Original Article

Empowering Village Health Volunteers in the Kukot Municipality, Pathum-Thani, Thailand: The Application of the Parallel Track Model

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Abstract

Objective: To apply the parallel track model to empower village health volunteers (VHVs) in the Khukhot Municipality area, Pathum Thani, Thailand and assess a change in community empowerment levels.

Methods: Eligible communities were those that held regular meetings for at least 2 years. Of 31 communities, all were eligible but only two voluntarily participated in the study. The parallel track model was applied to empower VHVs regarding community health care for elderly people. Two workshops were held. In the first workshop, the VHVs defined operational definitions of community empowerment, assessed community empowerment levels and planned for improvement. After the workshop, the VHVs implemented the plan. The second workshop was held four months after to assess a change in community empowerment levels. The VHVs carried out all the process with the support from the authors. A Thai version of empowerment assessment rating scales was used to assess the level of community empowerment. Results from the first and second assessment were compared. Notes were taken during the workshop and used to complement data analysis.

Results: Participants comprised 17 VHVs in the community 1 and 13 in the community 2. The first assessment showed that both communities had high levels of community empowerment in the following domains: leaders, organizational structures, program management, resource mobilization, links with others, and a role of outside agents. In contrast, participation, problem assessment, and 'asking why' received as weaknesses. After the end of the study, the community empowerment levels decreased in several domains. The main reason was the VHVs' actualization of several limitations in managing and implementing the plans. However, the parallel track model and the assessment of community empowerment facilitated a learning process among the participants and resulted in two initiations to improve their capacities in providing health care for the elderly people.

Conclusion: The parallel track model could be applied to empower VHVs in town municipalities. Sufficient resources and professional support are required to increase levels of community empowerment. Adequate timeframe for the application of this model is necessary to monitor and evaluate changes in community empowerment.

Keywords: aged, community empowerment, health promotion, volunteer, parallel track model

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Introduction

Proportions of older people are increasing in several countries because of an increasing in life expectancy and a decrease in a fertility rate.[1] Thailand is becoming a super-aged society, reaching about 28% of the total population in 2031.[2] Older people are an at-risk population in developing non-communicable diseases (or NCDs) and degenerative diseases, resulting in disabilities and premature death. National Statistical Offices, Thailand reported that hypertension, diabetes mellitus and cardiovascular diseases were top three NCDs in the elderly in 2014.[2] Of all the elderly, about one million or 15% lived with disability and 25% reported poor general health status. Thai National Health Survey and Examination in 2008 and 2009 reported that about 15% of the elderly needed caregivers and the older the elderly, the more dependent they were.[3] Coupled with degenerative diseases, the cost of elderly care is predicted to increase from 2.2% of gross domestic product (GDP) in 2010 to 2.8% of GDP in 2022.[4] Most of the healthcare cost will be from NCDs and end-of-life care. Improving the health of the elderly and quality of end-of-life care may decrease healthcare cost below 1% of GDP. Three proposed strategies to improve the health of the elderly and decrease healthcare cost from the forum "Integrated Care for the Elderly in the Community" in 2012 are 1) social integration through social networks and organizations, 2) health promotion and disease prevention and 3) financial security.[5]

In the second strategy - health promotion and diseases prevention, community empower is a core process. Community empowerment was one of five action means in the Ottawa Charter aiming at strengthening community actions to improve the health of community members.[6] A parallel track model[7] is one of community empowerment models. The uniqueness of the model is an integration of community empowerment into a traditional health promotion and disease prevention program, which is usually implemented in a top-down fashion. The model asks critical questions as to how community empowerment will be integrated into a health program. A workshop approach is used to facilitate an empowerment process and an assessment tool - empowerment assessment rating scale (EARS) – is used to encourage shared decision making and planning. The model has been implemented in various health issues and has demonstrated its feasibility and effectiveness in various settings[8], including a program for older people[9], patients with NCDs[10] and ecotourism in Thailand.[11] For example, three community programs applying the parallel track model could increase levels of community empowerment.[12]

Village health volunteers (VHVs) are the backbone of Thai primary health care. Their works are promotion of self-care, provision of basic health information and provision of basic health care to community members for all age groups, including the elderly. Given good relationship between VHVs and community members in the past, community members were most likely to cooperate with VHVs. However, in recent years, such the good relationship is hard to find. Coupled with an age of information and communication technology and improvement in transportation, community members easily gain access to health information from various online resources and health service providers. Community members lack confidence in VHVs' knowledge and skills, resulting in a lack of cooperation with VHVs.[13] Kauffman and Myers[13] urge to change a role of VHVs in response to new social context and health problems, particularly in suburban and urban areas: yet, their recent roles are remaining the same.

