groups likely to experience condom failure

Given the amount of unknown and thought discordant UAI reported, it is likely that most HIV exposures occurring during sex between men are a result of not using condoms, rather than condom failure.

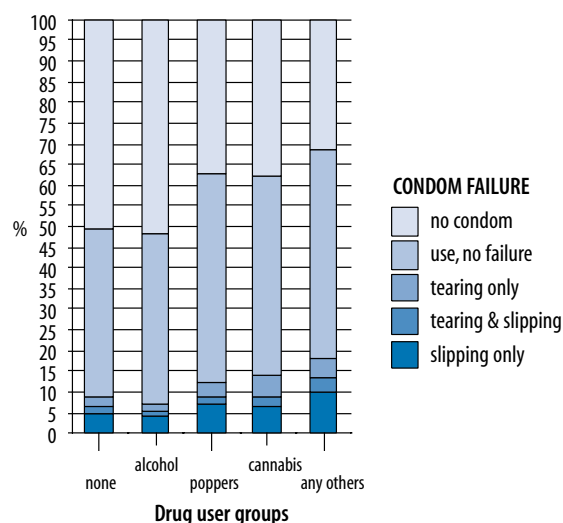


Figure 4.2.7: Experience of condom failure during IAI by drug user groups (N=987, 2257, 1571, 1336, 2459)



However, the preceding sections have examined the extent of condom failure during insertive AI, across different population groups. The data suggests that, in order to increase their impact on condom failure, programmes should prioritise the condom failure needs of:

- men who have tested HIV positive;
- men with larger numbers of sexual partners;
- younger men (especially under 20s);
- behaviourally bisexual men; and
- men who use 'class A' drugs (or GBH/ GHB or ketamine).

The first two of these five priority target groups are identical to those recommended on the basis of the 1998 survey (Hickson *et al.*, 1999). The pattern in the data giving rise to the recommendation regarding young men is similar to last year, but demonstrates a stronger relationship between relative youth and condom failure. The recommendations on behaviourally bisexual men and on drug users are new, since no comparable data has previously been collected as part of the *National Gay Men's Sex Survey*.

Last year's survey also recommended that national and local HIV health promotion programmes should concentrate on the condom failure related needs of:

- men who have been sexually abused or assaulted.

Since this research is cumulative and no new data is available on men who have been sexually abused or assaulted, we re-iterate this priority target group.

Finally, it remains important to recognise that these are behavioural data, which do not tell us why condom failure may be more common in these groups. However, this data show that there are different reasons for variation in condom failure across groups. That is, condom failure is not simply most common among groups where condom use for insertive anal intercourse is most common. While differential rates of condom failure are probably the outcome of differences in the numbers of times a man has engaged in IAI with a condom (and possibly the number of different men IAI with a condom occurs with), no data is available on these questions.

### **4.3 OTHER SEXUALLY TRANSMITTED INFECTIONS**

*Making It Count* (Hickson, Nutland, Doyle *et al.*, 2000) posits a relationship between the incidence of HIV occurring as a consequence of sex between men and the average duration of gonorrhoea and NSU infections in this population. For reasons of space and competing priorities the 1999 Gay Men's Sex Survey included no questions that could substantially contribute to our understanding of this target (but see Weatherburn, Bonell *et al.*, 1999).

Lamagni TL, Hughes G, Rogers PA, Paine T & Catchpole M (1999)  
 New cases seen at genitourinary medicine clinics: England 1998  
*Communicable Disease Report, 9 (supplement 6).*

'KC60' is the name of the form sexual health (GUM) clinics use to report all first diagnosis of a sexually transmitted infection. Forms are sent to the Public Health Laboratory Service's (PHLS) Communicable Disease Surveillance Centre (CDSC) who collate and publish the data. Clinics have a statutory responsibility to submit a KC60 on every condition they see. This paper summarises all the reports of STIs for 1997 and 1998 by gender and (for men) whether an infection was thought to be acquired during sex with another man. Below are the male homosexually acquired infections diagnosed and reported in those two years.

<b>Reporting category (infections)</b>	<b>1997</b>	<b>1998</b>	<b>% change</b>
Uncomplicated non-gonococcal/non-specific urethritis	3023	3332	
Epidemiological treatment of non-specific genital infection	494	447	
Complicated non-gonococcal/non-specific urethritis	173	153	
<i>All NSU</i>	<i>3690</i>	<i>3932</i>	<i>+ 6.5%</i>
Uncomplicated gonorrhoea	1780	1686	
Epidemiological treatment of suspected gonorrhoea	458	441	
Gonococcal complications	13	10	
<i>All gonorrhoea</i>	<i>2251</i>	<i>2137</i>	<i>- 5.1%</i>
Genital warts – first attack	1474	1505	
Genital warts – recurrence	1227	1235	
<i>All genital warts</i>	<i>2701</i>	<i>2740</i>	<i>+ 1.4%</i>
Asymptomatic HIV infection – first presentation	624	550	
HIV infection with symptoms, not AIDS – first presentation	534	292	
<i>All HIV</i>	<i>1158</i>	<i>842</i>	<i>- 27.3%</i>
Genital herpes simplex – first attack	334	300	
Genital herpes simplex – recurrence	389	358	
<i>All herpes</i>	<i>723</i>	<i>658</i>	<i>- 9.0%</i>
Uncomplicated chlamydia infection	353	455	
Complicated chlamydia infection	51	31	
Epidemiological treatment of suspected chlamydia	191	189	
<i>All chlamydia</i>	<i>595</i>	<i>675</i>	<i>+ 13.4%</i>
Primary & secondary infectious syphilis	18	22	
Early latent syphilis (first 2 years)	21	18	
Other acquired syphilis	84	75	
Epidemiological treatment of suspected syphilis	7	0	
<i>All syphilis</i>	<i>130</i>	<i>115</i>	<i>- 11.5%</i>
<i>Molluscum contagiosum</i>	<i>281</i>	<i>209</i>	<i>- 25.6%</i>
Antigen positive viral hepatitis	139	106	
Other viral hepatitis	140	129	
<i>All hepatitis</i>	<i>279</i>	<i>235</i>	<i>- 15.8%</i>

"The total number of homosexually acquired STIs diagnosed in men fell by 4% between 1997 and 1998."

"Between 1995 and 1998, diagnoses of uncomplicated gonorrhoea in homosexual men rose by an average of 6% per year."

# 5 Indicators of need

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*Making It Count* (Hickson, Nutland, Doyle *et al.*, 2000) describes what the collaborating agencies are attempting to influence to reduce the number of sexual HIV exposures occurring between men and to reduce the probability of transmission when exposure does occur. The ten general health promotion aims are grouped according to the three targets they are intended to reduce (seven concern involvement in sdUAI, one with condom failure and two with other STIs). The needs were generated by asking *What do men need to have control over their involvement in sdUAI, to minimise their rate of condom failure and to have other STIs quickly diagnosed and treated?*

As in previous years, one of the aims of the *1999 National Gay Men's Sex Survey* was to generate evidence about the extent to which these aims are not met. The indicators of need we use are simple and the picture they contribute to is cumulative. That is, these new indicators add to and should be considered with, those reported in previous years (Hickson *et al.*, 1998; Hickson *et al.*, 1999).

