TOBACCO USE AND INTERVENTIONS AMONG ARIZONA LESBIAN, GAY, BISEXUAL AND TRANSGENDER PEOPLE

Research funded by
The Arizona Department of Health Services and
Sponsored by Wingspan

Special thanks to all the LGBT people who answered so many questions, provided important insight, and blessed the report with abundant and wonderful ideas.

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July 12, 2006

Acknowledgement: Thanks to faculty of the Mel and Enid Zuckermen College of Public Health, University of Arizona, for review of this report.

TABLE OF CONTENTS

GLOSSARY

- Smoking prevalence – the number of current smokers divided by the total population under consideration.
- Current smoker – persons who acknowledge smoking at least 100 cigarettes in their lifetime *and* who say they currently smoke everyday or some days.
- Lifetime smoking prevalence – the number of persons who acknowledge smoking at least 100 cigarettes in their lifetime divided by the total population under consideration.
- Part-time smoker – persons who smoked cigarettes more than zero days and less than 30 days in the last month.
- LGB - lesbians, gay men, and bisexual men and women; this term is used specifically in connection with the survey results – a portion of the assessment with limited numbers of transgender people.
- LGBT - lesbians, gay men, bisexual men and women, and transgender people; this term is used with the focus groups, key informant interviews, and strategic planning results because transgender people are better represented in those portions of the assessment..

EXECUTIVE SUMMARY

Studies indicate that North American lesbian, gay, bisexual, and transgender (LGBT) people smoke at higher rates than non-LGBT people. [1-9] The present study, part of a larger effort regarding the health needs of LGBT Arizonans, focuses on tobacco use and intervention strategies. It was funded by the Arizona Department of Health Services and sponsored by southern Arizona's LGBT community center, Wingspan.

In addition to gathering unpublished research on Arizona LGBT smoking, the project collected data through four methods: a community survey of 657 LGBT Arizonans, 12 focus groups, 24 key informant interviews, and strategic planning meetings in three areas of the state targeted by the assessment: Phoenix, Yavapai County, and Tucson.

Key survey findings:

- Smoking prevalence in LGB Arizonans was 28.9 percent – more than 50 percent higher than non-LGB Arizonans
- Smoking prevalence in lesbians was 30.9 percent and in gay men 24.4 percent
- Smoking prevalence in lesbians and bisexual women under age 45 was 39.3 percent
- Compared with older LGB people, LGB teens were significantly more likely to live in a home where others smoke and where there are no rules about smoking

In interviews, health care professionals and LGBT community leaders said doctors and most LGBT people are unaware of these high smoking rates. Regarding prevention and cessation, focus group respondents said widespread smoking in social circumstances, e.g. in bars and within peer groups, made starting smoking easier and quitting more difficult.

There are avenues for intervention within this dangerous context of high smoking rates and low awareness. For instance, LGBT Arizonans in this study said cancer and heart disease were two primary health issues with which they were most concerned. Behavioral interventions and information campaigns can use this information to reinforce the strong connection between these diseases and tobacco use. However, respondents also indicated other factors were more important than knowledge in preventing smoking. LGBT Arizonans, especially younger adults, frequent gay bars because it's still one of the few locations were they can be open about their sexual orientation. Since smoking is common in gay bars, LGBT Arizonans are then more likely to try smoking which often leads to addiction. If smoking behavior becomes less common in Arizona bars, or non-existent, fewer LGBT Arizonans will become tobacco addicted.

For the many LGBT people who already have tobacco addiction, other measures are necessary including interventions by health care workers and with peer groups. Unfortunately, this study and other studies indicate that health care workers don't ask about their patients' sexual orientation and LGBT patients often don't tell, eliminating the possibility of targeted prevention. Using incentives to motivate peer groups to quit smoking is another possible avenue but proven group cessation models must be made culturally competent for LGBT people. Only one such model has shown success. Given the high rates of smoking among LGBT people, there's an urgent need for research to produce effective cessation models. Strategic planning groups in this effort suggested 12 additional strategies to promote LGBT health that also inform tobacco prevention and cessation among LGBT people.

INTRODUCTION

Smoking is a major risk factor for many high-mortality diseases like cancer and heart disease.[10-12] While US adults in 2004 had a smoking prevalence of 20.9 percent, published reports indicate that lesbian, gay, and bisexual (LGB) adults have smoking prevalences as high as 48 percent depending on the population, setting, and year.[1, 2, 4, 6, 7, 13] One recent study in California indicates that lesbians have up to 70 percent higher current smoking prevalences than heterosexual women. The same research found gay men had a current smoking prevalence rate 56% higher than heterosexual men.[6] Similarly, in the Nurses Health Study II a comparison of women by sexual orientation found higher prevalences of current smoking in lesbians.[2] A 1999 Arizona-relevant study identified a 48 percent prevalence rate of current smoking among Tucson gay men using a convenience sample of men in gay bars and a random digit dial sample of gay men in households.[1] However, a recent nationally representative sample from the Netherlands found no statistically significant differences in current smoking rates between LGB and heterosexual people.[14]

Due to the unique health issues of gay men and lesbians, including apparently higher smoking prevalences, national medical groups like the American Medical Association encouraged increased research about LGB health as long ago as 1996.[15] Ten years later, the record with regard to smoking prevalences among LGB people is not complete, and the evidence identifying successful community-based prevention methods is almost non-existent.[5, 16, 17] Furthermore, there is no published literature assessing smoking disparities specifically among LGB people living in the southwest states of Arizona, New Mexico, Utah, or Colorado.

To address health disparities relevant to LGB and transgender (LGBT) Arizonans, the Arizona Department of Health Services funded a study in 2005 to assess health disparities between LGBT and heterosexual Arizonans. The current study focuses on tobacco-related data from that effort and provides evidence of current smoking prevalences among LGB Arizonans and strategies to reduce that prevalence.

METHODS

Study design. Data were gathered in two urban centers, Phoenix and Tucson, and rural Yavapai County and were collected using four methods: an anonymous survey, focus groups, key informant interviews, and strategic planning meetings.

