

Health in Men: Update to end of 2002

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National Centre in HIV Social Research
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Introduction

Health in Men (HIM) is a long-term study of an open cohort of HIV-negative gay men in Sydney. The study was funded initially (2001–2002) by the Commonwealth Department of Health and Ageing and the New South Wales Health Department. From mid-2002 funding was provided by the US National Institutes of Health, a division of the Department of Health and Human Services, as part of the Australian Thai HIV Vaccine Consortium (NIH/NIAID/DAIDS: HVDDT Award N01-AI-05395).

A collaborative partnership has been established between the National Centre in HIV Social Research and the National Centre in HIV Epidemiology and Clinical Research at the University of New South Wales, the Australian Federation of AIDS Organisations and the AIDS Council of New South Wales to advise and assist with the general direction of the HIM study. The cohort itself is jointly administered through the two National Centres.

The men are recruited primarily through gay community events, institutions and networks in Sydney. Annual intakes of 500 men are planned from 2001–2004. The initial requirement is a face-to-face structured interview and a blood test for HIV. Participants are also given the option to be tested for other sexually transmissible infections (STIs) but this is not an essential requirement for participation in the study. Blood tests and STI tests are repeated at return visits.

Full follow-up face-to-face interviews are conducted annually with brief update interviews conducted by telephone at six months after each face-to-face annual interview. Clinical assessment data are collected at the time of the annual interview and results are forwarded to each participant's doctor of choice.

This report is the second from the HIM study. It follows *Health in Men: Baseline Data* (Mao, Van de Ven, Prestage *et al.*, 2002). Here we compare data from 2001 with those from 2002. We use three different bases for comparison. In some cases—**Baseline Data**—we compare the baseline sample of 450 men interviewed for the first time in 2001 with the new intake of 453 men interviewed for the first time in 2002. In other cases—**Annual Data**—we compare data collected from the 450 men interviewed in 2001 (all baseline interviews) with those from the 846 men interviewed in 2002 (a mixture of the 453 recruited in 2002 and the 393 follow-up interviews—among the latter, 389 men remained HIV-negative and four men seroconverted before their second interview). In yet other cases—**Longitudinal Data**—we

compare baseline data from the 389 men interviewed for the first time in 2001 with their follow-up data from re-interviewing in 2002 (when they re-tested HIV-negative).

A **summary** of key findings is presented on pages **21** and **22**.

Demographics

Altogether, 903 HIV-negative men completed a baseline questionnaire during the first 18 months of recruitment (to the end of 2002). They ranged in age from 18 to 75 years with a median of 36. The participants were predominantly of Anglo-Celtic/European background (789, 87.8%). A majority had attended university (471, 52.3%) and a majority were in professional/managerial occupations (552, 57.9%). Consistent with the recruitment strategies, a large proportion had strong attachment to gay community: 570 men (63.1%) indicated that 'most' or 'all' of their friends were gay men and 611 (67.6%) spent 'a lot' of their free time with gay men. (Discrepancies in *n*, throughout, are due to small amounts of missing data.)

As shown in Table 1, rather than drawing a sizeable proportion of participants from the previous Sydney Men and Sexual Health (SMASH) study, the 2002 recruitment was largely through gay community events and gay venues ($p < 0.001$). Although the recruitment strategy has changed slightly in 2002, there is little difference in the demographic profiles of the 2001 and 2002 baseline data.

Table 1 : Baseline Data: Source of recruitment

	2001		2002	
	<i>n</i>	%	<i>n</i>	%
Gay community events	163	36.3	268	59.6
Through friends	70	15.6	48	10.7
Previous study (SMASH)	51	11.4	12	2.7
Gay press	37	8.2	1	0.2
ACON / other gay organization	34	7.6	15	3.3
Gay venues	29	6.5	43	9.6
Internet	23	5.1	29	6.4
Clinics	18	4.0	16	3.6
Periodic Survey	12	2.7	8	1.8
Other	12	2.7	10	2.2
Total	449	100.0	450	100.0

There was little difference in the age composition of the 2001 and 2002 intakes into the study (Table 2).

