Putting it about

Health promotion for gay men with higher numbers of sexual partners

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Briefing Paper

Preface

Sigma Research's *CHAPS R&D Briefing Papers* aim to provide a focussed research briefing in a particular area of interest to people engaged in HIV health promotion.

This paper grew out of the repeated findings from the *National Gay Men's Sex Survey* that, compared with others, gay men and bisexual men with higher numbers of male sexual partners were:

- more likely to be involved in sero-discordant unprotected anal intercourse (sdUAI);
- more likely to experience condom failure during protected anal intercourse (AI); and
- more likely to be infected with and pass on gonorrhoea or non-specific urethritis (NSU).

The aim of this paper is to draw together and clarify the available data on this behavioural target group and examine the ways in which HIV health promotion might respond.

Sigma Research endeavours to facilitate HIV health promotion thorough the dissemination of research findings in clear, accurate and credible documents. Towards this end, we are assisted by individuals who read earlier drafts of papers like this and feedback. Earlier drafts of this paper have benefited from the attention of: Will Nutland (Terrence Higgins Trust London), Rod Watson (Terrence Higgins Trust South) and Ford Hickson, Peter Keogh and Laurie Henderson (at Sigma Research). Thanks, as always to these readers.

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Contents

1 Introduction

Very early in the AIDS epidemic, before much was known about transmission, a key question was how fast and how far HIV would spread. To predict this, it was necessary to know how many sexual partners gay men had. Clearly, the more partners they had, the more men would contract the virus, the quicker it would spread and the farther it would go.

Little, however, was known about the sexual behaviour of gay men. Few studies had been done and many of these were flawed. One of the consistent findings, however, was that gay men had many sexual partners: one major study in the USA (Bell & Weinberg, 1978) put the average at fifty per year. On these figures, the spread of the epidemic was predicted to be fast and furious, doubling in size approximately every week. In fact, the doubling time was nearer a year. Something was clearly wrong with the assumptions.

Now, of course, we know that HIV is not passed through all sexual contact: mainly through uninfected men being receptive (anally and less commonly orally) with infected men and, to a lesser extent, uninfected men being anally insertive with infected men. Therefore, although gay men had very many male partners, they had anal intercourse (AI) with relatively few of them. For example, at about the same time, Project SIGMA published some of its first findings, which showed that in 1988 gay men had an average (mean) number of 12 sexual partners per year (with a median of 4), but had anal intercourse with only two (Hunt *et al.*, 1991a).

One of the earliest, and probably most influential papers from Project SIGMA established that there was no (statistical) relationship between the number of sexual partners that men had and the number with whom they had anal intercourse (Hunt *et al.*, 1991b). In 1989 at least, men with higher numbers of partners did not necessarily have anal intercourse with many of them. This led us to distinguish between sexual *partners*, men who had any kind of sex together and the *psp*, or penetrative sexual partner, someone with whom AI had occurred. In policy terms, we argued, this meant that discouraging 'promiscuity' – getting men to reduce the number of their sexual partners – was irrelevant: we should be targeting anal intercourse. Since then, of course, thinking has become more sophisticated and over the years, attention has been focussed more closely and consistently on practices which carry actual risk, unprotected anal intercourse (UAI), and more recently sero-discordant unprotected anal intercourse (sdUAI).

This, of course, did not stop some influential people blaming the spread of the epidemic on the 'promiscuity' of gay men. For example, a prominent epidemiologist wrote that 'the high rate of partner change [amongst 'some groups of homosexuals'] has presumably contributed to the rapid rate of infection amongst homosexual men' (Johnson & Gill, 1988). The assumption in this, as in many similar contributions is that all would be well if only gay men behaved as heterosexual people are supposed to behave. And that is important: the comparison is between 'actual' homosexual behaviour and idealised heterosexual norms.

In the early years, the 'war against promiscuity' featured prominently in the 'war against AIDS'. What set gay men apart from the rest of the population was, first that they 'took it up the arse' and secondly that they were 'promiscuous'. Thus, the argument went, what needed to change was what was different. This lead to the claim that the rectum is not designed for intercourse, and the rhetoric against promiscuity. Conform to idealised heterosexual norms, it was argued and the epidemic

would go away. Subjected to any critical analysis, the argument is clearly unsustainable, but because it appeals not to reason but to 'common sense', it gains a certain currency, even among professionals.

This was an international trend. For example, debate was raging in the USA (in particular) about the correct policy on bath-houses – or saunas as we would call them in the UK (see for example, Crimp, 1989; Shilts, 1987). There were those who saw in them ideal 'breeding grounds' for infection and wanted to close them. There were others who saw their potential for encouraging safer sex, by establishing norms of 'safer' sex and, somehow, putting in place sanctions against 'unsafe' behaviour. The debate created a great deal of heat, but little light and was never really resolved, although several states did close bathhouses with no appreciable effect on the epidemic (Bayer, 1991).

We will show in the rest of this paper that things have changed somewhat and there does now appear to be a relationship between higher numbers of male partners and higher numbers of UAI partners. What, then, has changed since the late 1980s and early 1990s?

1.1 THE EMERGENCE OF PSVS

In the early 1990s there were very few and secretive commercial sex on premises type venues (public sex venues or PSVs) in the UK. Indeed, we wrote in 1993 that: '[i]n the UK, openly gay saunas on the model of the North American bathhouses or of the saunas of continental Europe have never existed … bars and clubs do not … facilitate sex on the premises' (Davies *et al.*, 1993). In the main, casual and anonymous sex was predominantly to be found in parks (known as cruising grounds) and toilets (known as cottages) generically known as public sex environments (or PSEs). However, some of these had considerable reputations and had existed a long time (see for example, Bray (1982) for a description of Lincoln's Inn Fields; or Lahr (1986) for Holloway Road).

