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Research Article

Enhancing Community Motivation and Participation in Control of Smoking

Somjit Daenseekaew, PhD, RN[1]

Ratdawan Klungklang, MNS, RN[2]

Erika Sivarajan Froelicher, PhD, RN[3]

Abstract

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The aim of this study was to develop strategies for enhancing community motivation and participation in smoking control in one municipality, in the North-eastern part of Thailand. The Participatory Action Research (PAR) approach was used whereby the researchers facilitate and empower a community. Community meetings were set up for exchange of experiences and for volunteers who could participate in a counseling training program. These volunteers were screened to promote group motivation, initiate a culturally relevant medium, and to create a network for community organization. Motivation was enhanced by volunteers among three partners: 1) smokers - to become healthier through counseling about information of the harmful effects of smoking and benefits of quitting smoking; 2) families - encouraged household members to assess their health, expenditure, and outcomes if any of their own family members stopped smoking; and 3) communities - raised awareness toward smoking control among housewives, workers, seniors, and adolescent groups, who founded a sense of caring for one another as their cousins, increased the number of free-smoking zones in temples, schools, health centers, ex-smokers' houses and areas for community activities. Lessons were learned by the communities, health problems and high cost of cigarette were the greatest motivation for success, but suffering from smoking withdrawal symptoms attributed to unsuccessful quitting of tobacco. 10 out of the 19 villages continued those activities for 18 months. These villages enhanced community motivation and participation in smoking control; however, decreasing the number of new smokers remains of considerable concern.

Keywords: *Smoking cessation, tobacco control, community empowerment, participatory action research*

[1] ***Somjit Daenseekaew****, RN, MS, MNS, Philosophy of Art (Development Science), Associate Professor, and Deputy Director of Research and Training in the Center for Enhancing Quality of Life of Working Age People, Faculty of Nursing, Khon Kaen University, Khon Kaen, Thailand 40002. The President of Nurse' Association of Thailand, Northeast Division and the editor of journal of Nursing and Health Care.*
Email: somdae@kku.ac.th

[2] ***Ratdawan Klungklang****, RN, MNS, Lecturer, Boromarajonani Khon Kaen College of Nursing, Khon Kaen, Thailand 40000.*
Email: rafdawan@gmail.com

[3] ***Erika Sivarajan Froelicher****, RN, MA, MPH, PhD; Professor Department of Physiological Nursing, School of Nursing University of California, and Department of Epidemiology & Biostatistics, School of Medicine. University of California San Francisco, San Francisco, CA 940143-0610, USA;*
E-mail: erika.froelicher@nursing.ucsf.edu

Corresponding Author information*: Dr. Somjit Daenseekaew, Associate Professor and Deputy Director of Research and Training in the Center for Enhancing Quality of Life of Working Age People, Faculty of Nursing, University of Khon Kaen, Faculty of Nursing, Khon Kaen University, Khon Kaen, Thailand 40002. The President of Nurse' Association of Thailand, Northeast Division and the editor of journal of Nursing and Health Care.*
Email: somdae@kku.ac.th

Introduction

Morbidity and premature mortality from diseases attributable to tobacco use is increasing (World Health Organization, WHO, 2009). This is one of the most challenging issues for any health care team in the world (US Department of Health and Human Service, 2000; Sarntisart, 2003; National Statistic Office of Thailand. 2007). Approaches to prevent at the individual, community or societal level differ depending on cultural, social, medical, and economic factors (Leartsakulpanitch, Nganthavee, & Salole, 2007; Stephen, Nsimba, & Steve, 2006; Chitanondh, 1994). Numerous theories are used for the control of smoking such as, self-care theory (Vateesatokit, 2001), social cognitive theory (Andrews, et al., 2007), the stage of change theory (Pornapa, et al., 2006; Yerger, Wertz, McGruder, Froelicher, & Malone, 2008), organizational development theory (Cronk, et al., 2010), and community empowerment theory (Monica, 2008; Froelicher, Doolan, Yerger, McGruder, & Malone, 2010). Among these, the most fitting theory for this study is the empowerment theory.

