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THE AUSTRALIAN STUDY OF HEALTH AND RELATIONSHIPS: RESULTS FOR CENTRAL SYDNEY, INNER-EASTERN SYDNEY, AND NEW SOUTH WALES

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Since the late 1980s there has been renewed international interest in sexual health, corresponding with the advent and spread of human immunodeficiency virus (HIV) and acquired immunodeficiency syndrone (AIDS). Many countries have conducted national surveys of sexual health risk factors and behaviours, to collect reliable information about sexual behaviour to predict and control the spread of HIV–AIDS. The largest nation-wide surveys of representative samples were conducted in Britain (1990 and again in 2000), in France (1991–92), and in the United States (1992).¹⁻⁴

These surveys have generated considerable new knowledge. They also highlighted a high degree of commonality in different countries regarding some behaviours and attitudes (for example, frequency of sex and attitudes towards sex before marriage) but also some important differences (for example, use of sex workers, acceptability of homosexual activity, and attitudes towards abortion).⁵ While causality cannot be directly inferred,

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some insights into the variation in spread of HIV in Britain and the USA were linked to better access to, and use of, sexual health clinics in Britain.²

In Australia, a number of surveys and cohort studies have been conducted with homosexually-active men. 6.7 While comprehensive in their scope and focus, these studies relied on self-selected participants with unknown generalisability to the broader community. Recognising the limitations of such data, funding was sought and obtained from the National Health and Medical Research Council to conduct a national telephone sample survey of sexual health behaviours and attitudes among the general population. Two pilot studies were conducted in 1999 and 2000, and following these the main data collection was conducted in 2001–2002.

In April 2003, the results of the Australian Study of Health and Relationships, the largest and most comprehensive survey of sexuality ever undertaken in this country, were published in the *Australian and New Zealand Journal of Public Health*.^{8–28} These results described the frequencies of the main indicators covered by the survey, analysed by major demographic characteristics. In only a few cases were the data presented by state or territory.

Local variation in sexual behaviours is well established, with certain sexual practices (such as unprotected

penetrative sex) being associated with a corresponding increase in sexually transmissible infections (STIs). The HIV–AIDS surveillance reports published in the *NSW Public Health Bulletin* routinely identify the South Eastern Sydney and Central Sydney Area Health Services as having the highest and second highest rates of HIV infection in New South Wales.

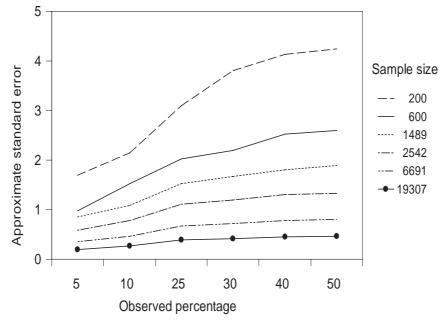
This article describes local and state results of the study, to enable comparison with the national results.

METHOD

As the methods for the national study have been extensively described elsewhere, they are briefly described here. A modified random-digit-dialling methodology was used to recruit a sample for a computer assisted telephone interview (CATI), a procedure similar to that used by the NSW Health Survey. Where randomly-generated phone numbers matched a number listed in the electronic White Pages (43.5 per cent of numbers matched), an advance letter was sent to that household advising of the study and the impending phone contact. Up to 11 calls were made to each household, including up to six calls to make contact with the household, and a further five to complete the interview. Female interviewers conducted all interviews, although a male interviewer was available on request (no-one requested this).



APPROXIMATE STANDARD ERRORS FOR OBSERVED PERCENTAGES IN SUB-SAMPLES OF DIFFERENT SIZES FROM THE AUSTRALIAN STUDY OF HEALTH AND RELATIONSHIPS



The pilot studies indicated that most of our resources were spent interviewing people who had had only one sexual partner in the previous year—often their husband or wife and no homosexual experience. By restricting the amount of information gathered from these people who are at lower risk of HIV and STIs, we were able to gather more information from respondents whose behaviour may be more risky. All respondents provided demographic data and a brief sexual history. From these data, it was possible to identify respondents who reported more than one partner in the year prior to being interviewed and respondents who reported homosexual experience. All of these respondents completed a long form interview, as did a randomly-selected sample of 20 per cent of people with one partner in the previous year and no homosexual experience. The remaining 80 per cent of people with one partner in the previous year and no homosexual experience completed a short form of the questionnaire.