Data were collected in Phoenix and Tucson using a 78-item anonymous survey. In the same month, surveys were delivered to key informants in Yavapai County who, in turn, distributed the surveys at local LGBT events and through mailing lists and newsletters. In Tucson, a Spanish language survey was also distributed. The survey took 15 minutes to complete, was filled out on the spot in Phoenix and Tucson, and collected information in four areas: tobacco, health care experiences, health-related priorities and intentions, and demographics. The tobacco questions come from the Arizona Tobacco Survey conducted by the Arizona Department of Health Services Office of Tobacco Education and Prevention Program. The survey was pre-tested with college students in a public health class.

After the survey, twelve focus groups were conducted in the three regions using questions about tobacco prevention, tobacco cessation, and access to health care. Recruitment for the focus groups targeted communities that were underrepresented in the survey (including seniors, transgender people, gay men, youth and Latinos/as), people with a history of tobacco use, and people impacted by chronic disease. Recruitment occurred through word-of-mouth and posting of flyers. A written consent was obtained from each participant.

In each of the three regions, town hall forums were held to present results of the surveys and focus groups. The intent of the forums was to hear a community perspective on the data. Ten to 20 persons attended the event in each of the regions and their feedback was included in the strategic planning meetings.

After preliminary analysis of the survey and focus group data, questions were created for key informant interviews with health care professionals and LGBT leaders. The interview included questions about LGBT tobacco prevalence, tobacco interventions, LGBT health priorities and determinants, and LGBT community prevention resources. Between December 2005 and February 2006, 24 interviews were conducted, each averaging 45 minutes in length.

To cap the needs assessment, a one-day planning session was conducted in each region using a model developed by the Institute for Cultural Affairs. Participants included LGBT community leaders, and representatives of health care and health promoting organizations. All had previously received copies of the survey and focus group reports. At the meetings' end, participants reached consensus about strategic directions to promote LGBT health in their region.

Data analysis. A total of 767 surveys were collected between October 1 and November 7, 2005, with 657 of them available for analysis using Stata Corporation's Stata Intercooled 9.1. Surveys were analyzed only when respondents indicated they were 1) an Arizona resident, and 2) lesbian, gay, bisexual, and/or transgender. Except for Yavapai County, the total number of surveys coming from more rural counties was small so a new rural/urban variable was created which combined Maricopa and Pima counties into one group (urban) and all other counties into another group (rural). A random sample of 10 percent of the surveys was re-entered into a second database to test the accuracy of the original data entry. The data entry error rate was 2.88 percent. Analysis consisted of simple cross tabulations using Fisher's Exact, Pearson X^2, and Kruskal-Wallis tests to assess for statistically significant differences.

A total of 78 persons participated in the twelve focus groups. Written permission was obtained from every participant to record audio. The audio files were transcribed and reviewed by one consultant and an intern for coding of themes and content. The data were reduced to both participants' common themes and illustrative comments.

Notes were taken during each key informant interview and during the strategic planning sessions. The results included in this report come from discussions and agreement among staff regarding the most common themes emerging from the key informant interviews. Finally, strategic planning participants developed strategic directions and suggested actions which are presented.

RESULTS

Survey. Lesbian, gay, bisexual, and transgender Arizonans (including those calling themselves queer, *n*=24, or questioning, *n*=8) completed 657 surveys with 86 percent of surveys (*n*=563) collected in Phoenix and Tucson. The remaining (*n*=94) were distributed in Yavapai and Coconino counties. Almost 17 percent (*n*=109) of the respondents come from a rural county. The large majority of these (89%; *n*=97) come from Yavapai County.

The mean age of respondents was 38 years with a range from 14 to 74 years of age (standard deviation 13.3; median 38). Females dominated this convenience sample (60%). A total of eleven persons identified with a gender other than male or female. The large majority of persons, 96 percent (*n*=628), said English was their primary language.

Since the number of transgender or intersex persons completing the survey was small (*n*=11), those data are not included in the following survey results. This means the survey results focus on lesbians, gay men, and bisexual men and women; therefore, the acronym LGB, instead of LGBT, is used. After the survey results, the acronym typically reverts back to LGBT because transgender people are part of those additional needs assessment results (i.e., the focus groups, key informant interviews, and strategic planning meetings). Also, the remainder of the survey analysis excludes persons identifying as queer or questioning in order to focus more clearly on persons identified as lesbian, bisexual female, gay male, and bisexual male.

Graph 1 shows smoking prevalence among LGB people as compared to overall smoking prevalence among adult Arizonans. The prevalence of smoking is higher among LGBT adults 18 years and older (29%) as compared to the prevalence of 19 percent among adult Arizonans 18 years and older.

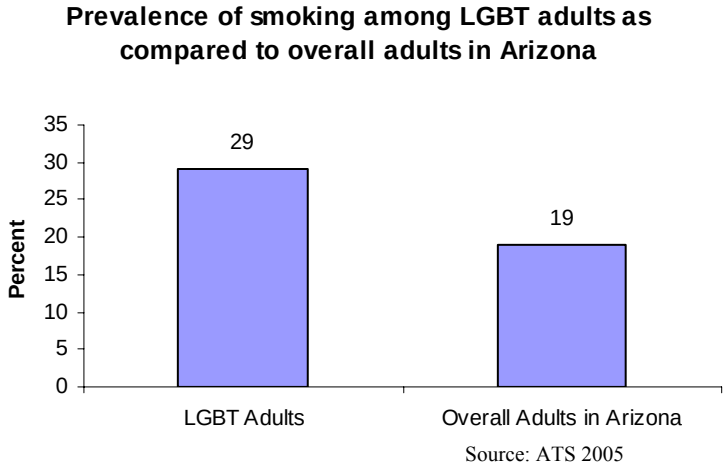

Table 1 presents demographics by sexual orientation and gender. The bisexual women in this sample were younger than the lesbians (*p*=.002) while the bisexual men were not differently aged than the gay men (*p*=.35). Bisexual women were also more likely to identify as Latino or a race other than Non-Hispanic White compared with lesbians (*p*=.011); likewise, bisexual men

were more likely to identify as Latino or a race other than Non-Hispanic White compared with gay men (p=.041). Over one-half of the sample have attained at least an undergraduate degree. Almost two-thirds call themselves partnered or married and almost 80 percent of this sample of LGB people has household incomes of less than $75,000.

