

CHAPTER 1

INTRODUCTION

Statement of the problem

Based upon changes in health promotion concepts, health-promoting organizations in many countries have emerged and reacted to the changes by searching for new roles and tasks, including new structures. Important new roles include (1) people and community empowerment and (2) comprehensive social and political processes (World Health Organization, 1998, p.1). The new tasks are related to (1) developing strong political action, (2) expanding participation and (3) sustaining advocacy for all sectors, partners and settings (World Health Organization, 2005). Meanwhile, health-promoting organizations have adapted and redesigned their organizational structures to team-based designs. These reactions to the changes occur also in health-promoting organizations in Thailand. Because of the establishment of the Thai Health Promotion Foundation (ThaiHealth) in 2001, the number of health-promoting teams has noticeably increased. However, becoming a high performance team requires specific team experiences, or knowledge, referring to the techniques of how teams perform and how teams learn. This study attempted to capture the knowledge of Thai health-promoting teams and to reflect their knowledge through the development of team performance indicators for enhancing team performance. The Balanced Scorecard used in business organizations was modified for use as a measurement system and as a knowledge management method for this study. The

organizational development approach was adopted as a guiding principle for developing processes via action research.

During the past decade, Thailand's national health spending has risen significantly from 3.82% of gross domestic product (GDP) in 1980 to 6.1% in 2005, more rapidly than GDP growth. Average health spending increased 7.7% per annum in real terms while the average annual GDP growth was 5.7%. National health expenditure has climbed from 25,315 million baht in 1980 to 434,974 million baht in 2005. Per capita health spending has jumped from 545 baht in 1980 to 6,994 baht in 2005. Most of the national health expenditure was used for curative care, 42.8% of which was spent on drugs. The allocation of the government health budget has been directly related to hospital-based services. It is notable that approximately 60-66% of the budget was allocated for curative care in hospital, though some, but minimal, health promotion and disease prevention services were provided. Approximately 20-24% of the budget was allocated for health promotion and disease prevention services at the sub-district health center level (Wibulpolprasert, 2004; 2007).

The turning point in the allocation of the health budget occurred in 2001 resulting from a strong National Health System Reform movement. This movement drove the adoption of healthcare financing with emphasis on health promotion and disease prevention. Consequently, an increased health budget has been allocated for health promotion programs. As a result of the revised determination of the National Health System Reform Plan, the intent has been principally placed on health promotion rather than health restoration. In parallel, the concept of a "human-centered" development approach in a holistic manner has been adopted as a guide for

the development of Thai people's health since the 9th National Economic and Social Development Plan (2002-2006). The National Health Development Plan follows this concept and focuses on the mobilization of resources from the entire society for promoting health. Resources are mobilized by (1) creating health consciousness in all sectors of society and (2) providing an opportunity for all sectors of society to participate and to use their potential in the development process to develop a healthy society (Wibulprasert, 2004).

Both the National Health System Reform Plan and the National Health Development Plan impact health organizations and health personnel. To confront the impact of both plans on the health system, health-promoting organizations emerged.

However, health-promoting organizations differ from health-care organizations because of a difference in concept. Health care is more concerned both with sickness (or morbidity) and with mortality, including an orientation towards patient care (Hogarth, 1975, p. 3). Accordingly, a health-care organization is defined as an organization that offers services by the medical and allied health professions for prevention, treatment and management of illness and preservation of mental and physical well-being (The American Heritage Medical Dictionary, 2008, p. 236).

Meanwhile, the Ottawa Charter for health promotion (World Health Organization, 1986) and the Bangkok Charter (World Health Organization, 2005) emphasize health promotion in terms of the responsibility of every sector in society and commitments from a variety of partners. The concepts of health promotion focus on empowering communities and improving health and health equality. They also require the process of enabling people to increase control over and improve their health, as well as to represent a comprehensive social and political process (World Health Organization,

1998, p.1). A health-promoting organization is an organization that acts to advocate, invest, build capacity, regulate, legislate, and partner (World Health Organization, 1986; 2005). Therefore, the roles and tasks of health personnel who work in health-promoting organizations are completely different from those of health personnel who work in health-care organizations. Health personnel who work in health-promoting teams fulfill three basic roles: to advocate, to enable and to mediate. Advocating health is a combination of individual and social actions designed to gain political commitment, policy support, social acceptance and systems support for a particular health goal or program. Enabling represents taking action in partnership with individuals or groups to empower them, through the mobilization of human and material resources, to promote and protect their health. Mediation refers to a process through which the different interests (personal, social, economic) of individuals and communities, and different sectors (public and private) are reconciled in ways that promote and protect health (World Health Organization, 1998). To perform health promotion actions, the tasks of health personnel consist of (1) building healthy public policy, (2) creating supportive environments, (3) strengthening community action, (4) developing personal skills and (5) reorienting health services (World Health Organization, 1986). They should develop strong political action, broad participation and sustained advocacy for all sectors and settings (World Health Organization, 2005).