Table 2 : Baseline Data: Age of participants at enrolment

	2001		2002	
	<i>n</i>	%	<i>n</i>	%
Under 25	46	10.2	53	11.7
25–29	75	16.7	71	15.7
30–39	176	39.1	192	42.4
40–49	114	25.3	91	20.1
50 and above	39	8.7	46	10.2
Total	450	100.0	453	100.0

ns (not significant)

Sexual relationships

Table 3 indicates whether the 389 men who were re-interviewed in 2002 had changed their relationship status between their first interview and their follow-up interview. For almost half the sample (45%), their relationships with men had changed between interviews, but there was no consistent pattern (here and throughout, a *consistent pattern* refers to participants' behaviour being categorised into the same category at *both* first interview in 2001 and follow-up interview in 2002.) in the sorts of changes that had occurred. About a third of the men were in a regular relationship in both years, the majority of these being non-monogamous relationships.

Table 3 : Longitudinal Data: 'Current' relationships with men at the time of first and second interview

		<i>n</i>	%
<i>Consistent patterns</i>	One regular partner (monogamous)	48	12.3
	Several regular partners but no casual partners	5	1.3
	Regular and casual partners	74	19.0
	Casual partners only	77	19.8
	No partners	9	2.3
<i>No consistent pattern</i>		176	45.2
Total		389	100.0

Male partners in the previous six months

Tables 4 to 6 compare responses given by all participants interviewed in each year. As shown in Table 4, there was no difference between 2001 and 2002 in the total number of male partners in the previous six months reported by participants.

Table 4 : Annual Data: Number of male partners in the six months prior to interview

	2001		2002	
	<i>n</i>	%	<i>n</i>	%
None	5	1.1	20	2.4
1	82	18.2	165	19.5
2–5	120	26.7	200	23.6
6–10	75	16.7	152	18.0
More than 10	168	37.3	309	36.5
Total	450	100.0	846	100.0

ns

Table 5 shows that there was also no difference between 2001 and 2002 in the number of regular male partners in the previous six months reported by participants.

Table 5 : Annual Data: Number of regular male partners in the six months prior to interview

	2001		2002	
	<i>n</i>	%	<i>n</i>	%
1	235	76.8	492	77.7
2	35	11.4	81	12.8
3 or more	36	11.8	60	9.5
Total	306	100.0	633	100.0

Note: Reduced base of men who had primary/other regular partners or both.

ns

There was also no difference between 2001 and 2002 in the number of casual male partners in the previous six months reported by participants (Table 6).

Table 6 : Annual Data: Number of casual male partners in the six months prior to interview

	2001		2002	
	<i>n</i>	%	<i>n</i>	%
1	25	6.9	49	7.4
2–5	98	27.2	166	25.2
6–10	67	18.6	146	22.2
More than 10	170	47.2	297	45.1
Total	360	100.0	658	100.0

Note: Reduced base of men who had any casual partners.

ns

When comparing the baseline interviews of the men recruited in 2001 with their 2002 follow-up interview, we find that about half the sample (48.6%) reported a different number of partners in 2002 to what they did in 2001, although there was no consistent pattern in how this altered between the two years (Table 7). Nonetheless, about a quarter of the sample reported more than ten partners in both years.

Table 7 : Longitudinal Data: Number of male partners in the six months prior to first and second interview

		<i>n</i>	%
<i>Consistent patterns</i>	0	2	0.5
	1	46	11.8
	2-5	39	10.0
	6-10	15	3.9
	More than 10	98	25.2
<i>No consistent pattern</i>		189	48.6
Total		389	100.0

We also find that only slightly fewer men (41.5%) reported a different number of regular partners in 2002 to what they did in 2001, again with no consistent pattern (Table 8). About a third of the sample reported one regular partner in both years and one-in-six had no regular partners during those two years.

Table 8 : Longitudinal Data: Number of regular male partners in the six months prior to first and second interview

		<i>n</i>	%
<i>Consistent patterns</i>	0	65	16.8
	1	146	37.6
	2	6	1.5
	3 or more	10	2.6
<i>No consistent pattern</i>		161	41.5
Total		388	100.0

Half the sample (50.1%) also reported a different number of casual partners in 2002 to what they did in 2001 (Table 9). About a quarter of the sample reported more than ten partners in both years, while one-in-eight had no casual sex at all during those two years.

