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# The Health in Men and Positive Health cohorts

A comparison of trends in the health and sexual behaviour of HIV-negative and HIV-positive gay men, 2002–2005

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# Executive summary

The National Centre in HIV Social Research (NCHSR) and the National Centre in HIV Epidemiology and Clinical Research (NCHECR), in partnership with representative community organisations such as the Australian Federation of AIDS Organisations (AFAO), the National Association of People Living with HIV/AIDS (NAPWA), the AIDS Council of New South Wales (ACON) and People Living with HIV/AIDS (PLWHA NSW), have established the Health in Men (HIM) study of HIV-negative gay men and the Positive Health (PH) study of HIV-positive gay men, two of the largest and longest-running cohort studies of gay men in the world.

While the research findings of each study have previously been reported separately, this joint report provides a broad overview of comparative data between the HIM and PH cohorts, drawing on information from participants of each cohort who have completed every interview in the past three rounds of data collection, from 2002 to 2005.

This report is mainly concerned with comparative trends over time among HIV-negative and HIV-positive homosexual men in participants' proximity to the HIV epidemic, physical and mental health, sexual practices, drug use and disclosure of HIV status.

## Proximity to the epidemic

Comparisons between the cohorts suggested that HIV-positive men had greater proximity to the HIV epidemic. A higher proportion of HIV-positive men than HIV-negative men knew someone who had been diagnosed with HIV or who had died due to AIDS in the 12 months prior to interview. The proportions of both HIV-positive and HIV-negative men who knew someone who had died as a result of AIDS decreased over time. This can be attributed to a decrease in AIDS-related deaths as a consequence of the efficacy of treatments.

## Physical and mental health

The self-reported level of health of the HIV-positive cohort was lower than that

of the HIV-negative cohort. However, the impact of treatments was clearly an ameliorating factor. Only a small proportion of each sample considered themselves to be consistently experiencing 'poor' or 'fair' physical health, while half of the HIM cohort and a third of the PH cohort consistently reported 'good' or 'excellent' health. The proportion of HIV-positive men on highly active antiretroviral therapy (HAART) remained stable during the research period from 2002 to 2005, and we observed a rise (from 60% to 70%) in the percentage of HIV-positive men who reported an undetectable viral load.

There are significant emotional and psychological impacts associated with living with HIV, resulting in a higher demand for mental health services amongst the HIV-positive population. While demand for mental health services decreased over time among both HIV-positive and HIV-negative men, more HIV-positive than HIV-negative men consistently sought mental health treatment over the survey period covered by this report.

## Sexual practices and safe sex

More HIV-negative men than HIV-positive men reported having a regular partner, and the percentage of HIV-positive men with a regular partner declined over time. At the same time, in each cohort, over three-quarters of the men had engaged in casual sex. Half the participants in each cohort reported having used the internet to find sex partners.

Unprotected sex in regular relationships was more prevalent for HIV-negative than HIV-positive men. However, more HIV-negative men than HIV-positive men consistently reported no unprotected sex in casual encounters.

## Drug use

The report found that the use of party drugs among HIV-negative men was similar to that of HIV-positive men and that two-thirds of each cohort used drugs to enhance sexual pleasure.

## Disclosure of HIV status

Data on disclosure were available only from the HIM study. While close to 70% of the HIV-negative men reported some disclosure of HIV status between casual partners at some point in the period of the study, the pattern of disclosure was mostly inconsistent.

## Conclusion

The findings presented in this report are intended to prompt further dialogue, discussion and research. HIV educators and policy makers might consider the implications of the following:

- The concept of static 'core' risk groups for HIV infection is not supported by data from either of the two cohorts.
- The report suggests that men move in and out of sexual spaces and behavioural patterns throughout their sexual lives, and some of these spaces and patterns place them at higher risk of HIV infection than others.
- Compared with HIV-positive gay men, HIV-negative gay men appeared less aware of the recent rise in HIV infections, suggesting that men who have been recently diagnosed with HIV/AIDS may come into more contact with other HIV-positive men.
- Treatments are having a positive effect on HIV-positive men's health. However, people living with HIV/AIDS experience a number of psychosocial stresses associated with HIV infection that result in a greater need for mental health support.
- HIV-positive and HIV-negative men reported very similar patterns of behaviour in some aspects of their lives, such as having sex with casual sex partners, the use of drugs for sex, and the use of the internet to find sex partners.

# Introduction

The National Centre in HIV Social Research (NCHSR) and the National Centre in HIV Epidemiology and Clinical Research (NCHECR) have long-established and productive partnerships with representative community organisations. Key community partners include the Australian Federation of AIDS Organisations (AFAO), the National Association of People Living with HIV/AIDS (NAPWA), the AIDS Council of New South Wales (ACON) and People Living With HIV/AIDS, New South Wales (PLWHA NSW). These partnerships have been instrumental in the establishment of the Health in Men (HIM) study of HIV-negative gay men and the Positive Health (PH) study of HIV-positive men, two of the largest and longest-running cohort studies of gay men in the world (Mao et al., 2002; Fogarty et al., 2003). These studies have been instrumental in keeping track of the HIV/AIDS epidemic in Australia.

Over the years, the NCHECR annual surveillance report has been tracking new and existent HIV/AIDS cases in every state of Australia and nationally (National Centre in HIV Epidemiology and Clinical Research, 2005), and the NCHSR annual report of behaviour has been providing information on sexual and other HIV/AIDS-related behaviours (Rawstorne et al., 2005). The purpose of this joint HIM–PH report is to explore how the lives and behaviours of HIV-negative and HIV-positive men change over time, and to point to future directions for research, health promotion and HIV education.

Previously, the HIM and PH studies reported research findings separately (for the latest HIM report see Prestage et al., 2003; for the latest PH report see Fogarty et al., 2003). This joint report will focus on participants in both cohorts who have taken part in all three of the most recent rounds of data collection, in order to describe patterns of and compare trends in health and sexual behaviour of HIV-negative and HIV-positive men over time.

## The Health in Men study

In 2001 the Health in Men (HIM) study, an open cohort of HIV-negative homosexually active men in Sydney, was established by the two national research centres and various community organisations mentioned above (Prestage et al., 2003). The HIM study received funding from the Australian Government Department of Health and Ageing, the NSW Department of Health, and the US National Institutes of Health (NIH). From January 2006 the project has been funded for a further 18 months by the National Health and Medical Research Council (NHMRC).

Since 2001 the HIM study has interviewed participants (face to face once a year, and via telephone every six months) about their:

- sexuality and sexual identity
- sexual relationships and sexual practices with men
- health and related behaviours
- reasons for testing for HIV and other sexually transmissible infections
- involvement with gay community
- contact with the HIV epidemic
- knowledge of and attitudes towards new prevention strategies and treatments for HIV/AIDS
- substance use
- experiences of discrimination.

HIV testing is provided for every participant in the cohort when they sign up, and at each annual follow-up interview. Testing for other sexually transmissible infections (STIs) is optional.

## The Positive Health study

In 1999 the two national research centres, in collaboration with the above-mentioned community organisations, began the Positive Health (PH) study, an open cohort study of men and women living

with HIV/AIDS. After 2003 the focus of the study shifted to homosexually active men only (Prestage et al., 2001a, 2001b) and the survey of HIV-positive heterosexuals became a separate study called the Straightpoz study. The PH study focuses on the lived experience of gay men living with HIV/AIDS. It is funded by the Australian Government Department of Health and Ageing, and NSW Health.

During annual interviews conducted by peer interviewers, participants respond to a broad range of questions concerning:

- the use of antiretroviral treatments
- the monitoring of clinical markers
- decisions regarding health
- access to and use of services
- a range of sexual practices.

Optional testing for a range of sexually transmissible infections was introduced in 2005 and is offered to participants at the annual interview. There have been five complete rounds of data collection, with the sixth currently under way. This report focuses on data from only the past three rounds of the survey.

# Methods

The HIM and PH studies were designed so that a range of similar topics were covered in both studies and key results collected from one cohort could be compared with the results of the other. These topics—including community connectedness, contact with the HIV epidemic, physical and mental well-being, sexual relationships and practices with men, and substance use—will be discussed in this report.

The samples of both studies include men who were interviewed in all of the three most recent rounds of data collection. The HIM cohort started in 2001 and recruited 1427 men over the four-year period; 302 (21.1%) of these men took part in all three of the most recent rounds of data collection. The PH cohort started enrolling participants in 1999 and collected data three times between 2002 and 2005. During that time 738 participants were interviewed, of which 211 (28.6%) participated in all three rounds of data collection. In this report we compare the

responses of these 302 HIM and 211 PH participants.

First we present the results from each study in parallel (HIM study results are reported in the left-hand column of each page and PH study results in the right-hand column), and report key indicators at each round of annual interviews. To describe the general trends in behaviours over time, we report two sets of indicators: (1) *consistency* of reporting a behaviour over time, and (2) observed changes in each behaviour over time, including the proportions of those who reported having adopted a particular behaviour and those who reported having stopped it. To test the trend over time, non-parametric repeated-measure analyses were applied; a *p* value of less than 0.05 was regarded as statistically significant. Throughout the report, total numbers vary due to missing data.

Finally, we summarise the similarities and differences of the findings from both cohorts.

# Demographics

The participants who had taken part in all three most recent rounds of data collection were 302 men from the total sample of 1427 in the HIM study, and 211 men from the total of 738 in the PH study.

The men selected from the HIM study were significantly older and had a higher level of weekly income than the rest of the HIM cohort, although there were no differences between these men and the rest of the HIM cohort in the level of

education they had attained nor in their engagement in gay community social networks.

At the time of interview, the men selected from the PH study had a higher average annual income and were more likely to have reported a university education than the rest of the PH cohort. However, there was no difference between these men and the rest of the PH cohort in age and ethnicity.

# Main findings

## 1 Contact with the HIV epidemic

Health in Men

Positive Health

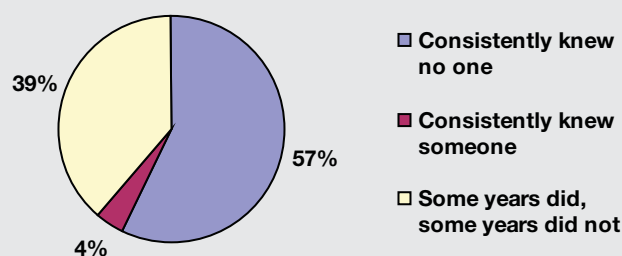
### Knowing someone who had been diagnosed with HIV

At each round of data collection, just over 20% of the HIV-negative men reported knowing someone who had been diagnosed HIV-positive in the previous 12 months, and this proportion was stable over time (see Table 1.1a).