Today, there are many commercial PSVs, especially in London and other larger urban centres and their emergence has been parallelled by a decline in the number of PSEs in many areas. It is probably best to think of PSVs as providing another outlet for homosexually active men rather than replacing PSEs. However, PSVs provide the opportunity for sex in surroundings that are (generally) more salubrious – and warmer – than cottages and cruising grounds. This, together with the institution of the backroom, means that there is an opportunity for more sex with more people, which, in turn, means that an increase in sexually transmitted infections (STIs) is to be expected. In addition, as we have shown (Keogh & Weatherburn, 2000; Keogh *et al.*, 2000), the existence of PSVs probably facilitate (casual) anal intercourse some of which is unprotected and most of which must be – given the nature of the interaction – with partners of unknown HIV sero-status. In comparison PSEs – cottages in particular – discourage AI because of the need to be able to 'cover up' if someone walks in or by.

1.2 MORE SOPHISTICATED APPROACHES TO PREVENTING HIV TRANSMISSION

The evidence we present (below) is consistent with the interpretation that in the early years of the HIV epidemic, many men used simple abstention – from sex or from anal intercourse – as their means of reducing the risk of HIV infection. We have long suspected that when data on sexual behaviour were first gathered in the mid 1980s, it was in a period when partner numbers were relatively low and psp numbers were particularly low. The slow but consistent rise in partner numbers since then may, we think, be at least partly due to a slow return to pre-HIV levels. Since, of course, there is little if any comparable data before the 1980s, this must remain a speculation.

Such a change, of course, did not happen in ignorance of HIV. What we, among others detected in the early 1990s was the emergence of more sophisticated or strategic approaches to what we then

termed 'unsafe sex' (Hickson *et al.*, 1992; Kippax *et al.*, 1993; McLean *et al.*, 1994; Bosga *et al.*, 1995). These strategies included restricting anal intercourse (or, sometimes, unprotected anal intercourse) to the boyfriend and not having UAI with casual partners. Such an approach, together with testing to establish the HIV status of the main couple, was described by researchers as 'negotiated safety' (Kippax *et al.*, 1993) and subsequently promoted in some HIV prevention work. More recently, researchers have noticed and described what has been termed 'strategic positioning' (Van de Ven *et al.*, 2002): taking only the receptive role in anal intercourse if positive, or the insertive if negative (at least with casual partners).

Such approaches reduce risk to acceptable levels for individuals, but they are not risk-free. Some men find that they reduce risk to a level that they find acceptable. Others, of course, will find them quite unacceptable: feeling that they still pose more risk than they, themselves are willing to take. Such strategic approaches to AI and UAI manifest themselves as increased rates of AI in studies that monitor changes in sexual behaviour at the population level, such as the *Gay Men's Sex Survey* (Hickson *et al.*, 2001) and others (Dodds & Mercey, 2000). These, in turn, usually give the impetus to baleful warnings from assorted health promoters, epidemiologists, and researchers of imminent explosions in the rate of newly acquired HIV infections.

While these practices do indeed increase risk (at the population level) because they are not risk free, they do not (probably) increase the risk proportionately. That is to say, an increase of x percentage points in UAI will not translate into a rise of the same proportion of new cases of HIV infection. That something other than simple, thoughtless and heedless engagement in AI and UAI is happening is shown by the fact that these increases have happened at the same time as no increases in rates of new HIV infections through homosex in the UK. While this is no cause for complacency, it should, at least, give pause for thought.

2 Who has higher numbers of partners?

In *Gay Men's Sex Survey 2000*, respondents were asked *In the last year, how many different men have you had sex with?* No definition of 'sex' or 'a sexual partner' was provided, so the criteria of who 'counts' as a sexual partner are men's own and will vary (see Hickson *et al.*, 2001 for a fuller description of survey methods and results). In response, about a quarter (24.6%) of men indicated that they had only one male sexual partner in the last year; another quarter (23.2%) had two, three or four partners; a further quarter (25.0%) had between five and twelve and the remaining quarter (27.2%) reported 13 or more. In fact, among the final quarter, an eighth (11.7%) reported between 13 and 29 partners in the last year and somewhat more (15.6%), reported thirty or more. The mean number of partners (once far outliers had been removed) was 17.6 (sd=59.4) with a median of 5.

The decision as to what 'counts' as higher numbers of partners is essentially completely arbitrary. Of the men in the GMSS 2000, some 10% reported 40 or more; 5%, 60 or more; 2%, 100 or more and an adventurous 1%, 200 or more. For the purposes of this paper, we will define this final sixth (15.6%) with thirty or more male partners in the last year as having higher numbers of partners.

In GMSS 1998 (Hickson *et al.*, 1999) and 1999 (Weatherburn *et al.*, 2000) a similar classification showed substantial associations between having higher numbers of male partners and HIV testing history, sexual behaviour and certain unmet HIV prevention needs. Ensuring that HIV prevention programmes disproportionately benefit men with higher numbers of sexual partners has been an recommendation from the *Gay Men's Sex Survey* since 1998.