The data weighting procedure, described in detail elsewhere, 9 as well as specific details provided by statistical consultants, 30 took into consideration

differences in selection, such as multiple phone lines, number of persons in the household, type of questionnaire completed and age, sex and locality variations from the 2001 Australian population. The time saved by this procedure was used to conduct more interviews. Increasing the sample size enriched the sample by producing a greater number of interviews with people who engage in less common and/or more risky behaviours. This approach was similar to that used in the French Analyse des Comportements Sexuels en France (ACSF).³

Results are reported for men and women living within the geographical area of the Central Sydney Area Health Service, men living in the inner-eastern suburbs of Sydney (defined by the five postcodes 2010, 2011, 2016, 2021 and 2026), and for men and women in the rest of NSW. All data were weighted for probability of selection of the respondent, and to the age and sex of the NSW population in 2001. Data were collected between May 2001 and June 2002. Limited space precludes detailed analyses of each variable and only the major variables are reported here. Figure 1 displays approximate standard errors for

TABLE 1

AGREEMENT WITH SEXUAL ATTITUDE STATEMENTS FOR MEN, NSW (*N*=1485), CENTRAL SYDNEY (*N*=262), AND INNER-EASTERN SYDNEY (*N*=570)

Attitude statement		Agree (%)	Neither (%)	Disagree (%
Films these days are too sexually explicit	NSW	21.0	8.1	70.9
	Central Sydney	22.7	13.6	63.7
	IE Sydney	18.5	11.2	70.3
Sex before marriage is acceptable	NSW	82.7	3.2	14.1
	Central Sydney	79.0	4.5	16.5
	IE Sydney	92.7	3.1	4.2
If two people had oral sex, but not intercourse,				
you would still consider that they had had sex together	NSW	70.7	5.3	24.0
	Central Sydney	72.6	11.7	15.7
	IE Sydney	76.8	4.1	19.1
An active sex life is important for your sense of well-being	NSW	89.0	3.5	7.5
	Central Sydney	84.2	6.8	9.0
	IE Sydney	87.1	5.2	7.7
Abortion is always wrong	NSW	21.3	10.4	68.3
	Central Sydney	16.8	8.2	75.0
	IE Sydney	10.0	6.9	83.1
Having an affair when in a committed relationship is				
always wrong	NSW	78.2	4.8	17.0
	Central Sydney	67.6	5.5	26.9
	IE Sydney	64.6	9.3	26.1
Sex tends to get better the longer you know someone	NSW	67.6	15.4	17.0
	Central Sydney	60.3	25.0	14.7
	IE Sydney	60.2	23.9	15.9
Sex between two adult women is always wrong	NSW	24.0	9.4	66.6
	Central Sydney	22.0	8.6	69.4
	IE Sydney	9.2	4.6	86.2
Sex between two adult men is always wrong	NSW	39.2	7.7	53.0
	Central Sydney	42.1	6.1	51.8
	IE Sydney	18.6	5.0	76.4

percentages in subsamples of different sizes. For either men or women, when the NSW sample is used the standard error is approximately +/-1.5 per cent, when the innereastern Sydney sample is used the standard error is approximately +/-2.0 per cent, and when the Central Sydney sample is used the standard error is approximately +/-4.0 per cent.

RESULTS

Nationally, telephone interviews were conducted with 19,307 respondents between the ages of 16 and 59 years. The overall national response rate was 73.1 per cent and the NSW response rate was 71.9 per cent. There were a total of 5,612 interviews in NSW. The response rates for men were 71 per cent in Central Sydney (n=607), 70.2 per cent in inner-eastern Sydney (n=1,066), and 68.6 per cent in NSW as a whole (n=3,313). For women, the response rates were 78.5 per cent in Central Sydney (n=647), and 76.7 per cent in NSW as a whole (n=2,299).