**Table 1.1a** Knowing someone who had been diagnosed HIV-positive in the previous 12 months: HIM cohort, 2002–2005

	2003	2004	2005
Knew no one	231 (76.5%)	237 (78.5%)	233 (77.2%)
Knew someone	71 (23.5%)	65 (21.5%)	69 (22.8%)
Total	302 (100%)	302 (100%)	302 (100%)

Only 4% of the HIV-negative men reported *consistently* (every year) having known someone diagnosed with HIV in the previous 12 months (see Figure 1.1a). Slightly over 40% of respondents reported having known someone at any time, and over 50% reported that they had not known anyone with a new HIV diagnosis during the survey period.



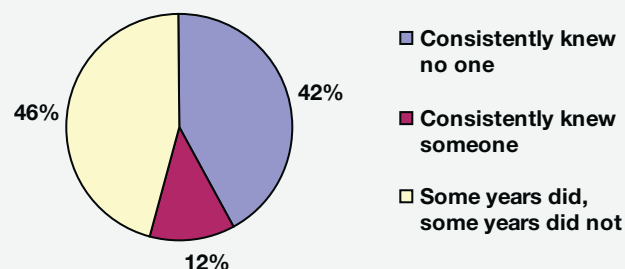
**Figure 1.1a** Consistency in knowing someone who had been diagnosed HIV-positive in the 12 months prior to interview: HIM cohort, 2002–2005

At each round of data collection, between 28% and 40% of the HIV-positive respondents reported knowing someone who had been diagnosed with HIV in the previous 12 months, and this proportion significantly increased over time (test for trend,  $p < .01$ ) (see Table 1.1b).

**Table 1.1b** Knowing someone who had been diagnosed HIV-positive in the previous 12 months: PH cohort, 2002–2005

	2002–2003	2004	2005
Knew no one	147 (71.7%)	125 (59.2%)	135 (64.3%)
Knew someone	58 (28.3%)	86 (40.8%)	75 (35.7%)
Total	205 (100%)	211 (100%)	210 (100%)

About 12% of the HIV-positive men reported *consistently* (every year) having known someone who had been diagnosed with HIV in the previous 12 months (see Figure 1.1b), 58% reported having known someone at any time, and slightly over 40% consistently reported that they did not know anyone who had been diagnosed with HIV in the previous year.



**Figure 1.1b** Consistency in knowing someone who had been diagnosed HIV-positive in the 12 months prior to interview: PH cohort, 2002–2005

### Knowing someone who had recently died due to AIDS

Table 1.2a shows that, at each round of data collection, fewer than 20% of the HIV-negative men reported having known someone who had died due to AIDS in the previous 12 months, and that this proportion significantly decreased over time (18.5% to 17.5% to 12.3%,  $p = 0.022$ ).

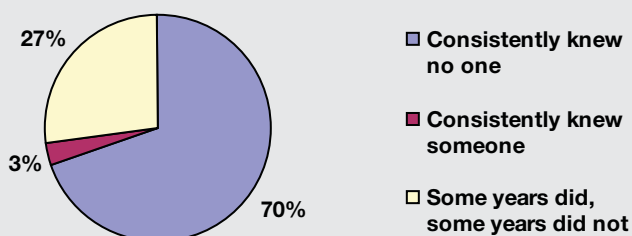
Table 1.2b shows that, at each round of data collection, around 30% to 40% of the HIV-positive men reported having known someone who had died due to AIDS in the previous 12 months, and that this proportion significantly decreased over time (39.5% to 37.4% to 29.0%,  $p < 0.01$ ).

### Health in Men

**Table 1.2a** Number of HIM participants who had known someone who had died due to AIDS in the previous 12 months

	2003	2004	2005
Knew no one	246 (81.5%)	249 (82.5%)	265 (87.7%)
Knew someone	56 (18.5%)	53 (17.5%)	7 (12.3%)
Total	302 (100%)	302 (100%)	302 (100%)

Over the three rounds of data collection, 70% of the HIV-negative men consistently reported that they had known no one who had died in the previous 12 months as a result of AIDS (Figure 1.2a). About 30% of the men reported having at some point during this time known someone who had died, and 3% reported at every interview having known someone who had died.



**Figure 1.2a** Consistency in reporting having known someone who had died due to AIDS in the previous 12 months: HIM cohort, 2002–2005

### Changing patterns over time

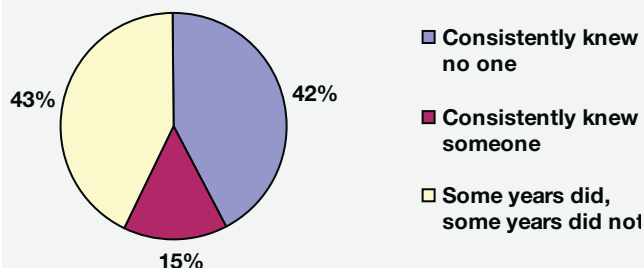
Over the three rounds of data collection, 21 HIV-negative men (7.0%) moved from 'knew no one' to 'knew someone', whereas 40 (13.2%) moved from 'knew someone' to 'knew no one', who recently died as a result of AIDS. A comparison of these figures suggests that AIDS-related deaths became less visible in the HIV-negative gay community, particularly among men who had already known someone who had died as a result of AIDS.

### Positive Health

**Table 1.2b** Number of PH participants who had known someone who had died due to AIDS in the previous 12 months

	2002–2003	2004	2005
Knew no one	127 (60.5%)	132 (62.6%)	149 (71.0%)
Knew someone	83 (39.5%)	79 (37.4%)	61 (29.0%)
Total	210 (100%)	211 (100%)	210 (100%)

Over the three rounds of data collection, 42% of the HIV-positive men consistently reported that they had known no one who had died in the previous 12 months as a result of AIDS (see Figure 1.2b). The remaining 58% reported having known at least one person who had died due to AIDS during this time, and 15% reported every year having known someone who had died in the previous 12 months.



**Figure 1.2b** Consistency in reporting having known someone who had died due to AIDS in the previous 12 months: PH cohort, 2002–2005

### Changing patterns over time

Over the three rounds of data collection, 21 HIV-positive men (10.0%) moved from 'knew no one' to 'knew someone', and 44 (20.9%) moved from 'knew someone' to 'knew no one', who had recently died as a result of AIDS. As was the case among HIV-negative men, learning of someone's AIDS-related death had become a rare event for HIV-positive men, especially among those who had heard of these deaths before.

Health in Men

Positive Health

## Summary

Our findings suggest that some men were in an environment where they regularly heard of someone who had been diagnosed with HIV or died as a result of AIDS in the previous 12 months; in other words, they had a stable connection with the HIV/AIDS epidemic. This was particularly true of men in the HIV-positive cohort and may have been due to their participation in activities for people living with HIV/AIDS. In both cohorts, knowledge of recent AIDS deaths decreased over time, and this finding may be attributed to the continuing success of HIV treatment.

Among HIV-positive men there was a significant upward trend in the number who knew someone who had been diagnosed with HIV in the previous 12 months ( $p < .01$ ). Among HIV-negative men awareness of new HIV diagnoses was stable over time. The fact that there were different trends for HIV-negative and HIV-positive men in their knowledge of new HIV diagnoses raises a number of important questions about the disclosure patterns of those who were diagnosed with HIV. Their fear of stigma may have forced them to disclose first to the HIV-positive community, rather than to their HIV-negative gay friends.

## 2 Physical and mental well-being

### Health in Men

### Positive Health

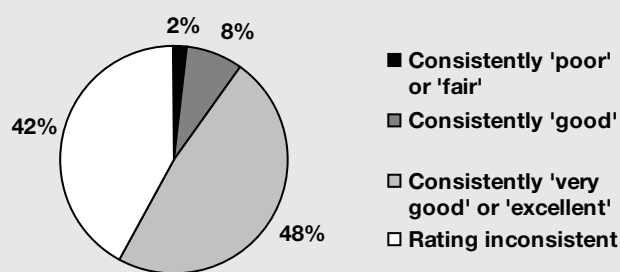
#### Self-rated general health

At each round of data collection, between 6% and 8% of the HIV-negative men rated their general health as 'poor' or 'fair', a quarter rated it as 'good', and two-thirds rated it as 'very good' or 'excellent' (see Table 2.1a).

**Table 2.1a Self-rated general health in the previous 12 months: HIM cohort, 2002–2005**

	2003	2004	2005
Poor or Fair	25 (8.3%)	26 (8.6%)	19 (6.3%)
Good	79 (26.2%)	86 (28.5%)	84 (27.8%)
Very good or Excellent	198 (65.6%)	190 (62.9%)	199 (65.9%)
Total	302 (100%)	302 (100%)	302 (100%)

As shown in Figure 2.1a, over the three rounds of data collection, 2% of the HIV-negative study participants consistently rated their own health as 'poor' or 'fair', and close to half consistently rated it as 'very good' or 'excellent'.



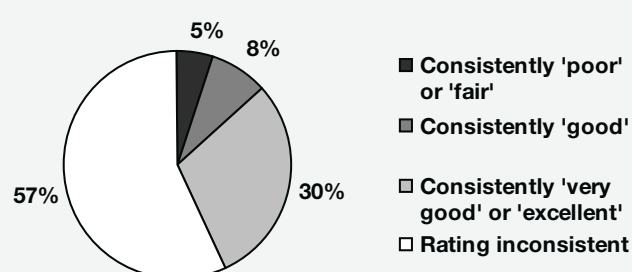
**Figure 2.1a** How HIV-negative participants rated their general health in the 12 months prior to interview: HIM cohort, 2002–2005

At each round of data collection, between 16% and 19% of the HIV-positive men rated their general health as 'poor' or 'fair', about a third considered themselves to be in 'good' health, and about half rated their health as 'very good' or 'excellent' (see Table 2.1b).