In the following sections we look at which groups of men have higher numbers of sexual partners, by presenting the proportions of different groups who had: one partner in the last year; 2, 3 or 4; between 5 and 12; between 13 and 29; and finally 30 or more sexual partners in the last year. We will see that, while there are differences across demographic groups, men with large numbers of partners are found in all groups.

We examine differences in sexual behaviour (Chapter 3) with increasing numbers of sexual partners, and then consider the relationship to HIV vulnerability in terms of *Making it Count* strategic goals (Chapter 4). We then consider associations between volume of partners numbers and unmet HIV prevention needs (Chapter 5). We conclude with some implications for HIV health promotion planning (Chapter 6).

2.1 REGION OF RESIDENCE

Compared to men resident in the rest of England and Wales, those in London are substantially more likely to have higher numbers of partners (more than a third have 13 or more partners, and a fifth have 30 or more). In addition, men living in cities (defined as contiguous urban areas of more than 100 000 inhabitants) are more likely than others to have higher numbers of partners but small numbers make it impossible to discern any pattern between individual cities.

GMSS 2000 (n = 8,953)	% having these numbers of partners in the last year					
Regional Offices (& Wales)	one	2, 3 or 4	5 to 12	13 to 29	30+	
Eastern (n = 439)	24.8	22.8	25.7	10.7	15.9	100%
London (n = 1,915)	21.8	19.8	24.0	13.6	20.7	100%
North West (n = 1,297)	24.1	23.7	25.5	13.0	13.7	100%
Northern & Yorkshire (n = 657)	28.0	22.5	25.3	9.9	14.3	100%
South East (n = 1,807)	25.2	24.5	24.8	10.6	14.9	100%
South West (n = 562)	23.0	24.2	28.5	12.3	12.1	100%
Trent (n = 514)	25.7	25.9	22.4	13.0	13.0	100%
West Midlands (n = 1,217)	26.3	25.1	23.3	10.6	14.6	100%
Wales (n = 545)	27.0	21.5	27.7	10.6	13.2	100%

2.2 GENDER OF PARTNERS & TERMS USED FOR SEXUALITY

Men that are behaviourally bisexual (that is, had sex with men and women in the last year) are slightly more likely to have higher numbers of male partners, than exclusively homosexually active men. There is no obvious explanation for this. It may be that those who have both male and female partners are more sexually active across the board than others. It might also reflect the presence of men with a primary female partner engaging in anonymous sex with men, but these explanations are speculative.

GMSS 2000 (n = 9,195)	% having these numbers of partners in the last year					
Gender of sexual partners	one	2, 3 or 4	5 to 12	13 to 29	30+	
Male partners only (n = 8,712)	25.1	23.0	24.7	11.7	15.5	100%
Male and female partners (n = 483)	13.5	26.7	31.7	12.0	16.1	100%

On the other hand, men who define their sexual identity as bisexual are less likely to have higher numbers of male partners compared to gay men. The most significant difference in this table, however, is the high proportion of the 30+ group who reject the common labels and use other terms to refer to their sexuality.

GMSS 2000 (n = 9,270)	% having these numbers of partners in the last year					
Sexual identity	one	2, 3 or 4	5 to 12	13 to 29	30+	
Gay (n = 8,488)	24.9	22.6	24.8	11.9	15.8	100%
Bisexual (n = 389)	16.5	32.4	27.0	10.5	13.6	100%
No term (n = 315)	26.0	28.6	28.3	6.3	10.8	100%
Any other term (n = 78)	26.9	19.2	17.9	10.3	25.6	100%

2.3 AGE

Men over 30 years of age are substantially more likely to have higher numbers of male partners, compared to younger men. It is most common among men in their 30s (29.7% had 13+ partners and 18.2% had 30 or more) and 40s (32.0% had 13+ partners and 18.8% had 30 or more). Indeed men over 50 are more likely to have higher numbers of partners than men under 30.

Of course, this does not mean that all younger men are in monogamous relationships. Even among men under 20, a fifth (20.9%) had more than 13 male partners in the last 12 months, and a tenth (9.2%) had more than 30.

GMSS 2000 (n = 9,180)	% having these numbers of partners in the last year					
Age band	**one**	**2, 3 or 4**	**5 to 12**	**13 to 29**	**30+**	
under 20 (n = 532)	16.0	32.1	31.0	11.7	9.2	100%
20s (n = 3,003)	24.9	25.8	25.9	11.2	12.2	100%
30s (n = 3,403)	26.4	20.7	23.1	11.5	18.2	100%
40s (n = 1,599)	23.0	21.2	23.8	13.2	18.8	100%
50s (n = 643)	23.8	22.7	27.1	11.0	15.4	100%

2.4 FORMAL EDUCATION

There has been some speculation that less well-educated men feel estranged from the predominantly middle-class gay commercial venues and organisations and, consequently, use anonymous settings to find their sexual partners. If this is the case, we should expect to find a higher proportion of less well-educated men among the group with higher numbers of partners. This is not the case. There are fewer men with lower educational qualifications (GCSE and equivalent or less) among those with higher numbers of partners than in the population as a whole, though the differences are not huge.

GMSS 2000 (n = 9,215)	% having these numbers of partners in the last year					
Highest education qualification	**one**	**2, 3 or 4**	**5 to 12**	**13 to 29**	**30+**	
'O' levels or less (n = 2,710)	26.5	25.0	23.3	10.4	14.8	100%
'A' levels, diploma or equivalent (n = 2,576)	22.6	23.5	25.7	12.3	16.0	100%
Degree or higher (n = 3,929)	24.6	21.7	25.6	12.2	15.9	100%

2.5 ETHNICITY

There is no significant difference between the ethnic groups in the samples.

