PARTICIPATION OF VILLAGE HEALTH VOLUNTEERS ON HIV/AIDS PREVENTION AND CONTROL PROGRAMME IN WATTANA-NAKORN DISTRICT, SAKAEO PROVINCE, THAILAND

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ABSTRACT

A survey research design cross-sectional descriptive study was conducted at Wattana- Nakorn district (during the period of 25 January to 25 February 2006.) The aim was to identify participation of Village Health Volunteer on HIV/AIDS prevention and control programme. The study strived to identify and explain socio-demographic factors, psychosocial factors, and source of information of VHV, on HIV/AIDS prevention and control programmes.

Data were collected from 300 VHV using self administered questionnaires. Chi-Square tests were carried out to determine association between independent and dependent variables.

Results of this study revealed that nearly one half of respondents (42 percent) had poor participation in HIV/AIDS prevention and control activities; 30.33 percent had fair participation; and the rest 27.67 percent had good participation. However, significant association existed between perception concerning and participation ($p < 0.001$). In terms of information source, TV/Video, news paper, health magazine, health personnel, friend, and family member had also found significant association with the participation.

It is highly recommended that community participation in HIV/AIDS prevention and control and VHVs system should be continued and maintained. It is essential to provide refresher training courses and motivational supportive programmes to increase VHVs knowledge so that their participation can be increased. It is also necessary to overcome the existing situation of poor participation and encourage VHV's involvement in prevention and control of HIV/AIDS.

KEYWORDS: VHV/ PARTICIPATION/ HIV/AIDS/ PREVENTION/ CONTROL

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LIST OF ABBREVIATIONS

VHV		: Village Health Volunteer
HIV		: Human Immuno-deficiency Virus
AIDS		: Acquired Immuno Deficiency Syndrome
PHC	:	Primary Health Care
CPHCC	:	Community Primary Health Care Center
PLWHA	:	People Living with HIV/AIDS
WHO	:	World Health Organization
NGO	:	Non-governmental Organization
STI	:	Sexually Transmitted Infection
IDUs	:	Injection Drug Users
UNAIDS	:	United Nation Acquired Immune Deficiency Syndrome
HBM	:	Health Belief Model
TCDV	:	Technical Cooperation among Developing Village

CHAPTER 1
INTRODUCTION

1.1 Rationale and Justification

The first case of AIDS was reported in 1981 in USA. Since then, AIDS has become the most devastating and threatening disease of the human beings. More then 60 million people are already infected and about 40 million people are estimated to be living with HIV, among which 1/3 are aged between 15-24 years (1). According to World Health Organization the total number of people living with the human immunodeficiency virus (HIV) rose in 2004 to reach its highest level ever: an estimated 39.4 million [35.9 million-44.3 million] people are living with virus. This figure includes the 4.9 million [4.3 million-6.4million] people who acquired HIV in 2004. The global AIDS epidemic killed 3.1 million [2.8 million-3.5 million] people in the past year (2).

The number of people living with HIV has been rising in every region, compared with two years ago, with the steepest increases occurring in East Asia, and in Eastern Europe and central Asia. The number of people living with HIV in East Asia rose.

Sub-Saharan Africa remains by for the worst affected region, with 25.4 million [23.4 million-28.4 million] people living with HIV at the end of 2004, compared to 24.4 million [22.5 million27.3 million] in 2002. Just under two thirds (64%) of all people living with HIV are in sub-Saharan Africa, as are more than three quarters (76%) of all women living with HIV.

The epidemics in sub-Saharan Africa appear to be stabilizing generally, with HIV prevalence at around 7.4% for the entire region. But such a summary perspective

hides important aspects. First, roughly stable HIV prevalence means more or less equal numbers of people are being newly infected with HIV and are dying of AIDS.

The first case of HIV/AIDS in Nepal was diagnosed in 1988. The number of HIV infected persons was gradually increasing every year. The major mode of transmission was heterosexual. The available data show that there was High prevalence of HIV in high-risk group such as intravenous drug users and female sex workers. Currently, it was estimated that there are more than 60, 000 people living with HIV/AIDS in Nepal, with an estimated 3,000 deaths (2002) annually (3).

According to the report presented by CARE International (1992), the progress of the AIDS epidemic in Thailand can be described as a series of waves, based on the types of the people that were infected most. “The First wave” started with one single case of a homosexual man returning from the United States in 1984 and starting the spread of infection through the gay community .

“The second wave” saw an explosion of AIDS cases among the intravenous drug user in 1987. Following that; “the third wave” Swept through commercial sex workers, naturally leading “the fourth wave” when the spread of male customers’ infection was facilitated by the extensive commercial sex industry networks in 1988. This inevitable resulted in “the fifth wave”, which witnessed the entry of AIDS into the household, as a numerous infected male customers passed the virus to their wives (4).

Table 1 Estimated Total Population, and PLWHA (Thailand)

Estimated total population, July 2004 : 64,865,523
Estimated number of people living with HIV/AIDS, end 2003: 570,000
Adults (15-49): 560,000
Women (15-49): 200,000
Children (0-15) : 12,000
Estimated adult prevalence rate of HIV/AIDS, end 2003: 1.5%
Estimated number of AIDS deaths in 2003 : 58,000

Source **Thailand statistics** 25. Estimated total population, July **2004** (29).

Thailand has formally adopted PHC approach as the development of the nation wide program in 1979.According the PHC; the worker should be peoples within the community whose function and participation are voluntary. The potentials of human resources that exist in the community are fully recognized and being mobilized. In the fact, “grass root” PHC work force comprising the VHVs(Village Health Volunteer) who will promote rural health and other development efforts through organized community activities (4).

The VHVs are integral part of many national health systems. They are essential to national health system it all levels of development. VHVs are responsible for whole village and their functions are focused on health education (prevention and promotion) and dissemination of health information in the village. Also, they carryout curative aspect for management of simple accident or injuries as well as common diseases occurring in their own community.

In Thailand, the office of Primary Health Care has assigned HIV/AIDS as an element of PHC activities run by village health volunteers (VHVs) who serve as health agent in villages since 1985. There are 642,532 VHVs working in the 63,507 community Primary Health Care centers (CPHCCs) across the country, under the Tambon (sub district) and district health officers (5).

These VHVs have been trained in various aspect of health care, especially how to deal with local health problems. The main activities of VHVs are health and service information dissemination, and establishment of community funds such as drug cooperative funds, nutritional funds, and fund for community AIDS management etc.

Theoretically, Tambon health officers should regularly follow up and trained VHVs under a continuing education program on monthly basis. In practice, none of the VHVs has ever been trained again by any one after completing their first training course. This occurrence result wide gap of knowledge and skills of VHVs.

Generally, VHVs received no-monetary incentives as honor in return for their services such as serving as village health counselors. Some were recognized as community leaders / contributors with special awards from the Royal Thai Government. Such incentives made them proud of contribution and inspire themselves to work their people. Moreover they also gained other benefits from the government in the form of free medical care for themselves and their family members (Suwanavesh, 1995 and Krasae Chanawong 1994).To emphasize the team work and community involvement, the office of Primary Health Care had introduced the community Primary Health Care Center (CPHCC) approach since 1992.The center was the place where at least serves as a community health information center, supervised by Tambon health officers.

Theoretically, VHVs should be able to provide HIV/AIDS information to their people. Infect, they have some knowledge of HIV/AIDS but nothing about how to care patients and how to cope with them. A study of Mathee Chanjarupon (1996)

found that VHVs had the same level of knowledge about HIV/AIDS as their fellow villagers. Both groups got the knowledge from the mass media rather than from health officers. Lack of HIV/AIDS knowledge and skills for care of and counseling AIDS patients, along with patient's risk of discrimination from society, has limited VHVs' role in the community.

Although VHVs intended to help the patients and their family, they felt that lack the skills required to help such patients (Atipot, 1996). As a result, villagers do not come to consult VHVs but went to health officers who have better knowledge, because they were not sure about capability of VHVs (workshop on needs assessment by EC/AIDS, 1966). Therefore, this hard work has become the responsibility of hospitals, which definitely cannot cope, with all of the cases. Thus, family and community based program on AIDS patients is vary necessary on the basis of "good health at low cost" (Office of the Prime Minister, 1992 and AIDS working group of the national economic and social development board(1966) (6).

Being responsive to the AIDS situation, the office of Primary Health Care searched for a community preparation model in all community across the country to cope with AIDS epidemic (Office of the Primary Health care, 1993). There were 4 studies on the utilization of VHVs, community leaders, and youths, in AIDS prevention and control. These studies found that program for AIDS education and community involvements in AIDS management were quite effective in changing AIDS risk behaviors (7).

The 8th Five years National Health Development Plan (1997-2201) showed that objective for instance- "to ensure that people are knowledgeable in order to develop a positive attitude towards good health behaviors, both individual and collectively within the family". Control and Prevention of HIV/ AIDS was one of the targets to achieve the objectives of this plan. Target of the HIV/AIDS prevention and control program consist of 40% reduction of new HIV infected cases by (6)-reducing HIV infected conscripts to not exceeding 1%, Reduce HIV infected pregnant women of age less than 25 years to not exceeding 1%.

According to the target of the HIV/AIDS, prevention and control program participation of Village Health Volunteers have important roles to attain the objectives of National Health Development Plan. Village health volunteers act as a changing agent in the grass root level. Their participation in HIV/AIDS prevention and control program help to remove the stigma and discrimination about AIDS patient. Moreover, they help the AIDS patient to provide moral support, which enable them to lead a productive life. They play a positive role in changing the attitude of the people towards AIDS patient.

Still, there had not been any study on participation of VHV on HIV/AIDS prevention and control in Sakaeo province.

Aim of the study was to identify participation of Village health volunteer on HIV/AIDS prevention and control program in wattana-Nakorn district, Sakaeo province

Having discussed the Global situation and about HIV/AIDS and the important of the contribution of village health volunteers are very clear that involvement of VHV is a key factor in prevention of the next HIV epidemic in Thailand, therefore finding of this study would help policy makers and planners to empower the VHV activities in prevention and control HIV/AIDS.

Table 2 The AIDS Patient Ratio in Sakaeo Province (1:100000 population) Separated by District from 2002 to 2004

District	2002			2003			2004		
	No of Pt	Pop	Pt/100000 pop	No of Pt	Pop	Pt/100000 pop	No of Pt	Pop	Pt/100000 pop
Muang	30	83511	35.92	53	84092	63.01	55	84706	64.93
Khlong Had	10	34911	28.64	9	35395	25.43	6	35637	16.84
Taphaya	8	48697	16.43	19	49140	38.67	23	49337	46.62
Wang Namyan	5	52211	9.58	12	52744	22.75	18	52921	34.01
Wattana-Nakron	**30**	**73918**	**40.59**	**52**	**74370**	**56.47**	**46**	**74564**	**61.69**
Aranya Prathed	17	65172	26.08	28	65933	42.47	5	66510	7.52
Kaocha Krae	9	50693	17.75	11	50845	21.63	11	51089	21.53
Kok Soong	4	25431	15.73	9	25593	35.17	3	25662	11.69
Wang Somboon	3	35133	8.54	12	35333	39.91	16	35643	44.89
Total	116	469677	199.26	195	473495	339.53	183	476069	309.72

Source: Provincial Health Office, Sakaeo Province

1.2 Research Question

1. What is the participation of Village Health Volunteers on HIV/AIDS prevention and control program in Wattana-Nakorn District, Sakaeo Province?
2. What are the factors associated with the participation of Village Health volunteers on HIV/AIDS prevention and control program in Wattana-Nakorn District, Sakaeo Province?

1.3 Research Objective

1.3.1 General Objectives

To identify the participation of village health volunteers on HIV/AIDS prevention and control program in Wattana-Nakorn District of Sakaeo province.

1.3.2 Specific Objectives

1. To describe the participation of Village Health Volunteers on HIV/AIDS prevention and control program.
2. To describe the socio-demographic factors, psychosocial factors, and sources of information of Village Health Volunteers on HIV/AIDS prevention and control program.
3. To find association between participation of Village Health Volunteers on HIV/AIDS prevention and control program and socio-demographic factors, psychosocial factors, and sources of information..

1.4 Study Variables

1.4.1 Dependent Variable.

Participation of Village Health Volunteers on HIV/AIDS prevention and control program.