Empowering them and increasing their capacity in community health care are therefore essential to help the VHVs gain confidence and cooperation from community members. This study applied the parallel track model to empower the VHVs in two communities and assess a change in community empowerment levels using EARS. The health of the elderly was used as a specific issue for community empowerment.

Methods

Study design and setting

This was action research applying the parallel track model to strengthen community actions to improve health care for community-dwelling older people. The study was conducted with VHVs in two semi-urban communities in the Kukot town municipality between March and September 2016. The municipality comprises 31 communities with about a thousand households per each community. Ethical approval for this study was obtained from Human Research Ethics Committee of Thammasat University No.1, Faculty of Medicine (MTU-EC-CF-4-145_2/58).

Participants

The authors informed a mayor of the municipality a head of a health department to choose communities with the following criteria: a community where VHVs had been holding regular meetings for at least two years. All 31 communities met the criteria. The authors held the meeting to inform them about this study and invite them to participate in this study. After the meeting, VHVs from two communities agreed to participate in this study, while the rest opted out without reasons provided. Because participation was an individual right, the authors informed the VHVs and invite them to participate individually. Of all VHVs from each community, 17 and 13 VHVs agreed to participate while the rest opted out of the study because of unavailability. All participants received information sheets and signed informed consent forms before the participation. All concerns from the VHVs were addressed to ensure their understandings about their roles benefits and risks of participation.

An empowerment process

The process of empowerment was conducted separately between two communities. The parallel track model guides health professionals to incorporate an empowerment process into each step of program planning through five key questions: 1) who should be involved in a program, 2) what empowerment objectives are, 3) what strategies are needed to achieve the objectives, 4) how to improve operational domains of community empowerment and 5) how to evaluate outcomes.[7] Two workshops were held to facilitate a community empowerment process.[7] The authors took notes during the workshops. The first workshop aimed to establish the working definition of community empowerment and operational domains, to assess levels of community empowerment, and to plan to improve the levels of community empowerment, while the second workshop aimed to assess the level of community empowerment after the implementation. The process of the first workshop was as followed: 1) the VHVs defined community empowerment and operational domains. This process gave the VHVs a sense of community empowerment and how it was operationalized in a community context; 2) the VHVs assessed a level of community empowerment using a Thai version of empowerment assessment rating scale (EARS); 3) the authors plotted results from the assessment in a spider-web configuration and 4) the VHVs planned for strengthening community actions, including strategies, actions and required resources. The VHVs, then, implemented the plan within a four-month timeframe. In the second workshop, the VHVs reassessed the level of community empowerment using the Thai version of EARS and results were plotted in the spider-web configuration. The authors made a follow-up visit one month after the second workshop to capture a change in the communities.

Empowerment assessment rating scale

The EARS comprises nine operational domains with a five-point Likert scale (Table 1). The domains include participation, leadership, organizational structure, resource mobilization, program management, problem assessment, asking 'why,' links with others and roles of outside agents. A difference between EARS and other common Likert scale instruments, e.g. a pain scale, is that numbers are replaced with a short statement representing a situation in a community. The main reason to remove

the numbers is to reduce participants' bias.[14] Another difference is that the statements in EARS can be modified to illustrate the closest current situation in a community. The purpose of this scale is to be used for empowerment.[15, 16] The assessment process used a workshop approach and the scale was assessed by VHVs. The process helped the VHVs understand levels of community empowerment and think about how to improve these levels. The VHVs were asked to assess each domain by reading each statement and choosing the statement that closely illustrated situations in their community regarding the provision of community health care for the elderly. The chosen statements were then reversed to the number representing a level of community empowerment and written on a spider-web configuration. The configuration helped VHVs easily understand the level of community empowerment, plan for improvement and compare a change in a community empowerment level after the intervention.

Data analysis

All data were analyzed with descriptive analysis. The VHVs' characteristics including age and gender were calculated with mean and proportion, respectively. The levels of community empowerment before and after the empowerment process were compared to capture changes in nine operational domains. Notes, taken during the workshops, were used to complement data analysis.

