



Applying the Quit & Win contest model in the Vietnamese community in Santa Clara County

Ky Quoc Lai, Stephen J McPhee, Christopher N H Jenkins and Ching Wong

Tob. Control 2000;9;56-59
doi:10.1136/tc.9.suppl_2.ii56

Updated information and services can be found at:
http://tc.bmjournals.com/cgi/content/full/9/suppl_2/ii56

These include:

References

This article cites 17 articles, 4 of which can be accessed free at:
http://tc.bmjournals.com/cgi/content/full/9/suppl_2/ii56#BIBL

Rapid responses

You can respond to this article at:
http://tc.bmjournals.com/cgi/eletter-submit/9/suppl_2/ii56

Email alerting service

Receive free email alerts when new articles cite this article - sign up in the box at the top right corner of the article

Topic collections

Articles on similar topics can be found in the following collections

[Smoking cessation](#) (201 articles)
[Other Public Health](#) (2307 articles)

Notes

To order reprints of this article go to:
<http://www.bmjournals.com/cgi/reprintform>

To subscribe to *Tobacco Control* go to:
<http://www.bmjournals.com/subscriptions/>

Applying the Quit & Win contest model in the Vietnamese community in Santa Clara County

Ky Quoc Lai, Stephen J McPhee, Christopher N H Jenkins, Ching Wong

Abstract

Objective—To evaluate the effectiveness of modifying and applying a Quit & Win contest model to Vietnamese Americans.

Design—Uncontrolled trial, multicomponent program, including two Quit & Win incentive contests, smoking cessation classes, videotape broadcasts, and newspaper articles.

Subjects and setting—Vietnamese smokers living in Santa Clara County, California.

Main outcome measures—Contest participation rates and quit rates at six month follow up; saliva cotinine validation of quitting.

Results—There were 57 eligible contest entrants to the 1995 contest, approximately 0.9% of the potential pool of smokers, and 32 entrants to the 1996 contest, approximately 0.5% of the potential pool. Overall, 48 of 49 (98%) individuals who said that they had quit smoking had validation of that fact by saliva cotinine testing. At six months, telephone follow up of 76 individuals revealed a self reported continued abstinence rate of 84.2%.

Conclusion—Modification and application of the Quit & Win contest model for Vietnamese resulted not only in reasonable participation by Vietnamese male smokers, but also good success in initial quitting and an unexpectedly high abstinence rate at six month follow up.

(*Tobacco Control* 2000;9(Suppl II):ii56-ii59)

Keywords: cessation; intervention; Vietnamese Americans

According to the 1990 census, over 615 000 Vietnamese live in the USA. California's 280 000 Vietnamese represent nearly half (46%) of all Vietnamese in the country.¹ One in every hundred Californians is Vietnamese. On the 1990 census, Santa Clara County was the northern California county with the largest Vietnamese population—an estimated 54 212. The Vietnamese community is one of the fastest-growing Asian/Pacific Islander ethnic groups in the USA.²

In California, 35% of Vietnamese men smoke,³⁻⁷ a rate one and a half times that of the general population.⁸ In contrast, fewer than 1% of Vietnamese women in California smoke cigarettes,³⁻⁷ compared with 15.3% of women in California.⁸ Vietnamese men, therefore, are at high risk for developing tobacco related diseases, such as cancer, heart disease, and chronic lung disease.

In 1982, the Quit & Win contest model was developed as a key component of the Minnesota Heart Health Program, a 10 year research and demonstration project aiming at reducing the prevalence of heart disease.^{9 10} The use of community contests to promote smoking cessation was found to be effective in Minnesota.^{9 10} This success may happen because the link between an intention and a decision to quit can be strengthened by providing opportunities for action.¹¹

To address smoking cessation needs of Vietnamese in Santa Clara County, the Vietnamese Community Health Promotion Project (VCHPP), at the University of California, San Francisco, modified, applied, and tested the existing Quit & Win concept.

Two contests with incentives were organised. These contests were entitled *Bo Hut Thuoc Co Thuong* (Quit & Win). In this paper, we report contest participation rates and abstinence outcomes for contest participants.