Even though various innovative strategies for tobacco control are in place including public health education and information, a ban for tobacco advertisements, deterrents for tobacco smuggling, and the use of increased tobacco taxes are expanding. All parts of the world are called upon to initiate effective strategies to further reduce the number of premature deaths due to tobacco use and to prevent second hand smoking (Fiore, 2008; Choochai, 2007; Wangkeo, 2000)

The Global Adult Tobacco Survey (GATS) (Global Tobacco Surveillance System, GTSS, 2008) reported the prevalence of adult tobacco smokers in Thailand as 45.6% of men, 3.1% of women, and 23.7% overall among the 12.5 million adults. This situation leads to problems such as cancer, stroke, and heart attack (Chanthana, & Somsri, 2009; Hathai, 2003). As such, the Thai government established a national policy to promote control on smoking and expanded public policies to prohibit sales of cigarette to youths under the age of 18 years to prevent the initiation of new smokers (Tobacco Control Research and Knowledge Management Center, 2008; National Statistic Office of Thailand, 2007; Wisit, & Natchaporn, 2005). As nicotine in tobacco is highly addictive, stopping smoking is extremely difficult without adequate interventions (Pornnapa, et al., 2009). However, while the researchers were working on a smoking control project using a PAR targeting three populations: sugar truck drivers, construction labors, and public transportation drivers, it was found that providing the smoker with a clear understanding of the dangers and benefits of quitting smoking helped to reduce the number of smokers as well as empowered the stakeholder to run a sustainable community development project (Daenseekaew, Klungklang, 2009). The results from a pilot study in one suburban municipality by the researchers, revealed that: 1) almost all families in these villages had a long term smoker member; 2) smoking was accepted as a norm in their culture; 3) smoking among the teenagers was acceptable; and 4) adults and senior men smokers with tobacco related illnesses attempted to find strategies on how to quit smoking. These preliminary findings inspired the present study in terms of encouraging, assisting, and supporting smokers to quit smoking and preventing teenagers to start smoking. Therefore, the researchers and village leaders initiated the PAR self-governance using their own experiences for smoking control (Marcia, Jennifer, & Simon, 2007; Norman, 2000, Chesler, 1991).

The key aim

The key aim of this study is to decrease smoking through achieving community awareness accompanied by mutual learning among participants and researchers.

Research objectives:

(1) Investigate the communities' abilities, attempts, and motivation to stop smoking;
(2) Identify barriers to quitting; and
(3) Develop community mobilization strategies and efforts to enhance community participation in smoking control.

Conceptual framework

The theoretical perspective of empowerment is best operationalized through PAR. The key aim of the study was to achieve community awareness accompanied by mutual learning among participants and researchers (Cameron, Hayes, & Wren, 2000). Furthermore, PAR has been described as a democratic, collaborative relationship and as a research method to empower communities. Thus, the participants initiated the innovation for community motivation in order to increase the awareness of individuals, families, and communities (Rice, & Stead, 2000). This approach developed their sense of responsibility to reduce the harmful effects of smoking, and to improve individuals' use of skills to quit smoking

based on their knowledge and an understanding of existing situations (Marcia, Jennifer, & Simon, 2007; Ulla, et al., 2006; Chesler, 1991). At the end, the participation process was used to help communities develop the necessary interventions for assessing and monitoring tobacco consumption (Gibbon, 2002; Norman, 2000).

