Community leader support for tobacco control activities & policies on Guam*

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Abstract

Objectives: *Guam has the highest smoking rate in the United States. This study examined Guam community leaders' attitudes toward cigarette smoking and their interest in changing local tobacco control policies.*

Design: *Cross-sectional survey.*

Setting: *Guam community leaders completed surveys while attending local professional conferences or meetings.*

Participants: *Seventy-three percent of the respondents were female; the mean age was 46 years (SD= 15), and over 86% were from ethnic minority groups (47% Filipino, 28% Chamorro, 10% Asian, 2% other Pacific Island groups). About 30% reported being native Guamanian, and of those who immigrated to Guam had lived on Guam a mean of 17 years (SD= 11).*

Outcomes: *Tobacco use was rated as a serious problem for Guam by 73% of the leaders surveyed, and a majority agreed that stricter tobacco control policies were needed on Guam.*

Results: *When asked to rate their preferences for tobacco control efforts on Guam, most (63%) preferred to focus on cessation efforts and 55% wanted to focus on smoke-free public places.*

Conclusions: *This study provided critical insight about community leader support for stronger tobacco control measures on Guam, especially with respect to smoking cessation and smoke-free environments. Such a consensus of opinions could become a catalyst to promote community-wide tobacco control policies and programs. In addition, this study may provide a platform for future research on the structure and effectiveness of community leader support in a multicultural environment.*

Keywords: *tobacco control policy, Western Pacific Region, Guam, opinion leader, community support. (PHD 2006 Vol 13 No 2 Pages 71 - 78)*

Introduction

Tobacco use remains the most preventable cause of death in the United States, accounting for approximately 440,000 deaths each year, and more than $75 billion in direct medical costs.[1] An estimated 46.2 million adults in the U.S. smoke cigarettes and more than 8.6 million people suffer from at least one serious illness caused by smoking.[2] Without concerted efforts to reduce the number of persons who use tobacco and prevent others from initiating tobacco use, death rates are predicted to increase dramatically. The World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC) provides a structure for tobacco control advocates from multiple agencies to coordinate such efforts.[3]

On the Western Pacific island of Guam, a Territory of the United States of America, the tobacco use rates surpass the U.S. national rates and run counter to the nation's trends. In 2003, 34% of Guam's adult population smoked compared with the national rate of 22%.[4] Additionally, Guam's adult smoking rate has continued upward over recent years.[4] Not surprisingly, the Guam youth tobacco use rates emulate the adults' rates. Approximately 32% of Guam high school students and 23% of middle school students are current smokers.[5] These rates put Guam closer to the rates seen in Western Pacific countries such as Indonesia (33.8%) and Korea (42%), compared to those found in the other U.S. states or territories.[6]

Community and opinion leaders can play a critical role in helping to reduce troubling use rates by influencing a variety of tobacco control efforts.[7] Adverse public sentiment toward smoking may also discourage tobacco use through a community driven anti-smoking climate where smoking is viewed as socially unacceptable.[8] Such community efforts have contributed to stronger tobacco control legislation and decreases in smoking prevalence in states such as California and New York.[9] Increasing taxes on tobacco product sales is one method

communities can use to decrease tobacco use. Tobacco industry marketing research has shown that higher cigarette prices resulting from tobacco sales taxes have led to significant decreases in cigarette smoking "in both the number of smokers and the amount of cigarettes consumed by smokers."[10, 11, 12] Tax increases that are part of a comprehensive, community-based approach will have the greatest chance of reducing tobacco consumption.[13, 14, 17] Involving community leaders and assessing their views on tobacco control is a necessary step toward developing such an approach.

This study examined Guam community leaders' opinions, activities, and attitudes toward tobacco use and their support for tobacco control policies. In addition to reporting the results of opinion leaders' surveys, we report local activities conducted by a tobacco coalition (the Tobacco-control Research Advisory Group [TAG]) that initiated new tobacco control efforts on Guam based in part, on the survey's results. Such information will be used to coordinate concerted efforts to increase the availability of cessation programs, enforce stricter public smoking regulations, institute stronger controls and higher taxes cigarette sales, and decrease the widespread acceptance of tobacco use leading ultimately to a decrease in smoking prevalence and cancer morbidity and mortality among the island citizenry.

