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Executive Summary

The Western Australian Lesbian and Bisexual Women's Health and Well-Being Survey was a cross-sectional survey of women who lived in Western Australia and identified as lesbian or bisexual, or reported having sex with another woman. The project was funded by a Healthway research starter grant, and is the first comprehensive survey of this community. A wide range of health issues were explored including: community connectedness; nutrition and physical activity; cancer screening; alcohol, tobacco and other drug use; experiences of discrimination and harassment; mental health; sexual practices and 'safe sex'; and health service utilisation.

Data were collected between October 2006 and January 2007, providing a snapshot of the health of lesbian and bisexual women in this period. A total of 917 women participated in the survey, the majority (62.3%) of whom were recruited at Fair Day, an event marking the beginning of the month-long Pride Festival, and a major event on the Perth gay community calendar. The remainder were recruited at a range of locations (including non-'scene' venues) in order to obtain as diverse and representative a sample as possible. The majority of respondents (87.6%) lived in the Perth metropolitan area, and the median age of respondents was 34 years.

Major aims of the study were to provide a broad overview of the health status of lesbian and bisexual women; supply guidance to future health promotion programs targeting this population; and to provide a starting point for further in-depth research. Where appropriate, data are contrasted with the 2004 National Drug Strategy Household Survey, age-weighted results of the Western Australian Health and Well-Being Surveillance System, and results of other population-based studies, so that comparisons between lesbian and bisexual women and the general population can be made.

Key findings of the study included:

- Over half of participants (52.9%) felt either very or mostly connected to the broader community whilst only a third (31.8%) felt very or mostly connected to gay community.

- A quarter of participants (25.2%) were biological mothers, and 15.7% planned to have children in the next two years.

- The median number of serves of vegetables eaten per day was 2.0, and only 12.3% of participants consumed the recommended five serves per day, compared with 16.7% of women in the general population.

- The median number of serves of fruit eaten per day was 2.0, and 53.7% of participants consumed the recommended two serves of fruit a day, a figure similar to women in the general population.

- Lesbian and bisexual women consumed fast food more frequently than women in the general population, with 52.6% of participants reporting that they ate fast food once or twice per week, compared to 27.5% of women in the general population. Young women consumed more fast food than older women.

- Two out of five women (41.4%) did not engage in moderate physical activity in the previous week, and one in five (19.9%) did not engage in vigorous physical activity, suggesting that a significant proportion of lesbian and bisexual women are insufficiently active for health benefit. However, the women that did engage in physical activity did so for a longer period of time than women in the general population.

- The proportion of lesbian and bisexual women who were of a healthy weight (51.2%) was similar to that of the general population. However, more lesbian and bisexual women were obese (21.8% vs. 17.6%). More than one in five women (23.0%) were overweight (but not obese).

- Lesbian and bisexual women are at risk of cervical cancer, but are reported to underutilise recommended screening tests. In the present study, 56.8% of women reported a Pap smear in the previous two years compared with 61.1% of women in the general population.

- Lesbian and bisexual women smoked at a rate nearly double that of the general female population. Almost 3 in 10 women (28.1%) were smokers.

- Lesbian and bisexual women consumed alcohol more frequently than women in the general population, and 3 in 10 women (30.5%) exceeded national alcohol guidelines on a weekly basis. Whilst 9.7% of women never drank alcohol, 5.9% drank on a daily basis.

- A third of participants (33.6%) had used an illicit drug in the previous six months, compared with 17.3% of individuals (male and female) in the general population reporting illicit drug use in the previous twelve months in 2004. The drugs most commonly used by lesbian and bisexual women were cannabis, ecstasy and speed.

- Over a third of participants (38.2%) had experienced sexuality-related verbal or physical abuse in the last three years. Just under one third of participants (28.9%) had experienced physical violence at some point in a relationship, and nearly half (47.6%) had experienced some form of emotional abuse.

- Just over a third of women (34.8%) had been diagnosed with depression by a doctor, compared with 22.8% of women in the general population. One in five participants (19.3%) reported current treatment for anxiety, depression, stress-related problems, or another mental health problem.

- Two out of five participants (41.5%) had never been tested for STI, and just over a quarter (26.2%) had been tested more than two years ago. STI testing may be underutilised because lesbian and bisexual women perceive sex between women to be of low risk. Virtually none of the participants reported using dental dams (96.7%), gloves (94.7%), or condoms (86.6%) with their partner.

- Whilst 30.2% of participants were not in a regular relationship, of those reporting a current relationship, 70.9% had been in the current relationship for two years or more, and 12.7% had been in the current relationship for more than ten years.

- Over half of participants (57.1%) voluntarily disclose their sexuality to health care providers and 8.1% would disclose if asked. Of the women who had visited a general practitioner, roughly one in ten (9.3%) reported that they had felt uncomfortable accessing the service as a result of their sexuality. A similar number had felt uncomfortable accessing a counsellor or psychologist.

- Most participants (60.3%) used the label *lesbian* to describe themselves. Two thirds (67.9%) had felt sexually attracted to men on at least one occasion, and 14.7% reported sex with a male partner in the previous six months. Of these, the partner was a gay or bisexual man in 17% of cases.

Lesbian and bisexual women comprise a minority of women whose health needs and status have not been widely researched. Lesbian and bisexual women are found in all strata of society and in all ethnic groups, but are not a homogeneous population. Accordingly, there are individual differences in terms of access to health care and disease risk. Whilst there are many lesbian and bisexual women who maintain a healthy lifestyle and positive health status, as a community they are more likely to report increased rates of poor mental and physical health than heterosexual women. Almost universally, higher rates of overweight and obesity, alcohol, tobacco and other drug use, and depressive disorders are reported. The data presented in this report indicates the situation in Western Australia is similar.

Increased rates of poor health are believed to result from societal marginalisation and stigmatisation of sexual minorities, and are not a direct result of sexual orientation. Lesbian and bisexual women may be less likely to utilise health services than heterosexual women and have specific and sometimes unique risk factors for disease. A lack of awareness of these needs amongst health care professionals may result in inappropriate advice and missed opportunities for disease prevention. In addition, lesbian and bisexual women continue to encounter discrimination within the health care setting, which can have a profound impact on patterns of future health-seeking behaviour.

Improved understanding of this community is essential for public health practitioners to respond positively to the health challenges faced by lesbian and bisexual women.

Contents

1 Overview

Lesbian and bisexual women comprise a minority of women and are a population whose health needs and status have not been widely researched [1]. In a recent Australian telephone survey of women aged between 16 and 59 years, 0.8% identified themselves as lesbian and 1.4% as bisexual, whilst 15.1% reported a previous same-sex attraction or sexual experience [2]. Other studies have reported a similar prevalence [3, 4]. Lesbian and bisexual women are found in all strata of society and in all ethnic groups, but are not a homogeneous population [5]. Accordingly, there are individual differences in terms of access to health care and disease risk. However, lesbian and bisexual women are more likely to report increased rates of poor mental and physical health than heterosexual women [6].

Increased rates of poor health are believed to result from societal marginalisation and stigmatisation of sexual minorities, and are not due to sexual orientation [7]. Lesbian and bisexual women may be less likely to utilise health services than heterosexual women and have specific and sometimes unique risk factors for disease [8]. A lack of awareness of these needs amongst health care professionals may result in inappropriate advice and missed opportunities for disease prevention [9]. In addition, lesbian and bisexual women continue to encounter discrimination within the health care setting, which can have a profound impact on patterns of future health-seeking behaviour [1].

There has been limited research into the health needs of lesbian and bisexual women [10]. Despite the recognition of sexual orientation as a determinant of health [11], health systems are seldom constructed with sexual minorities in mind. Lesbian, gay and bisexual populations are often treated as risk groups with little or no research into their unique needs [12].

1.1 Description of the Study

The *Western Australian Lesbian and Bisexual Women's Health and Well-Being Survey* was a cross-sectional survey of women who lived in Western Australia and identified as lesbian or bisexual, or reported having sex with another woman. The project was funded by a Healthway research starter grant, and is the first comprehensive survey of this community. A wide range of health issues were explored including: community connectedness; nutrition and physical activity; cancer screening; alcohol, tobacco and other drug use; experiences of discrimination and harassment; mental health; sexual practices and 'safe sex'; and health service utilisation. A number of demographic items were also captured.

Data were collected between October 2006 and January 2007, providing a snapshot of the health of lesbian and bisexual women in this period. A major aim of the study was to provide a broad overview of the health status of this population and to provide a starting point for further in-depth research. It is hoped that the results of the survey will be used by service providers to improve service delivery, and will provide guidance to future health promotion programs targeting this population.

The survey was self-administered and took approximately 10-20 minutes to complete. Items were chosen from previous studies of GLBT[1] populations, and of the broader community, facilitating comparative analyses. Previous studies included the *WA Health and Well-Being Surveillance System* (WAHWSS), the 2004 *National Drug Strategy Household Survey* (NDSHS), and the *Private Lives* study [13-15], and were validated with 19 lesbian and bisexual women via the kappa correlation coefficient. A copy of the questionnaire is provided in Appendix B1.

1.2 Sample and Recruitment

Several recruitment strategies were used in order to obtain as representative a sample as possible. Over half of respondents were recruited at *Fair Day*, a large public gay community event held annually in Perth. This event launches the month-long *Pride Festival* – a series of GLBT events held in October. During this month, research assistants visited events and venues that lesbian and bisexual women were likely to attend. These included a film festival, women's sundowners and bar/nightclub events. This month was the most intensive recruitment period.

Recruitment continued after the festival, concentrating on non-'scene' events and networks. These included a gay/lesbian/bisexual choral group, bushwalking groups, parent's group, tennis club, ten pin bowling club, a youth support organisation, and a retirement association. Several networks of lesbian and bisexual women living in the country were known to the researchers and were contacted. Women, particularly those living in regional and rural areas, were encouraged to ask their lesbian and bisexual friends to complete a questionnaire.

Much of the non-'scene' recruitment did not require the presence of research assistants. Women were posted hard copies of the questionnaire with a consent and information sheet and a pre-paid envelope for return, directed to a website where an online version of the questionnaire was available, or were sent a PDF of the questionnaire via e-mail. The website address was placed on promotional material.

[1] The acronym GLBT refers to gay, lesbian, bisexual, transgender and transsexual individuals.

The survey and website were extensively promoted in gay and lesbian media. Advertisements were placed in *Women Out West* (a monthly magazine) and *Out in Perth* (a monthly newspaper). Small flyers were produced and distributed at gay venues during Pride month, and are provided in Appendix B2. Editorials appeared in local gay and lesbian media, and in *Lesbians on the Loose* (a national monthly magazine) and *Pink Sofa* (a national lesbian website).

Significant efforts were made to contact women outside of the bar/nightclub scene. Previous research has often relied upon convenience samples obtained in bars and nightclubs. Unfortunately, such strategies tend to provide a biased sample, and we endeavoured to avoid this problem. However, despite a broad recruitment strategy, the bulk of participants were recruited via convenience sampling and it is likely that lesbian and bisexual women who did not have contact with the community through a social group, did not attend community events, or did not read gay and lesbian media would have been unaware of the survey. Such women represent a 'hidden' population and are difficult to reach.

The survey was received enthusiastically and women were keen to learn when findings would be made available. Comments such as *'great job with survey'*, *'I'm glad this survey is being done - about time!'*, *'great to see someone taking an interest in same sex attracted women' w*ere common. Research assistants encountered only a small number of women who refused to participate. The most common reason for refusal was that the questionnaire was too long to complete in a bar/community event setting. The majority of these women were happy to take a questionnaire home for later completion.

Table 1 Source of recruitment

Venue	Number recruited	%
Fair Day	571	(62.3)
Internet	121	(13.2)
Skandalous *	43	(4.7)
Grapeskin *	43	(4.7)
Court Hotel *	28	(3.1)
Murdoch University – Pride event	24	(2.6)
Community group – Perth	23	(2.5)
GLBTI Retirement Association Incorporated (GRAI) forum	8	(0.9)
Gay and Lesbian Community Services	8	(0.9)
Loton Park Tennis Club	6	(0.7)
Community group – non-metro	5	(0.5)
Pride professional sundowner *	4	(0.4)
Other	13	(1.4)
Total	**917**	**(100)**

* Gay and lesbian bar/nightclub

1.3 Demographic Profile

1.3.1 Geographic Distribution

The majority of surveys were received from women who reported living in the Perth metropolitan area (87.6%). Only 6.7% of respondents reported living in a rural or regional area[2]. A similar number of respondents (5.7%) chose not to provide their postcode. It was estimated that 72.5% of the Western Australian population lived in the Perth metropolitan area in 2006 [16]. Despite efforts to recruit women from regional and rural areas, it is likely that these women were underrepresented in the sample.

Table 2 Residential location

Location	Number	%
Perth metropolitan	803	(87.6)
Regional WA	61	(6.7)
Not stated	53	(5.7)
Total	**917**	**(100)**

1.3.2 Age

Of the 917 women who completed the survey, 869 chose to disclose their age. The age of respondents ranged from 15 to 67 years, with an average age of 35 years (median 34 years). The median age of women in Western Australia in 2006 was estimated to be 37 years [16]. Assuming that lesbian and bisexual women have a similar life expectancy to women in the general population, there may have been a slight bias toward younger women in the sample.

Table 3 Age distribution

Age (years)	Number	%
15-17	18	(2.1)
18-24	156	(18.0)
25-34	271	(31.2)
35-44	237	(27.3)
45-54	146	(16.8)
55-64	37	(4.3)
65 or older	4	(0.5)
Total	**869**	**(100)**

[2] Areas more than 75 kilometres from the Perth GPO were classed as regional or rural. Postcodes between 6208 and 6770 (inclusive) and postcodes 6041, 6043 and 6044 define such areas.

Respondents from regional or rural areas tended to be slightly older than those living in the Perth metropolitan area (p=0.012; Mann-Whitney U test). The median age of metropolitan women was 34 years (interquartile range [IQR] 26-43 years); the median age of those from rural or regional areas was 38 years (IQR 29-50 years).

1.3.3 Ethnicity and Country of Birth

The majority of respondents (69.2%) were born in Australia. This figure is comparable to the 2006 census, in which 70.4% of women living in Western Australia reported that they were born in Australia[3] [17].

Table 4 Country of birth

Country	Number	%
Australia	607	(69.2)
Other	270	(30.8)
Total	**877**	**(100)**

Of those born overseas, the most common countries of birth were the United Kingdom (42.2%, n=114), New Zealand (11.5%, n=31), USA (7.4%, n=20) and Singapore (5.2%, n=14). This is a similar demographic profile to the 2006 census [17].

Table 5 Country of birth by region

Region	Number	%
Australasia[4]	638	(73.0)
Europe	138	(15.8)
Asia	45	(5.1)
North America	26	(3.0)
Africa	20	(2.3)
Middle East	3	(0.3)
South America	2	(0.2)
Other	2	(0.2)
Total	**874**	**(100)**

[3] Women who did not respond were excluded from the denominator.

[4] Australasia comprises Australia and New Zealand.

The proportion of participants identifying themselves as Aboriginal or Torres Strait Islander was 2.4%. In the 2006 census, 3.2% of women living in Western Australia identified themselves in this way [17]. It is likely that same-sex attracted indigenous women were underrepresented in the sample.

Table 6 Indigenous status

Ethnicity	Number	%
Aboriginal or Torres Strait Islander	21	(2.4)
Other	840	(97.6)
Total	**861**	**(100)**

The majority of participants (85.1%) reported that English was the language they spoke at home. This figure is similar to the 2006 census, in which 87.3% of women living in Western Australia reported that English was the language spoken at home [17].

Table 7 Language spoken at home

Language	Number	%
English	780	(85.1)
Afrikaans	5	(0.5)
Cantonese	1	(0.1)
Dutch	1	(0.1)
Portuguese	1	(0.1)
French	4	(0.4)
German	5	(0.5)
Italian	3	(0.3)
Croatian	2	(0.2)
Thai	2	(0.2)
Auslan	3	(0.3)
Japanese	2	(0.2)
Swedish	1	(0.1)
Serbian	1	(0.1)
Khmer	1	(0.1)
Burmese	2	(0.2)
Korean	1	(0.1)
Finnish	1	(0.1)
Maori and Pakeha	1	(0.1)
Vietnamese and English	1	(0.1)
Tagalog and English	1	(0.1)
Not stated	98	(10.7)
Total	**917**	**(100)**

1.3.4 Employment

The majority of participants (62.5%) were employed full time. The remainder were largely employed part time (including casual work), or were students. A small proportion (2.0%) reported that they were unemployed.