**Table 2.1b Self-rated general health in the previous 12 months: PH cohort, 2002–2005**

	2002–2003	2004	2005
Poor or Fair	39 (19.0%)	39 (18.6%)	34 (16.3%)
Good	63 (30.7%)	71 (33.8%)	62 (29.8%)
Very good or Excellent	103 (50.2%)	100 (47.6%)	112 (53.8%)
Total	205 (100%)	210 (100%)	208 (100%)

As shown in Figure 2.1b, over the three rounds of data collection, 5% of the HIV-positive study participants consistently rated their health as 'poor' or 'fair', 8% consistently considered themselves to be in 'good' health, and 30% consistently rated their health as 'very good' or 'excellent'.



**Figure 2.1b** How HIV-positive participants rated their general health in the 12 months prior to interview: PH cohort, 2002–2005

#### General feelings and emotions

Note: In both studies, how often participants had felt positive emotions in the previous four weeks was assessed using the 'feeling good' score. Participants were asked how often they had experienced four emotions: calmness, joy, ecstasy, and happiness. In the HIM study, participants chose their answer from 'never', 'occasionally' and 'often'. PH study participants had an extra category to choose from: 'never', 'occasionally', 'often' and 'all the time'.

Because positive emotions were assessed differently in the PH and HIM studies, we do not present the data in tables.

### Health in Men

At each round of data collection, the majority of the HIV-negative men (72.5% to 74.2%) reported having experienced at least some of these positive emotions 'often' in the previous four weeks. Over the survey period, over half (53.0%) consistently reported having experienced these emotions 'often'. A minority (8.3%) consistently reported having 'never' or 'occasionally' experienced these positive emotions at some time during the survey period.

### Positive Health

At each round of data collection, the majority of the HIV-positive participants (73.5% to 80.1%) reported having experienced some of the positive emotions 'often' or 'all of the time' in the previous four weeks. Over the survey period, the majority (58.8%) consistently experienced feeling good 'often' or 'all of the time', and a minority (8.5%) consistently reported 'never' or 'occasionally' feeling good.

## Indicators of non-specific psychological distress

Note: The K6 distress scale is used as a general indicator of non-specific psychological distress (Kessler et al., 2002). It is composed of six items: 'nervousness', 'sadness', 'restlessness', 'hopelessness', 'worthlessness' and 'finding everything an effort'. Participants are asked to rate how often they experienced these feelings in the four weeks prior to interview ('none of the time', 'a little of the time', 'some of the time', 'most of the time', or 'all of the time'). Each item is scored from 0 to 4 and the six items are summed to create a total score from 0 to 24. A score of 13 or above indicates a need for referral to mental health services (e.g. counselling).

At each round of data collection, during the four weeks prior to interview, around 1% of the HIV-negative study participants had reached the level of psychological distress that required referral. Over the survey period, nine men (3.0%) had needed referral at some point because of their high distress scores.

Over the three rounds of data collection, in the HIV-positive cohort, only one person consistently scored at or above the referral point for psychological distress. In total, 27 (12.8%) of the participants had scores at some point that indicated a need for referral.

### Summary

**Only 2% of the HIV-negative and 5% of the HIV-positive men considered themselves to be in 'poor' or 'fair' physical health over the three rounds of data collection. Slightly more HIV-positive men than HIV-negative men reported being in less than good health at some point during this time. Similarly, psychological distress was generally a rare event, but it was reported more often by HIV-positive than HIV-negative men, and the former more often qualified for referral to mental health services.**

HIV-positive men's concerns about their physical and psychological distress can be attributed to HIV-related symptoms. This deserves special attention, and referrals for these men to specialised health and psychological/psychiatric services may be required. While the data on the self-rated health of HIV-positive men suggest that treatments are having a beneficial impact, it is also important to consider that the HIV-positive men's definitions of 'poor' or 'good' health may be different from those of the HIV-negative men.

## Seeking medical treatment or counselling for mental health problems

At each round of data collection, fewer than 20% of the HIV-negative men had sought medical treatment or counselling in the previous 12 months for mental health problems (including anxiety and depression), but no significant trends were observed over time (see Table 2.2a).

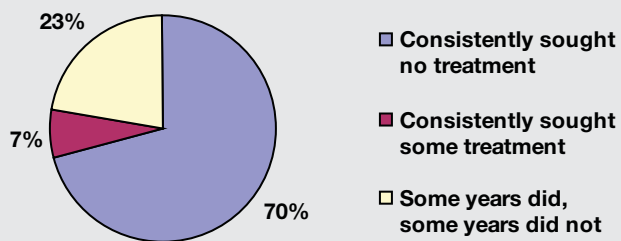
At some point during the survey period, between 30% and 40% of HIV-positive men had sought medical treatment or counselling for mental health problems, and this proportion decreased significantly over time ( $p = .034$ ) (see Table 2.2b).

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**Table 2.2a** Number of HIM participants who sought medical treatment or counselling for mental health problems in the previous 12 months

	2003	2004	2005
Sought no services	244 (80.8%)	248 (82.1%)	257 (85.1%)
Sought some services	58 (19.2%)	54 (17.9%)	45 (14.9%)
Total	302 (100%)	302 (100%)	302 (100%)

As shown in Figure 2.2a, over the three rounds of data collection, 7% of the HIV-negative men had consistently accessed medical treatment or counselling services for mental health problems. At some time during this period, about 30% had accessed medical treatment or counselling for this reason. More importantly, seven out of the nine men whose K6 distress score had reached the referral point had had some medical treatment or counselling at some time.



**Figure 2.2a** Consistency in seeking medical treatments or counselling for mental health problems in the 12 months prior to interview: HIM cohort, 2002-2005

Changing patterns over time

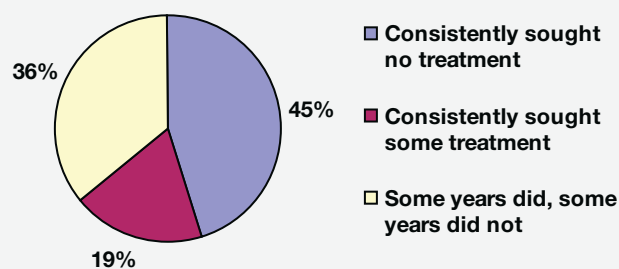
Over the three rounds of data collection, 17 HIV-negative men (5.6%) went from accessing no medical treatments nor counselling services for mental health problems to accessing some, whereas 30 men (9.9%) went from accessing some medical treatments or counselling services to accessing none. This indicates that demand for services tended to decrease rather than increase over time, especially among those who had previously used these services.

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**Table 2.2b** Number of PH participants who sought medical treatment or counselling for mental health problems in the previous 12 months

	2002-2003	2004	2005
Sought no services	129 (61.1%)	129 (61.1%)	145 (68.7%)
Sought some services	82 (38.9%)	82 (38.9%)	66 (31.3%)
Total	211 (100%)	211 (100%)	211 (100%)

Figure 2.2b shows that almost 20% of the HIV-positive men had consistently reported seeking mental health services. Additionally, 55% had accessed some medical treatment or counselling services for mental health problems at some time during the survey period. Of the 27 men whose K6 distress scores had reached referral point, 25 (92.6%) had sought treatment or counselling at some point, which shows an awareness of the existence of such services.



**Figure 2.2b** Consistency in seeking medical treatments or counselling for mental health problems in the 12 months prior to interview: PH cohort, 2002-2005

Changing patterns over time

Over the three rounds of data collection, 19 HIV-positive men (9.0%) went from accessing no medical treatments nor counselling services to accessing some, and 35 men (16.5%) stopped accessing services. These changes over time indicate a decreasing demand for medical treatment and counselling for mental health problems among the PH cohort.

## Health in Men

## Positive Health

## Seeking doctors or other health professionals who were gay-identified

In the HIM study, participants were asked whether, in the 12 months prior to interview, they had ever sought doctors or other health professionals who were gay-identified.

Over the three rounds of data collection, 189 men (62.6%) had sought gay-identified doctors every year. The majority (85.1%) had sought gay-identified doctors at some time during the survey period.

A similar majority (84.8%) had actively sought access to other gay-identified health professionals at some time over the three rounds of data collection. A somewhat smaller but still considerable proportion of men ( $n = 135$ , 44.7%) had consistently sought access to other gay-identified health professionals over the survey period.

The consistently high proportion of gay men seeking doctors or other health professionals who were gay-identified indicates the importance of such services to the gay community. A lack of gay-identified health professionals, especially doctors, or barriers to accessing their services, may prevent gay men from using health services effectively.

Note: There were no matching data in the PH study to indicate whether or not participants had sought doctors or other health professionals who were gay-identified.

### Summary

While very few participants required referral to mental health services as indicated by Kessler's K6 distress score, each year more than a third of the HIV-positive and close to a fifth of the HIV-negative respondents had sought medical or counselling services for mental health problems in the previous 12 months. This discrepancy reflects the fact that, while people may not have been experiencing clinically indicated mental health issues (as measured by the Kessler scale) in the month preceding their interview, they might have experienced events in the previous year that required some degree of emotional support and use of services. It is worth noting that HIV-positive gay men qualified for, and sought, specialised services more often than their HIV-negative counterparts, reflecting the fact that HIV-positive people have special needs.

## Clinical markers for HIV

Note: There are no data from the HIM study regarding clinical markers for HIV.

Health professionals recommend that people living with HIV/AIDS monitor clinical markers such as viral load and CD4/T-cell count. The viral load test is a blood test, usually performed every three to six months, that measures the number of HIV-1 RNA copies present in 1 ml of plasma. An 'undetectable' viral load refers to a number that is below the threshold of detection, which in Australia is currently set at 50 copies per 1 ml of plasma.

Table 2.3 shows that, at every round of data collection, over half of the HIV-positive participants reported having an undetectable viral load and we observed a significant increase in this proportion over time ( $p = .001$ ).

