

Know the score

*Findings from the
National Gay Men's
Sex Survey 2001*

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Original Research Report

Acknowledgments

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ABBREVIATIONS AND JARGON

Letters	What they stand for	Further explanation of their use
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
UIAI	unprotected insertive anal intercourse	IAI without a condom
URAI	unprotected receptive anal intercourse	RAI without a condom
sdUAI	sero-discordant unprotected anal intercourse	UAI between HIV infected and uninfected men
OI	oral-genital intercourse	sucking between men, oral sex
IOI	insertive oral-genital intercourse	active or insertive OI: getting sucked
ROI	receptive oral-genital intercourse	passive or receptive OI: doing the sucking
IOIj	IOI to ejaculation in the mouth	getting sucked to ejaculation in partners mouth
ROIj	ROI to ejaculation in the mouth	sucking to ejaculation in your mouth
ExHAM	Exclusively homosexually active men	a man that has had sex ONLY with other men and not with women (in this instance, in the last year)
BB	behaviourally bisexual (in this instance, in the last year)	a man that has had sex with men and women
STI	sexually transmitted infection (Statistically) significant Significantly	infectious agents acquired during sex (including HIV) If we had done the survey multiple times, this difference would be observed in fewer than one in a thousand of the surveys, purely by chance. In tables significant differences are highlighted in blue and bold for the highest figure and <u>underlining</u> of the lowest.
CI	confidence interval	When a proportion of the sample is reported (eg. 25.2%), the confidence interval gives the range within which we can be 95% confident that the real proportion in the population lies (eg. 24.2% to 26.4%).

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1 Introduction and methods

1.1 CONTENT OF THE REPORT

This research report outlines the main findings of Vital Statistics 2001 – which was the fifth annual national *Gay Men's Sex Survey* (henceforth GMSS). The survey was carried out during the summer of 2001 by Sigma Research in partnership with 73 health promotion agencies across England and Wales.

The information contained here is about HIV infection, sex between men and HIV prevention needs. The report's audience are people involved in planning and delivering programmes to address the HIV prevention needs of homosexually active men. This report complements those from the 1997 (Hickson, Reid *et al.*, 1998); 1998 (Hickson, Weatherburn *et al.*, 1999), 1999 (Weatherburn, Hickson *et al.*, 2000) and 2000 (Hickson, Reid *et al.*, 2001) surveys.

This chapter provides some background to the survey and explains how the sample was recruited. It also explains what exclusions were applied to the sample prior to the presentation of data in the rest of the report.

Chapter 2 gives a brief description of the sample of 14,616 men living in England and Wales who either had sex with another man in the last year or expected to have sex with a man in the future. We describe where they live, their ages, educational qualifications, ethnicities, current employment status' and the gender of their sexual partners in the last year.

Chapter 3 is concerned with health, and reports some measures of the impact of HIV and other conditions on this large sample of men. We report the proportions who had tested for HIV and their test results, self-ratings of health, reports of long-term illness and values held around the severity of HIV infection and the preferences for HIV risk over condom use. These measures and values are then presented for some of the population groups outlined in Chapter 2.

Chapter 4 looks at the behaviours of these men that may involve HIV exposure including the assumed sero-status of their sexual partners, engagement in anal and oral intercourse and unprotected anal and oral intercourse and ejaculation and condom failure. The data suggest specific groups of men who need to be targeted on the basis of likelihood of involvement in HIV exposure.

Chapter 5 examines the HIV prevention needs associated with the behaviours described in Chapter 4. We report on the extent to which a number of HIV prevention needs are not met. The findings support a targeting of interventions to specific unmet needs as well as on the basis of likelihood of involvement in HIV exposure.

1.2 BACKGROUND TO THE FIFTH NATIONAL GAY MEN'S SEX SURVEY

The *Gay Men's Sex Survey* uses a short self-completion questionnaire to collect a limited amount of information from a substantial number of men. Sigma Research first carried out GMSS at the London Lesbian & Gay Pride festivals in 1993, 1994 and 1995. No survey was undertaken in 1996. Since 1997, the survey has been undertaken five times, with funding from the Terrence Higgins Trust as part of the CHAPS programme. During this time it has expanded across England and from 2000, included Wales. For the first time in 2001, GMSS also occurred in Scotland, with funding from the Scottish Executive via Healthy Gay Scotland. Data on men resident in Scotland is reported elsewhere (Hickson *et al.*, 2002).

The survey has always used a short (2 sides of A4) questionnaire on clipboards for recruitment at Pride-type events and festivals. While this method is still used, since 1999 the entire questionnaire has also been reproduced as a small (A6) booklet which is self-sealing for Freepost return. In each of the three years since, more than 30,000 copies of the booklet have been directly distributed to gay men and bisexual men by a range of gay and HIV health promotion agencies.

In 2001, we introduced a third method of recruitment to the survey – via the internet. The questionnaire was available for completion on-line at our own website. The existence of the on-line version was substantially promoted by gay.com – a major gay commercial internet service provider (see section 1.5).

In 2001 the questionnaire content was designed in collaboration with a range of stakeholders from previous years of GMSS. In February and March 2001, we wrote to all 77 Health Authority commissioners who worked in areas with more than 50 resident men who completed GMSS 2000, and 31 health promotion agencies who recruited more than 20 men to GMSS 2000. All were provided with tailored feedback on GMSS 2000 and a request to submit questions for inclusion in the 2001 survey. Eight agencies responded with suggested questions. Verbal suggestions were also taken from a group of health promoters in East and West Sussex.

1.3 PRIDE EVENTS: RECRUITMENT DATES, EVENTS AND RETURNS

Recruitment occurred at seven community-based events in the summer of 2001. The anonymous survey was printed on two sides of A4 for self-completion and was distributed on a clipboard with a pen attached, usually 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 or town	Event	Date in 2001	Returns		
			1999	2000	2001
Birmingham	Birmingham Pride	27th May	1228	1466	1511
Edinburgh	Scotland Pride	23rd June	—	—	419
London	Mardi Gras	30th June	2162	2288	2772
Bournemouth	Bournemouth Pride	4th August	—	—	664
Brighton	Brighton Pride	11th August	1081	1586	1882
Manchester	Mardi Gras	25th August	2454	1022	1188
Cardiff	Mardi Gras	1st September	—	629	611
Total number of forms returned			7,479	7,569	9,047

With separate funding we carried out fieldwork at Scotland Pride in Edinburgh. The 43 English resident men recruited at Scotland Pride are included in this sample, and the Scottish-resident men recruited in England and Wales are reported in the Scottish version of this report (Hickson *et al.*, 2002).

1.4 BOOKLET RECRUITMENT

As in 1999 and 2000, the survey was re-designed and printed as a full-colour small (A6) booklet, containing all the same questions as the Pride survey with twelve others added. The additional questions concerned two areas: whether respondents had seen a number of HIV prevention and 'safer sex' campaigns and materials (8 questions) and questions on use of a variety of gay and other settings where HIV prevention often occurs (4 questions). None of these additional questions are reported here.

The central aim of the booklet was to supply HIV health promoters in areas other than the towns and cities used for Pride recruitment, with a mechanism for collecting local data that did not require independent design, input and analysis. This also allows us to recruit larger numbers of men in demographic groups to which smaller numbers are recruited using Pride events, especially behaviourally 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 Black and minority ethnic groups. This is not a question of representation, as we do not know the characteristics this sample is drawn from. 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.

The booklet was made available to all HIV health promoters who work with gay men, bisexual men or other homosexually active men across England and Wales. All 185 agencies listed in *Nambase*[®] (National AIDS Manual, 2001) as undertaking health promotion with these groups were invited to distribute booklets to the men they contacted in the course of their work. A further 15 agencies approached us to distribute the booklet.

In total, 30,610 booklets were requested by and sent out to 70 agencies (see *Acknowledgements*), many of whom had also distributed the 1999 and 2000 survey. Recruitment was open for a three month period (July, August, September 2001). At the end of the recruitment period we contacted all agencies again and asked how many booklets they had left. The average (mean) proportion of booklets distributed was 72% (estimate based on 45 agency responses). We estimate 22,039 booklets were distributed by agencies across England and Wales in this three month period.

Booklets were returned marked as distributed by 53 different agencies. The average (median) number of booklets returned per agency was 37 (range 1 to 286). We had the responses of twenty or more completed booklets from 30 agencies. In February 2002, all these 30 agencies received a targeted data report on the men they had recruited.

Overall, 2,713 booklets were returned via Freepost to our offices, giving a completion and return rate of 12.3% of those booklets that were actually distributed by agencies.

1.5 WEB RECRUITMENT

In 2001, for the first time the survey was available for completion online via the Sigma Research website. The content of the questionnaire was identical to the booklet version.

The web version was a pilot exercise to assess the feasibility of survey work using the internet. It was also undertaken to assess the degree to which the method might recruit larger numbers of men in demographic groups to which smaller numbers are recruited using Pride events, especially behaviourally bisexual men, men living away from urban centres, younger men and men from Black and minority ethnic groups. Again, this is not a question of representation but of recruiting large enough numbers of men to make estimates of the levels of need in these groups with greater confidence.

The actual questionnaire appeared as one continuous document on the Sigma website with a link from the homepage. The design did not use many of the more sophisticated approaches to online survey work that are possible – we were not convinced enough people would use the service. Data was captured when the respondent pressed ‘submit’ at the end of the document, although they could do this at any point in the questionnaire if they wished to abort. When the ‘submit’ button was pressed data was sent in an individual anonymous email to Sigma Research.

The web version was available for completion online for 8 weeks (August and September 2001). During this time the survey was promoted via gay.com, the largest gay-specific internet provider in the UK. Gay.com (UK) claimed 200,000 unique users of their service at the time of the survey.

During the promotion they delivered 250,000 pop-ups on their home page and placed a recurrent banner advertisement in chat rooms. Pop-ups were not 'capped' based on non-response so any man returning to the home page in the same internet session would have seen the pop-up each time. There was also coverage of the survey in their news section. BIG UP @ GMFA also undertook some promotion of the web survey to Black gay men via internet newsgroups and email lists.

During the 56 days that the web survey was online we received 8,392 email responses. Unfortunately 2,047 of these incoming emails were lost as a consequence of two major technical problems related to viral attacks. The first was a server storage problem when our internet account was suspended due to viral infection, the second was a consequence of a substantial viral infection of the entire Sigma system when all incoming data was corrupted. Effectively, 7 days of data was not available for use as a consequence of two periods (4 consecutive days and a subsequent 3 consecutive days) when incoming data was lost or corrupted. Sadly, both events occurred early in the survey and on weekends when technical support was absent.

Ultimately, 6,345 separate email-returned web-based surveys were available for automatic data capture and use in this report.

1.6 EXCLUSIONS

The table below gives the number of questionnaires returned during recruitment and a summary of the numbers excluded from the following analysis for each reason.

All men recruited to the survey (N = 18,105)	Pride	Booklet	Web
Total returns	9,047	2,713	6,345
Resident outside England and Wales	524 (5.8%)	29 (1.1%)	1413 (22.3%)
No evidence of sex with men in the previous year or intention to have sex with men in the future	296 (3.3%)	58 (2.1%)	236 (3.7%)
Already completed the survey	316 (3.5%)	148 (5.4%)	258 (4.1%)
Not completed sufficient questions (demographics)	44 (0.5%)	20 (0.7%)	133 (2.1%)
Spoiled / completed by a female	10 (0.1%)	4 (0.1%)	0 (0.0%)
Sample size Men with homosexual experience or desire & resident in England or Wales	7,857 (86.9%)	2,454 (90.5%)	4,305 (69.1%)

The overall proportion of Pride returns that were excluded from the samples was somewhat larger than previous years, but this was because recruitment in Edinburgh increased the volume of Scottish-resident men recruited. Excluding Scotland Pride the proportion of Pride recruits not resident in England or Wales falls to 2.8% and the overall proportion of men with homosexual experience or desire and resident in England or Wales rises to 89.8%. This figure and all the booklet figures are very similar to previous years (see Hickson *et al.*, 2001). Exclusions relating to no homosexual activity decreased due to the new criteria which allowed men that had not *had* sex with a man in the last year to remain in the sample if they *intended* to have sex with men in the future.

The proportion of booklet returns that were from men visiting from outside the UK is always lower than any year's Pride recruitment. This is not surprising, as some Pride events attract lesbians and gay men from around the globe. Conversely, duplicate respondents were more common in the booklet sample, presumably because men have a much longer period to re-encounter it, in a variety of settings, and because the booklet recruitment continues after all Pride-type events have occurred.

The percentage of men who had already completed the survey also rose slightly from the previous year probably because of the existence of a third method of completion (on the web).

Men completing the web survey were most likely to be excluded for being resident outside England and Wales (22.3% compared to 1.1% and 2.8% respectively). The main means of recruitment was through gay.com which is an increasingly global brand. While promotion was on its UK pages only, these are clearly accessed by men all over the world. While a reasonable proportion of exclusions were from men resident in Scotland (n = 481) or Northern Ireland (n = 101), they were also resident in the rest of Europe (n = 254), North America (n = 311), Asia (n = 101) and Oceania (n = 43).

Similarly, men completing the web survey were most likely to be excluded for not completing enough of the questions to qualify (2.1% compared to 0.7% and 0.5% respectively). This occurred when men pressed 'submit' having completed less than 25% of the questionnaire content. We assume this occurred because men deciding not to complete the survey at Pride or via the booklet would simply have disposed of the paper version without returning it to us.

2 Sample description

This chapter describes the sample of 14,616 men resident in England or Wales (95.6% of whom had sex with a man in the last year while the remainder expected to have sex with a man in the future). Each section introduces a demographic characteristic, describes how it varies across the sample and compares the answers across the three different recruitment methods: at Pride events, using the booklet and on the Internet.

2.0 STRATEGIC HEALTH AUTHORITY OF RESIDENCE

First we consider where the sample lived. Men were asked *Which Local Authority do you live in? (who sends your household the Council Tax bill?)* and to supply their postcode or home town if they did not know their local authority.

Since this data was collected (Summer 2001) the National Health Service has undergone substantial reorganisation. Prior to April 2002 England was divided into eight Regional Health Authorities between them containing 95 Health Authorities. Wales had its own Health Department and was divided into five Health Authorities. Following reorganisation, England has now has four Directorates of Health & Social Service (North, Midlands & Eastern, South and London), which together cover 28 Strategic Health Authorities (SHAs), which themselves contain 301 Primary Care Trusts (PCTs). Wales has its own NHS Directorate as part of the National Assembly for Wales. It currently retains the five Health Authorities but in April 2003 will reorganise to three proposed regional outposts (South, Mid and West, North) that will strategically guide 22 Local Health Boards coterminous with local authorities.

While it remains unclear at which of these levels strategic HIV prevention planning will occur, in the following we use the strategic health authority of residence in England and Health Authority in Wales. The following table shows each authority in England and Wales, the sample size resident in that authority, the proportion of the overall sample they represent and the sources of recruitment for each sub-sample. Overall 93.7% of the whole sample gave us sufficient information to allocate them to one of the twenty-eight English Strategic Health Authorities or five Welsh Health Authorities.

This breakdown is too unwieldy to be used for comparative purposes in the rest of this report. However, our website contains a downloadable data report that gives summary findings at this level of data, as well as Local Authority level data. In many areas of the country the latter are co-terminus with, or approximate to, PCT areas. We are also able to run tailored data reports upon request.

One aim of augmenting Pride recruitment with the booklet and website was to recruit men living in areas where no Pride recruitment occurred. We can see that the SHAs where Pride recruitment occurred (those with a #) – and their immediate neighbours – tend to have the highest proportion of men recruited at Pride events. In many of the other SHAs, the majority of all men are recruited by booklet and the web. This confirms similar findings from the 2000 survey that booklets are successful in extending the geographic distribution of the sample as is web recruitment.