1.4.2 Independent Variables

1. Socio-demographic factors (Age, Sex, Marital status, Education, Occupation, and Income)
2. Psychosocial factors (On Knowledge, and Perception towards HIV/AIDS)
3. Sources of information (From media, From Person)

1.5 Operational Definitions of Studied Variables

Marital Status: In this study marital study is defined as single, married, divorce, separate or others.

Education: In this study, level of education is defined as Primary level, Secondary level, Vocational school, Bachelor or above or other specific.

Occupation: In this study, VHVs occupation is defined as government employee, farmer, Businessmen, labor or other.

Income of VHV: In this study, income of VHV is defined as the amount of money, which VHV earn monthly.

Source of Information: In this study refer to HIV/AIDS information that VHV receive from person (Friend/Relative/Health personal) and from media (Book, Paper, Magazine, Poster, Television, Radio)

Knowledge: Knowledge of HIV/AIDS refers to a correct understand about HIV/AIDS, mode of transmission, sign and symptoms, severity, high-risk behavior of HIV/AIDS disease, and prevention methods

Perception: Perception Concerning HIV/AIDS prevention and control defined as the insight feeling of severity, susceptibility, benefits of prevention, and barriers for prevention and willingness to help affected people and their families.

1.6 Participation of VHV on HIV/AIDS Prevention and Control Program

Participation of VHV on HIV/AIDS prevention and control program. Means that the Village Health Volunteers were taking part or becoming involved in the activities of HIV/AIDS prevention, control and educate the community people about (HIV/AIDS, its sign and symptoms, mode of transmission, stigma and discrimination, care and support activities and income generative activities).

1.7 Limitation of the Study

(1) The study is mainly descriptive and quantitative as a whole by using a self-administered questionnaire. The data collection method may not provide in-depth information..

(2) The possible biases in the data collection process. As VHVs participation would identified only for the few weeks' periods at the time of study, with simple recall method of Village Health Volunteer on HIV/AIDS prevention and control program is another limitation of the study.

1. 8 Conceptual Framework

Independent Variables **Dependent Variable**

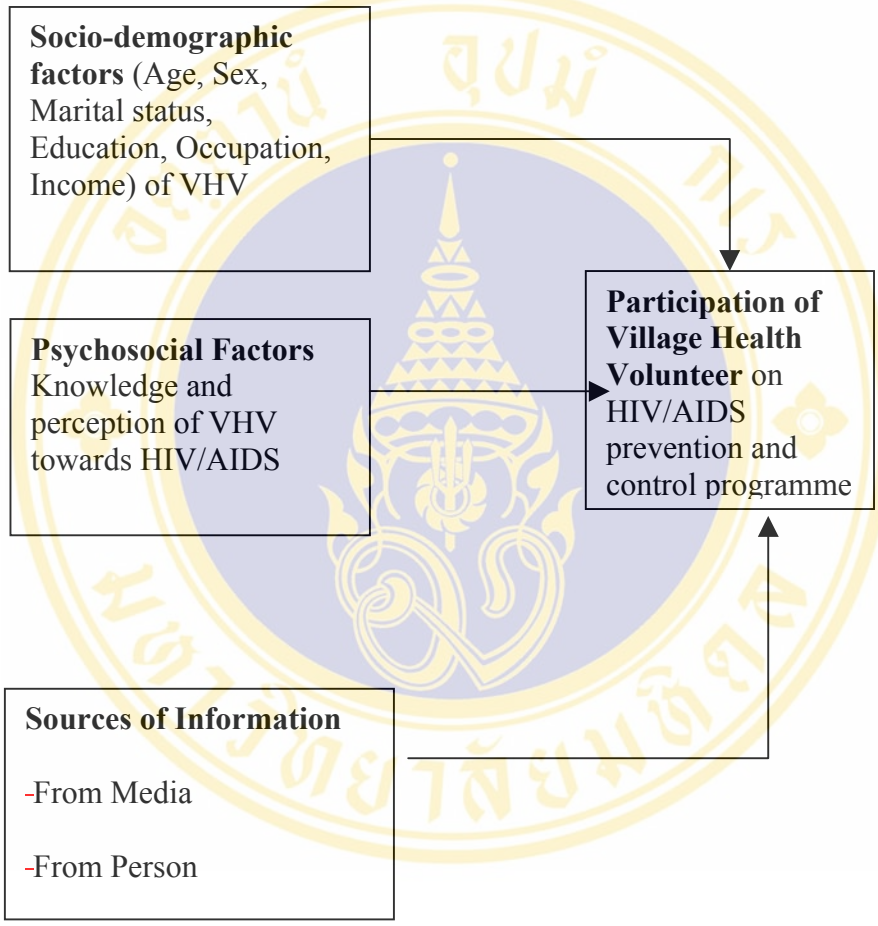

Figure 1 Conceptual Framework

CHAPER 2
LITERATURE REVIEW

The objective of this study was to assess the participation of Village Health Volunteers on HIV/AIDS prevention and control program in Wattana-Nakorn district Sakaeo Province.

This chapter covered the following contents, which are as follow. HIV/AIDS, HIV and STDs, HIV and injectable drug users, HIV and pregnancy, HIV/AIDS in Thailand and its future, Impacts of HIV/AIDS epidemic, HIV/AIDS prevention and control in Thailand and National Plan for prevention and control. More over it high lighted primary health care in Thailand, Village Health Volunteer, participation of VHV in HIV/AIDS prevention and control program, limiting factor in Village Health Volunteers task and some related studies on Village Health Volunteers participation.

2.1 HIV/AIDS

HIV (human immunodeficiency virus) is the virus that causes AIDS. This virus may be passed from one person to another when infected blood, semen, or vaginal secretions come in contact with an uninfected person's broken skin or mucous membranes*. In addition, infected pregnant women can pass HIV to their baby during pregnancy or delivery, as well as through breast-feeding. People with HIV have what is called HIV infection. Some of these people will develop AIDS as a result of their HIV infection.

AIDS stands for Acquired Immune deficiency Syndrome. Acquired – means that the disease is not hereditary but develops after birth from contact with a disease causing agent (in this case, HIV).Immunodeficiency – means that the disease is characterized by a weakening of the immune system. Syndrome – refers to a group of symptoms that collectively indicate or characterize a disease. In the case of AIDS, this

can include the development of certain infections and/or cancers, as well as a decrease in the number of certain cells in a person's immune system. A diagnosis of AIDS is made by a physician using specific clinical or laboratory standards.

HIV destroys a certain kind of blood cell (CD4+ T cells) which is crucial to the normal function of the human immune system. In fact, loss of these cells in people with HIV is an extremely powerful predictor of the development of AIDS. Studies of thousands of people have revealed that most people infected with HIV carry the virus for years before enough damage is done to the immune system for AIDS to develop.

However, sensitive tests have shown a strong connection between the amount of HIV in the blood and the decline in CD4+ T cells and the development of AIDS. Reducing the amount of virus in the body with anti-retroviral therapies can dramatically slow the destruction of a person's immune system.

Preventing HIV Infection: The most reliable ways to avoid becoming infected with or transmitting HIV are: Abstain from sexual intercourse (i.e., oral, vaginal, or anal sex), be in a long-term, mutually monogamous relationship with an uninfected partner, Abstain from sharing needles and/or syringes for non-prescription drugs.

2.1.1 HIV and STDs

All partners should get tested for HIV and other sexually transmitted diseases (STDs) before initiating sexual intercourse. Having another STD increases by two to five times the likelihood a person will become infected with HIV and increases the likelihood an infected person will transmit HIV. If a person chooses to have sexual intercourse with a partner whose infection status is unknown or who is infected with HIV or another STD, a new condom should be used for each act of insertive intercourse.

2.1. 2 HIV and Injection Drug Users

Injection drug users, their partners, and their children account for at least 36% of all AIDS cases reported in the U.S. through 1999. For injection drug users who

cannot or will not stop injecting drugs, using sterile needles and syringes only once remains the safest, most effective approach for limiting HIV transmission.

2.1.3 HIV and Pregnancy

Pregnant women should be routinely counseled and voluntarily tested for HIV. Early diagnosis allows a woman to receive effective antiretroviral therapies for her own health and preventive drugs (e.g., Zidovudine, also known as ZDV) to improve the chances that her infant will be born free of infection (8)

2.1.4 HIV/AIDS in Thailand and its Future

Among developing countries, probably Thailand has the best documentation regarding the HIV/AIDS epidemic. For this reason, Thailand is regarded in any discussion on this topic as if it were a representative AIDS-infected region; however, this is not necessarily the case. Countries, such as India, china, Laos, Myanmar, Indonesia, and others, do not have such as streamlined HIV/AIDS inspection monitoring system as Thailand, and this may perhaps be preventing people from focusing their attention on those countries. Nevertheless, the fact cannot be denied that the HIV/AIDS problems of Thailand are not only ones of Public Health and medical treatments but serious social issue as well (9)

At the present time in Thailand, the National AIDS Committee headed by the prime minister is taking step under the National Plan against HIV/AIDS as a national effort, and at the same time, under cooperation of various international nongovernmental organizations and countries, such a large number of studies on HIV/AIDS are being carried out that there is no exaggeration in saying that one of the centers for HIV/AIDS research is Thailand.

Such studies are bearing fruitful gradually, nevertheless, AIDS as a ferocious enemy is ranging as strongly as ever. As is well known, this disease processes magic power that are pointed to dissemble social organization themselves, such as homes, corporation, etc and to alter society, culture, and even history. At the present time, Thailand is the midst of struggling against this devil enemy. If HIV continues to

maintain its influential power without waning, then it is predicted that one million Thai people will be suffering from this disease, and those one million individual will be dead by 2014. It is further predicted that the impact will cause serious damage on the northern region of Thailand where AIDS patients are particularly numerous and that in the region the population distribution will even be altered, thereby causing a serious social problem.

2.1.5 Impact of HIV/AIDS Epidemic

The impact, which such HIV/AIDS epidemic exerts on a society or nations as a whole, is exceedingly serious.

Such impact may be presented graphically as follows:

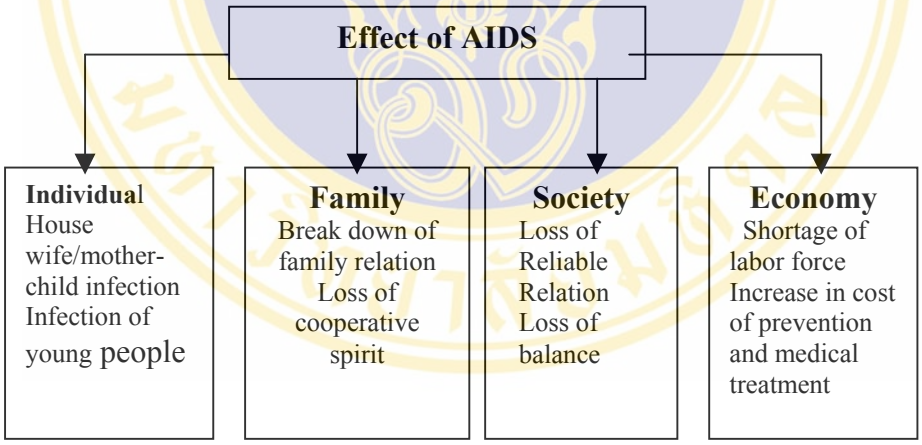

Figure 2 Impacts of AIDS

2.1.6 HIV/AIDS Prevention and Control in Thailand

In 1989, Thailand began the medium-term plan on AIDS MTP) (1989-1991) with the Ministry of Public Health as the agency responsible for implementing the plan.

Starting from 1991 until now, the National plans for AIDS was carried out actively nation-wide. These consist of:

1. Establishment of National Committee for AIDS
2. Campaigning for 100% condom use
3. Anonymous testing and reporting system
4. Protection of the rights of the HIV/AIDS
5. Universal precautions in all health facility
6. Non-discriminatory care for HIV/AIDS
7. Strengthening government STD clinics at all levels
8. Acceptance for international cooperation
9. Acceptance for participation from NGOs

2.1.7 National Plan for Prevention and Control

From 1997 to 2001, the National Plan for prevention and control of AIDS will be modified as the National Plan for Prevention and Alleviation of HIV/AIDS. The major features of the National Plan for Prevention and Alleviation of the AIDS problem during 1997-2001 are as follow (10)

2.1.8 General Objectives

1. To prevent and reduce problems associated with the HIV/AIDS epidemic
2. To reduce the impact of epidemic upon the socio-economic and health status of the population at all levels: individual, family, community, and nation

2.1.9 Strategic Objectives

1. To create the social environment this is conducive to the prevention and control of AIDS and supportive to activities aimed at systematic relief of the problem.
2. To strengthen the potential of the individual, the family and community, as well as the country's economic system, for managing and reducing the scope of the problem

2.1.10 Targets

1. Reduction of new HIV infection in the public
2. Reduction of the impact of the AIDS problem on the socio-economic and health status of the population: the individual, family, the community, and nation.