Table 8 Employment status

Employment status	Number	%
Employed full time	541	(62.5)
Employed part time	168	(19.4)
Student	81	(9.4)
Unemployed	17	(2.0)
Pensioner / social security	27	(3.1)
Retired	10	(1.2)
Other	21	(2.4)
Total	**865**	**(100)**

1.3.5 Educational Attainment

After excluding 18 women who were aged younger than 18 years, and 10 women who did not provide their age, educational attainment data were available for 845 women. Based on the 2006 census, the participants reported higher levels of educational attainment than the general population. Only 3.9% of the sample (n=33) did not complete year 10, compared with 11% of the general population [17]. The majority of the sample (65.4%) had obtained some form of post secondary school qualification, compared with 32.9% of women in the general population in 2001[5] [18]. These results may indicate that lesbian and bisexual women with lower levels of educational attainment were underrepresented in the sample.

Table 9 Educational attainment of participants aged 18 years and older

Educational attainment	Number	%
Less than year 10	33	(3.9)
Year 10	90	(10.6)
Year 12 / TEE	170	(20.1)
Trade certificate / TAFE	134	(15.9)
University or CAE	418	(49.5)
Total	**845**	**(100)**

[5] At the time of publication, this data was not available for the 2006 census.

1.3.6 Other Demographic Characteristics

Of the 857 women who answered this section of the questionnaire, 16.9% reported that they were a primary carer. Several women provided information about the person they cared for and this data is described in Appendix A1.

Table 10 Primary carer

Primary carer	Number	%
No	712	(83.1)
Yes	145	(16.9)
Total	**857**	**(100)**

Just over a quarter of participants reported that they were a biological mother, with nearly one fifth reporting dependent children. The proportion of the sample planning to have children within the next two years was 15.7%.

Table 11 Parenting

	Yes		No		Total	
	n	%	n	%	n	%
Dependent children	170	(19.6)	696	(80.4)	**866**	**(100)**
Biological mother	177	(25.2)	524	(74.8)	**701**	**(100)**
Co-parent	65	(11.0)	526	(89.0)	**591**	**(100)**
Single parent	42	(7.3)	532	(92.7)	**574**	**(100)**
Step parent	33	(5.9)	524	(94.1)	**557**	**(100)**
Plan to have children in the next two years	135	(15.7)	726	(84.3)	**861**	**(100)**

A small number of participants (1.1%) reported that they were transgender, transsexual or intersexed (TTI). The language used by TTI communities to describe their identities can be complex. It is acknowledged that the terminology used in this report is subject to debate within TTI communities, reflecting "the importance members of marginalised groups attach to the processes of self-definition and redefinition" [7].

For the purposes of this report, the term *intersex* is used to refer to individuals with reproductive systems or sexual characteristics that are not exclusively male or female. The term *transsexual* is used to refer to individuals who identify and live as the sex opposite to the one assigned at birth, and the term *transgender* is used to refer to individuals whose gender expression differs from the social expectations of the sex that they were assigned at birth, but are not transsexual or intersexed (for example, people who cross-dress or present androgynously).

The majority of TTI participants were transgender, identifying as genderqueer[6] or androgynous. A surprisingly small number of transsexual women were recruited. Transsexual women, like other women, have the same range of sexual attractions and orientations as the general populace [19]. In a parallel study of transgender, transsexual and intersexed people in Western Australia, 32 transsexual women were recruited and nearly two thirds of these reported a sexual attraction to women [20]. Transgender, transsexual and intersexed women who identify as lesbian or bisexual were probably underrepresented in the sample.

One transsexual man completed the survey. Whilst some transsexual men who are attracted to women are attached to the heterosexual community, a significant number are connected to the gay community. Transsexual men may be connected to lesbian and bisexual women's communities because they may find it difficult to be accepted by their heterosexual, cissexual[7] peers; it may be easier to find supportive partners in these communities; or because they identified as lesbian or bisexual prior to transitioning and retain ties to these communities. Service providers should be aware that the male partners of lesbian and bisexual women may be transsexual.

Service providers should be mindful that lesbian and bisexual women may be partnered with transsexual or intersexed individuals, or may be transsexual or intersexed themselves. Appropriate questions should be asked when taking a sexual history as there are implications for sexual practice and associated risk of sexually transmissible infections (STI).

Table 12 Identities of transgender, transsexual and intersexed participants

Identity	Number	%
Genderqueer/androgynous	5	(50.0)
Transsexual woman[8]	2	(20.0)
Transsexual man[9]	1	(10.0)
Intersexed	1	(10.0)
Transgender, not specified	1	(10.0)
Total	**10**	**(100)**

[6] Genderqueer is a label adopted by people who do not locate themselves within traditional gender categories. Genderqueer people may have a gender expression that reflects a combination of sexes or reject traditional categories of gender entirely.

[7] A cissexual person is someone who has only ever experienced their physical and subconscious sex as being aligned.

[8] A transsexual woman is someone who was assigned male at birth, but lives and identifies as a woman.

[9] A transsexual man is someone who was assigned female at birth, but lives and identifies as a man.

2 Community Connectedness

2.1 Sexuality

The majority of participants (60.3%) used the label *lesbian* to describe their sexuality, whilst 11% identified as *bisexual*. Of the women who identified as lesbian, 3.8% (n=21) reported having sex with a man in the past six months. This is consistent with previous studies, which have found that an individual's sexual identity and sexual history are often incongruent [21, 22]. A relatively large number of women identifying as lesbian have had sexual contact with a man and some continue to do so [22].

In total, 14.7% (n=135) of women reported sex with a male partner in the past six months, indicating that lesbian and bisexual women may be at greater risk of STI than previously thought. Service providers should be aware that women who identify as lesbian may be sexually active with men.

Table 13 Label used to describe sexuality

Label	Number	%
Lesbian	553	(60.3)
Bisexual	101	(11.0)
Don't use a label	78	(8.5)
Gay	58	(6.3)
Same-sex attracted	30	(3.3)
Heterosexual/straight	29	(3.2)
Dyke	22	(2.4)
Queer	21	(2.3)
Other	13	(1.4)
Homosexual	6	(0.7)
Not stated	6	(0.7)
Total	**917**	**(100)**

Younger women were more likely to describe themselves as heterosexual, bisexual or queer, or not use a label to describe their sexuality, than older women. The other labels given by participants were equally likely to be used by older and younger women.

2.2 Attachment to Community

Community connectedness is an important social determinant of health, especially so for minority populations. Such populations may be isolated, and the sense of belonging to a community is important for both mental and physical health [14]. Surprisingly, only a third of participants (31.8%) felt either very or mostly connected to the gay and lesbian community, whilst over half (52.9%) felt very or mostly connected to the broader community.

Table 14 Connectedness to gay and lesbian community

Connectedness	Number	%
Very	84	(9.2)
Mostly	206	(22.6)
Somewhat	356	(39.0)
Rarely	212	(23.2)
Not at all	55	(6.0)
Total	**913**	**(100)**

There was a very weak correlation between age and connectedness to the gay and lesbian community. Connectedness to the gay and lesbian community decreased with age (Spearman's rho=0.07; p=0.042).

Table 15 Connectedness to the broader community

Connectedness	Number	%
Very	123	(13.5)
Mostly	358	(39.4)
Somewhat	305	(33.6)
Rarely	105	(11.6)
Not at all	17	(1.9)
Total	**908**	**(100)**

There was a weak correlation between age and connectedness to the broader community. Connectedness to the broader community increased with age (Spearman's rho=-0.13; p<0.001).

Table 16 Proportion of female friends who are lesbian or bisexual

Proportion	Number	%
None	25	(2.8)
A few	190	(20.9)
Some	321	(35.4)
Most	360	(39.6)
All	12	(1.3)
Total	**908**	**(100)**

A weak correlation was observed between age and the proportion of participants' friends who were lesbian or bisexual women. The older the women were, the greater their proportion of lesbian or bisexual female friends (Spearman's rho=0.12; p<0.001).

Table 17 Proportion of male friends who are gay

Proportion	Number	%
None	116	(12.8)
A few	414	(45.5)
Some	289	(31.8)
Most	86	(9.5)
All	4	(0.4)
Total	**909**	**(100)**

In contrast to the correlation between age and the proportion of participants' friends who were lesbian or bisexual women, gay men were less likely to make up the bulk of friends of older participants (Spearman's rho=-0.14; p<0.001).

Table 18 Participation in gay/lesbian activities in the past 12 months

	Monthly or more		Less often than monthly		Rarely or never		Total	
Venue	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Bar	318	(35.4)	435	(48.4)	145	(16.1)	**898**	**(100)**
Dance party	80	(9.1)	417	(47.7)	378	(43.2)	**875**	**(100)**
Church	14	(1.6)	51	(5.8)	811	(92.6)	**876**	**(100)**
University group	24	(2.8)	115	(13.2)	730	(84.0)	**876**	**(100)**
Political group	40	(4.6)	151	(17.3)	680	(78.1)	**871**	**(100)**
Support group	55	(6.3)	113	(13.0)	704	(80.7)	**872**	**(100)**
Film festival	31	(3.5)	494	(56.2)	354	(40.3)	**879**	**(100)**
Sporting group	85	(9.8)	175	(20.2)	608	(70.0)	**868**	**(100)**
Fair Day	23	(2.6)	725	(81.1)	146	(16.3)	**894**	**(100)**
Pride Sundowner	103	(11.7)	332	(37.7)	446	(50.6)	**881**	**(100)**
Private gathering	382	(43.7)	264	(30.2)	228	(26.1)	**874**	**(100)**
Other activity	21	(5.6)	12	(3.2)	342	(91.2)	**375**	**(100)**

Other activities reported by participants included: visiting cafés, participating in a choir, Christmas with Pride, reading LOTL and activities with friends.

2.3 Use of the Internet

Table 19 Use of the Internet in the past 12 months

	Monthly or more		Less often than monthly		Rarely or never		Total	
	n	%	n	%	n	%	n	%
Email list	177	(20.3)	137	(15.7)	560	(64.1)	**874**	**(100)**
Pink Sofa	163	(18.6)	180	(20.5)	534	(60.9)	**877**	**(100)**
Gaydar Girls	65	(7.5)	83	(9.5)	724	(83.0)	**872**	**(100)**
Lesbian MatchMaker	28	(3.2)	45	(5.2)	796	(91.6)	**869**	**(100)**

The websites listed above (Pink Sofa, Gaydar Girls and Lesbian MatchMaker) are popular lesbian and bisexual women's sites, utilised for general communication and to seek potential partners.

2.4 Gay and Lesbian Media

Table 20 Access to gay/lesbian media in the past 12 months

	Monthly or more		Less often than monthly		Rarely or never		Total	
	n	%	n	%	n	%	n	%
Radio program	52	(6.0)	135	(15.6)	678	(78.4)	**865**	**(100)**
Out in Perth	111	(12.8)	246	(28.4)	508	(58.7)	**865**	**(100)**
Grapevine	67	(7.8)	192	(22.4)	597	(69.7)	**856**	**(100)**
Women Out West	187	(21.3)	273	(31.1)	418	(47.6)	**878**	**(100)**

Gay and lesbian media in Western Australia include: Out In Perth (a monthly newspaper), Women Out West (a monthly magazine), and Grapevine (a feminist publication). Until recently, there was a GLBT radio programme on RTR FM, a local radio station.

3 Diet and Physical Activity

Lesbians may be more likely to be overweight than heterosexual women [9, 23, 24]. The Women's Health Initiative (WHI) study found that lesbians aged 50-79 years were more likely to be overweight than their heterosexual counterparts and noted that lesbian and bisexual women were less likely to consume fruit and vegetables than heterosexual women [25]. Obesity confers a greater risk for a number of serious conditions including coronary heart disease, stroke, asthma, musculoskeletal conditions and some cancers [26, 27]. Lesbian and bisexual women may thus represent an especially high-risk population for obesity and its associated disease burden [28].

3.1 Fruit and Vegetable Consumption

3.1.1 Vegetables

Of the 917 women who completed the survey, 902 reported the number of serves of vegetables they ate each day. The minimum number of serves consumed per day was zero, whilst the largest was 20[10]. The average number of serves was 2.7 (median 2.0). Only 12.3% (n=111) of the sample reported that they ate the recommended five serves of vegetables per day, compared with 16.7% of the women sampled in the WAHWSS [29]. This suggests that lesbian and bisexual women may consume fewer vegetables than women in the general population.

Table 21 Serves of vegetables eaten per day

Serves	Number	%
None	16	1.8
Less than one serve	1	0.1
One to two serves	443	49.1
Three to four serves	331	36.7
Five or more serves	111	12.3
Total	**902**	**(100)**

There was no difference in vegetable consumption between respondents living in regional and rural areas and those living in the Perth metropolitan area (p=0.424, Mann-Whitney U test). No difference was found with respect to age (p=0.165; Kruskal-Wallis test).

[10] Whilst high, this is possible in the case of individuals who follow a raw food diet. Such individuals eat only uncooked foods, a high proportion of which are vegetables.

3.1.2 Fruit

Almost all women (n=885) reported the number of serves of fruit they ate each day. The minimum number of serves consumed per day was zero, whilst the largest was 20. The average number of serves was 1.8 (median 2.0). Just over half of the women (53.7%, n=475) reported that they ate the recommended two serves of fruit per day, compared with 53.3% of women in the WAHWSS sample [29]. Fruit consumption does not appear to differ between lesbian and bisexual women and women in the general population.

Table 22 Serves of fruit eaten per day

Serves	Number	%
None	72	(8.1)
Less than one serve	2	(0.2)
One serve	336	(38.0)
Two or more serves	475	(53.7)
Total	**885**	**(100)**

There was no difference in fruit consumption between respondents living in regional and rural areas and those living in the Perth metropolitan area (p=0.064, Mann-Whitney U test). There was also no difference found with respect to age (p=0.088; Kruskal-Wallis test).

3.2 Fast Food

Most women (n=754) reported the frequency at which they consumed fast food each week. The minimum number of serves consumed per week was zero, whilst the largest was 14. The average number of serves was 1.2 (median 1.0). Whilst the proportion of lesbian and bisexual women who reported never eating fast food was similar to WAHWSS sample (34.6% vs. 32.5%), lesbian and bisexual women who did consume fast food did so more frequently than the women in the WAHWSS sample [29].

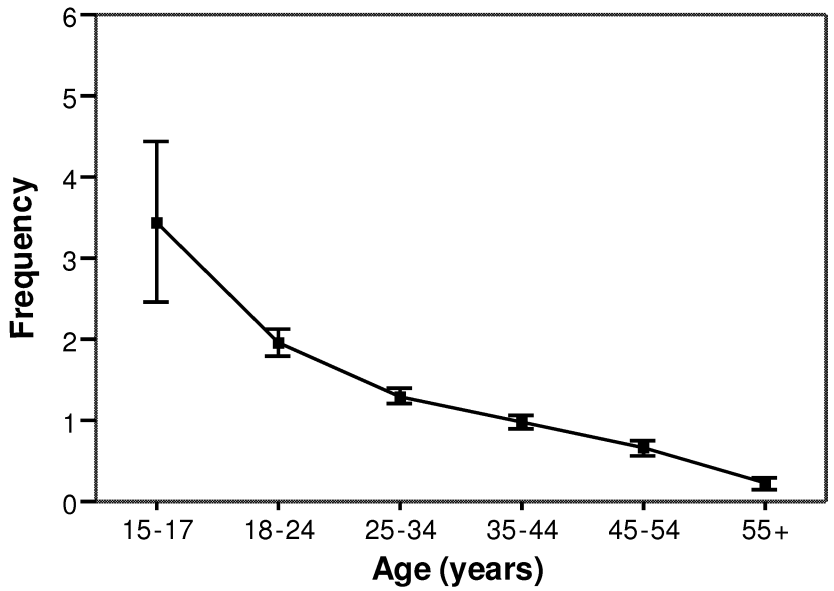
Just over half of participants (52.6%) reported that they ate fast food once or twice per week, compared with 27.5% of women in the general population. 7.3% of participants reported that they ate fast food three or four times per week, compared with 2.1% of women in the general population, and 5.2% of lesbian and bisexual women ate fast food five or more times per week, compared with 0.2% of the general population [29]. Lesbian and bisexual women appear to consume fast food more often than women in the general population.

Table 23 Frequency of fast food consumption per week

Frequency	Number	%
Never	261	(34.6)
Less than once	2	(0.3)
One or two times	397	(52.6)
Three or four times	55	(7.3)
Five or more times	39	(5.2)
Total	**754**	**(100)**

The frequency of weekly fast food consumption differed significantly between age groups ($p<0.001$; Kruskal-Wallis test). Younger women consumed more fast food per week than older women, and there was a significant trend for consumption to decrease with age ($p<0.001$; Jonckheere-Terpstra test), as illustrated in Figure 1. Error bars show ±1 standard error of the mean.

Figure 1 Average frequency of fast food consumption per week by age



These results suggest that young lesbian and bisexual women (aged 15-35 years) are the most appropriate target for nutrition interventions in this population.

3.3 Physical Activity

Participants completed several self-assessed measures of physical activity. Given the reliance on self-reported data, it is possible that over or underestimation may have occurred, and the following data should be interpreted accordingly. Of the 909 women who rated their physical activity level, the majority (73.7%, n=669) described themselves as at least moderately active. The ratings (shown below) were similar to those recorded in the WAHWSS, with 83.8% of women in the general population rating their physical activity at the same level. However, more lesbian and bisexual women described themselves as not very active than women in the general population (23.1% vs. 13.8%) [29].