What is an appropriate structure for health-promoting organizations to deal with change? Bedeian (1984, p. 51-61) and Gerloff (1985, p. 190-197) indicated that there is no universal best way to design an organization. The organizational design relates to the external environment (Hunter, 2002). The specific design of an organization must match or fit its environment. The new environment has been called

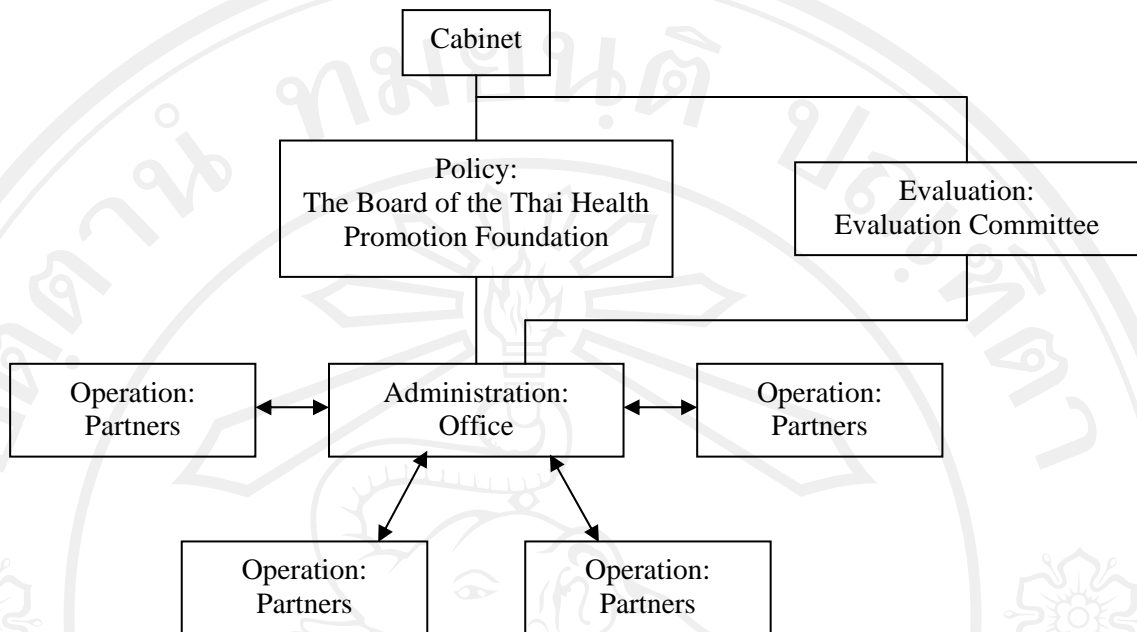
the knowledge age since the emergence of the information society (Drucker, 1988). In a struggle for survival, organizations transform their organizational structures. Many authors have proposed new forms of organizational structure, for instance, the quantum organization of Youghblood (2000), the adhocracy organization as described by Gould (1999) and Morgan (2006, p. 33-114) and the post-bureaucratic organization of Hunter (2002) and Atefatdoost, Zamani & Faghih, (2007). These various authors also suggest that team-based designs tend to be appropriate structures to deal with change, especially for self-directed teams. The self-directed team manages itself autonomously by taking responsibility for the whole process from planning to evaluation. The responsibilities of team members in terms of participative management and employee empowerment are important characteristics of self-directed teams. Gunar, Sullivan & Baugh (1999) also found that self-directed teams increase productivity and team members' satisfaction. The self-directed team appears to be the new organizational structure that is most appropriate for reacting to a changing environment, and that emphasizes the human perspective. Based on participation and team members' empowerment, the self-directed team is the most effective team type for health-promoting organizations.

To mention the health-promoting organizations in Thailand, the specific health-promoting organization that was formed during this period of change was the Thai Health Promotion Foundation (ThaiHealth). This organization was established to promote health according to the new promotion concept of the Ottawa Charter in 2001 and was established by the Health Promotion Foundation Act in 2001, which placed it outside the regular government bureaucracy. Its objectives include the

reduction of sickness and death, and general improvements in quality of life. The philosophy of ThaiHealth is that all Thais can attain better lives, in a self-reliant way, though increases in cooperation. The 2001 Health Promotion Foundation Act provides ThaiHealth with considerable autonomy. The Act provides ThaiHealth with annual revenue of about US\$35 million, derived from 2% of the excise taxes on tobacco and alcohol. This revenue is not subject to normal budgetary processes; instead, ThaiHealth reports directly to the cabinet and parliament each year. ThaiHealth is the only organization in Thailand to obtain revenues and report to parliament in this way.