## 5.1 THE INDICATORS

In this section we introduce each indicator of need and look at how the indicator varied with the health promotion targets reported in Chapter 4. The figures show how common each unmet need is and how it varies between groups of men having no AI, protected AI only and concordant, discordant and unknown UAI.

*Making It Count* suggests that to maximise their impact on HIV incidence, health promotion programmes should “prioritise aims which are poorly met for a large proportion of the population”. Unmet needs shared by many men take fewer resources per target to meet than do less common needs. Hence, this chapter also assesses the degree to which these needs vary across the population groups described in Chapter 2.

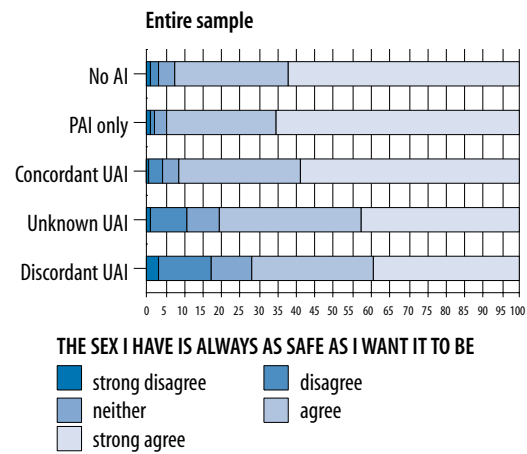
### 5.1.1 *Not as safe as I want to be*

Men were asked whether they agreed or disagreed with the statement *The sex I have is always as safe as I want it to be*. Overall, 89.0% agreed with this statement, 5.9% disagreed and 5.2% indicated the middle of the scale. Men who disagreed were most likely to have any AI. Among those who had AI, those who disagreed were least likely to always use a condom. Among those who had UAI, men who disagreed had UAI with more partners and were least likely to be doing UAI with concordant partners.

Figure 5.1.1a shows the proportion of men agreeing and disagreeing with the statement, grouped by the measure of sdUAI in the last year.

Men's self-ratings of safety was significantly associated with their likelihood of sdUAI ( $p < .01$ ). Men who engaged in known discordant sdUAI were most likely to disagree with this statement (17.9%), followed by men who had unknown UAI (11.2%). Slightly more men who had no AI (3.1%) disagreed with this statement than did those who always used a condom (2.4%).

- Men who are not as safe as they want to be are more likely to be involved in sdUAI.



**Figure 5.1.1a: Indicator of sdUAI in the last year by concern about sexual safety (N=1581, 3303, 1047, 2753, 179)**

This pattern was similar and significant in each of the three HIV testing history groups, which suggests men's perceptions of their sexual safety are related to their probability of exposure. Hence, any intervention involving self-selection into the target group of 'men who are not as safe as they want to be' will benefit those most likely to be involved in exposure. Among men who have sex, we take disagreeing with *The sex I have is always as safe as I want it to be* as an indicator of need.

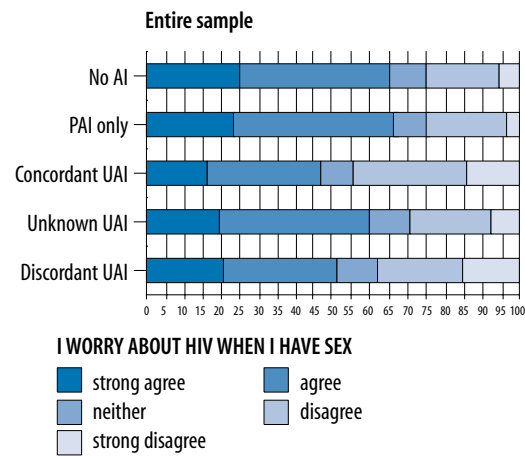
However, this question does pose some substantial questions for health promoters. Four fifths (82.1%) of men who knew they had UAI with someone of a different HIV status to themselves in the last year, stated that the sex they have is always as safe as they want it to be. Are we able to insist that the sex they are having is not as safe as 'we' want it to be? And is it ethical to do so while there are clearly many men (one in ten) who are not having sex as safe as they want it to be?

### **Worrying about HIV**

Men were asked whether they agreed or disagreed with *I worry about HIV when I have sex*. Overall, 61.3% agreed with this statement and 28.9% disagreed. However, among those who did have AI, men who worried were less likely to always use a condom. Among those who had UAI, it was men who indicated they were not sure whether they worried or not who were most likely to have UAI with more than one partner, while men who worried the least were those most likely to be doing UAI with partners they knew were HIV concordant.

Figure 5.1.1b shows the proportion of men agreeing and disagreeing grouped by their sexual behaviour in the last year. Men who agreed that they worried about HIV when they had sex, were less likely to have any anal intercourse.

Here the pattern of agreement across the groups is different. Men who were most likely to disagree (ie. least worried), were those having known concordant UAI, closely followed by those having known discordant UAI. Conversely, those who worried most were men who had no AI, or always used a condom.

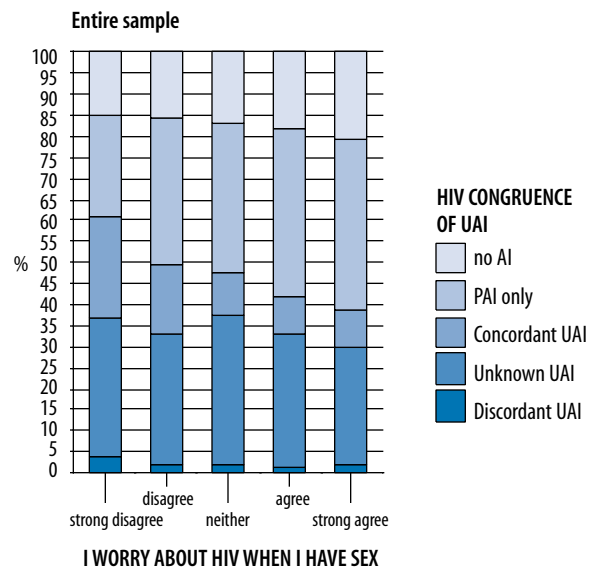


**Figure 5.1.1b: Indicator of sdUAI in the last year by worrying about HIV when having sex (N=1557, 3274, 1041, 2726, 178)**

Figure 5.1.1c shows the same data, with men grouped by their agreement with the statement (columns) and the groups divided by their sexual behaviour. Here we see that the proportions of those agreeing and disagreeing who had known discordant and unknown UAI are similar. What becomes less common with increasing worry is known concordant UAI. This may be interpreted as worry does not get men to use condoms when they may need to, but it keeps them using condoms when they may not need to.