Dir.	Strategic Health Authority	Sample size (n)	% of N	% recruited through...		
				Pride	Booklet	Web
South	Avon, Gloucestershire & Wiltshire	469	3.4	43.3	23.5	33.3
	Hampshire & Isle of Wight	343	2.5	54.2	11.4	34.4
	Kent	261	1.9	64.8	5.0	30.3
	Somerset & Dorset #	466	3.4	83.7	3.6	12.7
	South West Peninsula	197	1.4	32.5	26.4	41.1
	Surrey & Sussex #	1170	8.5	63.8	16.4	19.7
	Thames Valley	551	4.0	41.0	26.1	32.8
London	(London) North Central #	714	5.2	62.9	10.6	26.5
	(London) North East	758	5.5	61.9	10.0	28.1
	(London) North West	776	5.7	56.2	11.3	32.5
	(London) South East	983	7.1	61.9	13.7	24.4
	(London) South West	471	3.4	60.3	9.6	30.1
Midlands & Eastern	Bedfordshire & Hertfordshire	314	2.3	57.6	13.1	29.3
	Essex	254	1.8	52.0	10.2	37.8
	Leicestershire, Northamptonshire & Rutland	309	2.3	39.8	30.1	30.1
	Norfolk, Suffolk & Cambridgeshire	320	2.3	43.1	19.7	37.2
	Trent	431	3.1	38.3	25.1	36.7
	West Midlands Central #	882	6.4	70.5	17.7	11.8
	West Midlands North	313	2.3	34.5	37.4	28.1
	West Midlands South	342	2.5	69.3	10.5	20.2
North	Cheshire & Merseyside	473	3.5	30.2	38.3	31.5
	County Durham & Tees Valley	88	0.6	27.3	19.3	53.4
	Cumbria & Lancashire	263	1.9	29.7	24.3	46.0
	Greater Manchester #	920	6.7	60.5	15.3	24.1
	North Yorkshire, York, East Riding, Hull, North & North East Lincolnshire	187	1.4	24.1	24.1	51.9
	Northumberland, Tyne & Wear	187	1.4	25.1	32.1	42.8
	South Yorkshire	142	1.0	32.4	15.5	52.1
	West Yorkshire	376	2.7	20.5	48.7	30.9
Wales	Bro Taf #	316	2.3	82.0	1.3	16.8
	Dyfed Powys	70	0.5	52.9	17.1	30.0
	Gwent	109	0.8	74.3	0.9	24.8
	Iechyd Morgannwg	136	1.0	66.9	0.7	32.4
	North Wales	108	0.8	45.4	5.6	49.1
	Total	13,699	100.0	54.5	17.3	28.2

recruitment at a Pride event in these authorities.

Figure 2.1 shows each of the 33 Health Authorities of England and Wales plotted by the total population resident in the authority along the bottom and the number of men in our sample resident in that authority up the side. The shape of the individual dots indicates the Directorate of the SHA. The diagonal line shows the best fit through all of the points (a linear regression line). The overall pattern is an increasing sample size with an increasing population size.

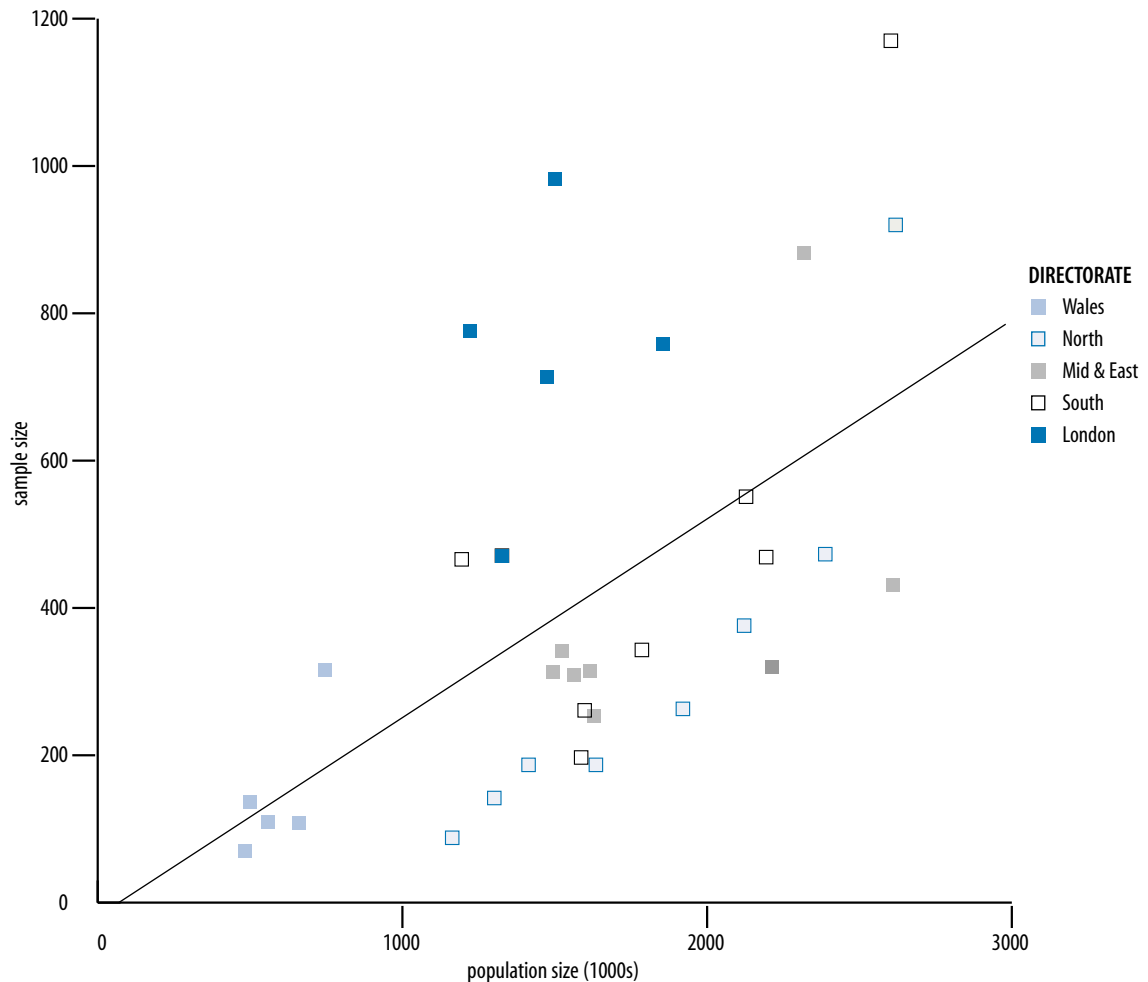


Figure 2.0: Relationship between total (Strategic) Health Authority population size and sample size, by NHS Directorate

The SHAs above-left of the diagonal line are those in which we recruited more men to the survey than average *relative to the entire population of their SHA*. These are the five SHAs in London and a further five in which Pride recruitment occurred: Surrey & Sussex (Brighton Pride) and Somerset & Dorset (Bournemouth Pride) in the South; Greater Manchester (Manchester Mardi Gras) in the North; West Midlands Central (Birmingham Pride) in Midlands & Eastern; and Bro Taf (Cardiff Mardi Gras) in Wales.

The SHAs below-right of the diagonal line are those in which we recruited less men to the survey than we might expect *relative to the entire population of their SHA*. Especially notable are all the English SHAs in the North and a couple in the Midlands & Eastern which, Pride-recruitment sites excepted, include substantially less men in the sample than might be expected.

Further detail on how the geographic distribution of the sample was affected by the three recruitment methods is reported in our CHAPS briefing paper on *Gay men's use of the internet and other settings where HIV prevention occurs* (forthcoming, see www.sigmaresearch.org.uk).

2.1 AGE

The average (mean) age of the whole sample was 32.8 years (standard deviation (sd) = 10.5, median 32, range 12 to 82). While a very wide age range was recruited, half were aged between 25 and 39. The median age of the GMSS samples has been 32 in every year since 1997 (the means were 33.6, 33.1, 33.3, 33.4 and 32.8 in each year respectively).

Figure 2.2 shows the age profile of the three recruitment sub-samples, in five-year age bands. The web sample was the youngest (mean age 30.4, median 29) and the booklet sample the oldest (mean age 35.7, median 35). This age difference in the recruitment sub-samples was observed in all the Strategic Health Authority sub-samples.

Although the booklet sample was, overall, older than the Pride sample, it included a larger proportion of men under 20 years. The web sample has the highest proportion of men under 20 (14.4% compared with 7.5% in the booklet and 5.5% at Prides) and in the 20s (37.9% compared with 27.5% in the booklet and 33.0% at Prides). The booklet sample has the highest proportion of men in their 40s (20.1% compared with 13.2% on the web and 15.8% at Prides) and 50s (14.3% compared with 5.6% on the web and 6.8% at Prides).

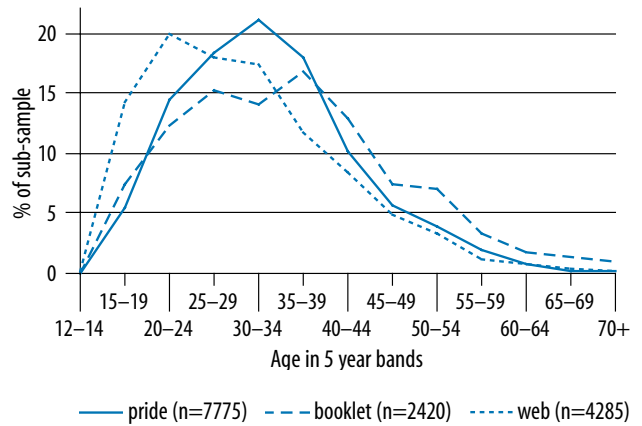


Figure 2.1: Age profile by the three recruitment methods

One aim of booklet and web recruitment was to access larger numbers of men at the bottom and top of the sexually active age range and this has been successful, especially for men under 20 and over 40 by the booklet and for men under 20 via the web. In terms of age, these three recruitment methods are complementary.

2.2 FORMAL EDUCATION

Men were asked *Which of the following educational qualifications do you have?* and instructed to tick one 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 allocated to one of three groups on the basis of their highest educational qualification. Those with no qualifications (5.0%) or O-levels/CSE/GCSE (23.8%, usually leaving education at 16) were classified as having 'low' educational qualifications. Those who indicated a degree or greater were classified as having 'high' (43.0%) educational qualifications. Almost all the remaining men were classified as having 'medium' (28.2%) educational qualifications, including all those with A-levels or equivalent (23.1%) and the majority of those with 'other' vocational or trade qualifications (5.1%).

Figure 2.3 shows the proportions in these education groups for the three recruitment methods. A significantly higher proportion of the booklet sample were in the 'low' education group compared to both the Pride and web samples. This difference was independently statistically significant among men in their 20s,

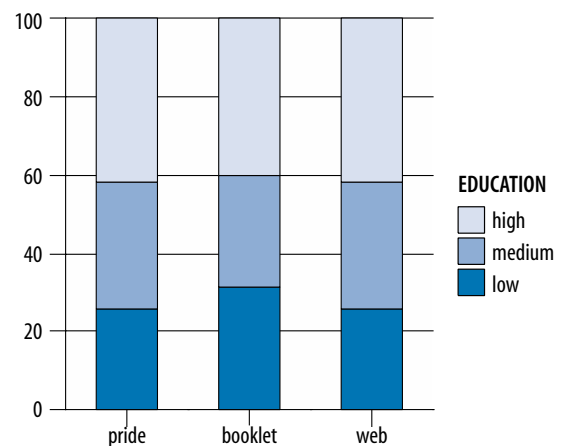


Figure 2.2: Education groups by recruitment method (column n=7725, 2408, 4247)

30s, and those 50 or over, suggesting it is not simply a result of more older and younger men in the booklet sample. Since one aim of the booklet was to recruit larger numbers of less well educated men, this confirms the success of the method.

A significantly smaller proportion of the web sample were in the 'low' education group and a significantly higher proportion were in the 'medium' group, suggesting web-based recruitment does not recruit a larger proportion of less well educated men. However, educational differences between the Pride and the web samples increased with increasing age. The two samples were similar among younger men and diverged with age, the web sample being better educated than the Pride sample in older groups of men. Among men in their 20s, 45.0% of the web sample had a degree compared with 45.3% of the Pride sample. In the 30s these figures were 51.7% and 49.6%, in the 40s they were 49.5% and 46.0% and in the 50+ age group 54.0% and 40.8%. This may reflect the normalisation of the Internet as a means of communication over time, with education now playing little part in determining access to it.

2.3 ETHNICITY

The ethnic group question was derived from the 1991 Census (Coleman & Salt, 1996). Men were asked *What is your ethnic group?* and allowed to indicate one of the following (the number in brackets is the number in that group): *Chinese* (119); *Asian* (293, composed of 136 *Indians*, 45 *Pakistanis*, 5 *Bangladeshis* and 107 *Other Asians*); *Black* (214, composed of 50 *Black Africans*, 138 *Black Caribbeans* and 26 *Other Blacks*); *White* (13568, composed of 11973 *British*, 396 *Irish* and 1199 *other Whites*), *Mixed ethnicity* (342), or *any other group* (48). Men who ticked *any other group* were asked to specify their ethnic group.

The pie in Figure 2.4a shows the proportion of men in the entire sample who indicated their ethnicity as *White British* (82.1% of the sample), *White Irish* (2.7%), *other White* (8.2%) or a non-White ethnicity (7.0%). The column on the right illustrates the ethnic diversity within the non-White group.

While the majority of all three recruitment sub-samples were White, the proportion of men from Black, Asian and other non-White ethnic groups varied by recruitment method. Compared to the sample as a whole, Pride events disproportionately recruited White men, the booklet was especially successful at attracting Black men and the web was useful for bringing Asian men and men from mixed and *other* ethnic groups into the sample. However, because the Pride sample is the larger of the three, it still contains the largest number of men from minority ethnic groups (Figure 2.4b).

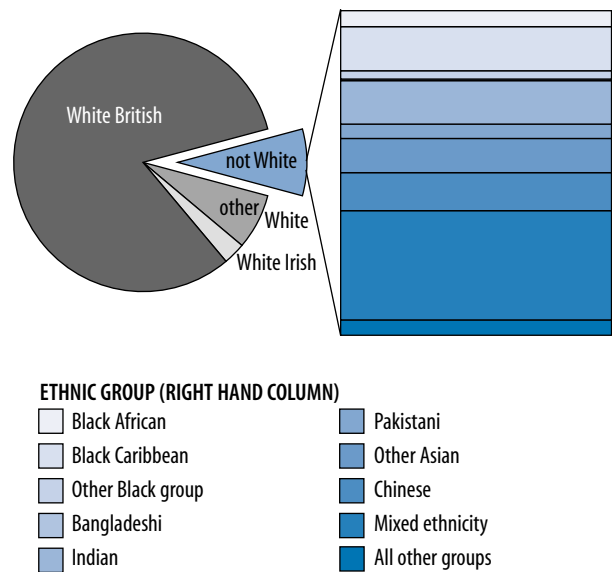


Figure 2.3a: Ethnic group (N=14584)

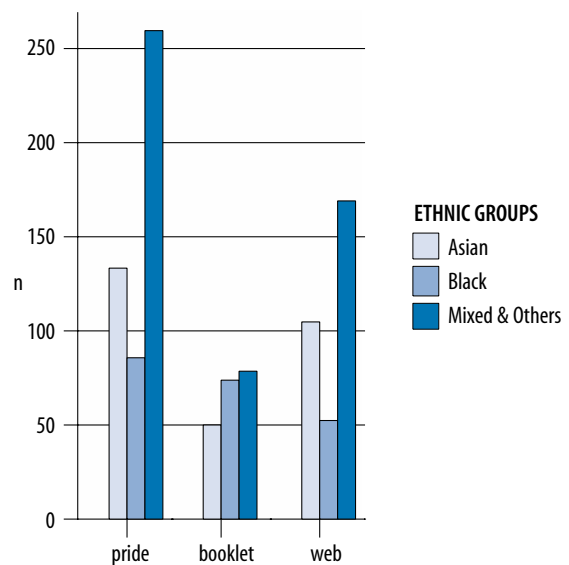


Figure 2.3b: Number of minority ethnic group members recruited through each method

For ethnic group comparisons in the rest of the report we use four groups: Asian; Black; White; and mixed and *other* ethnicities (including Chinese). More detailed data on specific sub-populations is available on request.

2.4 EMPLOYMENT

Men were asked *Are you...? In full-time education, Employed full-time or part-time, Unemployed, Retired, Medically retired or Other* (they could tick any which applied). Those who chose *other* were asked to specify what their employment status was. Men were allocated to one of five groups based on their answer. Those who ticked *Employed full-time or part-time* were allocated to 'employed'. Those who chose *In full-time education* were allocated to 'student' and depending on their answer those who chose *other* were allocated to one of the previous categories or remained as other.

Over three quarters of the sample (77.2%) were currently employed, and the remainder were students (11.9%), retired (5.6%) or unemployed (4.9%). Less than one percent (0.4%) could not be categorised in this way.

Figure 2.5a shows a significant difference in employment status between recruitment methods. The booklet sample were significantly more likely to be retired or unemployed. The Pride sample were most likely to be employed and the web sample were most likely to be in full-time education.

For employment group comparisons the first four of these groups will be used in the rest of the report, omitting *other* which contains very few men. Since we have never reported data on employment before it is useful to assess the relationship between this variable and the other demographics listed above.

There is a strong relationship between age and employment group. Employment rises with age to peak in the 30s and then decreases again. Less than half (46.1%) of men under 20 are employed rising to 86.6% of those in their 30s and declining to 59.9% of those 50 years of age or older.