Table 9 : Longitudinal Data: Number of casual male partners in the six months prior to first and second interview

		<i>n</i>	%
<i>Consistent patterns</i>	0	51	13.1
	1	5	1.3
	2-5	32	8.2
	6-10	15	3.9
	More than 10	91	23.4
<i>No consistent pattern</i>		195	50.1
Total		389	100.0

HIV and the epidemic

HIV testing

To the end of 2002, there were four participants who seroconverted from the time of the 2001 intake ($n=450$). The incidence rate was 0.98 per 100 person years.

Over one-in-six men who were re-interviewed in 2002 reported having no primary regular partner during the two years of their participation in the study but a third reported having an HIV-negative primary partner at both their interviews (Table 10).

Table 10 : Longitudinal Data: HIV serostatus of primary regular male partners in the six months prior to first and second interview

		<i>n</i>	%
<i>Consistent patterns</i>	No primary regular partner	70	18.0
	HIV-negative primary regular partner	138	35.5
	HIV-positive primary regular partner	17	4.4
	Unknown status primary regular partner	14	3.6
<i>No consistent pattern</i>		150	38.6
Total		389	100.0

Contact with the HIV/AIDS epidemic

Between 2001 and 2002, among all the men who were interviewed in each year, there was no evidence of a change in the extent to which participants were in contact with the HIV epidemic (Table 11). As many men reported knowing someone who had been diagnosed with HIV for the first time or someone who had died in the previous year in 2002 as was the case in 2001.

Table 11 : Annual Data: Contact with HIV/AIDS epidemic in the year prior to interview

	2001		2002	
	<i>n</i>	%	<i>n</i>	%
Personal acquaintances who were diagnosed HIV-positive in the past year (<i>ns</i>)				
None	339	78.7	664	79.9
Any	92	21.3	167	20.1
Total	431	100.0	831	100.0
Personal acquaintances who died following AIDS in the past year (<i>ns</i>)				
None	378	84.9	722	85.3
Any	67	15.1	124	14.7
Total	445	100.0	846	100.0

Post-exposure prophylaxis (PEP)

There was little indication that the men who were enrolled into the study in 2002 were any more or less aware of post-exposure prophylaxis (PEP) than the men who had been enrolled in 2001 (Table 12).

Table 12 : Baseline Data: Awareness of PEP at enrolment

	2001		2002	
	<i>n</i>	%	<i>n</i>	%
Aware	353	78.4	344	75.9
Not aware	97	21.6	109	24.1
Total	450	100.0	453	100.0

ns

There was also no indication that the men enrolled in 2002 were any more or less likely to have received post-exposure prophylaxis (PEP) than the men enrolled in 2001 (Table 13).

Table 13 : Baseline Data: Reported receipt of PEP at enrolment

	2001		2002	
	<i>n</i>	%	<i>n</i>	%
Never	421	93.6	429	94.7
Ever	29	6.4	24	5.3
Total	450	100.0	453	100.0

ns

Among the 29 men in 2001 cohort who had ever received PEP before entering into the HIM study, 27 had received it once, one had received it twice and one had received it three times. By the end of 2002, 24 of these 29 men had been re-interviewed and, during that one-year period, two men reported further receipt of PEP.

STIs and Hepatitis A/B vaccination

Men enrolled into the study in 2001 were generally no more or less likely to report having been tested for a range of STIs than were those enrolled in 2002 (Table 14). Nonetheless, the men enrolled in 2002 were less likely to report having been tested for Chlamydia, sexually transmitted bowel infections, or genital herpes.

Table 14 : Baseline Data: Self-reported history of STI testing at enrolment

Ever tested for:	2001 (n=450)		2002 (n=453)	
	n	%	n	%
Urethral gonorrhoea	122	27.4	102	22.7
Anal gonorrhoea	50	11.3	38	8.4
Oral gonorrhoea	37	8.3	36	8.0
Non-specific urethritis/Chlamydia*	148	33.1	116	26.0
Sexually transmitted bowel infection (Giardia, Shigella)*	48	10.8	31	6.9
Syphilis	28	6.3	14	3.1
Anal warts	91	20.2	74	16.4
Genital warts	43	9.6	37	8.2
Genital herpes**	59	13.2	35	7.8

Note: Categories are not mutually exclusive.

* $p < 0.05$; ** $p < 0.01$

Table 15 shows that 96% participants agreed to be tested for hepatitis A and B and syphilis in 2001 and 2002. Overtime, results for hepatitis A and B showed no difference. However, participants recruited in 2001 showed much higher prevalence of syphilis than those recruited in 2002 ($p < 0.01$).