Design and methods

PAR with the researchers as facilitators to empower the villagers' participation had performed from October 2008 to June 2010 in 19 villages, with 256 participants of one sub-district in Northeast Thailand. Community leaders joined the stop smoking project. The research process consisted of three phases:

1. **Situational analysis phase**: The researchers identified community needs and structures. Data were collected using four methods. Firstly, three brain storming meetings (for two groups of six villages and one for seven) with community leaders were set up for outcome objectives, for soliciting input for the design and calling for community participants. The second method was the use of focus group discussions during community meetings with five focus groups of the following constituents: (1) ten men who had successfully stopped smoking; (2) twelve men who had made attempts to stop smoking; (3) twelve wives who encouraged and supported their husbands to successfully quit smoking; (4) ten teenagers who were willing to participate in the project; and (5) twelve community leaders who were unsuccessful in their efforts to control smoking and who were eager to learn from the researchers for advancing their stop-smoking-project. The third method was an in-depth interview with 25 key informants who either succeeded or failed with previous smoking cessation efforts. The fourth method was participant and non-participant observation during the community meetings, in-depth interviews, and focus group discussions.

   The information gained from the data collection was then taken to the meetings between the villagers and the researchers to collaboratively perform an analysis of the local situations. The qualitative data were analyzed using content analysis to obtain an accurate view of factors influencing the successes and failures based on the key informants' experiences with smoking control. The data were analyzed at three levels: the communities, families, and individuals. The findings were then presented to the community members at each village meeting to verify, reflect on, and confirm the information and its interpretations.

2. **Community empowering phase**: The researchers called for volunteers from 19 villages. Each village had the volunteers work with the researchers along with the implementation through community participation in the smoking control project. As mentioned earlier at the education phase, when the participants realized the gravity of their real situations, they attained a sense of empowerment to address their problems. Therefore, they decided to conduct implementation based on their plans. The purpose of the implementation was to mobilize their communities in sharing their experiences and to collaborate with the project using three guiding principles: experiential learning, participation, and education. In the meetings, the researchers and chairperson created an atmosphere for open dialogues, reflection, and established action plans based on local needs. Later, the communities implemented these action plans and reflected on them as well as revised the plans as necessary.

3. **Evaluation and strategic development phase**: The last phase consisted of evaluation and conclusion for further development. The volunteers conducted the meetings and expanded these to include other groups such as the youth and women groups, local civil servants, and facilitators of the narcotic control center who volunteered to participate in the meeting. The community implementation plans were constructed during the empowerment phase and aimed to evaluate the outcomes after the first six months of the second phase. The outcomes were evaluated by comparing the situations prior to the implementation of plans and the situations subsequent to the implementation of plans.

Ethical considerations: The proposal for this research project was approved by the Humanities and Social Ethical Committees of Khon Kaen University, Thailand. Permission was also obtained from the District Committees in the study areas. The community leaders were encouraged to comment on the study and to initiate the research objectives cooperatively with the researchers. Non-verbal consent was obtained from the locals participating in the study. All participants were also notified of their right to withdraw from the research

anytime. However, it was made clear that if anyone displayed symptoms of nicotine withdrawal and needed recovery or treatment, the researchers would consult with the community leaders to assist with a referral of the individual to a hospital. Moreover, the researchers committed to share the study's data with the villagers throughout the conduct of the research. Upon the study's completion, all confidential files and notes were destroyed, and the community leaders verified the contents of the study and granted their permission to publish the findings.

Results:

The local's perspectives were revealed as the following areas: individual, family and community were associated with success or failure in smoking cessation.

1. **The factors associated with successful smoking cessation.**

1.1 Individual-level factors: These included the intention and personal commitment to stop smoking, which resulted from the individual's health concerns. 15 people out of 21 ex-smokers had upper respiratory infection, cough, and pulmonary asthma, felt uncomfortable and had insomnia. Ex-smokers and their caregivers explained the feelings toward a success of stopping smoking similar to the coding below.

"The highest factor was the deep intention as a result of smokers' illness and individual health concerns. I decided to stop smoking by myself and I did control over my smoking behaviors. I threw away cigarettes and its supportive equipment, showered when sweating, drank plain water and squeezed lemon juice to my dry mouth, walked around and kept busy by working. Then, I was successful with healthier living without smoking." (Voice of a 52 year- ex-smoker man)

1.2 Family-level factors: One of the most important factors were their concern for the family member's health, for their household members and increase in household expenditure.