The average (mean) age of students was the youngest at 24.1 years old (median 21, sd 7.94). The average age of those in employment was 33.1 (median 32, sd 9.27), unemployed was 31.9 (median 31, sd 10.23) and those who were retired were the oldest at 47.7 (median is 47, sd 13.11).

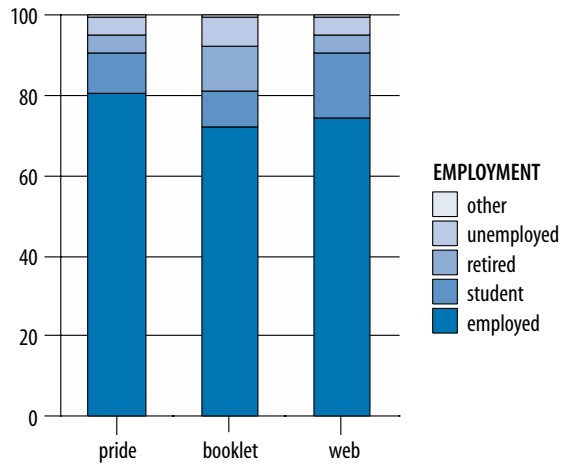


Figure 2.4a: Employment groups by recruitment method (column n=7819, 2446, 4268)

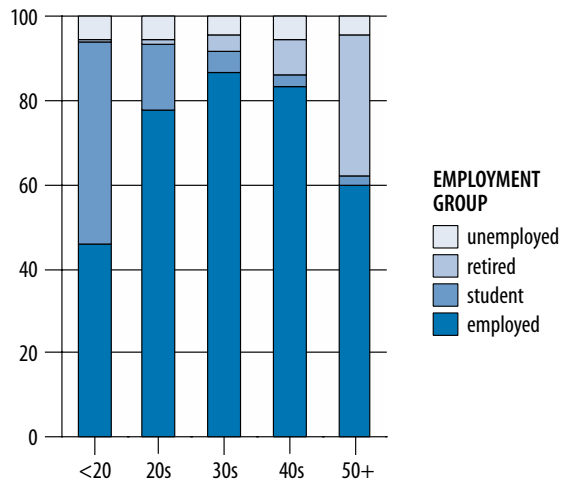


Figure 2.4b: Employment groups by age groups (column n=1214, 4813, 4958, 2255, 1105)

As expected, there was a strong relationship between education and employment. Men with high educational attainment were more likely to be in employment (partly because they have completed their studies and were not currently doing so). Men with medium education were the most likely to be studying and were correspondingly less likely to be employed. Similar proportions of men of medium and high educational attainment were either studying or in employment. Men with low education were most likely to be retired or unemployed and least likely to be studying.

There is a strong relationship between ethnicity and employment group. White men were the most likely to be in employment and least likely to be studying.

Asian men were least likely to be employed but most likely to be studying. Black men were most likely to be unemployed.

Among those studying, a greater proportion were of mixed and other or Asian ethnicities than other employment groups.

2.5 GENDER OF SEXUAL PARTNERS

Men were asked *In the last 12 months, have you had sex with: no one; women only; men only; or both men and women.* The majority of the sample (88.6%) had sex with men only. Of the remainder 7.0% (n=1019) had sex with women as well as men, 3.4% (n=488) had sex with no one and 1.0% (n=140) had sex with women only.

Sex with men and sex with women varied by recruitment method. The web sample were less likely to have had sex with a man (93.8%) than the booklet (96.2%) or Pride samples (96.6%).

Conversely they were more likely to have had sex with a woman in the last year (15.8% had) than the other two recruitment sub-samples (7.1% and 4.0% respectively). Overall, this meant the web sample had a larger proportion of behaviourally bisexual men (14.2%) than the booklet (6.8%) or Pride samples (3.2%). This difference in behavioural bisexuality by recruitment method was apparent in each of the age bands and in each of the ethnic groups. The web sample also had a larger proportion of men who had sex with no one in the last year (4.6%, 3.4%, 2.7% respectively) and a larger proportion of men who had sex with women only in the last year (1.7%, 0.4%, 0.8%) than the other two recruitment sub-samples.

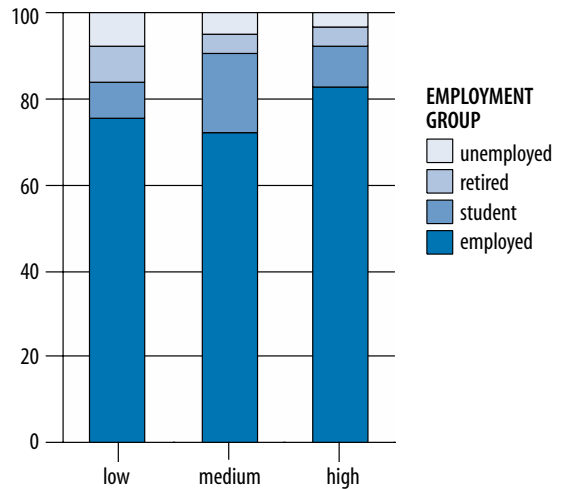


Figure 2.4c: Employment groups by education groups (column n=4022, 4088, 6161)

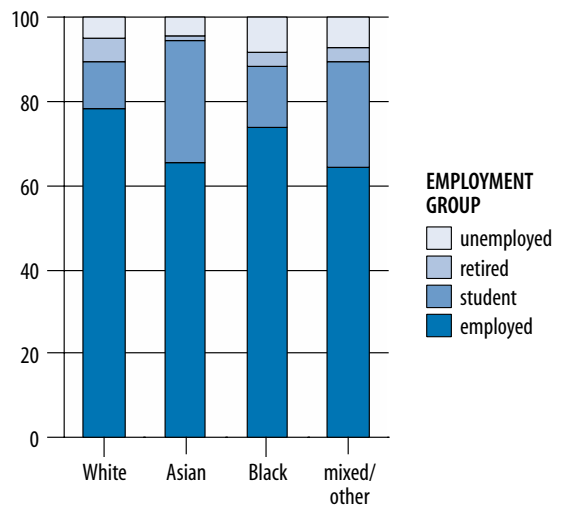


Figure 2.4d: Employment groups by ethnic groups (column n=13459, 286, 209, 495)

Considering only those men who had sex with a man in the last year, 7.3% also had sex with a woman. Previous Pride surveys have observed a significant association between younger age and having female as well as male sexual partners (eg. Weatherburn *et al.*, 2000; p.8). The same association was observed in this survey among the Pride sample, where the average age of the behaviourally bisexual men (29.9 years) was significantly less than that of the exclusively homosexually active men (33.3 years).

However, this difference was not observed in either the booklet or web samples. This further confirms that the three recruitment methods are entirely complementary.

2.6 SUMMARY

The entire sample consists of 14,616 men who live in England or Wales and had sex with a man in the last year and/or expect to have sex with man in the future.

The major innovation for the *Gay Men's Sex Survey* in 2001 was recruitment on the world wide web. Demographically the men recruited on the web are overall fairly similar to the men recruited using the booklet and at Pride events. All three samples are very geographically dispersed, although obviously the Pride samples are concentrated in the areas where Pride events occur, and the distribution of the booklet sample is determined by the activity of health promoters who distribute it. This may lead us to conclude that the web sample is more geographically representative of gay men than the other two.

As a group, the web sample was younger than the Pride and booklet samples and this was the case throughout the country. One aim of booklet and web recruitment was to access larger numbers of men at the bottom and top of the sexually active age range and this has been successful, especially for men under 20 and over 40 via the booklet and for men under 20 via the web.

Among the younger men, the web sample had similar levels of education as the Pride sample. Among older men more of the web sample had higher education. At all ages the booklet sample was less well educated than the other two. This suggests the web sample cannot replace our other methods of recruitment if access to the survey across the education range is a concern.

The majority of all three recruitment sub-samples are White. However, relative to the Pride and booklet samples, the web sample disproportionately attracted Asian men and men from mixed and *other* ethnicities.

The majority of all three sub-samples had sex with only men in the last year. However, the web sample had a notably larger proportion of behaviourally bisexual men. The web sample also had larger proportions of men who had sex with no one or with women only compared with the other two samples.

Overall, the web sample appears complementary to the Pride and booklet samples, and is particularly valuable for attracting younger men and behaviourally bisexual men to the survey.



Figure 2.5: Proportion of homosexually active men with female partners in the last year by age groups and source of recruitment (age group n=1059, 4627, 4829, 2181, 1034)

3 HIV & health

This chapter describes the HIV testing history, health status and health values of all the sample and compares answers across the three different recruitment methods. It also examines how these variables vary across the various demographic sub-samples.

3.1 HIV TESTING HISTORY

Men were asked, *Have you ever received an HIV test result? (yes or no)*. Only 0.5% (n=75) declined to answer this question. Of those who answered, 54.3% had ever tested for HIV. These men were asked *What was the most recent HIV test result that you received? (positive or negative)*. Of those who had tested 2.4% (or 1.3% of the entire sample) declined to tell us their result. Of those who did tell us the result, 9.8% (n=758, or 5.2% of the entire sample) indicated they had tested positive.

The proportion who declined to tell us whether they had tested or their result was small. There is no difference across recruitment methods in the proportion who did not say whether they had tested (Figure 3.1). However amongst those reporting ever testing, those recruited through the website were most likely to tell us the result (99.5%), followed by those recruited via the booklet (98.4%) and those taking part at Pride-type events were least likely (96.5%).

In GMSS 1999 (Weatherburn *et al.*, 2000) we compared this question on HIV testing history with another question on perceived HIV status. The men who declined to reveal their test result but told us their perceived HIV status, had similar perceived status' to men who did tell us their test result. Hence we conclude that we are not seriously underestimating the prevalence of positive HIV diagnoses.

Among those who told us their HIV testing history, overall 46.3% had never tested, 48.4% had tested negative and 5.3% reported having been diagnosed HIV positive.

As Figure 3.1 shows, the web sample was significantly less likely to have ever tested (44.1%) compared to the booklet (59.8%) and Pride (57.1%) samples.

The booklet sample were most likely to have diagnosed HIV (8.1%), compared to Pride (5.4%) and web (3.6%) samples. This is good news, since the booklet predominantly recruits men in contact with HIV health promoters, this suggests positive men are disproportionately likely to encounter health promoters.

Variation in HIV testing history by other demographic variables is described in section 3.5.

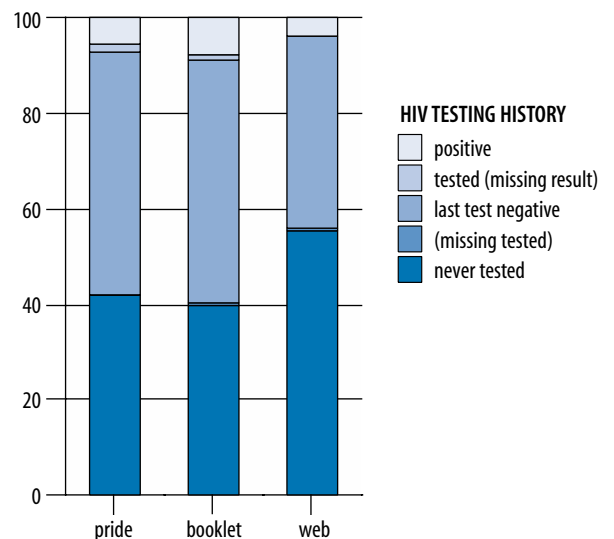


Figure 3.1: HIV testing history groups by recruitment method (column n=7660, 2416, 4271)

3.2 SELF-RATING OF HEALTH

To gauge general health, all men were asked, *Over the last twelve months would you say your health has on the whole been ... (Good?, Fairly good? or Not good?)*

The vast majority of men rated their health positively (96.2%), either *good* (73.5%) or *fairly good* (22.6%). Only a small minority (3.8%) rated their health as *not good*.

The Pride sample were significantly more likely to rate their health as *good* and correspondingly less likely to rate their health as *fairly good* (Figure 3.2). The booklet sample was slightly more likely to rate their health as *not good* (5.3%) compared with the web (4.5%) and Pride (3.0%) samples.

Predictably HIV testing history is significantly associated with self-rating of health status. Those who rated their health as *good* were much less likely to have diagnosed HIV than those who rated their health as *fairly good*. Moreover, those who rated their health as *fairly good* were less likely to have diagnosed HIV than those who rated their health as *not good*.

A sixth (15%) of men with diagnosed HIV rated their health as *not good* compared to only 2.6% of untested and 3.7% of tested negative men.

3.3 LONG-TERM ILLNESS

To further assess general health we asked, *Do you have any long-term illness, health problem or disability which limits your daily activities or the work you can do?. Any man answering Yes was asked to specify what their problem was.*

Overall 12.0% of men reported a *long-term illness, health problem or disability* that affected their daily activities or the work they did. The booklet sample were significantly more likely to report health problems (18.8%) than the Pride (10.7%) or web (10.5%) sub-samples. Approximately 5% of men who reported a problem failed to specify what their problem was. The answers of all other men was allocated to one of eleven categories or *other* for those we could not categorise.

The most common category was *Infectious diseases*, most of which reported having HIV or AIDS (21.0% of those with an illness or disability). A small proportion reported having hepatitis, syphilis or Epstein Bar virus.

Another fifth (20.4%) were categorised as having mental *health/emotional or neurological problems*. Most common in this category were depression and anxiety. The category also includes men with: epilepsy, motivational or developmental problems, eating or sleeping disorders, brain injury, phobias, neurological problems, headache or migraine.

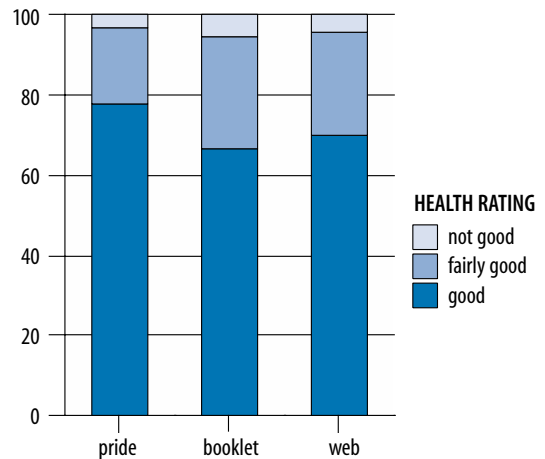


Figure 3.2a: Self-rating of health groups by recruitment methods (column n=7849, 2445, 4271)

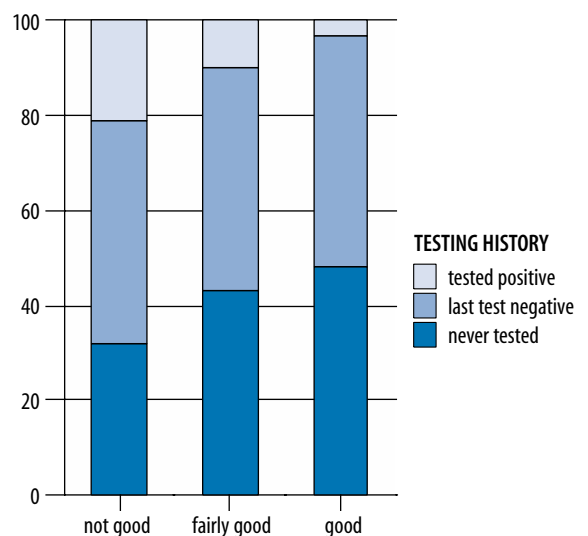


Figure 3.2b: HIV testing history by self-rating of health (column n=543, 3237, 10530)

A further fifth (19.7%) were categorised as having *skeletal/muscular/nerve or mobility problems*, most commonly back and spinal problems but also including arthritis, physical injuries, paralysis or nerve damage and chronic fatigue syndrome. A sixth (14.0%) mentioned *blood or heart problems* most commonly diabetes, angina or hypertension. A tenth (9.1%) were categorised as having a *respiratory problem* most commonly asthma, but also including lung disease, bronchitis, hay-fever and sinusitis.

Categories with less than 5% of responses included *gastrointestinal problems; cancers; kidney and liver problems; drug and alcohol misuse; and skin problems*. A small proportion (3.5%) could not be allocated to any of these categories. There was no difference between the problems men reported and the way in which they were recruited.

Predictably HIV testing history is significantly associated with reporting a current long-term illness, disability or health problem. Those who had health problems were considerably more likely to have diagnosed HIV (25.2%) than those who did not (2.5%). Conversely, men who had tested positive were considerably more likely to report health problems (57.4%), compared to negative (10.6%) and untested men (8.1%).

Finally, and as expected, there is a very strong association between self-rating of health and reports of long-term illness, disability or health problems. Relatively few who rated their health as *good* reported long-term health problems (4.9%), but a quarter (25.6%) of those who said their health was *fairly good* did so and more than two thirds (69.6%) of those who said their health was *not good*.