From this we conclude that worry about HIV, in and of itself, is not an indicator of need. HIV can be worrying and some men are justifiably worried considering their sexual behaviour. Hence reducing or increasing worry about HIV in and of itself should not be an aim of interventions.

Conversely, increase in worry due to increases in knowledge or awareness of HIV is not a negative outcome of intervention. For example, a man starting to worry about HIV when he finds out more about HIV cannot be judged a failure in terms of interventions. HIV is worrying, and depending on what he has done sexually, perhaps he should be worried. We do not use responses to this item as an indicator of need in the remainder of this chapter.



**Figure 5.1.1c: Indicator of sdUAI in the last year by worrying about HIV when having sex (N=651, 1895, 870, 3460, 1900)**

### 5.1.2 Expectation of disclosure of HIV infection

The fourth general health promotion aim in *Making It Count* is that men are aware of the possible HIV-related consequences of their sexual actions.

Men were asked to indicate on a five-point scale whether they agreed or disagreed with the statement *I'd expect a man with HIV to tell me he was positive before we had sex*. Overall, 68.7% agreed and 19.3% disagreed. Men who had no anal intercourse, were most likely to agree with this statement, closely followed by those who had unknown UAI (Figure 5.1.2a). This pattern varied by HIV testing history.

Among men who had never tested for HIV (Figure 5.1.2b), expectation of positive disclosure was not associated with having any AI. However, among those who had AI, men who agreed they expected their positive partners to tell them of their infection (75.6% of them) were significantly ( $p < .01$ ) less likely to always use a condom than those who disagreed with the statement or who indicated the middle of the agreement scale.

- Among men who have never tested, expectation of positive disclosure is associated with not always using a condom.

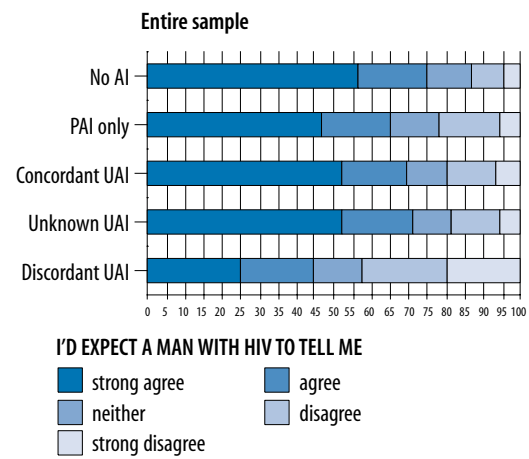


Figure 5.1.2a: Indicator of sdUAI in the last year by expectation of positive disclosure (N=1564, 3267, 1039, 2727, 177)

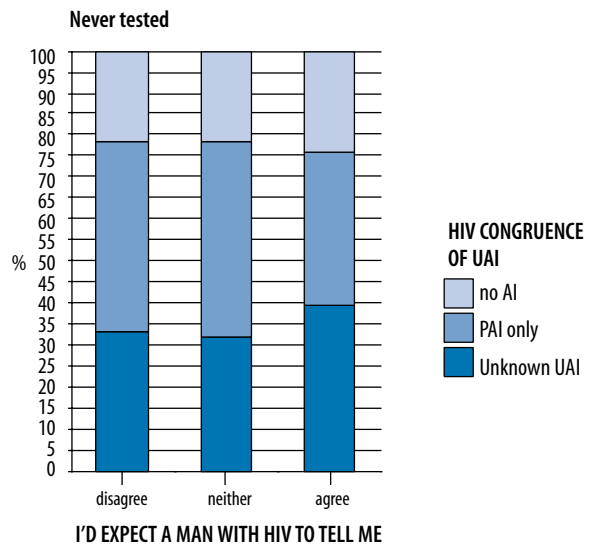
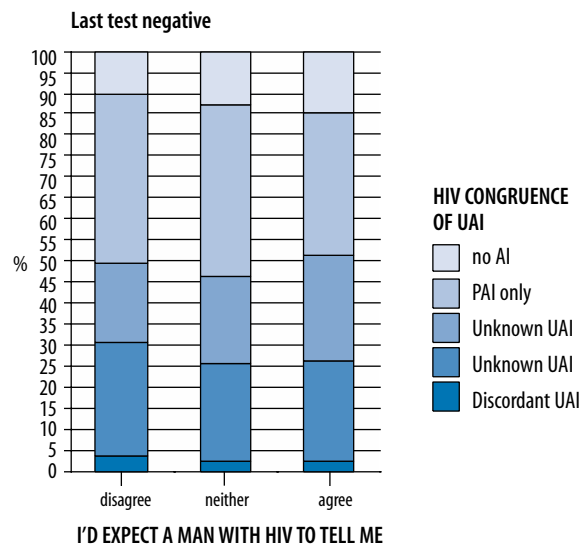


Figure 5.1.2b: Indicator of sdUAI in the last year by expectation of positive disclosure among men who had never tested (N=466, 446, 2805)

Among those whose last HIV test was negative, expectation of disclosure by positive partners was associated with not having UAI: 85.6% who agreed had UAI compared with 88.8% of those who did not agree ( $p < .01$ ). As with men who had never tested, among those who had AI, expectation of disclosure was associated with not always using a condom. Fewer of those who agreed with the statement always used a condom (40.1%) compared with those who did not agree (45.6%).

- Among men who last tested negative, expectation of positive disclosure is associated with not always using a condom.

Among men who had tested positive, expectation of being told when they are having sex with another positive man was not associated with having AI, or always using a condom when they did. As can be seen from section 5.2.0 below, men who had tested positive were far less likely to expect other positive men to disclose to them than were men who had not tested positive, most likely because they have experience of not disclosing to sexual partners themselves (see box). Given that a third of HIV infection is undiagnosed (and that many men with diagnosed HIV infection do not tell their sexual partners about their status before sex), we take agreeing with this statement to be an indicator of need.



**Figure 5.1.2c: Indicator of sdUAI in the last year by disclosure expectation among men whose last test was negative (N=963, 494, 2799)**

Keogh P, Weatherburn P, Stephens M (1999) *Relative Safety: Risk and Unprotected Anal Intercourse among Gay Men Diagnosed with HIV*. London; Sigma Research.

A research report giving further detailed comparison of sexual behaviour by HIV testing history using data from the National Gay Men's Sex Survey 1998, and an analysis of in-depth qualitative interviews with 64 diagnosed HIV positive men who had UAI in the last year. The paper identifies a number of hazards associated with UAI that these men identified: social risks, emotional/ psychological risks and health risks. It also describes the complex ways in which men had managed these hazards so they posed as little risk to themselves as possible. Disclosing their HIV status to their partners was not a common strategy (and might be considered a very dangerous one). The authors conclude:

"Although there was a significant minority of instances where informants attributed UAI to regrettable accidents, slip-ups, condom breakages etc, the majority of instances of UAI occurred within a framework of risk assessment and risk reduction. Most men engaged in UAI because they enjoyed anal intercourse and disliked condoms or found using them debilitating. Therefore, risk assessment tended to consist of a balancing of hazards on the one hand and the value of the UAI on the other. However, both the perception and reality of these hazards were entirely different from those perceived by gay men who either know or assume themselves to be uninfected. For gay men in the latter category, the hazard of infection is personal, immediate, singular and generally catastrophic. For gay men diagnosed with HIV, the risk is more diffuse and mediated. The most important hazards by far were social censure or psychological damage. Personal health hazards were generally perceived as much less important."