"It was caused by my family bonding. I loved and had a willingness to be caregivers for grandchildren. So, my wife asked me to stop smoking. Also, my cousin convinced me to do health promotion and risk prevention for the sick lover before dying. I thought a lot of that and then, I decided to stop smoking." (Voice of a 47 year- ex-smoker man) (sic)

"I had economic crisis, I didn't have enough money for my son go to school. I needed some more money. Smoking sucked my money. Currently, its cost is so expensive of both factory and self- rolled cigarettes. So, it led me to stop smoking." (Voice of a 35 year- ex-smoker man)

1.3 Community-level factors: These influenced smoking cessation success and were identified as: 1) social factors included a sense of caring and concerns for others' health, particularly when participating in community activities; and (2) environmental factors, especially for the increasing number of smoke-free zone such as in temples, schools and health care centers.

"I am the head of a community. I think that the social factor was a sense of caring for my community members. I felt guilty while participating in community activities with non- smokers. I thought I poisoned them. Then, I tried to stop it." (Voice of a 55-year, a village head man and ex-smoker)

"We wanted to keep a healthy environment. Community members wanted to increase free smoking zones, especially at a temple, school, and health care center. Then, I was a leader. I had to be." (Voice of a 53- year, village head man and ex-smoker)

2. **Factors associated with unsuccessful smoking cessation**

On the other hand, the data revealed that there were three factors that resulted in smokers craving cigarettes and to "light up" again even though the villagers wanted them to resist their temptation to smoke. They included Individual-level, Family-level and Community factors.

2.1 Individual-level factor: These included feelings of physical discomfort, stress, loneliness, suffering and craving for cigarettes that occurred when trying to quit smoking.

"My friend and I decided to quit smoking many times, but we failed. I got sick and felt signs and symptoms such as discomfort, anxiety, loneliness, and desire to smoke. I felt I was missing it. I desired to smoke again like I felt hunger." (Voice of a 34- year man)

2.2 Family-level factors: Family-related factors consisted of poor relationships between family members, ignorance about family member's health

status, lack of supports for smokers considering stopping smoking, and existing smokers within the family.

"I felt lonely when my family was in a bad mood, neglecting and blaming me when I told them that I wanted to smoke again; stopping smoking was very hard for me." (Voice of a 43- year man)

"My household had a grandfather who had been smoking for a long time. After deciding to stop smoking, I felt something was missing when I came home. I could not stop it if my family still had another smoker in family." (Voice of a 40- year man)

2.3 Community factors: These factors can be explained as: (1) community perceptions that "smoking was a common daily activity due to smoking culture"; and (2) an environmental factor related to going into gatherings and drinking that also induced smoking.

"The leader and some community members wanted to educate the community members to learn about the nation and community policy for protecting a second hand smoke, but it was very hard because some of them, especially working men gathered to drink after work, and then they also smoked. This induced an environment conducive to smoking for the kids. Some parents allowed boys to try smoking as they did when they were young." (Information from meeting)

3. Community participation in smoking control

From community meetings, the participants would like to control the number of smokers and protect their children from becoming new smokers. In the situational analysis phase, they suggested to have some more counselors to help while they were suffering from quitting smoking and for raising their understanding of the benefits of stop smoking as well as the harmful effects of smoking. They believed that this would become a sustainable strategy for smoking control projects. Throughout the study, the villagers participated very well in both cycles of implementation. *(Figure1)*

3.1 First cycle

There were six strategies of community participation as described below.