In the prevention and alleviation of the AIDS problem during the period 1997-2001, the underlying concept and approaches will be continuously adopted to the changing conditions of the epidemic as well as the socio-economic and cultural changes, which are following upon the advent of globalization the country. To ensure full success in solving the problem it is envisaged that the concept and approaches should concentrate on the following issues:

1. Focus on human development, so that all individual have full potential to prevent HIV/AIDS and other social problems, and be able, as for as possible, to solve their problems on their own
2. Focus on creating an enabling environment for the individual, an environment that is conducive to AIDS prevention and problem alleviation.

2.2 Primary Health Care in Thailand

After the Alma Ata conference in 1978, Thailand had adopted the Alma Ata declaration and made a national commitment on Health for all by the year 2000 with Primary Health Care as the national Strategy. Since then, Thailand had implemented Primary Health Care with the three major components: Primary Health Care ELEMENTS, Primary Health Care Approach and Primary Health Care activities and it had concentrated on the eight elements of Primary Health Care, according to the country's needs, in areas of HIV/AIDS prevention and control, non communicable disease control, Mental health, Oral Health, Traditional medicine and Consumer protection (11).

For areas of intervention, it was concentrated on 14 elements of Thailand's Primary health care. The 14 elements of Primary health Care were basic health services at the village level. The major concepts of the Primary Health Care approach consisted of 5 items as follows:

Community Participation; In order to carry out Primary health Care activities, community participation was the most important element. It was impossible to expect successful health programs to improve public hygiene and health without active participation from the community, as is difficult to perform medical treatment without patient's cooperation.

Appropriate Technology; means the kind of technology that was economically affordable, and socially and culturally acceptable to the community. Again the concept of appropriate technology would help to release developing countries vicious cycle and would lead to the country's self reliance.

Maximization of locally available Resources; the concept encourages effective utilization of the natural, social and human resources in the community.

Inter-sectoral Collaboration; As health and disease result from multiple factors, it was necessary to involve not only the health sectors, but also other sectors as well to promote health development.

Harmony with existing institution; It was needed to harmonize the actions of the community with the existing health system and to ensure the success of the Primary Health care program.

The PHC approaches and Primary Health Care elements was an ideological framework. In Thailand, three major activities had been carried out in the community level.

Training of Village Health Volunteers (VHV), hundred of thousand villagers receive 3-5 days training programs on the basic health. Village Health Volunteer worked as health communicators between the village and health center staff and to promote health development activities in the community.

The establishment of community PHC centers (CPHCC); thousands of community PHC centers, which were owned and operated by people in the community, had been set up. This was the center for VHV for PHC activities at the village level. People came here to have their children weight checked. The CPHCC also had produced supplementary nutrition for the mal-nutrition children.

After 15 years of PHC system in Thailand in 1983-84 the provincial health officials and others had experiences and known the limitations of national health services in creating to the needs of the rural population. In order to extend health services they recognized the human resources capacities of the community to contribute to carry out certain activities. The possibilities for the people to take on active roles based on the will of the people to help themselves and their neighbors.

As the health officials considered Technical Cooperation among Developing Villages (TCDV) training method more effective and more economical than vertical training, in the expansion of village funds the method was used to transfer effectively by villagers who had practiced it themselves. Through the self-managed PHC program and TCDV training method, the villagers as well as VHV had learned to manage their limited resources, develop their latent abilities and build up the commitment so much needed in the development.

The supporting and enhancing the role of capable people in the community to extend health system coverage to all families in the shortest feasible time was the idea behind identifying, training and supporting “Village Health Volunteers” Village Health Volunteers remain key contacts and resource people in the village (12)

2.3 Village Health Volunteer

In developing countries, the proportion of the population without access to health services was extremely high. Whether in isolated rural villages or fast growing urban slums, the overwhelming need for available, accessible, acceptable and affordable primary health care was the same. A WHO meeting in Yangon, Myanmar, in February 1995 affirmed that most countries in Africa, Asia and Latin America had active Village Health Worker (VHW) programs. It was no longer any question of whether VHW could be key agents in improving health the question was how their potential could be realized. Nonetheless, it was important to note the continuing need for a high level of support to VHW programs (13).

This has been noticeably lacking from the international community in recent years (14). Most of the volunteers were a valuable support to health care, health promotion and community development in many parts of the world. These men and women had made an important contribution to the overall improvement in health standards worldwide during the last decades. However, many programs involving Volunteer health workers had failed to meet expectations, many had been under funded, while others had quite simply been ineffective, serving only to add another layer of health care system (15).

2.3.1 Village Health Volunteers in Thailand

In Thailand, Village Health Volunteer was introduced in 1979, and their selection criteria were as follows:

The Village Health Volunteer must:
They should have regular willingness in helping others and had enough free time for the public.

1. Live and work in the village.
2. Be trusted by the fellow villagers.
3. Had their own occupation and able to earn their own living.

4. Live in the house easily accessible to the villagers
5. Not is the government official or village headman.

Responsibility of Village Health Volunteer was mainly on the 14 elements of Primary Health care, such as (12):

1. MCH and Family Planning
2. Immunization
3. Local Disease Control
4. Exchanging knowledge and technical cooperation among developing villages
5. Essential drugs provision and traditional medicine promotion
6. First aid treatment and referral system
7. AIDS prevention and control
8. Consumer protection
9. Nutritional Surveillance
10. Non communicable disease control
11. Percent coverage of drug consumption in the village
12. Health education activities
13. Promotion of oral hygiene
14. Provision of mental health care and promotion of appropriate community care for cripples, narcotics and alcoholics etc.

Training of Village Health Volunteer: The VHV took additional 15 days course offering by Tam boon trainers. The course comprised additional modules.

In Thailand PHC system, effectiveness of Village Health Volunteer system was assessed in terms of volunteer attrition, during 1977-1986.Of the total sampled villages in the study (Hongvivatana,1988) 84 percent have never had turnover of their VHV. The turnover of which the attrition rate for the whole kingdom was 25 percent and regional differences in attrition were quite marked and influence more by the discharge rates. Northern part of the country had the highest rate of 28 percent (16).

The high PHC achievement villages belonging to the mini Thailand provinces and self-managed PHC project did not significantly lower the attrition rates. It was probable that these special villages at present have relatively more of active Village Health Volunteer simply because many of their former Village Health Volunteer were discharged and replaced with active ones.

Performance in the PHC activities: The work place for the VHV was the Community Primary Health Care Center (CPHCC) of the village. It was centrally located in the middle of the village and according to the number of VHV of the village. VHVs divided the duties themselves every month in turns, to take care of the CPHCC activities. They opened the clinic three times a day and in any emergency they can be looked for at their houses. Apart from CPHCC functions, VHV performance on PHC activities assigned from them were health promotion, prevention and simple curative activities.

The level of VHV performance did not depend only on the volunteer's socio-demographic factors but also on availability of free time, duration of being a volunteer, VHV involvement in village funds and financial support from the village to return the PHC activities. According to the surveys the VHV performance who stayed in the program (excluding passive ones) appears in need have much strengthen. Only 24 percent of these VHV were rated by the Tam boon health workers as highly active, being enthusiastic and able to plan and conduct PHC work on their own, with minimum interference from Tam boon health workers. The majority VHV; i.e. 76 percent were rated as moderately active.

Thai VHVs do not get the any cash payment or subsidy from the government. They do this task just because they would like to help others and to be useful in their community. According to the Maslows human need theory; they want to satisfy their advanced needs.

Maslow categorized human needs from low to high as Physiological Needs, Safety Needs, Belongings / Affection Needs, Esteem Needs and Self Actualization Needs. These needs exist in a hierarchical order.

It means that lower needs have to be achieved first before an individual aspires for the next higher needs (Maslow 1970). Since people cannot get any enumeration from VHV position they do the task mainly to fulfill their Belongings/Affection, Esteem and Self-Actualization Needs.

A comparative study showed that, all single men and the majority of the single women were in favour of using condoms in sexual relations. This group also showed a positive attitude to HIV/AIDS test before and in marriage. However, married men in rural Thailand disapproved of the use of condoms with their wives but married women in the sample population were open to the possibility of using condoms. Both married men and women were strongly against HIV/AIDS test in marriage. In contrast to Thailand, most single men in the communities studied in Ghana showed disapproval to the use of condoms in sexual relations. However, they condoned HIV test before marriage. Married men and women in rural Ghana were against the use of condoms in sexual relations as well as HIV/AIDS test in marriage. The mode of information acquisition on HIV/AIDS in both countries was through the media, campaigns and village volunteers. (17)

A study aimed to see the effectiveness of AIDS volunteers in mitigating the stigma attached to People With AIDS (PWAs) within the context of developing community-based care (CBC) in Thailand. A total of 86 trained village health volunteers (T-VHVs) and 99 non-trained village health volunteers (N-VHVs) were enrolled in the study. In addition, 58 villagers in the T-VHV's intervention area and 72 villagers in the non-intervention area were also enrolled. Both T-VHVs and N-VHVs as well as villagers were assessed to determine their level of knowledge with respect to HIV/AIDS and attitudes toward PWAs. The study also determined the village health volunteers' level of activity in distributing knowledge of HIV/AIDS in order to prevent and reduce stigma in the community. Although T-VHVs showed a

greater depth of knowledge of HIV/AIDS than N-VHVs ($p < 0.05$), positive attitudes toward PWAs and the level of practice of village health volunteers did not differ significantly between T-VHVs and N-VHVs. While the level of health knowledge of villagers did not differ significantly between the T-VHV's intervention and control areas, a significant difference was observed between the two areas in terms of the villagers' attitudes towards PWAs ($p < 0.01$). Villagers in the intervention area attached less stigma to PWAs; therefore, T-VHVs played a role in providing basic information on AIDS to the villagers and in mitigating the stigma attached to PWAs. It was concluded that, volunteers need to undergo further training through a well-organized training program in order to obtain a greater depth of knowledge (18).

An ethnographic field study was conducted in a village in Northeast Thailand to explore the implementation and acceptance of the role of the VHV. The VHVs displayed appropriate knowledge of their role but reported decreased use of their services by residents due to the close proximity of the village to a major urban area where health services were readily available. The majority of the villagers who were interviewed did not know the VHVs in their community and few had used their services. They relied on self-treatment and self-referral for their health care concerns. With increasing urbanization of this once rural village, the VHV no longer serves as the point of entry into the health care system (19).

A paper described and evaluated a 1994 intervention designed to reduce HIV transmission among villagers in northeastern Thailand. The HIV prevention intervention was consisting of 1) an agreement between intervention providers and village leaders to establish a partnership to introduce the intervention and train volunteers as facilitators, 2) broadcast of a 5-day motivational audio-drama over village loudspeakers, and 3) a village meeting to institute village discussions of AIDS and plan further village strategies. Outcome goals for women, for men, and for the village as a whole included 1) villager identification of the program as a major source of information, 2) increased risk awareness, 3) increased reporting of risk-reduction behavior, 4) increased communication about HIV/AIDS, 5) identification with

characters in audio-drama, 6) identification of HIV/AIDS as a community concern, and 7) creation by the villagers of additional strategies.

Description of the evaluation methodology included data collection from KAP interviews and focus groups and a sample survey. Results were presented for each of the preliminary goals, and it was concluded that the project intervention was successful(20).