These findings suggest that informing men (without diagnosed infection) that many men with HIV often do not disclose their HIV status to their sexual partners is a valid aim for HIV prevention interventions.

### 5.1.3 Condom failure knowledge

Men were given three statements about condom failure, were told the statements were true and were asked whether they knew this already. This question format probably underestimates the extent of need for knowledge. However, we feel it is a preferable to a true/ false format which may mislead men in a self-completion survey.

All of the following statements are TRUE. Did you know this already? (n=9322)	Knew this	Wasn't sure	Didn't know	Left this item blank
<i>Using oil-based lubricants with condoms increases the likelihood of condoms breaking</i>	85.4	6.4	5.8	2.4
<i>Condoms are less likely to break if you use a water-based lubricant</i>	92.0	4.5	2.7	0.8
<i>Wearing two condoms for fucking (one on top of the other) increases the likelihood of them breaking</i>	27.9	17.8	52.6	1.7

Almost three quarters (72.1%) did not know that wearing two condoms increases failure. Far fewer were unaware that oil-based lubricants increase failure (14.6% in need of this knowledge) or that water-based lubricant decreases failure (8% did not know this).

Knowing what contributes to condom failure was associated with using condoms. Men who had used them (for insertive AI) were significantly more likely to know each item than men who did not use them.

Among users of condoms, this knowledge was significantly associated with lower levels of condom failure. Men who did not know oil-based lubricants increased failure were more likely to have experienced condoms having torn or split (11.9%) compared with men who did know this (8.8%). Similarly, condom slippage was less common among men who knew about oil-based lubricants (15.1%) compared with those who did not (20.7%). Taken together, this meant that among condom users, a quarter (26.9%) of those who were ignorant of the effect of oil-based lubricant experienced failure compared with a fifth (20.5%) of those who knew about oil-based lubricant increasing failure.

- Condom failure is less likely among men who know oil-based lubricant increases failure.

More men were aware that water-based lubricant reduces the likelihood of condom failure. Again men who had used condoms in the last year were more likely to know this than men who had not. Among users, those who were unaware of the use of water-based lubricant were more likely to experience a condom tearing (15.2% compared with 8.7%) or slipping (25.7% compared with 15.1%) than those who knew about water-based lubricant. Together, this meant than among condom users, a third (31.5%) who were ignorant of water-based lubricant experienced failure compared with a fifth (20.6%) of those who knew about water-based lubricant reducing failure.

- Condom failure is less likely among men who know that water-based lubricant reduces failure.

These findings suggest that increasing men's knowledge about what contributes to and detracts from condom failure are valid aims for HIV prevention interventions.



### 5.1.4 GUM is open access knowledge

In the UK, genito-urinary medicine (GUM) services are open access, that is anyone can attend any service, it does not have to be their nearest service. This policy is intended to reduce the obstacles people experience when seeking diagnosis and treatment of sexually transmitted infections (STIs). Obstacles addressed by this policy include, for example, being worried about recognition in a local service and not being able to attend a service closest to work or when away from home. Reducing these obstacles is intended to reduce the time between infection and diagnosis, thus reducing both morbidity and onward transmission of STIs. Obviously, for this policy to be effective potential attenders need to know that they can use any service. We told men of this policy and asked them whether they already knew it.

All of the following statements are TRUE. Did you know this already? (N=6283)	Knew this	Wasn't sure	Didn't know	Left this item blank
<i>You can go to any sexual health / GUM clinic, it doesn't have to be your local one</i>	80.3	11.3	6.9	1.5

Overall, 6.9% did not know it already and a further 11.3% were unsure. This suggests at least 18.2% are unaware that they can use any sexual health service.

Men who knew GUM is open access had attended a GUM service more recently than men who did not know it (Figure 5.1.4). This pattern was similar in all demographic groups.

- Knowing GUM is open access increases the frequency with which men access GUM services.

This suggests that increasing men's knowledge about GUM being open access is a valid aim for HIV prevention interventions.

### 5.1.5 Loneliness

Men were asked whether they agree or disagree with *I sometimes feel lonely*. Overall, 63.4% agreed, including 22.6% who agreed strongly. In what way is loneliness an HIV prevention related need?

The first consideration is that loneliness influences sexual decision making. Men who agreed with the statement were no more or less likely to have AI than men who disagreed. However, among those who had AI, those who agreed with the statement were most likely to always use a condom ( $p < .01$ ). This finding is a consequence of the multiple effects of cohabitation. Men who lived with a male partner were both least likely to agree they felt lonely and were most likely to not always use a condom when they had AI.

When we look only at those men who live alone, sometimes feeling lonely was still not associated with having any AI, but among those who had AI, those indicating they sometimes feel lonely were least likely to always use a condom ( $p < .01$ ). Among those who had UAI, men who indicated feeling lonely were most likely to have UAI with more than one partner ( $p < .01$ ).

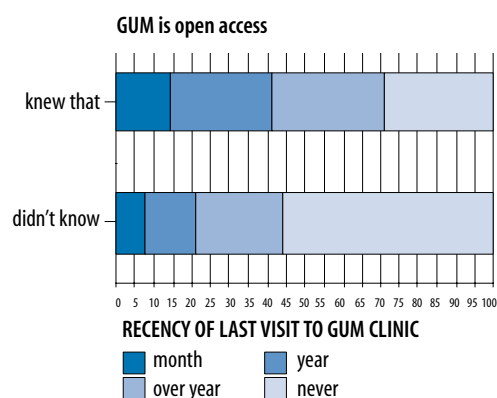


Figure 5.1.4: Recency of GUM attendance among men who knew and did not know that GUM is open access (N=6964 & 1571)

Figure 5.1.5 summarises data for men who lived alone. It shows more men who agreed they sometimes felt lonely had unknown UAI (27.5%) than the other two groups (21.3% of men who disagreed and 21.4% of those indicating the middle of the scale).

A second way in which loneliness could impact on vulnerability to HIV is that men who are isolated are less likely to have their HIV prevention needs met by their social network. This would make loneliness an indicator of need for community and social network building.

Men who agreed they sometimes felt lonely were least likely to say the sex they had was always as safe as they wanted it to be ( $p < .01$ ); were more likely to say they worried about HIV when they had sex ( $p < .01$ ); were more worried about how much they drank ( $p < .01$ ); and were more likely to want greater control of their drug use ( $p < .01$ ). Loneliness was also far more common among men who wished they were not attracted to men (see next section).