ThaiHealth aims to support groups and organizations that have already been working on public health issues and to promote collaboration between many different partners. It also acts as a coach, pushing, encouraging, supporting, coordinating and cooperating with organizations in public, private and civic sectors, and takes action as an accelerator for health promotion in Thai society. It claims that it is a new model of a health-promoting organization as “an innovative masterpiece created in Thai society”. In this regard, ThaiHealth, as the new health-promoting organization and the source of budget for health-promoting action, considerably affects both health organizations and health promotion in Thailand.

To reach the organization’s goals, ThaiHealth’s organizational structure consists of four components, four main functions, policy making, administration, operation and evaluation, as shown in Figure 1.1 (Thai Health Promotion Foundation, 2005).



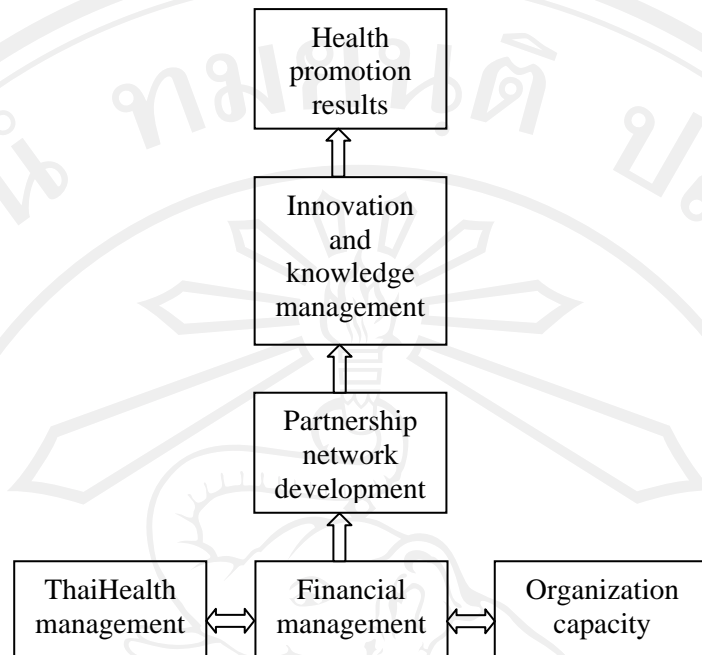
Source: Thai Health Promotion Foundation, 2005

Figure 1.1 Organizational structure of Thai Health Promotion Foundation

Both health and non-health professionals work together as teams, from the Board of Directors to partners of the organization. In addition, four strategies, (1) systematic and effective mobilization on various issues, (2) policy development, (3) development of communities or demonstration areas and (4) development of social capital, have been set up for managing and funding support (Thai Health Promotion Foundation, 2005; 2006a). The structure of ThaiHealth is different from the structures of previous health-promoting organizations in Thailand. Flexibility of management is provided by a change in organization from centralization to decentralization, or by changing the line of command from hierarchical (or vertical) to horizontal (Morgan, 2006, p. 38-39). This structure focuses on supporting self-directed teams, which are groups of people or workers who are responsible for a whole product or process, from

planning to evaluation (Hunter, 2002). Margulies & Kleiner (1995) suggested that to promote workers' empowerment is one of the basic concepts of these teams. Meanwhile, Appelbaum (1997), French & Bell (1990) and Cummings and Worley (2001, pp. 313-314) encouraged participation as an important basic concept. These two concepts, empowerment and participation, aim to increase workers' involvement in their work and are in concordance with the new concepts of health promotion of the Ottawa Charter for health promotion (World Health Organization, 1986) and the Bangkok Charter (World Health Organization, 2005).

Following the performance-based budgeting system, in the ThaiHealth master plan 2006-2008, the performance measurement system was set to indicate and measure performance for all levels of the operation. The indicators are based on six key perspectives: (1) management, (2) financial management, (3) organization capacity, (4) partnership developing, (5) innovation and knowledge management and (6) health promotion results (Figure 1.2). The key performance indicators, or KPIs, measure the degree of success in whether the projects meet their objectives in raising people's awareness of health risk control, applying surveillance measures for change (health risk control indicators) and responding to changes (output). The key performance indicators' developing process covers the evaluation of strategies, policies, plans, products, results and impacts. These indicators are used as a key tool in indicating the progress of health promotion tasks (Thai Health Promotion Foundation, 2006b, p. 46-58). However, those indicators are employed specifically at the ThaiHealth organizational levels to improve the foundation's policies and working procedures.



Source: Thai Health Promotion Foundation, 2006b, p.51

Figure 1.2 Six perspectives for performance measurement of Thai Health Promotion Foundation

In the current ThaiHealth master plan 2007-2009, goal indicators and organizational outcome indicators are set to indicate and measure performance. Moreover, the performance measurement is expanded and categorized into four levels: (Thai Health Promotion Foundation, 2007b, p. 17)

- The social level (driving society) emphasizes policy advocacy and mobilizing mass participation.
- The network level emphasizes building capacity of the key groups concerned with each issue, alliances and the mass media.