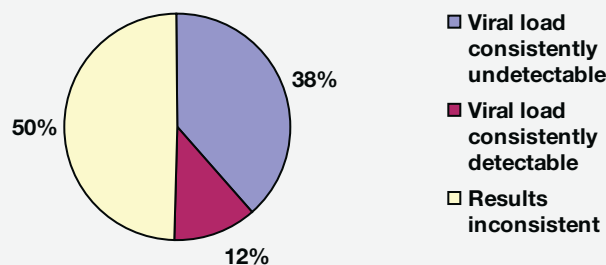
Health in Men

Positive Health

**Table 2.3 Result of most recent viral load test: PH cohort, 2002–2005**

Viral load	2002–2003	2004	2005
Undetectable	115 (58.1%)	136 (67.0%)	142 (71.4%)
Detectable	83 (41.9%)	67 (33.0%)	57 (28.6%)
Total	198 (100%)	203 (100%)	199 (100%)

Only a minority of respondents (12%) reported having a detectable viral load at every interview (Figure 2.3). Almost 40% reported having an undetectable level at every round, and 50% reported an inconsistent viral load. Of this 50%, 22 men (10.4%) had increased viral load over time, 49 men (23.6%) had decreased viral load over time and 13 men (6.1%) had fluctuating viral loads. Twenty-one men (9.9%) either did not know their viral load or failed to provide data at every interview.



**Figure 2.3 Consistency of the most recent viral load test result: PH cohort, 2002–2005**

The CD4/T-cell count is also a blood test and measures the number of CD4/T-cells in 1 ml of blood. It is used to measure immune system functioning, and a decrease in the count is considered to be a marker of the progression of infection.

At every round of data collection, the distribution of most recent CD4/T-cell counts varied widely (see Table 2.4), but we observed a decrease in very low CD4/T-cell counts (under 200 copies per 1 ml). Annually, more than three-quarters of the participants reported at least 350 copies of CD4/T-cells per 1 ml of blood.

## Health in Men

## Positive Health

**Table 2.4 Result of most recent CD4/T-cell count: PH cohort, 2002–2005**

CD4/T-cell count	2002–2003	2004	2005
0–200	19 (9.8%)	14 (7.0%)	7 (3.6%)
201–350	29 (14.9%)	41 (20.5%)	42 (21.5%)
351–500	43 (22.2%)	48 (24.0%)	52 (26.7%)
501–750	61 (31.4%)	53 (26.5%)	55 (28.2%)
750+	42 (21.6%)	44 (22.0%)	39 (20.0%)
Total	194 (100%)	200 (100%)	195 (100%)

**Changes in CD4/T-cell count over time**

Among the HIV-positive men, 15 men (7.1%) reported an increased CD4/T-cell count, 79 men (37.4%) reported a decreased CD4/T-cell count, 57 men (27.0%) supplied insufficient data to track changes and the remainder had consistent results over time. These figures indicate that, despite a substantial decrease in CD4/T cell counts over time, only a small proportion of the men had clinically low CD4/T-cell counts (less than 200 copies per 1 ml of blood) while a large proportion maintained stable test results or had counts above 500 copies per 1 ml of blood.

As shown in Table 2.5, the high proportion of participants who reported an undetectable viral load was consistent with the high proportion who were taking antiretroviral therapy at the time of interview. At each round of data collection, around 60% of respondents were on combination therapy (i.e. three or more antiretrovirals), a further 8% to 17% reported mono- or duo-therapy and around 20% to 30% were not on treatment.

**Antiretroviral treatment****Table 2.5 Uptake of antiretroviral treatment: PH cohort, 2002–2005**

	2002–2003	2004	2005
None	62 (29.4%)	56 (26.5%)	44 (20.9%)
Mono-/duo-therapy	17 (8.1%)	28 (13.3%)	36 (17.1%)
HAART*	132 (62.6%)	127 (60.2%)	131 (62.1%)
Total	211 (100%)	211 (100%)	211 (100%)

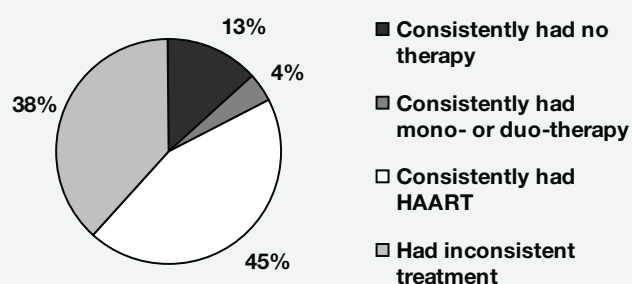
\* HAART = highly active antiretroviral therapy

Figure 2.5 shows that almost half of the HIV-positive men (49%) were consistently on some form of treatment during the survey period. Almost 15% of respondents consistently reported taking no treatments at the time

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of interview and may have not been on treatments for a variety of reasons; e.g. they were currently healthy (perhaps from having treatment in the past), or had stopped treatment due to side effects, or as a result of clinical management decisions, or for lifestyle reasons or concerns about the drugs (El-Sadr & Neaton, 2006).



\*HAART = highly active antiretroviral therapy

Figure 2.5 Consistency in antiretroviral treatment uptake: PH cohort, 2002–2005

Only a small proportion of respondents reported having had an HIV/AIDS-related illness in the 12 months prior to interview in 2004 or 2005 (see Table 2.6). This is consistent with the relatively small number of participants who reported having had CD4/T-cell counts of less than 200 or who had had detectable viral loads.

Table 2.6 HIV/AIDS-related illness: PH cohort, 2002–2005

	2004	2005
No illness	183 (86.7%)	184 (87.2%)
Some illnesses	28 (13.3%)	27 (12.8%)
Total	211 (100%)	211 (100%)

Summary

Over the three rounds of data collection among the PH cohort of HIV-positive men, there was a trend in increasing CD4/T-cell counts and a growing proportion of men with undetectable viral loads. These successes are a reflection of the high proportion of respondents who were taking antiretroviral therapy. Almost 15% of respondents consistently reported not taking any treatments at the time of the interview; however, these men may have been following medical guidelines suggesting that treatment be delayed until their CD4 count fell below 350.

### 3 Relationships with men and sexual practices

#### Health in Men

#### Positive Health

#### Relationships with regular partners

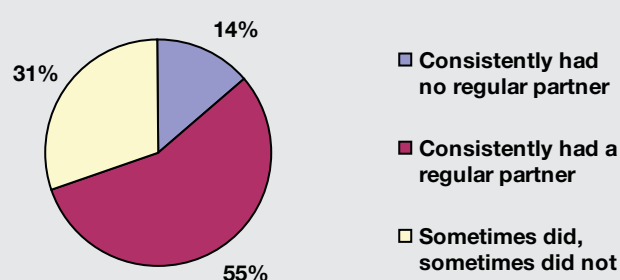
Note: In this section the 'PH cohort' refers only to those HIV-positive participants who completed the optional sexual behaviour booklet ( $N = 168$ ). References to the HIM cohort are references to the whole group.

The proportion of HIV-negative men in a regular relationship was stable at around 70% (see Table 3.1a).

**Table 3.1a Relationships with regular partners in the previous six months: HIM cohort, 2002–2005**

	2003	2004	2005
No regular partner	83 (27.5%)	86 (28.5%)	93 (30.8%)
Had a regular partner	219 (72.5%)	216 (71.5%)	209 (69.2%)
Total	302 (100%)	302 (100%)	302 (100%)

As shown in Figure 3.1a, over half ( $n = 168$ , 55.6%) of the HIV-negative men consistently reported having a regular partner at some point in the six months prior to interview, and 14% consistently reported having no regular partner.



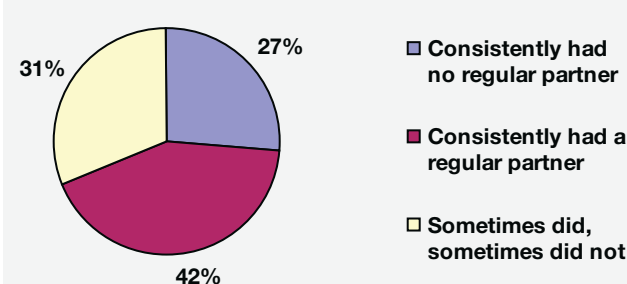
**Figure 3.1a Consistency in having a regular partner in the six months prior to interview: HIM cohort, 2002–2005**

More than half the HIV-positive participants (53% to 64.9%) reported having a regular partner at some point in the six months prior to interview, although the proportion of men in a regular relationship declined over time (see Table 3.1b).

**Table 3.1b Relationships with regular partners in the previous six months: PH cohort, 2002–2005**

	2002–2003	2004	2005
No regular partner	59 (35.1%)	69 (41.1%)	79 (47.0%)
Had a regular partner	109 (64.9%)	99 (58.9%)	89 (53.0%)
Total	168 (100%)	168 (100%)	168 (100%)

As shown in Figure 3.1b, just over 40% of the HIV-positive men consistently reported having a regular partner at some point in the six months prior to interview and a quarter consistently reported having no regular partner during this period.



**Figure 3.1b Consistency in having a regular partner in the six months prior to interview: PH cohort, 2002–2005**

#### Relationships with casual partners

Table 3.2a shows that, at each round of data collection, over three-quarters of the HIV-negative respondents reported having had a casual partner in the six months prior to interview. There were no significant trends over time.

Table 3.2b shows that, at each round of data collection, between 75% and 82% of the HIV-positive respondents reported having had a casual partner in the previous six months. There were no significant trends over time.

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Table 3.2a Relationships with casual partners in the previous six months: HIM cohort, 2002–2005

	2003	2004	2005
No casual partners	62 (20.5%)	68 (22.5%)	71 (23.5%)
One or more casual partners	240 (79.5%)	234 (77.5%)	231 (76.5%)
Total	302 (100%)	302 (100%)	302 (100%)

As shown in Figure 3.2a, over the three rounds of data collection, about two-thirds of the HIV-negative participants (63.6%) consistently reported having had a casual partner and 10% reported having had no casual partners.

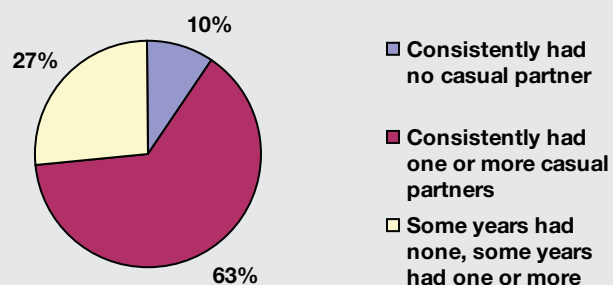


Figure 3.2a Consistency of relationships with casual partners in the six months prior to interview: HIM cohort, 2002–2005

At each round of data collection, around a fifth of the HIV-negative men reported having only a regular partner, at least for some time in the six months prior to interview. Similarly, a quarter had had only casual partners, and around half had had both regular and casual partners.