- Not being lonely or socially isolated are HIV prevention needs – being lonely reduces the likelihood other HIV prevention needs are met and contributes to risk taking.

This suggests that reducing isolation and loneliness are valid aims for HIV prevention interventions.

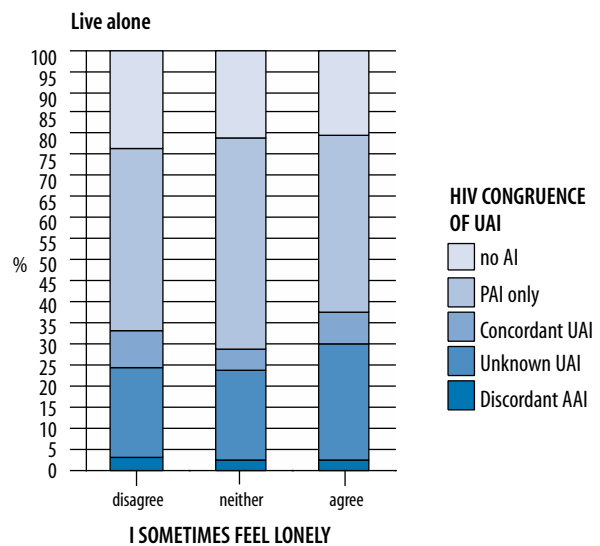


Figure 5.1.5: Indicator of sdUAI in the last year by sometimes feeling lonely among men who live alone (N=521, 173, 2280)

### 5.1.6 Homosexual regret

Men were asked whether they agreed or disagreed with the statement *I wish I wasn't attracted to men*. Overall, 9.0% agreed, (including 3.8% who agreed strongly). Agreement with this statement was not associated with having AI, nor among those who did, with always using a condom. However, among those who had UAI, agreement with this statement was associated with having more than one UAI partner and with having known discordant and unknown UAI.

Figure 5.1.6 shows agreement to the statement with the men grouped by the extent of their agreement. The proportion of men having unknown UAI and known discordant UAI increases with greater homosexual regret.

- Men who regret being attracted to men are more likely to be involved in sdUAI.

This suggests that interventions that aim to help resolve men's conflicting feelings about their homosexuality can be considered valid HIV prevention interventions.

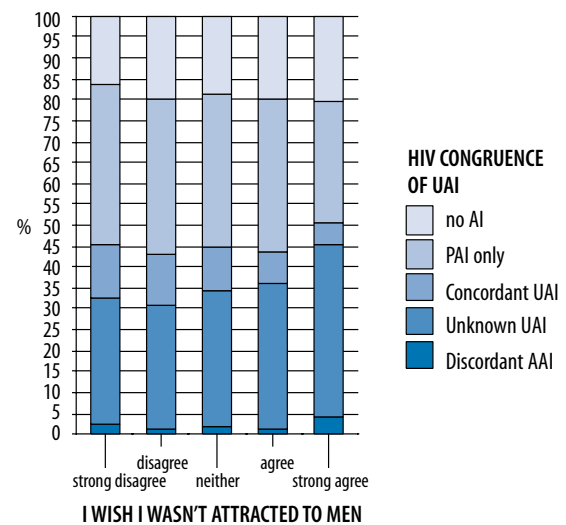


Figure 5.1.6: Indicator of sdUAI in the last year by homosexual regret (N=5322, 1919, 662, 458, 327)

### 5.1.7 Concern about alcohol use

Men were asked to indicate whether they agreed or disagreed with the statements *I sometimes worry about how much I drink*. Overall, 28.0% agreed, including 7.1% who strongly agreed. A further 9.1% indicated the middle of the scale and 62.9% disagreed. If we consider only those men who indicated they had used alcohol in the last year (see Section 2.7), the proportion agreeing with the statement rises to 30.7%.

Figure 5.1.7 shows the association of concern about alcohol and UAI among those who used alcohol in the last year. Men who had HIV discordant UAI were most concerned about their alcohol consumption, followed by those who had unknown UAI. These data support the hypothesis that lack of control over alcohol use is accompanied by lack of control over sdUAI.

- Men who drink alcohol and are concerned about their alcohol consumption are more likely to be involved in sdUAI.

This suggests interventions that seek to resolve men's concern about their alcohol consumption can be considered valid HIV prevention interventions.

### 5.1.8 Concern about drug use

Men were also asked to agree or disagree with *I'd like more control over my recreational drug use*. Fewer men agreed with this statement than the one about alcohol: overall 13.3% agreed, including 5.0% who agreed strongly.

The extent of concern about drug use was associated with the number and types of drugs used (Figure 5.1.8a). Men who used 'class A' drugs (or GBH/GHB or ketamine) were most likely to want more control of their drug use (20.0% agreed).

Compared to men who did not express a desire for more control over their drug use, men who expressed such a desire were no more or less likely to have AI, but when they did were less likely to always use a condom. Also, if they had UAI they did so with more partners and were less likely to have concordant UAI only.

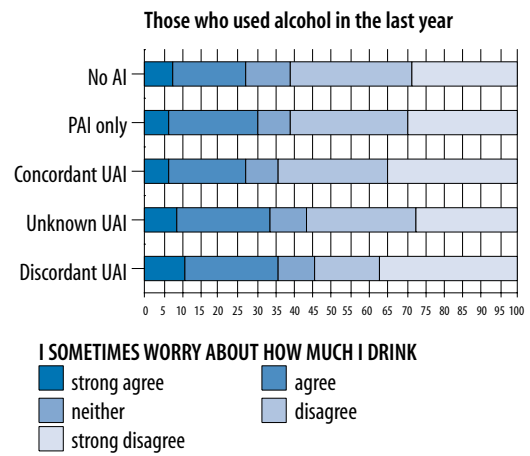


Figure 5.1.7: Indicator of sdUAI in the last year by concern about alcohol consumption among men who used alcohol in the last year (row N=1203, 2681, 867, 2251, 145)

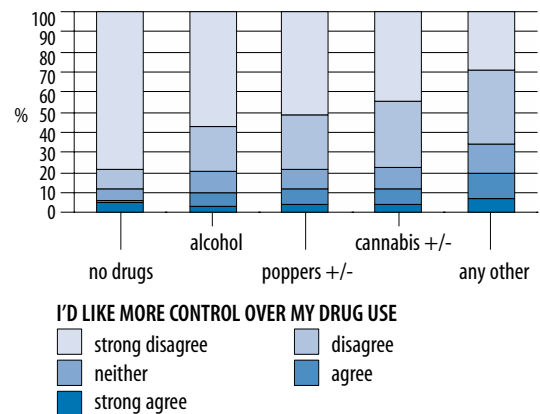
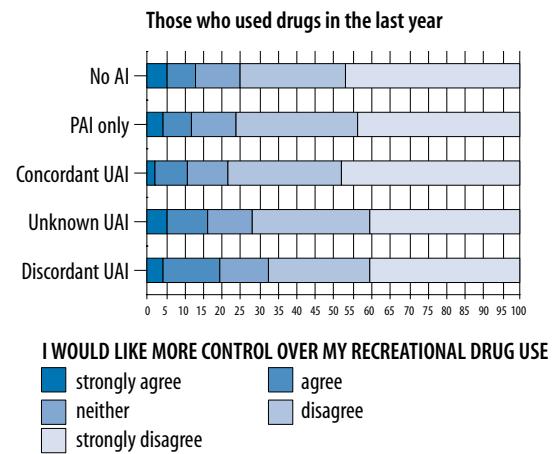


Figure 5.1.8a: Concern about recreational drug use (N=756, 2029, 1498, 1538, 2514)

Figure 5.1.8b shows that men who had known discordant UAI were most likely to express a desire for more control over drug use, followed by those who had unknown UAI.

