PERFORMANCE OF HEALTH CENTER PERSONNEL ON HEALTH PROMOTION IN PRIMARY SCHOOL IN SUPHANBURI PROVINCE, THAILAND

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PERFORMANCE OF HEALTH CENTER PERSONNEL ON HEALTH PROMOTION IN PRIMARY SCHOOL IN SUPHANBURI PROVINCE, THAILAND.

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ABSTRACT

A cross-sectional descriptive study was conducted in Suphanburi province to assess the performance of health center personnel (HCP) on health promotion in primary school, and to identify the socio-demographic factors, knowledge, and perception of health promotion in school (HPS) that affects the performance of health center personnel.

The data was collected from 142 HCP who had been responsible for HPS by a self-administered questionnaire. Statistical analyses were performed by determining means, medians, standard deviations, percentages and Chi-square tests.

The results revealed that almost all HCP were female, 70.42% were married, and more than half of them were within the age group of 30-39 years. Nearly two-thirds of respondents had Bachelors degrees. Moreover, the results indicated that the time frequency per year of the supervision of health officers from Tambon Administrative Office (TAO) was higher than Provincial Health Office (PHO).

More than half of the HCP had moderate knowledge and high perception of HPS. There were no significant relationships between knowledge, perception and their performance. Only a few variables such as having participated in an HPS program during the last fiscal year, supervision, monitoring, evaluation and budget were significantly related with the performance of health center personnel.

It is recommended that the support and supervision from the TAO/PHO should be performed regularly throughout the province. The knowledge of health center personnel in this study was not so high therefore, the Provincial Health Office's policy should encourage HCP to provide continuous training on HPS in order to improve their performance.

KEY WORDS: PERFORMANCE / HEALTH PROMOTION SCHOOL / HCP

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LIST OF ABBREVIATIONS

HCP	:	Health Center Personnel
HPS	:	Health Promotion School
PHTO	:	Public Health Technical Officer
PHA	:	Public Health Administrator
MOPH	:	Ministry of Public Health
CDC	:	Communicable Disease Control
PHO	:	Provincial Health Office
TAO	:	Tambon Administrative Office
WHO	:	World Health Organization
THT	:	Trained Health Teacher
VHV	:	Village Health Volunteer
HPSA	:	Health Promotion School Activities
CPHCC	:	Community Primary Health Care Center

CHAPTER I
INTRODUCTION

1.1 Rationale and justification

The Centers for Disease Control and Prevention have identified six behaviors that place students at higher risk for chronic and acute conditions. Those being a) intentional and unintentional injuries, b) substance use, c) early and unprotected sexual activity, d) tobacco use, e) poor nutrition, and f) low level of physical activity. School health promotion program setting is an important to prevent and solve these problems by encouraging people participating such as students themselves, teacher, parents, and health personnel. Moreover, school is responsible to develop potentiality and ability to have normal life survival for children (1). It is not only the center for children, but is also a center for human development and participation for community. Health behavior of children, parents, and community members is initiated at school. Since children in community come from different families, environments, life styles and attitudes that may cause communicable and non-communicable diseases. School is, therefore, an important place to provide knowledge, attitude and skill related to health promoting behavior for students, school personnel, parents, and community members, as a whole.

There are many factors that influence student health behavior. Studying 1,600 students attending grade six as at the national level, it was found that the factors related to the students behaviors were instruction given by teacher, mother and self-learning. In addition, the factors related to inappropriate health behavior were unawareness, lack of equipment and support from teacher and parents. Health promotion behaviors of parents and teacher and as well as school environment was influencing the student s' health promotion behaviors as mentioned in the student' National Health Recommendation (2).

Moreover, the survey of school health situation in Thailand, conducted in 1990 revealed various health problems among school children 17.8 percent were found underweight, 16.8 percent had iodine deficiency disorders, 18.6 percent were anemic due to iron deficiency and 13.8 percent had parasitic infections. Above 1.1 percent had impaired vision, 5.3 percent had hearing impairment and 56.2 percent had dental caries (3).

Thailand faced the epidemiological transition resulting from rapid changes in socio-economic and environmental development. There is transitional shift from communicable diseases to non-communicable diseases such as heart disease, accident, cancer, hypertension etc., caused by inappropriate health behavior and lifestyle (3).

In response to the health problems situation in Thailand, the MOPH has the objectives of the 8th National Health Development Plan in order to ensure the good health of the Thai population and support the country to take leading role in this region, and has mentioned also to ensure that the people are entitle to health insurance, gave access to integrate health activities which are efficient, of good quality, and equitable, particularly regarding the underprivileged and handicapped. And also the objectives of the 9th National Health Development Plan are to foster proactive health promotion, consumer protection, food safety food security, occupational health and environment protection, and disease prevention and control, to establish health security and equal access to quality health services, to build up people capability in health promotion and in health system management, and to establish mechanism, measures and generating knowledge through research and development utilizing both local and international health wisdom (4-5).

Nowadays, the health center personnel have another duty in relation to society changes and have placed new demands in this health profession. The performance of health center personnel today is wider and more comprehensive than ever before. They are independent, place greater emphasis on the prevention of illness and the maximizing of wellness and are morally and legally accountable for their professional behavior. Today's health center personnel are assuming leadership responsibilities.

Planning and directing health care services and teaching individuals, families and communities (6). This study was aimed to identify the performance of health center personnel on health promotion in primary school in Suphanburi Province.

Suphanburi is one of 76 provinces of Thailand that has 172 health centers facilities . At grassroots level, the health center personnel provide health services to the community including health promotion school program. Based on the health status of school children in Suphanburi during the educational year 2001 to 2003, it was found that among common 6 diseases of primary school children i.e. lice, dental caries, and anemia are still the main problem for health promotion in school program even the number of these diseases were slightly decreased from year to year. Other diseases such as iodine deficiency (0.26%), ear disease (0.16%), and eye disease (0.05%) are nearly eradicated. More details showed in Table 1 (7).

This study attempted to identify the performance of health center personnel on health promotion in primary school activities as a change agent to lead school children to behave in a good way. Therefore, this performance should be emerged in the target places, the fruitful information from this finding is used as a baseline information for Suphanburi province and Ministry of Public Health to plan, how to manage a policy implementation on health promotion in school and what should be revise proper for the intersection among the target group in the future.

Table 1 The physical examination of school health program in primary school (Pratom 1-6), Suphanburi province 2001-2003

Educational year	**2001**	**2002**	**2003**
Number of school	457	455	448
Number of student for physical examination	60,677 (81.70%)	73,701 (87.15%)	69,560 (95.43%)
Lice	12,186 (19.73%)	11,428 (19.57%)	11,951 (20.01%)
Dental carries	None	12,618 (18.78%)	12,234 (18.48%)
Anemia	103 (9.92%)	1,084 (7.71%)	596 (3.57%)
Goitre (Iodine deficiency)	223 (0.32%)	175 (0.26%)	158 (0.26%)
Ear disease	34 (0.06%)	23 (0.26%)	6 (0.16%)
Eye disease	5 (0.01%)	3 (0.004%)	30 (0.05%)

1.2 Research questions

1.2.1 What is the performances of health center personnel on health promotion in primary school.

1.2.2 What are the factors related to their performance on health promotion in primary school

1.3 The Objectives

1.3.1 General objective

To identify performance of health center personnel toward health promotion in primary school.

1.3.2 Specific objectives

1.3.2.1 To describe the performance of health center personnel on health promotion in primary school.

1.3.2.2 To describe personal information of health center personnel on health promotion in primary school these are composed of socio-demographic characteristics and supporting system.

1.3.2.3 To describe knowledge of health center personnel on health promotion school.

1.3.2.4 To describe perception of health center personnel on health promotion school.

1.3.2.5 To identify relationship between performance of health center personnel and the following factors:

-Socio-demographic characteristics of health center personnel on health promotion in primary school.

-Supporting system to health promotion school composed of supervision, monitoring, and evaluation, facilities, and budget of health center personnel on health promotion in primary school.

-Psycho-social characteristics composed of knowledge and perception of health center personnel on health promotion in primary school.

1.4 Conceptual framework

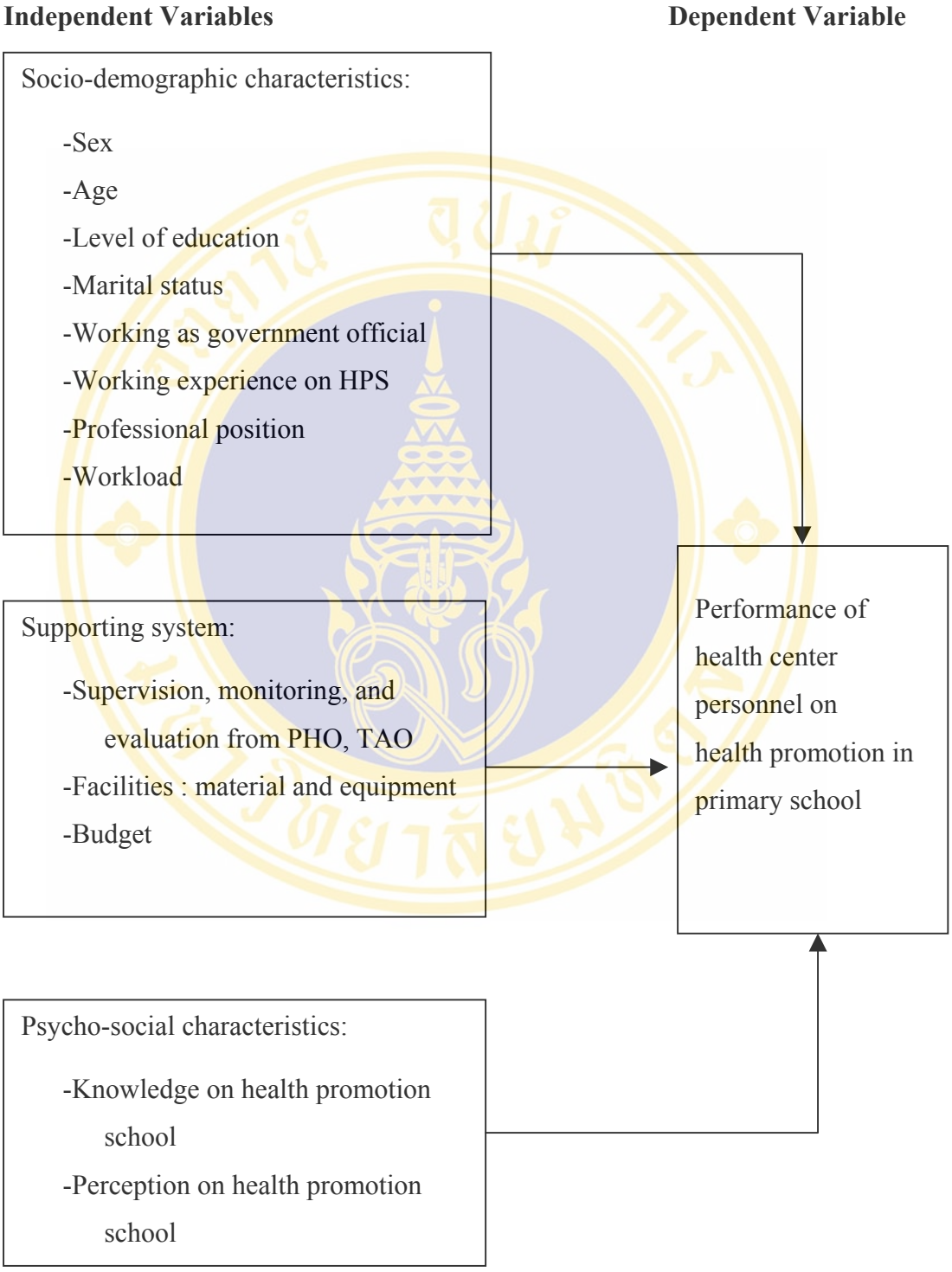


Figure 1: Conceptual framework of health center personnel on HPS

1.5 Operational definition of studies variables

1.5.1 Education: Refer to the level of education of the health center personnel who are responsible for health promotion in primary school such as Bachelor degree Diploma or other degree.