Attitudes

Men resident in inner-eastern Sydney reported more liberal attitudes towards sexual behaviour than men in Central Sydney or NSW as a whole. For example, over three quarters of men disagreed that sex between two adult men is always wrong (Table 1). Women in Central Sydney reported more liberal attitudes than women in NSW as a

whole, and were more accepting of homosexuality and sexually-explicit films (Table 2).

Sexual experience

Nationally, half the men born between 1941 and 1950 had vaginal intercourse by the age of 18 whereas half the men born between 1981 and 1986 had had vaginal intercourse by the age of 16. For women the decline in median age of first vaginal intercourse was from 19 years for women born between 1941 and 1950 to 16 years for women born between 1981 and 1986. Consistent with this finding, in NSW, a higher proportion of younger men and women had first vaginal intercourse before age 16 years than older respondents (Figure 2). While this pattern was observed for men in Central Sydney, it was not seen for women in Central Sydney or men in inner-eastern Sydney.

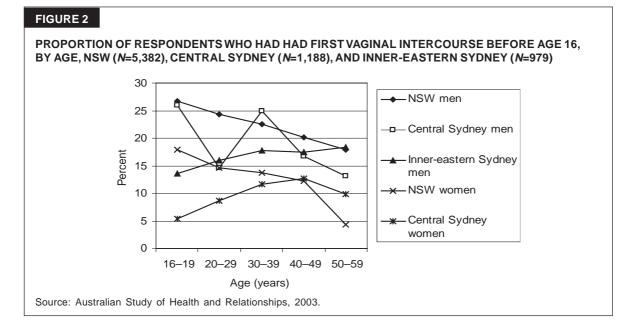
In NSW, heterosexual men reported more opposite sex partners over their lifetime (mean = 17.4), in the last five years (mean = 3.9) and in the last year (mean = 1.5) than did heterosexual women (mean = 6.5, 2.0, and 1.0 respectively).

Relationships

By far the majority of respondents in NSW (81.8 per cent of men and 89.3 per cent of women) were in a regular heterosexual relationship. 'Regular' was defined by the

TABLE 2	
AGREEMENT WITH SEXUAL ATTITUDE STATEMENTS FOR WO	DMFN. NSW (N=812) AND CENTRAL SYDNEY (N=279)

Attitude statement		Agree (%)	Neither (%)	Disagree (%)
Films these days are too sexually explicit	NSW	42.9	19.9	37.2
	Central Sydney	31.7	19.2	49.1
Sex before marriage is acceptable	NSW	84.6	3.4	12.0
	Central Sydney	86.0	1.7	12.3
If two people had oral sex, but not intercourse, you would still consider that they had had sex				
together	NSW	70.1	6.0	23.9
	Central Sydney	74.1	6.1	19.8
An active sex life is important for your sense				
of well-being	NSW	79.9	7.7	12.4
	Central Sydney	80.8	3.9	15.3
Abortion is always wrong	NSW	17.7	10.4	71.9
	Central Sydney	16.5	5.7	77.8
Having an affair when in a committed relationship				
is always wrong	NSW	77.4	5.3	17.3
	Central Sydney	67.9	12.1	20.0
Sex tends to get better the longer you know				
someone	NSW	66.4	16.3	17.3
	Central Sydney	64.6	20.1	15.3
Sex between two adult women is always wrong	NSW	25.4	15.8	58.8
	Central Sydney	18.0	9.0	73.0
Sex between two adult men is always wrong	NSW	27.1	15.4	57.5
	Central Sydney	18.7	8.3	73.0



respondent in answer to the question 'Do you currently have a regular female [for men] sexual partner or partners? Someone you have an ongoing sexual relationship with? (Ongoing means he expects the relationship to continue and to have sex with the partner again)'. Respondents who identified themselves as homosexual were less likely to be in a regular relationship, although bisexual men in Central Sydney reported a very low frequency of regular partners (Table 3).