2.3.2 Participation of VHVs on HIV/AIDS Prevention and Control Program

Preventive activities,

1) The general objective of this activity was to educate the community about HIV/AIDS prevention using various means.

a) Informal group discussion

VHVs usually conducted this type of activity during various community festivities throughout the years, such as religious festival funerals and other special days. The gold was to engage the villagers in relaxing, educational conversations about HIV transmission and prevention. During these informal group discussions, VHVs would demonstrate condom application to the community.

b) Educational campaigns and exhibitions

VHVs occasionally conducted the HIV/AIDS educational session, community campaigns or exhibitions within their communities or in cooperation with nearby communities. With the exception of educational sessions, the target group was the general population of the community.

2) Care and support activities

One of the most important activities is to care for and support affected families in the community.

a) Home visits to affected families

VHVs within their respective villages regularly visited willing PLWHA (i.e., PLWHA open about their HIV status) to give them and their families advice and/or support. VHVs also tried to reach out to new PLWHA within community. The visits

were informal and low key to avoid unintentionally establishing a perception of being patronizing.

Other than providing moral support, home visit by the VHVs assisted affected families with advice including (in order of urgency rated by PLWHA/families):

1. Financial / occupational support
2. Educational / child support
3. Referral to health care facilities or other government agencies
4. Home-based care / nursing
5. Nutrition

This type of activity varied from community to community developing on the number of PLWHA, community attitude towards effected families, and the effectiveness of the VHVs

b) Public funds rising.

VHVs organized a public fund for a community HIV/AIDS related activity

3) Income generation activities.

In order to alleviate the economic hardship of effective families, VHVs initiated the income generation groups within the villages to create opportunities for PLWHA and their families to become reintegrated into the community.

Provide affected families with job opportunities and/ or supplementary income.

Provide opportunity PLWHA to become involved in positive activities as people equal partners to strengthen their dignity, discourage isolation and combat depression.

2.3.3 Limiting Factors in Village Health Volunteer Task

To move beyond the present level of success, there was a need to identify and remove any limiting factors and let free our energetic thinking arrive at a new qualitative change in Primary health Care development. According to the study done by Hongvivatana et al mentioned that the issue of opportunity cost of being a volunteer was closely linked to that of financial incentives.

The survey data showed that a large proportion of Tam boon workers identified lack of financial compensations and preoccupied with own economic/productive work, as the two important problems effecting Village Health Volunteer performance in early ninety-eighties.

The existing incentives for the health volunteers were free medical care benefit at government health facilities had extended to cover the Village Health Volunteer family member also. The financial incentives in the form of per diem had been paid to the Village Health Volunteer attending bi-monthly one day meeting of all the Village Health Volunteer in a Tam boon to review and plan community based activities, exchange experience, and learning necessary new skills. Bi-monthly meeting was also a volunteer supervision mechanism. Regular supervision of Village Health Volunteer was still a must, particularly in view of the proposed health behavior problem oriented Primary Health Care program at the community level.

It was very unlikely that payment of volunteer on a regular basis could come from village funds. Even in villages with highly successful village funds or cooperative stores, the likelihood of paying the volunteers on regular basis was evidently low or impossible.

2.4 The Health Believe Model (HBM)

2.4.1 History and Orientation

The Health Belief Model (HBM) is a psychological model that attempts to explain and predict health behaviors. This is done by focusing on the attitudes and

beliefs of individuals. The HBM was first developed in the 1950s by social psychologists Hochbaum, Rosenstock and Kegels working in the U.S. Public Health Services. The model was developed in response to the failure of a free tuberculosis (TB) health-screening program. Since then, the HBM has been adapted to explore a variety of long- and short-term health behaviors, including sexual risk behaviors and the transmission of HIV/AIDS. (21)

2.4.2 Core Assumptions and Statements

The HBM is based on the understanding that a person will take a health-related action (i.e., use condoms) if that person:

1. feels that a negative health condition (i.e., HIV) can be avoided,
2. Has a positive expectation that by taking a recommended action, he/she will avoid a negative health condition (i.e., using condoms will be effective at preventing HIV), and
3. Believes that he/she can successfully take a recommended health action (i.e., he/she can use condoms comfortably and with confidence).

The HBM was spelled out in terms of four constructs representing the perceived threat and net benefits: perceived susceptibility, perceived severity, perceived benefits, and perceived barriers. These concepts were proposed as accounting for people's "readiness to act." An added concept, cues to action, would activate that readiness and stimulate overt behavior. A recent addition to the HBM is the concept of self-efficacy, or one's confidence in the ability to successfully perform an action. This concept was added by Rosenstock and others in 1988 to help the HBM better fit the challenges of changing habitual unhealthy behaviors, such as being sedentary, smoking, or overeating. (21)

2.4.3 Conceptual Model

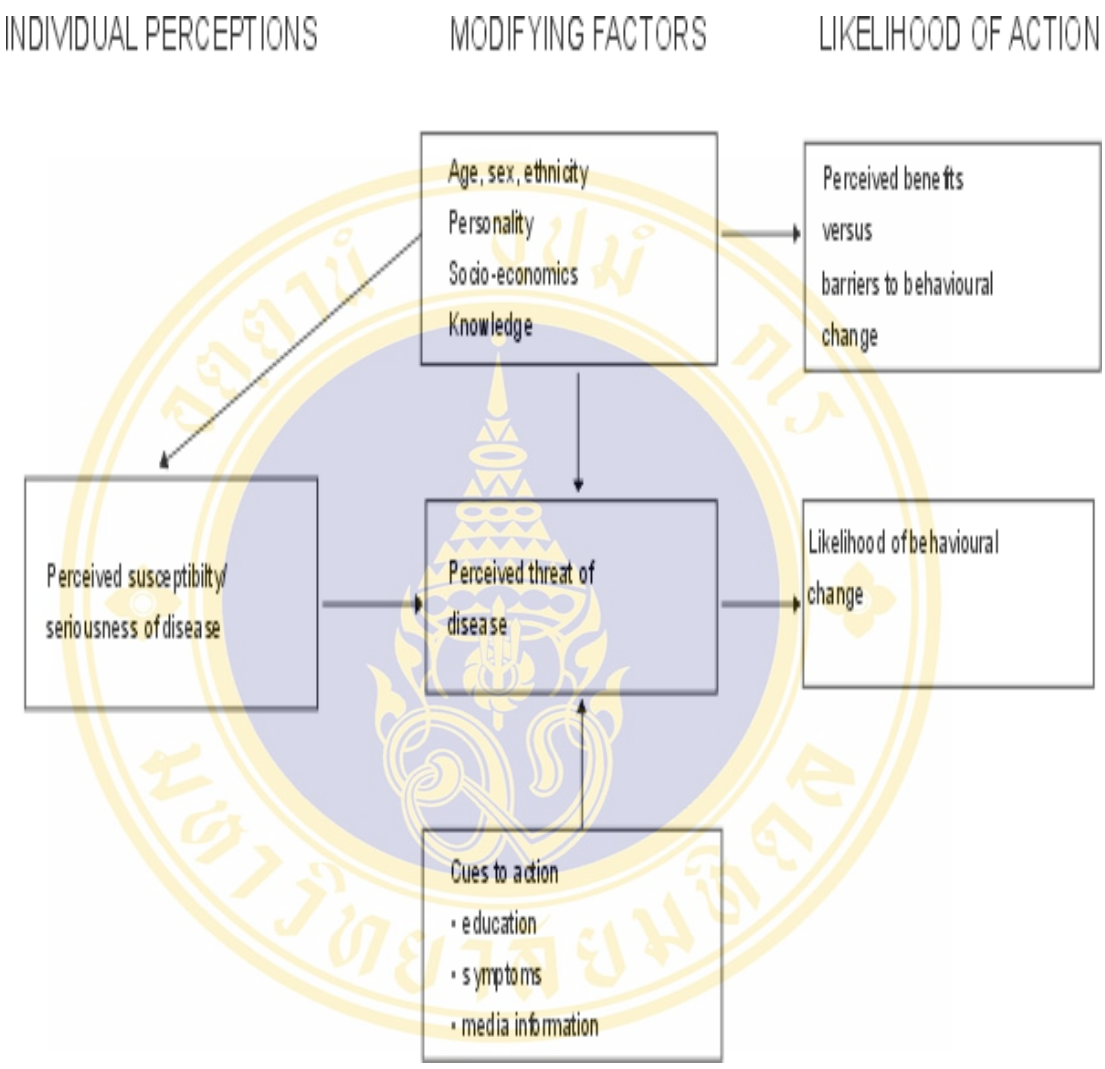

Figure 3 Conceptual Model for Health Believe Model

2.5 Related Studies

Involvement of VHVs can be defined as the total behavior of the health worker. It includes the whole range of knowledge, skills and attitude acquired through training their organization and integration in practice (Katz, 1980). In Thailand, many performance researchers measured the ability of VHVs in carrying out the specific

task they were trained for. These studies revealed an alarming situation in terms of the VHV Involvement

Then they tried to determine some aspect of VHVs influencing their performance. The reasons for the problem above have been the subject of many studies, opinion and discussion. (10)

Table 3 Summary of Finding on VHVs Performance

Studies	**Classification by performance of VHVs (%)**		
	Low	**Median**	**High**
Tatisiritr (1981)	13.0	61.0	26.0
Sudsukh (1982)	63.9	0	36.1
Hongvivatana (1988)	76.0	0	24.0
Sulaiman Ratman (1991)	37.3	23.9	38.8
Khin Myintzu Han (2000)	0	67.4	32.6

Source Tin Tun Aung MPHM Thesis (2001) (22)

2.5.1 Relationship between the Socio-demographic Factors and VHVs' Performance

There were many studies showed that relation between the socio-demographic factors and VHVs' Involvement on some programs such as Village health funds, Maternal and child health, Tuberculosis control, etc. The result of Suleiman Ratman (1991) showed that there was no significant relation between the age, sex and marital status of VHVs and their Involvement. But the study of Francis Wade Z. Gomez IV (1991)(16) showed that there were significant relation between the age, marital status and income of VHVs and their performance respectively.

The study of Surendra Kumar Shrestha (1998) showed that there was no significant difference between the two groups of VHVs clarified as the low active and the active, but some significant association between educational level and job

satisfaction. It was recommended that educational background should be considered in selecting VHVs.

The study of Khin Myintzu Han (2000) (23) showed that there was significant difference between the low and high Involvement VHVs groups. There was significant association between the education and family income.

2.5.2 Relationship between the Psychosocial Factors, Source of Information Factors and VHVs' Participation

The result of Mahaman Rahmen (1988) showed that VHVs who had a relatively good knowledge and positive attitude would practice well. Some experts also indicated that inadequate motivation was one of the reasons for VHVs poor Involvement. One study in Khlong-Khlung district, Kamphaengpet province showed that self-actualization was associated with the performance of VHVs. Low self-actualization lead too much lower performance (24).

Therefore, VHVs Involvement was related not only to socio-economic factors but also to psychosocial factors. Krasae Chanawongse (1990) (25) paid more attention to human relations. He always interprets the identity of human being in the context of his relation with fellow human and organization to which he belongs. He thinks human relations play a very important role in the implementation of PHC.

Regarding the management of volunteer program, WHO pointed out "poor selection hardly considered motivation for community services", should be blamed in volunteer program (WHO 1987). The study by Shan Ou Qi (1988) revealed that those who had more opportunity to attend the refresher course after becoming a VHV would perform better. It was suggested the training courses should be held for VHVs.

Croley (1990) and Husbumror (1978) indicated that Tambon health officer's supervision played a positive role in VHVs Involvement.

CHAPTER 3
RESEARCH METHODOLOGY

This chapter presents the research methodology, which was organized along the following topics: research design, study population, sample size estimation, sampling techniques, research instruments, data collection and data analysis.

3.1 Research Design

This study was a survey research design cross sectional descriptive study. The dependent variable was the participation of Village Health Volunteer on HIV/AIDS prevention and control program. The independent variables were socio-demographic factors, psychosocial factors and sources of information. The study was conducted from 25th January to 25th of February 2006. 300 VHV who were working in Wattan-Nakorn District of Sakaeo Province were included in the study. In Sakaeo province there was high HIV prevalence (46/100,000).There was active VHV participation in HIV/AIDS prevention and control (awarded to best performance). Most successful prevention and control program were being carried out.(source Sakaeo provincial Public Health Office)

3.2 Study Population

The study populations in this research were VHVs of different villages of six sub-districts who were working as VHV in Wattana-Nakorn district in Sakaeo Province Thailand.