1.5.2 Working as government official: Refer to the activities of the health center personnel worked, since the health center personnel graduated from professional school.

1.5.3 Working experience on health promotion: Is defined by number of years the health center personnel have worked for health promotion programs. In this duration, at least they already performed their job in HPS programs at the health center at least one year ago.

1.5.4 Professional position: Refer to the professional background of health center personnel who are responsible for health promotion in primary school, which health center covered

1.5.5 Workload: Refer to the additional tasks of health center personnel besides the assigned tasks in their job description such as working whole the week, working hours on health promotion school program, number of school that health center personnel are responsible for, and working overtime after 4 p.m.

1.5.6 Supervision, Monitoring and Evaluation: Are activities of PHO/TAO to oversee and maintain the conduct of health center personnel's duties on health promotion in primary school by observing, giving comment, suggestion, consultant to solve the problem, provided technical support to health center personnel in relation on health promotion school.

1.5.7 Facilities: It means the material or equipment that are provided by PHO and TAO for supporting the health center personnel on health promotion in primary school activities.

1.5.8 Budget: It means the budget allocation from PHO /TAO for supporting on health promotion in primary school activities.

1.5.9 Knowledge of health center personnel: Is defined as the abilities of health center personnel to understand, about the activities, roles, and management of health promotion in primary school. That's measured by multiple-choose questions, give 1 score for right answer, and 0 score for wrong answer.

1.5.10 Perception of health center personnel: means that the opinion of health center personnel on activities, benefit, and barrier on health promotion in primary school. That's measured by 3 questions; for positive questions, give 3 scores for those who answer agree, 2 scores for those who answer not sure and 1 score for those who answer disagree, and for negative questions, give 3 scores for those who answer disagree, 2 scores for those who answer not sure, and 1score for those who answer agree.

1.5.11 Performance of health center personnel in health promotion school is defined as the job description that they perform for activities on health promoting school by themselves or coordinated with health teacher as follows:

-Activities performed by health center personnel:

1. Support and co-develop every school for being health promotion school.
2. Support and co-develop health promotion school in passing assessment criteria.
3. Support and co-develop technical document
4. Supervise, follow up and evaluate the implementation of health promotion school
5. Iodine deficiency survey for grade 1 to 6 once every year

6. Give vaccination to student grade 1 to 6 according to the standard of Department of Communicable Disease Control.
7. Dental checks up for grade 1 student, and provide sealant to children who have tooth problem.
8. Trained health teacher 3 days after program started
9. Hearing check up once a year for grade 1 student by using audiometer, if any hearing problem is discovered, treatment may be provided.
10. Blood survey for iron deficiency anemia of student grade 1 to 6 once a year.

-For other activities performed by the school health teacher:

The health teacher performed some of health promotion school activities. In case of any problem, the health center personnel can be approached for following supporting activities such as:

1. Support spectacle for student grade 1-6 who has abnormal eye sight one time per year
2. Survey lice problem for primary school student
3. Check weigh, and height twice time a year
4. Trained health promotion student leader and youth leader in health
5. Give counseling to student who has at high-risk sexual behavior and drug addiction.
6. Promote physical exercise club healthy Thai children program.

1.5.12 Health Promotion School

Health promotion school is a place where school and community work together to organize and combine positive experience for health protection and promotion of the students. Safe and supporting environment and health services should be prepared and provided especially, participation of family and community are necessary for conducting health promotion school activities (8).

1.5.13 Health Promotion

Health promotion is the process of enabling people to maintain and improve, their health .To reach a state of complete physical, mental and social well-being an individual or group must be able to identify and to realize aspiration, to satisfy needs, and to change or cope with the environment. Health promotion is therefore, seen as a resource for everyday life, not only the objective of living. Health promotion is a positive concept emphasizing on social and personal resource, as well as physical capability (9).

1.6 Scope and Limitation of the Study

1. The study is a cross sectional descriptive study of health center personnel who are responsible for health promotion in primary school, and currently working at health centers in Suphanburi province. It can not be generalized to represent the whole country, in terms of small sample size.

2. Data may be obtained only from a self-administrative structured questionnaire, other details of the performance may not be obtained totally.

CHAPTER II
LITERATURE REVIEW

2.1 Health Promotion School

The Green and Kreuter defined" health promotion" as the result of educational and environmental support for the practical result and the condition of living that leads to healthy condition. Kaplan, Sallis and Patterson they said that "health promotion" as trying to ensure that healthy people must have disease prevention and health promotion behavior for their lifestyle. In addition, good health promotion will reduce cost of people's health care. Other authors, such as Chantamolee, S., stated that health promotion consist various activities that affected health of people who have well being and directly affected an increase in happiness, bringing healthy to personnel, family, community and sociality (1).

The World Health Organization Regional Office for Western Asia comprised document entitled "New horizon in health" Activities for health. From this document we can divide activities for health into three groups. Activity in-group one is designed for creating readiness for life of individuals while the second group is plan to protect life and the third one is to organize the quality of life. Health promoting school is classified into the first group of activities. Emphasis is placed on the health of children and youth at present and in the future when will be growing up. The government should play an important role in supporting health promotion school including setting a local committee to launch activities, also, government should assign specific ministry to take responsibility for health promoting schools.

The health promotion school aims at achieving healthy lifestyle for the total school population by developing supportive environments conductive to the promotion of health. It offers opportunities for, and requires commitment to, the provision of a safe and health-enhancing environment (8).

The first International Conference on health promotion was held in Ottawa, Canada November 1986. The conference was primarily a response to growing expectations for a new public health movement around the world. This resulted in the publication of Ottawa Charter for health promotion, which has provided a framework and direction for the translation of theory into practical action to promote health. Ottawa Charter for health promotion (WHO, 1998) defines 'health promotion" as the process of enabling people to increase to control over, and to improve their health. To reach the state of complete physical, mental and social well being, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with environment (10).

2.2 Components of Health Promotion School

Health promotion school composes of ten components as follows:

1. School health policy

School setting up health policy to guide all concerned persons for practice, for example; the consumer protection policy in school, drug substance free school.

2. School management practice

Providing school management system to develop a health promotion school and rule setting, duty, step of work, budgeting, and resource to support health promotion activities for students and school personnel.

3. School/community project

Participant of school, family and community in health promotion school project i.e. information exchange between home and school, or community involvement in health project.

4. Health school environment

Supportive environment should be provided in school including physical, mental, and social environment for a good health for all school personnel and students.

5. School health services

Services for health care, disease prevention, essential treatment and the condition resuscitating, seeing and hearing test, surveillance about protection, control and eradication of some specific disease should be provided.

6. School health education

Health education activity in and outside curriculum should be established in order to enhance students'skills and health behaviors accordingly by with the National Health Recommendation and to decrease risk of factors of behaviors which lead to local and country public health problems.

7. Nutrition/food safety

Surveillance and nutrition problem solving and providing food sanitation in school are the main activities.

8. Physical exercise, sport, recreation

Exercise for health and recreation should be promoted in school. School should be the exercise and recreating center of community.

9. Counseling/Social support

Counseling service for health problem solving and social support should be organized.

10. Health promotion for staff

Annual health check up should be provided for staff including disseminating of printed health materials (11).

2.3 Implication of Health Promotion

Health promotion is a social action dimension of health development. It is the concept that revitalizes primary health care, approached in both developing and industrialized countries. Health promotion and social action for health support the health for all in two ways: one is to promote health lifestyles and community action for health, two is to create condition that makes it possible to live a healthy life.

The first entails empowering people with the knowledge and skills needs for health living, and the second calls for influencing policy makers so that they pursue health supportive public policies and programs.

Health promotion can be described as social, educational and political action that enhances public awareness of health, fosters healthy lifestyles and community action in support of health and empower people to exercise their rights and responsibilities in shaping environments systems and policies that are conducive to health and well-being. Health promotion is in fact enlighten health activism; it is a process of activating communities, policy makers, professionals and the public in favor of health supportive policies, systems and way of living. It is carried out through acts of advocacy, empowerment of people and building of social support systems that enable people to make healthy choices and live health life.

2.4 Health Center in Thailand

Health Center comprise basic health services facilities, each health center is usually staffed by an auxiliary midwife, and a junior sanitation (a technical nurse is being added to many health centers) and some by registered nurse. All of the major preventive and promotive health services are integrated into the tasks of these health workers. The midwife and sanitarian are responsible for prenatal care delivery, and postnatal services, immunization, nutrition, family planning, water supply and sanitation activities. Health center also provides limited treatment for emergency or minor illness beyond with they provides referral service to community hospital or provincial hospital. Likewise, it provides support to village for the development and strengthening of its primary health care programs. Supervision and support to village health volunteers (VHVs) is the prime concern, particularly in self-management of the essential of primary health care, in community based health programs for community development (6).

2.5 Health Center Personnel

Almost all of the health center personnel have completed a two-year training course on public health after high school graduation. They are considered to be one of the important categories of health personnel as they are working at the Tambon level, the interface between government health facilities and the people or community.

In Thailand generally health center personnel contains of public health technical officer, public health administrator, technical nurse, or/and register nurse.

2.6 Theories of Roles

Arron Rathan as quoted by Tamaki has classified the system of role, in aspect of psychological administration into 3 type: (12)

Actual role or role behavior: The actual role or role behavior of person in controlled by personal emotion, attitude and personal behavior. The problem of working depends on the actual role of person. If the person can not control his actual role, such as, being depressed about family problem which a person then takes with him to the office and shows unpleasant behavior to his co- workers or patients.

Role prescription: The scope of work and responsibility assignment by the organization or work unit. There would be no problem if work has executed according to the assignment. Mostly the problems would arise when the work is executed otherwise. This due to the fact that the actual role was used together with the role assigned by the organizer.

Role expectation: Consists of the expectations from others, and the expectations of oneself. A problem will arise when one is unable to act as expected.

Brom and Selznick have stated that the role may be divided into 3 categories: (15)

The socially prescribe or ideal role: it is the ideal, which limits right and duty according to position in a society.

The perceived role: It is the role that each person believes that on should do according to the position obtained, which might be the same as the ideal role, and also might be different for each person.

The performed role: It is an actual role which depends on the beliefs expectations and knowledge of each person including pressure and opportunity in each society for a certain period, and also the personality, experience of person. How to identify personnel performance.

2.7 Health Promotion School in Thailand

2.7.1 Background

The conceptual framework for the development of health promotion and health education in school took conception since the WHO declaration of Alma Ata in 1978. That declaration emphasized school as the central part for teaching health for students. The student can learn the benefit of having good health from school. Also they can learn how good health affect socio-economic development of Thailand. Later, in December 1997, the World Health Organization held the conference on International Consultation on Health Promotion School in Bangkok, Thailand. Results from the conference suggested means and direction for organization and implementation of health promotion school. Also suggestions included how to set network for health promotion school both in the country and within the region.