- Lack of control over drug use is associated with involvement in sdUAI.

This suggests increasing men’s control over their recreational drug use is a valid aim for HIV prevention interventions.



**Figure 5.1.8b: Indicator of sdUAI in the last year by wanting more control over recreational drug use among men who used any drugs in the last year (N=1176, 2726, 887, 2307, 159).**

## 5.2 VARIATION IN NEED ACROSS POPULATION GROUPS

This section reports how the indicators of need varied across the population groups described in Chapter 2. In the following tables, we are particularly interested in population groups who have many aims poorly met (ie. high levels of need). Where the probability of observing the difference by chance (p) is less than 1% (p<.01), the shaded box represents the highest level of need for each indicator. Occasionally, the need varies across the groups by being markedly lower among one and similar across the rest. In these cases we underline the lowest level of need. Non significant differences are indicated by NS.

The tables show in which groups a particular need is most often unmet. This allows interventions whose outcome is known (eg. an increase in sexual negotiation skills) to be targeted at groups with the largest amount of that need. Of course, this does not necessarily mean excluding other groups from such interventions. Second, the tables show the most common unmet needs among particular groups. This allows health promoters who work with a particular target group (such as young gay men) to see the levels of need indicated for that group. Third, the tables add to our picture of the variation in need across different groups and help us assess which groups have high levels of unmet need on many indicators. For a group to have high levels of need on many indicators would suggest they have little of no control over exposure to HIV and other STIs. *Making It Count* suggests programmes should “prioritise population groups for whom many of the aims are poorly met compared to other population groups”. In the tables, these would be columns with lots of shading.

## 5.2.0 HIV testing history & need

Chapter Four considered men's involvement in sdUAI and their experience of condom failure. We suggested prioritising the needs of men who had tested positive in both cases. The following table indicates the proportion of men in each of the three testing history groups who indicated unmet need in the indicators described above.

% in need by HIV testing history (■ knowledge items show % who did not already know this or were not sure)	Never Tested	Tested Negative	Tested Positive	p. value
Not always as safe as I want to be	4.9	6.2	10.8	<.001
Expect a man with HIV to tell me before sex	75.3	66.0	34.7	<.001
■ c/f less likely with water based lubricant	10.3	5.0	2.9	<.001
■ c/f more likely with oil-based lubricant	16.0	10.0	7.1	<.001
■ c/f more likely with two condoms	76.1	69.0	64.1	<.001
■ GUM is open-access	25.4	13.7	8.4	<.001
Sometimes feel lonely	61.7	64.4	64.7	NS
Wish I wasn't attracted to men	9.1	8.9	10.8	NS
I worry about how much I drink	27.1	29.2	23.7	NS
Want more control over drug use	12.1	13.7	14.4	NS

There is not one HIV testing history group who are in greater need across all the items compared with other groups. Men who had tested HIV positive were more likely to indicate they were not always as safe as they wanted to be, while men who had never tested were least likely to report this. This pattern of need probably contributed to the positive men's infections; some men become infected because they had insufficient control over the sex they have. This need was probably compounded rather than alleviated by their HIV diagnosis.

As was the case in last years survey (Hickson *et al.*, 1999) the knowledge indicators show a different pattern of need. In all cases, men who had never tested were in significantly more need of knowledge and men with diagnosed HIV were (usually) least likely to be in need. This suggests that men who have never tested are a group who may be worth targeting in interventions whose aim is increasing knowledge. That men with diagnosed HIV are least in need of knowledge is probably a result of having HIV diagnosed; that is, they have become more knowledgeable about condom use and GUM while managing their HIV infection.

The proportion of men who felt lonely, wish they were not attracted to men and worry about alcohol and drug consumption did not significantly vary across the testing history groups.

### 5.2.1 Region of residence & need

Previous chapters suggested that patterns of infection do not neatly follow regions of residence. This section looks at how the indicators of need varied by the region of England (or Wales) where men lived. Note that the indicators of need are read down the columns instead of across the rows as in the previous tables.

% in need by Region of residence (■ knowledge items show % who did not already know this or were not sure)	<ul style="list-style-type: none"> <li>Not always as safe as I want to be</li> <li>Expect a man with HIV to tell me before sex</li> <li>■ c/f less likely with water based lubricant</li> <li>■ c/f more likely with water based lubricant</li> <li>■ c/f more likely with oil-based lubricant</li> <li>■ GUM is open-access</li> <li>Sometimes feel lonely</li> <li>Wish I wasn't attracted to men</li> <li>I worry about how much I drink</li> <li>Want more control over drug use</li> </ul>										
London	6.6	56.1	5.6	10.8	69.6	14.9	62.2	7.4	30.3	12.1	
South East	5.9	72.4	7.4	12.1	73.4	20.4	65.3	9.5	27.4	13.8	
North West	5.3	71.5	8.1	14.1	74.6	18.1	60.2	9.0	29.5	15.3	
Trent	4.7	73.0	5.9	10.5	70.6	20.2	65.7	8.9	24.7	10.0	
West Midlands	4.5	74.7	7.8	12.6	69.5	18.6	63.2	10.7	25.1	14.0	
Northern & Yorkshire	6.0	69.5	8.2	13.2	72.7	18.6	62.3	8.3	27.4	12.2	
Eastern	5.5	73.3	8.0	10.6	71.9	16.7	68.6	8.5	24.4	10.7	
South West	6.9	74.2	5.4	11.3	75.6	25.2	63.1	8.9	26.6	13.3	
Wales	6.3	65.6	8.3	10.6	73.6	15.5	66.7	10.1	25.5	13.1	
p. value	NS	<.001	NS	NS	<.01	<.001	NS	NS	NS	NS	

Most of the needs indicators did not significantly vary by the region of residence of the men, suggesting that national data of this type is a robust means of planning local programmes of work.