Of those people in regular heterosexual relationships, most respondents reported that their relationships were 'extremely pleasurable' or 'very pleasurable', including 87.5 per cent of men and 82.7 per cent of women in NSW, 84.9 per cent of men and 88.3 per cent of women in Central Sydney, and 89.3 of men in inner-eastern Sydney. They were responding to the question 'How physically pleasurable do you find sex with this partner to be?'. Similar levels of emotional satisfaction were reported among all groups (responding to the question 'How emotionally satisfying do you find your relationship with this partner to be?').

For respondents in a regular heterosexual relationship for 12 months or more, the frequency of having had two or more sexual partners during the last 12 months was recorded. Men in inner-eastern Sydney were most likely to have had concurrent relationships (Table 4).

For heterosexual respondents in a regular relationship for 12 months or more, the average weekly frequency of sex was calculated, based on the number of occasions of sex over the last four weeks. In NSW, the average weekly frequency of sex for men was 1.91 times, and for women it was 1.86. In Central Sydney for men the average weekly frequency of sex was 2.12 and for women it was 1.83,

TABLE 3

RELATIONSHIP BETWEEN CURRENT SEXUAL IDENTITY AND CURRENT PARTNERSHIP STATUS, NSW (*N*=1,872), CENTRAL SYDNEY (*N*=412), AND INNER-EASTERN SYDNEY (*N*=497)

Sexual identity	exual identity		regular nship (%) Women
Heterosexual	NSW	81.8	89.4
	Central Sydney	74.9	86.1
	IE Sydney	79.1	_
Homosexual	NSW	58.2	56.3
	Central Sydney	58.7	74.1
	IE Sydney	60.0	_
Bisexual	NSW	69.6	73.8
	Central Sydney	9.7	41.3
	IE Sydney	69.7	_

Source: Australian Study of Health and Relationships, 2003.

TABLE 4

PROPORTION HAVING TWO OR MORE SEXUAL PARTNERS IN THE LAST 12 MONTHS WHILE IN A REGULAR HETEROSEXUAL RELATIONSHIP, NSW, CENTRAL SYDNEY AND INNER-EASTERN SYDNEY

Had two or more par (%)	· ,					
	Men	Women				
NSW	5.6	2.9				
Central Sydney	6.7	3.1				
IE Sydney	7.6	-				

although this difference is not statistically significant. For men in inner-eastern Sydney the average weekly frequency of sex was 2.32 (95 per cent CI 2.05 to 2.59).

Condom use

Condom breakage had been experienced by 39.9 per cent of men in NSW, 51.8 per cent of men in Central Sydney, and 47.6 per cent of men in inner-eastern Sydney. In the last year, 22.7 per cent of men in NSW, 28.2 per cent of men in Central Sydney, and 23.1 per cent of men in innereastern Sydney reported that they had had a condom break. Condom breakage appears to be associated with how

experienced the user is with using condoms, rather than the quality of condoms and lubricant.²³

Contraception and pregnancy

In NSW, 68.4 per cent of women reported that they had ever been pregnant, compared with 47.9 per cent of women in Central Sydney and 76.1 per cent nationally. In NSW, 30.9 per cent of women reported that they had had a termination of pregnancy (an abortion) compared with 48 per cent of women in Central Sydney and 22.6 per cent nationally.

TABLE 5

MEAN SCORE OF CORRECT RESPONSE OUT OF 10, TO 10 KNOWLEDGE QUESTIONS ABOUT SEXUALLY TRANSMITTED INFECTIONS, BY AGE AND SEX, NSW, CENTRAL SYDNEY AND INNER-EASTERN SYDNEY

	NS	N	Centra	l Sydney	Inner-eastern Sydney	
- (3)	Men (<i>n</i> =1172)	Women (<i>n</i> =604)	Men (<i>n</i> =194)	Women (<i>n</i> =187)	Men (<i>n</i> =471)	
16–19	4.6	5.0	2.1	1.9	4.3	
20-29	6.3	6.4	5.8	5.8	6.4	
30-39	6.0	6.3	5.4	6.9	6.6	
40-49	5.7	6.4	5.1	7.2	6.6	
50-59	5.0	5.6	5.4	6.0	5.7	

Source: Australian Study of Health and Relationships, 2003.