Table 24 Self-perception of physical activity level

Frequency	Number	%
Very active	149	(16.4)
Active	265	(29.2)
Moderately active	255	(28.1)
Not very active	210	(23.1)
Not at all active	27	(3.0)
Not sure	3	(0.3)
Total	**909**	**(100)**

Nearly all participants (n=871) reported the number of times in the past week that they walked continuously for at least ten minutes. Answers ranged from 0 to 100 times; the mean answer was 7 times (median 5 times). Women living in rural or regional areas differed from those living in the Perth metropolitan area (p=0.01; Mann-Whitney U test). The median number walks of at least ten minutes duration was 4 per week (IQR 2-6) for rural and regional women, and 5 per week (IQR 3-7) for women in the Perth metropolitan area. However, there was no significant difference in the total time spent walking (p=0.169; Mann-Whitney U test).

The average time spent walking continuously for ten minutes or more per week was 171 minutes (2.85 hours), and the median time was 150 minutes (2.5 hours). There was no difference in the number of ten minute walks per week by age (p=0.483; Kruskal-Wallis test), or in the total time spent walking (p=0.09; Kruskal-Wallis test).

These figures compare favourably with the data from the WAHWSS, in which the average time spent walking continuously for ten minutes or more was 139 minutes (2.3 hours) and the median time 120 minutes (2 hours) [29]. Lesbian and bisexual women who walk, appear to do so for longer periods of time than women in the general population.

Table 25 Total time spent walking continuously for ten minutes or more per week (minutes)[11]

Statistic	Time (minutes)
Mean	171
Median	150
IQR	80-240
Range	10-480

3.3.1 Vigorous Activities

Of the 917 women who completed the survey, 821 reported the number of times in the past week that they had engaged in vigorous physical activity. One in five women (19.9%, n=163) did not do any vigorous activity. The average number of times was 2.9 (median 2.0, IQR 1-4), and the range was 0-40 times. Neither frequency nor duration of vigorous physical activity differed between women living in rural or regional areas and those living in the Perth metropolitan area ($p>0.05$; Mann-Whitney U test), nor did they differ by age ($p>0.05$; Kruskal-Wallis test).

The average time spent exercising vigorously per week was 157 minutes (2.6 hours), and the median time was 120 minutes (2 hours). These figures are comparable to the WAHWSS data, in which the average time spent walking continuously for ten minutes or more was 114 minutes (1.9 hours) and the median time 120 minutes (2 hours). The distributions were similar, although the IQR of the data for lesbian and bisexual women was slightly wider (60-240 vs. 60-150 minutes) [29]. This suggests that lesbian and bisexual women who engage in vigorous physical activity, do so for longer periods of time than women in the general community.

Table 26 Total time spent exercising vigorously in past week (minutes)[12]

Statistic	Time (minutes)
Mean	157
Median	120
IQR	60-240
Range	3-510

[11] A few participants provided unusually high answers for this question. All outliers (defined as 1.5 times the interquartile range [>=510]) were removed before generating these statistics, resulting in the data for 80 participants being excluded. The original data can be found in Appendix A3.

[12] Values >=540 were defined as outliers, resulting in the data for 43 participants being excluded.

3.3.2 Moderate Activities

Of the 917 women who completed the survey, 688 reported the frequency and duration of moderate physical activity undertaken in the past week. The average frequency of moderate activity per week was 1.7 (median 1.0, IQR 0-2), and the range was 0-20 times. Two out of five women (41.4%, n=285) did not report any moderate physical activity. Neither frequency nor duration of moderate physical activity differed between women living in rural or regional areas and those living in the Perth metropolitan area ($p>0.05$; Mann-Whitney U test), and frequency of moderate physical activity did not differ with respect to age ($p=0.509$; Kruskal-Wallis test). However, older women spent more time engaging in moderate activities than younger women ($p=0.027$; Kruskal-Wallis test).

The average time spent exercising moderately per week was 106 minutes (1.8 hours), and the median time was 120 minutes (2 hours). These figures are comparable to the WAHWSS data, in which the average time spent walking continuously for ten minutes or more was 107 minutes (1.8 hours) and the median time 90 minutes (1.5 hours) [29]. The data were distributed similarly. These results indicate that lesbian and bisexual women who engage in moderate physical activities do so for a similar length of time to women in the general population.

Table 27 Total time spent exercising moderately in past week (minutes)[13]

Statistic	Time (minutes)
Mean	106
Median	120
IQR	60-120
Range	5-270

3.3.3 Sedentary Activities

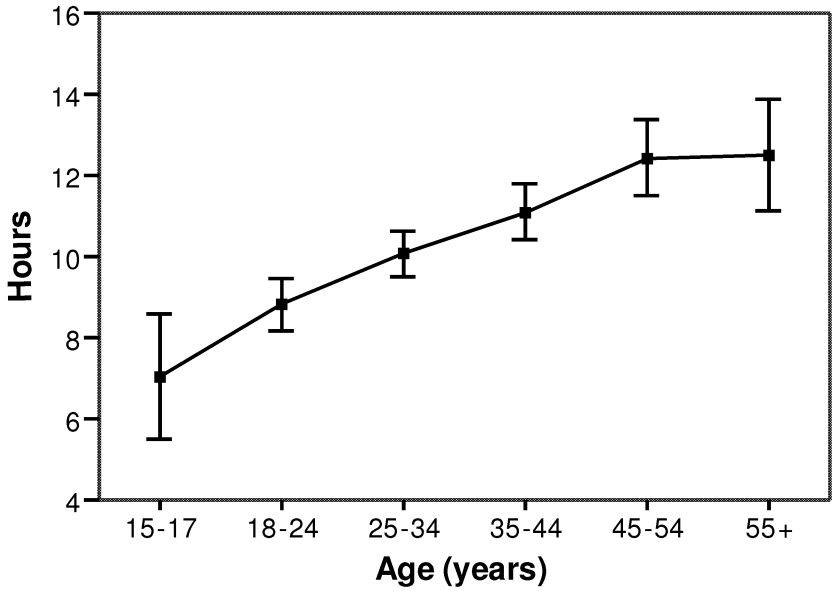
Of the 917 women who completed the survey, 860 reported the amount of time they spent watching TV or using a computer each week. After excluding outliers (defined as >=38 hours, n=123), the average time spent on these activities was 10.4 hours (median 8 hours, IQR 4-15 hours), and the range was 0-37.5 hours. There was no significant difference between women living in rural or regional areas and those living in the Perth metropolitan area ($p=0.459$; Mann-Whitney U test).

[13] Values >=300 were defined as outliers, resulting in the data for 55 participants being excluded.

These figures compare favourably with the data from the WAHWSS, in which the average time spent on sedentary activities was 14.5 hours and the median time 14 hours (IQR 7-21 hours) [29]. Lesbian and bisexual women may thus spend less time engaging in sedentary activities than women in the general population.

The time spent on sedentary activities differed significantly between age groups (p=0.013; Kruskal-Wallis test). Younger women spent less time on these activities than older women, and there was a trend for time spent on these activities to rise with age (p<0.001; Jonckheere-Terpstra test), as illustrated in Figure 2. Error bars show ±1 standard error of the mean.

Figure 2 Hours spent on sedentary activities each week by age



The data suggest that lesbian and bisexual women cannot be regarded as a homogeneous population with regard to physical activity. Lesbian and bisexual women who engage in vigorous or moderate activities appear to do so for longer periods of time than women in the broader community. However, 41.4% of lesbian and bisexual women did not report moderate exercise in the past week, and 19.9% did not report any vigorous physical activity. When asked to rate their physical activity levels, more lesbian and bisexual women described themselves as 'not very active' than women in the general population. This suggests that a significant proportion of lesbian and bisexual women are insufficiently active and do not meet recommended guidelines for physical activity.

3.4 Height and Weight

The average height of the 875 participants who provided these data was 166 cm (median 165 cm, IQR 160-171 cm), and the range was 141-198 cm. Slightly fewer women (n=849) provided their weight. The average weight was 71 kg (median 67 kg, IQR 60-80 kg) and the range was 40-150 kg. Just over half of the participants considered themselves to have an acceptable weight, but a significant proportion (44.2%) thought that they were overweight. Participants' self-perception of weight correlated well with an actual measure of body composition – the Body Mass Index (BMI). Data from this measure indicated that 51.2% of participants were of acceptable weight, whilst 44.8% were overweight or obese.

Table 28 Self-perception of weight

Category	Number	%
Acceptable weight	474	(53.3)
Underweight	22	(2.5)
Overweight	393	(44.2)
Total	**889**	**(100)**

A BMI could be calculated for 838 participants. The average BMI was 26.1 (median 24.4, IQR 21.8-29.0), and the range was 14.3-57.5. Women living in rural or regional areas tended to have a higher BMI than those living in the Perth metropolitan area (p=0.007; Mann-Whitney U test). The average BMI of women living in regional and rural areas was 27.6 (median 26.0, IQR 23.5-31.1). The average BMI of women living in the Perth metropolitan area was 26.0 (median 24.3, IQR 21.7-29.0).

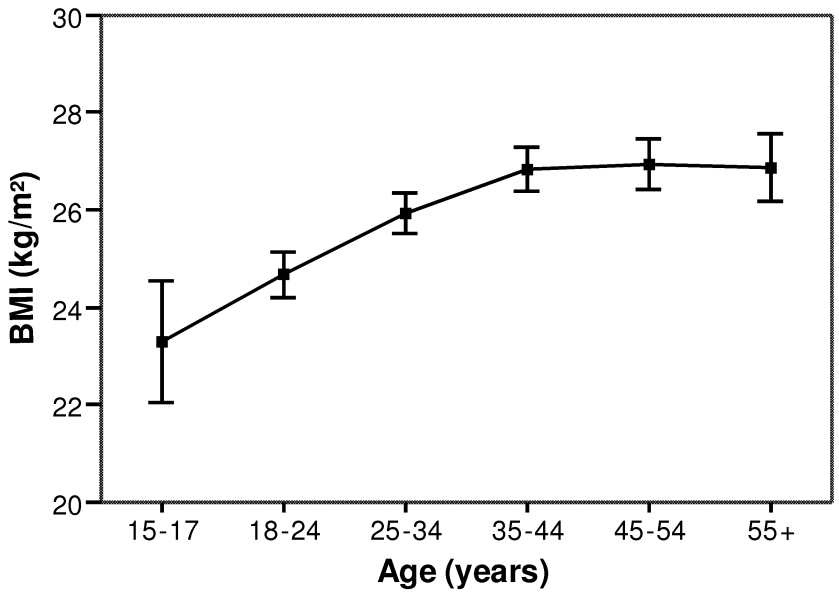
Table 29 Body mass index (BMI) of participants (kg/m^2)

Category	Number	%
Underweight (<18.5)	33	(3.9)
Normal (18.5 – 24.9)	429	(51.2)
Overweight (25.0 – 29.9)	193	(23.0)
Obese (>=30.0)	183	(21.8)
Total	**838**	**(100)**

BMI data were similar to that observed in the WAHWSS. In the general population, 52.6% of women were of normal weight, compared to 51.2% of lesbian and bisexual women. Just over a quarter of women in the WAHWSS sample (26.5%) fell into the overweight category, compared with 23% of lesbian and bisexual women. However, slightly more lesbian and bisexual women in the sample were obese compared with women in the general population (21.8% vs. 17.6%) [29].

There was a significant difference in BMI between age groups (p=0.001; Kruskal-Wallis test), with a trend for BMI to rise with age (p<0.001; Jonckheere-Terpstra test). A graph showing the average BMI by age group is shown in Figure 3 below. Error bars show ±1 standard error of the mean. This trend is also observed in the population generally, where overweight and obesity peaks in later life. In women, this peak is reported to occur between 60-64 years [30].

Figure 3 Average body mass index (BMI) by age



These results suggest that women older than 25 years may be the most appropriate target for healthy weight interventions in this population.

4 Cancer

Lesbian and bisexual women may be at an increased risk for certain cancers due to behavioural and environmental factors. A recent meta-analysis of seven U.S. studies found that lesbian and bisexual women had an above average prevalence of known risk factors for breast and gynaecologic cancers [23].

4.1 Cytological Screening

Lesbian and bisexual women are at risk of cervical cancer, but are reported to underutilise recommended screening tests [31]. Regular screening of women is important and has reduced cervical cancer mortality by 70% since 1950 [32]. Lesbians have been reported to perceive themselves to be at a lower risk of cervical cancer than heterosexual or bisexual women, because they have little or no sexual contact with men [32, 33]. However, both high and low-risk strains of the human papilloma virus (HPV), the principal risk factor for this cancer, have been shown to be transmissible between women [34].

Clinicians may be unaware that Pap smears are indicated in lesbians [35]. Although a decade has passed since the discovery that high-risk strains of HPV can be transmitted between women [35], the perception that lesbian and bisexual women do not need regular Pap tests persists [9]. The Australian National Cervical Screening Program acknowledged the need to encourage lesbians to get Pap tests in 1995, and the following year the *Lesbians Need Pap Smears Too* campaign was launched in Victoria [36]. However, the campaign did not extend to Western Australia, and lesbian and bisexual women continue to encounter health care workers who believe Pap tests to be unnecessary [37]. This may also have implications for uptake of the HPV vaccine.

Over half of participants (56.8%) reported having a Pap smear in the previous two years. In 2005-06, the cervical screening participation rate of women in the general population in Western Australia was 61.1% [38]. Lesbian and bisexual women appear to access cytological screening at a slightly lower rate than women in the general population.

Table 30 Time of last Pap smear[14]

Time	Number	%
Less than 2 years ago	483	(56.8)
Two or more years ago	205	(24.1)
Never	162	(19.1)
Total	**850**	**(100)**

Younger women were more likely to have never had a Pap smear than older women ($p<0.001$; Chi-square test). As illustrated below, the proportion of women who had never had a Pap smear decreased with age. Younger women are less likely to have ever been sexually active than older women, so it is to be expected that Pap smear participation would be lower in younger age groups. However, the majority of women aged 15-34 years had at least one sexual partner in the past six months. It is highly likely that cytological screening is indicated in the majority of women who reported never having a Pap smear.

Table 31 Time of last Pap smear by age (%)

	Age (years)					
Time	**15-17**	**18-24**	**25-34**	**35-44**	**45-54**	**55+**
Less than 2 years ago	17.6	46.5	55.6	70.2	57.5	48.7
Two or more years ago	0	5.6	23.9	25.0	41.1	41.0
Never	82.4	47.9	20.5	4.8	1.4	10.3
Total	**100**	**100**	**100**	**100**	**100**	**100**

Of the 688 women who reported that they had had a Pap smear, 29.2% (n=201) had returned an abnormal result for at least one previous test.

Table 32 Ever had an abnormal Pap smear result

Abnormal result	Number	%
Yes	201	(29.2)
No	482	(70.1)
Can't remember / don't know	5	(0.7)
Total	**688**	**(100)**

[14] The 5 participants who reported that they were transsexual or intersexed have been excluded from this analysis, as information about their anatomy was unavailable. Although regular pelvic examinations would probably be indicated in these individuals, most would not require cytological screening [39].

4.2 Mammography

A study of lesbians and their heterosexual sisters found that lesbians had a slightly higher lifetime and five-year risk of developing breast cancer than their siblings [24]. Rates of breast cancer may be higher amongst lesbian and bisexual women due to nulliparity or older age at first childbirth [40], higher consumption of alcohol [41, 42] and obesity [40]. Underutilisation of preventative health care may also increase the risk, due to delayed diagnosis and subsequent development of more advanced cancer [43, 44].

There were 89 participants who were aged 50 years or older, and all but one provided information about breast screening. The majority of women (73.9%) had undergone a mammogram in the last two years and 90.9% had undergone a mammogram at some point. The participation rate for women aged 50-69 in the general population in Western Australia in 2002-03 was 55.7% [45]. Participants were not asked to distinguish between screening and diagnostic mammograms, so it is not possible to compare the rate of screening between lesbian and bisexual women, and those in the general population. Thus, despite the high proportion of participants reporting a mammogram in the past two years, this does not necessarily indicate that lesbian and bisexual women are more likely to meet national mammographic screening guidelines.

Table 33 Time of last mammogram, participants aged 50 years and over

Time	Number	%
Less than 2 years ago	65	(73.9)
Two to five years ago	7	(7.9)
Five years ago or more	8	(9.1)
Never	8	(9.1)
Total	**88**	**(100)**

4.3 History of Cancer in the Sample

Of the 886 participants who completed this section of the questionnaire, 10.6% (n=94) had been diagnosed with cancer at some point in their life. This rate is slightly higher than observed in the WAHWSS (7.4%) [29], but the difference may not be statistically significant. The most common site was the skin, followed by gynaecological, and then breast cancers. The relatively low prevalence of breast cancer compared to other types of cancer may be attributed to the age distribution of the sample. Breast cancer is not typically a disease of young women [46], and given the bias toward younger women, this is reflected in the data.