Table 1. Survey sample demographic characteristics by sexual orientation

	Total (%)	Lesbian (%)	Bisexual female (%)	Gay male (%)	Bisexual male (%)
Total (n)	615	340 (55.3%)	35 (5.7%)	223 (36.3%)	17 (2.8%)
Age (%)					
<18	3.4	2.4	11.4	2.3	25.0
18-24	15.0	14.5	34.3	12.2	25.0
25-34	21.4	23.3	11.4	21.6	0.0
35-44	27.6	22.7	31.4	34.2	31.3
45-54	19.9	23.0	8.6	17.6	12.5
55-64	10.4	11.8	2.9	9.9	6.3
≥65	2.3	2.4	0.0	2.3	0.0
Race/ethnicity (%)					
Non-Hispanic White	70.0	72.7	51.4	70.9	29.4
Latino	16.8	16.6	22.9	15.3	47.0
Other[a]	13.2	10.7	25.7	13.9	23.5
Education (%)					
No high school diploma	4.2	3.8	11.4	1.8	29.4
High school graduate	11.1	10.3	14.3	11.3	11.8
GED	2.3	2.7	0.0	2.3	0.0
Some college	28.5	28.2	34.3	27.9	29.4
Undergraduate degree	33.0	32.9	22.9	35.6	23.5
Graduate degree	21.0	22.1	17.1	21.2	5.9
Household Income (%)					
<$35,000	41.6	37.5	69.7	42.9	50.0
$35,000-$74,999	37.2	41.5	24.2	32.7	37.5
≥$75,000	21.2	21.0	6.1	24.4	12.5
Urban/rural status[b] (%)					
Urban	83.9	83.5	88.6	85.2	70.6
Rural	16.1	16.5	11.4	14.8	29.4
Relationship status (%)					
Partnered/married	64.1	70.1	47.1	57.9	64.7
Single	35.9	29.9	52.9	42.2	35.3

[a]Other includes Native Americans, African Americans, Asian Americans, multiethnic persons, and others.
[b]Urban counties are Maricopa and Pima counties only.

Overall, 28.9 percent (n=176) of the LGB people in this sample were current smokers. Current smoking prevalences by selected demographic are listed in Table 2. The current smoking prevalence of each sexual orientation is lesbians – 30.9 percent, bisexual females – 41.2 percent,

gay males – 24.4 percent, and bisexual males – 17.7 percent (*p* for trend = 0.0972). In general, some of the highest smoking prevalence rates are in lesbians under age 45 with fewer years of education and lower household income. For instance, lesbians in this sample without a college degree and with a household income less than $35,000 had a current smoking prevalence of 42.7 percent (n=32).

Because the number of bisexual females and bisexual males is low in this sample, the cell sizes in Table 2 for each demographic category are too small to warrant listing prevalences for bisexual females or males; however, bisexual females and bisexual males are included in the total column.

Table 2. Current smoking prevalence by selected[a] demographics and by sexual orientation, 2005

	Total[a]	(n)	Lesbian	(n)	Gay men	(n)
Total smoking prevalence	28.9	(176)	30.9	(104)	24.4	(54)
Age						
18-24	33.0	(30)	32.7	(16)	26.9	(7)
25-34	38.0	(49)	42.3	(33)	29.8	(14)
35-44	29.8	(50)	37.7	(29)	22.4	(17)
45-64	20.1	(38)	17.1	(20)	26.2	(16)
Race/ethnicity						
Non-Hispanic White	29.6	(126)	32.0	(78)	24.2	(38)
Latino	32.0	(32)	33.3	(18)	27.3	(9)
Other	22.2	(18)	22.2	(8)	22.6	(7)
Education						
No high school diploma	34.6	(9)	46.2	(6)	[b]	
High school graduate	33.8	(23)	34.3	(12)	32.0	(8)
GED	61.5	(8)	87.5	(7)	[b]	
Some college	37.9	(66)	40.6	(39)	37.7	(23)
Undergraduate degree	26.5	(53)	28.8	(32)	19.2	(15)
Graduate degree	13.3	(17)	10.8	(8)	14.9	(7)
Household Income ($)						
<35000	35.4	(87)	38.2	(47)	28.0	(26)
35000-74999	26.9	(59)	28.2	(38)	27.1	(19)
≥75000	21.0	(26)	23.5	(16)	17.3	(9)
Urban/rural status[c]						
Urban	29.7	(152)	31.9	(90)	25.5	(48)
Rural	24.5	(24)	25.5	(14)	18.2	(6)
Relationship status						
Partnered/married	27.4	(107)	30.1	(71)	27.7	(26)
Single	31.8	(69)	33.3	(33)	22.1	(28)

[a]Bisexual females and bisexual males are included in the total column but not given their own columns because of small cell sizes.
[b]Cells with fewer than six persons.
[c]Urban counties are Maricopa and Pima counties only.

Lifetime smoking prevalence (at least 100 cigarettes smoked in lifetime) was highest in lesbians (59%) (p for trend=0.088). Gay men had a lifetime smoking prevalence of 51.1 percent followed by bisexual females at 50.0 percent and bisexual males at 35.3 percent.

A higher percentage of lesbians smoked each of the last 30 days (20.9%; n=68) vs gay men (16.0%; n=35), bisexual females (17.1%; n=6), or bisexual males (14.3%; n=2); however, compared with lesbians and gay men, a higher percentage of female and male bisexuals acknowledged being part-time smokers: bisexual females (37.1%; n=13); bisexual males (28.6%; n=4); lesbians (15.1%; n=49) or gay men (10.1%; n=22).