2.6 MALE RELATIONSHIP STATUS

Somewhat predictably men who do not have a current regular male partner are significantly more likely to have higher numbers of partners (34.4% had 13+ partners and 19.8% had 30+) compared to partnered men. Among men in a relationship for more than year, a fifth (21.6%) have 13+ partners and an eighth (12.9%) have 30 or more.

GMSS 2000 (n = 8,632)	% having these numbers of partners in the last year					
Relationship status	**one**	**2, 3 or 4**	**5 to 12**	**13 to 29**	**30+**	
Single (n = 3,620)	8.4	26.6	30.6	14.6	19.8	100%
Partnered < 1 year (n = 1,703)	16.6	29.7	30.0	12.2	11.5	100%
Partnered > 1 year (n = 3,309)	45.6	16.4	16.3	8.7	12.9	100%

2.7 HIV TESTING HISTORY

Men with higher numbers of partners are more likely to have tested for HIV than the rest of the population, and more likely to have tested positive for HIV. Clearly, many men with higher numbers of sexual partners will seek HIV testing as a consequence of their sexual activity, especially where they have also transgressed their personal safe boundaries (see Henderson *et al.* 2001). As we have shown elsewhere, getting a negative test result both reassures the recipient after risk-taking and can serve as a basis to inform future risk- taking, at least in the short-term.

Men who have tested positive for HIV are much more likely to have higher numbers of partners (46.2% had 13+ partners and 31.1% had 30 or more) compared to tested negative and never tested men. This data does not directly establish the relationship between higher partner numbers and diagnosed HIV infection. However, it remains likely that men with higher partner numbers are more likely to be exposed to (and infected with) HIV, and being diagnosed does nothing to reduce men's longer term predilection for higher numbers of male partners (see Keogh *et al.*, 1999).

GMSS 2000 (n = 8,846)	**% having these numbers of partners in the last year**					
HIV testing history	**one**	**2, 3 or 4**	**5 to 12**	**13 to 29**	**30+**	
Never tested (n = 3,711)	28.1	27.1	25.1	9.6	10.0	100%
Last test negative (n = 4,637)	22.9	20.6	25.6	13.0	17.9	100%
Last test positive (n = 498)	14.9	18.9	20.1	15.1	31.1	100%

3 Sexual behaviour of men with higher numbers of partners

The following table groups men by their numbers of sexual partners in the last year, then looks at the proportion of each of those groups who had done each of seven sexual behaviours. In each row, the group in which the behaviour is most common is **in bold**, that in which it is least common is underlined.

GMSS 2000 (n = 9,789)	% having these numbers of partners in the last year				
% who had done the following sexual behaviours in the last year	one	2, 3 or 4	5 to 12	13 to 29	30+
Any regular partner	**94.6**	89.7	91.5	91.5	91.4
Any AI with a regular partner	75.1	70.4	76.9	77.9	**78.7**
Any UAI with a regular partner	**51.9**	35.1	39.7	37.7	43.6
Any casual partner	15.1	73.6	94.7	97.7	**98.8**
Any AI with a casual	9.6	35.1	56.4	67.2	**75.8**
Any UAI with a casual	6.6	11.3	18.6	24.6	**32.4**
Any UAI (with regular or casual)	**51.5**	37.0	42.6	43.4	51.3

Men who had one partner in the last year were most likely to have had a regular partner and to have had UAI with a regular partner. Those who had two, three or four partners were least likely to have a regular partner, regular AI or regular UAI. Conversely, the likelihood of having a casual partner increased with partner numbers, as did having casual AI and casual UAI. Together, these measures mean the men who were most likely to have UAI were either those with one partner only, or a very large number of partners.

Even when considering regular partners, and ignoring the one partner group, there is a distinct trend with reported UAI with a regular rising from just over a third among those with 2 to 4 partners to about 44% among those with 30 or more partners.

The figures are, in some key places, quite stark. For example, three quarters of the men in the 30+ group had AI with a casual, compared to just over a third of those with 2 to 4 partners. Most crucially, perhaps, a third of the 30+ group had UAI with a casual partner, compared to just over 11% of those with between 2 and 4 partners and about a quarter of those with 13 to 29 partners in the last year.

In short, men with thirty or more partners were:

- most likely to have AI with a regular partner;
- most likely to have a casual partner;
- most likely to have AI with a casual partner;
- most likely to have UAI with a casual partner; and
- almost as likely to have UAI at all as men with one partner only.

3.1 CHANGES IN SEXUAL BEHAVIOUR, 1993–2000

Taking the population as a whole and comparing 1993 and 2000 (years for which we have strictly comparable data), we find that:

- the mean number of partners rose from 15 to 18, though the median fell from 6 to 5;
- the mean number of partners AI occurred with rose from 5 to 9, although the median remained at 2;
- the mean number of partners UAI occurred with rose from 2 to 5, but the median again stayed static at 1.

The picture of change in the seven years is not absolutely clear, but it appears that there has been no increase in 'promiscuity', since overall numbers of partners, as measured by the median, have not changed significantly. However, in all three cases, the means have increased significantly. This is due to increased proportions of men reporting high or very high partner numbers. In other words, this is evidence for an increase in the size of the group within the population with 'high' partner numbers.