2.7.2 Reasons for Having Health Promoting School

Thailand is in the period of epidemiological transition. Thai public health problems have shifted from communicable disease to non-communicable diseases such as heart disease, accident, cancer, and hypertension. In fact, prevent of disease and health promotion can help to avoid these non-communicable diseases. Therefore, health promotion for all age groups of population is necessary. It should be taken into consideration seriously by both government sectors and people. School children are one of the most important groups that need health promotion. Thus, school is not merely one of the institutions and settings in which health can be created, but is among the most important. School is a central part of communities and as such, they offer many opportunities to promote health of children, their families, and the communities. School can enhance knowledge, attitude, and practice of the student conductive to health.

Health promotion through school can create many benefits and be most effective for children as follows:

A holistic concept of health utilized. This includes the relationship among physical, emotion, social and environment.

Provide opportunities for families to participate in developing knowledge and skills about health of the students.

Realize the importance of physical and socio environments, which can affect student health.

Realize the socio role of school in creating supportive environment for student health.

Co-ordinate health services both local level and regional level for student health.

Promote students to participate in learning activities to develop their health knowledge and skills

Give equal importance to education and health

Create supportive environment for health of school personnel

Promote school and community to work together for health of students, families and community.

2.7.3 Function of Health Promotion School

Develop health of school population, families and people in community.

Use appropriated and effective management method to promote health.

Co-ordinate and Co-operate everyone involved to participate in health promotion activities.

Crate supportive environment, arrange teaching in services including counseling for school population.

Set policy and regulation for conduction health promotion activities.(8)

At present, there are 7,255 health promotion schools, or a 100 percent full coverage (4).

2.8 Implementation strategy

The basic essential components for healthiness are peace, residence, education, food, income, wealth, eco-system, well-founded resource, social justice, social equity, and health promotion. These components are necessary for the implementation of health promoting school program. There are four major strategies:

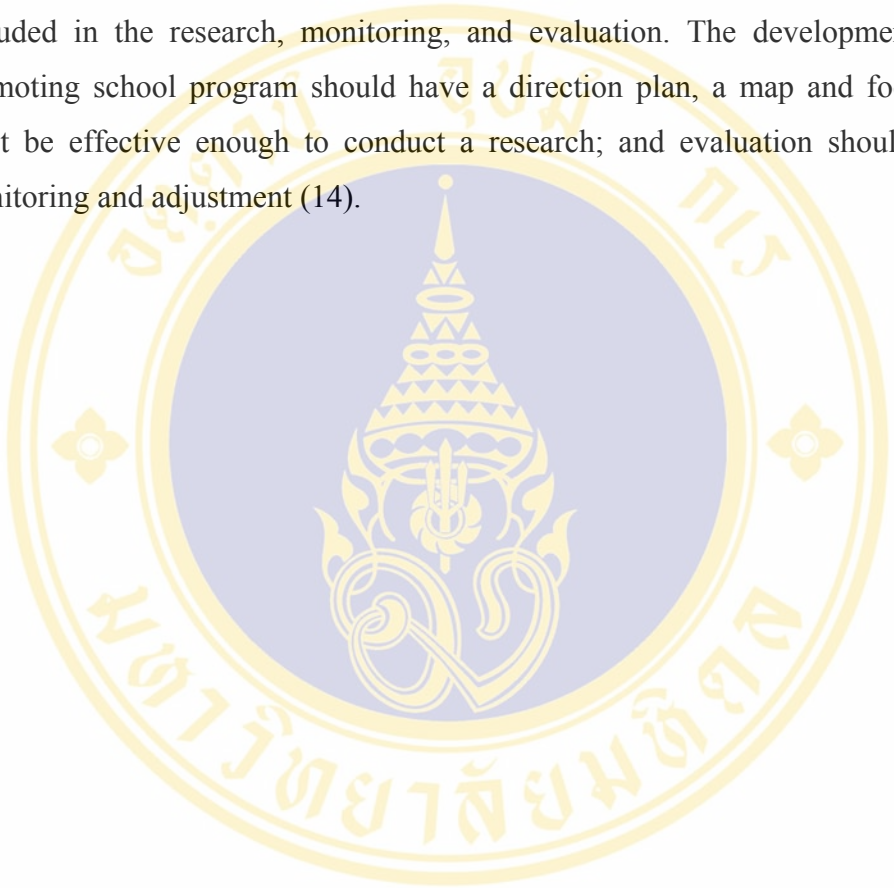
The advocacy is to give information to public in order to raise social awareness in health issues. Hence every relevant agency, including local organization and community, need to be advised about knowledge, theme principles of health promotion school program. The health promotion project information should also be publicized to people and they can recognize the value and apply in their own life.

The partnership and alliances are necessary to achieve of the health promotion school program implementations depend on the coordinate idea and cooperation among different social agencies from different levels-local, district, and provincial levels. This cooperation enables every agency to practice brain storming, and manage the complicated factors that obstruct development of the health promotion program in school.

The strengthening local capacity is the performance that establishes the potential in people, local organization, and school, who are interested in developing health promotion program in school. Though the district and provincial agencies recognize the project's value and plan, if the locality does have sufficient strength, it could be the barrier to the project development. Therefore, it is necessary to set the personnel development plan, and potential building plan for school and community. For example, the school and local community are able to from group, boards, and committees to assess the need of the locals and school in health promotion and resource ability.

The board also has responsibilities to evaluate the coordination, implementation, arrange activities, assess the progress, and summarize. The local government agencies provide support and technical assistance only if needed.

In addition, research, monitoring, and evaluation: agencies at all levels are included in the research, monitoring, and evaluation. The development of health promoting school program should have a direction plan, a map and focus point. It must be effective enough to conduct a research; and evaluation should be use in monitoring and adjustment (14).



CHAPTER III
RESEARCH METHODOLOGY

3.1 Study Design

This was a cross- sectional descriptive study, which was designed to study the performance of health center personnel on health promotion in primary school in Suphanburi province, Thailand.

3.2 Study Population

The target population was all the health center personnel who were responsible for health promotion in primary school during the fiscal year 2003 (1 October 2002-30 September 2003) and now currently working at health centers in Suphanburi province.

3.3 Sampling Technique

The health center personnel who have been working for health promotion school in primary school. Suphanburi province, from all 172 health centers are purposively selected as one health personnel per one health center included those 30 health center personnel who were involved in the pre-test out. So, remaining only 142 persons to be the study sample.

3.4 Pre-test of instrument

Content validity: The complete questionnaire was reviewed and evaluated by the thesis committee.

Reliability: The questionnaires were pre-tested with 30 health center personnel who had been working at Suphanburi province. The pre-test data were analyzed for reliability coefficients of knowledge and perception of health center personnel on health promotion in primary school. The results were analyzed for reliability of the

questionnaire. In part of knowledge by using KR-20 = 0.39 and perception part by using the alpha coefficient of Cronbach, was 0.4396 (details are in appendix B). After that, the questionnaire was revised.

3.5 Data Collection

The questionnaires were divided into 3 parts as follows:

Part I: Personal information of health center personnel

-Socio-demographic characteristics: sex, age, level of education, marital status, working as a government officer, working experience, position, having health promotion program during the last fiscal year, and workload.

-Supporting system: regarding to supervision, monitoring, evaluation, facilities (equipment, materials), and budget.

Part II: Knowledge and perception of health center personnel toward their performance in relation to health promotion in primary school.

Part III: The performance of health center personnel in relation to health promotion in primary school

The self-administered questionnaires were distributed to the health center personnel through the Provincial Health Office (PHO) and District Health Office (DHO), and the questionnaires were returned back to the Provincial Health Office.

3.6 Data Analysis

The questionnaire was made in English and then translated into Thai language. At the time of the data collection, all of the individual forms were examined and edited.

The processing and analyzing of data were done by using the Minitab program. The presentations of the statistical results of this study were divided into the following parts:

-Univariate analysis: Descriptive statistics using frequency, mean, standard deviation, median and percentage to describe the distribution of independent variables and the dependent variable.

-*Personal characteristics*, it had two parts:

1.Socio-demographic characteristics: sex, age group, educational level, marital status, position, working as government official, working on health promotion school program and having health promotion program in school from last fiscal year.

2.Supporting system: supervision, monitoring, and evaluation from TAO/PHO, facilities (material, equipment), and budget.

-*Psychosocial factors*: consisted of knowledge and perception of health center personnel toward performing health promotion in school were summarized and presented by each item.

-Bivariate analysis: using the Chi-square test to determine the significant relationship between the dependent and independent variables. The critical significance level of all statistical test was set at alpha = 0.05. This part demonstrated 3 kinds of relationships: 1) socio-demographic characteristics and performance, 2) supporting systems and performance, and 3) psychosocial factors and performance.

3.7 Grouping and coding of Scores

3.7.1 Knowledge score

For score of knowledge 1 score was given to a “correct” answer and 0 score was given to a “wrong” answer. Then the total score was calculated. In descriptive analysis, health center personnel’s knowledge level was divided into 3 groups based on Bloom’s cut-off points for knowledge (14) in which cut-off points were determined by 60% and 80% as of the full score. In this study 60% and 80% of the full score (12 scores) were 7.2 and 9.6, therefore the cut-off points were divided as follows:

High score of knowledge >80% of total scores (or score >9)
Moderate score of knowledge 60-80% of total scores (or score 7-9)
Low score of knowledge < 60% of total scores (or score <7)

3.7.2 Perception score

Perception of health center personnel expressed into each score of health promotion school activities. The score was given to each item as follow:

For positive questions	For negative questions
Agree =3 scores	Agree = 1 score
Not sure = 2 scores	Not sure = 2 scores
Disagree =1 score	Disagree = 3 scores

For descriptive analysis, health center personnel' perception was categorized by 60% and 80% of the full scores (48 scores). In this study 60% and 80% of the full mark were 28.8 and 38.4, therefore the cut-off points were divided as follows:

High perception >80% of total scores (or score >39)
Moderate perception 60-80% of total scores (or score 28-39)
Low perception < 60% of total scores (or score <28)

3.7.3 Performance score

For score of performance, 1 score was given to "Yes" answer and 0 score was given to "No" answer. Then the total score was calculated. In descriptive analysis, health center personnel's performance level was divided into 3 groups according to Bloom's scale as follows:

High: >80 % of total scores (or >13 scores)
Moderate: 60 % - 80 % of total scores (or 11-13 scores)
Low: , <60 % of total scores (<11 scores)

CHAPTER IV
RESULTS

This research aimed to study the performance of health center personnel on health promotion in primary school in Suphanburi province. The data was collected from 142 health center personnel who were responsible for health promotion in primary school and had been working in province by using a self-administered questionnaire.

The researcher carried out a pre-test to assess the reliability and validity of the research instrument prior to data collection. In this chapter, descriptive and inferential analyses are used to describe the health center personnel's socio-demographic factors and to find out the relationship between their role on health promotion school activities and independents factors.

The study results are presented into 5 parts as follows:

Part I: Distribution of socio-demographic characteristics of health center personnel

Part II: Supporting system from PHO/TAO

Part III: Distribution of knowledge and perception of health center personnel

Part IV: Distribution of performance of health center personnel

Part V: Relationship between the performance of health center personnel and socio-demographic characteristics, knowledge, and perception.