There are considerable associations between the three variables. Men with HIV are more likely to rate their health either as *not good* or just *fairly good* compared to others. Those rating their health as *not good* were much more likely to report a long-term illness or health problem and those with health problems were considerably more likely to have diagnosed HIV. However, men who had diagnosed HIV and who reported a current long-term illness, disability or a health problem, and who self-rated their health as not good remain a small proportion of the whole sample (0.7%).

3.4 HEALTH VALUES

3.4.1 HIV is still a very serious medical condition

It has been suggested that knowledge of changes in HIV clinical management have reduced the perceived severity of HIV which in turn has influenced sexual behaviours. We have pointed out elsewhere (Hickson *et al.*, 2001) that only if this knowledge is faulty are the holders ignorant and thus in need. Widespread notions of 'complacency' and 'treatment optimism' affecting sexual behaviour seem to suggest that it is preferable for men to remain ignorant of treatment advances lest they lose their fear of HIV exposure.

Men were asked to agree or disagree with the statement *HIV is still a very serious medical condition*. The same question was previously asked in GMSS 1999 and at London Pride in GMSS 1997.

The only significant difference in perceived severity of HIV infection by recruitment method was in the degree to which men agreed that HIV is still a serious medical condition.

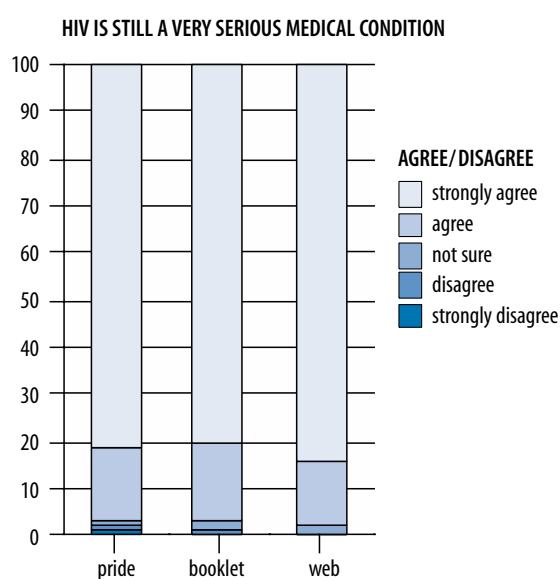


Figure 3.4.1a: Perception of HIV severity by recruitment method (column n=4204, 2382, 7451)

The web group were more likely to *strongly agree* (84.2%) and slightly less likely to *just agree* (13.4%) compared to the other groups (booklet 80.7% / 16.5% and Pride 80.9% / 16.0%). However, the likelihood of any agreement was very similar across the recruitment methods.

While 2.8% did not agree that HIV was a very serious medical condition, this included 5.7% of men with diagnosed HIV compared with 2.7% of the rest. There is a wide consensus among gay men in England and Wales that HIV remains an undesirable infection.

Figure 3.5.1b shows the extent of agreement among men resident in England and Wales other than London, and who had not tested positive in 1997, 1999 and 2001. Between 1997 and 1999 the proportion who indicated either *not sure* or *disagree* significantly decreased from 5.9% (95% CI 4.2–7.6) to 1.5% (CI 1.2–1.8) indicating a decline in the number of men unsure or sceptical about the severity of HIV and thus a decline in ‘complacency’. Disagreement did not decline any further between 1999 and 2001 (2.4%, CI 1.4–3.4).

The pattern is similar among men living in London who have not tested positive and among diagnosed positive men in London and elsewhere.

3.4.2 I would sometimes rather risk HIV transmission than use a condom

In an attempt to gauge the extent to which men value unprotected anal intercourse (UAI) more than avoiding exposure to HIV they were asked to agree or disagree with the following statement: *I would sometimes rather risk HIV transmission than use a condom.*

In total, one man in 13 (7.6%) generally agreed they would *sometimes rather risk HIV transmission than use a condom* (2.6% *agreed strongly*). While a considerable percentage (7.8%) were *unsure*, the majority generally disagreed (84.5%) including two thirds (66.7%) of all men who *disagreed strongly*.

The web sample were the most likely to agree (8.5%) compared to the booklet (8.0%) and Pride (7.0%) samples.

The greatest difference however occurred in the extent that the samples generally disagreed. The Pride sample was most likely to *disagree strongly* (69.8%), followed by the booklet (64.9%) and then the web sample (62.2%).

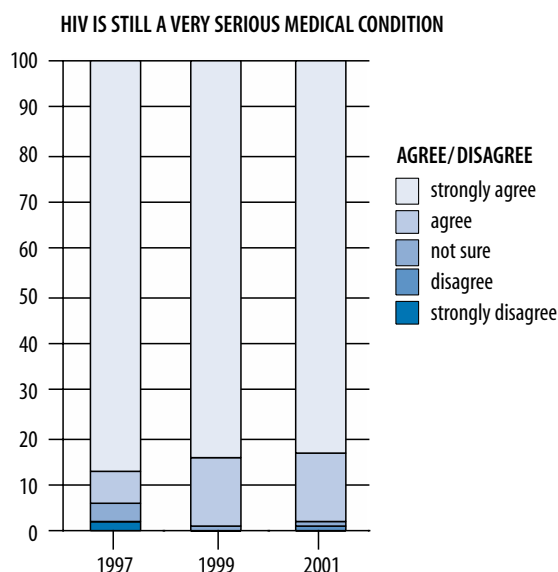


Figure 3.4.1b: Changes in perceptions of HIV severity among men NOT resident in London and NOT tested HIV positive, GMSS 1997 (N=723) and 1999 (N=6210) and 2001 (N=9161)

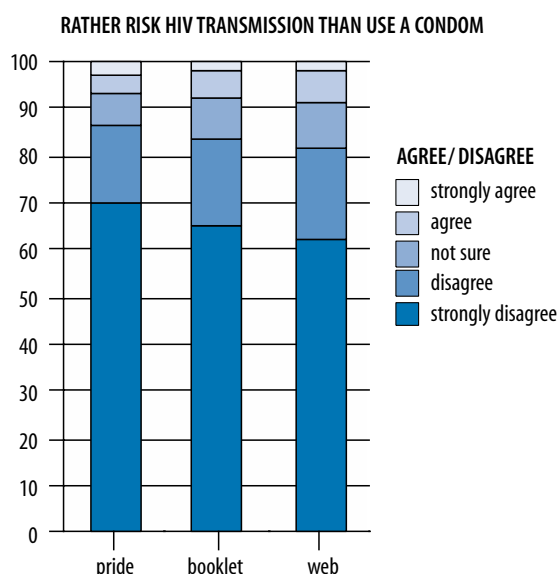


Figure 3.4.2: Preference to HIV risk over condom use by recruitment method (column n=7408, 2367, 4153)

While 7.6% agreed they would sometimes rather risk HIV transmission than use a condom, this included 15.9% of the men with diagnosed HIV compared with 7.9% of tested negative and 6.4% of untested men.

3.5 VARIATION ACROSS POPULATION GROUPS

3.5.1 Age, HIV and health

The following table shows how the previous indicators concerning health and HIV vary across the age range.

Whole sample (N=14,616)		% by age groups				
		< 20 (n=1225)	20s (n=4850)	30s (n=5015)	40s (n=2278)	50+ (n=1112)
HIV testing history	Never tested	78.9	48.6	37.9	40.5	49.8
	Tested positive	0.4	2.7	7.4	8.8	5.1
Current health problem, illness or disability		4.8	8.1	12.0	17.8	24.8
Health self-rating	Good	72.5	75.5	75.3	69.9	64.6
	Fairly good	23.9	21.6	20.9	25.2	28.8
	Not good	3.5	2.9	3.8	4.9	6.6
HIV is a very serious condition	Agree	95.3	97.0	97.3	97.7	98.5
	Disagree	1.0	1.4	1.6	1.2	0.8
Rather risk HIV transmission than use a condom	Agree	5.0	6.8	8.1	8.1	10.3
	Disagree	87.5	85.5	83.6	84.5	81.9

HIV testing history varied significantly across the age range in a similar pattern to previous years. Never having tested was, unsurprisingly, most common among the under 20s. Having tested peaked among men in their 30s and then declined again. Subsequently, men who had never tested (mean age 31.4 years) were, as a group, significantly younger than those who had tested (mean age 33.9). Having tested positive however was most common among men in their 40s and those who had tested positive (mean age 36.9) were significantly older than those who had tested negative at their last test (mean age 33.5).

Ratings of ill health increased with age. There is a straightforward relationship between older age and the likelihood of reporting a current health problem, illness or disability. The older men get, the more likely they are to report a health problem. Men who reported an illness were on average older (mean age 37.4) than those who did not (mean age 32.1).

Self-rating of health shows a similar pattern. Compared to younger men, those in their 40s and over were less likely to rate their health as *good* and more likely to rate their health as *fairly good* or *not good*. Men who rated their health as *good* were as a group significantly younger (mean age 32.4) than those rating their health as *fairly good* (mean age 33.5) or *not good* (mean age 35.6).

Over 95% of all age groups agreed that HIV is still a very serious medical condition but older men were slightly more likely to agree as a consequence of more younger men being unsure. However, even amongst the youngest men the vast majority agreed HIV is still a very serious condition.

The preference for HIV risk over condom use varied significantly by age where the older men were the more likely they were to agree with the statement. This may well be because condoms interfere with erectile functioning more commonly among older rather than younger men. That more older men agreed with *both* statements indicates that the severity with which HIV is perceived is not the sole consideration in wearing a condom.

- Men under 20 were least likely to have ever tested for HIV.
- Men in their 30s and 40s were most likely to have tested positive for HIV.
- Men over 40 were most likely to report an illness, disability or health problem.
- Men over 40 are most likely to self-rate their health as *not good*.

3.5.2 Education, HIV and health

The following table shows how the previous indicators concerning health and HIV vary across education groups.

Whole sample (N=14,616)		% by education groups		
		Low (n=4058)	Medium (n=4118)	High (n=6207)
HIV testing history	Never tested	49.0	50.7	41.7
	Tested positive	5.8	4.6	5.3
Current health problem, illness or disability		15.6	11.1	9.9
Health self-rating	Good	68.6	72.3	77.7
	Fairly good	26.7	23.7	19.1
	Not good	4.7	4.0	3.1
HIV is a very serious condition	Agree	96.5	97.3	97.6
	Disagree	1.4	1.3	1.4
Rather risk HIV transmission than use a condom	Agree	9.7	6.6	6.6
	Disagree	81.0	85.3	86.7

HIV testing history is significantly associated with educational attainment. Men with lower educational achievements were significantly less likely to have ever tested for HIV and somewhat more likely to have tested positive. Poor health is also associated with a lack of education. Men with lower educational attainment were more likely to report a long-term illness, health problem or disability and were most likely to self-rate their health as *not good*.

The perception of the severity of HIV infection varied significantly by education with the men with lower educational attainment being more likely to be unsure of the statement and slightly less likely to *agree*. Men with lower education were also more likely to *agree* and less likely to *disagree* that they would sometimes rather risk HIV transmission than use a condom.

- Men with low levels of education were less likely to have ever tested for HIV.
- Men with low levels of education were most likely to have tested positive for HIV.
- Men with low levels of education were most likely to report an long-term illness or disability.
- Men with low levels of education were most likely to self-rate their health as *not good*.

3.5.3 Ethnicity, HIV and health

The following table shows how the previous indicators concerning health and HIV vary across ethnic groups. While substantial variation across ethnic groups is shown, it does not occur in a straightforward or predictable manner.

Whole sample (N=14,616)		% by ethnic groups			
		White (n=13571)	Asian (n=293)	Black (n=214)	Mixed & others (n=509)
HIV testing history	Never tested	46.4	51.2	37.3	44.8
	Tested positive	5.2	2.1	11.4	6.3
Current health problem, illness or disability		12.3	6.2	8.6	10.2
Health self-rating	Good	73.3	76.7	81.0	76.2
	Fairly good	22.8	20.2	17.5	21.8
	Not good	4.0	3.1	1.4	2.0
HIV is a very serious condition	Agree	97.3	96.8	93.3	95.0
	Disagree	1.3	1.1	3.1	2.6
Rather risk HIV transmission than use a condom	Agree	7.4	10.1	5.7	13.3
	Disagree	84.5	83.0	87.0	76.3

HIV testing history is significantly associated with ethnicity. As in previous years, Asian men were the *least* likely to have ever tested for HIV, followed by White men. Among those who had tested, Black men were most likely to have tested positive and Asian men were least likely to have. These ethnic group differences were observable among men in and outside London and among those under and over 30 years of age.

Asian men were the least likely to report a health problem, followed by Black men. White men were most likely to report a current health problem, illness or disability. A similar pattern emerges for self-ratings of health. White men were least likely to describe their health as *good* and most likely to say it was *not good*. Black men were most likely to describe their health as *good* and least likely to say it was *not good*.

The perception of the severity of HIV infection varied significantly by ethnicity. Black men were most likely to be *unsure* or *disagree* that HIV is still a very serious condition, followed by men of mixed and *other* ethnicities, Asian and then white men.

Preference for HIV risk over condom use also varied significantly by ethnicity with men of mixed and *other* ethnicities most likely to agree that they would sometimes rather risk HIV transmission, followed by Asian men.

- Asian men were least likely to have ever tested for HIV.
- Black men were most likely to have tested positive for HIV.
- White men were most likely to report a current health problem, illness or disability.
- White men were most likely to rate their health as *not good*.

3.5.4 Employment, HIV and health

The following table shows how the previous indicators concerning health and HIV vary across employment groups.

Whole sample (N=14,616)		% by employment groups			
		Employed (n=11219)	Student (n=1727)	Retired (n=815)	Unemployed (n=717)
HIV testing history	Never tested	45.0	62.4	34.5	42.9
	Tested positive	3.7	2.6	30.8	8.9
Current health problem, illness or disability		7.7	8.5	66.2	25.7
Health self-rating	Good	76.6	76.6	36.7	59.9
	Fairly good	21.0	20.5	40.4	32.8
	Not good	2.4	2.9	22.8	7.3
HIV is a very serious condition	Agree	97.4	96.5	97.4	94.8
	Disagree	1.4	1.2	0.9	1.3
Rather risk HIV transmission than use a condom	Agree	7.3	5.9	12.7	10.1
	Disagree	85.2	86.9	76.6	77.0

Employment status was significantly associated with HIV testing history. Those who were retired or unemployed were considerably more likely to have tested HIV positive compared to the employed and students. Students were least likely to have ever tested.

Poor health was also associated with employment. Retired and unemployed men were least likely to describe their health as good, some of whom had retired on medical grounds. Long-term illness or disability varied by employment group. Men who were retired were much more likely to report an illness, though again many have probably retired 'early' due to illness. Unemployed men were next most likely to report an illness, and some of the same reasons apply.

The perception of the severity of HIV infection varied significantly by employment status. The unemployed and students were the most likely to be *unsure, disagree or disagree strongly*; the employed and retired were similarly likely to *disagree* or be *unsure*. Unemployed men were also the least likely to *strongly agree* and the most likely to *agree*.

Preference for HIV risk over condom use varied significantly by employment status. Retired men (and to a lesser extent unemployed men) were significantly more likely to *agree* compared to the employed and students who were least likely.

- Students were least likely to have ever tested for HIV.
- Retired men were most likely to have tested positive for HIV.
- Retired men were most likely to report a long-term illness or disability.
- Retired men were most likely to report their health as *not good*.

3.5.5 Gender of sexual partners, HIV and health

The following table shows how the previous indicators concerning health and HIV varied by whether men had any sex in the last year, and the gender of their partners if they did.

Whole sample (N=14,616)		% by gender of partners groups			
		No one (n=488)	Women only (n=140)	Men only (n=12841)	Men & women (n=1019)
HIV testing history	Never tested	76.6	73.2	43.3	64.2
	Tested positive	4.1	2.2	5.6	1.4
Current health problem, illness or disability		20.4	7.4	11.9	9.4
Health self-rating	Good	63.6	79.3	73.9	73.2
	Fairly good	26.5	19.3	22.5	22.9
	Not good	9.9	1.4	3.6	3.9
HIV is a very serious condition	Agree	95.6	97.8	97.3	96.9
	Disagree	0.8	0.7	1.4	0.8
Rather risk HIV transmission than use a condom	Agree	4.7	5.8	7.6	9.0
	Disagree	90.7	89.8	84.5	81.9

Poor health was also associated with whether men have sex and the gender of partners they had sex with. Those who had sex with no one in the last year were relatively unhealthy. While they were least likely to have tested those that had tested had a high rate of diagnosed HIV infection. They were also most likely to report a current health problem, illness or disability and most likely to self-rate their health as *not good*.

Men who reported sex with women only had similarly low levels of lifetime HIV testing but lower rates of diagnosed HIV infection. They were least likely to report a current health problem, illness or disability and least likely to self-rate their health as *not good*.