Table 34 Type of cancer

Type	Number	%
Skin	40	(41.2)
Gynaecological	32	(33.0)
Breast	10	(10.3)
Colorectal	2	(2.1)
Other	13	(13.4)
Total [15]	**97**	**100**

Other cancers reported included thyroid, brain, Burkitt's lymphoma and adenoid cystic carcinoma.

Table 35 Age at diagnosis

	Age (years)			
Type of cancer	Mean	Median	IQR	Range
Skin	35	35	27-40	14-62
Gynaecological	28	25	21-32	18-48
Breast	39	43	32-46	19-47
Colorectal[16]	11	11	-	-
Other	28	27	23-34	21-35

[15] This figure is higher than 94 because some individuals were diagnosed with multiple cancers.

[16] Only one person with colorectal cancer reported the age at which they were diagnosed.

5 Alcohol, Tobacco and Other Drug Use

Health care providers working with gay men and lesbians report that the prevalence of substance abuse in these communities is two to three times higher than observed in the heterosexual population [47]. It has been suggested that stress and depression experienced as a result of external and internalised homophobia may account for higher rates of substance use amongst lesbian and bisexual women [48]. Cultural factors, including the use of bars as a primary means of socialisation may also be involved [49].

One study of same-sex attracted youth found that substance use in young people increased during the period of their initial involvement in the gay community [50]. Over time, as participation in community activities increased, substance use decreased. The authors offer three possible explanations for this finding: (a) social anxiety may be heightened during the initial period of involvement, and substances may be used to bolster self-confidence and ameliorate anxiety; (b) individuals may feel a sense of release from boundaries as prior attempts to repress same-sex attraction are abandoned, and such a feeling may extend to other boundaries; and (c) socialising in the GLBT community often occurs in venues where alcohol and tobacco are sold and other drugs may be available. As individuals become more involved in the community, they may identify alternative settings in which to socialise [50].

5.1 Tobacco

The prevalence of smoking amongst lesbian and bisexual women has been shown to be higher than their heterosexual counterparts [48, 51-53], and lesbian and bisexual women are more likely to be current or former smokers than women in general [23]. However, small sample sizes, lack of a standard definition of smoking and the failure to collect sexual orientation information in population-based health surveys have confounded research efforts [54].

Of the 876 women who provided information about tobacco use, 28.1% (n=246) were smokers. In the WAHWSS sample, 14.8% of women were smokers [29]. The prevalence of smoking amongst lesbian and bisexual women appears to be roughly double that of the general female population. The proportion of smokers in each age group differed significantly ($p<0.001$; Kruskal-Wallis test), with younger women more likely to smoke than older women.

Table 36 Self-perception of tobacco use

Self-perception	Number	%
Heavy smoker	92	(10.5)
Light smoker	89	(10.2)
Occasional smoker	65	(7.4)
Ex-smoker	139	(15.9)
Non-smoker	491	(56.0)
Total	**876**	**(100)**

Of the 246 women who smoked, 238 provided information about the frequency of smoking. The majority of women smoked on a daily basis.

Table 37 Smoking frequency amongst smokers

Frequency	Number	%
Daily	172	(72.3)
At least weekly, but not daily	25	(10.5)
Less often than weekly	41	(17.2)
Total	**238**	**(100)**

Of those who smoked daily, the average and median number of cigarettes smoked per day was 15 (105 per week). Tobacco consumption did not differ by age (p=0.561; Kruskal-Wallis test). Of those who smoked weekly, the average number of cigarettes smoked per week was 45 (median 21). Consumption did not differ by age (p=0.140; Kruskal-Wallis test).

Table 38 Tobacco consumption

	Cigarettes			
Group	Mean	Median	IQR	Range
Daily smokers	15	15	8-20	1-50
Weekly smokers	45	21	5-70	1-300

5.2 Alcohol

Heavy alcohol consumption is thought to be relatively common amongst lesbian and bisexual women, with some authors suggesting that patterns of alcohol use are similar to male levels [23]. Whilst methodological limitations in previous studies may have introduced bias, there is strong evidence that lesbian and bisexual women consume more alcohol than heterosexual women [9].

A recent U.S. study found that only a minority of lesbian and bisexual women experience problem levels of alcohol use [48]. However, overall levels of alcohol consumption amongst lesbian and bisexual women remained higher than heterosexual women. In contrast to previous research suggesting that rates of heavy drinking remain consistently higher than those of heterosexual women over time [55], this study indicated that patterns of alcohol consumption were not uniform over age groups. High levels of alcohol use were observed amongst women aged 20 to 34 years, but declined sharply amongst those aged 34 to 49 years. This supports the theory that young lesbian and bisexual women are more likely to participate in "bar culture" as a primary means of socialisation [49].

Table 39 Frequency of alcohol consumption

Frequency	Number	%
Never drink	86	(9.7)
Less than once per month	137	(15.4)
Less than once per week	168	(18.9)
1-2 days per week	211	(23.7)
3-4 days per week	151	(16.9)
5-6 days per week	85	(9.5)
Every day	53	(5.9)
Total	**891**	**(100)**

The majority of women (67.7%) reported drinking 1-2 days per week or less, compared with 73.8% of women in the WAHWSS sample [29]. One in six women (16.9%) drank 3-4 days per week (compared with 12.1% of women in the WAHWSS sample), 9.5% drank 5-6 days per week (compared with 4.4%), and 5.9% drank on a daily basis (compared with 9.6%) [29]. This suggests that lesbian and bisexual women consume alcohol more frequently than women in the general population.

Of the participants who drank alcohol, the average number of standard drinks consumed per occasion was 3.6 (median 3). In the WAHWSS sample, the average number of drinks consumed per occasion was 2.4 and the median number was 2 (IQR 1-3) [29]. These figures are lower than

those reported by participants, suggesting that when lesbian and bisexual women drink alcohol, they consume larger amounts than women in the general population.

Table 40 Usual number of standard drinks consumed

Statistic	Number of drinks
Mean	3.6
Median	3.0
IQR	2.0-5.0
Range	1-24

National alcohol guidelines suggest that women should consume an average of no more than 2 standard drinks per day and no more than 14 standard drinks over a week; consume no more than 4 standard drinks in any one day; and have one or two alcohol free days per week [56]. Nearly a third of participants (30.5%) exceeded these guidelines by consuming more than 4 standard drinks in a single day, once a week or more.

Table 41 Frequency of consuming 5 or more standard drinks, drinkers only

Frequency	Number	%
More than once per week	80	(10.3)
Once per week	156	(20.2)
Less than once per week	61	(7.9)
About once per month	205	(26.5)
Never	272	(35.1)
Total	**774**	**(100)**

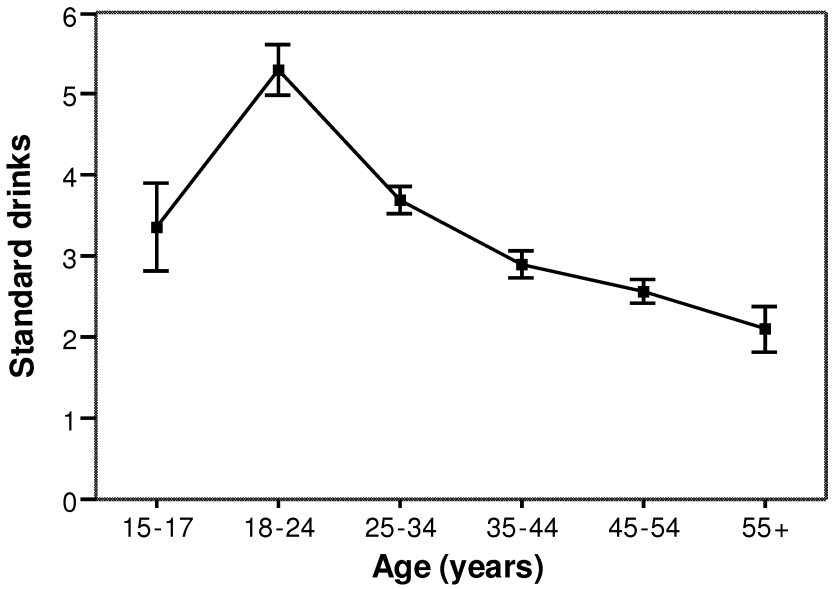
Despite 30.5% of participants exceeding recommended guidelines on a weekly basis, only 7% of women described themselves as a heavy drinker. This suggests that these women were unaware that their consumption patterns were potentially harmful and that heavy drinking may be a normalised behaviour amongst lesbian and bisexual women.

Table 42 Self-perception of alcohol use

Self-perception	Number	%
Non-drinker	91	(10.3)
Ex-drinker	17	(1.9)
Occasional drinker	304	(34.3)
Light drinker	231	(26.0)
Party drinker	182	(20.5)
Heavy drinker	62	(7.0)
Total	**887**	**(100)**

Alcohol consumption differed significantly between age groups ($p<0.001$; Kruskal-Wallis test). Younger women reported heavier consumption patterns than older women, with women aged 18-24 years reporting particularly high levels. As illustrated in Figure 4, there was a trend for alcohol consumption to decrease in subsequent age groups ($p<0.001$; Jonckheere-Terpstra test). Error bars show ±1 standard error of the mean.

Figure 4 Usual number of standard drinks consumed by age



These results confirm previous findings that younger lesbian and bisexual women are most at risk of alcohol-related harm and support the "bar culture" theory.

5.3 Other Drug Use

Lesbian and bisexual women report higher levels of illicit drug use than heterosexual women [57]. A U.S. study conducted in two metropolitan areas found that 23.5% of lesbians had used cannabis, compared with 9.1% of women in the general population [58]. Researchers in New Zealand reported that 75.8% of lesbians had used cannabis at least once (compared to 43% in the general population), and 32.6% had used it in the last year (compared to 10% in the general population). Almost a third of lesbians had used a recreational drug other than cannabis or alcohol in the past and 4.5% had used such a drug in the last year. These rates were also higher than those recorded in the general population [59]. High levels of substance use are of concern not only for their direct contribution to mortality and morbidity [60], but also because of their potential to contribute to risk-taking behaviour. Participants in one study of the sexual practices of lesbian and bisexual women agreed that alcohol and drug use contributed to unsafe sexual practices [61].

One third of participants (33.6%, n=308) reported that they had used an illicit drug in the past six months. The most commonly used drugs were cannabis, ecstasy and speed (in that order). In the 2004 National Drug Strategy Household Survey, 17.3% of individuals living in Western Australia reported using an illicit drug in the previous 12 months. The most commonly used drugs were cannabis, methamphetamine/speed and ecstasy, with 13.7%, 4.5% and 4.1% of individuals reporting their use [62]. These results suggest that lesbian and bisexual women are more likely to use illicit drugs than their heterosexual counterparts.

Table 43 Substances used in past six months

Substance	Number	%
Cannabis/marijuana	242	(26.4)
Ecstasy	164	(17.9)
Speed	159	(17.3)
Crystal meth	81	(8.8)
Cocaine	60	(6.5)
Amyl	39	(4.3)
LSD	34	(3.7)
Special K (ketamine)	9	(1.0)
Heroin	9	(1.0)
GHB	8	(0.9)
Steroids (not prescribed)	8	(0.9)
Other drug	38	(4.1)

Other drugs reported by participants included dexamphetamine, analgesics, 'magic mushrooms', benzodiazepines, and methadone.

5.3.1 Injecting Drug Use

Of the 308 participants who reported drug use, 32 (10.4%) reported injecting drug use in the past six months. Out of the entire sample, the rate of injecting drug use in the previous six months was 3.5%.

Table 44 Injecting drug use in past six months

Frequency	Number	%
Never	789	(86.0)
Daily	7	(0.7)
At least weekly but not daily	10	(1.1)
At least monthly by not weekly	9	(1.0)
Some months	6	(0.7)
Not stated	96	(10.5)
Total	**917**	**(100)**

6 Harassment and Abuse

6.1 Physical and Verbal Abuse

Lesbian and bisexual women are targets for homophobic violence [7]. As many as 92% of lesbian women report experiencing verbal abuse or threats at some point in their life [63]. The second national report on the health and well-being of same-sex attracted young people in Australia found that 44% of participants had experienced verbal abuse and 16% reported a physical assault because of their sexuality [64].

Of the 879 participants who responded to this question, over a third (38.2%) had experienced verbal or physical abuse in the last three years due to their sexuality.

Table 45 Experienced discrimination in past three years

Discrimination	Number	%
Yes	336	(38.2)
No	543	(61.8)
Total	**879**	**(100)**

6.2 Domestic Abuse

Domestic violence has traditionally been defined as violence that occurs between persons who are, or have been in an intimate relationship, with a male perpetrator and a female 'victim' [65]. It is true that the majority of domestic violence cases involve the abuse of women by a male partner. In Western Australia in 1994, the perpetrator was male in 91.4% of domestic violence cases [66]. However, traditional definitions of domestic violence are problematic because they fail to consider those living in same-sex relationships.

In a survey conducted by the Health Promotion and Programs Branch of Health Canada, 66% of same-sex attracted women knew someone who had experienced violence, and 19% perceived themselves as having been subjected to abuse [67]. Abuse was mainly described as emotional, though 54% of those experiencing abuse were physically assaulted and 10% were sexually assaulted. Other studies have shown similar rates of abuse [68, 69].

Same-sex attracted people may be reluctant to approach mainstream service providers due to fear of discrimination [70]. In the Health Canada survey, none of the people who experienced domestic violence turned to traditional legal and social services. Most stated that social workers, health

workers and police needed to be educated about the problem [67]. Traditional domestic violence services are often unsuitable for anyone but heterosexual women. Shelters often do not welcome non-heterosexual women and lesbian and bisexual women typically view these services as unhelpful [71]. A survey conducted in the early 1990s of twelve women's refuges in Perth revealed that only three welcomed same-sex attracted women [72].

Just under one third of participants (28.9%) had experienced physical violence at some point in a relationship, and nearly half had experienced some form of emotional abuse. The likelihood of experiencing abuse was not associated with sexuality (p=0.094; Chi-square test). Although women identifying as bisexual were more likely to be partnered with a male than women identifying as lesbian, bisexual women were no more likely to have experienced physical abuse (p=0.407; Chi-square test) or emotional abuse (p=0.359; Fisher's exact test) than lesbians. This refutes the assumption that domestic violence only occurs in heterosexual relationships [72]. Whilst women are more likely to be victims of domestic abuse than men, women can be abusers. Domestic violence can and does occur in same sex relationships, and the prevalence appears to be similar to that occurring in heterosexual relationships [73].

Table 46 Experienced abuse in a relationship

	Yes		No		Total	
	n	%	n	%	n	%
Physical abuse	235	(28.9)	578	(71.1)	**813**	**(100)**
Emotional abuse	407	(47.6)	448	(52.4)	**855**	**(100)**

Of the 433 women who had experienced either physical or emotional abuse, the majority were abused by a female partner. Unsurprisingly, since women identifying as lesbian were more likely to be partnered with a woman, lesbians were more likely to have been abused by a female partner than bisexual women (p<0.001; Chi-square test). Of the bisexual women who reported experiencing abuse, 32.5% were abused by a female partner, compared with 78.3% of lesbians.

Table 47 Gender of perpetrator

Gender	Number	%
Woman	256	(59.1)
Man	115	(26.6)
Both	58	(13.4)
Not stated	4	(0.9)
Total	**433**	**(100)**

7 Mental Health

Lesbian and bisexual women are more likely to report increased rates of poor mental health than heterosexual women [6]. The factors influencing the mental health of same-sex attracted women are similar to those of women in general. However, lesbian and bisexual women may be more vulnerable to common mental illnesses due to social factors such as societal stigma and isolation [74]. Same-sex attracted individuals appear to experience excess risk for certain mental illnesses, particularly anxiety disorders and depression, compared to heterosexuals [75, 76]. A recent Australian study found that lesbian and bisexual women had poorer mental health outcomes than exclusively heterosexual women, even after adjustment for age, religion and educational attainment. Bisexual women were at a particularly high risk for self-harm [77].

7.1 Depression

Research has consistently indicated that lesbian and bisexual women are at a higher risk for depression and suicide compared to heterosexual women [25, 48]. A link between increasing degree of same-sex attraction and self-harm has been postulated [78]. In Christchurch, New Zealand, a cohort of 1,265 children were followed from birth for 21 years [79]. Of the sample, 2.7% identified themselves as gay, lesbian or bisexual. These individuals were found to be at greater risk of generalised anxiety disorder (odds ratio [OR]=2.8), depression (OR=4.0), suicidal ideation (OR=5.4) and suicide attempts (OR=6.2).