Over the three rounds of data collection, nearly a third of the men (29.8%) consistently reported having had both regular and casual partners, and about a tenth consistently reported having had either regular partners only (8.9%) or casual partners only (11.3%).

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Table 3.2b Relationships with casual partners in the previous six months: PH cohort, 2002–2005

	2002–2003	2004	2005
No casual partners	30 (17.9%)	35 (20.8%)	42 (25.0%)
One or more casual partners	240 (79.5%)	133 (79.2%)	126 (75.0%)
Total	168 (100%)	168 (100%)	168 (100%)

Figure 3.2b shows that, over the three rounds of data collection, about two-thirds of the HIV-positive participants (64%) consistently reported having had a casual partner and 10% consistently reported having had no casual partners.

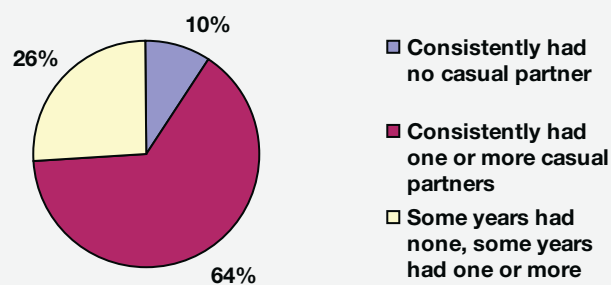


Figure 3.2b Consistency of relationships with casual partners in the six months prior to interview: PH cohort, 2002–2005

At each round of data collection, and at some point in the six months prior to interview, 14% to 16% of the HIV-positive men reported having a regular partner, 31% to 38% had had one or more casual partners, and 37% to 50% had had both a regular partner and casual partners. However, the proportion who reported having had both casual and regular partners decreased significantly over time ( $p = .001$ ).

Over the three rounds of data collection, about a quarter (25.6%) of the men consistently reported having had both regular and casual partners, 5.4% of the men consistently reported having had regular partners only and 19.6% consistently reported having had casual partners only.

Summary

A higher proportion of HIV-negative than HIV-positive gay men reported having had regular partners, while the proportion of HIV-positive men who had regular partners decreased significantly over time. However, there was no obvious difference between HIV-positive and HIV-negative men in their having had casual partners in the six months prior to interview. This proportion remained remarkably similar and stable over time.

## Health in Men

## Positive Health

## Anal sex and condom use with regular partners

At every round of data collection, around 50% of the HIV-negative men had had some unprotected anal intercourse with regular partners (UAIR) in the six months prior to interview (see Tables 3.3.1a and 3.3.2a).

**Table 3.3.1a Anal intercourse and condom use with regular partners in the previous six months: HIM cohort, 2002–2005**

	2003	2004	2005
No regular partner	83 (27.5%)	86 (28.5%)	93 (30.8%)
No anal intercourse	15 (5.0%)	14 (4.6%)	19 (6.3%)
Protected anal intercourse only	44 (14.6%)	48 (15.9%)	37 (12.3%)
Any unprotected anal intercourse	160 (53.0%)	154 (51.0%)	153 (50.7%)
Total	302 (100%)	302 (100%)	302 (100%)

**Table 3.3.2a Condom use with regular partners in the previous six months: HIM cohort, 2002–2005**

	2003	2004	2005
No unprotected anal intercourse	142 (47.0%)	148 (49.0%)	149 (49.3%)
Some unprotected anal intercourse	160 (53.0%)	154 (51.0%)	153 (50.7%)
Total	302 (100%)	302 (100%)	302 (100%)

As shown in Figure 3.3a, over the three rounds of data collection, about a third (32.5%) of the HIV-negative men had consistently had no UAIR (including the 13.9% who consistently reported having had no regular partner in the six months prior to interview). Over two-thirds (67.6%) of the men had had some UAIR at some time over the survey period and over a third (35.8%) had *consistently* had some UAIR.

At every round of data collection, over a quarter of the HIV-positive respondents (26.8% to 32.7%) reported having had unprotected anal intercourse with regular partners (UAIR) in the six months prior to interview (see Tables 3.3.1b and 3.3.2b).

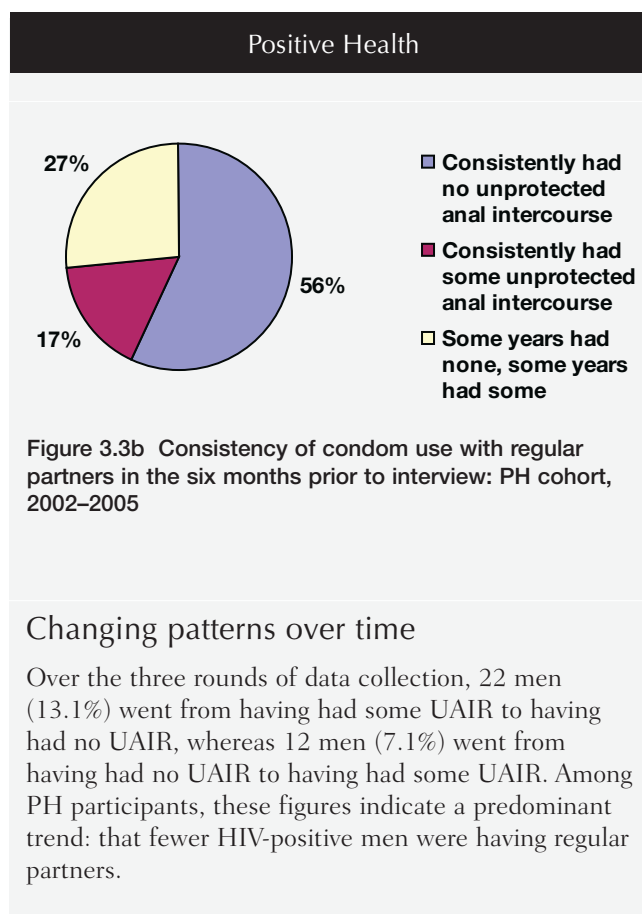
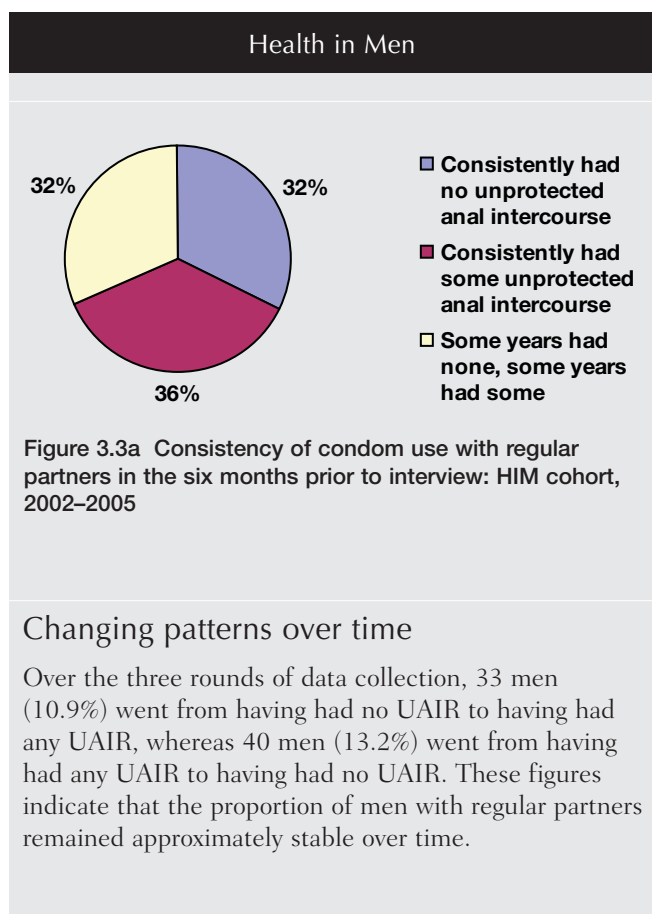
**Table 3.3.1b Anal intercourse and condom use with regular partners in the previous six months: PH cohort, 2002–2005**

	2002–2003	2004	2005
No regular partner	65 (38.7%)	74 (44.0%)	79 (47.0%)
No anal intercourse	14 (8.3%)	9 (5.4%)	7 (4.2%)
Protected anal intercourse only	34 (20.2%)	38 (22.6%)	37 (22.0%)
Any unprotected anal intercourse	55 (32.7%)	47 (28.0%)	45 (26.8%)
Total	168 (100%)	168 (100%)	168 (100%)

**Table 3.3.2b Condom use with regular partners in the previous six months: PH cohort, 2002–2005**

	2002–2003	2004	2005
No unprotected anal intercourse	113 (67.3%)	121 (72.0%)	123 (73.2%)
Some unprotected anal intercourse	55 (32.7%)	47 (28.0%)	45 (26.8%)
Total	168 (100%)	168 (100%)	168 (100%)

As shown in Figure 3.3b, over half of the HIV-positive men (56%) consistently reported having had no UAIR in the six months prior to interview (including the 28.6% who consistently reported no regular partners during this time). At some time during the survey period, 44% of the men had had UAIR, with 17% consistently reporting 'some UAIR'.



## Anal sex and condom use with casual partners

At every round of data collection, over a quarter of the HIV-negative men had had some unprotected anal intercourse with casual partners (UAIC) in the six months prior to interview (see Tables 3.4.1a and 3.4.2a).

**Table 3.4.1a** Anal intercourse and condom use with casual partners in the previous six months: HIM cohort, 2002–2005

	2003	2004	2005
No casual partners	62 (20.5%)	68 (22.5%)	71 (23.5%)
No anal intercourse	40 (13.2%)	36 (11.9%)	40 (13.2%)
Protected anal intercourse only	115 (38.1%)	116 (38.4%)	109 (36.1%)
Any unprotected anal intercourse	85 (28.1%)	82 (27.2%)	82 (27.2%)
<b>Total</b>	<b>302 (100%)</b>	<b>302 (100%)</b>	<b>302 (100%)</b>

At every round of data collection, between 40% and 50% of HIV-positive respondents had had some unprotected anal intercourse with casual partners (UAIC) in the six months prior to interview (Tables 3.4.1b and 3.4.2b).