Table 15 : Baseline Data: STI serology tests

	2001 (n=450)		2002 (n=453)	
	<i>n</i>	%	<i>n</i>	%
Hepatitis A				
<i>Seropositive</i>	295	68	293	68
Susceptible	139	32	140	32
Hepatitis B				
<i>Vaccinated</i>	228	53	232	54
Prior infection	89	21	79	18
Susceptible	116	27	122	28
Syphilis				
<i>Seropositive**</i>	21	5	7	2
Seronegative	411	95	426	98

Note: Categories are not mutually exclusive.

***p<0.01*

Sexual practice and safe sex

Sex with regular male partners

Slightly more men reported having a regular partner during the six months prior to their interview in 2002 than was the case in 2001, but otherwise there was little difference regarding anal intercourse or condom use with those partners (Table 16). We asked men to report on both their primary partner (such as a boyfriend) and their other regular partners (such as ‘fuckbuddies’). Where they had more than one regular partner in the previous six months and these were not concurrent, their primary partner was the most recent of these partners and any previous regular partners were included as ‘other regular partners’. About 17% of men reported having any ‘other regular partners’ in addition to their primary partner.

Table 16 : Annual Data: Condom use with regular male partners in the six months prior to interview

	2001		2002	
	<i>n</i>	%	<i>n</i>	%
Total sample (<i>ns</i>)				
No such partner	143	31.8	212	25.1
No anal intercourse	34	7.8	62	7.3
Always protected anal intercourse	78	17.3	153	18.1
Any unprotected anal intercourse	194	43.1	419	49.5
Total	450	100.0	846	100.0
Men who had a regular partner (<i>ns</i>)				
No anal intercourse	34	11.4	62	9.8
Always protected anal intercourse	78	25.4	153	24.1
Any unprotected anal intercourse	194	63.2	419	66.1
Total	307	100.0	634	100.0

Across time, the men who were reinterviewed in 2002 tended to have similar sexual contact with their regular partners to what they reported at baseline in 2001. In particular, over a third reported engaging in UAI with their regular partner in the previous six months at both their interviews (Table 17).

Table 17 : Longitudinal Data: Consistent sexual practice with regular male partners in the six months prior to first and second interview

		<i>n</i>	%
<i>Consistent patterns</i>	No regular partners	65	16.7
	No UAIR	45	11.6
	Any UAIR	137	35.2
<i>No consistent pattern</i>		142	36.5
Total		389	100.0

Note: UAIR = Unprotected Anal Intercourse with Regular partners

Only a quarter of the men reported having agreements about safe sex both inside and outside their relationship with their regular partners at both their interviews (Table 18). About the same proportion maintained their agreements about sex outside the relationship as maintained their agreements about sex inside the relationship.

Table 18 : Longitudinal Data: Consistent safe sex agreements with primary regular male partners among those who had regular male partners in the six months prior to first and second interview (n=324)

	<i>n</i>	%
Consistent safe agreement about sex <i>within</i> relationship (including allowing no condom use when both were HIV negative)	126	38.9
Consistent safe agreement about sex <i>outside</i> relationship	137	42.3
Consistent safe agreement about sex <i>both within and outside</i> relationship (including negotiated safety agreements)	100	25.7

Note: Categories are not mutually exclusive.

Sex with casual male partners

There was no difference regarding anal intercourse or condom use with casual partners during the six months prior to their interview in 2002 compared with 2001 (Table 19). Of those with casual partners, slightly more than one-third reported UAI each year.

Table 19 : Annual Data: Condom use with casual male partners in the six months prior to interview

	2001		2002	
	<i>n</i>	%	<i>n</i>	%
Total sample (ns)				
No such partner	90	20.0	189	22.3
No anal intercourse	47	10.4	108	12.8
Always protected anal intercourse	178	39.6	302	35.7
Any unprotected anal intercourse	135	30.0	247	29.2
Total	450	100.0	846	100.0
Men who had a casual partner (ns)				
No anal intercourse	47	13.1	108	16.4
Always protected anal intercourse	178	49.4	302	46.0
Any unprotected anal intercourse	135	37.5	247	37.6
Total	360	100.0	657	100.0

Across time, the men who were re-interviewed in 2002 tended to have similar sexual contact with casual partners to what they reported at baseline in 2001. In particular, about a third reported never engaging in UAI with casual partners in the previous six months at both their interviews (Table 20). Only about one-in-six men reported engaging in UAI with casual partners at both interviews. This pattern is strikingly different to that found in sex with their regular partners where the largest proportion consistently engaged in UAI, whereas this was true of only about half as many men in the context of sex with casual partners. It is also worth noting that whereas UAI with regular partners was a relatively common occurrence, it was a relatively infrequent practice overall with casual partners.