Results

Participants

Participants were VHVs from two communities, 17 from the Community 1 and 13 from the Community 2. Each group of VHVs comprised a chairman, a deputy, a secretary, a treasurer and members. The mean ages of the VHVs from the Communities 1 and 2 were 63.3 and 63.0, respectively. The proportions of female were 78% for the Community 1 and 93% for the Community 2. All participants attended both workshops.

Definitions of community empowerment and operational domains

The VHVs from the Community 1 defined an empowered community as a self-managed community, where people live happily, safely and healthy. They live in a harmonious, friendly and supportive environment. Similarly, the Community 2 defined an empowered community as a shared-and-learned community where people live, learn and support each other. Table 1 describes the definitions of operational domains from both communities. These definitions guided the VHVs to assess and plan to improve levels of community empowerment to improve health care for older people.

Table 1 Definitions of operational domains of community empowerment

Domains	Definitions
Participation	Community members cooperate with VHVs in health programs.
Leaders	A chairman's ability to manage health programs.
Organizational structures	A group of VHVs and its role in collaboration with other organizations.
Problem assessment	Abilities of VHVs in health needs assessment and prioritization.
	Abilities to use findings from the assessment to improve health of people in a community.
Resource mobilization	Abilities to mobilize community resource to improve health of people in a community
Asking 'why'	Abilities to analyze health needs
Links with others	In a community: community leaders.
	Outside a community: Kukot municipality
Roles of outside agents	Roles of Kukot municipality and other outside organizations.
Program management	Abilities of VHVs in program planning, implementation, evaluation, management and reporting.

Levels of community empowerment

Figures 1 and 2 illustrate levels of community empowerment before and after the intervention in the Community 1 and Community 2. The VHVs in the Community 1 reported strengths in leaders, organizational structures, resource mobilization, program management, roles of outside agents and links with others and weaknesses in participation, problem assessment and asking 'why.' A lack of cooperation from community members and experience in problem assessment and analysis was a main reason for low levels of these domains.

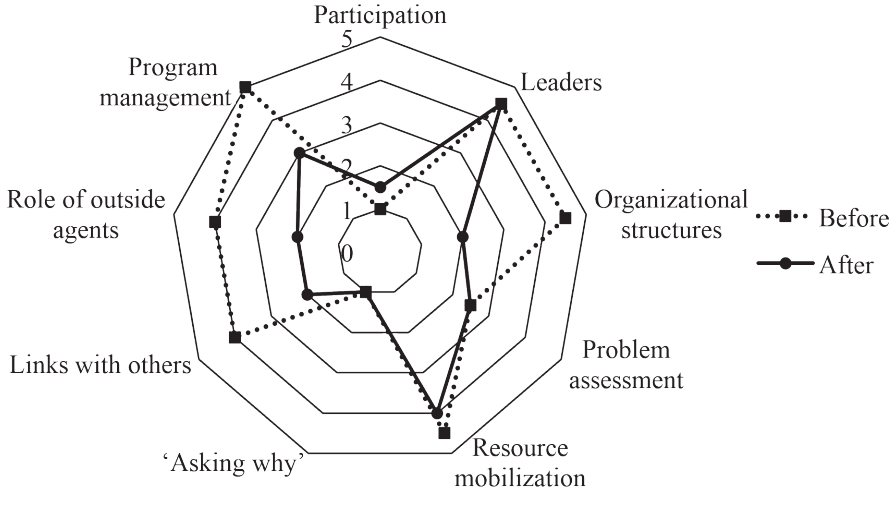

Figure 1 Levels of community empowerment before and after the intervention in the Community 1