Among all LGB current smokers, time to smoking after waking was distributed as follows: within 5 minutes – 20.5 percent (n=32); between 6 and 30 minutes – 32.1 percent (n=50); between 31 and 60 minutes – 14.1 percent (n=22); and after 60 minutes – 33.3 percent (n=52). Among all lesbian current smokers, time to smoking after waking was distributed as follows: within 5 minutes – 18.7 percent (n=17); between 6 and 30 minutes – 33.0 percent (n=30); between 31 and 60 minutes – 17.6 percent (n=16); and after 60 minutes – 30.8 percent (n=28). Gay men's time to smoking after waking was distributed as follows: within 5 minutes – 19.6 percent (n=10); between 6 and 30 minutes – 33.3 percent (n=17); between 31 and 60 minutes – 11.8 percent (n=6); and after 60 minutes – 35.3 percent (n=18).

LGB persons in Arizona with health insurance are less likely to be current smokers (24.9%; n=126) than persons without health insurance (43.0%; n=55; p<0.001). Persons with health insurance are also less likely to allow smoking in their home (p=0.002) and less likely to have a partner or others in the home who smoke (p=0.001). Finally, LGB persons without health insurance are more likely (p=0.003) to believe smoking should be allowed in all areas of bars.

There was a trend toward more current smokers in Pima County (33.9%; n=84) than in Maricopa County (25.8%; n=68; p=0.045). There were no statistically significant differences in smoking status between rural and urban counties.

Just under 27 percent (n=155) of LGB respondents said they lived with at least one person who smoked and over three-quarters said smoking was not allowed anywhere in their home (see Table 3). Just over 40 percent of persons (n=245) felt smoking should be banned in bars while 18.6 percent (n=112) felt smoking should be allowed in all areas. Most respondents (93.1%; n=569) said they considered second-hand smoke either very harmful (n=415) or somewhat harmful (n=154). LGB persons with one child in the house are more likely to be a current smoker (45.9%; n=28) than persons with zero children (26.8%; n=138) in the house (p=.007). Compared with older persons, teens are more likely to live in a house where there are no rules about smoking (p=.003) and more likely to live in a home where others smoke (58.5%; p<.001) (data not shown).

Table 3. Spaces for smoking, second-hand smoke, and education seeking intentions

Survey question	Total[a] % (n)	Lesbian % (n)	Gay men % (n)
Which statement best describes the rules about smoking inside your home? Do not include decks, garages, or porches.			
Smoking is not allowed anywhere inside my home	78.6(458)	79.8(253)	77.8(168)
Smoking is allowed in some places or at some times	10.5(61)	10.4(33)	10.2(22)
Smoking is allowed anywhere inside the home	11.0(64)	9.8(31)	12.0(26)
Does your partner or someone living in your home smoke?			
No	73.3(425)	71.7(225)	77.2(166)
Yes	26.7(155)	28.3(89)	22.8(49)
Do you think that smoking should be allowed in bars and cocktail lounges?			
Allowed in all	18.6(112)	18.9(62)	17.5(39)
Allowed in some areas	40.7(245)	41.5(136)	37.7(84)
Not allowed at all	40.7(245)	39.6(130)	44.8(100)
Do you think that breathing smoke from other people's cigarettes is:			
Very harmful to one's health	68.6(415)	73.3(241)	62.9(139)
Somewhat harmful to one's health	25.5(154)	23.7(78)	28.1(62)
Not very harmful to one's health	3.0(18)	0.9(3)	6.3(14)
Not harmful to one's health	0.7(4)	0.3(1)	1.4(3)
Don't know	2.0(12)	1.8(6)	1.4(3)
When looking for a health program would you look for:			
An LGBT focused program	49.6(291)	47.7(154)	54.9(118)
A general community program (not LGBT specific)	28.1(165)	26.3(85)	28.4(61)
I'm not interested attending any health programs	22.3(131)	26.0(84)	16.7(36)

[a] Bisexual females and bisexual males are included in the total column but not given their own columns because of small cell sizes.

Respondents were also asked to assess the personal importance of specific health topics in a list of 18 different health topics, some with well-known connections with tobacco use. Overall, respondents judged fitness/exercise, nutrition, and cancer as issues with more personal importance (see Table 4). Smokers singled out tobacco addiction as a priority health issue for themselves while non-smokers didn't. Hispanics, more than Caucasians, said they considered tobacco addiction a more important health priority (Hispanics 51.1%; Non-Hispanic Whites 41.1%; $p<.01$) even though a similar proportion of Hispanics and Caucasians in this sample were current smokers (32.0% and 29.6%, respectively; $p=.630$).

Table 4. Personal health priorities percents

Eight health topics identified as personally more important by LGB Arizonans	
Fitness/Exercise	67.4%†
Nutrition	64.6%
Cancer	63.0%
Depression/Anxiety	58.7%
HIV	56.6%
Heart Disease	56.5%
Weight Control	56.1%
STDs	49.6%

†For example, 67.4% selected a 4 or 5 on a scale of 1 to 5 with 5 being "most important"

Focus Groups. Twelve focus groups were conducted in the three regions. Seventy-eight LGBT people participated ranging in age from 15 to 82 years. They were predominantly non-Hispanic White (66%) and lesbian (57%). Transgender individuals comprised 18 percent of the sample.

Eight common tobacco-related themes emerged. Participants said tobacco-related health and/or health care for LGBT people would increase in quality when

- peer groups encourage smoking cessation
- venues central to LGBT socialization, like bars, are smoke free
- tobacco industries' sponsorship of LGBT events and advertising in LGBT periodicals ends
- varied options and methods of quitting tobacco addiction are available
- tobacco cessation messages that target LGBT people exist and include images and contexts that are LGBT specific
- events particular to LGBT life like "coming out" and social rebellion are addressed and/or made less stigmatizing and less stressful
- there is less need to self-medicate with cigarettes
- smoking is no longer considered cool

The role of venues and peer groups was mentioned very often by focus group participants:

> *Our social life was always in the bar and we all smoked.*
>
> *When I got involved in a relationship with a smoker, I became a smoker. Somehow that habit then outlasted the relationship. I don't know why.*
>
> *One of our problems in this city [Phoenix] is that we don't have a [smoke-free] LGBT space to be totally ourselves.*

LGBT stigmatization, the cultural role of rebellion and mores connected with tobacco are illustrated by the following comments:

Smoking gave me prestige, a sense of rebellion, a sense of arrogance. Maybe I thought I was more resilient then I was. I just threw it in their faces and I liked the importance of smoking and being defiant.