Perhaps most significantly, in 2000, there are strong correlations between numbers of partners, numbers of AI and numbers of UAI partners. This means that, overall, a group is emerging with higher numbers of sexual partners **and** higher levels of UAI.

3.2 SEXUAL BEHAVIOUR AND VENUE USE

Using data from the 1997 survey, we have shown that almost exactly a half of the population reported no sex in either PSEs (defined as cottages and cruising grounds) or PSVs (defined as saunas and pubs or clubs) and about a quarter use both. Just over 10% use only PSEs and just under 15%, only PSVs.

Men who used any public sex site had more partners (median = 10) than those who did not (median = 1) and the more sites were used, the higher the number of reported sexual partners (those using one site had a median of 6; those using two, 9; three, 13 and four, 21). It is intriguing that men who use more than one venue seem to add the partner numbers for each venue. In other words, going to, say, a sauna you seem to 'collect' a number of partners. If you then go to a cruising ground, you seem also to 'collect' the partner numbers there as well.

Just under 10% of those using each site reported having UAI there. By contrast, a third of those reporting sex in a house or flat reported UAI there. It is this finding that should urge caution in seeing the emergence of PSVs as the cause of the rise in AI and UAI.

Users of all venues (taken separately) were:

- more likely to have any AI with casual partners and
- more likely to have any UAI with casual partners.

Compared to the rest of the population, they also had:

- more casual partners and
- more casual partners with whom they had AI.

In addition, those using the PSEs (cruising grounds and cottages):

- had UAI with more casual partners than the rest of the population.

This last result is somewhat surprising: all things being equal, you might expect there to be more UAI in the more 'comfortable' venues, but the findings may reflect the greater availability and subsequent use of condoms in the commercial venues.

4 *Making it Count* targets and men with higher numbers of partners

4.1 REDUCING sdUAI

Target 1 of *Making it Count* (Hickson, Nutland *et al.*, 2000) is the number of occasions sdUAI occurs. In GMSS, we attempt to assess the proportion of men involved in sdUAI but not the number of times it occurs (see Hickson *et al.*, 2000 for methods).

GMSS 2000 % who had done the following sexual behaviours in the last year		**one**	**2,3 or 4**	**5 to 12**	**13 to 29**	**30+**	**p <.01**
% had any AI (n = 8,906)		76.8	76.6	84.4	86.6	**89.4**	Sig.
% had any UAI (of those who had AI, n = 7,013)		**69.9**	50.9	52.8	52.2	58.5	Sig.
% with 1, 2 or 3+ UAI partners (of those who had UAI, n = 3,200)	One	100	58.6	54.5	45.6	34.3	Sig.
	Two	—	34.7	24.9	22.4	16.9	
	Three +	—	6.7	20.6	32.0	**48.9**	
Thought sero-concordancy of UAI (of those who had UAI, n = 4,002)	Concordant only	33.0	24.5	20.7	16.9	16.7	Sig.
	Any Unknown (no discordant)	64.3	72.8	75.6	76.5	71.7	
	Any Discordant	2.7	2.7	3.7	6.6	**11.6**	

As a comparison, we take the single partner group and the group with thirty or more partners.

Those with one partner are:

- second least likely to have AI
- most likely to have UAI when they have AI
- cannot have UAI with 2+ partners
- most likely to have concordant UAI only

Those with 30+ partners are:

- most likely to have AI
- second most likely to have UAI
- most likely to have UAI with 3+ partners
- most likely to have discordant UAI

The pattern, therefore, is very clear. On just about every marker of risk, those with the largest number of partners are the least safe.

4.2 CONDOM FAILURE DURING INSERTIVE ANAL INTERCOURSE

Sexual HIV exposure can occur when condoms fail during protected sero-discordant anal intercourse. *Making it Count* (MiC) proposes reducing the overall rate of condom failure in order to reduce failure when partners are sero-discordant (target 2). To reduce condom failure health promotion can prioritise the needs of men who experience failure.

Since GMSS 1998 we have asked men who had used condoms for insertive anal intercourse (IAI) whether *any of the condoms you've worn in the last year split or come off while you were fucking?* The following table shows how the condom failure measures varied by how many male sexual partners men had in the last year.

GMSS 2000	% having these numbers of partners in the last year				
% Condom failure measures	one (n = 2,176)	2, 3 or 4 (n = 2,054)	5 to 12 (n = 2,203)	13 to 29 (n = 1,042)	30+ (n = 1,370)
% used condom for IAI (of all sample)	36.7	51.8	65.5	72.8	**76.9**
% experienced failure (of IAI condom users)	8.1	13.1	12.5	12.0	**19.2**
% experienced >1 failure (of those experiencing failure)	47.9	45.5	39.5	57.3	**58.0**

As the probability of anal intercourse increases with increasing numbers of partners, we should not be surprised that experience of wearing condoms also increases, as we can see in the first line of the table above. Men with higher numbers of partners (especially those with 5 or more) are most likely to engage in IAI with a condom and men with one partner are least likely to do so. Although this may appear to contradict findings that men with higher numbers of partners are most likely to engage in any UAI, it should be remembered that UAI and condom use are *positively* associated, that is, they occur in the same men (see Hickson, Hartley, Weatherburn, 2001). This finding suggests that any increase in UAI is not simply a result of men 'giving up' condoms altogether but stopping using condoms with some (but not all) AI partners.

There is also a relationship between partner numbers and experience of condom failure in the last year. Men with the highest numbers of partners are most likely to experience condom failure and men with one partner are least likely to do so.