4.1 Distribution of socio-demographic characteristics of health center personnel

Table 2 presented the number and percentage of socio-demographic characteristics of respondents that included sex, age, education, marital status, year of working as government officer, year of working experience on health promotion school, position, having health promotion program during the last fiscal year, and workload.

Almost of the health center personnel were females (62.0%) and other (38.0%) were male. The age of the respondents ranged from 20 to 59 years old with mean age of 36.11 year and standard deviation of 6.90 years. The age distribution of the respondents showed that more than half of the respondents (52.8%) was concentrated in the age group 30 years and above. Above one fourth (28.9%) of the sample were in the age group from 40 to 59 years old. The ages group less than 29 years old only accounted for (18.3%) of the respondents.

The educational attainment of the respondents indicated that only a few (5.6%) of them had other backgrounds. The most of the respondents had Bachelor degree (62.0%) and (32.4%) were Diplomas.

Regarding marital status, the most of health center personnel were married (70.4%), followed by single and widowed/separated/divorced accounting for 22.5 percent and 7.1 percent respectively.

Less than half (45.8%) of health center personnel were working in their present job for 11 to 20 years, (27.5%) of the respondents were working for 6 to 10 years, while some (17.6%) of the respondents were working for 21 to 30 years, and only a few (9.1%) others working for less than 5 years. The mean duration of working as government officer was 14 years (SD=7.11) ranging from 1 up to 30 years.

The result also showed that most (65.5%) of the respondents were working experience on health promotion school for equal or more than 6 years and others (34.5%) working for less than 5 years.

The position distribution of the respondents showed that almost of health center personnel (69.7%) were public health technical officer, (25.4%) of health center personnel were public health administrators, and others positions, including technical nurse and registered nurse, accounted for only a few (4.9%). Moreover, more than half of the respondents (58.5%) had a program on health promotion school during the last fiscal year, but less than half (41.5%) did not.

Concerning the workload of health center personnel, it was found that most of them (69.0%) had been working from Monday to Friday. Nearly, one-third of the health center personnel (31.0%) had been working for whole the week. However more than half of the respondents (55.6%) had been working for one hour per day with health promotion school program, other two groups (17.6%) and (16.2%), were working for 2 and 4 hours per day respectively, and (10.6%) only working for 3 hours a day with health promotion school.

Each health center in Suphanburi province had one person responsible for health promotion activities in school and in charge of 1 to 4 primary schools. This research showed that the health center personnel who were responsible for one school were (27.5%), two schools were (38.7%), three schools were (23.2%), and four schools were (10.6%).

The result also showed that, the majority of health center personnel working overtime after 4 p.m. were (79.6%), and did not work overtime were some (20.4%).

Table 2: Number and percentage of respondents classified by socio-demographic characteristics

Socio-demographic Characteristics	Number N = 142	Percent
Sex		
Male	54	38.0
Female	88	62.0
Age groups (years)		
20-29	26	18.3
30-39	75	52.8
40-59	41	28.9
Mean=36.11, SD.=6.90, Min.=23, Max.=58		
Educational level		
Bachelor degree	88	62.0
Diploma	46	32.4
Others	8	5.6
Marital status		
Single	32	22.5
Married	100	70.4
Widowed/Separated/Divorced	10	7.1
Year of working as government officer (years)		
1-5	13	9.1
6-10	39	27.5
11-20	65	45.8
21-30	25	27.6
Median=14, Min.=1, Max.=30		
Working on health promotion school (years)		
1-5	49	34.5
≥6	93	65.5
Median = 6, Min.=1, Max. = 6		

Table 2: Number and percentage of respondents classified by socio-demographic characteristics (Cont)

Socio-demographic Characteristics	Number N = 142	Percent
Position		
Public health administrator	36	25.4
Public health technical officer	99	69.7
Technical nurse and Registered nurse	7	4.9
Program on HPS during last fiscal year		
Yes	83	58.5
No	59	41.5
Working day in a week		
Monday to Friday	98	69.0
Whole the week	44	31.0
Working hours on HPS/day (hours)		
1	79	55.6
2	25	17.6
3	15	10.6
4	23	16.2
Median=1, Min=1, Max.=4		
Number of responsible schools		
1	39	27.5
2	55	38.7
3	33	23.2
4	15	10.6
Median=2, Min.=1, Max.=4		
Working hours after 4 p.m.		
Yes	113	79.6
No	29	20.4

4.2 Supporting system

4.2.1 Supervising, monitoring, and evaluation from PHO, TAO

Concerning the supervising, monitoring and evaluation from Provincial Health Office, in table 3 the results showed that more than half (60.6%) of health center personnel did not have any health personnel from PHO who had gone to health center for supervising, monitoring and evaluation on health promotion school activities. Others (39.4%) of respondents reported that they were supervised by health official from PHO.

According to the time received supervision, monitoring, and evaluation the health personnel from PHO per year the result indicated that, nearly one thirds (30.3%) of health center personnel had received the supervision, monitoring, and evaluation from PHO only one time a year and others (9.1%) had received two times a year.

Moreover, the result also showed that nearly one-fourth (22.5%) of health center personnel were supervised, monitored, and evaluated by Tambon Administrative Officer, but more than three-fourth of the health center personnel (77.5%) had not received any person from TAO to supervise their activities.

Regarding the time that the health center personnel received supervision, monitoring, and evaluation the health officers from TAO to supervise their activities, the results indicated that most of them (77.5%) did not receive any supervisor from the Tambon Administrative Office. Only some (13.4%) of the respondents had received 1-9 times per year, and a few of them (9.1%) had received 10 times or more than 10 times per year.

Table 3 Number and percentage of respondents classified by supporting system

Supporting system	Number N = 142	Percent
.Supervising, monitoring, and evaluation from PHO		
Yes	59	39.4
No	82	60.6
Frequency per year		
No	86	60.6
1 time	43	30.3
2 times	13	9.0
.Supervising, monitoring, and evaluation from TAO		
Yes	32	22.5
No	110	77.5
Frequency per year		
Never	110	77.5
1-9 times	19	13.4
≥10 times	13	9.1
Median= 0, Min.= 0, Max.= 12		

4.2.2 Facilities: materials, equipment supported from PHO, TAO

For supporting system, in terms of facilities such as material, and equipment, half of health center personnel (52.1%) in province had received equipment, but nearly half of respondents (47.9%) did not receive anything.

4.2.3 Budget from PHO, TAO

Regarding budget, supported from Provincial Health Office/Tambon Administrative Office, one-fourth of health center personnel (26.1%) had received financial support, while most of respondents (73.9%) had not received any support.

Table 3 Number and percentage of respondents classified by supporting system (Cont)

Supporting system	Number N=142	Percent
Facilities: materials, equipment		
Yes	74	52.1
No	68	47.9
Budget		
Yes	37	26.1
No	105	73.9

4.3 Distribution of knowledge and perception of health center personnel on HPS

4.3.1 Knowledge of health center personnel on HPS

Table 4 showed the knowledge of health center personnel toward health promotion school. The knowledge scores of the respondents were summed up and after that categorized into three groups based on Bloom's scale, high (>80% of total scores) or score >9, moderate (60-80% of total scores) or score 7-9, and low knowledge (< 60% of total scores) or score <7. The majority of the respondents (80.3%) had moderate knowledge toward health promotion school.

Table 4 Number and percentage of health personnel classified by knowledge on health promotion school

Knowledge level	Number N = 142	Percent
High (10-12 scores)	12	8.4
Moderate (7-9 scores)	114	80.3
Low (1-6 scores)	16	11.3
Median = 8, Min.=3, Max.=11		

From data shown in table 5, it was found that most of health center personnel had correct answer in terms of management and activities toward health promotion in primary school such as; criteria to know whether the implementation of health promotion school project success or failure (92.2%), the activity that health center personnel have to do with the abnormal eyes of student (98.6%), schedule for hearing check up of student grade 1 (79.6%). Also most of them chose correct answer about their duty in front of student with lice problem (97.9%), schedule for Iodine survey for primary student (90.1%), kind of vaccination provided to student grade 1-6 (96.5%), and outcome of training health teacher to be a coordinator of health promotion school program. The results also indicated that, nearly half of the respondents (44.4%) had correct answer to destination to create the standard criteria for passing assessment health promotion school. However, one-third of health center personnel (33.1%) had correct answer in part of where the budget comes from for supporting health center in term of equipment and document for health promotion program. And only a few (18.3%) had correct answer about the schedule for primary school students have dental check up.

Table 5 Number and percentage of correct answers of knowledge on HPS activities of health center personnel

Items	Correct answer N = 142	
	Number	Percent
1 The job descriptions of health center personnel on health promotion in primary school	103	72.5
2 The standard criteria for passing the assessing health promotion school comes from	63	44.4
3 Budget given to health center for equipment, and document from	47	33.2
4 What kind of process to know whether the implementation of health promotion school success or do not success	131	92.2
5 Frequency for physical check up for kindergarten by health center personnel	97	68.3
6 Which activities the health center personnel have to do with the abnormal eyes	140	98.6
7 The activities of the health center personnel to hearing checkup for student grade 1	113	79.6
8 The activities of health center personnel to student with lice problem	139	97.9
9 Schedule for Iodine survey for primary school student	128	90.1
10 What kinds of vaccine are given for student grade 1-6	137	96.5
11 How often do the primary school student have dental check up by health center personnel	26	18.3
12 When health promotion in project school started, the health center personnel had to train health teacher three days.	127	89.4

4.3.2 Perception of health center personnel on HPS

According to the table 6, it was found that there were no health center personnel who had low perception scores toward health promotion school, therefore the perception levels were classified into 2 groups, high and moderate. Among 142 selected health center personnel, 92.3 percent of health center personnel had high perception level and only a few (7.7%) of them had moderate level.

Table 6 Number and percentage of health center personnel classified by perception toward health promotion school

Perception level	**Number N = 142**	**Percent**
High (39-48)	131	92.3
Moderate (36-38)	11	7.7
Median=44, Min.=36 Max.=48,		

As the data in table 7, majority of health center personnel had high perceptions and good understanding on both positive and negative questions. For the positive answers, most of health center personnel perceived that support and co-develop every school for being HPS was important for running program (95.1%), physical check up could help students check their hygiene by themselves (88.7%), preventive disease was necessary (95.1%), survey for iodine deficiency was important (95.8%). Almost of them agreed that survey for iron deficiency was good way for diagnostic (79.6%). Half of them perceived that give milk to children malnutrition was necessary (50.7%). The last for four positive questions most of them perceived that dental check up could identified the tooth problem (95.8%), to give counseling to students problem (88.7%), to promote physical exercise club (89.4%) and almost perceived that trained health teacher could help them to train students leaders (73.9%). Moreover, one of positive questions had only half of health center personnel (57.0%) perceived that health center facilities did not have enough budgets to support technical and document for health promotion school. In contrary of the positive

question, nearly one hundred percent of respondents had disagreed answer with the negative questions like “Support and co-develop every school is not necessary” (86.6%), “Supervise, follow up, and evaluation can not know whether the project success or not” (78.8%). Others two negative questions, the percentage of respondents were similarly, disagreed answers such as “For abnormal eye sight, do not support spectacle”, and “Lice problem, is not necessary to give any drug” (94.4%). For details showed in table 7.