For all three indicators that significantly varied by region, the South West was one of the two regions where residents were in greatest need. For expectation of status disclosure before sex, men in the West Midlands were in as much need as men in the South West. For knowledge of two condoms increasing condom failure, men resident in the North West were almost in as much need as men from the South West. The only other needs indicator that varied concerned GUM being open access – here men from the South West were in substantially more need than men in any other region.

## 5.2.2 Gender of partners & need

Chapters 3 suggested prioritising the HIV prevention needs of exclusively homosexually active men (ExHAMs) over men who have sex with men and women (BBs), as HIV incidence appears to be higher among them. Conversely, Chapter 4 suggested prioritising the condom failure needs of BBs over those of ExHAMs. The following table indicates variation in needs between these two groups.

% in need by sexual identity (■ knowledge items show % who did not already know this or were not sure)	Exclusively homosexual	Behaviourally bisexual	p. value
Not always as safe as I want to be	5.6	10.0	<.001
Expect a man with HIV to tell me before sex	68.3	76.1	<.001
■ c/f less likely with water based lubricant	6.4	22.0	<.001
■ c/f more likely with oil-based lubricant	11.7	26.0	<.001
■ c/f more likely with two condoms	71.7	70.9	NS
■ GUM is open-access	17.9	27.8	<.001
Sometimes feel lonely	63.3	64.0	NS
Wish I wasn't attracted to men	8.5	20.2	<.001
I worry about how much I drink	27.4	37.2	<.001
Want more control over drug use	13.0	18.4	<.001

Eight of the needs indicators varied between behaviourally bisexual (BB) and exclusively homosexual men (ExHAM), with BBs always being in most need. Included are three of the four knowledge measures (two on condom failure and GUM being open access) and all the other needs indicators apart from loneliness.

On the knowledge indicators and many of the other variables, the differences between the two groups are substantial. For example, compared with ExHAMs more than twice as many BB men did not know condom failure was more likely with oil based lubricant and more than three times as many did not know it was less likely with water based lubricant.

### 5.2.3 Age & need

Chapter 3 implied programmes concentrate on the HIV prevention needs of men under 40 as HIV incidence appears to be highest among them. Chapter Four suggested prioritising the sdUAI and condom failure needs of younger men (under 20) in particular. The following table indicates the proportion of men in each age group who indicated unmet need.

% in need by ethnic group (= knowledge items show % who did not already know this or weren't sure)	< 20	20s	30s	40s	50+	p.value
Not always as safe as I want to be	8.3	5.9	5.7	5.9	4.4	NS
Expect a man with HIV to tell me before sex	81.9	72.6	62.4	66.5	79.2	<.001
▪ c/f less likely with water based lubricant	17.8	8.5	5.5	5.6	6.7	<.001
▪ c/f more likely with oil-based lubricant	26.4	13.8	9.4	12.1	13.5	<.001
▪ c/f more likely with two condoms	68.8	70.2	71.7	73.3	76.5	<.01
▪ GUM is open-access	28.2	21.3	17.1	13.5	16.2	<.001
Sometimes feel lonely	69.1	67.1	61.1	59.9	60.4	<.001
Wish I wasn't attracted to men	11.7	10.8	8.1	6.7	8.5	<.001
I worry about how much I drink	26.5	28.5	28.8	27.3	22.8	NS
Want more control over drug use	17.4	13.4	12.0	14.0	14.4	NS

Seven of the needs indicators varied between age groups and all but one of these reveal that younger men, especially those under 20, are more in need. Included are three of the four knowledge measures (two on condom failure and GUM being open access), disclosure expectation, loneliness and regret over homosexual attraction.

The finding that younger men are more in need than older men is consistent with previous years of this survey (Hickson *et al.* 1998; Hickson *et al.*, 1999), but this pattern is not only evident with knowledge measures. For example, the finding that men under 20 are most likely to report loneliness might not have been predicted, especially given cultural assumptions about 'lonely old homosexuals'. It seems possible young men are in most need because youth is often a time of relative isolation from like-minded peers and community structures and they have not had the time to gain knowledge and insight.

Just one needs indicator significantly varies in the opposite direction. That is, for condom failure is more likely if two condoms are used, men under 20 were in least need and need increased with increasing age. However, all groups have substantial need against this measure (ie. most men in all groups do not know this).



### 5.2.4 HEQ & need

Chapter 3 suggested programmes should prioritise the HIV prevention needs of men with lower levels of education before those of men with higher education. Chapter Four suggested programmes prioritise this group's sdUAI needs (but not necessarily their condom failure needs). The following table shows how the indicators of need varied across the HEQ groups.

% in need by HEQ (* knowledge items show % who did not already know this or were not sure)	Low	Medium	High	p. value
Not always as safe as I want to be	5.3	5.3	6.4	NS
Expect a man with HIV to tell me before sex	77.8	71.8	60.5	<.001
▪ c/f less likely with water based lubricant	10.2	6.8	5.4	<.001
▪ c/f more likely with oil-based lubricant	16.4	12.9	9.6	<.001
▪ c/f more likely with two condoms	71.9	71.6	71.5	NS
GUM is open-access	22.1	18.5	15.8	<.001
Sometimes feel lonely	65.6	62.5	62.2	NS
Wish I wasn't attracted to men	10.9	9.0	7.7	<.001
I worry about how much I drink	27.7	25.9	29.3	NS
Want more control over drug use	16.9	13.3	10.9	<.001

Six of the needs indicators varied by HEQ and all of these reveal that men with low HEQ are in more need. Included are three of the four knowledge measures (two on condom failure and one on GUM access), disclosure expectation, regret over homosexual attraction and desire for more control over drug use.

The pattern of unmet HIV prevention need being greatest among men with lower levels of education is consistent with previous years of this survey (Hickson *et al.* 1998; Hickson *et al.*, 1999). However, unlike the 1998 survey these differences in need do not appear to be mainly between men with a degree and those without a degree. That is, there is a more consistent pattern of need decreasing as education increases.

### 5.2.5 Ethnicity & need

Neither Chapters 3 and 4 generated any firm prioritisations of specific ethnic groups. The following table shows how the indicators of need varied across the ethnic groups.

% in need by ethnic group (■ knowledge items show % who did not already know this or weren't sure)	Asian/ Asian British	Black/ Black British	White British	Other White	All others	p.value
Not always as safe as I want to be	6.0	4.6	5.9	6.6	2.3	NS
Expect a man with HIV to tell me before sex	70.1	65.4	69.8	62.6	62.2	<.001
■ c/f less likely with water based lubricant	12.8	13.0	7.1	7.1	7.3	NS
■ c/f more likely with oil-based lubricant	20.6	19.6	11.9	14.8	14.9	<.001
■ c/f more likely with two condoms	68.7	63.6	73.0	65.2	63.1	<.001
■ GUM is open-access	2.7	16.8	18.2	20.2	17.6	NS
Sometimes feel lonely	70.6	66.7	62.8	64.4	68.3	NS
Wish I wasn't attracted to men	20.5	11.7	8.7	9.9	9.3	<.001
I worry about how much I drink	22.7	28.6	28.3	27.6	20.6	NS
Want more control over drug use	16.4	16.9	12.5	16.9	15.7	<.01

Five indicators of need significantly varied across the ethnic groups, but no one ethnic group emerged as always being more in need than the others. Indeed, unlike the 1998 survey the indicators were not always lowest among the ethnic majority (White British).