**Table 3.4.1b** Anal intercourse and condom use with casual partners in the previous six months: PH cohort, 2002–2005

	2002–2003	2004	2005
No casual partners	34 (20.2%)	36 (21.4%)	44 (26.2%)
No anal intercourse	15 (8.9%)	18 (10.7%)	10 (6.0%)
Protected anal intercourse only	35 (20.8%)	44 (26.2%)	34 (20.2%)
Any unprotected anal intercourse	84 (50.0%)	70 (41.7%)	80 (47.6%)
<b>Total</b>	<b>168 (100%)</b>	<b>168 (100%)</b>	<b>168 (100%)</b>

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Table 3.4.2a Unprotected intercourse with casual partners in the previous six months: HIM cohort, 2002–2005

	2003	2004	2005
No unprotected anal intercourse	217 (71.9%)	220 (72.8%)	220 (72.8%)
Some unprotected anal intercourse	85 (28.1%)	82 (27.2%)	82 (27.2%)
Total	302 (100%)	302 (100%)	302 (100%)

As shown in Figure 3.4a, over the three rounds of data collection, more than half (52.6%) of all HIV-negative men consistently reported having had no unprotected anal intercourse with casual partners (UAIC); this included the 9.6% who consistently reported having had no casual partners in the six months prior to interview. Another 11.6% had consistently had some UAIC. Nearly half the men (47.4%) had had some UAIC at some time during the survey period.

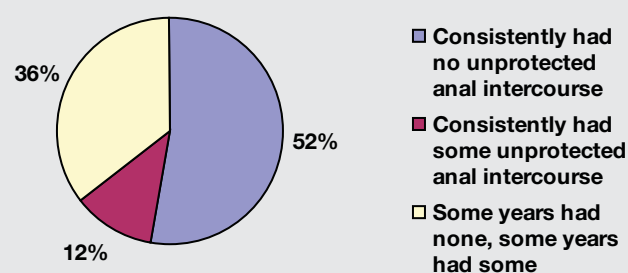


Figure 3.4a Consistency in reporting of unprotected anal intercourse with casual partners in the six months prior to interview: HIM cohort, 2002–2005

The proportion of HIV-negative men who had had some UAIC at some time during the survey period (47.4%) was much lower than that of men who had had some UAIR during the same time (67.6%).

## Changing patterns over time

Over the three rounds of data collection, 37 HIV-negative men (12.3%) went from having had no UAIC to having had any UAIC, whereas 40 (13.2%) went from having had any UAIC to having had no UAIC. These figures indicate that a significant majority of HIV-negative men maintained safe sex behaviour by using condoms in casual sex encounters, and that there was no tendency among HIV-negative gay men to change this behaviour.

## Positive Health

Table 3.4.2b Unprotected intercourse with casual partners in the previous six months: PH cohort, 2002–2005

	2002–2003	2004	2005
No unprotected anal intercourse	84 (50.0%)	98 (58.3%)	88 (52.4%)
Some unprotected anal intercourse	84 (50.0%)	70 (41.7%)	80 (47.6%)
Total	168 (100%)	168 (100%)	168 (100%)

As shown in Figure 3.4b, over the three rounds of data collection, more than a third of all HIV-positive men (35%) consistently reported having had no unprotected anal intercourse with casual partners (UAIC); this included the 9.5% who consistently reported having had no casual partners in the six months prior to interview. Another 29% had consistently had some UAIC and about 65% had had some UAIC at some time during the survey period.

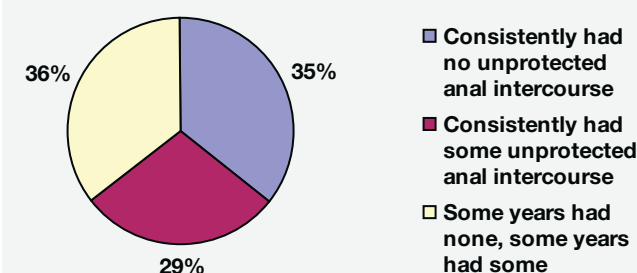


Figure 3.4b Consistency in reporting of unprotected anal intercourse with casual partners in the six months prior to interview: PH cohort, 2002–2005

A higher proportion of HIV-positive respondents reported having had UAIC (65%) than UAIR (44%) at some time during the survey period. This may reflect the general tendency of HIV-positive men to have more casual than regular partners and the high prevalence of positive–positive sex during casual encounters.

## Changing patterns over time

Over the three rounds of data collection, 19 HIV-positive men (11.3%) went from having had no UAIC to having had any UAIC, whereas 23 (13.7%) went from having had any UAIC to having had no UAIC. As was the case among HIV-negative men, a majority of the HIV-positive participants maintained safe sex behaviour by using condoms in casual sex encounters.

## Health in Men

## Positive Health

## Summary

We observed that more than a half of all HIV-negative men had unprotected sex with regular partners, and a much smaller proportion of HIV-positive men did so. The reverse was true for sex with casual partners; more HIV-positive than HIV-negative men reported having unprotected sex with casual partners.

## Number of casual partners

At each round of data collection, around 80% of the HIV-negative men reported having had some casual partners in the six months prior to interview (see Table 3.5a) and around 40% had had 10 or more.

**Table 3.5a** Number of casual partners in the previous six months: HIM cohort, 2002–2005

	2003	2004	2005
None	62 (20.5%)	68 (22.5%)	71 (23.5%)
1–9	105 (34.8%)	103 (34.1%)	113 (37.4%)
10 or more	135 (44.7%)	131 (43.4%)	118 (39.1%)
Total	302 (100%)	302 (100%)	302 (100%)

Over the three rounds of data collection, about 15% of the HIV-negative men consistently reported having had between one and nine casual partners in the six months prior to interview. About a quarter (25.5%) had consistently had 10 or more casual partners in this time.

### Changing patterns over time

Over the three rounds of data collection, 20 HIV-negative men (6.6%) went from having had no casual partners or no more than 10 casual partners to having had 10 or more casual partners, whereas 22 (7.3%) went from having had 10 or more casual partners to having had no casual partners or no more than 10 casual partners. These figures indicate no significant tendency to have more or fewer partners among HIV-negative men.

At each round of data collection, between 70% and 80% of the HIV-positive men reported having had some casual partners in the six months prior to interview (see Table 3.5b), around 40% had had 10 or more and about a third had had fewer than 10.

**Table 3.5b** Number of casual partners in the previous six months: PH cohort, 2002–2005

	2002–2003	2004	2005
None	36 (21.4%)	39 (23.2%)	45 (26.8%)
1–9	51 (30.4%)	57 (33.9%)	57 (33.9%)
10 or more	81 (48.2%)	72 (42.9%)	66 (39.3%)
Total	168 (100%)	168 (100%)	168 (100%)

Over the three rounds of data collection, 12% of the HIV-positive men consistently reported having had between one and nine casual partners in the six months prior to interview, and 23% had consistently had 10 or more casual partners in this time.

### Changing patterns over time

Over the three rounds of data collection, 19 HIV-positive men (11%) went from having had no casual partners or no more than 10 casual partners to having had 10 or more casual partners, while 34 (20.2%) went from having 10 or more casual partners to no casual partners or no more than 10 casual partners. Although twice as many men reported an increase in the number of casual partners over time as reported fewer casual partners, the numbers are too small to indicate a trend towards having more casual partners.

## Summary

There was no difference between HIV-positive and HIV-negative men in the number of casual partners they had had in the six months prior to interview

## Health in Men

## Positive Health

## Seeking sex partners on the internet

At every round of data collection, approximately half of the HIV-negative participants reported having used the internet to seek male sex partners in the 12 months prior to interview, and close to one in five reported having 'often' used the internet to look for sex partners (see Tables 3.6.1a and 3.6.2a).

**Table 3.6.1a How frequently HIM participants sought male sex partners on the internet in the previous 12 months**

	2003	2004	2005
Never	165 (54.6%)	152 (50.3%)	153 (50.7%)
Occasionally	84 (27.8%)	92 (30.5%)	93 (30.8%)
Often	53 (17.5%)	58 (19.2%)	56 (18.5%)
Total	302 (100%)	302 (100%)	302 (100%)

**Table 3.6.2a Use of the internet to seek male sex partners by HIM participants in the previous 12 months**

	2003	2004	2005
Never	165 (54.6%)	152 (50.3%)	153 (50.7%)
At least sometimes	137 (45.4%)	150 (49.7%)	149 (49.3%)
Total	302 (100%)	302 (100%)	302 (100%)

Over the three rounds of data collection, about two-thirds (64.2%) of the HIV-negative men reported having used the internet to seek partners at some time in the 12 months prior to interview, including the 32% who had consistently used the internet to find sex partners. Another third (35.8%) had never used the internet for this purpose (see Figure 3.6a).

Note: A question about using the internet to look for sex partners was included in an optional booklet on sexual behaviour in the latest two rounds of the PH study. Only 168 men responded to this question in each round.

At every round of data collection, just under half of the HIV-positive men who responded to this question reported having used the internet to search for male sex partners in the 12 months prior to interview. About 15% to 19% reported that they 'often' used the internet to look for sex partners (see Tables 3.6.1b and 3.6.2b).