Table 7 Percentage of the respondents towards HPS activities by perception

Items N = 142	Agree %	Not sure %	Disagree %
1 Support and co-develop every school, it is important for running project	95.1	3.5	1.4
2 Support and co-develop school it is not necessary for school pass assessment criteria.	9.9	3.5	86.6
3 The HC has enough budget to support technical and document for HPS activities.	15.9	27.5	57.0
4 Supervise, follow up, and evaluation can not help you whether the project success or not	10.6	10.6	78.8
5 Physical check up can help student check their hygiene by themselves	88.7	10.6	0.7
6 Do not necessary to support spectacle for student who have abnormal eyes sight	0.7	4.9	94.4
7 Provide treatment to student, have hearing problem is necessary to avoid earring disease	95.1	4.9	0.0
8 Lice problem is a normal disease, is not necessary to give any drug for treatment	2.1	3.5	94.4
9 Survey for iodine deficiency for student is important for making student healthy	95.8	2.8	1.4

Table 7 Percentage of respondents towards HPS activities by perception (Cont.)

Items N=142	Agree %	Not sure %	Disagree %
10 Give milk to the primary school have a malnutrition is necessary to prevent severe malnutrition	50.7	15.4	33.9
11 Survey from iron deficiency of student grade 1-6 is a good for preventive health students.	79.6	14.1	6.3
12 The vaccination giving to student grade 1-6 are very difficult to keep its cold chain	11.3	5.6	83.1
13 Dental check up for grade 1 can help you to identify students, have a tooth problem	95.77	2.1	2.11
14 THT to train health promotion student leaders, can reduce your work.	73.9	19.0	7.1
15 THT can help you to give counseling to student problem who have sexual risk behavior and drug addict.	88.7	9.9	1.4
16 THT can help you to promote physical exercise club and healthy Thai children program.	89.4	9.9	0.7

Remark:
THT= Trained Health Teacher

4.4 Distribution of performance of health center personnel toward on health promotion school

Table 8 showed that, nearly one hundred percent of health center personnel had performed to support and co develop school for being health promotion school (97.2%), for school passed assessment criteria (97.2%), and support for strategies and technical document (91.6%). Three-fourths of health center personnel had supervised,

followed up and evaluate an implementation of health promotion school (83.8%). Approximately one hundred percent of respondents had facilitated school for self-assessment (97.2%), and physical check up for kindergarten (99.3%). Only, a few more than one-third of respondents (38.7%) had performed to support spectacle for student grade 1-6 that has abnormal eyes sight one time per year. The majority (71.8%) of health center personnel had done for the hearing check up for grade 1 student.

Similarly, number of the respondents on two activities namely given drug to primary school children who have lice problem and problem solving for children who are overweight/malnutrition (83.8%). The performances of part of survey, such as iodine deficiency and iron deficiency anemia of student grade 1-6, the respondents were 97.9% and 65.5% respectively.

The result in this study also showed that, one hundred percent of health center personnel had performed the vaccination according to the standard requirement of Department of Preventive and Disease Control, and majority (86.6%) of the respondents reported for dental check up for student grade 1. Approximately, half of the health center personnel had performed three activities such as: trained health teacher, trained health promotion student (51.4%), give counseling to student (47.9%), and promote physical exercise club and healthy Thai children program (61.3%).

Table 8 Number and percentage of performance towards HPS activities of health center personnel

Items	Number N = 142	Percent
1 Support and co-develop every school for being health promotion school	138	97.2
2 Support and co-develop health promotion school to pass assessment criteria	138	97.2
3 Support for strategies and technical document	130	91.6
4 Supervise, follow up and evaluate an implementation of health promotion school	119	83.8
5 Facilitate school for self-assessment to pass health promotion school criteria	138	97.2
6 Physical check up for kindergarten to grade 4 one time per year	141	99.3
7 Support spectacle for student grade 1-6 who have abnormal eyes sight one time per year	55	38.7
8 Hearing check up once a year for grade 1 student using audiometer, if it found any hearing problem the treatment should provide.	102	71.8
9 Give drug to primary school children who have lice problem (after health teacher reporting)	119	83.8
10 Iodine deficiency survey for grade 1-6 student	139	97.9
11 Problem solving for primary school children who are overweight/malnutrition	119	63.8
12 Blood survey from iron deficiency anemia of student	93	65.5
13 Give vaccination to grade 1-6 student according to the standard requirements of Department of Preventive and Disease Control.	142	100.0

Table 8 Number and percentage of performance of health center personnel towards HPS activities (Cont.)

Items	Number N = 142	Percent
14 Dental checks up for student grade 1 one time per year and provide sealant to children who have tooth problem.	123	86.6
15 Train health teacher to train health promotion student leaders and youth leaders in health.	73	51.4
16 Train health teacher to give counseling to the student who are at risk sexual behavior and drug addict	68	47.9
17 Train health teacher to promote physical exercise club and healthy Thai children program .	87	61.3

Furthermore, when total scores of performance were categorized based on Bloom's scale, it was found that a few more than half of the respondents (52.8%) had a high performance in health promotion school activities.

Table 9 Level of performance of respondents on HPS activities

Level of performance	Number N=142	Percent
High (≥14scores)	75	52.8
Moderate (11-13 scores)	52	36.6
Low (≤ 10 scores)	15	10.6
Median=14, Min = 7, Max = 17		

4.5 Relationship between the performance of health center personnel and socio-demographic characteristics, knowledge, and perception, supporting system

4.5.1 Relationship between socio-demographic characteristics and the performance of health center personnel.

Table 10 presents the relationship between socio-demographic characteristics and the level of performance of health center personnel toward health promotion in primary school. It was found that only one of socio-demographic factor was significantly related with the performance of HCP toward on HPS (having health promotion program from last fiscal year, p value = 0.015). With regard to the having health promotion program from the last fiscal year, it was found that the health center personnel who had health promotion school program had a greater percentage of high performance (61.5%) compare to the other groups (40.68%).

However, there was no significant difference in the performance level of health center personnel on the basis of sex, age, educational levels, marital status, year of working on HPS, working year as a government officer, position, and workload day (p value >0.05). More details were demonstrated in table 10.

Table 10 The relationship between socio-demographic characteristics and level of performance of HCP toward health promotion school

Socio-demographic characteristics	Level of performance				χ^2 (df)	p -value
	High (N = 75)		Moderate (67)			
	Number	Percent	Number	Percent		
Sex						
Male	34	63.0	20	37.0	3.599	0.058
Female	41	46.6	47	53.4	(1)	
Age group in year						
20-30	16	61.5	10	38.5	0.975	0.614
31-40	38	50.7	37	49.3	(2)	
41-60	21	51.2	20	48.8		
Educational level						
Bachelor	46	52.3	42	47.7	0.079	0.961
Diploma	25	54.4	21	45.6	(2)	
Others	4	50.0	4	50.0		
Marital status						
Single	21	65.6	11	34.4	4.649	0.098
Married	47	47.0	53	53.0	(2)	
Wid./Div./Sep.	7	70.0	3	30.0		
Working year						
1-5	8	57.1	6	42.9	1.244	0.742
6-10	22	57.9	16	42.1	(3)	
11-20	29	47.5	32	52.5		
21-30	16	55.2	13	44.8		
Year of working on HPS						
1-5	27	55.5	22	44.5	0.157	0.692
≥6	48	51.6	45	48.4	(1)	

Table 10 The relationship between socio-demographic characteristics and level of performance of HCP toward health promotion school (Cont.)

Socio-demographic characteristics	Level of performance				χ^2 (df)	p-value
	High (N = 75)		Moderate (N = 67)			
	Number	Percent	Number	Percent		
Position						
PHA	16	4.4	20	55.6	1.468	0.480
TN & RN	4	50.0	4	50.0	(2)	
PHTO	55	56.1	43	43.9		
Having program						
Yes	51	61.5	32	38.5	**5.968**	**0.015**
No	24	40.7	35	59.3	(1)	
Workload day						
Mon. to Fri.	53	54.1	45	45.9	0.203	0.652
Whole the week	22	50.0	20	50.0	(1)	
Working hours on HPS a day						
1	44	55.7	35	44.3	4.258	0.235
2	9	36.0	16	64.0	(3)	
3	10	66.7	5	33.3		
4	12	52.2	11	47.8		

Significance at p value < 0.05

Table 10 The relationship between socio-demographic characteristics and level of performance of HCP toward health promotion school (Cont.)

Socio-demographic characteristics	Level of performance				χ^2 (df)	p-value
	High (N = 75)		Moderate (N = 67)			
	Number	Percent	Number	Percent		
No. of school for responsibility						
1	22	56.4	17	43.6	2.009	0.571
2	25	45.5	30	54.5	(3)	
3	19	57.6	14	42.4		
4	9	60.0	6	40.0		
Working after 4 p.m						
Yes	62	54.9	51	45.1	0.933	0.334
No	13	44.8	16	55.2	(1)	

4.5.2 Relationship between supporting system and levels of performance of respondents toward health promotion school

Table 11 below described the results of the statistical test for the relationship between supporting system and level of performance of health center personnel toward health promotion in primary school.

Concerning the supervising, monitoring, and evaluation of health official from Provincial Health Office, the result indicated that there was significantly related between supervising, monitoring, and evaluation from PHO with the performance level of the respondents (p-value =0.046). Among the high performance level, the proportion of the health center personnel those who had the supervising, monitoring and evaluation from PHO (62.7%) were higher than those who did not have (45.8%).

Regarding the frequency per year of the supervising, monitoring, and evaluation of health official from PHO, the result showed that there was no

significant relationship between supervising, monitoring, and evaluation from PHO with the performance of the respondents (p-value =0.085).

Moreover, there was no significant relationship between supervising, monitoring, and evaluation from TAO with the level performance of the respondents. The result also showed that, there was significant relationship between frequency per year of the supervising, monitoring, and evaluation from TAO and the level performance of the respondents, (p-value =0.049). Therefore, among the high performance level, the proportion of the health center personnel with 1 to 9 times per year supervising, monitoring and evaluation from TAO were higher than those who had more than 9 times and no time per year doing it. It might be the result of using mean, standard deviation as the cutting point of classification.

Table 11 also indicated that, there was no relationship between type of facilities such as equipment, materials from PHO/TAO and the performance level of health center personnel

Concerning the budget, there was significant relationship between budget and the performance of the respondents (p-value = 0.013). The proportion of the subject with high level of performance and received budget from Provincial Health Office and Tambon Administrative Office (70.3%) were higher than those who did not receive any support (46.7 %).

Table 11 The relationship between supporting system and level of performance of health center personnel

Supporting system	Level of performance				χ^2 (df)	p-value
	High (N = 75)		Low (N = 67)			
	Number	Percent	Number	Percent		
1.Supervising, monitor, evaluation						
-From PHO						
Yes	37	62.7	22	37.3	**3.966**	**0.046***
No	38	45.8	45	54.2	(1)	
Frequency/year						
No	39	45.3	47	54.7	4.932	0.085
1 time	28	65.1	15	34.9	(2)	
2 times	8	61.5	5	38.5		
-From TAO						
Yes	21	65.6	11	34.4	2.719	0.099
No	54	49.1	56	50.9	(1)	
Frequency/year						
Never	54	49.1	56	50.9	**6.050**	**0.049***
1-9 times	15	78.9	4	21.1	(2)	
.≥10 times	6	46.1	7	53.9		
2.Facilities						
Yes	44	59.5	30	40.5	2.736	0.098
No	31	45.6	37	54.4	(1)	
3.Budget						
Yes	26	70.3	11	29.7	**6.116**	**0.013***
No	49	46.7	56	53.3	(1)	

* Significance at p-value <0.05

4.5.3 Relationship between level of knowledge, perception and level of performance of respondents toward health promotion school

Table 12 shows the relationship between the performance level of health center personnel on health promotion in primary school and their knowledge's towards HPS. It was found that the knowledge of health center personnel was not significantly related with their performance level in health promotion school.