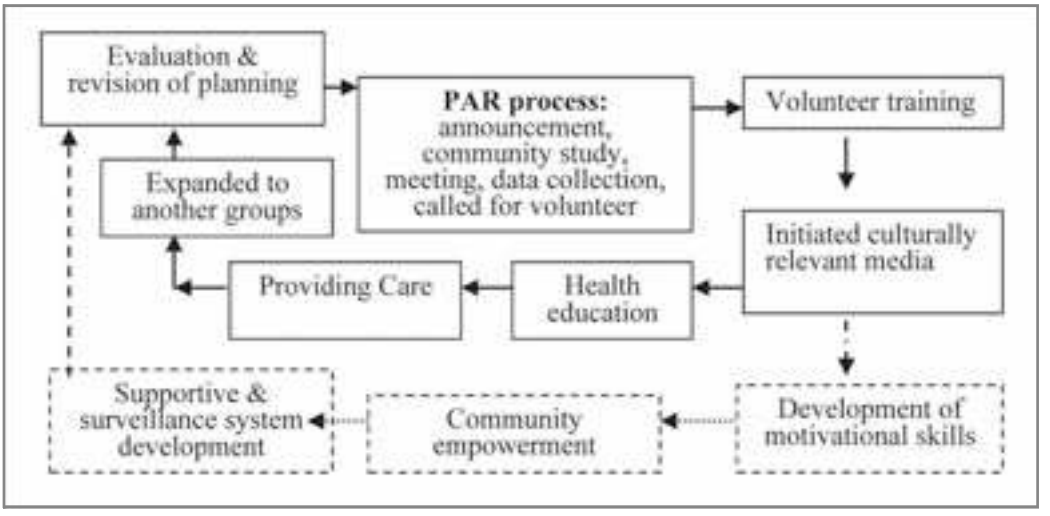
3.1.1 Community study

The research started with a community study and data collection- focus group, in-depth interview, and observation. Community leaders set up community meetings to empower the villagers to participate in this project, made project announcements, and called for volunteers, particularly ex-smokers, caregivers, whoever offered to become a volunteer.

3.1.2 Volunteer training

The researchers trained 57 volunteers from 19 villages. They were ex-smokers, and caregivers who intended to motivate and care for smokers who wanted to stop smoking. The main training topics were the concept and process of PAR, facilitating group learning, motivating smoking cessation, explaining strategies to reduce smoking withdrawal symptoms, and contacting people for any smoking control project problems.

Figure 1. Enhancing community motivation and participation in control of smoking



3.1.3 Creation of health education materials
The following were created while conducting the study.

1) Culturally relevant songs
A small group of volunteers with good local singing abilities wrote local songs and arranged the accompanying music, and made a CD record. These songs were distributed to each village by the leaders.

"We express our experiences on fighting against smoking, the harmful effects of smoking, benefit of stopping smoking, enhancing a long life for our families. We also provide information on how to quit smoking (take it easy, relax, image for a new life and better living), and we add more knowledge how to deal with the heavy suffering after smokers throw their cigarettes away". (Voice of the head of singers)

2) Educational handbook
Community leaders participated with a group to create the handbook on the topic **"Stop Smoking Now, You Can."** The content of this handbook was quite similar to the song. It was prepared for the smokers to encourage smoking cessation. It was small in size and portable.

3) Stickers "Smoke Free Zone"
The stickers were made by the youth group upon the request from ex-smokers among household members who wanted to protect their life from visitors who smoked and to educate their cousins.

3.1.4 Health education
In the meantime, the volunteers gave health education lessons to the local people at three levels: (1) **individual education:** this was offered by the volunteers with the aim to share knowledge and give the handbook to every smoker; (2) **group education:** gave the hand book and the sticker and discussed with the aim to persuade the smokers to control smoking. The volunteers expanded the activities to another adult group, wives, school teenagers, and out of school teenagers in order to persuade them to join this project; (3) **public education:** an announcement by a leader in a meeting, community activities and song played by louder speakers, and stickers with the title "Smoke Free Zone" were attached in schools, temples, community meeting halls, and families' houses in order to draw on the concern of community members.

3.1.5 Care Provider
The **v**olunteers and researchers set up an extended clinic for smoking control. They called for ex-smokers (volunteers), smokers and families' caregivers to participate in verbal screening, physical examination of lung capacity test, counseling, stop smoking commitment with "the significant person" (wife, kid, volunteers, community leaders), a home visit to follow up the new non-smoker and visiting families with a smoker in order to motivate and offer counseling for the next person who wants to stop smoking.