This study examined Guam community leaders' opinions, activities, and attitudes toward tobacco use and their support for tobacco control policies

Methods

This research was conducted as a Pilot Project within an U56 minority institution NCI-funded partnership between the University of Guam (UOG) and the Cancer Research Center of Hawaii, University of Hawaii. The UOG's Committee on Human Research Subjects approved the protocols. Informed consent from each participant was obtained and all responses were anonymous.

Sample

Community leaders who were members of various organizations or worked within medical or professional businesses or public institutions on Guam were surveyed. Respondents included leaders from community sectors such as health, education, law enforcement, nonprofit organizations, corporations, local government (e.g., Department of Public Health & Social Services), and youth organizations.

Survey Administration

Written surveys were distributed at five different professional conferences or meetings on Guam, including: 1) Guam Youth for Youth conference (participants included educators, youth leaders, and parents); 2) Guam Nurses Association conference; 3) Asian Pacific Partners for Empowerment and Leadership (APPEAL) Summit (comprised of community leaders from public and private agencies); 4) American Cancer Society Cancer conference (attended largely by medical and public health professionals); and 5) University of Guam Tobacco-control Research Advisory Group's Community Forum on Tobacco (participants came from 26 island agencies and included legislators, health professionals, educators, and youth advisors). Most of the questions on the self-report survey were adapted from a telephone survey used to interview opinion leaders from California in the late 1990's.[7] However, several questions were modified to include references to the political and social environments on Guam, and many questions used in the California survey were excluded as they do not apply to the Guam setting or populations.

We conducted a split test reliability analysis on the six tobacco control policy questions, which yielded a Pearson *r* of .99.

Measures

Demographics. Demographic variables included sex, age, level of formal education completed, ethnicity, immigrant/resident status, and if immigrant, the number of years lived on Guam.

Smoking status. Current smoking was defined as smoking cigarettes "every day" or on "some days." Non-smokers were those who responded they do not currently smoke.

Friends or family members with a smoking-related illness. Respondents reported whether or not a family member or close friend had ever been diagnosed with a smoking related illness such as heart disease, lung disease, cancer or emphysema.

Perceived importance of the tobacco problem. Using a 'seriousness' scale (1=not serious, 2=somewhat serious, 3=serious, 4=very serious) respondents indicated their perception of how serious a problem each of the following was: prevalence of tobacco use on Guam, minors' ability to obtain tobacco products, the problems of second-hand smoke, and the prevalence of tobacco advertising on Guam.

Future tobacco control efforts. Community leaders were asked to indicate their preferences for the focus of future tobacco control programs. Response options included: promoting smoking cessation, banning tobacco advertising, increasing awareness of the hazards of

Table 1

Demographic Characteristics of Study Sample

Characteristics	Profile
Sample Size	204
Sex	
Female	73.0%
Male	27.0%
Mean age	46 years (SD=14.77)
Education completed	
Some high school	2.5%
High school graduate	6.0%
Some college	12.5%
College graduate or higher	79.0%
Ethnicity	
Filipino	47.0%
Chamorro	28.0%
Asian	10.0%
White/Caucasian	9.0%
Pacific Island group	2.0%
Hispanic/Black	2.0%
Other	2.0%
Born on Guam	32.0%
Not born on Guam	68.0%
Mean years lived on Guam	17.4 (SD=11)
Smoking status	
Non-smoker	92.0%
Family member/friend with smoking-related illness	46.0%

second-hand smoke, establishing smoke-free public places, restricting cigarette sales to youth, and raising taxes on tobacco products.

Support for tobacco control policies. Using an 'agreeableness' scale (1 = strongly disagree, 2=disagree, 3=agree, 4 = strongly agree), community leaders indicated the extent to which they supported specific tobacco control policies. The policies included enforcement of smoke-free laws in workplaces, prohibition of tobacco sponsorship, restrictions on tobacco advertising, government interference with smoking decisions, and increasing government spending on strategies to reduce tobacco use.