Table 20 : Longitudinal Data: Consistent sexual practice with casual male partners in the six months prior to first and second interview

		<i>n</i>	%
<i>Consistent patterns</i>	No casual partners	51	13.1
	No UAIC	125	32.2
	Any UAIC	61	15.7
<i>No consistent pattern</i>		151	28.9
Total		388	100.0

Note: UAIC = Unprotected Anal Intercourse with Casual partners

There was little indication of a consistent pattern in disclosure of HIV status between casual partners, with just a small proportion consistently telling their casual partners their HIV status (Table 21) and an almost identical proportion being told their partners' HIV status (Table 22). These data suggest that where disclosure does occur between casual partners it is likely to be reciprocal.

Table 21 : Longitudinal Data: Consistent disclosure of serostatus to casual male partners in the six months prior to first and second interview

		<i>n</i>	%
<i>Consistent patterns</i>	No casual partners	51	13.1
	Told none	101	26.0
	Told any	70	18.0
<i>No consistent pattern</i>		166	42.8
Total		388	100

Table 22 : Longitudinal Data: Consistent disclosure of serostatus from casual male partners in the six months prior to first and second interview

		<i>n</i>	%
<i>Consistent patterns</i>	No casual partners	51	13.2
	Told by none	98	25.3
	Told by any	76	19.6
<i>No consistent pattern</i>		162	41.9
Total		387	100.0

Drug use

For the most part, there was little difference in the men's recreational use of drugs between 2001 and 2002, although fewer reported methamphetamine use in 2002 (Table 23). When comparing the two baseline samples 2001 ($n=450$) and 2002 ($n=453$), there was no significant difference in the use of methamphetamines, although more men interviewed for the first time in 2002 reported using other 'party drugs', than was the case among the 2001 sample ($p<0.05$). Considering these data longitudinally, a relatively large proportion of those who reported using methamphetamines in 2001 did not report such use at their second interview in 2002 ($p<0.001$).

Table 23 : Annual Data: Drug use in the six months prior to interview

Any use of:	2001 ($n=450$)		2002 ($n=846$)	
	<i>n</i>	%	<i>n</i>	%
Poppers/Amyl	273	60.8	489	57.8
Viagra	82	18.2	175	20.7
Marijuana	251	55.8	456	53.9
Ecstasy/MDMA or other forms of MDA	265	58.9	483	57.1
Methamphetamines (speed/crystal)***	178	39.6	244	28.8
Cocaine	132	29.4	217	25.7
Other 'party drugs' (Special K or Rohypnol)*	121	26.9	274	32.4

Note: Categories are not mutually exclusive.

* $p<0.05$; *** $p<0.001$

Injecting drug use was uncommon among these men in both 2001 and 2002 (Table 24).

Table 24 : Annual Data: Injecting drug use in the six months prior to interview

Drugs injected in the last 6 months	2001 ($n=450$)		2002 ($n=846$)	
	<i>n</i>	%	<i>n</i>	%
Ecstasy/MDMA or other forms of MDA	2	0.4	3	0.4
Methamphetamines(speed/crystal)	12	2.7	21	2.5
Cocaine	3	0.7	4	0.5
Heroin, other opiates or painkillers such as Demerol	0	0	4	0.5
Other 'party drugs' (Special K or Rohypnol)	1	0.2	5	0.6
Steroids	4	0.9	11	1.3
Any drug injection in the last 6 months	15	3.3	32	3.8

Note: Categories are not mutually exclusive.

In the 2001 baseline sample, eleven men injected any drugs (other than steroids) in the previous six months. Three of these men shared a needle or other equipment with someone else during that period. There were also three men who only injected steroids, none of whom shared needles or equipment.

In the 2002 sample of those interviewed for the first time in that year ($n=453$), sixteen men injected any drugs (other than steroids) in the previous six months. Five of these men shared a needle or other equipment with someone else during that period. There were also three men who only injected steroids, none of whom shared needles or equipment.