Almost half of participants (49.2%, n=451) in the present study had been told that they had depression by a doctor, psychologist, counsellor or other source. Of these, 44.1% (n=199) had been told this in the past year. Just over a third of participants (34.8%, n=319) had been diagnosed with depression by a doctor, compared to 22.8% of women in the WAHWSS sample [29]. This finding supports previous research suggesting that lesbian and bisexual women are more likely to experience depression than heterosexual women.

Table 48 Ever told had depression[17]

	Yes		No		Total	
Source	**n**	**%**	**n**	**%**	**n**	**%**
Doctor	319	(34.8)	598	(65.2)	**917**	**(100)**
Psychologist	168	(18.3)	749	(81.7)	**917**	**(100)**
Counsellor	150	(16.4)	767	(83.6)	**917**	**(100)**
Other person	90	(9.8)	827	(90.2)	**917**	**(100)**

[17] Some individuals were told they had depression by multiple sources, thus the figures in the second column sum to more than 451.

7.2 Anxiety

Four out of ten participants (40.2%, n=369) had been told that they had an anxiety disorder by a doctor, psychologist, counsellor or other source. Of these, 49.1% (n=181) had been told this in the past year. Just under a quarter of participants (22.9%, n=210) had been diagnosed with an anxiety disorder by a doctor, compared to 20.5% of women in the WAHWSS sample [29].

Table 49 Ever told had an anxiety disorder[18]

	Yes		No		Total	
Source	**n**	**%**	**n**	**%**	**n**	**%**
Doctor	210	(22.9)	707	(77.1)	**917**	**(100)**
Psychologist	126	(13.7)	791	(86.3)	**917**	**(100)**
Counsellor	125	(13.6)	792	(86.4)	**917**	**(100)**
Other person	99	(10.8)	818	(89.2)	**917**	**(100)**

7.3 Current Mental Health Treatment

Close to one in five women (19.3%, n=177) reported that they were currently receiving treatment for anxiety, depression, stress-related problems or another mental health problem. This figure is significantly higher than that recorded in the WAHWSS sample, in which 8.5% of women reported current treatment for a mental health problem [29]. These results confirm the findings of previous studies and indicate that lesbian and bisexual women are at greater risk of mental illness, particularly depression and anxiety disorders, than women in the general population.

Table 50 Current treatment for a mental health problem

Current treatment	Number	%
Yes	177	(19.3)
No	600	(65.4)
Not stated	140	(15.3)
Total	**917**	**(100)**

[18] Some individuals were told they had an anxiety disorder by multiple sources, thus the figures in the second column sum to more than 369.

8 Sexual Practice and 'Safe Sex'

8.1 Sexual Attraction

Although the majority of participants (60.3%) used the label *lesbian* to describe their sexuality, most (67.9%) had felt sexually attracted to men on at least one occasion.

Table 51 Sexual attraction

Attraction	Number	%
Only to females, never to males	273	(31.2)
More often to females, at least once to males	414	(47.4)
Equally often to males and females	101	(11.6)
More often to males, at least once to females	65	(7.4)
Only to males, never to females	13	(1.5)
No one at all	8	(0.9)
Total	**874**	**(100)**

8.2 Sexual Practice with Male Partners

Roughly one in six participants (14.7%, n=135) reported sex with a male partner in the past six months. Similar findings have been reported elsewhere, with a recent U.K. study of 1,218 lesbian and bisexual women, (believed to be the largest study of U.K. lesbian and bisexual women to date), finding that a significant proportion of both lesbian and bisexual women had experienced sexual contact with male and female partners [80].

Table 52 Number of male partners in past six months

Male partners	Number	%
None	698	(83.8)
One	92	(11.0)
Two to five	34	(4.1)
Six to ten	5	(0.6)
More than ten	4	(0.5)
Total	**833**	**(100)**

Of the 135 women who reported sex with a male partner in the previous six months, nearly one third (31.1%, n=42) reported that safe sex was never practised. However, of these 42 women, 71.4% (n=30) had accessed STI testing at some point, and only 21% (n=9) had never had an STI test, so it is possible that the majority were having unprotected sex with a trusted partner.

Table 53 'Safe sex' practiced with male partner(s) in past six months

Safe sex practised	Number	%
Never	42	(31.1)
Most of the time	30	(22.2)
All of the time	57	(42.2)
Not stated	6	(4.5)
Total	**135**	**(100)**

Most partners of the 135 women did not identify as gay or bisexual. However, 23 women (17%) reported sex with a gay or bisexual man. That lesbians may be sexually active with gay or bisexual men is not a new finding. A previous study found that lesbian and bisexual women were 3.4 times more likely to report previous sexual contact with a gay or bisexual man, compared with heterosexual women [81]. As a group, gay and bisexual men are at higher risk of HIV infection than heterosexual men. Thus, lesbian and bisexual women may be at higher risk of STI than previously thought. However, the context in which these sexual experiences occurred and knowledge of partners' HIV status is beyond the scope of the present study. Further research is warranted to explore sexual contact between gay men and lesbian and bisexual women.

Table 54 Male partners who were gay or bisexual

Gay or bisexual partners	Number	%
None	100	(74.1)
Some	12	(8.9)
Most	2	(1.5)
All	9	(6.6)
Not stated	12	(8.9)
Total	**135**	**(100)**

8.3 Sexual Practice with Female Partners

Compared to heterosexual women, lesbian and bisexual women report a lower prevalence of 'safe sex' behaviour, a greater number of sexual partners, and an earlier onset of sexual activity [31]. Of the 1,925 women participating in the U.S. National Lesbian Health Care Survey, fewer than 25% indicated that they were worried about contracting STI. Most perceived lesbian sexual practices as low risk [82]. This is despite research indicating that the prevalence of STI is similar in lesbian and heterosexual women [83], and that conditions such as bacterial vaginosis appear to be more common in lesbian and bisexual women than in heterosexual women [84, 85].

The majority of participants (77.7%, n=674) reported sex with a woman in the past six months. Most of the women who reported sex with a female partner had only one partner in the past six months.

Table 55 Number of female partners in past six months

Female partners	Number	%
None	193	(22.3)
One	540	(62.3)
Two to five	127	(14.6)
Six to ten	5	(0.6)
More than ten	2	(0.2)
Total	**867**	**(100)**

The perception that sex between women is low risk appears to correlate with low rates of "safe" sexual practices. In the previously mentioned U.K. study [80], 86% of women who reported oral sex with a female partner had never used a dental dam. Occasional use of dental dams was reported by 13% of the women and only 1% always used them. Of the women who reported sharing sex toys, 47% always washed them before sharing. Occasional washing of sex toys was reported by 31% of the women and 22% never washed them before sharing [80]. The use of condoms to protect sex toys appears unpopular with lesbian and bisexual women. Participants in one study expressed the perception that condoms were appropriate only for sex with men; condoms were unnecessary in sex between women because there was no risk of pregnancy or STI [61].

These findings are supported by the data in the present study. Of the 674 participants reporting sex with a woman in the past six months, almost all had never used a dental dam, glove or condom with their partner.

Table 56 'Safe sex' practiced with female partner(s) in past six months

	Never		Occasionally		Often		Total	
	n	%	n	%	n	%	n	%
Dental dam	609	(96.7)	13	(2.1)	8	(1.3)	**630**	**(100)**
Glove	592	(94.7)	23	(3.7)	10	(1.6)	**625**	**(100)**
Condom	558	(86.6)	47	(7.3)	39	(6.1)	**644**	**(100)**

8.4 Relationships

The majority of participants were in a regular relationship with a female partner, and a few reported a relationship with a male partner. A very small number of women (1.8%) reported a current polygamous relationship.

Table 57 Relationship with regular partner

Gender	Number	%
Woman	545	(62.6)
Man	47	(5.4)
Multiple partners	16	(1.8)
No regular relationship	263	(30.2)
Total	**871**	**(100)**

Of the women who reported a relationship with a female partner, 70.9% (n=392) had been in the current relationship for two years or more.

Table 58 Length of relationship with regular female partner

Length	Number	%
Less than six months	93	(16.8)
Six months to one year	68	(12.3)
Two to three years	186	(33.6)
Four to five years	69	(12.5)
Six to ten years	67	(12.1)
More than ten years	70	(12.7)
Total	**553**	**(100)**

The majority of women had an agreement with their regular partner that there would be no casual sex outside of the relationship. Nearly one third of participants did not have an agreement with their partner, and 5% of women had an agreement permitting casual sex.

Table 59 Agreement about sex with casual partners outside of the relationship

Agreement	Number	%
No agreement	151	(27.1)
Agreement (no sex outside relationship)	379	(67.9)
Agreement (all casual sex with condom or dam)	22	(3.9)
Agreement (casual sex can be without condom or dam)	6	(1.1)
Total	**558**	**(100)**

8.5 Sexually Transmissible Infections

Lesbians, and to a lesser extent bisexual women, have traditionally been perceived as a group at low risk for sexually transmitted disease and have been overlooked in screening initiatives [81]. The likelihood of contracting bacterial STI such as chlamydia and gonorrhoea is considered to be low in this population. Studies have shown the incidence and prevalence to be lower than in heterosexual women, but lesbian and bisexual women remain at risk [9]. In a recent study at a sexual health clinic in Sydney, the medical records of 1,408 lesbian and bisexual women were compared against those of 1,423 heterosexual women, for the period 1991-1998 [81]. The prevalence of gonorrhoea was low (<1%), and similar in both groups. Chlamydia also had a low prevalence and was similar in both groups (3% in lesbian and bisexual women, 4% in heterosexual women). Genital herpes was common in both groups (9%), whilst warts were less common in the bisexual and lesbian women (8% vs. 11%). Prevalence of hepatitis C was much greater in the lesbian and bisexual women (5% vs. <1%), as was hepatitis B (5% vs. 3%). HIV prevalence was low in both groups (<1%). Bacterial vaginosis was significantly more common amongst lesbian and bisexual women (8% vs. 5%).

Two U.K. studies reported similar findings [84, 86]. Lesbian and bisexual women were at a lower risk of conditions such as chlamydia and gonorrhoea, but showed markedly higher rates of bacterial vaginosis than heterosexual women; 33% vs. 13% in the Royal London Hospital study [84]. Bacterial vaginosis is associated with an increased risk of acquiring HIV, adverse outcomes of pregnancy and pelvic inflammatory disease [87]. It is common amongst bisexual women and lesbians, appears to be transmissible between women [85] and should be considered a sexually transmitted disease [88]. These results indicate that lesbian and bisexual women may be at a greater risk for STI than previously thought.

Two out of five participants in the present study had never been tested for STI, and only 32.3% had been tested within the past two years.

Table 60 Last tested for STI

Time	Number	%
Never	342	(41.5)
In the last year	176	(21.3)
One to two years ago	91	(11.0)
More than two years ago	216	(26.2)
Total	**825**	**(100)**

Of the 483 participants who had been tested for STI, blood testing was the most commonly reported test, followed by a swab of the genital area. A little over a third (38.1%, n=184) of participants who had been tested had not received a blood test, indicating that practitioners may not consider lesbian and bisexual women to be at risk of contracting hepatitis B, C, or HIV.

Table 61 Tests performed at last check-up[19]

Test	Number	%
Blood test	299	(61.9)
Vaginal/genital swab	238	(49.3)
Urine test	170	(35.2)
Throat swab	25	(5.2)
Anal/rectal swab	10	(2.1)

Participants were most likely to have received STI testing from their GP. Participants also reported receiving a test when giving blood, as part of treatment in hospital, and as an immigration requirement.

Table 62 Place where last test performed

Location	Number	%
GP / family doctor	305	(63.1)
Sexual health clinic	35	(7.2)
FPWA health clinic	32	(6.6)
Women's health clinic	18	(3.7)
24 hour medical centre	8	(1.7)
Other	24	(5.0)
Not stated	61	(12.6)
Total	**483**	**(100)**

8.6 History of STI and BBV

The most common STI that participants reported being diagnosed with was HPV, although it is likely that many of the participants are undiagnosed. HIV and hepatitis C were rare.

Table 63 Ever diagnosed with STI or BBV

	Yes		No		Don't know		Total	
	n	%	n	%	n	%	n	%
HPV	78	(9.1)	774	(89.9)	9	(1.0)	**861**	**(100)**
Hepatitis C	9	(1.1)	805	(98.2)	6	(0.7)	**820**	**(100)**
HIV	3	(0.4)	802	(98.8)	7	(0.8)	**812**	**(100)**

[19] Categories are not mutually exclusive, thus it is not meaningful to calculate a total.

9 Accessing Services

Sexual minorities may find it hard to establish trusting relationships with health care professionals [89]. Many lesbian and bisexual women are reluctant to disclose their sexual orientation when seeking care for fear of negative reactions [90-92], and continue to report encountering health workers who hold hostile and phobic attitudes toward them [93]. Discrimination within the health care setting has a profound negative effect on patterns of future health-seeking behaviour, particularly with regard to preventative care [94]. Some women may be discouraged from accessing traditional care and turn to alternative therapies [1, 95]. This may result in later detection of serious disease (such as cancer) and poorer prognosis [96].

9.1 Disclosure of Sexuality to Health Care Provider

The quality of care received by lesbian and bisexual women may be compromised if health care workers make incorrect assumptions about them [91]. Knowledge of sexual orientation and sexual history is particularly important for provision of sexual health screening [22], but as many as two thirds of clinicians fail to ask clients about their sexual orientation [97]. Research has indicated that lesbian and bisexual women would prefer to disclose their sexual orientation to health workers [90], but are often silenced because many physicians assume their clients to be heterosexual [10].

The majority of participants in the present study reported that they disclosed their sexuality to health care providers, but almost a third do not. It is concerning that 36 women reported that they would not tell their doctor about their sexuality, even if asked. However, over a third of women (34.9%, n=292) are prepared to disclose their sexuality to health care providers if asked. This is an encouraging finding and a clear indication that health professionals should be proactive.

Table 64 Tell health care provider about sexuality

Disclosure	Number	%
Yes, volunteer without being asked	477	(57.1)
Yes, but only when asked	68	(8.1)
No, but would tell if asked	224	(26.8)
No, but assume they know	30	(3.6)
No, would not tell even if asked	36	(4.3)
Total	**835**	**(100)**

9.2 Discomfort Accessing Services

The attitudes of a health care professional can have a marked impact on the health status of their client. A study of substance abuse counsellors found that client recovery was significantly related to the attitude of the counsellor [98]. Unfortunately, many health care workers have little understanding of the needs of GLBT populations. In another study of substance abuse counsellors, only half had any formal education regarding the issues affecting gay, lesbian and bisexual people and fewer than 20% had any instruction regarding transgender and transsexual people [99]. A significant number of counsellors expressed negative attitudes toward GLBT people. Counsellors were most negative regarding transgender and transsexual people, followed by bisexuals, gay men and lesbians. Regrettably, such attitudes are not uncommon. In a 1999 survey of U.S. second year medical students, 9% believed that homosexuality was a mental disorder and 25% believed that homosexuality was "immoral and dangerous to the institution of the family" [100]. Closer to home, 23% of GLBT Victorians reported experiencing discrimination when accessing health care [101].

Of the 710 women who reported accessing a general practitioner, 9.3% had felt uncomfortable accessing the service. Almost one in ten (9.2%) felt uncomfortable accessing a counsellor or psychologist, 6.7% accessing child care, 6.2% using the HealthDirect helpline, and 6.3% accessing a sexual health service.

Table 65 Felt uncomfortable accessing service

	Yes		No		Not visited		Total	
	n	%	n	%	n	%	n	%
Counsellor or psychologist	45	(5.5)	446	(54.6)	326	(39.9)	**817**	**(100)**
General practitioner	66	(8.0)	644	(78.1)	115	(13.9)	**825**	**(100)**
Sexual health service	18	(2.3)	269	(34.1)	501	(63.6)	**788**	**(100)**
HealthDirect helpline	10	(1.3)	234	(30.1)	534	(68.6)	**778**	**(100)**
Aged care	7	(0.9)	181	(23.2)	591	(75.9)	**779**	**(100)**
Youth service	13	(1.7)	194	(24.8)	574	(73.5)	**781**	**(100)**
Women's health service	20	(2.5)	251	(31.9)	517	(65.6)	**788**	**(100)**
Family/child service	18	(2.3)	207	(26.4)	559	(71.3)	**784**	**(100)**
Other health care	24	(3.0)	279	(35.5)	484	(61.5)	**787**	**(100)**
Child care	14	(1.8)	195	(25.2)	565	(73.0)	**774**	**(100)**

9.3 Satisfaction with Community Services

Of the 109 women who had accessed Gay and Lesbian Community Services (GLCS), the majority (78.9%) were satisfied.

Table 66 Satisfaction with Gay and Lesbian Community Services

Satisfaction	Number	%
Satisfied	86	(10.5)
Not satisfied	23	(2.8)
Not visited	707	(86.6)
Total	**816**	**(100)**

The Freedom Centre is a drop-in space for GLBT youth, and provides a safe social space, information, support and referral. It is run and coordinated by young, peer-based volunteers and staff with support from the Western Australian AIDS Council. Of the 135 women who had accessed the Freedom Centre, 81.5% were satisfied with the service.