We're on the outskirts of society. There is more tension for us, more stress.

There is fatalism in some of the gay community: Something is going to get them anyway – HIV, hepatitis, smoking, drinking. Why not smoke?

Regarding quitting, participants' successful stories were quite varied and included aversion therapy.

I brought a picture of damaged lungs tonight. I came very close to this. (Showed photo from autopsy of lung) I went to classes for 6 weeks with a real autopsy lung. We carried around butts in a jar of water and it stunk.

I lived with a woman who couldn't exhale and it was awful. The lungs become like coal tar. This worked for me.

My doctor told me if I smoke cigarettes, I will have more heart attacks. That was enough for me.

Other strategies included deep breathing, nicotine gum, smoke-free homes and friends, yoga, tai chi, motivational tapes, self-esteem work, delaying smoking after an urge, chanting to create calm, hypnosis, help lines, and groups:

I did 12-steps, went to Lambda for Nicotine Anonymous except that all the AA groups smoke. So we had to walk through their smoke to get to our room. That's like walking through a bar to go to an AA meeting.

I used the tobacco free helpline – I called them every day for three months. She helped me understand the fights I was having with my girlfriend were part of my withdrawals.

Suggestions for successful cessation programs included using celebrities:

We need cultural heroes to do messages about healthy living. Get Sheryl Swoopes to say "no smoking."

The variety of methods used by participants to cut down or quit using tobacco mirrored available methods for the rest of the general population. Many said their personal motivation was enhanced by LGBT social networks.

Participants said relapse to smoking happened for a variety of reasons but often dealt with peer groups, self-esteem, pleasure, and stress.

I've quit a hundred times and I feel like such a failure because I can't stay quit.

17 of my 20 friends smoke, I can't possibly quit unless we all do.

Friends are still smoking. You are just around it. You don't have a support network.

I started again because I walked into a store and the cigars smelled so good – it was such a trigger.

I started again after my little brother died.

I started after a break-up.

A smoking ban in public spaces was seen as a necessary prerequisite for increased success of cessation programs. Participants had many ideas for encouraging smoke-free LGBT spaces including a city-wide ban on smoking in public spaces, separate air-conditioning systems, financial incentives for businesses, and personal thanks to businesses that are smoke free.

I like to support non-smoking spaces…telling the owners that I support their non-smoking area…a little note or reminder.

Key Informant Interviews. Staff interviewed two dozen informants representing health professionals, LGBT community leaders, and staff of charitable organizations.

When asked what were the major LGBT health issues, informants sometimes listed diseases and sometimes listed risk factors: access to health care and health education, breast cancer, tobacco, HIV, mental health, transgender health, heart health (obesity, nutrition, and exercise), violence, and substance abuse. When pressed for the root causes of the above issues, informants listed broader topics: homophobia, stigma, discrimination, stress, depression, isolation, lack of health care, lack of information, guilt, and attempts to hide sexual orientation.

Most informants believed that high rates of smoking in LGBT populations were not common knowledge among Arizona health care providers or LGBT community leaders; even so, a large majority said physicians are an important tobacco cessation motivator for people who have a primary care physician. A large majority of informants also thought it was important that health care providers know their patients' sexual orientation. Ultimately, informants felt that positive changes in the patient-provider relationship were most likely to occur through systemic intervention when ADHS, county health departments, and other health care organizations required increased LGBT competence as part of quality assurance certification.

While informants listed a variety of programs that might address some of the above issues including classes, media campaigns, and discussion groups, most said that cultural differences between LGBT and non-LGBT communities (in addition to intra-LGBT community differences) require programming be tailored and targeted.

Strategic Planning Meetings. A day-long meeting in each region with invited participants of LGBT community leaders, health professionals, and charitable funding organization

representatives developed strategic actions and themes to guide and promote general LGBT health improvement in Arizona. None of these actions were specific for tobacco control but suggest directions that encompass tobacco prevention and cessation:

- make health care more LGBT competent/sensitive
- create connections among organizations (LGBT and non-LGBT) to increase effectiveness/strength
- create favorable government policies to blunt harmful, anti-LGBT environments
- show that LGBT people exist to counter heterosexism
- teach LGBT tolerance and respect in schools, especially with youth
- mentor leaders to strengthen LGBT communities
- promote more self-knowledge, including about health

DISCUSSION

The project collected 657 surveys from lesbian, gay, bisexual, and transgender Arizonans representing seven Arizona counties and 50 cities – from Flagstaff to Yuma and from Mesa to Benson; conducted a dozen focus groups in three counties; interviewed two dozen health care professionals and LGBT community leaders; and convened three strategic planning retreats to assess the health needs of LGBT Arizonans. As part of that effort, this report contains results related to tobacco.

LGB Arizonans said they use tobacco at much higher rates than other Arizonans (28.9% vs 18.5% respectively) and key informants agree this crucial information is generally unknown to health care professionals and to most LGBT people. While focus group respondents offered hope by citing many cessation strategies for LGBT people, they also said smoking in lesbian/gay bars and peer groups made starting smoking much easier and quitting more difficult.

These results showing LGB smoking prevalence exceeding heterosexual smoking prevalence are consistent with studies in Arizona and other states.[1-7, 13, 16, 18-21] The 28.9 percent smoking prevalence for LGB Arizonans in 2005 was more than 50 percent higher than other Arizonans [19] which indicates LGB people should be of high importance in allocating resources to communities most in need of tobacco prevention and cessation resources.