Emotional state and homophobia

We asked the men two sets of questions about their emotional state. In the first set of questions they were asked how often they felt in a particular mood during the previous four weeks. The response items (1 'never', 2 'occasionally' and 3 'often') were used to construct two scales, one measuring 'feeling good' and the other assessing 'feeling bad'. On the 'feeling good' scale most men tended to respond somewhere between 'occasionally' and 'often', and generally scored higher than they did on the 'feeling bad' scale. There was, however, little difference in how the men responded in 2001 to how they responded at their second interview in 2002 (Table 25).

The second set of questions were the six-item non-specific Distress Battery, used in the National Health Interview Survey conducted on behalf of the Centers for Disease Control in the United States in 1999 (Dickey and Blumberg, 2002). Here, the five-point Likert scale was reverse-coded, ranging from 'none of the time' (= 1) to 'all of the time' (= 5) with a higher score indicating higher levels of stress. This scale appears to correlate with our own 'feeling bad' scale. As with the other scales measuring emotional state, there was little difference in how the men responded in 2001 to how they responded at their second interview in 2002.

Table 25 : Longitudinal Data: Mean scores on experience of mood states in the four weeks prior to first and second interview (n=389)

	2001	2002
Feel happy/calm/joy/ecstatic	2.41	2.38
Feel angry/anxious/depressed/sad/desperate/suicidal	1.62	1.62
Distress Battery	1.65	1.64

Between 2001 and 2002 there was little difference in the men's experience of homophobic abuse or discrimination (Table 26), although fewer men were physically threatened or assaulted in 2002. Considering just the baseline samples, there was no significant difference in terms of physical threat or assault experienced by the men interviewed in 2001 compared with those interviewed for the first time in 2002. Self-reported verbal abuse or harassment was common in both years.

Table 26 : Annual Data: Experience of homophobic abuse/discrimination in the year prior to interview

	2001 (n=450)		2002 (n=846)	
	n	%	n	%
Verbal abuse or harassment	246	54.8	415	49.1
Any form of physical threat*	93	20.7	133	15.7
Refusal of employment or promotion	22	5.0	45	5.3
Any form of sexual assault	5	1.1	13	1.5

Note: Categories are not mutually exclusive.

* $p < 0.05$

HIV vaccine attitudes

A large number of items about attitudes toward HIV vaccines and HIV vaccine trials were included in the questionnaire. Each item was accompanied by a four-point Likert scale of 'strongly disagree' (= 1) to 'strongly agree' (= 4). Twenty-seven of the items formed four scales of HIV vaccine attitudes (Van de Ven, Bartholow, Rawstorne *et al.*, 2002). Throughout, some items were reverse-coded so that a higher score (minimum=1, maximum=4) is associated with a more positive attitude toward HIV vaccines and HIV vaccine trials.

Comfort with Participation in HIV Vaccine Trials: This scale contains eight items, for example: 'I would worry about confidentiality if participated in an HIV vaccine trial'; 'Not knowing if I receive the vaccine or the placebo would make me very uncomfortable'; and 'I worry that if I have the HIV vaccine this might pass the real virus on to me'.

Confidence in HIV Vaccines/Vaccine Trials: This scale is composed of ten items, for example: 'Everyone who receives an HIV vaccine in a trial will be immune from infection'; 'There will be an effective HIV vaccine within 5 years'; and 'I would lower my chances of getting infected with HIV if I participated in an HIV vaccine trial'.

Sexual Freedom: This third scale has six items, for example: 'Being in an HIV vaccine trial means that you don't have to be as careful about using condoms'; 'An effective vaccine will make safe sex less important'; and 'If I were in an HIV vaccine trial I would be more likely to have unprotected sex'.

Willingness to Participate in HIV Vaccine Trials: There are three items in this scale, namely: 'I would participate in an HIV vaccine trial even if I thought the vaccine might not work'; 'I want to take part in HIV vaccine trials because I think it will benefit me personally'; and 'Gay men have nothing to lose by participating in an HIV vaccine trial'.

Between 2001 and 2002 there was little change in how men responded on each of these scales.