Table 67 Satisfaction with Freedom Centre

Satisfaction	Number	%
Satisfied	110	(13.3)
Not satisfied	25	(3.0)
Not visited	689	(83.6)
Total	**816**	**(100)**

10 Discussion, Recommendations and Conclusion

10.1 Discussion

With the conclusion of the first comprehensive survey of lesbian and bisexual women in Western Australia, data that describes the health status of this population is now available. Generally, public health practitioners have been slow to address the health needs of lesbian and bisexual women. It is hoped the results of the study will provide the impetus for a more proactive approach to improving the health of this community.

Both mainstream and GLBT-specific health agencies were supportive of the study, and importantly the study was well received by lesbian and bisexual women. Approximately 30 participants left comments on their questionnaire indicating their support for the study. Comments such as *'I have appreciated this survey - it's the only one I've been honest with'* and *'thanks for taking an interest in our community'* were typical. Such positive feedback from the community and the willing involvement of health agencies suggest that it is an appropriate time to address this neglected area.

Lesbian and bisexual women are not a homogeneous population, and there are undoubtedly many who maintain a healthy lifestyle. However, at a population level there are clearly some concerning discrepancies between lesbian and bisexual women, and women generally. The causes of these differences are likely to be complex and multifactorial. For example, it appears that lesbian and bisexual women are less likely to access preventative health care, which could be a result of knowledge and beliefs surrounding health risk, poor experiences of the health service, and heterosexism present in much of the current health system.

Areas of particular concern include:

- alcohol, tobacco and other drug use;
- mental health;
- discrimination and harassment;
- domestic abuse;
- sexual practice;
- cancer screening, particularly cervical cytology;
- nutrition; and
- physical activity.

10.2 Recommendations

The findings of the study indicate several key areas that warrant further research and follow-up. These are discussed below in a general context and also with regard to specific recommendations for future research.

10.2.1 Working to Improve the Health and Well-Being of Lesbian and Bisexual Women

It is important that the results of the study are disseminated widely – both amongst lesbian and bisexual women, and within the health sector. Statistics of the health differentials must be easily accessible. To this end, the researchers began this process by holding a community forum in which the results of the study were discussed, and by publishing selected findings in gay and lesbian media. Further forums should be held in which all stakeholders can participate.

An important issue for discussion is the role that mainstream health promotion programs should play in lesbian and bisexual health. Should health promotion planners create campaigns that specifically target lesbian and bisexual women, or should mainstream programs be broadened to encompass this population? Given that over half of participants reported that they were *very* or *mostly* connected to the broader community, and that 86.5% of participants reported being at least *somewhat* connected, there is an opportunity for health promotion planners to engage with this community through existing programs. To date it appears there has been little cognisance of this broader community connection.

At the same time, connectedness to the lesbian and bisexual women's community should not be neglected. Approximately one third of participants reported being *very* or *mostly* connected to the gay community and participants reported moderately high access of community media. This suggests that there are opportunities for targeted health promotion with this community, as has been successful with gay men's health promotion with regard to HIV [102]. Ultimately, a combination of more inclusive mainstream programs and targeted interventions are required.

Many research bodies appear reluctant to collect information about sexual orientation in population-based studies. Yet this information, though simple to collect, would be of great value. Such a simple addition would enable better monitoring of a diverse range of health indicators in lesbian and bisexual women. For example, research has consistently indicated that the prevalence of both licit and illicit drug use is higher in lesbian and bisexual women than their heterosexual counterparts. However, because there are limited funding opportunities for such studies, it has been difficult to determine trends in drug use, and available data is poor. Yet within

Australia there are a number of high-quality population-based surveillance systems. The addition of items relating to sexual orientation in these studies would enable gathering of the comprehensive data needed by policy makers and service providers.

10.2.2 Future Areas of Research

The current study presents a valuable addition to the literature. For the first time, comprehensive data at the state level is available; program planners and policy makers need no longer rely solely on national and international data. However, the study provides only a starting point to explore the complexities of lesbian and bisexual women's health. A complete picture is not available and additional research will be required in several key areas. Areas warranting further investigation include:

- An understanding of the barriers that prevent lesbian and bisexual women from adopting health enhancing behaviours. For example, despite broad-based health promotion messages encouraging physical activity, many lesbian and bisexual women lead a sedentary life. Investigating the knowledge, attitudes and behaviours of lesbian and bisexual women toward physical activity may provide a better understanding of the barriers that exist and provide information on how to more effectively promote this message.

- It is likely that lesbian and bisexual women living in rural and regional areas have different health issues than their metropolitan counterparts, but how do their experiences differ? Several participants living in rural or regional areas commented on the isolation they experience. A better understanding of the impact of isolation and lack of connection to a gay community on the mental health of lesbian and bisexual women in rural areas would assist in provision of more appropriate interventions.

- The impact of self-acceptance of sexual identity and the 'coming out process' on health status. Several women who completed the Internet version of the survey included long personal accounts of the struggles they experienced in not being 'out'. They reported that these struggles impacted on both health seeking behaviour and their general sense of well-being.

- The impact of experiences of homophobia on health status, especially with regard to mental health.

- The effectiveness of mainstream health promotion campaigns in reaching lesbian and bisexual women and what changes may make this audience more receptive to these messages is required. For example, the majority of physical activity campaigns feature heterosexual couples and families – do these have appeal to lesbian and bisexual women?

- The rate of tobacco use amongst lesbian and bisexual women is double that of women generally. A consideration of what messages and cues to action to quit smoking might more appropriately work with this group is required. This needs to involve a consideration of a mix of both community targeted programs and more inclusive mainstream messages.

- Investigate the health impacts of the 'bar culture' on lesbian and bisexual women. While not all women participate in this culture, there are likely to be positive and negative health impacts of this social environment.

- The potential for structural change within gay community events in order that they might be more health enhancing and supportive environments. For example, working with Pride around the provision of harm minimisation approach for the use of drugs and alcohol.

- Research into what makes for a 'lesbian and bisexual women friendly' health service. The present study indicates that a significant number of women feel uncomfortable accessing health services. Poor access can result in missed opportunity for disease prevention, reduced access to prevention advice, and later diagnosis of serious illness. Research into recommended institutional approaches to ensure visible inclusiveness would be required as part of this approach.

- Further research is required into lesbian and bisexual women's knowledge, attitudes and behaviour around safe sexual practices. The present study shows very low levels of safe sex practices.

- Research into gay parenting, especially with regard to prospective parents. Given that roughly one in six women in the study plan to have children within the next two years, it will be necessary to ensure that maternal and child health service are inclusive of lesbian and bisexual women.

Future research should embrace a collaborative and multidisciplinary approach, and would benefit from the involvement of the target population. Given their strong support of the present study, they are highly likely to participate in additional research. Lesbian and bisexual women should be involved throughout the planning of such projects, including formative research, needs assessment and consultation.

10.3 Conclusion

Given the heterogeneous nature of the lesbian and bisexual population, it is clear that future research should be of broad scope. Investigations should not be limited to 'traditional' women's health issues. Given that lesbian and bisexual women living in Western Australia demonstrate poorer outcomes than their heterosexual counterparts in a range of health indicators, planners must take a holistic approach to the health needs of this community. Interventions must be designed with the heterogeneous nature of the lesbian and bisexual population in mind, and in many cases it will be inappropriate to think purely in terms of 'gay' health issues. For example HIV risk, safe sex, reproductive health and drug use need to be considered independently for same-sex attracted men and women.

This report supports the growing body of evidence that sexuality is a determinant of health, and highlights the need for a proactive agenda for lesbian and bisexual women's health. Institutional change will be required to address heterosexism and homophobia within the health system, and commitment at the management level will be required. Like other human rights approaches, this is not necessarily about seeking separate programs and treatment but about services being truly 'gay friendly'. Health services need to be seen as inclusive and welcoming if they wish to engage with this community and achieve improved health outcomes.

Appendix A

A1 Relationship to Person Cared For

Table 68 Primary carer

Primary Carer	Number	%
No	712	(83.1)
Yes	145	(16.9)
Total	**857**	**(100)**

Table 69 Relationship to person cared for

Relationship	Number	%
Mother	69	(47.6)
Children	24	(16.6)
Step parent	5	(3.4)
Step children	2	(1.4)
Friend of mother	3	(2.1)
Older person with a disability	1	(0.7)
Grandmother	1	(0.7)
Parent	8	(5.5)
Partner	5	(3.4)
Mother and son	1	(0.7)
Ex partner	1	(0.7)
Father	1	(0.7)
Not stated	24	(16.6)
Total	**145**	**(100)**

A2 Attachment to Community

Table 70 Visited a gay/lesbian bar in past 12 months

Frequency	Number	%
At least once a week	127	(14.1)
At least once a month	191	(21.3)
Less often than once a month	292	(32.5)
Annually	143	(15.9)
Rarely or never	145	(16.1)
Total	**898**	**(100)**

Table 71 Gay/lesbian dance party in past 12 months

Frequency	Number	%
At least once a week	19	(2.2)
At least once a month	61	(7.0)
Less often than once a month	198	(22.6)
Annually	219	(25.0)
Rarely or never	378	(43.2)
Total	**875**	**(100)**

Table 72 Gay/lesbian group meeting in past 12 months

Frequency	Number	%
At least once a week	30	(3.5)
At least once a month	51	(5.9)
Less often than once a month	108	(12.5)
Annually	79	(9.1)
Rarely or never	598	(69.1)
Total	**866**	**(100)**

Table 73 Gay/lesbian book store in past 12 months

Frequency	Number	%
At least once a week	35	(4.0)
At least once a month	88	(10.0)
Less often than once a month	241	(27.4)
Annually	137	(15.6)
Rarely or never	378	(43.0)
Total	**879**	**(100)**

Table 74 Gay/lesbian church in past 12 months

Frequency	Number	%
At least once a week	10	(1.1)
At least once a month	4	(0.5)
Less often than once a month	17	(1.9)
Annually	34	(3.9)
Rarely or never	811	(92.6)
Total	**876**	**(100)**

Table 75 Gay/lesbian university group in past 12 months

Frequency	Number	%
At least once a week	15	(1.7)
At least once a month	9	(1.0)
Less often than once a month	48	(5.5)
Annually	67	(7.7)
Rarely or never	730	(84.0)
Total	**869**	**(100)**

Table 76 Gay/lesbian political organisation in past 12 months

Frequency	Number	%
At least once a week	15	(1.7)
At least once a month	25	(2.9)
Less often than once a month	80	(9.2)
Annually	71	(8.2)
Rarely or never	680	(78.1)
Total	**871**	**(100)**

Table 77 Gay/lesbian support group in past 12 months

Frequency	Number	%
At least once a week	25	(2.9)
At least once a month	30	(3.4)
Less often than once a month	57	(6.5)
Annually	56	(6.4)
Rarely or never	704	(80.7)
Total	**872**	**(100)**

Table 78 Gay/lesbian film festival in past 12 months

Frequency	Number	%
At least once a week	8	(0.9)
At least once a month	23	(2.6)
Less often than once a month	205	(23.3)
Annually	289	(32.9)
Rarely or never	354	(40.3)
Total	**879**	**(100)**

Table 79 Gay/lesbian sporting group in past 12 months

Frequency	Number	%
At least once a week	58	(6.7)
At least once a month	27	(3.1)
Less often than once a month	103	(11.9)
Annually	72	(8.3)
Rarely or never	608	(70.0)
Total	**868**	**(100)**

Table 80 Gay/lesbian social group in past 12 months

Frequency	Number	%
At least once a week	56	(6.5)
At least once a month	92	(10.7)
Less often than once a month	181	(21.0)
Annually	130	(15.1)
Rarely or never	404	(46.8)
Total	**863**	**(100)**

Table 81 Fair Day in past 12 months

Frequency	Number	%
At least once a week	16	(1.8)
At least once a month	7	(0.8)
Less often than once a month	43	(4.8)
Annually	682	(76.3)
Rarely or never	146	(16.3)
Total	**894**	**(100)**

Table 82 Pride Women's Sundowner in past 12 months

Frequency	Number	%
At least once a week	14	(1.6)
At least once a month	89	(10.1)
Less often than once a month	217	(24.6)
Annually	115	(13.1)
Rarely or never	446	(50.6)
Total	**881**	**(100)**

Table 83 Private social gatherings in past 12 months

Frequency	Number	%
At least once a week	158	(18.1)
At least once a month	224	(25.6)
Less often than once a month	230	(26.3)
Annually	34	(3.9)
Rarely or never	228	(26.1)
Total	**874**	**(100)**

Table 84 Radio programme in past 12 months

Frequency	Number	%
At least once a week	28	(3.2)
At least once a month	24	(2.8)
Less often than once a month	87	(10.1)
Annually	48	(5.5)
Rarely or never	678	(78.4)
Total	**865**	**(100)**

Table 85 Sexuality-related e-mail list in past 12 months

Frequency	Number	%
At least once a week	94	(10.8)
At least once a month	83	(9.5)
Less often than once a month	94	(10.8)
Annually	43	(4.9)
Rarely or never	560	(64.1)
Total	**874**	**(100)**

Table 86 Pink Sofa in past 12 months

Frequency	Number	%
At least once a week	111	(12.7)
At least once a month	52	(5.9)
Less often than once a month	118	(13.5)
Annually	62	(7.1)
Rarely or never	534	(60.9)
Total	**877**	**(100)**

Table 87 Gaydar Girls in past 12 months

Frequency	Number	%
At least once a week	33	(3.8)
At least once a month	32	(3.7)
Less often than once a month	48	(5.5)
Annually	35	(4.0)
Rarely or never	724	(83.0)
Total	**872**	**(100)**

Table 88 Lesbian MatchMaker in past 12 months

Frequency	Number	%
At least once a week	16	(1.8)
At least once a month	12	(1.4)
Less often than once a month	17	(2.0)
Annually	28	(3.2)
Rarely or never	796	(91.6)
Total	**869**	**(100)**

Table 89 Women Out West in past 12 months

Frequency	Number	%
At least once a week	17	(1.9)
At least once a month	170	(19.4)
Less often than once a month	184	(21.0)
Annually	89	(10.1)
Rarely or never	418	(47.6)
Total	**878**	**(100)**

Table 90 Out in Perth in past 12 months

Frequency	Number	%
At least once a week	24	(2.8)
At least once a month	87	(10.1)
Less often than once a month	186	(21.5)
Annually	60	(6.9)
Rarely or never	508	(58.7)
Total	**865**	**(100)**

Table 91 Grapevine in past 12 months

Frequency	Number	%
At least once a week	10	(1.2)
At least once a month	57	(6.7)
Less often than once a month	109	(12.7)
Annually	83	(9.7)
Rarely or never	597	(69.7)
Total	**856**	**(100)**

A3 Physical Activity Data with Outliers

Table 92 Total time spent walking continuously for ten minutes or more per week (minutes)

Statistic	Time (minutes)
Mean	292
Median	180
IQR	90-300
Range	10-7200

The median time spent walking continuously for ten minutes or more per week in the WAHWSS sample (with outliers included) was 120 minutes (IQR 60-120 minutes) [29].

Table 93 Total time spent exercising vigorously in past week (minutes)

Statistic	Time (minutes)
Mean	215
Median	120
IQR	60-300
Range	3-3120

The median time spent exercising vigorously in the WAHWSS sample (with outliers included) was 120 minutes (IQR 60-180 minutes) [29].

Table 94 Total time spent exercising moderately in past week (minutes)

Statistic	Time (minutes)
Mean	185
Median	120
IQR	60-180
Range	5-4200

The median time spent exercising moderately in the WAHWSS sample (with outliers included) was 120 minutes (IQR 60-180 minutes) [29].

Table 95 Total time spent watching TV or using a computer in past week (minutes)

Statistic	Time (minutes)
Mean	977
Median	600
IQR	240-1260
Range	0-8280

Appendix B

B1 Questionnaire

WA Lesbian and Bisexual Women's Health and Well-Being Survey

Post survey back to Community Survey, WA Centre for Health Promotion Research, Reply Paid 1, Curtin University, GPO Box U1987, Perth WA 6845

This survey is for women who may identify as lesbian or bisexual, or have had sex with another woman.