- The office level emphasizes proactive plan development, knowledge application, coordination with the policy units and building relationships with the networks.
- The organization level refers to the Board setting policy, the stability of the foundation, information for management, a system of support operations and good government focused on being a learning organization.

However, no mechanism has been reported to enhance or strengthen performance at the team level. ThaiHealth has no indicators for enhancing or strengthening performance at the team level. ThaiHealth has attempted to apply outcome mapping for planning and indicating performance at the network and team levels since 2007. Outcome mapping is appropriately used as a tool for evaluation at the organizational level. It is impractical to use for enhancing team performance. The current indicators are not sensitive and specific enough to improve team performance.

To be a high performance team requires serious consideration in a number of ways. It requires appropriate knowledge from specialists, or the knowledge for performing as a team from knowledge workers who have experience in performing within teams. Knowledge and learning are critical drivers for teams (Drucker, 1988). Learning and growth (Senge, 1998, p. 4) as well as innovation (Nonaka, 1991; Nonaka and Takeuchi, 1995, p. 160-196; Nonaka, von Krogh and Voelpel, 2006) are also increasingly involved in developing high performance. To advance team performance, a systematic process to measure performance should be set for indicating knowledge, learning and growth, and innovation.

There are many models to measure team performance, such as Belbin's team role model (Belbin, 1981; Aritzeta, Swailes & Senior, 2007), the team management systems mode (Margerison, McCann & Davis, 1995), and Millward and Ramsay's team survey (Millward & Jeffries, 2001). However, each model proposed indicators for specific team situations and all of them lacked a system for developing the indicators. These models and indicators cannot be generalized to other team situations, especially to the health-promoting teams in this study. As well, all of the indicators from these models are not linked to strategy or to team objectives. The dimensions of the learning and growth of teams and the feedback about strategic management are not key concepts of these models. Enhancement of teams requires a systematic performance measurement system.

Many performance measurement systems have been proposed for measuring effectiveness and efficiency at the organizational level. Hudson, Smart & Bourne (2001), Pun & White (2005) and Garengo, Biazzo & Bititci (2005) have proposed the development of performance measurement systems. Sixteen performance measurement systems were described, e.g., the Strategic Measurement Analysis and Reporting Technique (SMART), the Cambridge Performance Measurement Process (CPMP), and the Balanced Scorecard (BSC). The strengths and weaknesses of each system have been compared by using various typologies, such as the three categories described by Hudson, Smart & Bourne (2001) and by Pun & White (2005), the 13 criteria described by Garengo, Biazzo & Bititci (2005). MacBryde & Mendibil (2003) and Mendibil & MacBryde (2005) have recommended a specific typology for teams. In this typology, human dimensions are considered through team learning and growth, and through team members (MacBryde & Mendibil, 2003; Hudson, Smart & Bourne,

2001). The specific performance measurement systems at the team level should be considered in particular. Using the specific typology for teams (MacBryde & Mendibil, 2003; Mendibil & MacBryde, 2005), the comparison of the 16 performance measurement systems revealed that the Balanced Scorecard should be selected as an appropriate performance measurement system and a method of knowledge management for this study for the following reasons:

- it is derived from strategy and reflects strategic management;
- it provides a useful framework which is simple in terms of the design process for performance measurement systems;
- it is a performance measurement system modified for use in public and non-profit organizations, especially in health organizations;
- it is a performance measurement system that is presented as a measurement approach to knowledge management;
- it is used both as a performance measurement system and as a feedback and learning system; in the latter, it functions as double-loop learning, which is more complicated than single-loop feedback
- it is the most influential and dominant concept in performance measurement and has been frequently cited in articles over the last 10 years.

The original Balanced Scorecard was developed in the business context for use at the organizational level. Organizations in business focus on profit. This study focused on health-promoting organizations, which are of a non-profit nature, and at the team level. Health-promoting teams aim to enhance people's health and improve

the quality of people's lives (World Health Organization, 1986; 1998; 2005), whereas the purpose of teams in business contexts is to compete with other businesses and to increase revenue. Financial perspectives are significant for business teams (Kaplan & Norton, 1996b), whereas people's health is a critical issue for health-promoting teams. Team performance measurement also has different perspectives. It was a challenge to modify the Balanced Scorecard used in business organizations for use with health-promoting organizations at the team level. Team performance indicators were developed systematically to measure performance and enhance teams.

As ThaiHealth allocates its budget to support many networks of health-promoting teams, this study selected one network of health-promoting teams to represent ThaiHealth. The criteria used to select the network included (1) the teams' organizational structure should be similar to that of ThaiHealth, (2) the strategies of teams should conform to those of ThaiHealth, (3) the experiences of how teams perform and how teams learn should reflect team knowledge, and (4) the teams should have achieved their goals. Health-promoting teams from the 'Sweet Enough Network' are consistent with these criteria. The background of this network and its teams is illustrated as follows.