Lesbians in the survey sample smoked at statistically significantly higher rates than gay men while women under age 45 smoked at statistically significantly higher rates than older women. Among lesbians in this sample aged 25 to 34, 42.3 percent said they were current smokers while 17.1 percent of lesbians age 45 to 64 years said they were current smokers. The higher smoking prevalence among younger women is also reflected in the literature.[4, 6, 9, 20, 21] As has been postulated elsewhere, it's possible that younger lesbians may be more likely to frequent bar culture as part of their socialization, and younger women may turn to cigarettes more than older women to deal with the stress of being lesbian in Arizona.[8] Unlike females, there was no clear trend of younger males having a higher smoking prevalence than older males.

A population-based study of smoking in LGB Californians in 2004 provides an interesting comparison with the convenience sample of this effort. Using random digit dialing, the

California study interviewed 1218 LGB people with results often paralleling this Arizona study with one major exception: gay men smoked at higher rates than lesbians in California while the reverse was the case in this Arizona sample. Areas of agreement between the California and Arizona samples include 1) younger people smoked at higher rates; 2) people with lower household incomes smoked more; and 3) people with less education smoked more.[6]

Regarding support for banning smoking in bars, just over 40 percent of the LGB survey respondents agreed to a ban. Persons under 30 were least likely to support such a ban, likely a reflection of the higher rate of smoking in younger people.

In this sample, LGB persons with health insurance were less likely to be current smokers and more likely to ban smoking in their home than persons without health insurance. There were no statistically significant differences in current smoking rates between rural and urban LGB people. Smoking prevalence was lower in Maricopa County than in Pima County LGB people. About one-quarter of this sample said they lived with at least one person who smoked. Teens, as opposed to older LGB people, were more likely to live in a home where others smoke and where there are no rules about smoking. Persons with one child in the house in this sample were more likely to be a current smoker than people with no children in the house.

The current effort delivers important tobacco findings using other research methods too. Not only in surveys, but also in focus groups, key informant interviews, and strategic planning meetings, LGB Arizonans named a variety of issues as priority health topics including tobacco use and cancer. Hundreds of LGB people at Arizona festivals said fitness/exercise, nutrition, cancer, depression/anxiety, HIV, and heart disease were most important to them. Health care professionals and LGBT community leaders said access to health care and health education, breast cancer, tobacco, HIV, mental health, transgender health, heart health (obesity, nutrition, exercise), violence, and substance abuse were priority topics. Many of these topics have appeared in other reviews of health disparities between LGBT and non-LGBT people.[2, 3, 9, 22-29] Professionals and community leaders in Arizona said these health topics were rooted in stigma, homophobia, discrimination, stress, isolation, guilt, and hiding sexual orientation.

Methods for tobacco cessation mentioned in the focus groups were multiple and varied. Individual methods included nicotine replacement therapy, hypnosis, advice from health care providers, alternate activities, and exercise. Group methods included aversion and cognitive therapies, 12-step groups and support groups.

The cross-sectional nature of the current study cannot assess causation but the focus group respondents provide clues about the causes of higher smoking rates including social geography (e.g., “my friends all smoke”) and marketing. Respondents said that culturally specific issues like socialization in bar culture and the influence of targeted tobacco marketing increases the likelihood of tobacco use and difficulty with tobacco cessation (tobacco corporation marketing efforts targeting LGBT communities began in the 1990s[30, 31]). Smoking in bars even acted as a barrier to LGBT socialization with some non-smoking respondents saying they sometimes wanted to dance and socialize in bars, but did not do so because of the smoke.

Respondents said peer smoking groups were a key to their ability to quit. They said their chances of quitting would increase if the group could quit together; however, there are no cessation models in the literature targeted to social networks and only one group cessation model showing success with gay men.[17] Given the high rates of smoking among LGBT people, there's an urgent need for research resulting in proven cessation models for these communities. The smoking literature suggests the following are likely important components in a cessation model: set a quit date and create a plan; identify stressors or temptations that might encourage relapse; consider using nicotine replacement therapy; get support from family and peer groups and make sure that support is available a sufficient amount of time; and prevent relapse.[32] Since respondents in the current study underscored the role of peer groups and stress, it's possible that LGBT cessation models may want to put special emphasis on the role of these two components.

Respondents said that pressures unique to the LGBT experience included the stress of coming out, the development of a healthy LGBT identity, and the lack of support during life transitions including losing relationships, starting relationships, and death. Factors not unique to the LGBT experience included the enjoyment of tobacco use, and the biological effects of nicotine.
For persons with nicotine addiction, a health care worker can often be an important motivator for tobacco cessation, but LGBT Arizonans said they find intake forms and health care worker behavior typically assuming heterosexuality. One consequence of this lack of cultural competence is that LGBT people are less likely to reveal their sexual orientation, a behavior leading to poorer health care for LGBT people.[15, 22, 33, 34] Revealing sexual orientation could also allow a health care worker who knows about higher rates of smoking in LGBT people to act on that knowledge by suggesting some of the quitting strategies mentioned above. Key informants generally felt health care workers can have a positive influence on tobacco cessation and that patient disclosure of sexual orientation was vital information to catalyze that process. In addition to making the mainstream health care system more culturally competent, participants in focus groups and strategic planning meetings also advocated for creation of directories of LGBT competent health care professionals. A national organization, the Gay and Lesbian Medical Association, maintains a searchable directory of LGBT competent physicians but it has almost no content specific to Arizona.

Maybe even more importantly, project staff asked key informants about health care provider and community leader knowledge of LGB smoking rates. Although some key informants were aware of high rates of LGB tobacco use, most thought that medical providers, especially non-LGBT providers, are unaware of the high rates.

Other major findings from focus groups and key informant interviews are that Phoenix and the Verde Valley (a portion of Yavapai County) may lack the infrastructure, namely an LGBT community center, to deliver tobacco and chronic health-related programming. Funding organizations may want to pay special attention to threats to programming caused by inadequate infrastructure in these areas. Where infrastructure does exist, like Tucson, strategic planning participants advocated for funding existing LGBT organizations to deliver programming like physical fitness programs, smoking cessation programs, and personal growth interventions promoting health behaviors like acknowledging one's sexual orientation.