In GMSS 1999 (Weatherburn *et al.*, 2000) we also differentiated types of condom failure experienced (tearing, slipping, both) but there was no relationship between this and partner numbers groups.

4.3 SEXUALLY TRANSMITTED INFECTIONS

Making it Count specifically suggests gonorrhoea and non-specific urethritis (NSU) as targets for health promotion because of their high and increasing prevalence and evidence of their impact on the relative risk of HIV infection. The prevalence of gonorrhoea and NSU may contribute to HIV incidence by increasing the probability of HIV transmission when exposure occurs, by increasing the infectivity of men with HIV (Bonnel *et al.*, 2000). Our precise target is the proportion of the HIV positive partners in occasions of sdUAI who have either gonorrhoea or NSU at the time. As the probability of a positive man picking up gonorrhoea or NSU is related to the overall prevalence of these STIs (and since both are the cause of considerable ill health among gay men), our target is best considered the overall prevalence of these infections.

In GMSS 2000 men were asked two questions about sexually transmitted infections:

In the last year, have you PICKED UP a sexually transmitted infection?

In the last year, have you PASSED ON a sexually transmitted infection?

Men were asked to indicate *no*, *yes* or *maybe*. If they indicated either *yes* or *maybe*, they were asked *what* infection they had picked up or passed on. Overall, 11.9% reported having picked up an STI in the last year and a further 1.6% thought they may have done so. Only 2.5% said they had passed on an STI but a further 4.3% said they might have passed one on (see Hickson *et al.*, 2001 for a fuller explanation of methods and results). Unsurprisingly, picking up any STI was increasingly common

with increasing numbers of sexual partners. Indeed the more partners men had, the more likely they were to have any STI. More than a quarter (28.6%) of men with 30 or more partners reported an STI in the previous 12 months, compared to a sixth (16.5%) of men with five to twelve partners, and less than one in thirty (3.2%) of men with one partner only.

GMSS 2000 % STIs picked up last year	% having these numbers of partners in the last year				
	one (n = 2,192)	2, 3 or 4 (n = 2,054)	5 to 12 (n = 2,203)	13 to 29 (n = 1,046)	30+ (n = 1,373)
Any STI	3.2	7.1	16.5	23.1	**28.6**
Crabs	0.8	1.5	4.7	**7.1**	5.9
Gonorrhoea	0.3	0.7	3.0	4.3	8.6
NSU	0.5	0.9	2.1	3.7	6.1
Scabies	0.1	0.5	2.1	2.3	2.0
HPV	0.2	0.5	1.6	1.7	1.6
Chlamydia	0.1	0.3	0.7	0.8	**1.6**
Thrush	0.1	0.2	0.5	**0.8**	0.7
Herpes	0.0	0.2	0.4	0.5	**1.1**
HIV	0.0	0.2	0.3	0.3	**0.7**
Syphilis	0.0	0.0	0.1	0.5	**0.7**
Gut infections	0.0	0.0	0.0	**0.3**	0.2

Almost all the individual STIs were significantly more common among men with higher numbers of sexual partners. These men were especially likely to report having gonorrhoea (4.3% of men with 13–29 partners and 8.6% of men with 30 or more partners reported it) and NSU (3.7% of men with 13–29 partners and 6.1% of men with 30 or more partners reported it). Apart from the parasitic infections crabs and scabies, which are not exclusively sexually transmitted, no other STI was reported by more than 2% of the population, and most were reported by less than 1%.

Clearly, men with higher numbers of sexual partners are central to the patterns of STIs.

At a national level, rates of gonorrhoea and NSU are higher in London than elsewhere (PHLS *et al.*, 2000). The potential for epidemics of STIs is, therefore, high in the gay communities of the capital – and elsewhere – irrespective of any HIV risk.

There is also an association between having tested positive and acquiring gonorrhoea, independent of numbers of sexual partners (Hickson *et al.*, 2001). Whether these are both related to having higher numbers of partners is not clear.

5 Indicators of need among men with higher numbers of partners

We move now to consider the needs of men with higher numbers of partners as revealed in GMSS 1998, 1999 and 2000.

5.1 NEEDS FOR INFORMATION / KNOWLEDGE

It is, perhaps, worth looking in some detail at the patterning of needs for information and knowledge. In the following table, the first four items refer to the third aim of MiC: *Men are knowledgeable about HIV, its exposure, transmission and prevention*. The next group of four items concerns knowledge about gonorrhoea and relates to MiC 9: *Men are knowledgeable about gonorrhoea … [its] transmission, detection and treatment*. The set of questions on hepatitis are from GMSS 1998 (Hickson *et al.*, 1999). The final group concern condom failure and are from GMSS 1999 (Weatherburn *et al.*, 2000). They relate to MiC 8: *Men have maximum control over condom failure*.