Table 27 : Longitudinal Data: Mean scores on HIV vaccine attitude scales at the time of first and second interview (n=389)

	2001	2002
Comfort with Participation in HIV Vaccine Trials	2.73	2.74
Confidence in HIV Vaccines/Vaccine Trials	2.17	2.15
Sexual Freedom	2.14	2.16
Willingness to Participate in HIV Vaccine Trials	2.49	2.44

Summary

Key findings from the 2001–2002 Health in Men data are summarised as:

- The 2002 recruitment was largely drawn through gay community events and gay venues. This differed from the 2001 recruitment, which had a sizeable proportion from the previous SMASH study. [Table 1]
- For both 2001 and 2002, half of the sample ($n=389$) changed their relationship with men between interviews. In both years, about a third of these men were in a regular relationship with the majority in a non-monogamous relationship. [Table 3]
- For both 2001 and 2002, there were no significant changes in the total numbers of male partners, regular male partners, and casual male partners in the six months prior to interviews. [Tables 4, 5 and 6].
- In both years, about a quarter of the sample ($n=389$) reported more than ten male partners in total. [Table 7] On the other hand, a third reported one regular partner and one-in-six no regular partners. [Table 8] In terms of casual male partners, about a quarter reported more than ten partners, while one-in-eight had no casual sex during 2001 and 2002. [Table 9]
- For both 2001 and 2002, a third ($n=389$) reported having an HIV-negative primary partner at both interviews. [Table 10]
- The men enrolled in 2002 ($n=453$) self-reported less testing for Chlamydia, sexually transmitted bowel infections or genital herpes than those in 2001 ($n=450$). [Table 14]
- HIV testing in the study showed that by the end of 2002 four participants in the 2001 recruitment seroconverted giving an HIV incidence rate of 0.98 per 100 person years.
- Testing for sexually transmitted infections showed that participants in 2001 ($n=450$) had a higher prevalence of syphilis than those in 2002 ($n=453$). [Table 15]
- Slightly more men reported having a regular (primary regular or other regular or both) partner in the preceding six months in 2002 ($n=453$) than was the case in 2001 ($n=450$),

but otherwise there was little difference regarding anal intercourse or condom use with those partners. [Table 16] For both 2001 and 2002, over a third ($n=389$) reported engaging in UAI consistently with a regular partner. [Table 17]

- For both 2001 and 2002, only a quarter of the men ($n=389$) reported having agreements about safe sex both inside and outside their relationship with a primary regular partner. [Table 18]
- Of those with casual partners, for both the 2001 intake ($n=450$) and the 2002 intake ($n=453$), slightly more than one-third reported UAI in the preceding six months. [Table 19]
- For both 2001 and 2002, about a third ($n=388$) reported never engaging in UAI with a casual partner in the preceding six months and about one-in-six reported engaging in UAI consistently with a casual partner. [Table 20] Hence, whereas UAI with a regular partner was a relatively common occurrence, it was a relatively infrequent practice overall with a casual partner.
- For both 2001 and 2002, only a small proportion of the men ($n=388$) consistently told their casual partners their HIV status. [Table 21] An almost identical proportion was told their casual partners' HIV status. [Table 22] Hence, where disclosure does occur between casual partners, it is likely to be reciprocal.
- The 2001 and 2002 recruitment did not differ in terms of recreational drug use, although fewer men reported methamphetamine use and more reported using other 'party drugs' in the 2002 recruitment ($n=453$) than the 2001 recruitment ($n=450$). [Table 23]
- For both 2001 and 2002, there was little change in how men responded on the HIV vaccine attitude scales. [Table 27]

References

- Dickey, W.C., & Blumberg, S.J. (2002, May). *The six-item non-specific Distress Battery from the National Health Interview Survey (NHIS): Analysis of the 1999 NHIS*. Paper presented at the 51st Annual Conference on Mental Health Statistics.
- Mao, L., Van de Ven, P., Prestage, G., Jin, F., Grulich, A., Crawford, J., Kippax, S., Murphy, D., & Allan, B. (2002). *Health in Men: Baseline Data*. Sydney: The University of New South Wales, National Centre in HIV Social Research.
- Van de Ven, P., Bartholow, B., Rawstorne, P., Crawford, J., Kippax, S., Grulich, A., Prestage, G., Woodhouse, M., & Murphy, D. (2002). Scaling HIV vaccine attitudes among gay men in Sydney. *AIDS Research and Human Retroviruses*, 18, 1333–1337.