TABLE 6

PROPORTION OF RESPONDENTS DIAGNOSED WITH A SEXUALLY TRANSMISSIBLE INFECTION OR BLOOD BORNE VIRUS EVER, NSW, CENTRAL SYDNEY AND INNER-EASTERN SYDNEY

	NSW		Centr	ral Sydney	Inner-eastern Sydney		
	Men % (<i>n</i> =3307)	Women % (<i>n</i> =2296)	Men % (<i>n</i> =606)	Women % (<i>n</i> =645)	Men % (<i>n</i> =1064)		
Pubic lice or crabs	9.5	3.9	10.2	4.9	21.1		
Genital warts	3.7	4.6	4.5	3.7	6.5		
Wart virus on pap smea	r ^a –	4.7	_	3.9	_		
Chlamydia	1.9	2.5	1.8	3.8	5.3		
Genital herpes	1.5	1.4	1.8	2.3	3.2		
Syphilis	0.9	1.0	0.8	0.2	1.6		
Gonorrhoea	2.3	0.9	3.6	1.2	6.6		
Pelvic inflammatory dise	ease ^a –	1.8	_	1.2	_		
Non-specific urethritis ^b	5.2	_	6.0	_	14.4		
Bacterial vaginosis ^a	_	2.0	_	3.9	_		
Trichomoniasisa	_	0.9	_	1.5	_		
Candida or thrush ^c	4.4	38.0	5.3	31.0	6.0		
Hepatitis A	1.9	1.5	3.1	2.1	3.9		
Hepatitis B	0.8	0.7	2.2	0.7	2.5		
HIV	0.2	0.1	0.3	0.2	2.9		
Diagnosed with a blood	d borne virus						
Hepatitis C	0.5	0.6	0.8	0.5	1.0		

- (a) Female respondents only
- (b) Male respondents only
- (c) Not included when calculating lifetime and 12 months incidence of STIs

Oral contraception (25.5 per cent in NSW and 30.6 per cent in Central Sydney) was the most popular form of contraceptive. Tubal ligation—hysterectomy (16.0 per cent in NSW and 10.2 per cent in Central Sydney), condoms (14.6 per cent in NSW and 24.6 per cent in Central Sydney), and partner vasectomy (14.6 per cent in NSW and 4.5 per cent in Central Sydney) were also widely used.

Sexually transmissible infections

Knowledge about the transmission and health consequences of sexually transmissible infections (STIs) was generally poor, with women knowing more than men (Table 5). Respondents knew relatively little about genital herpes, gonorrhoea, genital warts, and chlamydia, some of which are common among sexually active people in Australia. Respondents aged 16–19 years in Central Sydney had particularly low levels of knowledge of STIs.

In NSW, 17.9 per cent of men and 14.7 per cent of women reported that they have ever been diagnosed with one of a list of STIs, and 2.5 per cent of men and 2.6 per cent of women had been diagnosed in the last year. This calculation does not include candida or thrush, and is gender specific (see Table 6). In Central Sydney,

19.3 per cent of men and 16.5 per cent of women reported that they had ever been diagnosed with an STI, and 3.4 per cent of men and 3.8 per cent of women had been diagnosed with an STI in the last year. In inner-eastern Sydney, 28.9 per cent of men reported that they had ever been diagnosed with an STI, and 7.7 per cent had been diagnosed with an STI in the last year. Percentages of respondents reporting that they had ever been diagnosed with an STI or blood borne virus (BBV) or diagnosed with an STI or BBV in the last year are presented in Table 6, with men in inner-eastern Sydney reporting markedly higher levels.