Limitations

This study has important limitations. The convenience sample used with the survey may limit generalizability somewhat but the results are likely sound. As evidence, in the ADHS random-digit-dial telephone tobacco survey of 2002 and 2005, LGBT respondents acknowledged smoking at rates similar to those found in the current research. [18]Survey collection at LGBT festivals also predisposes towards respondents who are financially able to go to festivals and more likely to acknowledge their sexual orientation. As noted in a community forum, outdoor festivals may also preferentially attract persons who enjoy smoking and drinking alcohol in a public environment. Household income was inflated in the survey sample (possibly another reflection of the survey's distribution at festivals). If the survey had collected data from a lower income group more representative of the general population, this sample may have had higher rates of smoking and lower rates of health insurance.

Likewise, there are too few Hispanics among respondents, 16.8 percent, which compares with 25.3 percent in the general Arizona population.

Recommendations for programming and future research

Appropriate and adequate responses to health care disparities are driven by good data. Reliable health data about LGBT people has been elusive because researchers rely mainly on convenience samples Research using representative, population-based, samples of LGBT people is critical.

Regarding programming, LGB Arizonans in this study said cancer and heart disease were two of the top health issues with which they were most concerned. Behavioral interventions and information campaigns can use this information to reinforce the strong connection between these diseases and tobacco use. However, respondents also indicated other factors were more important than knowledge in preventing smoking. LGBT Arizonans, especially younger adults, frequent gay bars because it is still one of the few locations were they can be open about their sexual orientation. Since smoking is common in gay bars, LGBT Arizonans are then more likely to try smoking which often leads to addiction. If smoking behavior becomes less common in Arizona bars, or non-existent, fewer LGBT Arizonans will become tobacco addicted.

For the high numbers of LGB people who already have tobacco addiction, other measures are necessary including interventions by health care workers and with peer groups. Unfortunately, this study and other studies indicate that health care workers don't ask about their patients' sexual orientation and LGBT patients often don't tell. Using incentives to motivate peer groups to quit smoking is another possible avenue but proven group cessation models must be made culturally competent for LGBT people. Only one such model has shown success. Given the high rates of smoking among LGB people, there's an urgent need for research to produce effective cessation models.

The LGBT respondents in this effort identified recommendations for improved health for LGBT Arizonans. Those recommendations can help inform tobacco prevention and cessation in LGBT Arizonans especially if considered within a tobacco context:

Health Care Cultural Competency

1. Create LGBT culturally competent standards for all agencies receiving state funds to include creation of LGBT competent intake forms. LGBT competent care will facilitate the health care system addressing high rates of smoking among LGBT people.
2. Produce culturally competent trainings with continuing education credits that highlight the serious threat of tobacco in LGBT communities.
3. Have a statewide clearinghouse of LGBT health information for health care providers to help disseminate data about tobacco use in LGBT communities.

Community Building for Health

4. Create a directory of LGBT competent providers to help connect LGBT smokers with LGBT competent care.
5. Create tobacco health information campaigns for LGBT people using available media.
6. Develop peer group tobacco cessation programs for LGBT communities.
7. Increase state funding for pilot programs targeting LGBT tobacco use, especially for LGBT persons of color and including positive LGBT images.

Politics and Policy

8. Create more connection between LGBT smokers and health care systems by supporting expanded insurance coverage through mechanisms like domestic partnerships.
9. Address tobacco use disparities by creating systemic/structural interventions targeting tobacco, like making social venues smoke-free.
10. Improve data and research collection on LGBT tobacco issues.
11. Create a Governor's Office on LGBT health with a liaison to ADHS.

Community Building for Infrastructure

12. Educate LGBT community leaders on LGBT tobacco issues.
13. Create LGBT community centers in Phoenix and the Verde Valley to enhance infrastructure for tobacco programming.

Given the higher rate of smoking among younger women in this sample, planners can increase the chances for appropriate program design by employing younger LGBT people as program developers. In general, programs should address the cultural role of smoking in LGBT communities and psychosocial stressors that encourage smoking while also promoting healthy development, and possibly including nicotine replacement therapy.[16]

Programming cannot ignore ethnic affiliations especially in a border state like Arizona. Furthermore, key informants said that media and marketing campaigns need to include images of 'out' LGBT people. Focus group participants said techniques for cutting down or never starting tobacco use could include marketing campaigns targeted at youth with recognizable LGBT people like sports and entertainment figures, tobacco free spaces in LGBT bars, and elimination of tobacco industry sponsorship of LGBT events and publications. While younger LGBT people, especially females, are clearly an important target for anti-smoking programming, these data also indicate that LGBT people of all ages should be considered for anti-smoking programming due to disproportionate rates of smoking in comparison to heterosexuals.

A culturally competent health care experience for LGBT people could play an important role in reducing smoking prevalence. For instance, collecting demographic information such as "partner/significant relationship" on intake forms would be an improvement over the vast majority of forms in current use. Key informants noted that successful systemic improvements would most likely evolve from mandated collection of LGBT demographic data by health insurance companies, state health departments and professional medical boards and societies. Cultural competency trainings in LGBT health need to offer continuing education credits in order to encourage attendance by medical and nursing personnel. Training for health care workers should include information about the high rates of LGBT tobacco use. ADHS can also support tobacco reduction and other LGBT health initiatives at the state and county health department level with support for adequate personnel.

This report intends to provide some context within which ADHS can develop more effective responses relating to LGBT tobacco use. While it includes information important to the successful development of LGBT tobacco programming in Arizona, it's a document dependent on data collected from October 2005 to March 2006. As time passes, the conclusions will require modification. To adjust for changing circumstances, program planners need to continue to listen to LGBT communities and give them a prominent voice in program development.