Men who reported sex with men only were most likely to have ever tested for HIV and to have diagnosed HIV infection. They were also most likely to disagree that HIV was a very serious medical condition.

Men who reported sex with men and women were least likely to have diagnosed HIV but most likely to agree they would sometimes rather risk HIV transmission than use a condom.

- Men who had no sex in the last year were least likely to have ever tested for HIV.
- Men who had sex with men only were most likely to have tested positive for HIV.
- Men who had no sex in the last year were most likely to report a long-term illness or disability.
- Men who had no sex in the last year were most likely to report their health as *not good*.

3.6 SUMMARY & IMPLICATIONS FOR PROGRAMME PLANNING

These implications for programme planning should be read in conjunction with those at the end of Chapters 4 and 5 and with our complementary reports from the *Gay Men's Sex Survey* in 1997 (Hickson, Reid *et al.*, 1998); 1998 (Hickson, Weatherburn *et al.*, 1999), 1999 (Weatherburn, Hickson *et al.*, 2000) and 2000 (Hickson, Reid *et al.*, 2001). 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.

Comparing samples recruited at Pride events, the number of men who report ever testing for HIV has remained stable for the past five years as has the proportion of men who have diagnosed HIV. It is likely that HIV infection is still highest in London closely followed by the rest of the South East and the North West. The following implications hold for each area of the country separately.

Men in their 30s and 40s were most likely to have ever tested for and to have been diagnosed with HIV. Hence, in order to increase their impact on incidence:

- **HIV prevention programmes should disproportionately benefit men under 40 years of age.**

Men with higher levels of education were more likely to have ever tested but men with lower levels of formal education were more likely to have been diagnosed with HIV. This suggests that incidence of HIV infection is higher among gay men with lower levels of formal education. Hence, in order to increase their impact on incidence:

- **HIV prevention programmes should disproportionately benefit men who do not have a University degree.**

Black men were significantly more likely to have ever tested for HIV and they were significantly more likely to have been diagnosed with HIV. Hence, in order to increase their impact on incidence:

- **HIV prevention programmes should disproportionately benefit Black men.**

Compared with behaviourally bisexual men, those that have sex with men only (that is, those who are exclusively homosexually active) are more likely to have ever tested and to have been diagnosed with HIV. This suggests that 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 disproportionately benefit exclusively homosexually active men.**

4 Sex and HIV related behaviours

This chapter reports the data from the questions about sexual behaviours, including HIV-related risk behaviours. While men who had not had sex with a man were retained in the overall sample if they indicated they expected to have sex with a man in the future (see section 1.6) this chapter only considers men who did have sex with another man in the last year (N=13,977). First we look at a descriptive variable before moving onto HIV related sexual behaviours in the last year. At the end of the chapter we consider how sexual behaviour varies across the demographic groups described in Chapter 2.

4.1 NUMBER OF MALE SEXUAL PARTNERS

Men were asked *In the last 12 months how many MEN have you had sex with in total?* and allowed to indicate one of five responses. The responses offered and the overall proportion of homosexually active respondents who indicated them were: one (23.3%); 2, 3 or 4 (27.6%); between 5 and 12 (23.3%); between 13 and 29 (12.8%); 30 or more (13.1%).

Figure 4.1a shows the proportions indicating each band in the recruitment sub-samples, split by gender of partners. Among exclusively homosexually active men (ExHAMS), the Pride sample had a smaller volume of partners than the booklet or web samples. Among the smaller group of behaviourally bisexual men however, the web sub-sample were most likely to have had one male partner and least likely to have thirty or more. These data do not suggest strong or simple associations between recruitment method and volume of male sexual partners.

Figure 4.1b shows the numbers of male sexual partners among men who were not diagnosed positive, across the age range.

Overall, 23.6% of men who had a male partner had only one and this did not greatly vary with age, although men under 25 or over 60 were least likely to have one partner only. Younger and older men were also least likely to have large numbers of partners, with men in the 40 to 45 age band most likely to have 30 or more partners.

- Among men not diagnosed positive, promiscuity increases with age peaking in the late 30s and early 40s, then declines again.

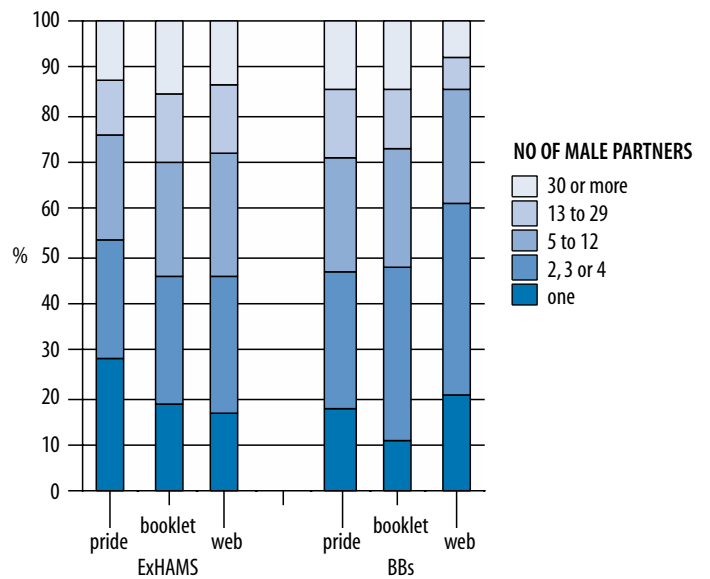


Figure 4.1a: Number of male sexual partners in last year by gender of partners and recruitment method (column n=7188, 2170, 3386, 240, 161, 598)

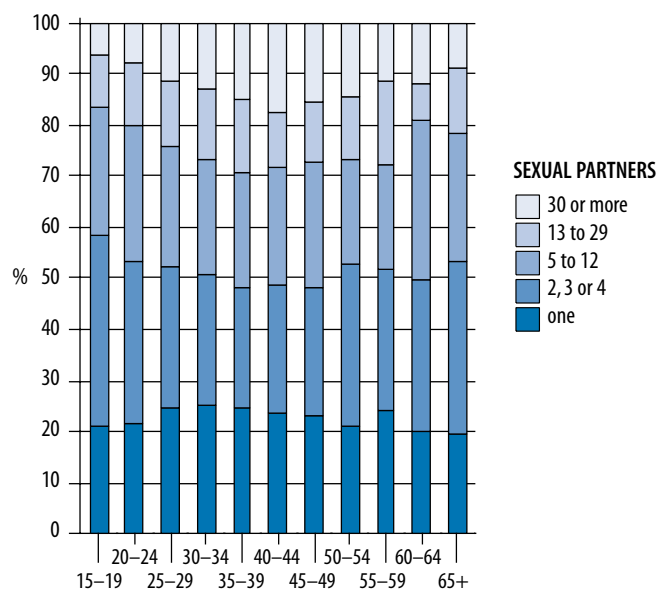


Figure 4.1b: Number of male sexual partners by age groups among men not diagnosed HIV positive (column n=1051, 2153, 2474, 2612, 2221, 1393, 779, 564, 252, 124, 95)

4.2 HIV RISK BEHAVIOURS

In this section we look at sex with partners of varying HIV statuses, especially anal intercourse without condoms and oral intercourse to ejaculation in the mouth.

4.2.1 HIV sero-status of male sexual partners

All sexual HIV exposures occur within the context of HIV sero-discordant sex (sex between HIV infected and HIV uninfected men). Obviously, exposures are only a sub-set of sexual acts which occur in this context, but the overall volume of discordant sessions will influence the overall number of exposures occurring. Men were asked to tick as many as apply of the following:

In the last 12 months, have you had SEX with a man ...
who you knew at the time was HIV POSITIVE?
who you knew at the time was HIV NEGATIVE?
whose HIV status you DID NOT KNOW at the time?

The following table shows the proportions of men who indicated each of the three options (men could tick more than one and so the columns do not total 100%), separated by whether they had diagnosed HIV or not.

Men who had sex with a man in the last year (N=13,977)	% by HIV testing history	
	Diagnosed positive (n = 735)	Not diagnosed positive (n = 12987)
Had a known HIV positive partner	60.3	9.4
Had a known HIV negative partner	48.5	49.3
Had a partner of unknown HIV status	76.4	75.9

Similar proportions of diagnosed positive and not diagnosed positive respondents had sex with men whose status they did not know (75.9% overall) and men they knew to be negative (49.3% overall). However, men who had diagnosed HIV were much more likely to have sex with men they knew to have HIV than were other men.

- Sexual partners of unknown HIV status are the norm both among those diagnosed HIV positive and those that are not.
- Diagnosed HIV positive men are more likely to have sexual partners they know are negative than men who have not tested positive are to have sex with men they know are positive.

Men's HIV testing history (tested positive or not) and their answers to the three questions above were used to allocate them to one of three groups:

- 1] any thought discordant partner (respondents who had not tested positive who had a positive partner, and positive respondents who had a partner they knew to be negative);
- 2] unknown but not any known discordant partners (not the preceding but having had a partner of unknown status); or
- 3] thought concordant partners only (positive respondents who had sex only with other positive men, and respondents not tested positive who had sex only with men they thought were HIV negative).

The following table shows the proportions of positive and not positive men who fell into the three groups.

Men who had sex with a man in the last year (N=13,977)	% by HIV testing history	
	Diagnosed positive (n = 735)	Not diagnosed positive (n = 12987)
Any thought discordant partner	48.5	9.4
Unknown but no known discordant partner	39.4	68.8
Thought concordant partners only	12.1	21.8
Total	100.0	100.0

The majority of men who had sex with a known discordant partner also had sex with a partner of unknown status (76.2% of positives and 75.9% of not positives)

Although 49.3% of men not tested positive had sex with a known negative partner, only 21.8% had sex only with men they thought were negative. Similarly, while 60.3% of positive men had sex with another positive man, only 12.1% had sex *only* with other positive men.

- Men who have tested positive are much more likely to have sero-discordant sex than those who have not tested positive.

In the context of the above findings, undiagnosed HIV infection poses a major reservation. Current estimates from the Public Health laboratory Service (Unlinked Anonymous Surveys Steering Group, 2000) assert that about two-thirds of HIV infections among gay men have been diagnosed. This means that in addition to the 5.3% of men with diagnosed infection, another 2.6% of the sample have undiagnosed infection. Similarly, a recent research in London (Dodds & Mercey, 2001) suggests that 67% of the men with undiagnosed infection think they are HIV negative. This means some of the men who think they are negative, having UAI with men they also think are negative, will in fact be engaging in sexual HIV exposure.

4.2.2 Engagement in anal and oral intercourse

Men who had a male sexual partner in the last year were asked the following questions about their sexual behaviour in the preceding year:

<i>Still thinking about the last 12 months, have you fucked a man (been active in anal intercourse)?...</i>	No/Yes
<i>If Yes, Have you fucked a man (been active) WITHOUT a condom in the last 12 months?...</i>	No/Yes
<i>Still thinking about the last 12 months, have you been fucked by a man (been passive in anal intercourse)?...</i>	No/Yes
<i>If Yes, Have you been fucked WITHOUT a condom?...</i>	No/Yes
<i>Still thinking about the last 12 months, have you sucked a man's cock?...</i>	No/Yes
<i>If Yes, Has a man ejaculated (cum, spunked) in your mouth?...</i>	No/Yes
<i>Still thinking about the last 12 months, have you had your cock sucked by a man?...</i>	No/Yes
<i>If Yes, Have you ejaculated (cum, spunked) in a man's mouth?...</i>	No/Yes

Note that due to space limitations, we did not ask about condom use during oral intercourse, nor about ejaculation during anal intercourse. The following table shows the overall proportions who indicated they had done each of the eight sexual acts.

Men who had sex with a man in the last year (N=13,977)		% by HIV testing history	
		Diagnosed positive (n = 735)	Not diagnosed positive (n = 12987)
Receptive	Anal intercourse (RAI)	79.4	67.7
	RAI without a condom (URAI)	52.5	38.2
	Oral intercourse (ROI)	97.2	97.3
	ROI to ejaculation in the mouth (ROIj)	64.2	60.2
Insertive	Anal intercourse (IAI)	79.1	74.1
	IAI without a condom (UIAI)	46.1	39.1
	Oral intercourse (IOI)	95.7	97.1
	IOI to ejaculation in the mouth (IOIj)	54.6	67.4

Receptive oral intercourse was equally common among diagnosed positive and other men. Being insertive in oral intercourse and ejaculating in another man's mouth was more common among men who had not been diagnosed positive.

Both modalities of anal intercourse and unprotected anal intercourse were more common among diagnosed positive than other men, as was taking ejaculate in the mouth.

- Men who have tested positive are more likely than other men to engage in most of the sexual behaviours that can transmit HIV.

4.2.3 HIV sero-status of UAI and UOIj partners

Men who had been involved in unprotected anal intercourse (either URAI or UIAI) or ejaculation in the mouth (ROIj or IOIj) were asked:

*Have you [done that sexual act] with a man...
 who you knew at the time was HIV POSITIVE?
 who you knew at the time was HIV NEGATIVE?
 whose HIV status you DID NOT KNOW at the time?"*

They were asked to tick as many as applied. The following table shows the proportions of men indicating each sexual act with each of the three partner types.

Men who had sex with a man in the last year (N=13,977)			% by HIV testing history	
			Diagnosed positive (n = 735)	Not diagnosed positive (n = 12987)
Receptive	Anal without a condom	with known positive	31.7	1.1
		with known negative	13.8	21.4
		with unknown	32.4	17.6
	Oral to ejaculation in the mouth	with known positive	28.5	1.5
		with known negative	24.1	27.3
		with unknown	42.8	37.3
Insertive	Anal without a condom	with known positive	30.3	1.4
		with known negative	9.5	19.6
		with unknown	23.9	19.4
	Oral to ejaculation in the mouth	with known positive	26.8	2.6
		with known negative	15.0	27.0
		with unknown	37.8	44.9

Small proportions of men who had not tested positive had engaged in these sexual acts with men who had. However, 1.1% had engaged in receptive UAI with a known positive partner in the last year, 1.4% had insertive UAI with a positive partner and 1.5% knowingly had a positive man come in their mouth. Larger proportions of the tested positive men had engaged in these behaviours with men they knew were negative. How these behaviours varied across demographic groups can be seen in section 4.4.

Considering respondents engaging in sexual acts where they are aware of their partners sero-discordancy, the three sexual acts during which HIV is thought to be transmitted are:

1] *HIV positive men fucking negative men without condoms*

9.5% of positive men (who constitute 5.4% of the sample) indicated they had UAI with men they knew was negative (0.5% of the entire sample), and 1.1% of not tested positive men (the other 94.6% of the sample) indicated they had UAI with a man they knew was positive (1.0% of the entire sample).

2] *HIV positive men cumming in negative men's mouths*

15.0% of positive men indicated they had ejaculated in the mouth of a man they knew was negative (0.8% of the entire sample), and 1.5% of not tested positive men indicated they had taken ejaculate in their mouth from a man they knew was positive (1.4% of the entire sample).

3] *HIV negative men fucking positive men without condoms*

13.8% of positive men indicated they had UAI with men they knew was negative (0.7% of the entire sample), and 1.4% of not tested positive men indicated they had UAI with a man they knew was positive (1.3% of the entire sample).

Compared with others, men with diagnosed HIV infection were much more likely to have engaged in all of the three sexual acts in known sero-discordant sexual sessions. However, because diagnosed positive men are in the minority, an absolutely larger number of men who not tested positive had engaged in each sero-discordant act.

- Men with diagnosed infection are more likely to be involved in sexual HIV exposure than men without diagnosed HIV infection.

4.3 CONDOM FAILURE

As well as unprotected intercourse, condom failure during protected anal intercourse provides another potential source of sexual HIV exposure.

All men were asked about wearing condoms for anal intercourse, their experience of condom failure and some behaviours that may have contributed to it.

4.3.1 Protected insertive intercourse

Men were asked *Have you fucked a man (been active) WITH a condom in the last 12 months?...No/Yes*. Overall 60.5% said they had (N = 13,700, missing 277), which is 81.8% of those who had insertive anal intercourse.

Figure 4.3.1 shows for each five-year age band the proportions of men who had no insertive anal intercourse; were consistent condom users; inconsistent condom users; and consistent non-users.

We can see that engagement in IAI became less common with increasing age. Among men who had IAI, the proportion who never used a condom increased with increasing age. These two trends cancel each other out, such that the proportion having IAI and never using condoms is fairly even across the age range, at around 11.5%. Any condom use for IAI was most common among the men under 20 and became less common with increasing age.

- Younger men were more likely to be condom users than older men.

Protected and unprotected intercourse are associated and tend to occur in the same men. Although younger men were most likely to engage in unprotected insertive anal intercourse, they were also most likely to have insertive protected anal intercourse.