Sexual difficulties

Survey participants reported a range of sexual difficulties, which they had experienced for at least one month in the previous year. Women were more likely to report difficulties than men. Consistent with the national findings, ¹⁶ the most common difficulties in NSW were lack of interest in sex (30.0 per cent of men and 55.9 per cent of women), coming to orgasm too quickly (24.1 per cent of men and 14.5 per cent of women), not having an orgasm (8.0 per cent of men and 31.1 per cent of women), and not enjoying sex (7.4 per cent of men and 27.6 per cent of women). Fewer women in Central Sydney

TABLE 7

EXPERIENCE OF SEXUAL DIFFICULTIES FOR AT LEAST ONE MONTH IN THE PASTYEAR, NSW, CENTRAL SYDNEY AND INNER-EASTERN SYDNEY

	NSW		Central Sydney		Inner-eastern Sydney	
(1	Men % n=1172)	Women % (<i>n</i> =604)	Men % (<i>n</i> =194)	Women % (<i>n</i> =187)	Men % (<i>n</i> =471)	
Lacked interest in having sex	30.0	55.9	30.3	53.9	32.4	
Unable to come to orgasm	8.0	31.1	8.8	26.8	6.4	
Came to orgasm too quickly	24.1	14.5	16.8	9.6	17.3	
Physical pain during intercourse	3.5	20.8	3.5	15.0	3.3	
Did not find sex pleasurable	7.4	27.6	9.0	19.1	9.0	
Felt anxious about ability to perform sexually	20.0	20.3	17.7	20.8	20.6	
Trouble keeping erection	13.5	_	13.0	_	13.0	
Trouble with vaginal dryness	_	22.7	_	17.4	_	
Worried during sex about whether body looked attractive	e 17.1	36.7	30.8	35.7	23.2	

Source: Australian Study of Health and Relationships, 2003.

TABLE 8

FREQUENCY OF MASTURBATION IN THE PAST YEAR AND THE PAST FOUR WEEKS, NSW, CENTRAL SYDNEY AND INNER-EASTERN SYDNEY

	N:	sw	Cent	ral Sydney	Inner-eastern Sydney		
	Men % (<i>n</i> =1149)	Women % (<i>n</i> =816)	Men % (<i>n</i> =244)	Women % (<i>n</i> =271)	Men % (<i>n</i> =531)		
Last year	72.9	42.6	79.3	51.2	89.1		
Last four weeks	60.3	25.9	70.2	38.7	77.9		

reported pain during sex and that sex was not pleasurable (Table 7).

Masturbation and other non-coital practices

The frequency of masturbation reported by men in NSW was higher than in Australia, ¹⁸ and was higher again in inner-eastern Sydney (Table 8). Women in Central Sydney reported higher levels of masturbation than women in NSW as a whole. Autoerotic, esoteric, and other sexual activities in the past year were generally more common among men in inner-eastern Sydney than in NSW (Table 9).

Commercial Sex

Nationally, one in six Australian men (15.6 per cent) have paid for sex at some time in their life (97 per cent with women), and 1.9 per cent of men have paid for sex in the past year, while only 0.1 per cent of women have ever paid for sex. ¹⁹ This frequency was considerably higher among men in NSW (22.5 per cent), among men in Central

Sydney (26.9 per cent), and among men in inner-eastern Sydney (24.1 per cent), as was the proportion who had paid for sex in the past year (see Table 10).

Sexual coercion

In NSW, 26.3 per cent of women and 7.5 per cent of men had been forced or frightened into unwanted sexual activity, which was higher than the comparable national figures (21.1 per cent of women and 4.8 per cent of men).²⁰ In Central Sydney, 21.0 per cent of women and 7.9 per cent of men reported that they had been forced or frightened into unwanted sexual activity; in inner-eastern Sydney 11.1 per cent of men reported that they had been forced or frightened into unwanted sexual activity.