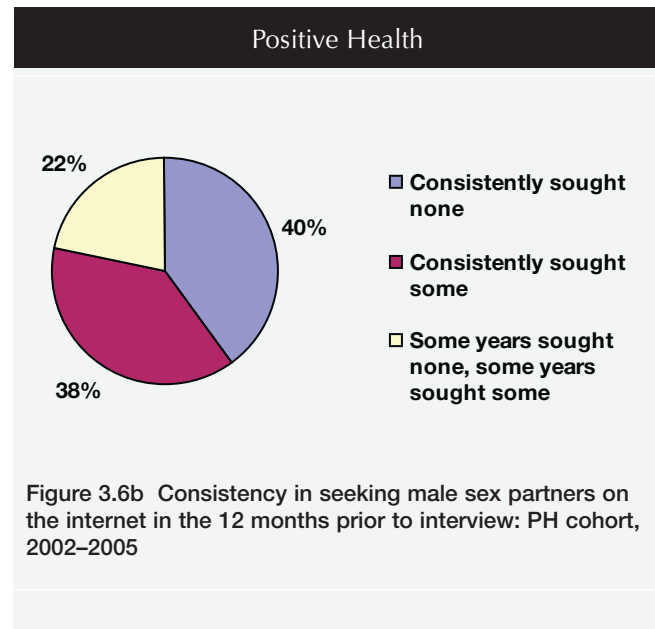
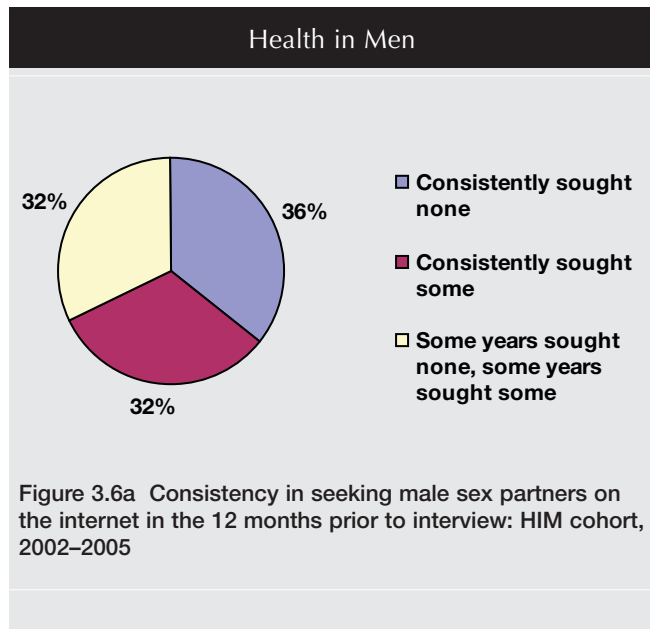
**Table 3.6.1b How frequently PH participants sought male sex partners on the internet in the previous 12 months**

	2004	2005
Never	87 (52.1%)	84 (50.3%)
Occasionally	54 (32.3%)	51 (30.5%)
Often	26 (15.6%)	32 (19.2%)
Total	167 (100%)	167 (100%)

**Table 3.6.2b Use of the internet to seek male sex partners by PH participants in the previous 12 months**

	2004	2005
Never	87 (52.1%)	84 (50.3%)
At least sometimes	80 (47.9%)	83 (49.7%)
Total	167 (100%)	167 (100%)

Over the three rounds of data collection, just under two-thirds (60%) of the HIV-positive participants reported having used the internet to look for sex partners at some time in the 12 months prior to interview, including the 38% who had consistently used the internet for this purpose. About 40% had never done so (see Figure 3.6b).



### Summary

Both HIV-negative and HIV-positive gay men frequently used the internet to look for sex partners. About half of the participants in each cohort reported having done so.

## 4 Drug use

### Health in Men

### Positive Health

#### Use of party drugs

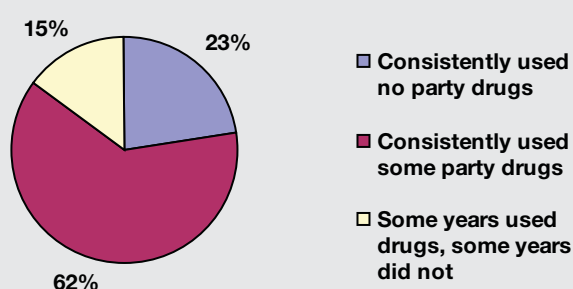
Note: In the HIM study, HIV-negative participants were asked about their use of each of the following nine drugs: amyl, cocaine, speed, methamphetamines (including crystal), other amphetamines/uppers, ecstasy or other forms of MDA, psychedelics (including LSD), downers, and other party drugs (including Special K and rohypnol). Amyl was included as it is known to be often used in conjunction with other party drugs. The results are summarised in the table below.

Table 4.1a shows that, at every round of data collection, about 70% of the HIV-negative men reported having used at least one party drug in the six months prior to interview.

**Table 4.1a** HIM participants' use of party drugs in the previous six months

	2003	2004	2005
Used no drugs	88 (29.1%)	89 (29.5%)	94 (31.1%)
Used some drugs	214 (70.9%)	213 (70.5%)	208 (68.9%)
Total	302 (100%)	302 (100%)	302 (100%)

As shown in Figure 4.1a, over the three rounds of data collection, nearly a quarter (22.8%) of the HIV-negative men had never used any of the party drugs. Over three-quarters (77.2%) had used at least one of the party drugs at some time during the survey period and 62% were consistent users.



**Figure 4.1a** Consistency in having used party drugs in the six months prior to interview: HIM cohort, 2002–2005

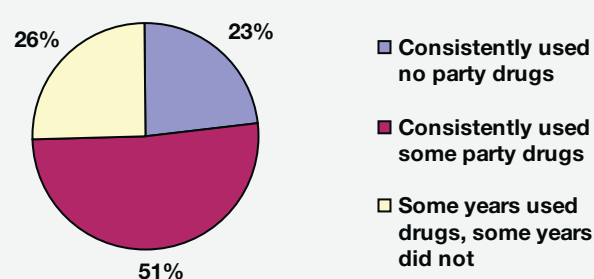
Note: In the PH study, HIV-positive participants were asked about their use of each of the following ten drugs: amyl, cocaine, speed, crystal methamphetamine, other amphetamines, ecstasy, MDA, LSD, special K (ketamine) and ethyl. The results are summarised in the table below.

Table 4.1b shows, at every round of data collection, the proportion of HIV-positive respondents who reported using at least one party drug in the six months prior to interview. At every round, about two-thirds of the respondents (61.6% to 67.8%) reported having used some party drugs.

**Table 4.1b** PH participants' use of party drugs in the previous six months

	2002–2003	2004	2005
Used no drugs	68 (32.2%)	77 (36.5%)	81 (38.4%)
Used some drugs	143 (67.8%)	134 (64.5%)	130 (61.6%)
Total	211 (100%)	211 (100%)	211 (100%)

Figure 4.1b shows that, over the three rounds of data collection, a quarter of HIV-positive respondents had never used party drugs. Over three-quarters (77%) had used at least one of the party drugs at some time during the survey period and about half (51%) had consistently used at least one of the party drugs.



**Figure 4.1b** Consistency in having used party drugs in six months prior to interview: PH cohort, 2002–2005

## Health in Men

## Changing patterns over time

Over the three rounds of data collection, 15 HIV-negative men (5.0%) went from being non-users to being users, whereas 21 (7.0%) went from being users to being non-users. These figures indicate that there is no overall change over time in the proportion of HIM participants using party drugs.

## Positive Health

## Changing patterns over time

Over the three rounds of data collection, 14 HIV-positive men (6.6%) went from being non-users to being users, and 27 (12.8%) went from being users to being non-users. Although the proportion of HIV-positive men who stopped using drugs was higher than the proportion who started, the numbers are small and do not represent any tendency among the PH cohort to reduce their use of party drugs.

## Use of party drugs to enhance sexual pleasure

Note: The HIM study questionnaire asked HIV-negative men about their use of drugs known to enhance sexual pleasure. These were divided into three categories: amyl, Viagra, and/or other drugs. Data collected about any use of these drugs is presented in the table below.

At each round of data collection, about 50% of the HIV-negative cohort reported having used party drugs to enhance sexual pleasure in casual encounters (see Table 4.2a).

**Table 4.2a HIM participants' use of drugs to enhance sexual pleasure with casual partners in the previous six months**

	2003	2004	2005
Used no drugs	142 (47.0%)	148 (49.0%)	154 (51.0%)
Used some drugs	160 (53.0%)	154 (51.0%)	148 (49.0%)
Total	302 (100%)	302 (100%)	302 (100%)

Over the three rounds of data collection, as shown in Figure 4.2a, nearly a third (31.5%) of all HIV-negative men had not used any of the substances; this included the 9.6% who consistently reported having had no casual partners in the six months prior to interview. However, over two-thirds (68.5%) had used substances to enhance sexual pleasure with casual partners at some time during the survey period.

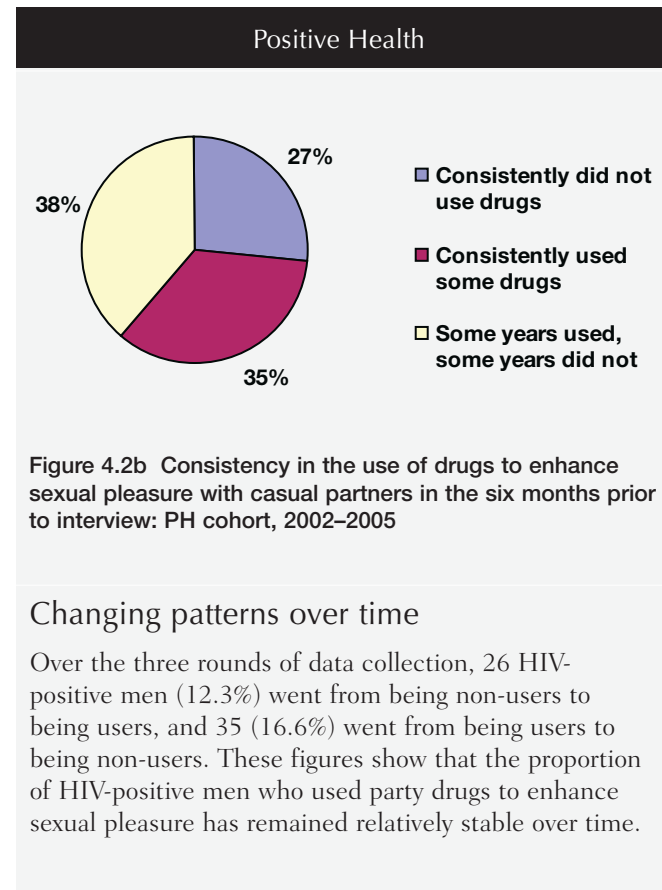
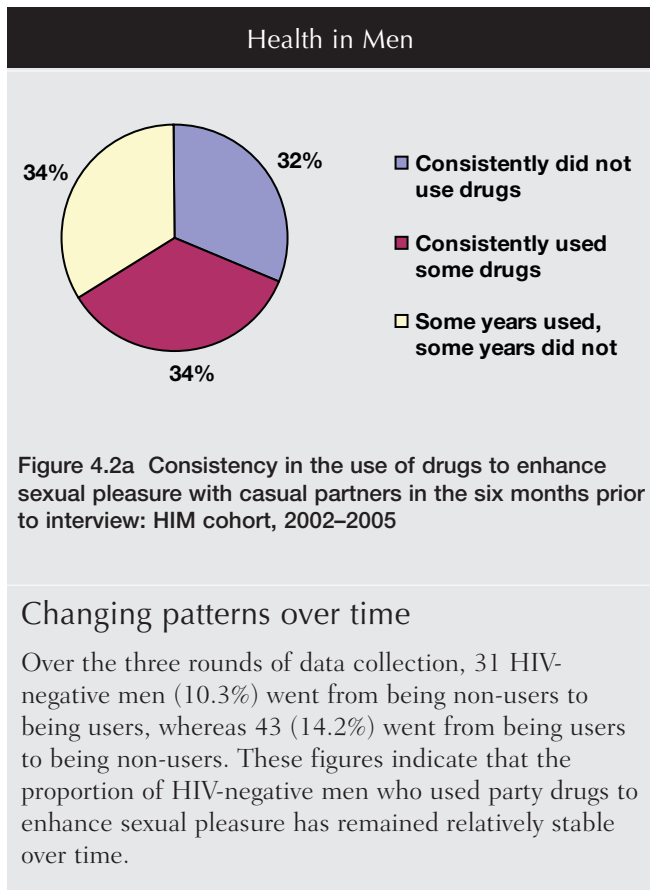
Note: The PH study questionnaire asked HIV-positive men about their use of drugs known to enhance sexual pleasure. These were divided into four categories: amyl, Viagra, crystal, and other recreational drugs. Data collected about any use of these drugs is presented in the table below.