3.3 Sample Size Estimation

The sample size was calculated by using fallowing statistical formula (26).

$$n = \frac{Z^2\ \alpha/2\ X\ P\ (1 - P)}{d^2}$$

$$n = \frac{(1.96)(1.96) * 0.388(1 - 0.388)}{(0.06 * 0.06)}$$

n=254

n: the desirable calculated sample

$z_{\alpha/2}$ = 1.96 (95% confidence interval)

P: proportion of highly active VHVs from a previous study (= 0.388)

d : Degree of accuracy desired setting at 0.06

Even though the minimum sample size of 254 was estimated to understand the VHVs participation, to minimize the possibility of the problem of non-response, 300 VHVs were taken as the final sample size.

3.4 Sampling Technique

Wattana-Nakorn district of Sakaeo province was purposively selected. The basis of the selection was the high prevalence of HIV/AIDS cases and largest district with higher population. From the Wattana-Nakorn districts, out of 11 sub-districts 6 sub-districts were randomly selected. The VHVs from each selected sub-districts were listed and 50 VHVs from each sub-districts were randomly selected as the sample of the study. The detail procedure of the selection is shown in the flow chart as shown below.

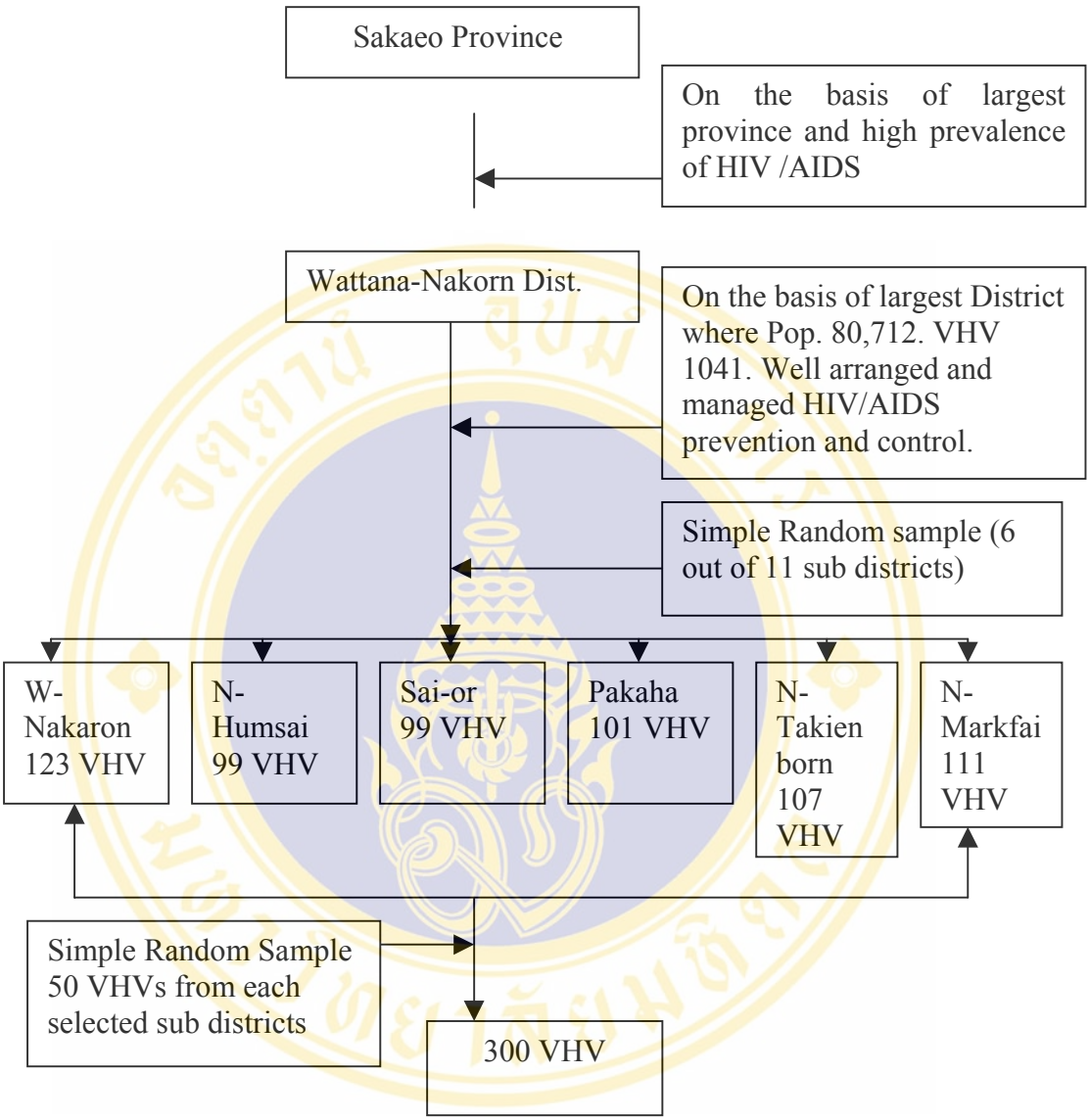

Figure 4 Flow Chart of Sample Selection

3.5 Research Instruments for Data Collection

A structured self-administered questionnaire was the tool and individual interviewing by a trained interviewer was the method of data collection.

Questionnaire Composed of Five Parts

Part 1: Socio-demographic factors such as age, sex, marital status, education, and occupation and family monthly income.

Age: In this study, age was categorized in to three groups as follows. 22-37, 38-52, 53-68.

Sex: In this study, sex was categorized in two groups Male and Female.

Marital status: Marital status was categorized in to five groups as follows: Unmarried, Married, Others (Widowed, Divorce and Separated)

Education: In this study, education was categorized in to four groups as follows. Primary, Secondary, Vocational, Bachelor

Occupation: Occupation was categorized in to five groups Government, Farmer, Business, Labor, Other (trader, merchant, general employee, animal feeders, housewife)

Income: Income was divided in to three categories <5000, 5,001-10000, 10001 and more

Part 2: This part was concern with psychosocial factors on knowledge and perception of VHVs towards HIV/AIDS, prevention and control program.

Knowledge: Multiple choice answers question was used on knowledge about HIV/AIDS prevention and control. Correct answer was given "1" score and incorrect was given zero "0". The knowledge was divided in to three groups. According to Benjamin S Bloom criteria (27). (Poor = < 12, Fair = 12-16, Good = > 16).

Part 3: Perception: Perception about HIV/AIDS prevention and control Likert scale was used and score was given as follows:

For positive Question	For negative Question
Agree – 3	Agree - 1
Uncertain – 2	Uncertain - 2
Disagree - 1	Disagree - 3

Then perception was categorized into three score according to Baste's Rating Criteria (28). (Range = Max-Min/No. of Level)

Low Score = <46, Fair Score = 46-63, Good Score = > 63

Part 4: Source of Information: It was the question concerning with Source of information about HIV/AIDS, prevention and control. It was categorized in to two parts**.**

1. From Media.
2. From Person

Seven multiple choice answer questions were asked to know whether the VHVs received information about HIV/AIDS from media sources and from person each. For both the cases, a score 1 was given if respondent received information from the source and 0 score otherwise.

Part 5: Participation: 14 Yes / No questions were asked to know whether the respondent participated in different activities. A score 1 was given if the respondent participate in a particular activity and 0 otherwise. These yes, no response were added to get the score of the level of participation. This score was categorized in the three groups, poor = < 8, fair = 8-10, good = >10.

3.6 Pre Testing of the Questionnaire.

For the reliability of the questionnaire, pre-testing on the questionnaire was conducted to "30" respondents in Sakaeo province. A reliability test was done and the question was revised where ever necessary. And final questionnaire was prepared after the approval of the thesis committee. The questionnaire was translated in the Thai language for data collection.

Alpha Cronbach's value for perception was 0.630003

KR20 value for knowledge was 0.700735

Some questions were revised to improve the reliability after pre-test data analysis

3.7 Data Collection.

After completion of operational questionnaire, and have approved by thesis advisory committee the researcher request to have cooperation and assistance from MPHM office, to have telephone contact and formal correspondence with officer of CDC center in Sakeo province. One coordinator from Provincial Public Health Office and two interviewers were provided one day orientation before the data collection. The time period of data collection was from January 25 to February 25, 2006. The questionnaire was edited and coded before data entry.

3.8 Data Entry and Analysis

EPI Info-6 was used for data entry and cleaning. It was then transferred to Minitab for data analysis.

Frequency distribution was used to know the background characteristics of socio-demographic and psychosocial factors. Chi-square test was used to understand significance of the association between participation of VHV on HIV/AIDS prevention and control and different independent variables (socio-demographic and psychosocial factors).

CHAPTER 4
RESULTS

The aim of this chapter was to present results of analysis of the responses collected from randomly selected village health volunteers, who have been working in twenty nine villages of six sub-districts in Wattna-Nakorn Distric of Sakaeo province, Thailand during 25 January to 25 February 2006.

The purpose of the study was aimed at describing the participation of village health volunteers on HIV/AIDS prevention and control program. The results and findings of the study present in six different parts as follows:

Part 1. Description of the socio-demographic characteristics of VHVs.

Part 2. Knowledge of VHVs on HIV/AIDS prevention and control program.

Part 3. Perception of VHVs and HIV/AIDS prevention and control program.

Part 4. Participation of VHVs and HIV/AIDS prevention and control program

Part 5. Source of information about HIV/AIDS prevention and control

Part 6. Association between participation of VHVs on HIV/AIDS prevention and control program with socio-demographic characteristics, psychosocial factors and source of information on HIV/AIDS prevention and control program were shown in the tables.

4.1 Characteristics of Variables

4.1.1 Socio-demographic Characteristics

Socio-demographic factors were identified by age, gender, marital status, education, occupation, and income of the VHVs. The distribution and detail of these characteristics was presented in the table 4.1.

More than one-half 56.67 percent of the respondents in the study were middle age between 38-52 yrs. The minimum age was 22 years and the maximum was 68 years. Mean age of the respondents was 41 .09 years.

Female VHVs 75.33 percent were three times more than the male VHV 24.67 percent. The great majority of the VHVs 89.33 percent were married, only a few VHVs 4 percent were single and 6.67 percent were the others including divorce, widow and separated. Slightly over two third of the VHVs 67.67 percent had primary education while 26.33 percent were secondary. Only a few 2.33 percent had received college education and 4.33 percent obtained vocational education in this study.

More than one-half of the village health volunteers57.67 percent were farmer while 27.67 percent were the “others” category included traders; merchant; general employees; animal feeders and house wives. Only small percentages of 8.3 percent represented labor and a few 4 percent were government services.

The family monthly income range from 1,000 Baht to 30,000 Baths, average was 4,620 baht. Majority of VHV 79 percent had family monthly income less then 5,000 Baht, those who earn above 5000 Baht compromised of 16.67 percent and a small percentage (4.33) had family income more then 10,000 Baht.

Table 4 Number and Percentage of Respondents by Socio-demographic Characteristics.

VHV General Characteristics (N=300)	Number	Percentage
Age Groups (years)		
22-37	99	33.00
38-52	173	57.67
53-68	28	9.33
$\bar{x}$ = 41.09 SD = 8.22 Min = 22 Max = 68		
Gender		
Male	74	24.67
Female	226	75.33
Marital Status		
Single	12	4.0
Married	268	89.33
Others Widowed / Divorced / Separated	20	6.67
Highest education attainment		
Primary	200	66.67
Secondary	79	26.33
Vocational	13	4.33
Bachelor	8	2.67
Occupation		
Government servant	12	4.0
Businessmen	10	3.33
Farmer	170	56.67
Labor	25	8.33
Others	83	27.67
Family monthly income(Baht)		
0-5000	237	79.0
5001-10000	50	16.67
10001and more	13	4.33
$\bar{x}$ = 4620 SD = 3443 Min = 1,000 Max = 30,000		

4.1.2 Knowledge of VHVs on HIV/AIDS Prevention and Control.

The total knowledge score of the respondents were aggregated then it was categorized into three groups of good, fair, and low knowledge level. In the study it was found that nearly one half of the respondents (43%) had good knowledge level while 41.33 percent and 15.67 percent were fair and low knowledge respectively as shown in the table 5

Table 5 Number and Percentage of the Respondent by Level of Knowledge on HIV/AIDS Prevention and Control

Level of knowledge (n=300)	Number	Percentage
Good	129	43
Fair	124	41.33
Poor	47	15.67

Score: Poor = < 12, Fair = 12-15, Good = >15

Regarding details of Village Health Volunteers knowledge on HIV/AIDS prevention and control a large majority of the VHVs (86.33%) knew well about HIV/AIDS infection, its transmission, preventive method and how to take care of PLWHA. It was also found that most of VHVs could answer the sign and symptoms of HIV/AIDS and preventive method. Almost all of the VHV (99%) told common route of transmission of HIV among intra venous drug users were sharing needle. However one half of the respondents (50%) said cuddling and kissing the child is not prevention in transmission of HIV from infected mother to child. More details were shown in the Table 6.