Regarding to the relationship between the level performance of health center personnel on health promotion in primary school and their perception's toward health promotion school. From the result, it was found that the perception of health center personnel was no significant relationship with their level performance in health promotion school.

Table 12 The relationship between level of performance and psychosocial factors of the respondents toward health promotion school

Psychosocial factors	Level of performance				χ^2 (df)	p value
	High (N= 75)		Moderate (N = 67)			
	Number	Percent	Number	Percent		
Knowledge						
High	6	50.0	6	50.0	0.679	0.712
Moderate	62	54.4	52	45.6	(2)	
Low	7	43.8	9	56.2		
Perception						
High	71	54.2	60	45.8	1,295	0.255
Moderate	4	36.4	7	63.6	(1)	

CHAPTER V
DISCUSSION

This study was based on the primary data collection from health center personnel who had been working on health promotion in primary school program in Suphanburi province. The main objective of the study was to identify the performance of health center personnel based on their tasks assigned for the health promotion program. The socio-demographic characteristics, psychosocial characteristics, and performance of health center personnel on health promotion in primary school were studies both descriptive and analytic results of the interesting variables were presented and discussed as follows:

5.1 Performance of health center personnel on health promotion in school

Regarding to the performance of health center personnel on health promotion in primary school, it was demonstrated that more than half (52.8%) of the respondents had a high performance. One-third of them had a moderate performance, and only a few (10.6%) had low performance.

Among of seventeen items of health promotion in primary school activities. The health center personnel had high performing more than three-fourth of items, and one fourth of items had low performing. It may be happened from some training activities as trained teacher to train health promotion student (51.4%), to give counseling to student with risky sexual behaviors an drug addict (47.9%), to promote physical exercise club (61.3 %) and support spectacle for student with abnormal eyes sight (38.7%). It also due to the frequencies of training activities was too seldom (only 3 days when the health promoting school started). About supporting spectacle for student with abnormal eyes sigh, the health center personnel just did it after reporting from health teacher. May be the abnormal eyes sight among the primary students were not sever problem in Suphanburi, that was reason why they had low performance on it.

5.2 Relationship between socio-demographic factors and performance

In this study, it was found that more than half of the respondents were female (62.0%). This result was in contrary to Joko Sapto Pramono(6) who found that more than half of health center personnel were males. However, there was no significant relationship between sex and performance. This study confirmed the study of Publio, who found that sex was not a significant factor in determined performance (18). In addition, the study result as shown in table 10 pointed out the distribution of high performance among males was higher than among females. May be the females respondents had many responsibility for their family, the health situation not better than males.

Concerning the age of the respondents, the result also indicated that median of health center personnel was 36 years old, and there was no significant relationship between performance of health center personnel and age group and those in the younger age group had a high performance than the older age group. However, some studies, having supporting result such as the study of Sulaiman Ratman in 1991(16) and the study of Khin Myitzu Han (17) who did not find any significant relationship between age and the performance of health center personnel.

In term of educational level, the result showed that there was no significantly related between educational levels and performance with p-value = 0.961. Moreover, it was revealed that those who had diploma tended to have a high performance than those who was bachelor degree or others degree At first, someone may accept the theoretical analysis that health center personnel with high education will be able to perform their job better. In fact, literacy is not an essential skill for HCP because capable workers have been trained from every educational level (20). It was observed that person with only a few year of schooling often makes more reliable and more community strengthening health workers than those who have had more formal education (22). There were many previous studies such as Publio V. and Henryandi.which they did not find any relationship between educational level and

performance (18-19). These studies indicated that education could not be proved as a factor related with performance.

Concerning marital status, the result also indicated that most of the health center personnel were married, but had low performance than those who were separated/divorced/widowed and single. Moreover, there was no significant relationship between marital status and performance. This may be the separated/divorced/widowed and single groups have least interest in other activities domestic responsibilities and spend more time with their work and office.

In this study, duration of working as health center personnel was no significant relationship with the performance of health center personnel on health promotion school. Similarly, V. Havaree, V & Chaoniyom (21), study indicated that there was no significant relationship between duration of working as health center personnel and the performance of HCP. The result in this study also showed that two-thirds of total respondents (65.5%) had working more than 6 years, but had level of high of performance (51.6%) lower than those who had been working on health promotion school less than 6 years (55.5%). Year of working seem to be independent of interest in their working and performance. It looks not necessary that one can work for year and year and can have better performance.

The result showed that the proportion of level of performance (57.9%) was higher among health center personnel who had been working during less than 10 years compared to those working more than 10 years (47.5%). But concerning the health center personnel who had been working more than 20 years, the proportion of level of performance was increasing (55.2%) compared to those who had been working between 10 to 20 years. This result might be due to the HCP, those who had been working hard they had the experience to perform their tasks and know how to perform effectively while the health center personnel those who had less experience or just be responsible for health promotion school. They did not know very well about performing their works.

Regarding to the position of health center personnel, the result showed that most of the respondents were public health technical officers with high proportion (56.1%) of the high performance level compared to those who had others position (public health officer, technical nurse, and registered nurse). Therefore, in this study there was no significant relationship between position and health center personnel performance.

On the other hand, more than half of the total respondents (58.5%) had a health promotion programs in the last fiscal year, and had high proportion (61.5%) level of performance than those who did not have (40.7%) programs. In addition, there was significantly related between having programs in the last fiscal year and the performance of health center personnel (p-value = 0.015). This might be due to the effects of program from the last year that provided result in high performance.

Regarding working days in a week, two-thirds of the total respondents had been working from Monday to Friday, but the proportion (54.1%) of high level of performance was quite similarly compared to those who works for the whole week (50.0%). Moreover, there was no significant relationship between workload and the health center personnel performance. More than half of the respondents (55.6%) spent one hour per day for working on health promotion school, and others spent equal or more than two hours per day.

Contrary to the above result, this study showed that for those who spent more than one hour per day for working on HPS had high proportion level of performance than those who spent only one hour per day. It can be explained by the fact that the health center personnel who spent more time to work is always result in high performance

Regarding the number of school for responsibility is different from health center to other not having health center coverage. One-third of the respondents were covering two schools, and others responsible for one, three, and four schools, depending on the health center, were covered. Similarly, the allocated time to work

for HPS, the result indicated that the health center personnel who were responsible for more schools, they had high proportion level of performance compared to those who were working for only one school. However, most of health centers personnel (79.6%) working hours after 4 p.m. to finish their tasks. So, the health center personnel may felt as overwork.

This study revealed that there was no significant relationship between working days in a week and performance of health center personnel. Similar results with the previous study done by Nguyen Thu Huong (22). The researcher could not find any significant relationship between workload and performance of VHWs.

5.3 Relationship between supporting system and performance

In this study, source of supporting system for the health center personnel on health promotion school activities were regarded as supervising, monitoring, evaluation, facilities (equipment, materials), and budget come from PHO/TAO.

Concerning the supervising, monitoring, and evaluation from PHO, less than half of respondents had received the health official to supervise their activities. The common frequency of supervision was less than two times a year. One-fifths of total health center personnel (30.3%) were supervised one time a year, in which only 9.1 percent of the respondents received supervision two times per year. The study of Heryandy revealed that those who are supervised by health personnel less than 6 times are more likely to be display a low level of activity (19). Previous studies in Thailand also indicated that the decrease in frequency of supervision contributed to the decreasing of the moral and motivation of these workers. This situation may be due to the fact that those selected, as supervisors were physicians, who were too busy to do actual field visits.

Contrary to the above, the supervising, monitoring, and evaluation from TAO was different. Only 22.5 percents of the total respondents had received the health officer to supervise their activities. These included 13.4 percent received supervision

1-11times per year, and 9.1 percent equal or more than twelve times per year. Therefore, the health officer from TAO has enough time to supervise the health center personnel activities more than time of Provincial Health Office.

The result also showed that, there was significant relationship between the supervising, monitoring, and evaluation from PHO and health center personnel performance level with p-value = 0.046, but could not find any significant relationship between the supervising, monitoring, and evaluation from TAO, and level of performance.

Another kind of the supporting system was facilities, in term of equipment and material that the health center personnel received from PHO/TAO. The result indicated that, more than half (52.1%) of the total respondents had received it, others of respondents did not receive anything. Moreover, those who had received supplies from PHO/TAO had high proportion of level of performance compared to those who did not receive. There was no significant relationship between facilities and level of performance. Normally, for the health center personnel who got supplied for health promotion school programs were always have good performing in their tasks.

Budget was one of the most important things under the supporting system in this study. Two-thirds of respondents (73.9%) did not receive any budget from PHO/TAO, only one-fourth of them had received the budget. The result showed that, for those who had received the money from PHO/TAO had high proportion level of performance compared to those who did not any receive. This study also indicated that, there was significant relationship between budget and the performance of health center personnel with p –value = 0.013.

5.4 Relationship between psychosocial factors and performance

5.4.1 Knowledge of health center personnel

Regarding the level of knowledge, more than half, (54.4%) and half (50.0%) of the respondents fell in the category of moderate and high knowledge,

respectively. From the result of this study, it was shown that knowledge toward health promotion school of health center personnel was not significant relationship with their performance.

This finding agreed favorably with the study of Thanapiwathanagul, N (22), which revealed that knowledge of VHVs, was not related with performance of VHVs in CPHCC. Similarly, study by Boonlert Tiewsuwan, the result shown that there was not significant relationship between knowledge toward PHC and CPHCC of VHVs and their performance (24).

In contrary, the studies of Kumnerdkarn, K (25), Rahman M. (26) and Soongkhang, I. (27) indicated that knowledge of VHVs had significant relationship with their performance.

Moreover, among twelve items of knowledge there are three questions that most of them could not answer correctly such as which level developed the standard criteria for evaluation health promotion school, the level of budget come from to support health center for equipment and document of health promotion school program, and the schedule for primary school student have dental check up. This may be the health center personnel were busy in their works, not concentrated to these points, due to 62.0 percent of health center personnel was bachelor degree.

5.4.2 Perception of health center personnel

Concerning the perception of the respondent the majority of them had high perception toward performing the health promotion school. In this study also could not find the low level of perception.

Most of health center personnel perceived that, they have to coordinate and support health promotion school programs project. In fact not only the health center personnel, but also it should be implemented in collaboration with health related personnel such as a physician, health educator, counselor, personnel responsible for providing school lunch, physical, education teacher, teacher responsible for physical environmental in schools, psychologist and other personnel who is involve in school

health programs in the community (3). Good coordination and active participation among these personnel will strengthen sustainable health promotion implementation.

More than half of the respondents (57.1%) perceived that the health center did not have any budget to support health promotion school programs.

There was no significant relationship between perception and performance of health center personnel.

CHAPTER VI
CONCLUSION AND RECOMMENDATION

The study was a cross sectional descriptive one aimed to study the roles of health center personnel toward the health promotion in primary school in Suphanburi Province, Thailand. The study was conducted to assess the performance of health center personnel on health promotion school and socio-demographic factors, psychosocial factors in terms of knowledge and perception toward health promotion school, and supporting system in terms of facilities, and budget.

The study was carried out in Suphanburi Province during the period of January 10th to February 5th, 2004. One hundred and fourthy two self-administered questionnaires were mailed to 142 health center personnel who were responsible for health promotion school, and had been working in health centers in the province. The questionnaire comprised of the following parts:

-The personal information consisted of socio-demographic characteristics and supporting system.