Methods

DESCRIPTION OF CONTESTS

Santa Clara County Vietnamese residents 18 years and older who were current smokers were eligible for the contests. Participants were recruited during a three month period before the contests through Vietnamese television and newspapers advertisements. Posters promoting the contests were also posted at different locations frequented by Vietnamese, such as supermarkets, community organisations, and Vietnamese physicians' offices.

To enter the contest, each participant had to return an entry form including the names, addresses, and telephone numbers of three friends or relatives certifying that he or she was a current smoker. Each participant was then required to abstain from all tobacco products for at least one month. For the first contest coinciding with the 1995 Vietnamese *Tet Trung Thu* (mid-autumn) festival, participants pledged to quit smoking from 21 August to 21 September 1995. For the second contest coinciding with the 1996 Vietnamese *Tet* (New Year) festival, participants pledged to quit smoking from 1 April to 30 April 1996.

To help them quit smoking, the VCHPP provided them with the booklet *Lam The Nao De Bo Hut Thuoc* (How To Quit Smoking) developed by the project. This culturally appropriate Vietnamese language booklet was developed by using focus groups of Vietnamese male smokers to develop concepts, and featuring community role models and family members to model smoking cessation. At the same time, we aired weekly three 5 minute segments of a 15 minute video with the same title

Suc Khoe La Vang!
(Health is Gold!),
Vietnamese
Community Health
Promotion Project,
Division of General
Internal Medicine,
Department of
Medicine, University
of California, San
Francisco, California,
USA
K Q Lai
S J McPhee
C N H Jenkins
C Wong

Correspondence to:
Ky Quoc Lai, Division of
General Internal Medicine,
Department of Medicine,
University of California, San
Francisco, 44 Page Street,
Suite 500, San Francisco,
CA 94102, USA
kyquoclai@yahoo.com

on Vietnamese language television and published an article with the same title in three area Vietnamese newspapers. We developed the videotape before launching the Quit & Win contest, based on a series of three smoking cessation classes conducted by one of the authors (KQL). These classes adopted the concept of the "Fresh Start" program of the American Cancer Society and the "Freedom From Smoking" program of the American Lung Association. Concurrent with the airing of the video, we organised a smoking cessation class at the VCHPP office to help smokers who needed direct counselling. Every class participant received a \$45 grocery store certificate incentive.

Members of the VCHPP's Community Advisory Board performed a random drawing of entry forms to select the winners.

The research grant paid for approximately \$1200 of limited value (\$50 per person, non-cash) prize incentives. In order to be able to offer more substantial and attractive prizes, we solicited an additional \$5000 in donations from different organisations such as volunteer agencies, local area periodicals, health care facilities, non-profit health advocacy groups, and community businesses. For the first contest, the grand prize was a one week trip for two to Hawaii including airfare and hotel accommodations. Lesser prizes were a television set, a video cassette recorder, cordless telephones, non-stick cookware, department store gift certificates, and amusement park passes. For the second contest, the grand prize was a three day trip for four to Disneyland including airfare, hotel accommodations, and entry passes. Lesser prizes were a three day trip for two to Lake Tahoe including airfare and hotel accommodation, and department store gift certificates.

We assessed the impact of the quit smoking contests by considering the level of participation at the contest start and the quit rate six months after the contest end.

We used χ^2 statistics to compare sociodemographic characteristics and number of cigarettes smoked per day between successful quitters and relapsers.

SALIVA COTININE VALIDATION

Serum or saliva cotinine concentrations are commonly used to estimate nicotine intake¹² and to confirm self reported abstinence. Therefore, we asked all potential contest winners to submit a saliva specimen for cotinine analysis to determine if they had really quit smoking. Those with results below the cut off value of 14.2 ng/ml¹³ were considered non-smokers. The clinical pharmacology laboratory at the University of California, San Francisco, used the gas chromatographic method to determine saliva cotinine.¹⁴

The research protocol was approved by the committee on human research at the University of California, San Francisco.