REFERENCES

1. Stall, R.D., et al., *Cigarette smoking among gay and bisexual men.* Am J Public Health, 1999. 89(12): p. 1875-8.
2. Case, P., et al., *Sexual orientation, health risk factors, and physical functioning in the Nurses' Health Study II.* J Women's Health (Larchmt), 2004. 13(9): p. 1033-47.
3. Roberts, S.J., et al., *Health related behaviors and cancer screening of lesbians: results of the Boston Lesbian Health Project II.* Women Health, 2004. 39(4): p. 41-55.
4. Eisenberg, M.E. and H. Wechsler, *Social influences on substance-use behaviors of gay, lesbian, and bisexual college students: findings from a national study.* Soc Sci Med, 2003. 57(10): p. 1913-23.
5. Ryan, H., et al., *Smoking among lesbians, gays, and bisexuals: a review of the literature.* Am J Prev Med, 2001. 21(2): p. 142-9.
6. Tang, H., et al., *Cigarette smoking among lesbians, gays, and bisexuals: how serious a problem? (United States).* Cancer Causes Control, 2004. 15(8): p. 797-803.
7. Sanchez, J.P., P. Meacher, and R. Beil, *Cigarette smoking and lesbian and bisexual women in the Bronx.* J Community Health, 2005. 30(1): p. 23-37.
8. Gruskin, E.P., et al., *Patterns of cigarette smoking and alcohol use among lesbians and bisexual women enrolled in a large health maintenance organization.* Am J Public Health, 2001. 91(6): p. 976-9.
9. *Healthy People 2010 Companion Document for Lesbian, Gay, Bisexual, and Transgender (LGBT) Health.* 2001, Gay and Lesbian Medical Association: San Francisco, CA.

10. Sasco, A.J., M.B. Secretan, and K. Straif, *Tobacco smoking and cancer: a brief review of recent epidemiological evidence.* Lung Cancer, 2004. 45 Suppl 2: p. S3-9.
11. Critchley, J.A. and S. Capewell, *Mortality risk reduction associated with smoking cessation in patients with coronary heart disease: a systematic review.* JAMA, 2003. 290(1): p. 86-97.
12. *Reducing Tobacco Use: A Report of the Surgeon General*, Centers for Disease Control and Prevention, Editor. 2000, U.S. Department of Health and Human Services.
13. Valanis, B.G., et al., *Sexual orientation and health: comparisons in the women's health initiative sample.* Arch Fam Med, 2000. 9(9): p. 843-53.
14. Sandfort, T.G., et al., *Sexual orientation and mental and physical health status: findings from a dutch population survey.* Am J Public Health, 2006. 96(6): p. 1119-25.
15. *Health care needs of gay men and lesbians in the United States. Council on Scientific Affairs, American Medical Association.* JAMA, 1996. 275(17): p. 1354-9.
16. Remafedi, G. and H. Carol, *Preventing tobacco use among lesbian, gay, bisexual, and transgender youths.* Nicotine Tob Res, 2005. 7(2): p. 249-56.
17. Harding, R., J. Bensley, and N. Corrigan, *Targeting smoking cessation to high prevalence communities: outcomes from a pilot intervention for gay men.* BMC Public Health, 2004. 4(1): p. 43.
18. *2003 Arizona Urban Adult LGBT Tobacco Survey*. unpublished, Arizona Department of Health Services, Tobacco Education and Prevention Program.
19. Negron, E.V., *Personal Communication with the ADHS epidemiologist Emma Viera Negron in the Tobacco education and Prevention Program about rates of smoking among LGBT Arizonans.*, A. Nyitray, Editor. 2006, April 2006: Phoenix.
20. Austin, S.B., et al., *Sexual orientation and tobacco use in a cohort study of US adolescent girls and boys.* Arch Pediatr Adolesc Med, 2004. 158(4): p. 317-22.
21. D'Augelli, A.R., *High tobacco use among lesbian, gay, and bisexual youth: mounting evidence about a hidden population's health risk behavior.* Arch Pediatr Adolesc Med, 2004. 158(4): p. 309-10.
22. Knight, D., *Health care screening for men who have sex with men.* Am Fam Physician, 2004. 69(9): p. 2149-56.
23. Fish, J. and D. Anthony, *UK National Lesbians and Health Care Survey.* Women Health, 2005. 41(3): p. 27-45.
24. Wichstrom, L., *Sexual orientation as a risk factor for bulimic symptoms.* Int J Eat Disord, 2006.
25. Ford, J.A. and J.L. Jasinski, *Sexual orientation and substance use among college students.* Addict Behav, 2006. 31(3): p. 404-13.
26. Pachankis, J.E. and M.R. Goldfried, *Social anxiety in young gay men.* J Anxiety Disord, in press, 2006.
27. Cochran, B.N. and A.M. Cauce, *Characteristics of lesbian, gay, bisexual, and transgender individuals entering substance abuse treatment.* J Subst Abuse Treat, 2006. 30(2): p. 135-46.
28. Heintz, A.J. and R.M. Melendez, *Intimate partner violence and HIV/STD risk among lesbian, gay, bisexual, and transgender individuals.* J Interpers Violence, 2006. 21(2): p. 193-208.
29. Melendez, R.M., et al., *Health and Health Care Among Male-to-Female Transgender Persons Who Are HIV Positive.* Am J Public Health, 2006. 96(6): p. 1034-7.

30. Stevens, P., L.M. Carlson, and J.M. Hinman, *An analysis of tobacco industry marketing to lesbian, gay, bisexual, and transgender (LGBT) populations: strategies for mainstream tobacco control and prevention.* Health Promot Pract, 2004. 5(3 Suppl): p. 129S-134S.
31. Smith, E.A. and R.E. Malone, *The outing of Philip Morris: advertising tobacco to gay men.* Am J Public Health, 2003. 93(6): p. 988-93.
32. *Selected Evidence for Behavioral Risk Reduction in Clinical Settings: Smoking*. 2000, Center for the Advancement of Health: Washington, DC.
33. Boehmer, U. and P. Case, *Physicians don't ask, sometimes patients tell: disclosure of sexual orientation among women with breast carcinoma.* Cancer, 2004. 101(8): p. 1882-9.
34. Helfrich, C.A. and E.K. Simpson, *Improving services for lesbian clients: what do domestic violence agencies need to do?* Health Care Women Int, 2006. 27(4): p. 344-61.