1. Do you think of yourself primarily as: (tick one only)

lesbian	☐	bisexual	☐
homosexual	☐	gay	☐
queer	☐	same-sex attracted	☐
dyke	☐	heterosexual/straight	☐
I don't use a label	☐		
other	☐ (please specify)_____		

2. How many of your friends are lesbian or bisexual women?
none ☐ a few ☐ some ☐ most ☐ all ☐

3. How many of your friends are gay or homosexual men?
none ☐ a few ☐ some ☐ most ☐ all ☐

4. Do you feel connected to the gay and lesbian community in your everyday life?
very ☐ mostly ☐ somewhat ☐ rarely ☐ not at all ☐

5. Do you feel connected to the broader community in your everyday life?
very ☐ mostly ☐ somewhat ☐ rarely ☐ not at all ☐

6. In the last 12 months have you attended/visited/participated in or read any of the following lesbian/bisexual orientated activities? (tick one each line)

	Weekly	Monthly	Few times a year	Once a year	Never
Gay/lesbian bar	☐	☐	☐	☐	☐
Gay/lesbian dance party	☐	☐	☐	☐	☐
Gay/lesbian group meeting	☐	☐	☐	☐	☐
Book stores	☐	☐	☐	☐	☐
Churches	☐	☐	☐	☐	☐
University groups	☐	☐	☐	☐	☐
Political organisations	☐	☐	☐	☐	☐
Sexuality related email lists	☐	☐	☐	☐	☐
Support groups	☐	☐	☐	☐	☐
Film festivals	☐	☐	☐	☐	☐
Sporting groups	☐	☐	☐	☐	☐
Social groups	☐	☐	☐	☐	☐
Fair Day	☐	☐	☐	☐	☐
Pride women's sundowner	☐	☐	☐	☐	☐
Pink Sofa	☐	☐	☐	☐	☐
Gaydar Girls	☐	☐	☐	☐	☐
Lesbian Match Maker	☐	☐	☐	☐	☐
Women Out West	☐	☐	☐	☐	☐
Out in Perth	☐	☐	☐	☐	☐
Grapevine	☐	☐	☐	☐	☐
Private social gatherings	☐	☐	☐	☐	☐
Radio programme	☐	☐	☐	☐	☐
Other (specify)	☐	☐	☐	☐	☐

7. How many serves of vegetables do you usually eat each day? A serve of vegetable is equal to a cup of cooked vegetables or 1 cup of salad.

Number of serves _____

8. How many serves of fruit do you usually eat each day? A serve of fruit is equal to 1 medium piece, 2 small pieces of fruit or 1 cup of diced fruit.

Number of serves _____

9. How many times a week on average, do you have meals or snacks such as burgers, pizza, chicken and chips from places like McDonalds, Hungry Jacks, Pizza Hut or Red Rooster?

Number of times _____
Don't know ☐

10. How would you rate your physical activity level?

a)	very active	☐
b)	moderately active	☐
c)	active	☐
d)	not very active	☐
e)	not at all active	☐
f)	unsure/don't know/cant remember	☐

11. In the past week how many times have you walked continuously, for at least 10 minutes, for recreation/exercise, or to get to & from places?

Number of times _____

12. Estimate the total time you spent doing this in the past week.

_____ hours _____ minutes

13. In the past week, how many times did you do any vigorous physical activity, which made you breathe harder or puff and pant?

Number of times _____

14. Estimate the total time you spent doing this in the past week.

_____ hours _____ minutes

15. In the past week how many times did you do any other moderate physical activities that you have not already mentioned? (e.g. gentle swimming, social tennis golf) **?**

Number of times _____

16. Estimate the total time you spent doing this in the past week.

_____ hours _____ minutes

17. How do you usually spend most of your day?

a) mostly sitting or standing ☐
b) mostly walking ☐
c) mostly heavy labour/physically demanding work ☐
d) unsure/don't know/can't remember ☐

18. How many hours per week do you spend watching TV or videos, or using the computer (for the internet, work, or to play games etc)?

_____ hours _____ minutes

19. How tall are you? _____cms **OR** _____ft_____ins

20. How much do you weigh? (if unsure – estimate)

_____kgs **OR** _____stones_____pounds

21. Do you consider yourself to be acceptable weight, underweight or overweight?

a) acceptable weight ☐
b) underweight ☐
c) overweight ☐

22. When did you last have a Pap smear test (for cervical cancer)?

a) less than 2 years ago ☐
b) more than 2 years ago ☐
c) never ☐
d) don't know ☐

23. Have you ever had an abnormal Pap smear test?

a) yes ☐
b) no ☐
c) don't know ☐

24. When did you last have a mammogram?

a) in the last 2 years ☐
b) 2-5 years ago ☐
c) more than 5 years ago ☐
d) never ☐

25. Have you ever had any type of cancer?

Yes ☐ No ☐ Go to Q26

If yes, please tick which type of cancer and indicate age diagnosed?

(tick all that apply)

		Yes	age diagnosed
a)	skin	☐	_____
b)	breast	☐	_____
c)	gynaecological	☐	_____
d)	colorectal	☐	_____
e)	other (specify)	☐	_____

26. At the present time, do you consider yourself?

a) a heavy smoker ☐
b) a light smoker ☐
c) an occasional smoker ☐
d) an ex-smoker ☐ Go to Q 30
e) a non-smoker ☐ Go to Q 30

27. How often do you currently smoke cigarettes or any tobacco product?

a) daily ☐ Go to Q 28
b) at least weekly (but not daily) ☐ Go to Q 29
c) less often than weekly ☐ Go to Q 30
d) not at all ☐ Go to Q 30

28. If you smoke daily, on average how many cigarettes do you smoke each day?

Number of cigarettes daily _____

29. If you smoke, but not daily, on average how many cigarettes do you smoke per week?

Number of cigarettes weekly _____

30. At the present time, do you consider yourself:

a) a non-drinker ☐
b) an ex-drinker ☐
c) an occasional drinker ☐
d) a light drinker ☐
e) a party drinker ☐
f) a heavy drinker ☐

31. How often do you usually drink alcohol?

a) I never drink alcohol ☐ Go to Q 34
b) less than once a month ☐
c) less than once a week ☐
d) 1-2 days week ☐
e) 3-4 days week ☐
f) 5 to 6 days week ☐
g) every day ☐

32. On a day when you drink alcohol, how many standard drinks do you usually have? (A standard drink is a middy of beer, small glass of wine or a shot of spirits)

Number of drinks _____

33. How often do you have 5 or more standard drinks of alcohol on one occasion?

a) never ☐
b) about once a week ☐
c) more than once a week ☐
d) less than once a week ☐
e) about once a month ☐

34. Which of these drugs have you used in the past 6 months?

a) none	Yes ☐	g) crystal meth	Yes ☐
b) amyl/poppers	Yes ☐	h) LSD/trips	Yes ☐
c) marijuana	Yes ☐	i) GHB	Yes ☐
d) ecstasy	Yes ☐	j) special K	Yes ☐
e) speed	Yes ☐	k) heroin	Yes ☐
f) cocaine	Yes ☐	l) steroids	Yes ☐

m) Any other drug (recreational use of any other prescription or illicit drugs) Yes ☐ specify _____

35. If you injected any of the above drugs in the last 6 months, how often did you inject?

a) never ☐
b) daily ☐
c) at least weekly (but not daily) ☐
d) at least monthly (but not weekly) ☐
e) some months ☐

36. In the last 3 years due to your actual or assumed sexuality have you ever been physically or verbally discriminated against or abused?

No ☐ Yes ☐

37. Have you ever been in a relationship where your partner abused you?

a) physically: No ☐ Yes ☐
b) emotionally: No ☐ Yes ☐

38. Was this abuse/violence in a relationship perpetrated by a:

a) woman ☐
b) man ☐
c) both ☐

39. During the past 4 weeks, how much have you been bothered by emotional problems (such as feeling anxious, depressed or irritable)?

a) not at all ☐
b) slightly ☐
c) moderately ☐
d) quite a lot ☐
e) extremely ☐

40. During the past 4 weeks how much did personal or emotional problems keep you from doing you usual work, studies or other daily activities?

a) not at all ☐
b) slightly ☐
c) moderately ☐
d) quite a lot ☐
e) extremely ☐

41. Have you ever been told by a any of the following that you have an anxiety problem? (tick all that apply)

	Yes
a) doctor	☐
b) psychologist	☐
c) counsellor	☐
d) other (please specify)	☐ _____

42. Was this in the past 12 months?

No ☐ Yes ☐

43. Have you ever been told by any of the following that you had depression? (tick all that apply)

	Yes
a) doctor	☐
b) psychologist	☐
c) counsellor	☐
d) other (please specify)	☐ _____

44. Was this in the past 12 months?

No ☐ Yes ☐

45. Are you currently receiving treatment for anxiety, depression, stress-related problems or any other mental health problem?

No ☐ Yes ☐

46. Which of the following statements best describes you?

I have felt sexually attracted:

a) only to females, never to males ☐
b) more often to females, and at least once to males ☐
c) about equally often to females and to males ☐
d) more often to males, and at least once to females ☐
e) only to males, never to females ☐
f) to no one at all ☐

47. Are you currently in a sexual relationship with a regular partner?

a) yes, with a woman ☐
b) yes, with a man ☐
c) yes, I have multiple regular partners ☐
d) no regular relationship ☐ Go to Q 50

*Qs 48 & 49 are about your **regular female partner.** If you do not have a regular female partner, Go to Q 50.*

48. If you are in a regular relationship with a female, for how long has it been?

a) less than 6 months ☐
b) 6 months to 12 months ☐
c) 1-3 years ☐
d) 4-5 years ☐
e) 6-10 years ☐
f) more than 10 years ☐

49. Do you have a clear (spoken) agreement with your regular female partner about sex with casual partners outside the relationship?

a) no agreement ☐
b) agreement (no sex outside relationship) ☐
c) agreement (all casual sex with condom/dam) ☐
d) agreement (all casual sex without condom/dam) ☐

50. How many women have you had sex with in the past six months?

a) none ☐
b) one woman ☐
c) 2-5 women ☐
d) 6-10 women ☐
e) more than 10 women ☐

51. In the past six months, while having sex with a woman, have you used:

	Never	Occasionally	Often
a) a dental dam	☐	☐	☐
b) a glove	☐	☐	☐
c) a condom (e.g. on a sex toy)	☐	☐	☐

52. During the past 6 months, how many men have you had sex with?

a) none ☐ go to Q55
b) one man ☐
c) 2-5 men ☐
d) 6-10 men ☐
e) more than 10 men ☐

53. In any of these sexual encounters with men was safe sex practiced?

a) never ☐
b) most of the time ☐
c) all the time ☐

54. If you have had sex with a man/men in the past 6 months, how many were gay, homosexual or bisexual?

a) none ☐
b) some ☐
c) most ☐
d) all ☐

55. When were you last tested for a Sexually Transmitted Infection (STI) (e.g. gonorrhoea, hepatitis, HIV)**?**

a) never ☐
b) in the last year ☐
c) 1-2 years ago ☐
d) more than 2 years ago ☐

56. Have you ever been diagnosed with:

	Yes	No	Don't know
a) Genital warts of HPV (Human Papilloma Virus)	☐	☐	☐
b) Hepatitis C	☐	☐	☐
c) HIV	☐	☐	☐

57. Which of the following diagnostic or screening tests did you have for sexually transmitted infection (STI) at your last test? (tick all that apply)

a) never had an STI test ☐
b) urine test ☐
c) blood test ☐
d) vaginal/genital swab ☐
e) anal/rectal swab ☐
f) throat swab ☐

58. Where did you get your most recent test? (tick one only)

a) general practitioner/family doctor ☐
b) 24-hour medical centre ☐
c) sexual health clinic ☐
d) women's health centre ☐
e) FPWA health clinic (family planning) ☐
f) no sexual health check up ☐
g) other ☐ (please specify) _____

59. Have you told your health care provider (the one you see most often) about your sexual orientation?

a) Yes, volunteered without being asked ☐
b) yes, but only after he/she asked me ☐
c) no, but I would tell if he/she asked ☐
d) no, but I assume he/she knows ☐
e) no, I would not tell even if he/she asked ☐

60. In the last 12 months, have you felt uncomfortable accessing any of the following services because of your sexuality?

	Yes I have	No, I haven't	Never visited
a) counsellor/psychologist	☐	☐	☐
b) general practitioner	☐	☐	☐
c) sexual health services	☐	☐	☐
d) HealthDirect Helpline	☐	☐	☐
e) aged care service	☐	☐	☐
f) youth services	☐	☐	☐
g) women's health centre	☐	☐	☐
h) family/child services	☐	☐	☐
i) other health care provider	☐	☐	☐
j) child care	☐	☐	☐

61. In the last 12 months, were you satisfied with:

	Yes	No	Never visited
a) Freedom Centre	☐	☐	☐
b) GLCS (Gay & Lesbian Comm Services)	☐	☐	☐

62. How old are you? _____ years

63. What country were you born in?

a) Australia ☐
b) Other ☐ please specify _____

64. Are you Aboriginal or Torres Strait Islander origin? Yes ☐ No ☐

65. What is your ethnic background? (e.g. Dutch, Greek, Vietnamese, Chinese)

_____

66. What language(s) do you speak at home?

_____

67. Are you: (tick one only)

a) employed full time (incl. self employed) ☐
b) employed part time (incl. self employed) ☐
c) unemployed ☐
d) a student ☐
e) a pensioner/ on social security ☐
f) retired ☐
g) other ☐

68. Are you a primary carer?

No ☐ Yes ☐

If yes, what is your relationship to the person you care for?

_____

69. What is the highest level of formal education you have completed?

a) less than Year 10 ☐
b) Year 10 ☐
c) Year 12/TEE ☐
d) trade certificate/TAFE ☐
e) university or CAE ☐

70. Do you have any dependant children?

No ☐ Yes ☐

71. Are you a: (tick all that apply to you)

a) biological mother	No ☐	Yes ☐
b) co-parent	No ☐	Yes ☐
c) single parent	No ☐	Yes ☐
d) step parent	No ☐	Yes ☐

72. Are you planning to have children in the next two years?

No ☐ Yes ☐

73. If you are transgender, transsexual or intersex, please describe?

_____

74. Where do you live?

Postcode: ☐☐☐☐ OR

Suburb/town: _____

Comments/additional information:

_____

_____

_____

_____

_____

THANK YOU FOR YOUR TIME

B2 Promotional Material

Now recruiting for WA lesbian and bisexual women's health and wellbeing study

Recruitment for the first large scale lesbian and bisexual women's health and wellbeing study in WA kicked off in October at a variety of Pride events in Perth. The researchers from the WA Centre for Health Promotion Research (WACHPR) at Curtin University are keen that women throughout WA participate.

The survey, which has received Healthway funding, will cover a range of health, well-being and relationship issues as well as social attachment to the general and lesbian community. This will provide valuable information on how and where to reorient current services and programs provided by mainstream and gay community organisations It is hoped that this will lead to services that more effectively meet the needs of lesbian and bisexual women in the whole State.

"We want to ensure that the diversity of the lesbian and bisexual women's community is represented in our survey and this includes encouraging as many rural women as possible to participate", said Jude Comfort from WACHPR. "The response so far, with over 700 surveys in, shows that lesbian and bisexual women are keen to finally have the opportunity to contribute to a study of this size and scale".

The survey can be completed on-line at wacommunitysurvey.com. Survey forms can also be posted out to women or a PDF version can be emailed. The survey is open till the end of December 2006. Survey results will be fed back to the community in 2007.

For further information on the survey or to receive copies of the survey please email enquiries@wacommunitysurvey.com

RRR Network News, Summer 2006.

Women Out West, October, November & December 2006.

Flier, September 2006.