The leaders also were asked how much additional tax (up to $3.00) on a pack of cigarettes they would be willing to support if all tax revenues funded programs aimed at preventing smoking among children and other health care programs. Additionally, they were asked whether smoking should be allowed in the following public areas: fast food restaurants, family restaurants, dining areas in other restaurants such as those in hotels, and bars or taverns. Respondents were given the following response options: 1=no smoking anywhere, 2=outside tables only, 3=only in designated sections, and 4=anywhere inside.

a majority of the community leaders preferred smoking cessation to be the focus of future tobacco control programs on Guam

Statistical Analyses

Analysis of variance was used to compare mean differences in perceived importance of specific tobacco problems, and to identify differences between community leaders' support for additional taxes on cigarette sales.

Descriptive analyses were used to identify the topics community leaders rated as the most important for future tobacco control efforts. Chi Square (X^2) tests of independence were conducted for each policy question to measure differences among community leaders from the five conference affiliations. We also used the z-test to test for differences in the number (proportion) of opinion leaders who rated specific tobacco issues as "very serious".

Results

As shown in Table 1, 204 community leaders completed the survey. The majority of the respondents were female, middle aged, and college educated. Nearly half (47%) identified themselves as Filipino, with Chamorro (Pacific Islanders native to Guam) being the second most reported ethnicity (28%). While most of the respondents were not born on Guam, they had lived on the island for an average of 17 years. Only 8% of the community leaders were current smokers, but almost half had a family member or close friend with a smoking-related illness.

Forty-four percent of community leaders surveyed were attendees at the American Cancer Society conference, 22% were participants in the Guam Nursing Association conference, 15% attended the APPEAL summit, 12% attended the UOG Capstone conference, and 7% attended the Youth-for-Youth conference.

Perceived Importance of the Tobacco Problem

In rating the level of seriousness of several tobacco concerns on Guam, our study found that 73% of community leaders thought tobacco use was a very serious problem; 68% were very concerned about second-hand smoke; 63% felt that kids having access to tobacco products was a very serious problem; and 55% felt that tobacco advertising on Guam was very serous. The proportion of leaders who rated tobacco use and second hand smoke as very serous problems was significantly higher that the proportion rating of tobacco advertising as very serious ($p < .05$). However, between site differences in mean ratings of the seriousness of these issues (on a scale of 1 to 4) were not significantly different.

Support for Future Tobacco Control Programs

As shown in Table 2, a majority of the community leaders preferred smoking cessation to be the focus of future tobacco control programs on Guam. The establishment of smoke-free public places and tightening of controls on tobacco sales to youth were the second and third most preferred topics.

Support for Tobacco Control Policies

We tested for differences across conference sites in opinion leaders' support for tobacco control policies. Table 3 shows that a majority of community leaders agreed that stricter tobacco control policies were needed on Guam. However, there were statistical differences across the sites for two of the policies. Fewer attendees to the Youth–for–Youth conference (mostly educators) agreed that enforcement of smoke-free workplace environments would be easier if there was a law in Guam supporting such bans on smoking (77%). Also, fewer attendees from the ACS conference (60%) agreed that governments should sue tobacco companies to recover health care costs due to tobacco use. There were no significant differences in tobacco control preferences by sex or ethnicity.

When asked about completely prohibiting smoking in

Table 2

Focus of future tobacco control programs on Guam

Program focus	Percentage Preferred [a]
Smoking cessation	63.0%
Making public places smoke free	55.0%
Restricting youth cigarette sales	53.0%
Raising prices of tobacco products	34.0%
Hazards of second-hand smoke	32.0%
Banning tobacco advertising	18.0%

Note: N=204
[a]Respondents asked to select all topics they felt were important, thus total exceeds 100%.