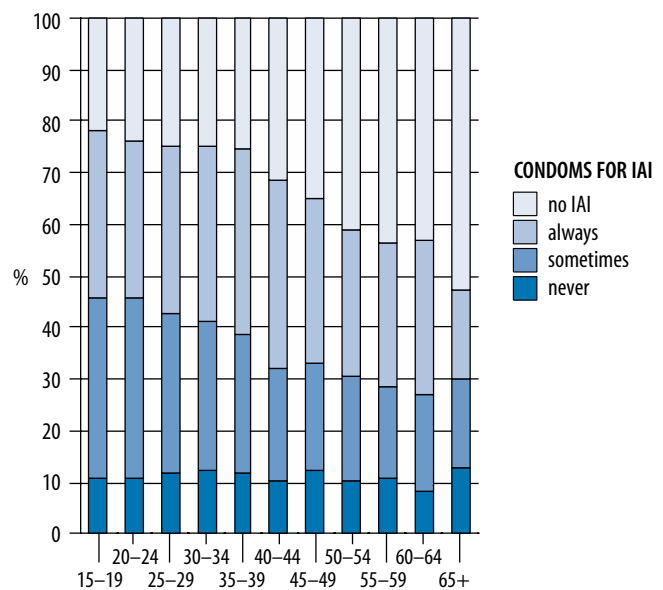


Figure 4.3.1: Insertive anal intercourse and condom use, across the age range, among men not tested HIV positive (column n=983, 2014, 2248, 2274, 1891, 1182, 682, 494, 219, 107, 87)

4.3.2 Experience of condom failure

Those who had worn a condom for IAI in the last year were asked *Have any of the condoms YOU'VE worn SPLIT or COME OFF while you were fucking a man?...No/Yes*. Of those who had worn them, 12.3% of men said they had experienced failure at least once.

Condom failure was strongly associated with inconsistent condom use: 17.3% of those who had sometimes used a condom for IAI experienced failure compared with 7.7% of those who always used condoms.

4.3.3 Condom failure risk behaviours

All men who had worn a condom for insertive anal intercourse (IAI) in the last year were asked: *All of the following contribute to condoms tearing or slipping. Which have you done in the last 12 months?*

They were asked to tick as many as apply from a list of seven behaviours generated from a randomised controlled trial of factors contributing to condom failure (Golombok *et al.*, 2001). The following table gives the behaviours and the proportion of condom users who indicated each, ordered by the most common first.

Men who had worn a condom for insertive anal intercourse in the last year (n=8162)	% of all condom users	% by experience of failure		Odds ratio (95% CI)
		no failure (n=7158)	any failure (n=1004)	
Fucking for over half an hour without changing the condom	14.8	11.9	35.6	3.0 (2.5–3.5)
Using saliva as a lubricant	14.5	13.1	24.6	ns
Not using any lubricant	11.2	9.7	21.4	1.3 (1.1–1.6)
Not using lots of water-based lubricant on the outside of the condom	7.5	6.0	18.3	2.2 (1.8–2.7)
Unrolling the condom before putting it on your cock	7.4	7.0	10.2	ns
Using a condom that's too short for your cock	7.0	5.4	18.9	2.6 (2.1–3.2)
Putting lubricant inside the condom before putting it on	6.5	6.0	10.4	ns

All seven behaviours were individually associated with experience of condom failure, being significantly more common among those who experienced failure than those who did not. In a multiple logistic regression with experience of failure (yes/no) as the outcome and the seven behaviours as the factors, four factors showed independent associations with failure: fucking for over half an hour without changing the condom; not using any lubricant; not using lots of water-based lubricant on the outside of the condom; using a condom that's too short for your cock. Variation in these measures across demographic groups is addressed in section 4.4.

4.4 VARIATION IN HIV RELATED SEXUAL BEHAVIOURS ACROSS POPULATION GROUPS

Currently, *Making it Count* (Hickson, Nutland *et al.*, 2000) adopts the number of occasions uninfected and infected men have unprotected anal intercourse (UAI) together as its first target for HIV health promotion. The following sections look at UAI with unknown and known sero-discordant partners across different groups of men, in order to allow suitable prioritisation to be made in HIV prevention programmes. Currently, the number of times HIV positive men ejaculate into HIV negative men's mouths is not a population level target. However, the data also suggests what the priorities may be if it were.

As its second target *Making it Count* adopts a reduction in the condom failure rate among all users. The following tables also examine variation in condom use for IAI in the last year, experience of condom failure and the behaviours thought to contribute to failure.

4.4.0 HIV testing history and HIV related sexual behaviours

Preceding sections have shown how the sexual risk behaviour measures varied with having tested HIV positive or not. The following table shows the differences in the sexual HIV exposure measures among men not tested HIV positive and the condom failure risk measures in all three HIV testing history groups.

Men who had sex with a man in the last year (N=13,977)		% by HIV testing history			
		Never tested (n = 6165)	Tested negative (n = 6822)	Tested positive (n = 735)	
Male sexual partners in the last year	One	26.3	20.9	16.7	
	30 +	<u>7.9</u>	16.2	25.0	
With man known to be positive	Sexual partner	4.7	13.4		
	Unprotected receptive anal	0.6	1.6		
	Receptive oral to ejaculation	0.8	2.0		
	Unprotected insertive anal	0.5	2.2		
With man of unknown HIV status	Sexual partner	77.5	74.5		
	Unprotected receptive anal	17.5	17.7		
	Receptive oral to ejaculation	37.7	37.1		
	Unprotected insertive anal	18.9	19.8		
Condom failure behaviours	Wore a condom	<u>55.6</u>	64.3	67.5	
	% of users	use for 30 minutes +	13.9	15.3	17.7
		saliva as lubricant	<u>12.5</u>	15.8	17.5
		no lubricant	11.4	11.4	9.8
		insufficient lubricant	6.8	8.0	6.9
		unrolling prior to use	7.1	7.7	7.7
		short condom	6.4	7.6	7.3
		put lubricant inside	<u>4.7</u>	7.7	9.4
had a failure	<u>10.2</u>	13.2	18.3		

Among men not tested positive, those who had tested negative at some point in the past were more likely to be involved in sexual risk behaviours with men they knew to be positive than were those who had never tested. Behaviours with partners of unknown status were equally common across the HIV testing history groups. Without more detail about the recency of HIV testing and sexual behaviours it is not possible to say which may have contributed to the other. This data does support the hypothesis that sexual HIV exposure and HIV testing occur in the same men.

Condom use and condom failure were most common among men with diagnosed HIV. These data suggest that as well as men with diagnosed HIV being a priority for sUAI needs, they should be a priority for condom failure needs. This means any programme of interventions intended to reduce condom failure should disproportionately benefit positive men.

4.4.1 Age and HIV related sexual behaviours

The following table shows how the key sexual HIV risk behaviour measures vary by age groups among men who have not tested HIV positive.

Men not tested HIV positive, who had sex with a man in the last year (N=12,864)		% by age group					
		< 20 (n=1055)	20s (n=4466)	30s (n=4410)	40s (n=1916)	50+ (n=972)	
Male sexual partners in the last year	One	20.7	22.9	24.9	23.6	21.8	
	30 +	<u>5.3</u>	9.9	14.0	17.0	13.1	
With man known to be positive	Sexual partner	<u>3.4</u>	7.2	12.1	12.3	7.2	
	Unprotected receptive anal	1.1	0.9	1.5	1.3	<u>0.2</u>	
	Receptive oral to ejaculation	1.1	1.3	1.8	1.6	0.8	
	Unprotected insertive anal	<u>0.7</u>	1.2	1.7	1.8	1.4	
With man of unknown HIV status	Sexual partner	<u>72.9</u>	74.6	77.5	76.7	76.6	
	Unprotected receptive anal	24.8	20.6	16.3	<u>12.5</u>	<u>13.0</u>	
	Receptive oral to ejaculation	42.6	40.3	35.9	<u>33.6</u>	<u>33.4</u>	
	Unprotected insertive anal	23.6	21.0	18.8	17.0	<u>14.7</u>	
Condom failure behaviours	Wore a condom	66.0	63.2	61.5	55.0	<u>44.9</u>	
	% of users	use for 30 minutes +	24.8	16.9	12.4	10.9	<u>7.9</u>
		saliva as lubricant	19.6	16.4	12.8	11.4	<u>10.0</u>
		no lubricant	18.6	13.1	9.0	9.2	<u>7.9</u>
		insufficient lubricant	12.8	8.2	6.5	6.2	<u>4.8</u>
		unrolling prior to use	8.8	7.7	7.4	5.7	7.1
		short condom	9.7	7.9	5.9	7.0	<u>5.0</u>
		put lubricant inside	<u>4.8</u>	5.5	6.8	8.2	6.9
had a failure	17.5	12.3	10.5	11.9	<u>8.0</u>		

Men in their 30s and 40s were most likely to have had sex with a man they knew to be positive and to have had both receptive and insertive UAI with a positive man. This is the same group most likely to have large numbers of sexual partners. Of men under 20 who had sex with a positive man, 32% (11/34) had receptive UAI with a positive partner. Among those in their 40s who had sex with a positive man, 10% had UAI (24/230). Although younger men are less likely to have a known positive partner, they are more likely to have UAI with them if they do.

In comparison, although men in their 30s were most likely to have sex with a partner of unknown HIV status, it was men under 20 who were most likely to have receptive and insertive UAI with an unknown status partner and to take ejaculate in the mouth. This suggests that sexual exposure to HIV during sex with a partner not known to be positive is more common among younger than older men.

In terms of condom failure, younger men are most likely to wear a condom and to have engaged in most of the behaviours that contribute to condoms failing. Unsurprisingly then, they are also most likely to experience failure.

4.4.2 Education and HIV related sexual behaviours

The following table shows how the key sexual HIV risk behaviour measures vary by the three education groups among men who have not tested HIV positive.

Men not tested HIV positive, who had sex with a man in the last year (N=12,864)		% by education group			
		Low (n=3540)	Medium (n=3664)	High (n=5600)	
Male sexual partners in the last year	One	25.8	22.2	22.8	
	30 +	11.1	10.1	14.4	
With man known to be positive	Sexual partner	7.8	7.8	11.4	
	Unprotected receptive anal	1.0	1.2	1.1	
	Receptive oral to ejaculation	1.3	1.3	1.7	
	Unprotected insertive anal	1.3	1.1	1.7	
With man of unknown HIV status	Sexual partner	72.0	76.4	78.2	
	Unprotected receptive anal	19.3	19.6	15.4	
	Receptive oral to ejaculation	35.6	40.8	36.6	
	Unprotected insertive anal	20.3	21.4	17.7	
Condom failure behaviours	Wore a condom	55.9	61.8	61.9	
	% of users	use for 30 minutes +	15.1	17.3	12.7
		saliva as lubricant	14.6	16.2	13.1
		no lubricant	12.0	13.1	10.0
		insufficient lubricant	7.5	8.2	7.2
		unrolling prior to use	9.7	6.8	6.2
		short condom	7.3	7.5	6.7
		put lubricant inside	4.8	5.4	7.9
had a failure	11.1	13.6	10.8		

The pattern of risk behaviours across the education groups is irregular. Although men with higher education were more likely to have a positive partner, they were no more likely overall, to engage in exposure behaviours with them. Similarly, although men with higher education were more likely to have a partner of unknown status, they were least likely to have engaged in receptive or insertive UAI with a partner of unknown status.

With regard to condom failure, men with lower levels of education were least likely to have worn a condom, but men in the middle education group were usually most likely to have done the condom failure risk behaviours, and to have experienced failure.

4.4.3 Ethnicity and HIV related sexual behaviours

The following table shows how the key sexual HIV risk behaviour measures vary by the four ethnic groups among men who have not tested HIV positive.

Men not tested HIV positive, who had sex with a man in the last year (N=12,864)		% by ethnic group				
		White (n=12093)	Asian (n=260)	Black (n=170)	Mixed & others (n=441)	
Male sexual partners in the last year	One	23.7	22.5	19.3	16.2	
	30 +	12.3	11.7	7.6	14.3	
With man known to be positive	Sexual partner	9.4	5.7	10.4	9.4	
	Unprotected receptive anal	1.1	0.4	0.0	2.2	
	Receptive oral to ejaculation	1.4	1.6	0.0	2.5	
	Unprotected insertive anal	1.4	0.4	2.6	2.5	
With man of unknown HIV status	Sexual partner	75.9	74.4	73.8	77.2	
	Unprotected receptive anal	17.6	18.8	15.3	18.1	
	Receptive oral to ejaculation	37.9	29.4	25.8	30.9	
	Unprotected insertive anal	19.4	20.3	24.8	17.8	
Condom failure behaviours	Wore a condom	60.0	58.8	67.5	64.0	
	% of users	use for 30 minutes +	14.7	12.2	20.4	14.2
		saliva as lubricant	14.3	14.9	13.0	18.2
		no lubricant	11.4	12.8	13.0	9.1
		insufficient lubricant	7.5	6.1	13.9	6.9
		unrolling prior to use	7.2	12.8	10.2	7.6
		short condom	7.0	5.4	13.9	7.3
		put lubricant inside	6.3	8.8	7.4	6.5
had a failure	11.7	11.6	15.9	13.7		

Few of the risk behaviours significantly varied by ethnic groups, suggesting the need for all programmes to be of equal benefit to all ethnic groups. White men were most likely to have a man whose status they did not know ejaculate in their mouth.

Condom use and experience of condom failure were equally common in all ethnic groups. While Asian men were slightly more likely to have unrolled a condom before putting it on, Black men were most likely to have used a condom that was too short for their penis.

4.4.4 Employment and HIV related sexual behaviours

The following table shows the key sexual HIV risk behaviour measures vary across the four employment groups among men who have not tested HIV positive.

Men not tested HIV positive, who had sex with a man in the last year (N=12,864)		% by employment group				
		Student (n=1509)	Employed (n=10258)	Unemployed (n=601)	Retired (n=506)	
Male sexual partners in the last year	One	22.2	23.8	18.9	25.4	
	30 +	7.0	13.0	14.8	10.6	
With man known to be positive	Sexual partner	5.6	9.6	11.1	12.2	
	Unprotected receptive anal	0.7	1.1	1.1	2.1	
	Receptive oral to ejaculation	1.1	1.4	2.2	3.0	
	Unprotected insertive anal	0.7	1.4	2.3	2.1	
With man of unknown HIV status	Sexual partner	76.3	76.0	75.0	74.9	
	Unprotected receptive anal	20.3	17.0	23.6	14.0	
	Receptive oral to ejaculation	39.5	36.9	40.5	35.6	
	Unprotected insertive anal	19.8	19.2	23.3	17.1	
Condom failure behaviours	Wore a condom	63.8	60.2	60.7	46.6	
	% of users	use for 30 minutes +	19.2	13.9	16.1	14.9
		saliva as lubricant	16.4	14.3	13.3	11.0
		no lubricant	13.2	11.0	12.7	9.6
		insufficient lubricant	9.0	7.2	9.6	7.0
		unrolling prior to use	7.2	7.3	9.0	9.6
		short condom	8.7	6.7	8.8	7.5
		put lubricant inside	5.9	6.4	7.1	6.1
had a failure	14.7	11.2	15.9	10.7		

Men who indicated their occupation as retired were most likely to have a positive sex partner and this was observable in several age bands. Just comparing the employed and unemployed men, those who were unemployed were more likely to have had both receptive and insertive UAI with a partner of unknown status.

Although unemployed men were not most likely to wear a condom, they were most likely to have experienced failure, despite not being more likely to do any of the specific condom failure risk behaviours.

4.4.5 Gender of sexual partners and HIV related sexual behaviours

The following table shows how the key sexual HIV risk behaviour measures vary by the gender of men's sexual partners among men who have not tested HIV positive.

Men not tested HIV positive, who had sex with a man in the last year (N=12,864)		% by gender of partners		
		Men only (n=11898)	Men & women (n=996)	
Male sexual partners in the last year	One	23.8	17.9	
	30 +	12.5	9.9	
With man known to be positive	Sexual partner	9.8	5.1	
	Unprotected receptive anal	1.1	0.8	
	Receptive oral to ejaculation	1.5	0.8	
	Unprotected insertive anal	1.5	0.6	
With man of unknown HIV status	Sexual partner	75.6	80.0	
	Unprotected receptive anal	17.5	19.8	
	Receptive oral to ejaculation	37.1	41.3	
	Unprotected insertive anal	19.3	20.4	
Condom failure behaviours	Wore a condom	60.1	63.2	
	% of users	use for 30 minutes +	13.8	24.6
		saliva as lubricant	14.1	16.8
		no lubricant	10.9	17.0
		insufficient lubricant	7.3	10.6
		unrolling prior to use	7.3	9.3
		short condom	6.7	11.3
		put lubricant inside	6.5	4.9
had a failure	11.4	16.5		

Risk behaviours with men known to be HIV positive were more common among men who had sex only with men, whereas those with partners of unknown status were more common among behaviourally bisexual men. The former could partly reflect earlier findings that gay men are more likely to be in a relationship with a man than are bisexual men (Hickson *et al.*, *Evidence for Change*, 1999, p.10.)