Results

CONTEST PARTICIPATION

Sixty one adults entered the 1995 contest, but only 57 were eligible (four were ineligible because they did not live in Santa Clara County). Thirty two adults entered the 1996 contest, all of whom were eligible.

To confirm that potential contest winners had in fact been smokers before the contest, we telephoned a subsample of the designated friends and relatives; in all cases, the entrants were confirmed smokers.

For the first contest, members of the VCHPP's Community Advisory Board conducted a drawing to select 25 potential winners; for the second contest, 24 potential winners were selected.

During the first contest, of the 25 potential winners who submitted saliva for cotinine analysis, 22 showed saliva cotinine concentrations below the cut off value, confirming smoking cessation, and three showed saliva cotinine concentrations above the cut off value. Since these three individuals insisted that they had quit smoking, we obtained repeat saliva samples from them for cotinine analysis. Two of the three showed concentrations below the cut off value, but one showed a persistently high saliva cotinine concentration indicating continued smoking, and this individual was excluded from further consideration for prizes. The remaining 24 individuals were awarded prizes. A news anchor for a prime time Vietnamese language television program interviewed the grand prize winners to talk about how they had succeeded in quitting smoking.

During the second contest, all 24 saliva cotinine results were below the cut off value, confirming smoking cessation. All 24 were awarded prizes.

Thus, overall, 48 of 49 (98%) potential prize winners who said that they had quit smoking had validation of that fact by saliva cotinine testing. Even assuming that all contest participants not selected for prizes (and thus not having cotinine validation) continued to smoke, the quit smoking rate resulting from the contest was 48/89 (54%).

For both contests, we published a list of names of contest winners in popular Vietnamese language newspapers to attract the public's attention in order to promote smoking cessation among smokers who did not have the chance to participate in these contests.

SELF REPORTED ABSTINENCE RATES AT SIX MONTH FOLLOW UP

A total of 89 smokers qualified to enter both contests (83 men and six women). Six months following the completion of the contests, we attempted telephone follow up interviews with all entrants: 76 (85.4%) contest entrants were successfully interviewed but 13 entrants (14.6%) were lost to follow up. Of the 76 entrants who were followed up, 64 (84.2%) reported abstinence, 11 (14.5%) had relapsed, and one (1.3%) said that he had never succeeded in quitting during the contest.

Among the entrants to both contests, those who remained successful quitters at six month

follow up tended to be older than those who relapsed (51.6 *v* 45.2 years), to be earlier immigrants (entry to US in 1991 *v* 1992), to have smoked more cigarettes per day (18.9 *v* 15.1), to have smoked for a longer period of time (28.3 *v* 18.4 years), to be unemployed (40.6% *v* 27.3%), and to be married (78.1% *v* 54.6%). Except for marital status, however, none of these differences were significant by the χ^2 statistic.

Discussion

The results described here show that modification and application of the Quit & Win contest model for Vietnamese resulted in a not unexpectedly low participation rate by Vietnamese male smokers, but good success in initial quitting and an unexpectedly high abstinence rate at six month follow up among participants.

According to the Quit & Win manual (1986),¹⁵ in community campaigns a reasonable goal would be to elicit pledges to quit from 0.5–1% of a smoking population aged 18 years and older. In a previously published report of a successful Quit & Win contest in the general Minnesota population, participant rates ranged from 0.2–1.06% of target age smokers in the community.¹⁶ Based on the 1990 census data showing that the total number of Vietnamese adults in Santa Clara County was 54 212, that 53% of them were male, and that 63% of these males were aged 18 and older, and our previous data indicating that 35% of Vietnamese adult males are current smokers, we estimated that the target pool of potential contest entrants numbered approximately 6335. The 57 entrants to the first contest, therefore, represent approximately 0.9% of the potential pool, and the 32 entrants to the second contest, which followed one year after the first, represent approximately 0.5% of the potential pool. Thus, response to our two Quit & Win contests was within the range noted by previous investigators using this smoking cessation program.