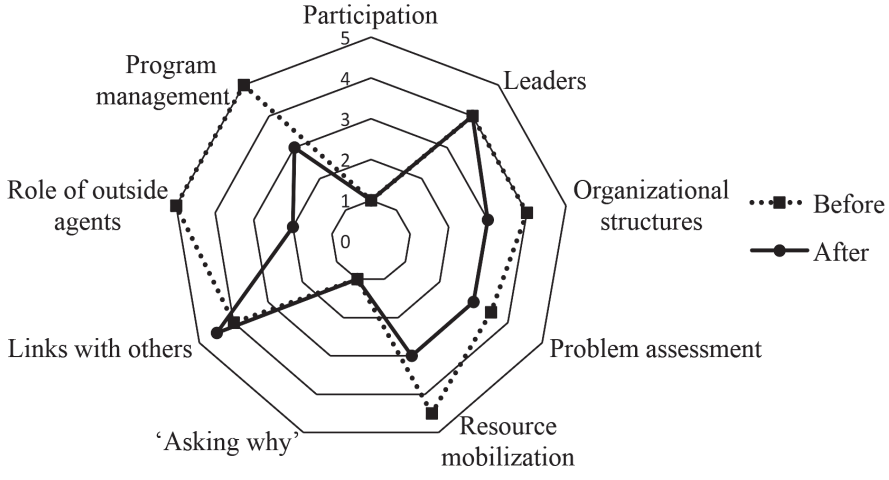

Figure 2 Levels of community empowerment before and after the intervention in the Community 2

The VHVs planned to improve cooperation by making home visits with health professionals and problem assessment and asking 'why' by building skills with support from the municipality. However, they did not implement the plan because it was about at the end of fiscal year, the time when they needed to finish other health programs. The second assessment revealed that organizational structures, links with others, role of outside agents and program management, which had been perceived as strengths, were actually weaknesses. A change in the VHVs' perception from a top-down to bottom-up approach was the reason for such assessment. For example, for the top-down health program the VHVs knew how to manage the program. Outside agents were not required for the program. However, in the second assessment the VHVs were aware that they could not carry out the plan alone without sufficient resources and support from health professionals.

The results from the first assessment from the Community 2 and reasons for such assessment were similar to those from the Community 1. The VHVs from the Community 2 planned to improve participation, problem assessment and asking 'why' by inviting community members to actively participate in health needs assessment for older people. They also planned to develop family health records for the VHVs to use at both community and family levels. However, the plan was not implemented because they lacked confidence and skills. The second assessment in the Community 2 was similar to the one in the Community 1. A decrease in the levels of community empowerment was mainly because of a change in perception about their roles and capacity in health program management.

Two initiatives after the second workshop

In the second workshop, the VHVs identified areas of improvement in community empowerment and developed their own initiatives. The VHVs in the Community 1 worked with health professionals to visit older patients at home. The VHVs themselves identified older people in need, planned a schedule and invited the health professionals to visit the older people at home with them. This initiative improved cooperation from community members because they trusted the health professionals. As a result, the VHVs were recognized as health team members, their self-confidence was strengthened and relationship between them and health professionals was improved. The initiative could be used as a model for a multi-disciplinary approach in a long-term care that were under development in the municipality.

The VHVs in the Community 2 planned to create health records for older people. After discussion, the VHVs wanted health records for a whole family, not just for the older people. The records could be used during home visit, such as to monitor health and behaviors of family members and to provide appropriate recommendation based on health data. The VHVs also planned to analyze the data at a community level, which could be used to assess community health needs. With support from the health professionals, they designed and developed family health records and would apply for a grant from the municipality to produce copies of the family health records and develop a training program for the VHVs.

Discussion

This study applied the parallel track model to empower the VHVs from two communities. The study demonstrated the usefulness of the parallel track model in community empowerment with the VHVs in the town municipality, although the levels of community empowerment did not increase after the empowerment process. Two initiatives were developed and initially implemented one month after the second workshop.

The parallel track model comprises a concept of integrating a bottom-up approach in a traditional top-down program.[17] Using a workshop approach with an empowering assessment facilitates active participation to strengthen community actions guided by operational domains of community empowerment.[14, 16] The first assessment of both communities showed strengths in leaders and domains related to program management and weaknesses in participation and skills in health needs assessment. The findings indicated that the VHVs were familiar with top-down health programs managed mainly by chairpersons; yet, they lacked experience and skills in initiating bottom-up health programs. Their lack of power, skills and experience in running their own health programs was reflected in the second assessment, where the levels of community empowerment decreased in some domains. The failure to take actions as planned in the first workshop made them recognized their limitation. The second assessment was essential because it provided an opportunity for the VHVs to learn their strengths and weaknesses after a period of implementation. A plan, then, could be made to improve the situation to achieve their goals. As observed in our study, two initiatives had been developed after the second assessment. This finding affirms that the assessment using a workshop approach and EARS can empower a community.[16]

Three weaknesses in domains of participation, problem assessment and asking 'why', were similar to findings from the previous studies.[13, 18] Lack of cooperation from community members was one of the VHVs' main concerns. A root of poor cooperation from the VHVs' perspective was a lack of their self-confidence in knowledge and skills. While training and education are essential to empower VHVs[18], our study added that it was through working with health professionals, rather than traditional health education, that could increase their self-confidence in providing basic health care to older people and improve cooperation from community members. Health professionals also played an important role in facilitating a process of problem assessment and asking 'why'. These domains require learning environment to promote new skills for the VHVs. According to the parallel track model[7], integrating empowerment objectives, strategies and plan into traditional top-down health programs is a core component of an empowerment process.