References

[1] McNair R. Lesbian health inequalities: a cultural minority issue for health professionals. Medical Journal of Australia. 2003;178(12):643-5.
[2] Smith AM, Rissel CE, Richters J, Grulich AE, de Visser RO. Sex in Australia: sexual identity, sexual attraction and sexual experience among a representative sample of adults. Australian and New Zealand Journal of Public Health. 2003;27(2):138-45.
[3] Sell RL, Wells JA, Wyrij D. The prevalence of homosexual behaviour and attraction in the United States, the United Kingdom and France: results of national population-based samples. Archives of Sexual Behavior. 1995;24(3):235-48.
[4] Laumann EO, Gagnon JH, Michael RT, Michaels S. The Social Organization of Sexuality: Sexual Practices in the United States. Chicago: University of Chicago Press 1994.
[5] Rothblum ED. Sexual Orientation and Sex in Women's Lives: Conceptual and Methodological Issues. Journal of Social Issues. 2000;56(2):193-204.
[6] Diamant AL, Wold C. Sexual orientation and variation in physical and mental health status among women. Journal of Women's Health. 2003;12(1):41-9.
[7] Leonard W. Introductory Paper: Developing a Framework for Understanding Patterns of Health and Illness Specific to Gay, Lesbian, Bisexual, Transgender and Intersex (GLBTI) People. In: Leonard W, ed. *What's the Difference? Health Issues of Major Concern to Gay, Lesbian, Bisexual, Transgender and Intersex (GLBTI) Victorians*. Melbourne: Rural and Regional Health and Aged Care Services Division, Victorian Government Department of Human Services 2002:3-12.
[8] McNair R. Outing lesbian health in medical education. Women and Health. 2003;37(4):89-103.
[9] Hughes C, Evans A. Health needs of women who have sex with women. British Medical Journal. 2003;327:939-40.
[10] Lee R. Health care problems of lesbian, gay, bisexual and transgender patients. Western Journal of Medicine. 2000;172(6):403-8.
[11] GLMA. Healthy People 2010 Companion Document for Lesbian, Gay, Bisexual and Transgender Health. San Francisco: Gay and Lesbian Medical Association; 2001.
[12] Schilder AJ, Kennedy C, Goldstone IL, Ogden RD, Hogg RS, O'Shaughnessy MV. "Being dealt with as a whole person." Care seeking and adherence: the benefits of culturally competent care. Social Science and Medicine. 2001;52(11):1643-59.
[13] Department of Health. The WA Health and Wellbeing Surveillance System (WAHWSS) Design and Methodology, Technical Paper Series No. 1. Perth, Western Australia: Health Outcomes Assessment, Epidemiology Branch, Department of Health, Government of Western Australia; 2005.
[14] Pitts M, Smith A, Mitchell A, Patel S. Private Lives: A Report on the Wellbeing of GLBTI Australians. Melbourne: Australian Research Centre in Sex, Health and Society, La Trobe University; 2006.
[15] AIHW. 2004 National Drug Strategy Household Survey. First Results. Canberra: Australian Institute of Health and Welfare; 2005.
[16] ABS. 2007 Year Book Australia. Canberra: Australian Bureau of Statistics; 2007. Report No.: 1301.0.
[17] ABS. Census tables 2006. Canberra: Australian Bureau of Statistics; 2007.
[18] ABS. Basic community profile. Canberra: Australian Bureau of Statistics; 2002.
[19] Denny D. Transgender in the United States: a brief discussion. SIECUS Report. 1999;28(1):8-13.
[20] Hyde Z. The 2006 WA Transgender, Transsexual and Intersex Health and Well-Being Survey: First Results. Perth, Western Australia: WA Centre for Health Promotion Research, Curtin University of Technology; 2007.
[21] Bauer GR, Welles SL. Beyond assumptions of negligible risk: sexually transmitted diseases and women who have sex with women. American Journal of Public Health. 2001;91(8):1282-6.
[22] Diamant AL, Schuster MA, McGuigan K, Lever J. Lesbians' sexual history with men: implications for taking a sexual history. Archives of Internal Medicine. 1999;159(22):2730-6.
[23] Cochran SD, Mays VM, Bowen D, Gage S, Bybee D, Roberts SJ, et al. Cancer-related risk indicators and preventive screening behaviours among lesbian and bisexual women. American Journal of Public Health. 2001;91(4):591-7.
[24] Dibble SL, Roberts SA, Nussey B. Comparing breast cancer risk between lesbians and their heterosexual sisters. Women's Health Issues. 2004;14(2):60-8.
[25] Valanis BG, Bowen DJ, Bassford T, Whitlock E, Charney P, Carter RA. Sexual orientation and health: Comparisons in the Women's Health Initiative sample. Archives of Family Medicine. 2000;9(9):843-53.
[26] AIHW. The relationship between overweight, obesity and cardiovascular disease. Canberra: Australian Institute of Health and Welfare; 2004. Report No.: CVD 29.

[27] World Health Organisation. Obesity: Preventing and Managing the Global Epidemic. Geneva: World Health Organisation; 2000.
[28] Yancey A, Cochran SD. Correlates of overweight and obesity among lesbian and bisexual women. Preventive Medicine. 2003;36(6):676-83.
[29] Department of Health. WA Health and Wellbeing Surveillance System - Results. Perth, Western Australia: Department of Health, Government of Western Australia; 2007.
[30] NHMRC. Dietary Guidelines for Australian Adults. Canberra: National Health and Medical Research Council; 2003.
[31] Matthews AK, Brandenburg DL, Johnson TP, Hughes TL. Correlates of underutilization of gynecological cancer screening among lesbian and heterosexual women. Preventative Medicine. 2004;38(1):105-13.
[32] Phillips-Angeles E, Wolfe P, Myers R, Dawson P, Marrazzo J, Soltner S, et al. Lesbian health matters: a Pap test education campaign nearly thwarted by discrimination. Health Promotion Practice. 2004;5(3):314-25.
[33] Price JH, Easton AN, Telljohann SK, Wallace PB. Perceptions of cervical cancer and Pap smear screening behavior by women's sexual orientation. Journal of Community Health. 1996;21(2):89-105.
[34] Marrazzo JM. Barriers to infectious disease care among lesbians. Emerging Infectious Diseases. 2004;10(11):1974-8.
[35] Ferris D, Batish S, Wright TC, Cushing C, Scott EH. A neglected lesbian health concern: cervical neoplasia. Journal of Family Practice. 1996;43(6):581-4.
[36] Anti-Cancer Council of Victoria. PapScreen Victoria Communications and Recruitment Strategy 1996-99. Final Report. Melbourne: Anti-Cancer Council of Victoria; 2000.
[37] Brown R. More than Lip Service: Report on the Lesbian Health Information Project. Melbourne: Royal Women's Hospital; 2000.
[38] Cervical Cytology Registry of Western Australia. Cervical Cytology Registry of WA - 2006 Statistical Report. Perth, Western Australia: Cervical Cytology Registry of Western Australia; 2007.
[39] Lawrence A. Vaginal neoplasia in a male-to-female transsexual: case report, review of the literature, and recommendations for cytological screening. International Journal of Transgenderism. 2001;5(1).
[40] Rankow E, Tessaro I. Mammography and risk-factors for breast cancer in lesbian and bisexual women. American Journal of Health Behaviors. 1998;22(6):403-10.
[41] Bux DA. The epidemiology of problem drinking in gay men and lesbians: a critical review. Clinical Psychology Review. 1996;16(4):277-98.
[42] McKirnan DJ, Peterson PL. Alcohol and drug use among homosexual men and women: epidemiology and population characteristics. Addictive Behaviors. 1989;14(5):545-53.
[43] Mandelblatt J, Andrews H, Kerner J, Zauber A, Burnett W. Determinants of late stage diagnosis of breast and cervical cancer: the impact of age, race, social class, and hospital type. American Journal of Public Health. 1991;81(5):646-9.
[44] McCarthy EP, Burns RB, Coughlin SS, Freund KM, Rice J, Marwill SL, et al. Mammography use helps to explain differences in breast cancer stage at diagnosis between older black and white women. Annals of Internal Medicine. 1998;128(9):729-36.
[45] AIHW. BreastScreen Australia Monitoring Report 2002–2003. Canberra: Australian Institute of Health and Welfare; 2006. Report No.: CAN 27.
[46] AIHW & AACR. Cancer in Australia 2001. Canberra: Australian Institute of Health and Welfare and Australasian Association of Cancer Registries; 2004. Report No.: CAN 23.
[47] Carbaj RP. Substance abuse in the gay and lesbian community. In: Lowinson JH, Ruiz P, Millman R, eds. *Substance Abuse: A Comprehensive Textbook*. Baltimore: Williams & Wilkins 1992:852-60.
[48] Gruskin EP, Hart S, Gordon N, Ackerson L. Patterns of cigarette smoking and alcohol use among lesbians and bisexual women enrolled in a large health maintenance organization. American Journal of Public Health. 2001;91(6):976-9.
[49] Heffernan K. The nature and predictors of substance use among lesbians. Addictive Behaviors. 1998;23(4):517-28.
[50] Rosario M, Schrimshaw EW, Hunter J. Predictors of substance use over time among gay, lesbian and bisexual youths: an examination of three hypotheses. Addictive Behaviors. 2004;29(8):1623-31.
[51] Russell ST, Driscoll AK, Truong N. Adolescent same-sex romantic attractions and relationships: implications for substance use and abuse. American Journal of Public Health. 2002;92(2):198-202.
[52] Roberts SJ, Patsdaughter CA, Grindel CG, Tarmina MS. Health related behaviors and cancer screening of lesbians: results of the Boston Lesbian Health Project II. Women and Health. 2004;39(4):41-55.
[53] Richters J, Song A, Prestage G, Clayton S, Turner R. Health of Lesbian, Bisexual and Queer Women in Sydney: the 2004 Sydney Women and Sexual Health Survey. Sydney: National Centre in HIV Social Research; 2005.

[54] Tang H, Greenwoord GL, Cowling DW, Lloyd JC, Roeseler AG, Bal DG. Cigarette smoking among lesbians, gays and bisexuals: how serious a problem? (United States). Cancer Causes and Control. 2004;15(8):797-803.
[55] Bradford J, Ryan C, Rothblum ED. National Lesbian Health Care Survey: implications for mental health care. Journal of Consulting and Clinical Psychology. 1994;62(2):228-42.
[56] NHMRC. Australian Alcohol Guidelines: Health Risks and Benefits. Canberra: National Health and Medical Research Council; 2001.
[57] Koh AS. Use of preventative health behaviors by lesbian, bisexual, and heterosexual women: questionnaire survey. Western Journal of Medicine. 2000;172(6):379-84.
[58] Skinner WF. The prevalence and demographic predictors of illicit and licit drug use among lesbians and gay men. American Journal of Public Health. 1994;84(8):1307-10.
[59] Welch S, Howden-Chapman P, Collings SCD. Survey of drug and alcohol use by lesbian women in New Zealand. Addictive Behaviors. 1998;23(4):543-8.
[60] Shopland D. Tobacco use and its contribution to early cancer mortality with a special emphasis on cigarette smoking. Environmental Health Perspectives. 1995;103 (Suppl. 8):131-42.
[61] Marrazzo JM, Coffey P, Bingham A. Sexual practices, risk perception and knowledge of sexually transmitted disease risk among lesbian and bisexual women. Perspectives on Sexual and Reproductive Health. 2005;37(1):6-12.
[62] AIHW. 2004 National Drug Strategy Household Survey: State and territory supplement. Canberra: Australian Institute of Health and Welfare; 2005. Report No.: PHE 61.
[63] Davis V. Lesbian Health Guidelines. Policy Statement. Ottawa: The Society of Obstetricians and Gynaecologists of Canada; 2000.
[64] Hillier L, Turner A, Mitchell A. Writing Themselves In Again: 6 Years On. The Second National Report on the Sexuality, Health, and Well-being of Same Sex Attracted Young People in Australia. Melbourne: Australian Research Centre in Sex, Health and Society (ARCSHS). 2004.
[65] Australian Domestic & Family Violence Clearinghouse. Progress, trends and challenges in Australian responses to domestic violence. Sydney: Australian Domestic & Family Violence Clearinghouse; 2000.
[66] Ferrante A, Morgan F, Indermaur D, Harding R. Measuring the Extent of Domestic Violence. Sydney: Hawkins Press 1996.
[67] National Clearinghouse on Family Violence. Abuse in Lesbian Relationships: Information and Resources. Ontario: Health Canada; 1998.
[68] Lie GY, Gentlewarrier S. Intimate violence in lesbian relationships: discussion of survey findings and practice implications. Journal of Social Service Research. 1991;15(1/2):41-59.
[69] Owen SS, W. BT. An exploration of prevalence of domestic violence in same-sex relationships. Psychological Reports. 2004;95(1):129-32.
[70] Burke LK, Follingstad DR. Violence in lesbian and gay relationships: theory, prevalence and correlational factors. Clinical Psychology Review. 1999;19(5):487-512.
[71] National Coalition of Anti-Violence Programs. Lesbian, gay, bisexual and transgender domestic violence in 2002: a report of the National Coalition of Anti-Violence Programs. New York: National Coalition of Anti-Violence Programs; 2003.
[72] Vickers L. The second closet: domestic violence in lesbian and gay relationships: a Western Australian perspective. Murdoch University Electronic Journal of Law. 1996;3(4).
[73] ABS. Women's Safety Australia 1996. Canberra: Australian Bureau of Statistics & Office for the Status of Women; 1996. Report No.: 4128.0.
[74] Welch S, Collings SC, Howden-Chapman P. Lesbians in New Zealand: their mental health and satisfaction with mental health services. Australian and New Zealand Journal of Psychiatry. 2000;34(2):256-63.
[75] Cochran SD, Mays VM, Sullivan JG. Prevalence of mental disorders, psychological distress, and mental health services use among lesbian, gay and bisexual adults in the United States. Journal of Consulting and Clinical Psychology. 2003;71(1):53-61.
[76] Mays VM, Cochran SD. Mental health correlates of perceived discrimination among lesbian, gay and bisexual adults in the United States. American Journal of Public Health. 2001;91(11):1869-76.
[77] McNair R, Kavanagh A, Agius P, Tong B. The mental health status of young adult and mid-life non-heterosexual Australian women. Australian and New Zealand Journal of Public Health. 2005;29(3):265-71.
[78] Skegg K, Nada-Raja S, Dickson N, Paul C, Williams S. Sexual orientation and self-harm in men and women. American Journal of Psychiatry. 2003;160(3):541-6.
[79] Fergusson DM, Horwood JL, Beautrais AL. Is sexual orientation related to mental health problems and suicidality in young people? Archives of General Psychiatry. 1999;56(10):876-80.
[80] Bailey JV, Farquhar C, Owen C, Whittaker D. Sexual behaviour of lesbians and bisexual women. Sexually Transmitted Infections. 2003;79(2):147-50.

[81] Fethers K, Marks C, Mindel A, Estcourt CS. Sexually transmitted infections and risk behaviours in women who have sex with women. Sexually Transmitted Infections. 2000;76(5):345-9.
[82] Ryan C, Bradford J. The National Lesbian Health Care Survey: An Overview. In: Garnets D, Kimmel DC, eds. *Psychological Perspectives on Lesbian and Gay Male Experiences*. New York: Columbia University Press 1993.
[83] Diamant AL, Wold C, Spritzer K, Gelberg L. Health behaviours, health status and access to and use of health care: a population-based study of lesbian, bisexual and heterosexual women. Archives of Family Medicine. 2000;9(10):1043-51.
[84] Skinner CJ, Stokes J, Kirlew Y, Kavanagh J, Forster GE. A case-controlled study of the sexual health needs of lesbians. Genitourinary Medicine. 1996;72(4):277-80.
[85] Bailey JV, Farquhar C, Owen C. Bacterial vaginosis in lesbian and bisexual women. Sexually Transmitted Diseases. 2004;31(11):691-4.
[86] Bailey JV, Farquhar C, Owen C, Mangtani P. Sexually transmitted infections in women who have sex with women. Sexually Transmitted Infections. 2004;80(3):244-6.
[87] Hillier S, Holmes KK. Bacterial vaginosis. In: Holmes KK, Mardh P, Lemon SM, Stamm WE, Piot P, Wasserheit J, eds. *Sexually Transmitted Diseases*. 3rd ed. New York: McGraw-Hill 1999:563-86.
[88] Berger BJ, Kolton S, Zenilman JM, C. CM, Feldman J, McCormack WM. Bacterial vaginosis in lesbians: a sexually transmitted disease. Clinical Infectious Diseases. 1995;21(6):1402-5.
[89] Bauer GR, Wayne LD. Cultural sensitivity and research involving sexual minorities. Perspectives on Sexual and Reproductive Health. 2005;37(1):45-7.
[90] Stevens PE. Structural and interpersonal impact of heterosexual assumptions on lesbian health care clients. Nurse Researcher. 1995;44(1):25-30.
[91] Simkin RJ. Not all your patients are straight. Canadian Medical Association Journal. 1998;159(4):370-5.
[92] Cochran S, Mays VM. Disclosure of sexual preference to physicians by black lesbian and bisexual women. Western Journal of Medicine. 1988;149(5):616-9.
[93] O'Hanlan KA. Lesbian health and homophobia: perspectives for the treating obstetrician/gynecologist. Current Problems in Obstetrics and Gynecology. 1995;18:93-196.
[94] Stevens PE. Lesbian health care research: a review of the literature from 1970 to 1990. Health Care for Women International. 1992;13(2):91-120.
[95] Stevens PE, Hall JM. Stigma, health beliefs and experiences with health care in lesbian women. Image, the Journal of Nursing Scholarship. 1988;20(2):69-73.
[96] Miller A. An epidemiological perspective on cancer screening. Clinical Biochemistry. 1995;28(1):41-8.
[97] Allen LB, Glicken AD, Beach RK, Naylor KE. Adolescent health care experiences of gay, lesbian, and bisexual young adults. Journal of Adolescent Health. 1998;23(4):212-20.
[98] Miller WR, Rollnick S. Motivational Interviewing: Preparing People to Change Addictive Behavior. New York: Guilford 1991.
[99] Eliason MJ. Substance abuse counselor's attitudes regarding lesbian, gay, bisexual, and transgendered clients. Journal of Substance Abuse. 2000;12(4):311-28.
[100] Klamen DL, Grossman LS, Kopacz DR. Medical student homophobia. Journal of Homosexuality. 1999;37(1):53-63.
[101] VGLRL. Enough is Enough: A Report on the Discrimination and Abuse Experienced by Lesbians, Gay Men, Bisexuals and Transgender People in Victoria. Melbourne: Victorian Gay and Lesbian Rights Lobby; 2000.
[102] Bowtell W. Australia's Response to HIV/AIDS 1982-2005. Sydney, Australia: Lowy Institute for International Policy; 2005.