% in need by number of partners (% who did not already know this or were not sure)	% having these numbers of partners in the last year					p. <.01
	1	2, 3, 4	5 to 12	13 to 29	30+	
• AIDS is caused by a virus called HIV	1.6	2.9	2.4	2.2	1.9	Not Sig.
• Men can have HIV without knowing it	3.2	**5.8**	3.3	3.1	2.5	Sig.
• There is no vaccine against HIV	7.4	**10.1**	7.7	6.4	6.1	Sig.
• There is no test to tell whether or not someone is immune to HIV	28.9	**34.3**	30.1	29.5	26.8	Sig.
• Gonorrhoea is caused by a bacteria	38.2	**43.2**	37.6	36.8	30.5	Sig.
• Men can have gonorrhoea without knowing it	36.8	**40.8**	35.4	30.2	26.0	Sig.
• Gonorrhoea is easily treated with antibiotics	26.8	**32.0**	24.7	21.3	14.8	Sig.
• No one is immune to gonorrhoea	27.5	**34.1**	29.4	28.5	24.5	Sig.
• Hepatitis A & B are both caused by viruses	21.7	**22.7**	19.5	20.9	15.9	Sig.
• Men can have Hepatitis A or B without knowing it	23.3	**25.6**	20.2	21.6	17.3	Sig.
• Vaccines against Hepatitis A & B exist	**21.7**	20.1	16.5	15.6	12.3	Sig.
• There is a test to tell whether or not someone is immune to Hepatitis A or B	**44.7**	42.8	40.4	40.7	27.0	Sig.
• condom failure is less likely with water based lubricant	7.7	**9.5**	7.2	6.2	3.9	Sig.
• condom failure is more likely with oil- based lubricant	12.0	**15.6**	12.6	11.5	9.0	Sig.
• condom failure is more likely with two condoms	72.8	**73.6**	72.7	70.2	67.6	Sig.
• GUM is open-access	21.0	**21.8**	17.7	16.2	12.9	Sig.

In all cases where there is a significant difference, the group with 30 or more partners is the group with the lowest level of need and, with two exceptions, the group with between two and 4 partners, the highest need. The exceptions are two questions on hepatitis, where the single partner group show the highest rates of 'ignorance'.

This shows, broadly, that information is most common amongst those in most need of it, but this tends to obscure the fact that some levels of unmet need are very high. In particular, knowledge about gonorrhoea is weak, with more than a quarter of the 30+ group not knowing some basic

facts. The concern here is that these are the men most likely, on the basis of their behaviour to come into contact with gonorrhoea, and this is confirmed by the finding (see above) that nearly 10% had acquired gonorrhoea in the previous year, a figure almost twice as high as the next group.

Again, some of the questions on condom failure show quite high levels of need among the group that, because of their behaviour are most in need of it. For example, nearly ten per cent were unaware of the importance of oil based lubricants and over two thirds did not know about the dangers of using two condoms.

5.2 OTHER NEEDS

A more uncertain pattern emerges when other needs are examined. In the following table, the first set of questions refer to MiC aim 1: *men have control over the sex they have*. The following set of two might refer to that aim or to MiC aim 2: *men are equipped and competent to negotiate sex*. The next set of three clearly relate to MiC aim 2 and the next item to MiC aim 4: *men are aware of the … consequences of their sexual actions*. The last item is evidence of need for community infrastructure (rather than direct contact) interventions.

The men with 30 or more partners were those most likely in 1998 to say they had been raped in the previous year and, in 2000, to also report the second highest occurrence of unwanted sex. Unwanted sex and rape are probably most common in sexualised situations with relative strangers. Men with higher numbers of partners, by definition, will find themselves in these situations more often than other men, but there may be more to it than simple exposure. They also are the group with the highest proportion saying they sometimes find it difficult to say no to unwanted sex. This may simply reflect experience or may point to a relative lack of 'self-efficacy': the ability to be clear about wants and needs with partners. This speculation gains some support from the finding that the 30+ group also has the highest proportion who state that they are not always as safe as they might wish. They also express more concern than other men about their alcohol intake.

There is a pattern of a sort emerging here. The 30+ group seems to have a relatively high proportion of men who have difficulties always ensuring that they have the sex they want when and with whom they want it. This would point the way for future campaigns to emphasise the importance of knowing what you want sexually and promoting effective means to ensure you can negotiate this.

It is also worrying that an eighth of this group report difficulties in getting hold of condoms, the second highest proportion (but only by a couple of percentage points). Given their pattern of behaviour, this is a crucial unmet need.

The group with the highest partner numbers is also the least likely to expect a partner with HIV to disclose that fact before sex. This is perhaps unsurprising, but half the men in this group still have this expectation. Again, given the pattern of their behaviour and the levels of risk they are running, this is unrealistic, to say the least.

% in need by number of partners	one	2, 3, 4	5 to 12	13 to 29	30+	p <.01
Forced to have unwanted sex in the last year	3.0	5.7	7.0	**10.4**	8.0	Sig.
Raped in the last year	0.8	2.1	2.2	2.6	**3.5**	Sig.
I wish I wasn't attracted to men [agreement]	7.1	9.9	9.8	**10.0**	9.1	Sig.
I worry about how much I drink [agreement]	24.5	27.0	29.7	**31.2**	29.4	Sig.
I want more control over my drug use [agreement]	11.2	12.8	14.5	14.3	13.8	Not Sig.
The sex I have is always as safe as I want it to be [disagreement]	4.8	7.4	10.1	10.8	**13.2**	Sig.
I find it easy to say 'no' to unwanted sex [disagreement]	5.6	8.4	10.0	12.3	**14.7**	Sig.
I sometimes have a problem getting hold of condoms [agreement]	9.2	13.5	12.4	**14.2**	13.9	Sig.
I'd expect a man with HIV to tell me he was positive before we had sex [agreement]	**79.1**	*74.7*	*69.7*	*61.4*	*49.7*	*Sig.*
I sometimes feel lonely [agreement]	41.1	**66.5**	66.1	62.2	61.2	Sig.