Raeburn[19] mentions that the effectiveness of community empowerment actions depends partly on how well a community is established. For a well-established community, it may take six to twelve months to make changes in the community, while a non-established community requires a longer time frame. The findings from our study support his

notion and add two actions that may shorten the time frame, particularly for non-established communities. The first one is to identify specific resources needed to improve the level of community empowerment. Materials, money and people must be sufficient for VHVs to effectively take actions. The second action is to provide professional support. The VHVs are ordinary, but smart, people. They know what aspects of professional support are needed. A workshop approach allows the VHVs to express their needs and health professionals to respond to the needs.

The workshop approach and assessment of community empowerment levels helped the VHVs critically reflect their capacity and roles in the communities. It also provided an opportunity for the VHVs to share their needs and concerns and to learn new skills. These processes are called an assessment as empowerment.[16] Assessment tools[14], like EARS and evaluation matrix, have been developed specifically for this purpose. As observed from the follow-up visit, the VHVs in both communities proactively initiated their own health programs in collaboration with the health professionals, including a doctor and a nurse practitioner. According to EARS[14], a change in roles of VHVs in health programs, including initiating their own health programs, mobilizing community resources, analyzing health needs and working with outside agents, would have increased the level of community empowerment if the third assessment was conducted.

This study also demonstrates the usefulness of the parallel track model in empowering VHVs in town municipalities. In the study, the VHVs were used to a top-down fashion, in which health programs were initiated from a municipality. The programs included, for example, health data collection, health education and basic health care. The application of the parallel track model gave a new perspective to the VHVs from both communities that they gained a potential to initiate their own health programs by mobilizing community resources and working with outside agents. A workshop approach was appropriate to the VHVs' work culture as active participation was observed in the meetings. The EARS helped the VHVs critically assess current situations and provided a direction to improve operational domains of community empowerment. Finally, a spider-web configuration was an easy-to-grasp presentation and could be used to monitor progress towards empowered communities.[20]

This study had some limitations. First, this study was conducted in a short time frame because of the budget constraint. That the community empowerment levels from the second assessment were lower than those from the first assessment does not reflect a failure of the model.[19] Had the longer time frame been provided, positive results might be observed. This false negative finding or delay of impact could happen in interventions that are evaluated too early before changes occur.[21] Next, the communities were in a semi-urban area, where a sense of community was low, health care services were accessible and health information was available. This study elucidated the usefulness of the model in community empowerment, particularly in a semi-urban area, though the findings from the study cannot be generalized to other rural or urban areas.

In conclusion, this study demonstrated that the parallel track model could be applied to empower VHVs in town municipalities. Additional processes, resources and help from outside agents are required to improve levels of community empowerment in each operational domain.

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บทคัดย่อ

การเสริมสร้างความเข้มแข็งของอาสาสมัครสาธารณสุขประจำหมู่บ้านเทศบาลเมืองคูคต จังหวัดปทุมธานี ประเทศไทย: การประยุกต์ใช้แบบจำลองแบบคู่ขนาน

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วัตถุประสงค์: เพื่อประยุกต์ใช้แบบจำลองแบบคู่ขนานเพื่อเสริมสร้างความเข้มแข็งของกลุ่มอาสาสมัครสาธารณสุขประจำหมู่บ้าน (อสม.) ในพื้นที่เทศบาลเมืองคูคต จังหวัดปทุมธานี ประเทศไทย และประเมินการเปลี่ยนแปลงของระดับความเข้มแข็งของชุมชน