- The knowledge and perception of health center personnel toward their role in relation to health promotion in primary school.

- The performance of health center personnel in relation to health promotion in primary school. The data were analyze by using Minitab program with number, percentage, mean, median, standard deviation, minimum, maximum, and Chi-square test with the significance level set at 0.05. The results of this study were summarized as follows:

6.1 Conclusion

6.1.1 General characteristics of health center personnel

The result of this study indicated that, the majority of respondents were married, the females more than male, their average age was 36.11 years and more than half of them were within the age group of 30-39 years. The youngest were 23

years old and the oldest were 58 years old. The education of about more than half of the total respondents was a bachelor degree, and one-third of them was a diploma. The average working year, as government officer was 14 years with a few percent of them had having a working duration of less than 5 years. The shortest working was 1 year while the longest was 30 years. More than half of respondents working on health promotion school more than 6 years.

Regarding the position of health center personnel more than two-third of them were public health technical officers, with more than half (58.5%) of respondents had a programs on health promotion school during the last fiscal year.

Concerning the working day in a week, only one-third (31.0%) of respondents working for the whole week and 55.6 percent of health center personnel spent 1 hour a day for working on HPS. The average of number of school that health center personnel responsible for was 2 schools, the maximum was 4 schools which only 10.6 percent of respondents were responsible for. The result also showed that most of the health center personnel (79.6%) were working after 4 p.m.

Regarding to the supporting system in terms of supervising, monitoring, and evaluation from PHO/TAO. The result indicated that the time frequency per year of the supervision of health official from TAO was higher than PHO. For the PHO the highest number of supervision was 2 times per year, but for the TAO the highest number of supervision was more than 10 times a year.

Another supporting system was facilities such as material, equipment, half of health center personnel in the province had received, nearly half of them did not receive anything. In terms of budget from the PHO/TAO, most of the respondents did not receive, only one-fourth of them had received.

Only few of the health center personnel had high (8.4%) and low knowledge (11.3) toward health promotion school activities, but most of the respondents (80.3%) had moderate knowledge. For the perception, more than half of

health center personnel had a high perception and 36.4 percent had a moderate perception.

The result also showed that, more than half of the respondents had a high performance toward health promotion school activities.

6.1.2 Factors affected performance of health center personnel on HPS

The result of this study indicated that, among the health center personnels' socio demographic characteristics, only the having programs from the fiscal year, supporting system in terms of supervising, monitoring and evaluation from the PHO and from the TAO, and budget were significant relationship with their performance in health promotion in primary school. While other factors such as sex, age group, educational level, marital status, working year as government official, working year on HPS, position, and workload day were no significant relationship with the performance of health center personnel.

There was no significant relationship between knowledge toward HPS and the performance of health center personnel on health promotion in primary school.

It was found that perception toward health promotion school no significant relationship with the performance of health center personnel on health promotion in primary school.

6.2 Recommendation

As the study indicated that the performance of health center personnel in general was not so high as expected and some selected factors, including socio demographic characteristics, and psychosocial factors were not significant factors related to performance. Based on the finding of the study and the issues mentioned above, the suggested recommendations are as follows:

6.2.1 Recommendation for implementation

1. By observation, the result shown that among the factors were significant with performance all most related to the mental support of health center personnel such as having programs from the last fiscal year, supervision from high level, budget for supporting health promotion in school. Therefore, these activities should be continued in order to strengthen sustainable health promotion implementation.

2. Regarding to the supervision, monitoring, evaluation should be supported and performed regularly and throughout the province by the health officer of TAO/PHO to improve health center personnel's performance.

3. In relating to the working day a week, most of health center personnel had been working after 4 p.m. to finish their tasks. This should be the Provincial Health Office made a plan to take turns some health personnel from other hospital or other health center to help them working. On the other hand, it should delegate some job to the Village Health Volunteer if possible in order to manage human resource in the province.

4. Based on the research finding the knowledge and performance of health center personnel are not so high, the Provincial Health Office's policy should be provided continuous training for them by concentrating on HPS activities in order to improve their knowledge with high performance.

5. From the result of this study budget is the one thing that related with the performance of health center personnel towards HPS activities The Provincial Health Office should be supported to all health center throughout the province.

6.2.2 Recommendation for further research

1. The study was carried out in a small sample size, so that the result was limited. Therefore, it will be suggested studying the same objectives with this study but large in sample size. Moreover, it should be added more variables into the

conceptual framework in order to find out other factors that are related with the performance of health center personnel.

2. For next research, should also study the satisfaction of health center personnel which so many studies found to be significant related to the performance of individual.

3. Methods of data collections were based on self-administered questionnaires from health center personnel, which were not sufficient to reflect the true performance of these personnel. It needs more qualitative approach. I.e. participating observation to see the real picture of performance or asking other people who involve in the health promotion school instead of asking the health personnel. I.e. The school teacher, VHV, those personnel from the TAO, DHO, and PHO.

REFERENCES

1. Poland BD, Green LW, Roootman I, editors. Setting for Health Promotion: linking theory and practice. Thousand Oaks, Calif.: Sage; 2000.
2. Nuahanon N. The application of school health promotion model on nutrition promotion in primary school students of department of education Bangkok Metropolitan [M.Sc. Thesis in Public Health]. Bangkok: Faculty of Graduate Studies, Mahidol University, 2003.
3. School Health Program in Thailand: Helping hands for generations, a country paper, prepared for the inter-country consultation on Health Promoting School 2-5 December 1997, Bangkok, Thailand. Unpublished manuscritp.
4. Thailand. Ministry of Public Health. Thailand Health Profile 1999-2000. Nonthaburi: The Ministry; 2002.
5. Wongpiromsarn Y. Health care reforms and health development plans in Thailand. Nonthaburi: Bureau of Health Policy and Planning; 2002.
6. Pramono JS . Roles of health center personnel in primary health care of Suphanburi province, Thailand [M.P.H.M. Thesis in Primary Health Care Management]. Nakhorn Pathom: Faculty of Graduate Studies, Mahidol University; 2000.
7. Sophanburi Province Health Profile 2001. Sophanburi: Sophanburi Provincal Health Office; 2001.
8. Boonradom R . Health promoting behavior of personnel for health promotion programs under the Chantaburi Provincial Primary Education, [M.Sc.Thesis in Public Health]. Bangkok: Faculty of Graduate Studies, Mahidol University 2001.
9. Moullin M. Delivering excellence in health and social care: quality excellence and performance measurement. Phila Delphia: Open University Press; 2002.
10. World Health Oranization. Reginonal Office for Europe. Ottawa charter for health promotion: First International Conference on Health promotion. Ottawa, Canada 17-21 November 1986. [Online]. 1997. Available from: http://www.who.dk/policy/ottawa.htm [Accessed 200 Apr 17].

11. Thailand. Ministry of Public Health, Ministry of Education. Standard criteria for assessment of health promoting school: primary school level, (Educational level, 1-2). Bangkok: The Ministry; n.d.

12. Tamaki H. Women's role in household sanitation management at blue light cluster in areas of health center no, 54, Bangkok Metropolitan administration [M.P.H.M. Thesis in Primary Health Care Management]. Nakhon Pathom: Faculty of Graduate Studies, Mahidol University; 1999.

13. Broom L, Philip S. Sociology. 5th ed. New York: Harper & Row; 1973.

14. World Health Organization. Regional Office for South-East Asia. Towards Health Promoting Schools. New Delhi: The Organization; 1998.

15. Bloom BS. Taxonomy education. New York: David Mckay; 1975.

16. Ratman S. Factors influencing job satisfaction of health center personnel towards supervision of the VHCs and VHVs in Ratchaburi province, Thailand. [M.P.H.M. Thesis in Primary Health Care Management]. Bangkok: Faculty of Graduate Studies, Mahidol University;1991.

17 Khin MH. Contribution of village funds of village health volunteer performance, in Sripachan district, Suphanburi province, Thailand. [M.P.H.M. Thesis in Primary Health Care Management]. Bangkok: Faculty of Graduate Studies, Mahidol University; 1991.

18. Publio V, Piedad JR. Factors affecting performance of VHVs in the promotion of nutrition programs. A study in Suphanburi province [M.P.H.M. Thesis in Primary Health Care Management]. Nakhorn Pathom: Faculty of Graduate Studies, Mahidol University;1993.

19. Henryandi. Factors infuencing the activeness level of Villages Health Communicators in Nakhorn Pathom Province[M.P.H.M. Thesis in Primary Health Care Management]. Nakhorn Pathom: Faculty of Graduate Studies, Mahidol University; 1992.

20. Werner D, Bower B. Helping health workers learn. Palo Alto: Hesperian Foundation, 1982.

21. Havaree V, Chaoniyom V. Factors Affecting Performance at CPHCC in Singburi Province. Singburi : Singburi Provincial Health Office; 1997.

22. Nguyen Thu Huong. Performance of village health workers in the chil manutrition control program in Thai Binh Province, Vietnam [M.P.H.M. Thesis in Primary Health Care Management]. Nakhorn Pathom: Faculty of Graduate Studies, Mahidol University; 2001.

23. Thanapiwathanagul N. Job performance assessment of VHVs in CPHCC in anthong province [M.Sc. Thesis in Public Health]. Nakhon Pathom: Faculty of Graduate Studies, Mahidol Universirty; 1999.

24. Tiewssuwan B. Performance effectiveness of village health volunteers in community primary health care centers in Petchaboon Province, Thailand [M.P.H.M. Thesis in Primary Health Care Management]. Nakhorn Pathom: Faculty of Graduate Studies, Mahidol University; 2002.

25. Kumnedkarn K. Factors affecting on village health volunteers performance to achieve health for All in Prachub Khirikhan province. Prachub Khirikhan : Prachub Khirikhan Provincial Health Office; 1998.

26. Rahman M. Knowledge, attitude and prctice of village health workers in nutritional surveillance [M.P.H.M. Thesis in Primary Health Care Management]. Nakhorn Pathom: Faculty of Graduate Studies, Mahidol University; 1988.

27. Soongkhang I. Determining Factors of the effectiveness of community primary health care centers (CPHCC) Nongbualumphu Province, Thailand [M.P.H.M. Thesis in Primary Health Care Management].Nakhorn Pathom: Faculty of Graduate Studies, Mahidol University; 1996.

APPENDIX

APPENDIX A

QUESTIONNAIRES

PERFORMANCE OF HEALTH CENTER PERSONNEL ON HEALTH PROMTION IN PRIMARY SCHOOL IN SUPHANBURI PROVINCE

Please put the mark [✓] into the correct bracket and fill in the blank space with the required information about yourself.

Health center …….. Sub-district…….

District……. Suphanburi Province

Date……../……./……..

PART.I : Personal Information of Health Center Personnel

A/ Socio-demographic characteristics

1. Sex:

   [ ]1-Male [ ]2-Female

2. Age……years old

3. What is your highest education background?

   [ ]1-Bachelor degree

   [ ]2-Diploma

   [ ]3-Others (specify).

4. What is your marital status?

   [ ]1-Single

   [ ]2-Married

   [ ]3-Widowed / Divorced/ Separated

5. How long have you been working as a government officer?……years

6. How long have you been working on health promotion school?……. years

7. What is your present position?

   [ ]1- Public health administrator

   [ ]2- Technical nurse

   [ ]3- Public health technical officer

   [ ]4- Registered nurse

[ ]5-Others (specify)…….