In 2003, the 'Sweet Enough Network' was initiated and supported by ThaiHealth. A group of dentists, pediatricians and nutritionists initiated a project that addressed a specific issue: to reduce the upsurge of health problems such as obesity, diabetes and dental caries in Thailand resulting from sugar over-consumption (Nutrition Division, 2000; Dental Public Health Division, 2002; Thamronglouthaphun, 2004). This network endeavors to reduce sugar consumption and to build health-

enhancing public policies by creating social awareness, advocating for food control policies at local, national, and international levels, and monitoring health risk factors.

The first criterion of the representation is that the structure for organizing teams should be similar to that of ThaiHealth. The organizational structure of the ‘Sweet Enough Network’ is comparable to the ThaiHealth organizational structure, whereas the structure of other networks is different. The ‘Sweet Enough Network’ sets up provincial health-promoting teams as an important structure and collaborates with partners from various fields, both at the individual and at the organizational levels (The Sweet Enough Network, 2006; 2007; 2008). There are four layers: the steering committee, a core management team, the provincial teams and an evaluation team (Figure 1.3). ThaiHealth appoints the steering committee that consults with the network’s management team. Representatives of pediatricians, dentists, nutritionists and a communication strategist work as a core management team to organize the Network. This network structure represents and reflects the ThaiHealth structure.

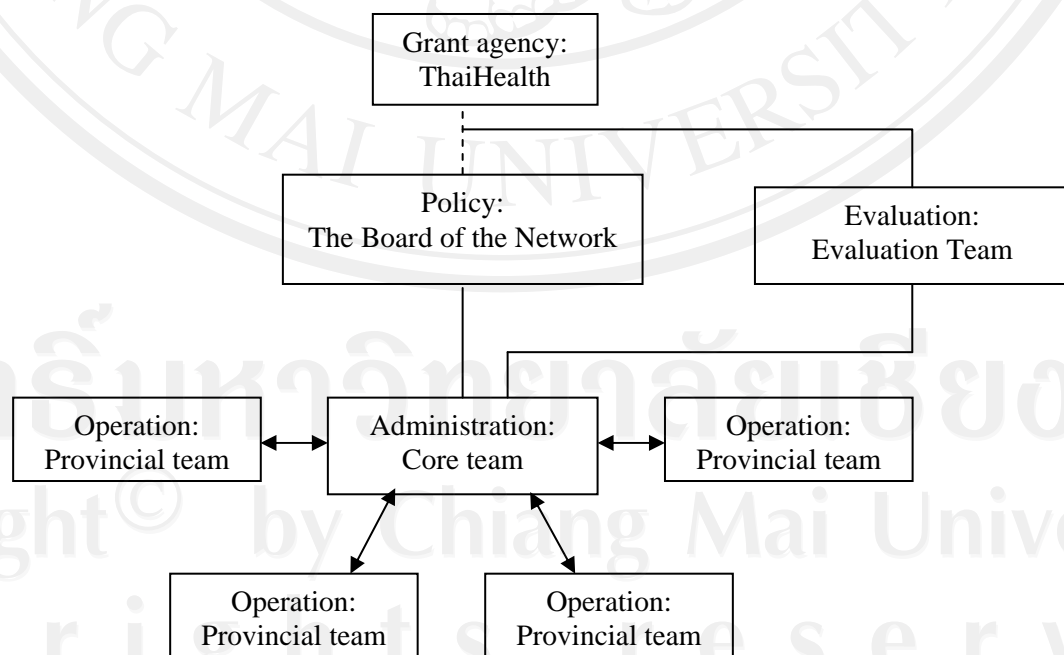


Figure 1.3 Organizational structure of the ‘Sweet Enough Network’

The second criterion is that the strategies of teams should conform to those of ThaiHealth. The strategies of the 'Sweet Enough Network' follow ThaiHealth's strategies, which are based on the Ottawa Charter and on the "Triangle that moves the mountain." The "Triangle that moves the mountain" refers to the concept of moving a big and very difficult problem (the mountain) by three means: (1) creation of relevant knowledge through research, (2) social movement or social learning, and (3) political involvement (Wasi, 2000). However, this concept is controversial. Its success has not been documented. ThaiHealth's strategies include social mobilization, system development, development of healthy communities and social capital. The 'Sweet Enough Network' emphasizes four actions, which follow the Ottawa Charter. These actions involve building healthy public policy, creating supportive environments, strengthening community action and developing personal skills. The provincial health-promoting teams in this network employ the same strategies as the network and conform to those of ThaiHealth. These data match the second criterion.