วิธีการศึกษา: ชุมชนที่มีสิทธิเข้าร่วมการศึกษาคือชุมชนที่มีการจัดประชุม อสม. เป็นประจำต่อเนื่องอย่างน้อย 2 ปี ทั้งนี้พบว่า 31 ชุมชนมีสิทธิเข้าร่วมการศึกษาทั้งหมดแต่มี 2 ชุมชนที่ตัดสินใจเข้าร่วม แบบจำลองแบบคู่ขนานถูกนำมาใช้เพื่อเสริมสร้างความเข้มแข็งของ อสม. ในประเด็นที่เกี่ยวข้องกับการดูแลสุขภาพของผู้สูงอายุในชุมชน อสม. แต่ละชุมชนเข้าร่วมการประชุมเชิงปฏิบัติการ 2 ครั้ง ในการประชุมครั้งแรก อสม. เป็นผู้ให้คำจำกัดความเชิงปฏิบัติการที่เกี่ยวข้องกับการเสริมสร้างความเข้มแข็งของชุมชน ประเมินความเข้มแข็งของชุมชนและวางแผนพัฒนาความเข้มแข็งของชุมชน หลังจากการประชุมครั้งแรก อสม. ดำเนินการตามแผนที่วางไว้ การประชุมครั้งที่ 2 จัดขึ้น 4 เดือนหลังการการประชุมครั้งแรกเพื่อประเมินการเปลี่ยนแปลงระดับความเข้มแข็งของชุมชน ทั้งนี้ อสม. เป็นผู้ดำเนินการในกระบวนการทั้งหมดโดยมีผู้วิจัยคอยให้การดูแลในแต่ละขั้นตอน มาตรวัดระดับความเข้มแข็งภาคภาษาไทยถูกใช้เพื่อประเมินระดับความเข้มแข็งของชุมชน ผลจากการประเมินความเข้มแข็งของชุมชนครั้งที่ 1 และครั้งที่ 2 ถูกนำมาเปรียบเทียบกัน ระหว่างการประชุมมีการจดบันทึกเพื่อนำมาใช้ประกอบการวิเคราะห์ข้อมูล

ผลการศึกษา: ผู้เข้าร่วมโครงการประกอบไปด้วย อสม. จำนวน 17 คน ในชุมชนที่ 1 และ 13 คน ในชุมชนที่ 2 ก่อนเริ่มดำเนินโครงการ ทั้ง 2 ชุมชน ประเมินชุมชนตัวเองว่ามีจุดแข็ง 6 ด้าน ได้แก่ ประธาน อสม. โครงสร้างการทำงานของ อสม. การจัดการโครงการ การจัดการทรัพยากร การทำงานร่วมกับหน่วยงานอื่น และบทบาทของตัวแทนภายนอกชุมชน และมีจุดอ่อน 3 ด้าน ได้แก่ การให้ความร่วมมือของคนในชุมชน การประเมินปัญหาและการวิเคราะห์ปัญหา หลังสิ้นสุดการดำเนินโครงการ ระดับความเข้มแข็งในหลาย ๆ ด้านลดลง เนื่องจาก อสม. เห็นว่ากลุ่ม อสม. ยังขาดความเข้มแข็งของชุมชนในหลาย ๆ ด้าน อย่างไรก็ตาม แบบจำลองคู่ขนานและการประเมินระดับความเข้มแข็งของกลุ่ม อสม. มีส่วนช่วยให้ อสม. ได้แลกเปลี่ยนเรียนรู้จุดแข็งและข้อจำกัดต่างๆ ของกลุ่ม อสม. และส่งผลให้ อสม. ทั้ง 2 ชุมชนริเริ่มดำเนินโครงการของตัวเองเพื่อพัฒนาศักยภาพของกลุ่ม อสม. ในการดูแลสุขภาพผู้สูงอายุ

สรุปผลการศึกษา: แบบจำลองคู่ขนานสามารถนำมาประยุกต์ใช้เพื่อเสริมสร้างความเข้มแข็งของกลุ่ม อสม. ในเขตเทศบาลเมือง การจัดสรรทรัพยากรให้เพียงพอและการสนับสนุนการดำเนินการโดยบุคลากรสุขภาพเป็นสิ่งสำคัญที่จะช่วยเพิ่มระดับความเข้มแข็งของชุมชน การประยุกต์ใช้แบบจำลองนี้จำเป็นต้องอาศัยระยะเวลาที่เพียงพอเพื่อติดตามและประเมินการเปลี่ยนแปลงความเข้มแข็งของชุมชน

คำสำคัญ: ผู้สูงอายุ, การมีส่วนร่วมของชุมชน, การเสริมสร้างความเข้มแข็ง, การสร้างเสริมสุขภาพ, อาสาสมัคร