3.1.6 Evaluation and further planning
Every two months, the researchers collaborated with the volunteers to conduct a community meeting to evaluate and further -implementation of the reflections and solutions in the meeting in order to raise the community's awareness of smoking control.

3.2 Second cycle: there were three strategies of community participation as below.

3.2.1 Developing motivational skills
The researchers provided the volunteers opportunities to learn and practice listening, questioning, dialoguing, responding, and offering emotional support.

3.2.2 Community empowerment
During the community meetings, the villagers were empowered to think, learn, share, and initiate the new methods for controlling smoking in their own community. The results showed that they increased in free smoking zone, expanded understanding about benefits of smoking cessation and the harmful effects of smoking, and reduced the smoking and drinking atmospheres in their own villages.

3.2.3 Development of a support and surveillance system
The volunteers conducted group discussions with adults, seniors, adolescents, and wives of participants who had successfully quit smoking. They called for volunteers to observe their friends or cousins while they were having a problem with controlling smoking and consulted with the volunteers before referring a smoker for health care personnel attention. Figure 1, previously shown, presents a schematic of the interrelationships of the Participatory Action Research used for this study.

Results after one year of implementation 10 out of 19 villages have implemented, continued activities and

had community commitment. These villages enhanced community motivation and participation in smoking control; two examples are: public announcements of the legal prohibition of selling cigarettes to the youth under 18 years and prohibiting smoking in public areas.

Discussion

The three most important findings were the factors that were associated with successful smoking cessation. Firstly, individual-level factors included the intention and personal commitment to stop smoking that the participants attributed to their concerns about their health. Secondly, family-level factors included family bonding, love, and concern for the health among family members, and increased household expenditures associated with ill health. Lastly, community-level factors also influenced smoking cessation success. These were the : 1) social factors such as a sense of caring and concerns for others' health, particularly when participating in community activities; and 2) environmental factors, especially the increasing number of smoke-free zone in temples, schools and health centers (Ulla, et al., 2006; Chan, et al., 2003).

Conversely, three groups of factors were associated with unsuccessful smoking cessation and these were the main reasons given for their relapse to smoking. Individual-level factors included physical discomfort, stress, and loneliness, suffering and craving for cigarettes. Secondly, family-related factors consisted of poor relationship with family members, ignorance about family member's health status, lack of support for stopping smoking, and other smokers in the family. Finally, community-level factors consisted of the communities perceptions of "smoking was part of community culture and a common daily activity". Further negative contributing factors were the physical environments that provided incentives for continuation of smoking were gathering places for drinking and smoking in the community, and spaces for smoking (Jian, et al., 2007; Gibbon, 2002).

The interrelationships of the three levels of factors mentioned above related to the success or failure of stop smoking (Prochaska, & Velicer, 1997). This finding provided further incentives to developing strategies to enhance community participation in the control of smoking. On the individual level, participants were able to achieve improvements in their knowledge, proper attitudes, self-control, and life skills (Hammond, McDonald, & Fong, 2004). On the family level, families solidified their existing bonds, inner power, improved their relationships and functioning. On the community level, communities were able to have a sense of mastery over their lives and improve their management and political skills. These three factors may have been conducive to group networking, to think and plan, and contribute skills, experiences, and resources to the community (Sirirassamee, et al., 2008).

The strategies to enhance community participation used the synergy of the communities, families, and participants. Most villagers (e.g. community leaders, heads of family units, wives, teenagers, and seniors) participated and assumed responsibility in the community smoking control programs (Marcia, Jennifer, & Simon, 2007; Chesler, 1991).

The villagers created the health education materials, trained the new volunteers, and set up home visits for the families with smokers. Moreover, they encouraged another group of adults, wives of husbands who were successful quitters, students and teenagers to join the project. In the meantime, the public announcement stickers in the form of posters with the title "Smoke Free Zone" were prominently displayed at schools, temples, community meeting halls, and in houses, as a means to sustain the convictions of the villagers. (Zhu, Melcer, Sun, Rosbrook, & Pierce, 2000; Population Based Smoking Cessation, 2000).