The third criterion is that the experiences of how teams perform and how teams learn should reflect team knowledge. In regard to team performance, each health profession encourages its fellows to reduce sugar consumption. The most active provincial network group, however, is the dental network, which operates as front-line workers in the field. Initially, ten Dental Health Provincial Offices volunteered to launch the program in 2005. At the time this study was begun Thailand has 76 provinces, including Bangkok. Membership of the 'Sweet Enough Network' grew to 12 provinces in 2006 and increased to 19 provinces in 2007 (The Sweet Enough Network, 2006; 2007; 2008). The provincial networks operate independently as multidisciplinary teams, composed of many professions. Dental personnel, such as

dentists and dental nurses, lead most of the province-based networks. They work as coordinators and form teams to run the projects in their provinces. The provincial teams are interdependent with the core management. However, they manage themselves autonomously, from planning to evaluation, and take responsibility for the whole process as self-directed teams. Innovations and tacit knowledge, especially key performance drivers of teams, emerge from each team as important knowledge. Every team member in every provincial team also works as a specialist or knowledge worker, who has experience in performing in teams. They are the key players in team performance. This evidence shows that the provincial teams of this network have the experience of how teams perform and conform to the first part of the third criterion.

In regard to team learning, since 2003, there has been no evidence showing the network's vision, missions and outcomes. The core management team of the network established the first vision, missions and outcomes during a workshop for the outcome mapping technique in May 2007. ThaiHealth adopted this technique for evaluating selected projects, one of which was the 'Sweet Enough Network'. However, the core management team did not communicate these first vision, missions and outcomes to the provincial teams.

In April 2008, a learning forum was established to share the vision and to review the previous activities and outcomes of teams, including revising future tasks and plans. The participants were team leaders, team members and team partners. The forum found that both individuals and teams were concerned with working with partners as a network to reduce sugar consumption in target groups. They also required learning and supportive resources. The network's vision, missions and outcomes emerged at the team level.

In August 2008, the core management team reconsidered and adjusted the vision, missions and outcomes for presentation to ThaiHealth before signing a new contract with ThaiHealth.

In September 2008, the new vision, missions and outcomes were presented in both the coaching team meeting and the meeting of the provincial teams as follows:

Vision: “Working with partners who target children and youth to protect children from illnesses that result from excess sugar consumption and to promote healthy eating lifestyles from birth to the teen-age years (early teenage – primary school) by creating food literacy among manufacturers, local governments, school administrators, teachers, parents/guardians, and children, to foster understanding and realization of the effects of excess sugar consumption, to the point that children are able to choose nutritious foods and drinks that are ‘sweet enough’.”

Missions:

- To create demands and participation of alliances and partners
- To set up healthy public policy / regulations

Outcomes: “Change in people’s behavior and health, focused on reducing sugar consumption.”

The development process for the vision, missions and outcomes illustrates that the core team and the provincial teams learn together, fulfilling the second part of the third criterion.

The fourth criterion is that the teams should have achieved their goals. The achievements of this network have been reported in the ThaiHealth annual report since 2004 (Thai Health Promotion Foundation, 2005; 2006a; 2007a). An important policy objective was to file a motion with the Food and Drug Administration (FDA)

seeking amendments to the Ministry of Public Health Announcements No. 156 - 157 related to food products for infants. Such amendments, which were approved by the FDA on September 3, 2004, require that no sugar, honey, or any other sweeteners should be added into food for infants. Labels on products of such food must say: “No sugar, honey or other sweeteners has been added because it may cause dental caries and obesity in infants and children”. These amendments have been mandatory since April 1, 2005 (Thai Health Promotion Foundation, 2005; The Sweet Enough Network, 2006). This food labeling, which is effective at the social level, was instigated by the core management team.

At the team level, every provincial team follows the network’s vision and missions. Each provincial team decides, using their own judgment, whether to launch the programs with different target groups, such as child-care centers, kindergartens, schools, local administrations and communities (The Sweet Enough Network, 2006; 2007; 2008). Each team collaborates with partners from various fields. Every year each team must report its performance by using indicators, as shown in Table 1.1 (The Sweet Enough Network, 2006; 2007; 2008). Following three annual reports of the network, the outputs of each team were not illustrated in detail. Thus, Table 1.1 presents the overall outputs of the network.

Table 1.1 Outputs of provincial teams during 2005-2007[#]