In the future, participation in Quit & Win programs might be enhanced by provision of more attractive prizes (for example, cash awards or, for Vietnamese, a trip to Vietnam), greater promotional efforts to advertise the contest (for example, repeated announcements by a major media outlet, internet advertisements, or greater duration of advertising), and offering participants smoking cessation counselling combined with pharmacological aids (for example, nicotine replacement or bupropion). Quit & Win contests will not attract all smokers, only those who have reached the “preparation stage,” the stage at which active smokers are ready to quit.¹⁶ Before launching such contests, community programs could be undertaken to move smokers to the preparation stage.

The six month abstinence rate of 84.2% was based on an incomplete follow up of 76 individuals. However, even if one assumes that all 13 individuals lost to follow up had relapsed and were smoking again, the six month abstinence rate would still be 71.9%. This rate

is far higher than those obtained in other contests⁹; 37% in Minnesota at five month follow up¹⁷ and 28.3% in Finland at six month follow up.¹⁸ One explanation might be that we combined Quit & Win contests with direct counselling in smoking cessation classes.

It must be acknowledged, however, that there were several limitations to our study. The first limitation consists of potential deception by contest entrants.¹⁹ Because of budgetary constraints, we did not perform biochemical validation of smoking before contest entry, only biochemical validation of quitting. Nonetheless, we did require names of three friends or relatives who could confirm participants' smoking status and telephone calls to a subsample of them confirmed participants' active smoking status.

The second limitation consists of a potential lead time bias. Chapman and colleagues have questioned whether quit lotteries genuinely increase the numbers of ex-smokers in the communities in which they are conducted or whether they simply provide an illusion of success by attributing quitting to a researched event.²⁰ This may occur when the attributed increase in quitting might have occurred in the absence of the contest, reflecting a secular trend in quitting. Alternatively, smokers contemplating quitting, and who would have subsequently acted on their intentions, may bring forward their quit attempts by participating in the contest, resulting in a “borrowing from the future” effect²¹ or lead time bias in evaluation studies.²² Thus, it is possible that Vietnamese male smokers who entered the contests and quit afterward might have been people who would have quit anyway within a few weeks without the contest. We have no way of assessing the number of such individuals, however.

Third, there are limited data on follow up and it is self reported. We had only one telephone follow up six months after the contest ended, and no saliva cotinine validation at that time to confirm continued abstinence. Nonetheless, the high rate of truth telling at the time of quitting (97.6% validation by saliva cotinine testing) makes it likely that the six month follow up data are valid. Furthermore, there was no incentive to lie at that point in time.

Smoking continues to be a serious public health problem for Vietnamese Americans. Vietnamese men in California smoke at a rate of one and a half times that of men in the general population. Use of incentive contests, modified from the Quit & Win contest model in the general population, can help Vietnamese to quit smoking and to maintain abstinence.

This research was supported by funds provided by the Cigarette and Tobacco Surtax Fund of the State of California through the Tobacco-Related Disease Research Program of the University of California, Grant 4RT 0354.

1 US Bureau of the Census (1991, June 12). Press release #CB91-215.

2 Bouvier LF, Agresta AJ. The future Asian population of the United States. In: Fawcett JT, Carino BV, eds. *Pacific bridges: the new immigration from Asia and the Pacific Islands*. Staten Island, New York: Center for Migration Studies, 1987.