8. During the last fiscal year (October1, 2002-September 30, 2003), did you have any program on health promotion school?

[ ]1-Yes

[ ]2-No (skip to question number 9)

9. Workload

-How many days a week do you usually work?

[ ]1- Monday up to Friday

[ ] 2-Whole week

-How many hours a day do you usually work for health promotion school?……..hours

-How many number of primary school did you responsible for?…….....schools.

-After 4 pm, do you usually have to work?

[ ]1-Yes ……..hours

[ ]2-No

B/ Supporting system

1. Supporting, Monitoring, and Evaluation from PHO, TAO

10. Is there any official person come from Provincial Health Office to support, monitor and evaluate your health promotion school activities?

[ ]1- Yes (specify)……

[ ]2- No (skip to question number 12)

11. If yes how many times per month or per year?

…….time(s) per month

…….time(s) per year

12. Is there any official person come from Tambon Administrative Office to support, monitor and evaluate your health promotion school activities?

[ ]1- Yes (specify)……..

[ ]2- No (skip to question number 15)

13. If yes, how many times per month or per year?

…….time(s) per month

…….time(s) per year

2. Facilities: Equipment, Materials

14. Did you received any equipment or materials from PHO/TAO for supporting health promotion school activities?

[ ]1- Yes (specify)……..

[ ]2- No

3. Budget

15. Did you received some budget from PHO/TAO?

[ ]1- Yes (specify)…… Baht per year

[ ]2- No (skip to question number 16)

16. What kind of health promotion school activities did you spend on this budget?

Please specify…….

……

……

……

PART II THE PSYCHO-SOCIAL CHARACTERISTICS OF HEALTH CENTER PERSONNEL ON HEALTH PROMOTION IN PRIMARY SCHOOL

Knowledge on health promotion school activities

Please mark [√] corresponds to the most corrected answer in each question.

17. The job descriptions of health center personnel on health promotion in primary school are:
    [ ] 1. Support and co-develop health promotion in school
    [ ] 2. Support and co-develop health promotion in school, medical check up, vaccinate, survey, and train student
    [ ] 3. Support and co-develop health promotion in school, medical checkup, vaccinate, survey, train health teacher, and co-ordinate with health teacher to medical check-up and train health promotion for student health volunteers
18. The standard criteria for passing the assessing health promotion school comes from:
    [ ] 1. Provincial Health Office
    [ ] 2. Department of Health of Ministry of Public Health
    [ ] 3. Bureau of Health Promotion of Ministry of Public Health
19. Budget given to health center for equipment, and document from:
    [ ] 1. Tambon Administer Office
    [ ] 2. Provincial Health Office
    [ ] 3. Ministry of public Health
20. What kind of process to know whether the implementation of health promotion school success or do not success?
    [ ] 1. Supervise
    [ ] 2. Follow up and Evaluation
    [ ] 3. Supervise, Follow up and Evaluation
21. Frequency for physical check up for kindergarten by health center personnel are:
    [ ] 1. Three times per year
    [ ] 2. Two times per year [ ] 3. One time per year

22. Which activities the health center personnel have to do with the abnormal eyes sight of student grade 1-6 from health teacher' report?

[ ] 1. Recheck [ ] 2. Support spectacle

[ ] 3. Both a and b are corrected

23. The activities of the health center personnel to hearing checkup for student grade 1 are:

[ ] 1. Checking 1 time per year and treatment case

[ ] 2. Checking 2 times per year and treatment case

[ ] 3. Co-ordinate with health teacher

24. The activities of health center personnel to student with lice problem?

[ ] 1. Give drug [ ] 2. Counseling personal hygiene to the student

[ ] 3. Both a and b are corrected

25. Schedule for Iodine survey for primary school student is:

[ ] 1. One time per year [ ] 2. Two times per year

[ ] 3. Three times per year

26. What kinds of vaccine are given for student grade 1-6?

[ ] 1. Measles, Tuberculosis, Diphtheria

[ ] 2. Measles, Tuberculosis, Diphtheria, Tetanus

[ ] 3. Students grade 1-6 are not necessary to be given any vaccine

27. How often do the primary school student have dental check up by health center personnel?

[ ] 1. One time per year

[ ] 2. Two times per year

[ ] 3. Three times per year

28. When health promotion school project started, the health center personnel had to train health teacher three days aimed to:

[ ] 1. Teacher can train the health volunteer students to check up themselves

[ ] 2. Give counseling to the students who are in risk sexual behavior or drug addict and promote physical exercise club and healthy Thai children program

[ ] 3. All of the a and b are corrected.

Perception on health promotion school activities role, benefit, barrier.

Please answer each items freely according to your perception by checking [√] into the column of each item in the table below

Items	Agree	Not sure	Disagree
29-Support and co-develop every school for being health promotion school, it is important for running project			
30-Support and co-develop every school for having health promotion activities it is not necessary for school pass assessment criteria.			
31-The health center has enough budget to support technical and document for health promotion school activities			
32-Supervise, follow up, and evaluation can not help you whether the project success or do not success.			
33-Physical check up by using self health record can help kindergarten and student grade 5-6, check their hygiene by themselves			
34-Do not necessary to support spectacle for student who have abnormal eyes sight			
35- Provide treatment to student grade 1 who is a hearing problem is necessary to avoid earring disease			
36- Lice problem is a normal disease for primary school student so is not necessary to give any drug for treatment			
37- Survey for iodine deficiency for student grade 1-6 is important for making student healthy			

38- After health teacher reporting, give milk to the primary school student who is a malnutrition problem is necessary to prevent severe malnutrition.			
39- Survey from iron deficiency by checking blood of student grade 1-6 for diagnostic anemia is a good way for preventive health students.			
40-All kinds of the vaccination giving to student grade 1-6 are very difficult to keep its cold chain.			
41- Dental check up for students grade 1 can help you to identify students who have the tooth problem			
42-Train health teacher to train health promotion student leaders and youth leaders in health can reduce your work.			
43- Train health teacher can help you to give counseling to student problem who have sexual risk behavior and drug addict.			
44-Train health teacher can help you to promote physical exercise club and healthy Thai children program			

PART III: FOR THE PERFORMANCE OF HEALTH CENTER PERSONNEL ONHEALTH PROMOTION IN PRIMARY SCHOOL.

Please answer each items freely by checking [√] into the column of the table below which most closely match your opinion.

This performance is asked regarding the fiscal year 2003 (01October, 2002 to 30 September, 2003)

A/ SCHOOL HEALTH PROMOTION MANAGEMENT ACTIVITIES

No	Items	Performance	
		Yes	No
45	-Support and co-develop every school for being health promotion school		
46	-Support and co-develop health promotion school to be able pass assessment criteria		
47	-Support for strategies and technical document		
48	-Supervise, follow up and evaluate the implementation of health promotion school		
49	-Facilitate school for self-assessment to pass health promotion school criteria		

B/ SCHOOL HEALTH PROMOTION SERVICES ACTIVITIES

No	Items	Performance	
		Yes	No
50	-Physical check up for kindergarten to grade 4 for one time per year		
51	-Support spectacle for student grade 1-6 who have abnormal eye sight one time per year		
52	-Hearing check up once a year for grade 1 students using audiometer, if it found any hearing problem, the treatment should provided		
53	-Give drug to primary school children who have lice problem (after health teacher reporting)		
54	-Iodine deficiency survey for grade 1-6 student once a year		
55	-Problem solving for primary school students who are overweight and/or malnutrition.		
56	-Blood survey for iron deficiency anemia of students grade 1-6 once a year		
57	-Give vaccination to grade 1-6 students according to the standard requirements of Department of CDC		
58	-Dental checks up for grade 1 students one time per year, and provide sealant to children who have dental carries		
59	-Trained health teacher to train health promotion student leaders and youth leaders in health(one time per year)		
60	-Trained health teacher to give counseling to the students who are at risk for sexual behavior and drug addict (1 time a year)		
61	- Trained health teacher to establish physical exercise club in school and healthy Thai children program (1 time a year)		

APPENDIX B

RESULT OF PRE-TEST OF THE INSTRUMENT

Part 1: Knowledge

Kuder Richardson Test (KR20)

$$r = \frac{k}{k-1}\left[1 - \frac{\sum pq}{s_t^2}\right]$$

$$\sum pq = 0.93$$

$$s_t = 1.2$$

$$k = 12$$

$$r = \frac{12}{11}\left(1 - \frac{0.93}{1.44}\right) = 0.39$$

Part 2 Perception

RELIABILITY ANALYSIS-SCALE (ALPHA)

Part 2 Perception

RELIABILITY ANALYSIS-SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	Q30	2,9286	,3780	28,0
2.	Q32	1,7143	,8100	28,0
3.	Q33	2,8929	,4163	28,0
4.	Q34	2,5357	,7927	28,0
5.	Q35	2,6786	,6696	28,0
6.	Q36	2,9643	,1890	28,0
7.	Q37	2,9286	,3780	28,0
8.	Q39	2,7143	,7127	28,0
9.	Q40	2,8571	,4484	28,0
10.	Q41	2,8929	,3150	28,0
11.	Q43	2,9286	,2623	28,0
12.	Q31	3,0000	,0000	28,0
13.	Q38	3,0000	,0000	28,0
14.	Q42	3,0000	,0000	28,0
15.	Q44	3,0000	,0000	28,0
16.	Q45	3,0000	,0000	28,0

* * * Q31 has zero variance
* * * Q38 has zero variance
* * * Q42 has zero variance
* * * Q44 has zero variance
* * * Q45 has zero variance

Item Reliability (Alpha)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
Q30	27,1071	3,5066	,1159	,3627	,1727
Q32	28,3214	3,6336	-,1542	,3844	,3624
Q33	27,1429	3,5344	,0676	,4817	,1896
Q34	27,5000	3,0000	,0674	,3031	,1940
Q35	27,3571	2,8307	,2372	,6879	,0685
Q36	27,0714	3,8466	-,0928	,0600	,2247
Q37	27,1071	3,5066	,1159	,5092	,1727
Q39	27,3214	2,9669	,1379	,4266	,1387
Q40	27,1786	3,2632	,2156	,4724	,1225
Q41	27,1429	3,6825	,0263	,6981	,2043
Q43	27,1071	3,6548	,0897	,3594	,1882

Reliability Coefficients

N of case = 30

N of items =11

Alpha = .2045

After deleting question 32 and 36, the alpha value was .4396

BIOGRAPHY

NAME	Sam Sina
DATE OF BIRTH	November 6, 1963
PLACE OF BIRTH	Kampong Cham Province, Cambodia
INSTITUTION ATTENDED	Medical Assistant. Faculty of Medicine Phnom Penh, Cambodia 1982-1987.
	Medical Doctor Faculty of Medicine Phnom Penh, Cambodia. 1992-1996.
	Primary Health Care Management Chulalongkorn University, Thailand 1/1999-4/1999
	Pre-Master Course, Epidemiology, Khon Khan, University; 3/2000-4/2000
	Epidemiology, Preparedness of Disaster Catholic De Louvin University Belgium: 7/2000-1/2001
	Master of Primary Health Care Management, ASEAN Institute for Health Development, Mahidol University 2003-2004
FELLOWSHIP	Department of Technical and Economic Cooperation, Thailand and Japan International Co-operation Agency (DTEC/JICA)
POSITION AND OFFICE	Vice Chief of Continuing Education Bureau, Human Resource Development Department, Ministry of Health