Outputs	Year		
	2005	2006	2007
Numbers of institutes that joined with the provincial team and developed healthy public policy	71	483*	
- School	43	596*	1,139
- Child care center	17	81	717
- Community	8		
- Community hospital	3	36*	54
- Others: PCU, Local administration, Store etc	✓ (N/A)	✓ (N/A)	✓ (N/A)
Numbers of people that participated in the network	728	✓ (N/A)	763
- Medical doctors	21		
- Dental personnel	193		
- Nutritionists	28		
- Health personnel	486		
Number of partners that participated in the network	1642	✓ (N/A)	
- Teachers	507		✓ (N/A)
- Parents	668		4,995
- Media	63		318
- Local governors	44		797
- Others	360		119
Revenue	1,619,322		
- ThaiHealth	943,020	1,300,000	
- Public Health	363,690	185,000	2,679,128
- Hospital		3235,00	
- Local government	133,490	598,000*	
- Others: Store, private school	89,122	832,200	
Number of academic papers (International conferences)	3	1	8
Number of learning forums for provincial team (core team organized the forum)	3	2	2
Number of learning forums in provinces	✓ (N/A)	✓ (N/A)	14
Number of innovations or best practice models	✓ (N/A)	✓ (N/A)	19
Number of training courses for team (core team developed the course)	1	1	1
Number of monitors (via coaching system 2 times per team, except Bangkok)	20	32	36

Sources: The Sweet Enough Network (2006; 2007; 2008) and participant observation

Remarks: [#] Empty boxes indicate no data available. * Including Bangkok. ✓ (N/A) = No exact number available.

From the background of the 'Sweet Enough Network' and the provincial teams, health-promoting teams in this study can be described as having specific characteristics, which include:

1. Each team manages themselves autonomously as self-directed teams, which take responsibility for the whole process from planning to evaluation.
2. Dental personnel who work at the Provincial Dental Health Office, such as dentists and dental nurses, lead most of the provincial teams.
3. Team members in each team are dentists and dental nurses who work at the Provincial Dental Health Office. Team size varies between two and five people.
4. Each team volunteers to promote health and to launch the program.
5. Each team works with different partners, such as child-care centers, kindergartens, schools, local administrations and communities.
6. Many professionals, both health and non-health, are included as partners to work with teams.
7. The strategies of teams imply the network's strategies.

The core team leaders attempt to measure the performance of the provincial teams through indicators. However, these indicators illustrate only the output perspective, such as revenue from partners, number of partners that participate in the network (The Sweet Enough Network, 2006; 2007; 2008). Basically, a purely output-orientated perspective is inadequate for measuring team performance. These indicators illustrate only "what" happens after implementation at the end of each year,

an example of single-loop learning (Argyris, 1998). The “how” and “why” of advancing the process is questionable. As well, these indicators indicate performance at the network level and are reported to the Thai Health Promotion Foundation for funding the budget. They were developed by the core team leaders for measuring the outcomes and did not develop from team experience. The systemic process for capturing and managing team knowledge is controversial. This study assumed that the development of team performance indicators from team knowledge could help to reflect and reinforce the performance of teams.

The changes in health promotion concepts, the budget for promoting health, the National Health System Reform and the National Social Development Plan affect health promotion in Thailand. To react to these changes, ThaiHealth was established as a new health-promoting organization. The structure of this organization focuses on team-based design, especially self-directed teams. The specific techniques of health-promoting team performance emerged in terms of team experience from their knowledge. To manage team knowledge requires a systematic process. The current system for indicating and measuring team performance is the output-orientated perspective, which is inadequate for reflecting and enhancing health-promoting teams.

Therefore, this study attempted to set the process for capturing team knowledge of Thai health-promoting teams. As well, team knowledge was managed and reflected through the development of team performance indicators for enhancing team performance. The development process represented organizational development activities via action research, which is a systematic process of collecting data, feeding the data back into the system and taking actions based on the data (French & Bell,

1990, pp. 98-111). Meanwhile, this study challenged whether the Balanced Scorecard used in business organizations, as a measurement system and as a knowledge management method, is applicable to health-promoting organizations at the team level in the Thai context. For measuring performance, the Balanced Scorecard expands the output-orientated perspective to another perspective. The provincial health-promoting teams from the 'Sweet Enough Network' are selected as samples. By virtue of the 'Sweet Enough Network', team performance indicators for measuring performance may also reflect ThaiHealth organizational management. Based upon organizational development, it is a challenge to create team performance indicators for a Thai health-promoting organization that are unique, formalized and usable by all members through action research and participative management. The Balanced Scorecard used in business organizations and the team performance indicators developed in this study should be valuable in enhancing teams in Thai health-promoting organizations and should be advantageous for other health professionals, health-promoting organizations and in academia.

Research Objectives

The purposes of this study were:

1. to identify the knowledge of Thai health-promoting teams
2. to develop team performance indicators for Thai health-promoting teams from their knowledge
3. to modify the balanced scorecard as the knowledge management method for developing team performance indicators for Thai health-promoting teams

4. to reflect the performance of Thai health-promoting teams through the development process of team performance indicators.

Research questions

The questions of this study included:

1. What is the knowledge of Thai health-promoting teams?
2. How is the knowledge of Thai health-promoting teams applied in developing team performance indicators?
3. How do team performance indicators reflect the performance of Thai health-promoting teams?
4. Using a modification of the Balanced Scorecard, how does the process of development of team performance indicators reflect the performance of Thai health-promoting teams?