Table 6 Numbers, Percentage, and Comment of the Respondents Related to Correct Answer of Knowledge about HIV/AIDS Prevention and Control by Items

Statements /Items	Correct Answer		
	Number	Percentage	Comment
Which one is not source of HIV infection?	194	64.67	Fair
HIV can not transmit to which way?	287	95.67	Good
HIV affects which system of the body?	280	93.33	Good
Which one is not infectious from mother to child?	259	86.33	Good
Most common route of transmission of HIV among IDU	299	99.67	Good
Most significant symptom suggesting AIDS	270	90	Good
HIV infection can be detected by	294	98	Good
Not complication of HIV	183	61	Fair
AIDS treatment until now	113	37.67	Poor
Correct about HIV transmission except	196	65.33	Fair
Method in prevention of transmission of HIV during sexual intercourse	285	95	Good
Which one is not prevention in transmission HIV from mother to child?	150	50	Poor
True for prevention and control of HIV/AIDS	177	59	Poor
Method can prevent the HIV/AIDS except	188	62.67	Fair
How long to develop AIDS from the time of infection with HIV	96	32	Poor
Person is /are the most at risk of getting HIV except	199	66.33	Fair
Correct about HIV transmission	254	84.67	Good
Correct about AIDS control in the community	274	91.33	Good
Correct about HIV/AIDS	162	54	Poor

Score: Poor = <60%, Fair = 60-80%, Good = > 80 %

4.1.3 Perception of VHVs on HIV/AIDS Prevention and Control.

The study of perception of VHVs on HIV/AIDS prevention and control finding showed that more than two-third of the respondents (72.33%) had high positive perception while 27.67 percent of the respondents had fair positive of perception. None of the respondent belonged to poor positive of the perception in table 4.4.

Table 7 Number and Percentage of the Respondents by Level of Perception on HIV/AIDS Prevention and Control

Perception of HIV/AIDS	Number (N= 300)	Percentage
Good	217	72.33
Fair	83	27.67
Low	0	0.00

Score: Low = < 46, Fair = 46-63, Good = > 63

Regarding the perception of VHV on HIV/AIDS prevention and control most of the respondents agreed and perceived severity, susceptibility, benefit, and barrier of HIV/AIDS. Details were illustrated in table 8.

Table 8 Numbers, Percentage, Mean, Standard Deviation and Comment of the Respondents Related to Perception of VHVs towards HIV/AIDS Prevention and Control by Items

Statements/Items	**Agree**	**Uncertain**	**Disagree**	$\bar{x}$	**SD**	**Com.**
	N(%)	N(%)	N(%)			
HIV/AIDS is always fatal	204 (68.0)	66 (22.0)	30 (10.0)	2.58	0.66	Good
HIV/AIDS is curable disease	51 (17.0)	89 (29.67)	160 (53.33)	2.36	0.75	Good
HIV/AIDS is a serious social problem	193 (64.33)	60 (20.0)	47 (15.67)	2.48	0.75	Good
It causes much expenditure for caring AIDS patient	169 (56.33)	82 (27.33)	49 (16.33)	2.40	0.75	Good
People with HIV/AIDS always die with opportunistic disease	220 (73.33)	67 (22.33)	13 (4.33)	2.69	0.54	Good
Antivirus drugs make people not afraid of AIDS infection	86 (28.67)	93 (31.0)	121 (40.33)	2.11	0.82	Fair
Sexual intercourse with unknown person without condom use is risk of getting HIV	263 (87.67)	26 (8.67)	11 (3.67)	2.84	0.45	Good
Doing sex (oral or anal) with an HIV/AIDS infected person can result in HIV infection	191 (63.67)	103 (34.33)	6 (2.0)	2.61	0.52	Good

Table 8 Numbers, Percentage, Mean, Standard Deviation and Comment of the Respondents Related to Perception of VHVs towards HIV/AIDS Prevention and Control by Items (cont.)

Statements/Items	Agree	Uncertain	Disagree	$\bar{x}$	SD	Com.
Any open wound person come into direct contact with an HIV/AIDS infected person, have chance to get HIV infection	234 (78.0)	61 (20.33)	5 (1.67)	2.76	0.46	Good
Having multiple partners is a risk factor for HIV infection.	258 (86.0)	37 (12.33)	5 (1.67)	2.84	0.40	Good
Stay with single partner can not prevent from HIV infection	73 (24.33)	80 (26.67)	147 (49.0)	2.24	0.82	Fair
Fatal with AIDS disease is not makes people realized to prevent from HIV infection	128 (42.67)	80 (26.67)	92 (30.67)	1.88	0.84	Fair
Using condom in every sexual intercourse can prevent HIV infection	235 (78.33)	51 (17.0)	14 (4.67)	2.73	0.53	Good
Education of people on prevention is not a good way to control HIV infection.	77 (25.67)	49 (16.33)	174 (58.0)	2.32	0.85	Fair
All HIV infected people should be isolated to control HIV/AIDS.	115 (38.33)	93 (31.00)	92 (30.67)	1.92	0.82	Fair
Early treatment of STI can reduce the risk of contracting HIV from infected partners.	133 (44.33)	96 (32.00)	71 (23.67)	2.20	0.79	Fair

Table 8 Numbers, Percentage, Mean, Standard Deviation and Comment of the Respondents Related to Perception of VHVs towards HIV/AIDS Prevention and Control by Items (cont.)

Statements/Items	Agree	Uncertain	Disagree	$\bar{x}$	SD	Com.
HIV- infected mother cannot infect the child in her womb through her blood.	59 (19.67)	69 (23.00)	172 (57.33)	2.37	0.79	Good
Discrimination on HIV infected person and their family is a barrier to control HIV infection.	130 (43.33)	102 (34.00)	68 (22.67)	2.20	0.78	Good
HIV infected person no need social and psychological support in addition to drug treatment	65 (21.67)	40 (13.33)	195 (65.00)	2.43	0.82	Good
Take care the person who get HIV infection is necessary for sustainable prevention and control AIDS disease.	209 (69.67)	56 (18.67)	35 (11.67)	2.58	0.69	Good
Using condom, during sexual intercourse, can prevent the transmission of HIV/AIDS and other sexually transmitted infection (STI).	239 (79.67)	51 (17.00)	10. (3.33)	2.76	0.49	Good
Members in the family no need to discuss about prevention of AIDS.	31 (10.33)	25 (8.33)	244 (81.33)	2.70	0.64	Good
Use of condom makes loose sexual potency.	15 (5.0)	84 (28.00)	201 (67.00)	2.61	0.58	Good
It is unnecessary to pay the money for condom use.	24 (8.0)	37 (12.33)	239 (79.67)	2.71	0.60	Good

Table 8 Numbers, Percentage, Mean, Standard Deviation and Comment of the Respondents Related to Perception of VHVs towards HIV/AIDS Prevention and Control by Items (cont.)

Statements/Items	Agree	Uncertain	Disagree	$\bar{x}$	SD	Com.
Using condom is time taking of sex relation	29 (9.67)	55 (18.33)	216 (72.00)	2.62	0.65	Good
Your regular sexual partner/spouse will feel unhappy when using condom.	38 (12.67)	94 (31.33)	168 (56.0)	2.43	0.70	Good
Making love with only one partner is boring	30 (10.00)	54 (18.0)	216 (72.00)	2.61	0.66	Good

Score: Good ≥ 2.33- 3.0, Fair 1.67- 2.32, Poor 1-1.66

4.1.4 Sources of Information for VHVs from Media and Person

The great majority 94.6 percent of respondent said that they received information from television. More than one half 61 percent of the respondent reported that they received information from radio. Other sources of information were reported as newspaper 48.67 percent, books 42 percent, health magazine 39.67 percent, leaflet 25.67 percent and others 13 percent respectively. Similarly regarding the persons as a source of information, a large majority of the respondents 82.33 percent reported that they received information from Doctor/Nurse followed by friend 43% percent, Neighbor/Village leader 39.67 percent, family members 37.33 percent, village head man 27.33 percent and others 18.33 percent respectively. Detail information is shown in Table 9.

Table 9 Number and Percentage of Respondent Mentioning Particular Sources of Information on HIV/AIDS Prevention and Control

Sources of information * (N= 300)	**Number**	**Percentage**
From media:		
Radio	183	61
TV/Video	284	94.67
Newspaper	146	48.67
Health Magazine	119	39.67
Leaflet	77	25.67
Books	127	42.0
Others	39	13.0
From Person		
Doctors/Nurse	247	82.33
Friend	129	43.00
Neighbors	119	39.67
Family member	112	37.33
Village headmen	82	27.33
Village leader	119	39.67
Others	55	18.33

* Multiple answers

4.1.5 Participation of VHVs on HIV/AIDS Prevention and Control Activities

The total scores of VHVs participation on HIV/AIDS prevention and control activities were divided in to three levels high, fair and poor nearly one-half of the respondents 42 percent represented poor participation group, followed by 30.33 percent fair and the rest (27.67 %) were good participation group as shown in the table 10.

Table 10 Number and Percentage of the Respondent by Level of Participation on HIV/AIDS Prevention and Control Activities

Level of Participation (n=300)	Number	Percentage
Good	83	27.67
Fair	91	30.33
Poor	126	42.00

Score: Poor = <8, Fair = 8-10, Good = >10

Regarding the detail of Village Health Volunteers participation it reveled that, the great majority of the respondents (91% and 90%) participated to disseminate knowledge through educational session and campaign to prevent HIV/AIDS in the community.

Slightly over two-third (68%) and 63.3 percent of the respondents did home visits for AIDS patient and to assist their child.

Over one-half (52%) and 48 percent of the respondents were active in the activities of teaching home based care to the family of the PLWHA and suggest the AIDS patient to take treatment in government hospital.

About 59 percent of the respondent said that they took part in broadcasting knowledge about AIDS through public address system and 38 percent of the respondent responded that they participated to organize the public funds for AIDS patient in the community.

More then three-fourth (77%) of the respondent participated in community participation in AIDS activities in special occasion, 30 percent of them replied that they took part in financial support in seeking for family of infected HIV persons.

However, a few of the respondents 3.7 percent responded that they took part in seeking for ARV to them, who have HIV infection.

Table 11 Numbers, Percentage, and Comment of the Respondents Related to Participation on HIV/AIDS Activities by Items

Statements/Items N= 300	Number	Percentage	Comment
1. Do you participate in the HIV/AIDS educational session to community?	274	91.0	Good
2. Do you participate in the community campaigns to prevent AIDS?	270	90.0	Good
3. Do you participate in home visit for AIDS patient?	204	68.0	Fair
4. Do you participate in assist the child of PLWHA families?	190	63.33	Fair
5. Do you participate in refer the AIDS patient to have treatment at the government hospital?	144	48.0	Poor
6. Do you participate in teaching the home based care to the family member of PLWHA?	157	52.0	Poor
7. Do you participate organize the public funds for AIDS patient in the community?	116	38.0	Poor
8. Do you participate in Broadcasting knowledge about HIV/AIDS through village public address system?	177	59.0	Poor

Table 11 Numbers, Percentage, and Comment of the Respondents Related to Participation on HIV/AIDS Activities by Items (cont.)