Although both groups were equally likely to have worn a condom, behaviourally bisexual men were more likely to have done several failure related behaviours and were more likely to have experienced failure. The difference in experience of failure by gender of partners was particularly apparent in the younger age bands.

4.4.6 Number of partners and HIV related sexual behaviours

The following table shows the key sexual HIV risk behaviour measures vary by how many male sexual partners men had in the last year. Men tested HIV positive are excluded.

Men not tested HIV positive, who had sex with a man in the last year (N=12,864)		% by volume of sexual partners					
		one (n=3035)	2, 3 or 4 (n=3594)	5 to 12 (n=3034)	13 to 29 (n=1624)	30 + (n=1590)	
With man known to be positive	Sexual partner	<u>4.1</u>	<u>5.2</u>	9.7	14.8	22.0	
	Unprotected receptive anal	1.1	<u>0.6</u>	0.9	1.7	2.3	
	Receptive oral to ejaculation	<u>1.1</u>	<u>1.0</u>	1.4	1.7	3.1	
	Unprotected insertive anal	<u>0.9</u>	<u>0.9</u>	1.3	2.2	3.1	
With man of unknown HIV status	Sexual partner	<u>37.9</u>	79.6	88.8	93.2	93.8	
	Unprotected receptive anal	<u>9.4</u>	16.1	18.6	23.6	28.2	
	Receptive oral to ejaculation	<u>16.9</u>	33.9	42.8	51.4	57.9	
	Unprotected insertive anal	<u>9.4</u>	16.2	21.0	26.6	34.6	
Condom failure behaviours	Wore a condom	<u>34.2</u>	54.8	71.9	78.1	81.1	
	% of users	use for 30 minutes +	<u>8.7</u>	13.8	13.9	16.8	19.7
		saliva as lubricant	<u>9.3</u>	11.8	13.4	17.2	21.0
		no lubricant	<u>8.1</u>	11.3	10.2	12.0	15.1
		insufficient lubricant	<u>4.3</u>	7.0	7.0	9.1	9.9
		unrolling prior to use	6.5	7.9	6.4	8.0	8.6
		short condom	<u>5.2</u>	5.6	6.7	8.0	10.5
		put lubricant inside	<u>4.9</u>	<u>4.7</u>	6.8	7.5	8.1
had a failure	<u>8.7</u>	10.4	10.8	13.0	17.2		

All sexual HIV exposure behaviours and all but one condom failure behaviour (unrolling prior to putting it on) were significantly more common among men with the largest numbers of partners. Many risk behaviours were only slightly less common among men with 13 to 29 partners in the last year. This clearly suggests that all HIV prevention programmes should disproportionately benefit men with larger numbers of sexual partners.

4.5 CIRCUMCISION

It has been suspected for some time that when uninfected men are insertive in UAI with positive men, whether or not the uninfected man is circumcised has a bearing on the probability of HIV transmission occurring. The hypothesis is that the cells of the fore-skin are more susceptible to infection by HIV and therefore circumcision has a protective function.

Men were asked *Are you circumcised?* and were asked to tick *No*, *Yes* or *Don't Know*. Overall, 0.9% said *Don't know* by which we think they mean they do not know the word rather than not knowing whether they have a foreskin. Excluding this small group, 22.1% of men indicated that they were circumcised. The proportion rose with increasing age, from 16.1% among the under 20s, through 18.8% (in the 20s), 21.3% (in the 30s), 24.8% (in the 40s) and 40.2% among the over 50s.

Circumcision also significantly varied by ethnicity, being highest among Bangladeshi men (100%, 5/5), Pakistani men (97.5%, 39/40), other Asian men (77.3%, 68/88) and Black African men (76.1%, 35/46). Of all sixteen ethnic groups, White British men had the lowest level of circumcision (18.7%, 2201/11764).

If circumcised men are less likely to acquire HIV than men with foreskins, then we should expect fewer of the circumcised men to have tested positive than the men with a foreskin. However, more of the circumcised men had tested positive for HIV (6.1%) than had those with a foreskin (5.0%). This small but significant difference is in the opposite direction than predicted if foreskins are contributing to transmission, and was observed in all ethnic groups and across the age range.

The survey found no evidence to support the adoption of 'the proportion of HIV uninfected men who are not circumcised' as a population level target for HIV prevention programmes for gay and bisexual men.

4.6 SUMMARY & IMPLICATIONS FOR PROGRAMME PLANNING

The following recommendations for programme planning arise from the behavioural data reported in this chapter. They are based on the assumption that programmes will have a greater impact on sdUAI and condom failure if they disproportionately benefit men who are more likely to be involved in HIV exposure as a consequence of sdUAI and/or condom failure during protected anal intercourse. We also assume that groups who were more likely to engage in these behaviours in the last year will be the same groups most likely to do them in the future. However, since unmet needs do not directly give rise to risk behaviours (but are contributory along with other factors such as opportunities and values), these recommendations are not identical to those based on need in Chapter 5.

4.6.1 Prioritising groups likely to be involved in sdUAI

In 1998, the first implication for planning drawn out of *Making it Count* and data from *GMSS* was that “in order to increase their impact on incidence, [HIV prevention] programmes should prioritise the sdUAI related needs of men with diagnosed HIV infection before those of men who have tested negative or never tested” (Hickson *et al.*, 1998, p.38). This remains our first recommendation for planning.

- **All HIV prevention programmes (but not all individual interventions) should disproportionately benefit men with diagnosed HIV infection.**

Since men with HIV have far more opportunity to be involved in sexual HIV exposure their unmet HIV prevention needs are more likely to result in HIV exposure. Addressing the needs of men with diagnosed HIV will contribute to reducing HIV incidence and improving the health and well-being of people with HIV. We do not mean by this that prevention programmes should *only* address the needs of diagnosed positive men. This would be incorrect both because of undiagnosed infection and because positive men do not hold all the power in any sexual interaction they participate in.

Among the majority who have not tested positive, the data presented in this chapter expands on and supports our previous recommendations from prior surveys.

In previous years we have recommended prioritising the HIV prevention needs of younger rather than older men. This years data provides a more complex picture of sdUAI related needs and gives rise to two recommendations at the intervention level.

- **Interventions addressing sexual behaviour with known positive partners (cognizant risk) should prioritise men in their 30s and 40s.**
- **Interventions addressing sexual behaviour with partners of unknown status (naïve risk) should prioritise men under 30.**

In previous years the survey data has suggested that men with lower levels of formal education are more likely to be involved in sdUAI than men with higher levels of education. This years data also suggests this, although not as strongly. However, we feel confident in re-iterating the recommendation that:

- **Programmes to reduce sdUAI should disproportionately benefit men who did not receive university education, particularly men with the lowest levels of formal education.**

Although Chapter 3 suggested Black men were more likely to have tested positive than other ethnic groups, the behavioural data in this chapter does not suggest HIV negative Black men are more likely to be involved in sexual HIV exposure. Hence, we make no recommendation about ethnic groups who should disproportionately benefit from programmes to reduce sdUAI.

The contexts in which exclusively homosexually active men and behaviourally bisexual men are involved in sdUAI appear to vary in a similar way to different age groups. Exclusively homosexually active men appear to be more likely to be involved in cognizant risk (with known positive partners) than those who have sex with women also. Conversely, those with both male and female partners appear to be more likely to be involved in naïve risk (with partners not known to be positive). We should stress here that the majority of men in both groups involved in risk behaviours were doing so naïvely.

Finally, it has been a recommendation from the survey for a number of years that in order to increase their impact on HIV incidence, prevention programmes should prioritise men with larger rather than fewer numbers of male partners. This years data strongly reinforces that recommendation:

- **Programmes to reduce sdUAI should disproportionately benefit men with larger numbers of male sexual partners.**

4.6.2 Prioritising groups likely to experience condom failure

Taken together, the prevalence of condom failure risk behaviours and their associations suggest a further reduction in condom failure requires a wider availability of condom lengths and appropriate lubricant. It also suggests it may be necessary to make available more condoms than there are sexual sessions involving anal intercourse.

In terms of target groups for condom failure interventions, the data suggests similar groups experience condom failure as are involved in sdUAI. The implications are that programmes to reduce condom failure should disproportionately benefit:

- **men with diagnosed HIV infection;**
- **younger men;**
- **men who have not received university education;**
- **behaviourally bisexual men; and**
- **men with larger numbers of sexual partners.**

4.6.3 Oral sex as a target for HIV health promotion

Currently *Making it Count* adopts the number of occasions of HIV sero-discordant unprotected anal intercourse (sdUAI) as one of three behavioural population targets for HIV health promotion.

It does not adopt the number of times positive men ejaculate in negative men's mouths (sdOIj). It states:

"While addressing men's concerns about oral transmission is probably an important part of an HIV health promotion programme, even large scale changes in the patterns of oral sex between infected and uninfected men are unlikely to have a significant impact on HIV incidence."
(Hickson *et al.* 2000, p.11.)

If this is not the case, the data presented in this chapter suggest that the groups most likely to engage in this behaviour are the same groups as are most likely to engage in sdUAI. Since both sdUAI and sdOIj are subsets of sero-discordant sexual sessions, this is not surprising.

5 HIV prevention needs

Making it Count (Hickson, Nutland, Doyle *et al.*, 2000) describes what the CHAPS 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 sUAI, 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 sUAI, to minimise their rate of condom failure and to have other STIs quickly diagnosed and treated?*

An aim of this 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, Weatherburn *et al.*, 2000; Hickson *et al.*, 2001).

Making it Count also suggests 'prioritising aims which are poorly met for a large proportion of the population' in order to maximise impact on HIV incidence. Unmet needs shared by many men take fewer resources per target to meet than do less common needs. To aid in prioritisation we look at how need varied across population groups.

5.1 EXPECTATION OF DISCLOSURE OF HIV INFECTION

The fourth aim of *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, more than two thirds of men (71.6%) agreed that they would expect a man with HIV to disclose his status prior to sex (17.0% disagreed, 11.3% were *unsure*).

Men recruited through the booklet were considerably less likely to expect disclosure (64.7%) than those in the Pride (71.8%) or web (75.3%) samples.

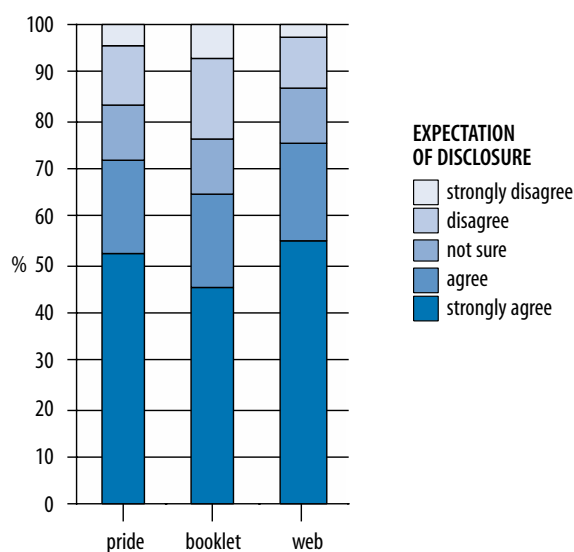


Figure 5.1: Expectation of disclosure of HIV infection by recruitment method (column n=7473, 2385, 4190)

5.2 ASSUMPTION OF SERO-NEGATIVITY OF PARTNERS

Men were asked to indicate on a five-point scale whether they agreed or disagreed with the statement *If my sexual partners don't mention HIV I usually assume they are negative*.

Overall a third (33.0%) agreed they would assume sexual partners were negative unless told otherwise (6.8% *strongly agreed*, 26.2% *agreed*), 19.9% were *unsure* and 47.2% disagreed (23.5% *disagreed strongly*, 23.7% *disagreed*).

Men in the web sample were significantly more likely to agree and less likely to *strongly disagree* than the other samples. This suggests that as a group they were more likely to assume that if their partner does not disclose their status that they are negative.

If we compare this variable with the preceding one, we can estimate the proportion of men that expect HIV positive disclosure and would assume the negativity of partners if they did not receive disclosure.

There is a strong relationship between the given answers for the two statements. More than a quarter (28.3%) of men would expect positive men to disclose their status prior to sex and assume that lack of disclosure meant their partner was negative.

The same proportion of men (28.3%) were unsure of their expectations or assumptions on at least one statement, the majority of these (15.4% of the total) agreed they would expect a positive man's disclosure but were unsure if they would assume negativity in a partner with undisclosed

status. A similar proportion (27.7%) and the next largest group agreed that they would expect a positive man to disclose but would not assume that lack of disclosure by a sexual partner meant the partner was HIV negative. Only 13.7% would neither expect a man with HIV to disclose his status or assume that a man with undisclosed status was negative prior to sex.

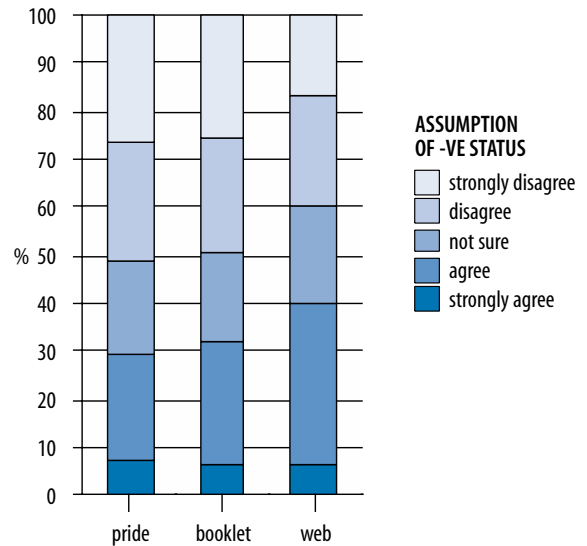


Figure 5.2: Assumption of negativity if a sexual partner does not disclose status by recruitment method (column n=7350, 2353, 4167)

Whole sample (N=14,616)	<i>If my sexual partners don't mention HIV, I usually assume they are negative</i>		
	% agree (n = 4557)	% not sure (n = 2741)	% disagree (n = 6502)
<i>I'd expect a man with HIV to tell me he was positive before we had sex</i>			
% agree (n = 9859)	28.3	15.4	27.7
% not sure (n = 1569)	2.8	2.9	5.7
% disagree (n = 2372)	1.9	1.5	13.7

5.3 INFORMATION NEEDS

All men were given a list of sexual health topic areas and asked which they would like more information about. The list was compiled from concerns of health promoters and responses to an open-ended question on an earlier survey. The list was very diverse and included, aspects of ('safer') sexual practice (oral, anal, avoiding condom breakage), inter-personal skills (managing relationships, confidence), practical skills (finding partners) and basic medical information (syphilis, hepatitis, anti-HIV treatments).

The table below gives the proportion of all men who wanted more information on each topic (excluding 4.2%, n = 617 who did not complete this question). Exactly a fifth (20.0%) of all men ticked a final category called *none of the above* meaning they were not interested in information on any of these topics. Topics are ordered largest first.

<i>Which of the following would you like more information about?</i>	% entire sample (N=13,999)
How to suck safely	30.4
Managing relationships	27.4
Hepatitis A, B and C	26.1
Confidence in sexual situations	25.0
How to get a boyfriend	24.6
How to fuck safely	24.2
What different kinds of condoms are available	19.9
Treatments for HIV infection	19.4
Where to find casual sexual partners	18.7
Syphilis	18.6
How to stop condoms tearing or slipping	17.0
Other topics	3.0

For all the topics offered in the questionnaire, between one sixth and almost one third of all men wanted more information. The order of popularity of the information areas was not consistent or particularly predictable.

Information on *How to suck safely* was required by almost a third (30.4%), probably reflecting a degree of uncertainty about the possibility of HIV exposure during oral sex. Information on *How to fuck safely* (24.2%) was only somewhat less popular.

Hepatitis (26.1%) and anti-HIV treatments (19.4%) were both more popular choices for further information than syphilis (18.6%). However, managing relationships (27.4%) was a more popular topic for further information than any of the medical topics.

5.4 VARIATION IN NEED ACROSS POPULATION GROUPS

The previous sections described indicators of need in relation to expectations of disclosure of positive partners, assumptions of sero-negativity of partners and information needs. Here we report how these indicators of need vary across the population groups described in chapter 2. In the following we are particularly interested in population groups who have many aims poorly met (ie. high levels of need) compared with others.

5.4.0 HIV testing history and need

The following table shows how the indicators of need varied by HIV testing history.