Definitions

Action research: The organizational development activities, which involve a systematic process of collecting data, feeding the data back into the system and taking actions based on the data.

Balanced scorecard: A measurement approach to performance that focuses on linking a team's missions and outcomes to specific measures, and a measurement approach to knowledge management. The appropriate metrics of the Balanced Scorecard for teams in this study are modified from the original, and are proposed in terms of (1) team effectiveness perspective as process outcomes, (2)

partner perspective, (3) team efficiency perspective as internal team processes, (4) team learning and growth perspective and (5) team member perspective.

Knowledge management: The systematic process of using a set of tools or methods for improving and developing organizational management, which aims to seek and use the right knowledge from and with the right people in the right form at the right time. This study used performance measurement development as a method of knowledge management in helping managers to measure team performance and to enhance team capability.

Organizational management: The process of strategic planning, setting objectives, managing resources (human, financial, material, intellectual or intangible), deploying the human and financial assets needed to achieve objectives, and measuring results in an organization.

Organizational development: A systematic process of change for enhancing and increasing organizational effectiveness. This study used action research, in which the people who take action in teams were involved and participated in the process, through reflection of team knowledge as guidelines for improving effectiveness at the team level.

Team performance measurement: The process of quantifying and qualifying the dimensions of action or performance in order to achieve high levels of team performance.

Team performance indicators: A set of metrics for measuring the process of quantifying and qualifying the dimensions of action or performance in order to achieve high levels of team performance. In addition, they can verify the changes in the development intervention or show results relative to what was planned.

Research assumptions

The basic assumptions for this study include:

1. The structures of different health-promoting organizations are different.
2. Team-based design, especially in self-directed teams, is an effective structure for health-promoting actions.
3. Both team leaders and team members are key persons for health-promoting teams.
4. Health-promoting teams accept that people empowerment and participation are key concepts of health promotion.
5. Knowledge management is an effective process to support team enhancement and to replicate success.
6. Team performance indicators affect team performance.

Ideas and solutions

This study endeavored to use an organizational development approach by employing action research to enhance and strengthen Thai health-promoting teams.

The reflection process at the team level, by using the Balanced Scorecard, is a significant process for developing team performance indicators in this study. This

study modified the Balanced Scorecard used in business organizations. The Balanced Scorecard was selected for many reasons: (1) it is used as a feedback and learning system that stipulates learning through initiatives; (2) it reflects and accumulates the wisdom and experience of teams; (3) it is a measurement approach to knowledge management; (4) it is used as a performance measurement system; and (5) it links to strategy and reflects strategic management.

Qualitative methods, as described by Denzin and Lincoln (2000, p. 8-10), were selected to collect data. The methods are appropriate for reflecting experience and knowledge. These methods also capture individuals' points of view and understand individuals' meanings. These methods include: (1) in-depth interview of team leaders, team members and team partners, (2) participant observation, (3) documentary analysis and (4) peer review via questionnaire, interview and focus group discussion. To develop team performance indicators, the Balanced Scorecard used in business organizations was modified as a guideline to generate performance indicators for Thai health-promoting teams (Kaplan, 2001; Niven, 2003, p.70; Kaplan & Norton, 2004). Finally, team performance indicators were verified and selected. In addition, the model for developing team performance indicators is proposed for other health-promoting teams in Thailand.

Research novelty and contribution

The process and results of this study, the development process of the team performance measurement system and team performance indicators, will be valuable in enhancing teams in health-promoting organizations and will be advantageous to

other health professionals, other health-promoting organizations, and in academic research. The stakeholders that will be major beneficiaries include:

1. The 'Sweet Enough Network' itself will be affected by the team performance indicators. Team leaders and team members involved in the process will gain new managerial experience that should be useful in improving their capability.

2. The Thai Health Promotion Foundation, the major organization that supports health-promoting organizations in Thailand, can diffuse and adapt the team performance indicators and encourage other health-promoting teams to develop and use team performance indicators in their management.

3. The Department of Health in the Ministry of Public Health can be the leader to exploit the team performance indicators for health-promoting projects at many levels. In consequence, further innovative projects will be encouraged if the team performance indicators are utilized by project managers.

4. Non-government organizations and non-profit organizations involved in health promotion can apply the development process of team performance indicators to their organizational management to develop their management systems and enhance their performance.

5. The academic research community will be another sector that can take advantage of the results of this study. Both public health and health-related schools will be able to introduce the development process of team performance indicators to their students for developing in their own future research.

List of Publications

Chatiketu, P., Burapharat, C., Chakpitak, N., & Siriphant, P. (2008). Team performance drivers of Thai health promoting teams. *The International Journal of Knowledge, Culture and Change Management*, 8(8), 111-127.

Chatiketu, P., Burapharat, C., Chakpitak, N., & Siriphant, P. (2008). The learning process of a health promoting organization: A case study. *The International Journal of Learning*, 15(10), 213-222.