Statements/Items N= 300	Number	Percentage	Comment
9. Do you take part in community participation in AIDS activities on special occasion?	223	77.67	Fair
10. Do you participate in seeking for ARV to those who have HIV infection?	22	7.33	Poor
11. Do you involve in seeking for condoms to prevent HIV transmission in the community?	111	37.0	Poor
12. Do you take part in seeking for financial support for families of infected HIV persons?	92	30.0	Poor
13. Do you involve in arranging special meeting between HIV infected people and none infected people to minimize the feeling of discrimination for infected people?	165	55	Poor
14. Do you participate in activities to prevent IVD in the community?	169	56.33	Poor

4.2 Relationship between Dependent and Independent Variables

4.2.1 Relationship between Participation of VHVs and Socio-demographic Characteristics

Table 12 shows that about 46.47 percentages in the age group 22 to 37 years had poor participation the percentage of the good and fair participation in this age group was 27.27 and 26.26 respectively. The percentage of poor participation was more 39.88 percent then the percentage of good and fair participation in the age group

38 to 52 years. The percentage of good participation was 32.14 percent in the age group 53 to 68 years which was the highest among three age groups. However the association was statistically not significant.

Regarding gender it was found that 36.49 percent had poor participation among the mail village health volunteer, rest had good 34.14 percent and fair 28.38 percent. Among the female village health volunteer 43.81 percent had poor participation.

Concerning marital status those who were single, half of them had poor participation. Among the married VHV 42.16 percent had poor participation, however the association was not found significant.

In view with educational status nearly half of the respondents had poor participation in primary educational level. Other hand secondary educational level of 39. 24 percent had fair participation. Among bachelor degree holders, major portion of 62.5 percent had good participation and association was statistically significant, ($p = 0.007$).

Regarding occupational respondents those who were government servants half of them had fair participation. Among business group 40 percent had good participation. About 43 percent of the farmer had poor participation; however 44 percent of labor had good participation. Others group had 47 percent poor participation.

In relation with family monthly income of the respondents it was found that those who had monthly family income $\leq$ 5,000 baht, among them 25.74 percent had good participation, 31.22 percent had fair participation and rest 43.34 percent had poor participation. Income group of 5,000 to 10,000 baht, the percentage of fair and poor participation was equal to 32 percent. Income group of 10,001 to 30,000 baht, majority 61.54 percent had poor participation. However association was statistically not significant.

Table 12 Relationship between Participation of VHV on HIVAIDS Prevention and Control and Socio-demographic Characteristic

Socio-Demographic Characteristics	**Participation**						total	χ^2 (df)	p - value
	Good		Fair		Poor				
	No.	%	No	%	No	%			
Age group(years)									
22-37	27	27.27	26	26.26	46	46.47	99		
38-52	47	27.17	57	32.95	69	39.88	173	1.89	0.757
53-68	9	32.14	8	28.57	11	39.29	28	(4)	
Gender									
Male	26	35.14	21	28.38	27	36.49	74	2.82	0.25
Female	57	25.22	70	30.97	99	43.81	226	(2)	
Marital status									
Single	2	16.67	4	33.33	6	50.00	12	1.19	0.88
Married	75	27.99	80	29.85	113	42.16	268	(4)	
Others (Divorce/widow/separate)	6	30.00	7	35.00	7	35.00	20		
Education									
Primary	49	24.50	54	27.00	97	48.50	200	17.60	0.007*
Secondary	27	34.18	31	39.24	21	26.58	79	(6)	
Vocational	2	15.38	4	30.77	7	53.85	13		
Bachelor	5	62.50	2	25.00	1	12.50	8		

Table 12 Relationship between Participation of VHV on HIVAIDS Prevention and Control and Socio-demographic Characteristic (cont.)

Socio-Demographic Characteristics	Participation						total	χ^2 (df)	p - value
	Good		Fair		Poor				
	No.	%	No	%	No	%			
Occupation									
Government servant	2	16.67	6	50.00	4	33.33	12	8.45 (8)	0.39
Business	4	40.00	3	30.00	3	30.00	10		
Farmer	43	25.29	54	31.76	73	42.94	170		
Labor	11	44.00	7	28.00	7	28.00	25		
Others	23	27.71	21	25.30	39	46.99	83		
Family monthly income(Baht)									
0-5000	61	25.74	74	31.22	102	43.34	237	6.36 (4)	0.17
5001-10000	18	36.00	16	32.00	16	32.00	50		
10000-30000	4	30.77	1	7.69	8	61.54	13		

* p-value < 0.01

4.2.2 The Association between the Participation of VHVs on HIV/AIDS Prevention and Knowledge, Perception and Information

The table 13 shows that those who had good knowledge among them 46.51% had poor participation, 28.68% had fair participation and 24.81% had good participation. Those who had fair knowledge, 37.9% of them had poor participation which was the highest on that group. Those who under the poor knowledge group, 40.43% of them had poor participation; however association was not found significant.

Table 13 Association Between Participation of VHV on HIV/ AIDS and their Knowledge

Knowledge	Participation						Total	χ^2 (df)	p - value
	Good		Fair		Poor				
	N	%	N	%	N	%		8.44	0.077
Good	32	24.81	37	28.68	60	46.51	129	(4)	
Fair	43	34.68	34	27.42	47	37.90	124		
Poor	8	17.02	20	42.55	19	40.43	47		

The table 14 reveals that those who had good perception, nearly half of them had poor participation in contrast to those who had fair perception, 43.37% of them had fair participation. However level of significance was consistent ($p < 0.05$)

Table 14 Relation between Participation of VHV on HIV/AIDS Prevention and Control with Perception

Perception	Participation						Total	χ^2 (df)	p - value
	Good		Fair		Poor				
	N	%	N	%	N	%		13.24	0.001*
Good	58	26.73	55	25.35	104	47.93	217		
Fair	25	30.12	36	43.37	22	26.51	83	(2)	
Poor	0	0	0	0	0	0	0		

*p-value < 0.01

Furnished table 4.12 shows the relationship between participation in HIV/AIDS prevention and control activities and exposure of information on media sources. Out of seven media sources, only the information through TV/Video, Newspaper and health magazine were found to be significantly associated with participation in HIV/AIDS prevention and control activities. Further more the percentage of volunteers who have good participation in HIV/AIDS prevention

program was higher if they received information from above media sources compared to those who did not receive information from these three media sources.

Table 15 Relation between Participation of VHV on HIV/AIDS Prevention and Control with Source of Information by Items

Source of Information From Media	Participation						Total	χ^2 (df)	p-value
	Good		Fair		Poor				
	N	%	N	%	N	%			
Radio									
Yes	50	27.32	54	29.51	79	43.17	183	0.278	0.870
No	33	28.21	37	31.62	47	40.17	117	(2)	
TV/Video									
Yes	81	28.52	78	27.46	125	44.01	284	20.99	0.000***
No	2	12.50	13	81.25	1	6.25	16	(2)	
NewsPaper									
Yes	51	34.93	35	23.97	60	41.10	146	9.275	0.010*
No	32	20.78	56	36.36	66	42.86	154	(2)	
Health magazine									
Yes	46	38.66	26	21.85	47	39.50	119	13.584	0.001**
No	37	20.44	65	33.91	79	43.65	181	(2)	
Leaflet									
Yes	25	32.47	23	29.87	29	37.66	77	1.334	0.513
No	58	26.01	68	30.49	97	43.50	223	(2)	
Books									
Yes	36	28.35	39	30.71	52	40.94	127	0.105	0.949
No	47	27.17	52	30.06	74	42.77	173	(2)	
Others									
Yes	36	28.35	39	30.71	52	40.94	127	0.105	0.949
No	47	27.17	52	30.06	74	42.77	173	(2)	

* p-value < 0.05
** p-value < 0.01
*** p-value < 0.001

Table 16 shows that the relationship between HIV/AIDS information from different persons and VHVs participation in HIV/AIDS prevention program. Out of seven persons with whom the VHVs received information, only the information received from Dr./Nurse, friend, family members and other were significantly related with participation in HIV/AIDS prevention program. The participation in HIV/AIDS prevention program was significantly higher if the VHVs received information from these persons compared to those who did not received information.

Table 16 Relation between Participation and Control with Source of Information

Source of Information From Person	**Participation**						**Total**	χ^2 **(df)**	**p-value**
	Good		**Fair**		**Poor**				
	N	%	N	%	N	%			
Dr/Nurse									
Yes	51	20.65	81	32.79	115	46.56	247	34.06	0.001*
No	32	60.38	10	18.87	11	20.75	53	(2)	
Friend									
Yes	56	43.41	25	19.38	48	37.21	129	30.46	0.000**
No	27	15.79	66	38.60	78	45.61	171	(2)	
Neighbor									
Yes	36	30.25	40	33.61	43	36.13	119	2.792	0.248
No	47	25.97	51	28.18	83	45.86	181	(2)	
Family member									
Yes	46	38.66	26	21.85	47	39.50	119	13.58	0.001*
No	37	20.44	65	35.91	79	43.65	181	(2)	
Village headman									
Yes	24	29.27	18	21.95	40	48.78	82	3.954	0.139
No	59	27.06	73	33.49	86	39.45	218	(2)	

Table 16 Relation between Participation and Control with Source of Information (cont.)

Source of Information From Person	Participation						Total	χ^2 (df)	p - value
	Good		Fair		Poor				
	N	%	N	%	N	%			
Village leaders									
Yes	34	28.57	34	28.57	51	42.86	119	0.295	0.863
No	49	27.07	57	31.49	75	41.44	181	(2)	
Others									
Yes	26	47.27	12	21.82	17	30.91	55	12.93	0.002*
No	57	23.27	79	32.24	109	44.49	245	(2)	

* p-value < 0.01

** p-value < 0.001

CHAPTER 5
DISCUSSION

The cross-sectional descriptive study was designed to identify the participation of Village Health Volunteers in Wattana Nakorn district, Sakaeo Province, Thailand. A total of 300 village health volunteers were interviewed by two trained interviewer. This study focused on the socio-demographic factors, psychosocial factors and source of information as independent variables.

5.1 The Level of Village Health Volunteers participation on HIV/AIDS Prevention and Control Activities

The VHVs are the heart of the primary health care. They bridge the gap between the community and health service. In these study three levels of participation (poor, fair and good) of VHV's was examined. The result of this study showed that a little more than one third (42%) had poor participation on HIV/AIDS prevention and control activities. Where as about 28 percentage had good participation. In the study of Khin Myintzu Han (2000) found that 32.6 percentages of the VHVs had high participation. The finding is similar to the finding of current study. Another study by Sulaiman Ratman (1991) found that 38.8 per cent of VHVs were highly active. This finding is much higher than the finding of present study (27.67%). The difference in the findings may be due to the fact that in the initial stage of primary health care the enthusiasm and self willingness, motivation, self actualization was higher but it might have declined gradually as the time pass that's why VHVs participation was poor.

5.2 Participation Related with Socio-demographic Factors of VHV

5.2.1 Age and VHV Participation

Age group of VHVs was categorized in to three groups. The percentage of poor participation was 46.46%, 38.88% and 39.29% fair and good. respectively. This

percentage is higher than the percentage of good participation in all the three groups. However the relation ship was not statistically significant. The result of the study showed that the level of participation is decreasing in course of time. A study by the Health Planning Division (1981) had found no significant difference between age of the VHVs and participation. More over Aung TT (2001) also did not find any association between age and participation on HIV/AIDS preventive and control activities.

5.2.2 Gender and VHV Participation

Concerning the gender it was found that 35.14% of the male had good participation but the good participation level for the female was 25.22% however the relationship was not found statistically significant. Aung TT (2001) found no significant association between gender and participation on HIV/AIDS prevention and control activities.

5.2.3 Marital Status and VHV Participation

The study revealed that half of the respondent who belongs to unmarried group had poor participation. Percentage of good participation among the married and others (divorce) was 27.99% and 30% respectively. But the relationship was not statistically significant and the findings are the similar to the Aung.T.T.(2001)

Regarding the education of the respondents it was found there was no significant relationship between education of the respondents and participation on prevention and control of HIV/AIDS program (p-value 0.55). Fisher's exact test performed to find out the p-value. A study by Aung.T.T.(2001) found similar finding as the present study.

5.2.4 Occupation and VHV Participation

Among the farmer 25.25 percent had good participation. This finding is nearer to the finding of Aung T.T. (2001) who found that 20.2% of the farmer had good participation. The study also revealed that among the laborer 28% had poor participation. Aung T.T. (2001) in his study found that 27% of the laborer had poor participation. However both the study did not found any significant association.

5.2.5 Income and VHV Participation

Regarding the income of village health volunteers it was found that about 27% of the VHVs that belonged to the income group less than 5,000 Baht had good participation. The finding is nearer to the finding of Aung T.T. (2001), who found that 19.9% of the respondent who belong to less than 5000 Bhat monthly income had good participation. However both the study did not find any significant association.