Whole sample (N=14,616)	% by HIV testing history group		
	Never tested (n=6643)	Tested negative (n=6949)	Tested positive (n=758)
Who'd expect a man with HIV to disclose before sex	79.4	68.0	35.7
Who'd assume negativity without disclosure	38.9	29.1	15.5
Which of the following would you like more information about?			
Would like more information on any of the following	82.0	78.6	74.1
How to fuck safely	30.8	19.4	10.2
How to suck safely	36.7	26.5	13.6
What different kinds of condoms are available	22.6	18.3	11.8
How to stop condoms tearing or slipping	19.2	15.9	9.3
Treatments for HIV infection	19.8	18.6	23.1
Syphilis	18.3	19.3	13.9
Hepatitis A, B and C	26.4	26.5	20.3
Confidence in sexual situations	27.6	23.5	18.8
Where to find casual partners	21.1	16.8	15.4
How to get a boyfriend	27.9	22.2	19.1
Managing relationships	26.5	28.8	24.6

There were significant differences in the indicators of need in relation to HIV testing history. Those who had never tested were most likely to expect disclosure from positive men and to assume negativity when disclosure did not occur. Men who had last tested negative were next most likely to have need relating to their expectations and assumptions about HIV status and disclosure.

Men who had not tested were most likely to express any information need, and to want further information on almost every specific need area except managing relationships, syphilis and hepatitis where men tested negative were most likely to desire further information. Unsurprisingly positive men were most likely to express a desire for information on HIV treatments but they were least likely to want information on any other need area.

- Men who have never tested for HIV were most likely to expect a positive man to disclose prior to sex.
- Men who have never tested for HIV were most likely to assume a man was HIV negative if he did not disclose he was positive.
- Men who have never tested for HIV were most likely to want more information about sexual health topics.

5.4.1 Age and need

The following table shows how the indicators of need varied across the age range.

Whole sample (N=14,616)	% by age group				
	<20 (n=1224)	20s (n=4850)	30s (n=5015)	40s (n=2278)	50+ (n=1112)
Who'd expect a man with HIV to disclose before sex	88.2	75.3	65.6	65.9	76.2
Who'd assume negativity without disclosure	47.9	36.4	28.1	27.3	36.0
Which of the following would you like more information about?					
Would like more information on any of the following	86.8	83.0	77.6	75.7	77.9
How to fuck safely	45.2	27.2	19.9	18.7	17.6
How to suck safely	45.0	32.9	26.2	26.9	29.3
What different kinds of condoms are available	35.6	23.4	16.0	15.4	15.6
How to stop condoms tearing or slipping	31.9	19.7	13.8	13.5	10.4
Treatments for HIV infection	30.8	24.8	16.0	14.5	9.9
Syphilis	26.8	22.0	16.8	15.0	10.4
Hepatitis A, B and C	32.5	28.4	24.9	23.4	19.7
Confidence in sexual situations	40.7	28.6	20.9	20.9	20.4
Where to find casual sexual partners	30.6	18.2	14.8	19.9	22.9
How to get a boyfriend	44.7	27.6	19.8	19.3	22.0
Managing relationships	35.2	32.3	25.0	23.4	18.4

There were significant age differences in all indicators of need. The greatest level of need was always among men under 20, including expectation of disclosure and assumptions of negativity where disclosure did not occur. Men in their 20s were generally next most needy. After the age of 30 need generally decreased with increasing age. The exceptions were the need for information on finding casual and regular partners and on safe sucking where men over 50 were more likely to express a need than those in their 30s and 40s.

- Men under 20 years of age were most likely to expect a positive man to disclose prior to sex.
- Men under 20 years of age were most likely to assume a man was HIV negative if he did not disclose he was positive.
- Men under 20 years of age were most likely to want more information about sexual health topics.

5.4.2 Education and need

The following table shows how the indicators of need varied across the education groups.

Whole sample (N=14,616)	% by education group		
	Low (n=4058)	Medium (n=4118)	High (n=6207)
Who'd expect a man with HIV to disclose before sex	78.8	75.5	64.4
Who'd assume negativity without disclosure	37.4	35.4	28.5
Which of the following would you like more information about?			
Would like more information on any of the following	80.6	80.5	79.0
How to fuck safely	27.2	26.1	20.6
How to suck safely	30.8	31.2	29.7
What different kinds of condoms are available	19.7	22.8	18.2
How to stop condoms tearing or slipping	17.8	19.0	15.3
Treatments for HIV infection	19.9	22.2	17.3
Syphilis	17.8	20.0	18.3
Hepatitis A, B and C	25.3	27.9	25.5
Confidence in sexual situations	23.8	28.0	24.0
Where to find casual partners	21.1	19.4	16.5
How to get a boyfriend	25.8	26.7	22.4
Managing relationships	25.8	29.4	27.4

There were significant differences in the indicators of need in relation to levels of formal education. The higher the level of education the less likely men were to expect a partner with HIV to disclose their status prior to sex, or to assume a sexual partner of undisclosed status was HIV negative.

While no one group was more likely to express any information need, the type of information requested varied by education level. Men with lower levels of formal education were most likely to express need in relation to information on fucking and where to find casual partners while men with medium levels of education were most likely to express need in relation to information on kinds of available condoms, condom tearing and slipping, HIV treatment, syphilis, hepatitis, sexual confidence, getting a boyfriend and managing relationships. Generally men with high educational attainment were least likely to express any information need.

- Men who left school at 16 were most likely to expect a positive man to disclose prior to sex.
- Men who left school at 16 were most likely to assume a man was HIV negative if he did not disclose he was positive.

5.4.3 Ethnicity and need

The following table shows how the indicators of need varied across ethnic groups.

Whole sample (N=14,616)	% by ethnic group			
	White (n=13571)	Asian (n=293)	Black (n=214)	Mixed & others (n=509)
Who'd expect a man with HIV to disclose before sex	71.7	77.7	66.0	70.4
Who'd assume negativity without disclosure	33.3	29.0	22.7	33.3
Which of the following would you like more information about?				
Would like more information on any of the following	79.5	88.2	82.2	87.5
How to fuck safely	23.0	47.1	32.0	38.7
How to suck safely	29.6	50.4	31.0	41.7
What different kinds of condoms are available	19.4	29.6	21.3	27.5
How to stop condoms tearing or slipping	16.4	27.9	20.8	26.2
Treatments for HIV infection	18.9	28.9	21.8	28.2
Syphilis	18.1	26.1	22.3	24.9
Hepatitis A, B and C	25.7	33.2	27.9	32.5
Confidence in sexual situations	24.5	38.2	27.9	31.4
Where to find casual partners	18.3	30.0	15.2	23.2
How to get a boyfriend	24.0	38.2	23.4	34.4
Managing relationships	26.8	42.5	31.5	34.0

There were significant ethnic group differences in all indicators of need. While Asian men were the most likely to expect a partner with HIV to disclose their status prior to sex, white men and mixed ethnicities were most likely to assume sexual partners of undisclosed status were HIV negative. Black men were least likely to expect a positive man to disclose, and least likely to assume negativity where disclosure did not occur.

The greatest proportion of need relating to information was amongst Asian men, then men of mixed or *other* ethnicity. White men generally had the lowest level of information need excepting information on where to find casual and regular partners. Black men had the lowest level of need in relation to these.

- Asian men were most likely to expect a positive man to disclose prior to sex.
- White men were most likely to assume a man was HIV negative if he did not disclose he was positive.
- Asian men were most likely to want more information about sexual health topics.

5.4.4 Employment and need

The following table shows how the indicators of need varied across the employment groups.

Whole sample (N=14,616)	% by employment group			
	Employed (n=11219)	Student (n=1727)	Retired (n=815)	Unemployed (n=717)
Who'd expect a man with HIV to disclose before sex	71.1	77.8	64.7	73.6
Who'd assume negativity without disclosure	32.1	39.6	27.9	37.7
Which of the following would you like more information about?				
Would like more information on any of the following	79.5	84.1	75.7	82.3
How to fuck safely	23.1	35.0	14.3	26.0
How to suck safely	29.4	39.6	23.4	32.9
What different kinds of condoms are available	18.8	28.4	17.0	20.8
How to stop condoms tearing or slipping	16.2	24.4	11.9	18.9
Treatments for HIV infection	18.4	26.9	15.3	23.0
Syphilis	17.9	24.7	13.8	20.6
Hepatitis A, B and C	25.7	30.9	20.6	28.0
Confidence in sexual situations	23.5	34.2	24.2	28.2
Where to find casual partners	17.4	23.0	24.8	22.4
How to get a boyfriend	22.4	35.4	26.6	31.7
Managing relationships	26.6	32.2	25.4	31.6

There were significant differences in the indicators of need in relation to employment.

Students were most needy in terms of expectations of positive disclosure and assumptions of negative HIV status when disclosure did not occur. They were also most likely to want further information. Of course, the majority of students are relatively young and there is a substantial overlap between student status and youth.

Unemployed men had the next greatest proportion of men in need. Retired men were least needy in terms of assumptions and expectations of HIV status and information on sexual behaviour, infections and condoms and managing relationships but were most needy on one measure – *where to find casual sexual partners*.

- Students were most likely to expect a positive man to disclose prior to sex.
- Students were most likely to assume a man was HIV negative if he did not disclose he was positive.
- Students were most likely to want more information about sexual health topics.

5.4.5 Gender of sexual partners and need

The following table shows how the indicators of need varied by whether men had any sex in the last year and the gender of their sexual partners if they did.

Whole sample (N=14,616)	% by gender of sexual partners			
	No one (n=488)	Women only (n=140)	Men only (n=12841)	Men & women (n=1019)
Who'd expect a man with HIV to disclose before sex	84.1	86.8	70.1	81.4
Who'd assume negativity without disclosure	32.3	41.2	32.4	40.1
Which of the following would you like more information about?				
Would like more information on any of the following	87.0	84.6	79.2	84.7
How to fuck safely	41.8	42.6	22.1	38.9
How to suck safely	43.9	47.8	28.2	49.7
.. different kinds of condoms	29.3	27.2	19.0	26.5
How to stop condoms tearing or slipping	29.9	33.1	15.9	22.5
Treatments for HIV infection	20.7	16.9	19.5	18.9
Syphilis	16.5	11.8	18.9	16.7
Hepatitis A, B and C	24.3	17.6	26.6	21.6
Confidence in sexual situations	42.7	34.6	23.8	31.0
Where to find casual partners	27.8	38.2	16.5	38.9
How to get a boyfriend	55.2	26.5	23.2	26.4
Managing relationships	34.1	20.6	28.0	18.9

There were significant differences in the indicators of need in relation to the gender of men's sexual partners. Men who had sex with men only (ExHAMs) were least likely to expect a man with HIV to disclose prior to sex while men who had sex with women only were most likely. Those who had any sex with women were more likely than others to assume HIV negativity.

Those who had no sex were most likely to express any information need and ExHAMs were least likely, although most (79.2%) of them still desired some information. Informational need varied amongst groups with those who had no sex being the most likely to desire information on safe sucking, condoms, confidence in sexual situations, finding a boyfriend and managing relationships. The group who had sex with women only were most likely to want information on safe fucking, stopping condoms slipping or tearing and finding casual partners.

- Men who had sex with women only were most likely to expect a positive man to disclose prior to sex.
- Men who had sex with women only were most likely to assume a man was HIV negative if he did not disclose he was positive.
- Men who had no sex in the last year were most likely to want more information about sexual health topics.

5.4.6 Number of partners and need

The following table shows how the indicators of need varied by the number of male sexual partners men had in the last year.

Whole sample (N=14,616)	% by number of sexual partners					
	None (n=628)	One (n=3226)	2,3 or 4 (n=3816)	5 to 12 (n=3223)	13 to 29 (n=1776)	30 + (n=1809)
Who'd expect a man with HIV to disclose before sex	84.7	82.1	76.7	69.0	63.0	51.6
Who'd assume negativity without disclosure	34.3	24.8	36.5	37.4	34.5	30.1
Which of the following would you like more information about?						
Would like more information on any of the following	86.5	71.9	82.0	83.0	82.3	79.7
How to fuck safely	42.0	20.4	26.9	25.3	23.0	17.0
How to suck safely	44.8	22.3	34.7	34.0	29.1	25.2
What different kinds of condoms are available	28.8	14.9	21.3	22.1	20.3	18.1
How to stop condoms tearing or slipping	30.6	12.1	18.4	17.9	17.7	15.9
Treatments for HIV infection	19.9	14.9	20.0	22.4	20.8	19.6
Syphilis	15.5	12.9	19.3	20.6	20.6	22.8
Hepatitis A, B and C	22.8	21.7	27.1	29.1	27.5	26.7
Confidence in sexual situations	40.9	18.2	28.5	27.8	23.9	20.6
Where to find casual partners	30.1	9.3	20.3	20.2	20.7	23.0
How to get a boyfriend	48.9	13.1	27.4	26.5	26.3	25.1
Managing relationships	31.1	23.2	28.6	30.0	26.1	28.1

There were significant differences in the indicators of need in relation to the number of male sexual partners in the last year. The greater the number of partners a man had the less likely they were to expect positive disclosure prior to sex. However, even among men with 30+ male partners last year over half (51.6%) would expect a positive man to disclose prior to sex. Those with only one partner were the least likely to assume partners were negative if no disclosure occurred.

Those who had one partner were least likely to express any information need, or to express need in any of the specific areas. One of the few exceptions was information on how to fuck safely which was least needed by men with the highest numbers of partners. Alternately men with the highest number of partners were most likely to require information on syphilis and finding casual sexual partners.

- Men who had no sex in the last year were most likely to expect a positive man to disclose prior to sex.
- Men who had sex with 5–12 male partners in the last year were most likely to assume a man was HIV negative if he did not disclose he was positive.
- Men who had no sex in the last year were most likely to want more information about sexual health topics.

5.5 SUMMARY & IMPLICATIONS FOR PROGRAMME PLANNING

These implications for programme planning should be read in conjunction with those at the end of Chapters 3 and 4 and with our complementary reports from GMSS in 1997 (Hickson, Reid *et al.*, 1998); 1998 (Hickson, Weatherburn *et al.*, 1999), 1999 (Weatherburn, Hickson *et al.*, 2000) and 2000 (Hickson, Reid *et al.*, 2001). They are intended to suggest where the emphasis in HIV prevention programmes might have the greatest impact on the achieving equity of HIV health promotion aims.

5.5.1 Aims poorly met for many men

As we have reported before (Weatherburn, Hickson *et al.*, 2000) more than two thirds (71.6%) of all homosexually active men expect that a HIV positive men will disclose their infection to them prior to sex. This need was especially widespread among men who had not tested HIV positive (but was fairly common among those who had). While the proportion with this expectation is very large, this will not necessarily translate into risk-taking. However, a third (33.0%) of all homosexually active men would assume a partner was negative if they were not told he was positive. Examining the relationship between these two needs we find that over a quarter (28.3%) of all men would expect positive men to disclose their status prior to sex *and* would assume that the lack of positive disclosure meant that partner was negative.

Debate about whether positive (or negative) men *should* disclose their HIV status is not helpful here. The point is that many positive men often do not disclose their status to new sexual partners. Moreover, some of these (negative) men will sometimes decide not use a condom because, having not been told their partner is positive, will assume them to be negative. The unmet need here is an awareness of what is going on and mass media interventions may be useful.

Instead of testing men's knowledge of matters related to HIV or sexual health we gave men a list of topics and asked what they would like more information about. The list was very diverse and included aspects of ('safer') sexual practice, inter-personal and practical skills and basic medical information. While a fifth of men said they wanted no more information on any of these topics the widespread notion that all gay men are 'tired' of receiving HIV and sexual health information is not supported. For all the topics offered between one sixth and almost one third of all men wanted more information. The order of popularity of specific areas of need was not predictable but information on *How to suck safely* was wanted by the largest number of men.

5.5.2 Groups for whom many aims are poorly met

Men who have never tested for HIV have greater need on all these indicators. While some needs are similarly high among men who have previously tested negative, men with diagnosed HIV are substantially less needy in terms of expectations, assumptions and most aspects of potential information provision.

Men under the age of 20 have consistently been shown to have greater need on all indicators. On most indicators men aged 20–29 are next most needy and on some indicators needs increase among men over 50.

We have consistently recommended programmes prioritise the needs of men with lower levels of formal education, both because they are likely to be involved in exposure and because nearly all indicators of need that show difference across education groups show more need among men with lower levels of education. The data reported here concurs with this implication.

More Asian men indicated unmet need on almost all indicators compared with other ethnic groups. Although Asian men do not appear to be at increased likelihood of involvement in sexual HIV exposure, these needs may indicate a relative lack of control or choice in sexual actions.

Similarly, men who expect to have sex with a man in the future but had no sex in the last year (and subsequently no involvement in HIV exposure) had the greatest need on almost all indicators. This highlights the problems with using only sexual behaviour to determine who would benefit from HIV prevention interventions. It is likely these men will have sex in the future, and their indicators of need suggest they will be more likely to be involved in HIV exposure when they do. Addressing this relatively small group's prevention needs may be a sound investment for the future.

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