Injecting drug use risks

Less than four per cent of the sample had ever injected drugs with men being more likely to do so than women (Table 11). None of the respondents in Central Sydney or inner-eastern Sydney who had injected drugs reported that

TABLE 9

ENGAGEMENT IN AUTOEROTIC, ESOTERIC AND OTHER SEXUAL ACTIVITIES IN THE PAST YEAR, NSW, CENTRAL SYDNEY AND INNER-EASTERN SYDNEY

	NSW		Central Sydney		Inner-eastern Sydney	
	Men % (<i>n</i> =1503)	Women % (<i>n</i> =854)	Men % (<i>n</i> =267)	Women % (<i>n</i> =287)	Men % (<i>n</i> =568)	
All respondents						
Had phone sex or rang phone sex line	3.7	3.1	2.4	1.8	7.6	
Visited Internet sex site	22.8	3.4	35.1	4.4	24.2	
Watched X-rated video or film	43.4	19.7	52.1	17.7	54.8	
Used sex toy (e.g. vibrator, dildo)	14.8	15.6	13.1	16.9	22.2	
Respondents with a sexual partner in the las	st year					
Role play or dressing up	5.7	4.0	7.0	7.2	2.1	
BDSM or DS ^a	2.3	1.8	4.5	3.5	8.0	
Had group sex	5.9	1.3	6.5	1.6	12.8	
Anal stimulation (with fingers)	17.6	17.8	30.1	23.8	44.2	
Fisting (hand or fist in vagina or rectum)	2.1	0.7	2.3	0.8	4.5	
Rimming (oral-anal stimulation)	8.4	4.8	15.5	7.4	25.8	

^a Bondage and discipline, sadomasochism or dominance and submission

Source: Australian Study of Health and Relationships, 2003.

TABLE 10

FREQUENCY OF HAVING EVER PAID FOR SEX AND PAID FOR SEX IN THE PAST YEAR, NSW, CENTRAL SYDNEY AND INNER-EASTERN SYDNEY

	NSW		Central Sydney		Inner-eastern Sydney
	Men % (<i>n</i> =1408)	Women % (<i>n</i> =809)	Men % (<i>n</i> =246)	Women % (<i>n</i> =258)	Men % (<i>n</i> =539)
Ever paid for sex	22.5	0.3	26.9	0.3	24.1
Paid for sex in the past year	5.3	_	6.8	_	5.4

TABLE 11

EXPERIENCE OF INJECTING DRUG USE, EVER AND IN THE PAST YEAR, NSW, CENTRAL SYDNEY AND INNER-EASTERN SYDNEY

	NSW		Central Sydney		Inner-eastern	
	Men % (<i>n</i> =3310)	Women % (<i>n</i> =2299)	Men % (<i>n</i> =607)	Women % (<i>n</i> =648)	Sydney Men % (<i>n</i> =1064)	
All respondents						
Ever injected drugs	2.4	1.1	3.0	2.0	3.9	
Injected drugs in the last 12 months	1.3	0.4	1.5	0.8	1.2	
Respondents who ever had injected						
Ever shared needles	21.6	43.8	45.7	51.9	25.9	
Shared needles in the last 12 months	7.9	_	_	_	_	
Ever shared injecting equipment	44.7	41.6	52.5	45.8	44.3	
Shared injecting equipment in last 12 months	8.4	19.8	13.9	16.1	6.6	

they had shared needles in the past 12 months, but a substantial minority had shared other paraphernalia

DISCUSSION

associated with drug use.

The median age of first sexual intercourse in NSW has declined over the last 50 years, although this pattern was not evident in all geographical areas examined—perhaps attributable to high levels of female respondents from culturally and linguistically diverse backgrounds in Central Sydney,³¹ and to levels of men who have sex with men in inner-eastern Sydney. Given that other forms of sexual activity commonly occur before the first experience of vaginal intercourse, the declining age at first intercourse highlights the need to review the teaching of sexuality education in primary school and early secondary school. The generally poor levels of knowledge about STIs, particularly among younger respondents, also could be addressed as part of this review.