Table 3
Opinion Leader Support for Tobacco Control Policies by Site

Type of Tobacco Control Policy	Site 1[a] (n=14)	Site 2[b] (n=45)	Site 3[c] (n=31)	Site 4[d] (n=90)	Site 5[e] (n=24)	Total[1] (n=204)	*P*
Enforcement of smoke-free workplace policies would be easier if there was a uniform Guam law.	77*	98	93	98	100	96	.02
Tobacco sponsorship should not be allowed.	83	95	86	87	91	89	.84
Tobacco advertising on billboards, buildings, and windows should be banned.	77	91	86	95	86	91	.24
The government should not interfere with smoking decisions.	46	34	38	38	30	37	.73
Governments should sue tobacco companies to recover health care costs due to tobacco use.	69	74	92	60	96	73	.003
It is important that government spend money to reduce tobacco use.	92	95	96	93	96	94	.43
Mean amount of additional tax on tobacco (in dollars)_	2.08	1.97	2.47	2.20	2.38	2.22	.36

Note: Chi-square analyses were conducted with individual policy variables. Analysis of variance was conducted with the amount of additional tax.
*Values represent percentages of respondents who stated they "agree" or "strongly agree" with the respective tobacco control policy. Respondents who did not answer the question or responded "don't know" were excluded.
aYouth for Youth conference.;bGuam Nursing Association; cAPPEAL Summit; dAmerican Cancer Society; eUniversity of Guam Tobacco Advisory Group Symposium.
_Mean percentages across sites for each individual policy.
_Mean amount of additional tax per pack of cigarettes (from $0 to $3.00) that community leaders would support if money were to fund programs aimed at preventing smoking among children and other health care programs.

public areas (no smoking anywhere), 77% of community leaders agreed with enforcing this policy in family restaurants, 68% felt that this policy should apply to other types of dining facilities such those in hotels, and 44% felt that a full smoking ban be enforced in all bars or taverns.

Discussion

Building upon the results of a previous study investigating opinion leaders' support for tobacco control policies in California,[7] our study found equally high support from Guam community leaders for local tobacco control policies. Because these leaders can influence public support and subsequent adoption of tobacco control legislation,[15] such consensus building is key to reducing Guam's high smoking prevalence. To speed up the rate of change and increase the probability of success, a sustained, coordinated effort is needed.

Our largely college-educated participants also favored sizeable increases in cigarette tax hikes ranging from $1.97 to $2.47

The California study found women were more likely to support tobacco control policies than men, and nonsmokers were more likely to support policies than current smokers.[7] Our study showed no differences by gender. However, the pronounced difference between the two studies' proportion of males could explain this discrepancy, with 66% males in Howard's study versus 27% in ours. Also, an overwhelming majority of community leaders who attended the five Guam tobacco control conferences were non-smoking women (74%).

Our results also supported previous data that showed college educated respondents were more likely to favor cigarette tax hikes than those without a college degree.[15] Our largely college-educated participants also favored sizeable increases in cigarette tax hikes ranging from $1.97 to $2.47. With such a strong level of support for tobacco control efforts, we wondered why the Guam smoking rates continue to increase. Although a number of explanations are possible, the lack of sustained and coordinated efforts seems to be the most likely. The presence of a powerful tobacco lobby and the social acceptance of tobacco use have been overcome in many other locales through concerted community-based efforts.[11, 13]

At the international level, the "power of the process" of the WHO FCTC has propelled many of the neighboring Western Pacific islands to strengthen their institutional capacity and legislative environments in support of the Convention's tobacco control interventions.[17] Guam, as a Territory of the United States, has been largely left out of this process, since U.S. involvement in the WHO FCTC has been limited to federal agencies. However, the results of this survey indicate that community leaders on Guam support tobacco control policies that are consistent with the principles of the WHO FCTC. It will be critical to build on this support and follow through with implementation of evidence-based tobacco control policies so that Guam is not left behind in the Western Pacific region with regards to controlling the tobacco epidemic.