At each round of data collection, just over 50% of the HIV-positive respondents reported having used party drugs to enhance sexual pleasure with casual partners (see Table 4.2b).

**Table 4.2b PH participants' use of drugs to enhance sexual pleasure with casual partners in the previous six months**

	2002–2003	2004	2005
Used no drugs	92 (43.6%)	96 (45.5%)	101 (47.9%)
Used some drugs	119 (56.4%)	115 (54.5%)	110 (52.1%)
Total	211 (100%)	211 (100%)	211 (100%)

Over the three rounds of data collection, as shown in Figure 4.2b, roughly a quarter of the HIV-positive men consistently did not use drugs with casual partners; this included the 9.5% who consistently reported having had no casual partners in the six months prior to interview. Approximately 35% consistently used drugs to enhance sexual pleasure over the survey period.



## Summary

In both the HIM and PH cohorts, the proportion of participants who used drugs was similar, and a high proportion of both HIV-negative and HIV-positive gay men, about one in three, consistently used drugs to enhance sexual pleasure during sex with casual partners.

## 5 Disclosure of HIV serostatus in the context of casual sex

### Health in Men

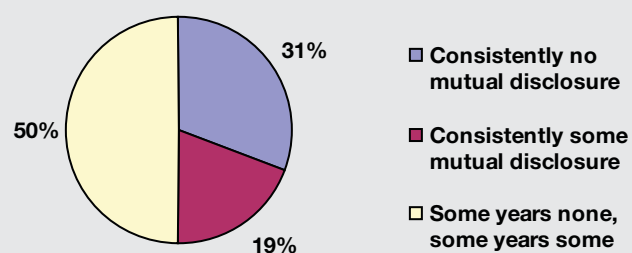
Every year, over 40% of the HIV-negative men either disclosed their HIV status, or were disclosed to, in casual encounters (Table 5.1).

**Table 5.1 Disclosure of HIV status between casual partners in the previous six months: HIM cohort, 2002–2005\***

	2003	2004	2005
No disclosure	178 (58.9%)	173 (57.3%)	163 (54.0%)
Some disclosure	124 (41.1%)	129 (42.7%)	139 (46.0%)
Total	302 (100%)	302 (100%)	302 (100%)

\*The participants either 'told' casual partners their own HIV status or were 'told' by their casual partners of the casual partners' HIV status.

Over the three rounds of data collection, as shown in Figure 5.1, about a fifth (19.2%) of the HIV-negative men had consistently either disclosed their HIV status to casual partners, or had had their casual partners' HIV status disclosed to them. About a third (30.8%) had consistently not disclosed nor been disclosed to, including the 9.6% who consistently reported having had no casual partners in the six months prior to interview. Over two-thirds (69.2%) had either disclosed to casual partners, or been disclosed to by casual partners, at some time during the survey period.



**Figure 5.1 Consistency in the disclosure of HIV status between casual partners in the six months prior to interview: HIM cohort, 2002–2005**

Over the three rounds of data collection, 61 HIV-negative men (20.2%) went from never disclosing their HIV status to casual partners, nor being disclosed to by casual partners, to sometimes disclosing or being disclosed to in casual encounters. Over the same period, 46 (15.2%) went from sometimes disclosing their HIV status or being disclosed to, to never disclosing nor being disclosed to. A comparison of these figures indicates that, while some men stopped discussing their

### Positive Health

Questions related to disclosure of HIV status to, and by, casual partners were introduced to the PH study only in 2004. Because there are no data from 2002/03 and there are anomalies in the way the data were collected in 2004, it was felt that the available figures for PH were not reliably comparable to the HIM data. As such, data on disclosure to casual partners by HIV-positive men in the PH cohort, and to the PH participants by their casual partners, are not presented here. These data will be explored in future publications.

### Health in Men

HIV status with their casual sex partners, there was a general tendency to disclose HIV status more often.

#### Summary

During the survey period, about a third of the HIV-negative respondents consistently had not disclosed their HIV status to casual partners nor had they been disclosed to by casual partners, and half of the men who reported disclosure did so inconsistently. In every round of data collection, one in five men reported that they had consistently disclosed their HIV status, or were disclosed to, in the context of casual sex.

### Positive Health

# Discussion

The findings of this joint HIM–PH report point to the ways in which serostatus has an impact on the social and sexual interactions of gay men.

Unsurprisingly, HIV-positive men were more likely than HIV-negative men to know of recent infections and deaths from HIV. Between 2002 and 2005 there was an increase in the number of HIV-positive men who knew someone who had been diagnosed with HIV in the 12 months prior to interview. Over the same period the number of people HIV-negative men knew who had been diagnosed with HIV or died due to AIDS in the 12 months prior to interview had not increased. This differential raises questions about HIV-negative men's contact with the epidemic and whether or not HIV-positive men are disclosing their serostatus at a time of increased rates of HIV infection.

Both HIV-positive and HIV-negative men reported having known fewer people who had died due to AIDS, which can be attributed to the impact of treatments on the life expectancy and quality of life of HIV-positive men. It is clear that taking up treatments has had a beneficial impact on the health of HIV-positive men.

Only 2% of the HIV-negative and 5% of the HIV-positive men consistently considered themselves to be in poor or fair physical health over the study period. Half of the HIV-negative cohort consistently reported themselves to be in very good or excellent health over this time, compared with a third of the HIV-positive cohort. However, given HIV-positive men's proximity to illness, it is possible that their conceptions of what is meant by each of the health categories may be different from those of HIV-negative men.

The report points to a greater need for mental health services for HIV-positive men. In any given year, between 4% and 7% of the HIV-positive men qualified for referral to mental health services, compared with 1% of the HIV-negative men. Almost one in five of the HIV-positive men (19%) consistently sought mental health treatment over the period of the study, compared with 7% of the HIV-negative men.

Over the three rounds of data collection, the percentage of HIV-positive men with an undetectable viral load rose from almost 60% to over 70%, while the proportion of men on highly active antiretroviral therapy was stable. Over this time, half of the HIV-positive cohort was consistently on treatments. Between 2002 and 2005, 15% of HIV-positive respondents had never taken up treatments, although this may have largely been a reflection of medical guidelines stating that men should not initiate treatment while their CD4 counts remained high.

The proportion of men who reported having had casual partners, and the number of casual partners they had had, was very similar in both cohorts. However, when it came to regular relationships there was a difference between the two cohorts. More HIV-negative men were in regular relationships than HIV-positive men, and the proportion of HIV-positive men with a regular partner had declined over the study period from 65% to 53%.

This observation confirms the findings of other studies that becoming HIV-positive has effects on sexual behaviour and the formation of partnerships (Elford, 2006). Among others, the following factors may explain these effects: the changing sexual expectations of the men themselves, following their acquisition of HIV and the progression of their infection; an increased likelihood of experiencing sexual rejection, which may lead to a shift in strategies for choosing partners and forming relationships (e.g. 'serosorting', that is, engaging in sex or other risk behaviour with those who are of similar serostatus); the fact that current treatments increase life expectancy and improve quality of life; and changing perceptions of HIV in the broader gay community.

Condom use in regular relationships was relatively stable among HIV-negative men. At every round of data collection, approximately half of the HIV-negative cohort reported having had some unprotected anal sex in a regular relationship. The number of HIV-positive men who reported some unprotected

anal sex in a regular relationship fell from 33% to 27% over the same period. Over half of the HIV-positive cohort consistently reported having had no unprotected anal sex with a regular partner over the survey period, compared with a third of the HIV-negative cohort. This figure included men who did not have a partner or did not practise anal intercourse.

While more HIV-negative than HIV-positive men reported having had unprotected sex in the context of a regular relationship, the trend was reversed in casual relationships. At every round of data collection, just under half of the HIV-positive cohort reported having had some unprotected anal intercourse with casual partners in the 12 months prior to interview, compared with a quarter of the HIV-negative cohort, and this high proportion of UAIC among HIV-positive men can at least in part be attributed to positive-positive serosorting.

Data on disclosure were available only from the HIM study, and they suggest that disclosure of serostatus in the context of casual sex remains low amongst HIV-negative men. While close to 70% of the men reported some

disclosure of HIV status between casual partners at some point in the study period, the pattern of disclosure was mostly inconsistent.

The study found that HIV-positive and HIV-negative men frequently used the internet to find sex partners; every year about half the participants in each cohort reported having found sex partners in this way.

The analysis of drug use found a similar prevalence in the use of party drugs among the men in both cohorts. HIV-positive and HIV-negative men were also similar in their use of drugs to enhance sexual pleasure with casual partners, with two-thirds of each cohort reporting having used some drugs for sex in the survey period.

In conclusion, this HIM-PH joint report identifies important trends in the behaviours and understandings of both HIV-positive and HIV-negative men that require further exploration. The data suggest that most men move in and out of different social and sexual spaces and patterns throughout their lives. Research into the predictors and determinants of these trends may assist efforts in HIV prevention, education and support.

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