There appears to be lower levels of forms of contraceptive used in NSW and Central Sydney, compared with national figures, ²² but there are also lower levels of conception in Central Sydney and higher levels of terminations than in the rest of NSW. This may indicate that ongoing encouragement of reliable methods of contraception is required.

The frequency of a range of sexual activities in innereastern Sydney, and to a lesser extent Central Sydney, was generally higher than in NSW as a whole. Metropolitan areas are known to attract people who seek out others with their own preferences, to avoid censure in small communities that may be less tolerant of diversity; an example is the migration of homosexual people from regional areas into cities. These results clearly indicate less conservative attitudes and behaviours in inner-eastern Sydney, including autoerotic and esoteric practices. The prevalence of reported STIs was also higher in innereastern Sydney, which is consistent with the regular reporting of notifiable diseases in the *NSW Public Health Bulletin*.

There was a higher frequency of use of sex workers in the last year in Central Sydney (three times greater), as well as in inner-eastern Sydney and NSW as a whole, compared with national figures. This may be a function of planning legislation in NSW, which has decriminalised sex work.

A small proportion of respondents had injected drugs in the last year, but it is worth noting that none of the innereastern Sydney or Central Sydney respondents reported sharing a needle in the last year. This may be a function of the availability of needle and syringe programs in inner city areas.

Overall, we found that women's experience of sex was less positive than men's. However, most women and men in NSW reported that sex in their relationships was extremely or very pleasurable and also reported similar levels of emotional satisfaction. How the problems identified relate to personal pleasure and satisfaction is an area for further research.

The high levels of sexual coercion in NSW (one in four women and one in 13 men in NSW) are of significant concern as the experience of sexual coercion for both men and women is associated with higher levels of psychosocial distress, smoking, anxiety about sex and having had an STI. National data indicate that few people who have been coerced talked about their experience to others, and even fewer talked to a counsellor, 20 highlighting the need for more widely promoted and accessible support services.

CONCLUSION

These results of the Australian Study of Health and Relationships for NSW, Central Sydney and inner eastern Sydney presented here describe the frequencies of the main indicators covered by the survey. They have highlighted significant local variations that can assist the planning, implementation and evaluation of sexual health programs and services.

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SEX IN AUSTRALIA: THE AUSTRALIAN STUDY OF HEALTH AND RELATIONSHIPS

The sexual health data for New South Wales, Central Sydney, and inner-eastern Sydney, reported in this issue of the *NSW Public Health Bulletin*, are part of a larger survey of sexual health behaviours and attitudes of Australians. This national survey involved telephone interviews with 19,307 people aged 16–59 years from all Australian states and territories. With a 73.1 per cent response rate, and statistical weighting of the data to reflect the location, age, and sex distribution of the 2001 Census, the sample is broadly representative of the Australian population.

THE MAIN REPORT

The primary report of the Australian Study of Health and Relationships is published as 21 articles in the *Australian and New Zealand Journal of Public Health*, Volume 27, Number 2, April 2003.

Each article focuses on a particular aspect of the survey or content area. The first two articles present the details of the methodology used in the survey and the rationale for this approach. The final paper considers the meaning of the overall findings and the implications for future research. Each of the remaining 18 articles presents the findings of a section of the questionnaire, with the data broken down by selected variables. Generally, these

variables are age, gender, language spoken at home, sexual identity, education, region of residence, household income, and occupation, although other variables are used as appropriate. A series of further analyses are planned to explore the data in more depth and to conduct multivariate analyses.

CONTENT AREAS

The questionnaire used in the Australian Study of Health and Relationships covered broad aspects of sexual health. Articles published in the April 2003 issue of *Australian and New Zealand Journal of Public Health* focused on:

- attitudes towards sex;
- characteristics of regular sexual relationships;
- first experiences of vaginal intercourse and oral sex;
- sexual identity, sexual attraction, and sexual experience;
- heterosexual experience and recent heterosexual encounters:
- homosexual experience and recent homosexual encounters;
- sexual difficulties;
- preferred frequency of sex, and sexual and emotional satisfaction;