At the local level, the work of TAG and it members over the past two years has been encouraging, and has given rise to other efforts on Guam to understand and control tobacco use. Participants who attended the community forum on tobacco control presented by UOG's TAG identified five tobacco control efforts and prioritized their importance in controlling tobacco on Guam. Consistent with our opinion leader survey results, the availability of cessation assistance received the most votes. Education efforts that address smoke-free policies and tobacco prevention in youth were ranked second and third, respectively. Using data from the opinion leader surveys and the priorities set at the forum, TAG members launched efforts to increase the number of persons trained to run cessation classes on Guam. One TAG member, who was an American Cancer Society-certified "Fresh Start" cessation facilitator, agreed to train other health professionals to deliver a series of 3 cessation classes. This resulted in 3 trainers becoming certified, thus, quadrupling the availability of this method of quitting smoking. TAG members also facilitated efforts to support island ordinances for smoke-free restaurants and bars by conducting surveys of customers at restaurants and bars. TAG efforts also led to stricter smoke-free policies being implemented on the UOG campus.

Study Limitations

This study was one of the first systematic investigations of community leaders' opinions regarding tobacco control policies in Guam. The sample consisted of individuals who attended meetings or conferences at which methods for controlling tobacco use on Guam were integrated into the conference program. As such, one of its limitations included the use of a sample of convenience, which may not represent the views of all opinion leaders on Guam. Generalization beyond this sample must be done cautiously since the sample was drawn exclusively from attendees to conferences that were likely to attract those who are more dedicated to tobacco control policies than other opinion leaders who do not attend such conferences. Also, since the majority of our respondents were college educated, middle aged, non-smoking women, and smoking rates among Guamanian males is much higher than females, we

cannot make definitive statements about male opinion leaders on Guam. Finally, since most respondents were primarily white-collar professionals, a group that is less likely to smoke and more apt to support tobacco control policies than working class individuals,[16] the results may not apply to typical wage-earning Guamanians, many of whom are smokers.[4] Nevertheless, this study provided an important step for tobacco control research in locales like Guam where smoking prevalence is high but systematic evaluations such as ours have rarely been implemented. Additionally, the results from this study aided organization and guided tobacco control activities on Guam.

Conclusion

Similar to the Howard study, this study was the first to explore tobacco control support by community leaders who can motivate a reduction of tobacco consumption, which in turn should decrease tobacco-related morbidity and mortality on Guam. Support by opinion leaders has led to increased public awareness of Guam's tobacco problem, a boost in organized efforts to build an anti-smoking climate, and amplified support for stronger anti-smoking legislation. The fact that these efforts are being developed within a multicultural environment like Guam, which integrates unique cultural constructs within Western social norms and behavior, provides strong encouragement for other isolated island communities with high tobacco use rates.

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While this study provided critical insight about community leader support for stronger tobacco control measures on Guam, it also served as a catalyst for future studies about community influence and the ability to drive anti-smoking efforts. In addition, this study may have provided a platform for future research on the structure and effectiveness of community leader support in a multicultural environment. These studies are not only scarce but increasingly needed in an ever-expanding global society, and essential to developing evidence-based, community-wide, and sustained efforts to ameliorate tobacco's effects as espoused by the WHO FCTC.[3]

Acknowledgement

This research was funded by a NCI grant U56 CA96254 awarded to Dr. Carl-Wilhelm Vogel at the Cancer Research Center of Hawaii and Dr. Harold Allen at University of Guam. The authors thank members of the Tobacco-control Research Advisory Group: Annette David (the Guam Department of Mental Health and Substance Abuse), Michael Liberatore (University of Guam, Economic and Community Systems Program), Luis Martinez (United States Naval Hospital-Guam), Christina Balajadia (American Cancer Society-Guam Unit), Karen Cruz (University of Guam, School of Nursing), Peter Barcinas (University of Guam, Economic and Community Systems Program), Joseph Quinata (Guam Public School System, Curriculum and Instruction), and Eugene Santos (Guam Department of Public Health and Social Services, Health Education). We also thank our student assistants Tresa Cruz, Jonathan Lee, Claire Taylor, Natalie de Leon, Bharti Hemlani, Trina Pacheco, and Grace Lapid.

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Kindness is more important than wisdom, and the recognition of this in the beginning of wisdom
(Theodore Isaac Rubin)