- 3 US Centers for Disease Control. Behavioral risk factor survey of Vietnamese in California—1991. *MMWR Morb Mortal Wkly Rep* 1992;41:69–72.
- 4 US Centers for Disease Control. Cigarette smoking among Chinese, Vietnamese, and Hispanics—California, 1989–1991. *MMWR Morb Mortal Wkly Rep* 1992;41:362–7.
- 5 Jenkins CNH, McPhee SJ, Bonilla N-T, Nam TV, Chen A. Cigarette smoking among Vietnamese immigrants in California. *Am J Health Promotion* 1995;9:254–6.
- 6 McPhee SJ, Jenkins CNH, Wong C, et al. Smoking cessation intervention among Vietnamese Americans: a controlled trial. *Tobacco Control* 1995;4(suppl 1):S16–24.
- 7 Jenkins CNH, McPhee SJ, Le A, Pham GQ, Ha N-T, Stewart S. The effectiveness of a media-led intervention to reduce smoking among Vietnamese-American men. *Am J Public Health* 1997;87:1031–4.
- 8 California Department of Health Services. Tobacco Control Section. *California tobacco survey* 1996. San Diego: University of California, San Diego.
- 9 Lando HA, Pirie PL, Dusch KH, Elsen C, Bernards J. Community incorporation of Quit & Win contests in Bloomington, Minnesota. *Am J Public Health* 1995;85:263–4.
- 10 Glasgow RE, Klesges RC, Mizes JS, Pechacek TF. Quitting smoking: strategies used and variables associated with success in a stop-smoking contest. *J Consult Clin Psychol* 1985;53:905–12.
- 11 Sutton S. Translating a desire to stop smoking into decision and action. In: Slama K, ed. *Tobacco and health. Proceedings of the Ninth World Conference on Tobacco and Health*, 1994, October 10–14, Paris. New York: Plenum, 1995:407–9.
- 12 Schneider NG, Jacob P, Nilsson F, Leischow SJ, Benowitz NL, Olmstead RE. Saliva cotinine levels as a function of collection method. *Addiction* 1997;92:347–51.
- 13 Jarvis MJ, Tunstall-Pedoe H, Feyerabend C, Vesey C, Saloojee Y. Comparison of tests used to distinguish smokers from nonsmokers. *Am J Public Health* 1987;77:1435–8.
- 14 Jacob P, Wilson M, Benowitz NL. Improved gas chromatographic method for the determination of nicotine and cotinine in biologic fluids. *J Chromatography* 1981;222:61–70.
- 15 Maryland Department of Health and Mental Hygiene. A unique approach to smoking cessation: quit and win campaigns. Healthy People Project. Health Education Center. Preventive Medicine Administration 1986.
- 16 DiClemente CC, Prochaska JO, Fairhurst SK, Velicer WF, Velasquez MM, Rossi JS. The process of smoking cessation: an analysis of precontemplation, contemplation, and preparation stages of change. *J Consult Clin Psychol* 1991;59:295–304.
- 17 Lando HA, Loken B, Howard-Pitney B, Pechacek T. Community impact of a localized smoking cessation contest. *Am J Public Health* 1990;80:601–3.
- 18 Korhonen T, Su S, Korhonen HJ, Uutela A, Puska P. Evaluation of a national quit and win contest: determinants for successful quitting. *Prev Med* 1997;26:556–64.
- 19 Chapman S, Smith W. Deception among quit smoking lottery entrants. *Am J Health Promotion* 1994;8:328–30.
- 20 Chapman S, Smith W, Mowbray G, Hugo C, Egger, G. Quit and win smoking cessation contests: how should effectiveness be evaluated? *Prev Med* 1993;22:423–32.
- 21 Green LW. Evaluation and measurement: some dilemmas for health education. *Am J Public Health* 1977;67:155–61.
- 22 Gordis L. Evaluating the evidence for the effectiveness of prevention. *J Gen Intern Med* 1990;5(5 suppl):S14–16.

***Tobacco Control* <<http://www.tobaccocontrol.com>>**

Visitors to the world wide web can now access *Tobacco Control* either through the BMJ Publishing Group's home page <<http://www.bmj.com>> or directly by using its individual URL <<http://www.tobaccocontrol.com>>. There they will find the following.

- Full text of all issues from Summer 1999 onward (open only to subscribers via password)
- Facility to send a rapid response to any article in the journal
- Contents lists of previous issues
- Members of the editorial board
- Subscribers' information
- Instructions for authors
- Details of reprint services.

A hotlink gives access to:

- BMJ Publishing Group home page
- British Medical Association web site
- Online books catalogue
- BMJ Publishing Group books

Suggestions from visitors about features they would like to see are welcomed. They can be sent to the editor at the email address on the inside front cover of this issue, or left via the opening page of the BMJ Publishing Group site or, alternatively, via the journal page, through "About this site".