Although this set of men shows greater levels of need on a few markers than other parts of the population, there is little real sense in which this group of men forms a 'community of need'. Even the inferences we have drawn about their motivation and assertiveness, will characterise only a subset of the group. It would be quite wrong to infer from the discussion in this section, that all men with more than a dozen or so sexual partners shared these characteristics: they are, at best, more common among them. By and large, the needs of these men are those of all the men. However, their need is the greater, simply because they are more likely than the others to have an opportunity for involvement in sexual HIV exposure.

6 Implications for HIV health promotion planning

There does now seem to be convincing evidence that there is a (statistical) link between number of sexual partners, engagement in AI and engagement in UAI. There is also a relationship between higher number of partners and use of PSVs and PSEs.

There are a couple of things to note. First, the changes that we have described are not cataclysmic; rather they are gradual shifts across a relatively large section of the population. Since we have no data from before the time of AIDS that are comparable with what we have since, it is impossible to know what impact the arrival of HIV had on rates of (U)AI. Given the central role of that behaviour in transmission of HIV and the incessant publicity that the practice was given, it is highly likely that rates dropped very significantly. Some men who enjoyed (unprotected) anal intercourse must have abstained or limited their engagement. Over the years, it is likely that they will have sought ways to engage in AI without running too high a risk of contracting or passing on HIV. It may be therefore that what we are seeing is the cumulative effect of these individuals' changing assessments of risk.

These increases in 'risk behaviour' have not resulted in huge rises in HIV infections. It must, therefore, remain the case that there are multiple and various risk-reduction strategies at work at the individual level. However, we must not assume that such strategies are as neat or as consistent as most researchers, and some health promoters, have protrayed them (for example, see Van de Ven *et al.*, 2002).

Second, although there is a link between venue use and higher numbers of partners, and a link between higher numbers of partners and high rates of UAI, it is not automatically the case that UAI is linked to venue use. Although PSVs generate large numbers of partners, it does not immediately follow that they account for the increases in AI, UAI and sdUAI. Anal intercourse (and UAI) still predominantly occurs in the bedroom.

A final thought is in order before moving on to discuss interventions. Part of discovering one's gayness is exploring the transgression. Homosex is, intrinsically, transgressive: part of the fun (at least when you are young and/or in the exploratory phase) is knowing that you are doing something that is 'wrong'. This can be magnified, if you do your exploration in a cottage or at a cruising ground: where the possibility of discovery gives a certain frisson to the encounters. As you become more experienced, perhaps settle into a relationship, some of that excitement passes. At this stage, some men then move to explore different – maybe more extreme – aspects of their sexuality, partly at least to try to re-discover that transgression. It should, then, come as little surprise that, in a community that extols anal intercourse with a condom as both a right and a duty, that some men will be drawn by the transgressive potential of doing the opposite. Hence, the constant reinforcement of the message that UAI is dangerous (and/or wrong) will enhance its attraction to some. The fact that there continue to be new HIV infections through men having sex together, means that there is no cause for complacency: the fact that there has not been a rise in new infections in line with the increases in UAI means that individual risk reduction strategies are partially successful.

It is important to be clear that what we have described in this paper is not a cultural group with a set of needs different from the rest of the population. Neither is it what might be termed a structurally

defined target group (such as men with lower educational qualifications). Rather, we have described a behavioural target group. That is, they emerge as a group solely as a result of their identification through epidemiological and sociological research. There is no corresponding identity category nor individual awareness of group membership. Moreover, men move in and out of this group over time. In short, the group, *men with higher numbers of partners*, does not have a fixed membership nor does it necessarily share any obvious cultural or demographic characteristics. Compare this to black gay men, where cultural difference is assumed and membership is relatively fixed, or young gay men, for example.

Moreover, men in the higher numbers of partners group have, almost by definition, a pattern of behaviour that puts them at heightened risk of acquiring or passing on HIV and other STIs. Their HIV prevention needs are not any different to anyone else's, but are more urgent and it is this that makes them a priority for HIV health promotion. In the absence of special needs or particular cultural sensitivities the challenge is not so much to construct specific interventions but to ensure that this behavioural target group is reached by all future campaigns.

One way to do this is to target the places where these men are known to be found. It would, therefore, seem sensible to target PSVs (and PSEs), but it is important to be clear that it is not only behaviour in these venues that is the cause for concern. As we have shown, most UAI continues to occur more at home.

Having said that, there are nevertheless matters on which men with higher numbers of partners are specifically needy. As we have shown (chapter 5.2), they were more likely than the rest of the population to say that they sometimes lost control over sexual decision making and they found it difficult to say 'no' to unwanted sex. Consequently, they were also more likely than others to transgress their 'safe' boundaries: they said their sexual behaviour was not always as safe as they would like it to be. They were also the group most likely to report rape or unwanted sex and to be concerned about the amount of alcohol they drank. The key question may then be: are they having the sex that they want? And if they are not, what factors are contributing to this? Or what knowledge or skills would they require to change this?

Bearing in mind that men with higher numbers of partners cannot be easily identified either socially or culturally, it is probably not appropriate to dedicate specific national mass and small media campaigns to them. On the other hand because the group is probably geographically clustered (in major urban gay centres) and tend to use specific venues (such as PSVs and PSEs), face-to-face interventions (such as group-work or counselling) are probably feasible and appropriate.

In terms of mass media, however, this group may be best served by attending to issues of personal agency and control during sex. While these are issues that affect the whole population, men with higher numbers of partners are especially needy in this regard.

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