This PAR proved to be embraced through excellent participation resulting based on three principles: empowering, participation, and collaboration (Termsirikulchai, et al., 2008; Daenseekaew, et al., 2005). This was essential to the mobilization of the communities to find a social surveillances system for smoking control as a self-initiative model using PAR as its methodology. PAR proved to be a valuable process for small group gatherings to form a coalition of, small groups, families, governmental and non-governmental sectors to participate in a sustained development project.

Conclusion

The aim of this research was to decrease smoking through achieving community awareness accompanied by mutual learning among participants and researchers. The findings of this study indicated how to develop the strategies for enhancing community motivation and participation in smoking control by using the PAR. Also, PAR in this study was proved to be an appreciated process for gathering a small group to work for the smoking control project in their communities through the empowerment, participation and collaboration. People in the communities learned about the greatest motivation for success of

smoking control, which was the smokers' awareness of their health problems related to smoking and the cost of cigarette. After one year of the project implementation, 10 out of 19 villages had implemented, continued activities and had community commitment. These villages enhanced community motivation and participation in smoking control. The public announcements of the legal prohibition of selling cigarettes to the youth under 18 years and prohibiting smoking in public areas were initiated. However, the suffering from smoking withdrawal symptoms attributed to unsuccessful quitting of tobacco. Moreover, decreasing the number of new smokers remains of considerable concern.

Recommendations for future initiatives

The results of this study justify projects that should be continued:

1) Training of youths to strengthen their life skills should be continued to prevent the initiation of new smokers.
2) Women in the family should continue to protect family members from tobacco.
3) The community should preserve the smoke free environments. Community members should be encouraged to promote the relationships and bonds among teenagers, families, and community networks through surveillance to sustain the gains that have been achieved.
4) The community's awareness should continue in order to protect the community, families and participants from the harmful effects of smoking. Community members should develop community learning centers for education related prevention and control of smoking.

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About the Author: ***Somjit Daenseekaew,*** PhD, RN, is an Associate Professor of Community Nursing Program, Faculty of Nursing, Khon Kaen University, Thailand. She earned her Diploma in Nursing from Boromarajonani Bangkok Collage of Nursing, Thailand in 1981; her Master of Science in Population and Reproductive Health from Mahidol University, Bangkok, Thailand in 1988; her Doctor of Philosophy of Arts in Development Science from Faculty of Humanity and Social Science, Khon Kaen University, Thailand in 2005, and her Master of Nursing Science in Nurse Practitioner, Faculty of Nursing, Khon Kaen University, Thailand, 2014. She Started working as a professional nurse in Maternal and Child Health Center, Khon Kaen Province 1981-1985; lecturer of Boromarajonani Khon Kaen Collage of Nursing, Thailand 1983-1993; moved to be a lecturer of Faculty of Nursing, Khon Kaen University, Thailand, from 1993 to present. She is currently the Deputy Director of Research and Training in the Center for Enhancing Quality of Life of Working Age People, Faculty of Nursing, Khon Kaen University. Moreover; the President of Nurse' Association of Thailand, Northeast Division and the editor of journal of Nursing and Healthcare.

Ratdawan Klungkang, MSN, RN, is a lecturer of Boromarajonani Khon Kaen College of Nursing, Khon Kaen,Thailand from 1999-present. Thailand. She earned her Bachelor in Nursing from Boromarajonani Chonburi College of Nursing, Thailand in 1999 and her Master of Nursing Science from Faculty of Nursing, Khon Kaen University, Thailand in 2004. She is also a member of the editorial board of the Journal of Nurse' Association of Thailand, Northeast Division.

Erika Sivarajan Froelicher, PhD, RN, is a Professor Department of Physiological Nursing, School of Nursing University of California,, and Department of Epidemiology & Biostatistics, School of Medicine. University of California San Francisco, San Francisco, CA. Her research interests are on behavioral medicine, sociology of health and public health issues such as tobacco, nutrition, edpiemiology of diseases. She has published about 175 research articles in peer reviewed journals.

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