Asian/ Asian British men were in most need on three measures – expectation of disclosure, condom failure being more common with oil-based lubricant and regret about attraction to men. However, only on the last of these three measures was there a substantial difference between this group and the next in most need. Almost as many Black/ Black British men were in need on the oil-based lubricant knowledge measure and almost as many White British men were in need on expectation of disclosure.

### 5.2.6 Number of partners & need

Both Chapters 3 and 4 suggested that programmes should prioritise the needs of men with many sexual partners. The following table shows variation in the indicators of need by the number of male sexual partners men had in the last year.

% in need by number of partners (■ knowledge items show % who did not already know this or were not sure)	One	Two, three or four	Five to twelve	Thirteen to twenty nine	Thirty or more	p. value
Not always as safe as I want to be	3.5	5.0	5.7	7.0	10.3	<.001
Expect a man with HIV to tell me before sex	79.1	74.7	69.7	61.4	49.7	<.001
■ c/f less likely with water based lubricant	7.7	9.5	7.2	6.2	3.9	<.001
■ c/f more likely with oil-based lubricant	12.0	15.6	12.6	11.5	9.0	<.001
■ c/f more likely with two condoms	72.8	73.6	72.7	0.2	67.6	<.001
■ GUM is open-access	21.0	21.8	17.7	16.2	12.9	<.001
Sometimes feel lonely	47.8	68.6	69.3	69.3	67.4	<.001
Wish I wasn't attracted to men	7.1	9.9	9.8	10.0	9.1	<.01
I worry about how much I drink	24.5	27.0	29.7	31.2	29.4	<.001
Want more control over drug use	11.2	12.8	14.5	14.3	13.8	NS

All but one of the indicators of need significantly varied across the number of male partners groups, but no one group emerged as always being more in need than the others.

Men with the highest number (30+) of male sexual partners were most likely to not always be as safe as they want to be. However, on all four knowledge indicators they were least in need of all groups. Similarly, men with 13-29 partners were most likely to worry about how much they drank, but were not in notable need on the knowledge indicators.

On the knowledge indicators men with two, three or four partners were most in need, confirming a pattern observed in the 1998 survey. Next most in need were men with one partner, who were also most likely to expect disclosure from positive men prior to sex. Men with one partner are far more commonly partnered, often monogamously and co-habiting. Hence, it is no surprise that they are least likely to be lonely and have relatively low levels of regret concerning their attraction to men.

### 5.2.7 Drug use & need

Both Chapters 3 and 4 suggested that programmes should prioritise the needs of men who use 'class A' drugs (or GBH/ GHB or ketamine). The following table shows variation in the indicators of need by the drug use groups for the last year.

% in need by drug use in last year (■ knowledge items show % who did not already know this or were not sure)	no drugs	alcohol only	poppers (+/- alc)	cannabis (+/- alc & poppers)	any others	p. value
Not always as safe as I want to be	5.1	4.2	5.5	5.8	8.0	<.001
Expect a man with HIV to tell me before sex	75.6	74.2	71.5	63.3	61.4	<.001
■ c/f less likely with water based lubricant	9.5	8.6	5.4	6.5	6.2	<.001
■ c/f more likely with oil-based lubricant	15.4	13.0	11.3	10.7	12.2	<.01
■ c/f more likely with two condoms	73.5	75.1	70.6	70.9	69.9	<.001
■ GUM is open-access <sup>1</sup>	9.7	21.3	16.3	19.0	16.5	<.001
Sometimes feel lonely	62.6	60.9	61.8	65.1	65.4	<.01
Wish I wasn't attracted to men	9.5	8.8	7.3	7.6	11.0	<.001
I worry about how much I drink	12.0	23.7	28.2	28.3	37.5	<.001
Want more control over drug use	6.5	9.8	11.5	11.6	20.1	<.001

All the indicators of need significantly varied across the drug use in the last year categories, but no one group emerged as always being more in need than the others.

Men who took 'class A' drugs (or GBH/ GHB or ketamine) were most likely to not always be as safe as they want to be. They were also most likely to be lonely, regret their attraction to men, and to worry about their alcohol consumption and want more control over their drug use. However, on expectation of positive disclosure prior to sex and on the four knowledge indicators they were usually least (or close to least) needy of all groups.

On the knowledge indicators men who take no drugs, or alcohol only were most in need. Men who took no drugs were also most likely to expect disclosure from positive men prior to sex.

## 5.3 SUMMARY AND IMPLICATIONS FOR PLANNING

### 5.3.1 Aims poorly met for many men

Loneliness was commonly indicated among all groups of men (although it was significantly lower among those who had sex with one man only). Given its potential for multiple impacts on HIV prevention needs and sexual decision making, reducing loneliness may be seen as a priority aim for all HIV prevention programmes. Although national mass media campaigns and leaflets may contribute to an awareness of the problem of loneliness, it is unlikely they can bring about any significant reduction in it. Building local gay community infrastructures, providing safe places for men to meet socially (not just to meet sexually), and generally challenging the homophobia that isolates men from their families and other potential sources of human support will be much more effective interventions.

An expectation that HIV positive men will disclose their infection to sexual partners was widespread among men who had not tested HIV positive (and was fairly common among those who had). Debate about whether positive (and negative) men should disclose their HIV status is irrelevant here. The point is that many positive men do not disclose their status, many negative men having sex with them expect them to and will sometimes decide not use a condom because, having not been told they are positive, they assume their partner to be negative. The unmet need here is an awareness of what is going on. It is worth (re)quoting Ron Gold here, who did not articulate the need but did go straight to a suggested intervention upon finding a similar expectation among gay men in Australia:

**“Antibody negative men need to be delicately but firmly told that many antibody positive men are not prepared to take responsibility for the health of their sexual partners.”**  
(1995, p.515).

Mass media interventions may be more useful here.

Ignorance of what causes condom failure and of the accessibility of GUM services are still fairly widespread, indicating that on-going education about the fundamentals of HIV, ‘safer sex’ and sexual health services will continue to be needed (which given the lack of education on these matters in schools should not be surprising).

### 5.3.2 Groups for whom many aims are poorly met

Identifying groups who are vulnerable to HIV (that is, those who have little or no control over HIV in their everyday lives) requires data from a wide range of sources. As this chapter is presenting data from this survey and is not intended to be a comprehensive needs assessment, we are unable to identify such groups here. It is worth noting however that patterns of need across age and education level are consistent with previous years surveys, and that if HIV prevention programmes do not benefit all age groups and all education groups equally, they should be biased towards younger men and those with lower levels of formal education.

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