5.3 Knowledge and VHV Participation

Regarding the knowledge of the VHVs on HIV/AIDS prevention and control it was found that 41.33% of VHV had fair knowledge. Aung T. T. (2001) found that the percentage of fair knowledge was 33.2%. The higher level of fair knowledge than that of Aung T.T. (2001) study may be due to the increased knowledge and awareness of the VHVs. It also showed that those who have fair knowledge among them 34.68% had good participation. This finding is similar to the finding of Aung T.T. (2001). However the association was not statistically significant. It should be mentioned that here the study of Mathee Chanjaruporn (1996), found that lack of HIV/AIDS knowledge and skills for care of and counseling AIDS patient, along with the patients risk of discrimination from society has limited VHVs role in the community.

5.4 Perception and VHV Participation

Regarding perception it was found that those who have good perception among them nearly half had poor participation. Those who had fair perception among them 43.37% had fair participation the relationship between perception and participation of VHV on HIV/AIDS found statistically significant result (p=0.001). It should be mentioned that a study by Soong Khan I (1996) found significant relationship between perception and HIV/AIDS prevention and control activities.

5.5 Information and VHV Participation

Information plays an important role in HIV/AIDS prevention and control. The result showed that TV/Video was one of the important sources of information. 94.67% of the respondents received information from TV/Video. On the other hand among the persons, health personal was the major source of information (82.33%). The role of TV/Video, Newspaper had significant relationship between participation of VHV on HIV/AIDS prevention and control. With source of information however the association was not significant in case of radio, leaflets, books and others.

Regarding source of information by person it was found that health personal, friend, family member had significant association ($p < 0.005$) on the other hand the relationship with neighbour, village head man and village leaders was not significant. It should be mention here that the previous studies did not include information about source of information of VHVs and their participation in HIV/AIDS prevention and control.

CHAPTER 6
CONCLUSION AND RECOMMENDATION

Conclusion

Village Health Volunteer and community participation is the one of the important pillar of primary health care. In developing countries, the perception of the population without access to health service is extremely high to address the issue of community empowerment in the form of volunteers started after Alma Ata declaration in the developing countries.

This study was conducted to identify the participation of VHVs on HIV/AIDS prevention and control and its associations, in six sub districts of Wattana-Nakorn District, Sakaeo province, Thailand.

1. The study results revealed that only 28 percent had good participation, 42 percent of the respondents had poor participation and the rest had fair participation on HIV/AIDS prevention and control.

2. Among the respondents 58 percent was age of 38-52 years, age 22-33 represented 33 percent and only 9.3 percent was age of 53-68 years. Out of these three age groups elderly age group had the highest participation. More than 75 percent of respondents were female and male respondents had little higher participation than female respondents. The great majority of the respondents were married and 28 percent had good participation. 67 percent of respondents had primary education and 25 percent of them had good participation. Farmers represented 57 percent of respondents and only 25 percent of them had good participation where as labors represented 8.3 percent of the respondents and their participation was 44 percent. Majority of respondents had income below 5000 bath and 26 percent of them had good participation.

3. Among the respondents 43 percent had good knowledge and16 percent had poor knowledge. Those who had good knowledge, only 25 percent of them had good participation. While those who had fair knowledge among them, 35 percent had good participation.

4. Among the respondents 72 percent had good perception while 28 percent had fair perception. Those who had a good perception, 28 percent had good participation, while the percentage of good participation in the fair group was 30 percent only.

5. About 95 percent of the respondents received information from TV/Video. The other important source of information was health personnel (82.33%).

6. This study revealed that no significant association between participation and age, gender, marital status, occupation, level of income and knowledge. Whereas, there was significant association observed between education and perception with participation.

Recommendation

1. Health Authority

1. Majority of the respondents were female but their level of participation was poor than that of male respondent so refresher training emphasized on counseling should be arranged by the district health office.

2. Majority of the respondent had primary education only 25 percent had good participation, to increase their participation informal adduction about HIV/AIDS and skill based program should developed by district public health office.

3. Among the respondents 43 percent had good knowledge only 25 percent of them had good participation. To increase their level of participation some incentives

in terms of recognition, awarding system should developed, action should be taken by District Health Office.

4. Though 67 percent of the respondent had good perception but their participation was not satisfactory to increase their level of participation the authority should focus on regular supportive supervision and counseling.

5. In providing information for VHVs the most popular media is TV/Video according to this study

2. Local Administration

1. The study revealed that 42 percent respondents had poor participation so special measure should be taken to motivate them such as their recognition, evaluation as a best VHV and give them some prize so that their participation would be increased

2. Majority of respondents had income below 5,000 baht only 26 percent of them had good participation. So measure should be taken in income generating activity to increase the level of participation by providing financial support to do activities like poultry form, carpentry initiation should be taken by tam boon administrative office.

3. The potential younger age group had poor participation to increase their participation motivational, supportive system like appreciation, recognition, give priority for job in government services and health services should developed by tam boon administrative office.

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Further studies

Despite its important result this study has certain limitation such as being a cross-sectional and covering small area. That is why the result may not be generalized to the larger setting. Further more it is descriptive study and used only chi-square to examine the relationship. Thus the relation observed may not be the causal one. To find the cause of VHVs participation towards HIV/AIDS prevention and control program a logistic regression analysis can be performed using longitudinal information.

Finally a qualitative study should be used to supplement the result of quantitative study. For example VHVs who had good perception, poorly participated in the HIV/AIDS prevention and control activities. What are the reasons behind their poor participation? Such questions can be answered using qualitative study. However this study was not able to cover these issues and further study is necessary to explore more.

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APPENDIX

QUESTIONNAIRE

Study on Participation of Village Health Volunteers on HIV/AIDS Prevention and Control Program

This study intended to achieve better understanding about the participation of Village Health Volunteers on HIV/AIDS Program.

Please answer all questions.

This information will be used only for study purposes and we guarantee about confidentiality of your information. Therefore, please feel free to answer honestly. And do not write your name.

Part I Socio-Demographic Factors

Please put the mark (✓) in box □ and complete in space that you agree.

1 Age (in years): ……

2 Sex □ 1) Male □ 2) Female

3 What is your marital status?

□ 1) Single

□ 2) Married

□ 3) Widow/Divorcé/Separate

□ 4) Others (specify)……

4. What is your highest education attainment?

□ 1) Primary School

□ 2) Secondary School

□ 3) Vocational School

□ 4) Bachelor or above

□ 5) Other (specify)……

5. What is your occupation?

□1) Government servant

□ 2) Business

□ 3) Farmer

□ 4) Labor

□ 5) Others (please specify): ……

6. What is your Family monthly income? (Baths) ……

Part II Knowledge about HIV/AIDS

Please put the mark (✓) in the □ which is most correct according to your understanding.

1. Which one is not the source of HIV infection?

□ 1) Blood of infected person.
□ 2) Saliva of infected person.
□ 3) Seminal fluid of infected person.
□ 4) Feaces of infected person

2. HIV cannot transmit to which way?

□ 1) Sexual intercourse.
□ 2) Mosquito bite.
□ 3) Blood transfusion.
□ 4) Mother to fetus.

3. HIV affect to which system of the body?

□ 1) Nervous system.
□ 2) Immune system.
□ 3) Urogenital system.
□ 4) Digestive system.

4. The following answer which one is not infectious from mother to child?

□ 1) Via Placenta.
□ 2) During delivery.
□ 3) Via breast milk.
□ 4) Via hugging and kissing.

5. Which is the most common route of transmission of HIV among intra venous drug users?

□ 1) Sharing needles.
□ 2) Smoking the same cigarette.

□ 3) Using the same towel.

□ 4) Shaking the hands with IVD users.

6. Most significant symptom suggesting AIDS is.

□ 1) Rapid weight loss.

□ 2) Blood vomiting

□ 3) Jaundice

□ 4) High fever

7. HIV infection can be detected by.

□ 1) Doing Chest X-ray.

□ 2) Doing stool test

□ 3) Doing Blood test.

□ 4) Doing Urine test.

8. Which is not complication of HIV infection?

□ 1) Mild fever all the time

□ 2) Weight loss

□ 3) Diarrhea.

□ 4) Blood in stool.

9. Which of the following statement is true in AIDS treatment until now?

□ 1) By medication.

□ 2) By a vaccine

□ 3) By traditional medicine.

□ 4) AIDS is not curable.

10. The following statement is correct about HIV transmission except.

□ 1) Having sex with infected female sex workers.

□ 2) Sharing needles.

□ 3) Blood transfusion.

□ 4) Kissing with infected person.

11. The following group is the high risk group to be infected with HIV/AIDS in community at present except

□ 1) Homosexuals

□ 2) Heterosexuals

□ 3) Intra venous drug abusers

□ 4) Chronic smoker

12. Which is the method in prevention of transmission of HIV during sexual intercourse?

□ 1) Using condom in every sexual contact.

□ 2) Using Antiretro Viral Treatment before sexual intercourse.

□ 3) Using Vaccine before sexual intercourse

□ 4) Using antibiotic before sexual intercourse

13. The following sentences which one is not prevention in transmission HIV from mother to the child?

□ 1) Avoid breast-feeding after delivery.

□ 2) Continue ARV treatment.

□ 3) Avoid pregnancy.

□ 4) By cuddling and kissing the child.

14. Which one is true for prevention and control of HIV/AIDS?

□ 1) Can be controlled by prevention of transmission from infected person to none infected.

□ 2) Can be prevented by using vaccine

□ 3) Can be prevented by taking ARV.

□ 4) Isolation of infected person.

15 The following methods can prevent the HIV/AIDS except.

□ 1) Being abstinent until marriage

□ 2) Being faithful to one's spouse after marriage

□ 3) Proper condom use

□ 4) Doing sex with HIV infected person without using condom

16. How long does it take to develop AIDS from the time of infection with HIV virus?

□ 1) Within a week.

□ 2) Within a month.

□ 3) Within three months

□ 4) Within six months

17. The following person is/are the most at risk of getting HIV except.

□ 1) Those who use to have sex with commercial sex workers.

□ 2) Those who have multiple sexual partners.

□ 3) Intravenous drug users.

□ 4) Be abstenism

18. Which one is correct about HIV transmission?

□ 1) Blood of an infected patient can be the source of infection of HIV.

□ 2) HIV can be transmitted via powder milk

□ 3) HIV can be transmitted among homosexual single partners (Sex among males).

□ 4) HIV can be transmitted by kissing an infected person

19. Which one is correct about AIDS control in the community?

□ 1) Isolation infected person.

□ 2) Distribution of ARV (antiretro viral treatment) for AIDS patient.

□ 3) Campaign about condom use.

□ 4) Distributing Antibiotic.

20. Which statement is correct about HIV/AIDS?

□ 1) Can be cured.

□ 2) AIDS patient is always fatal.

□ 3) Infected person can be identified by looking at the person.

□ 4) Using condom can not prevent transmission.

Part III Perception towards HIV/AIDS

Please put the mark (✓) in the column, you agree most.

Statement	Agree	Uncertain	Disagree
1. HIV/AIDS is always fatal.			
2. HIV/AIDS is a curable disease.			
3. HIV/AIDS is a serious social problem.			
4. It causes much expenditure for caring AIDS patient.			
5. People with HIV/AIDS always die with opportunistic disease.			
6. Antivirus drugs make public not afraid of AIDS infection.			
7. Sexual intercourse with unknown person without condom use is risk of getting HIV infection.			
8. Doing sex (oral or anal) with an HIV/AIDS infected person can result in HIV infection.			
9. Any open wound person come into direct contact with an HIV/AIDS infected person, have chance to get HIV infection.			
10. Having multiple partners is a risk factor for HIV infection.			

Statement	Agree	Uncertain	Disagree
11. Stay with single partner can not prevent from HIV infection.			
12. Fatal with AIDS disease is not makes people realized to prevent from HIV infection.			
13. Using condom in every sexual intercourse can prevent HIV infection.			
14. Education of people on prevention is not a good way to control HIV infection.			
15. All HIV infected people should be isolated to control HIV/AIDS.			
16. Early treatment of STI can reduce the risk of contracting HIV from infected partners.			
17. HIV- infected mother cannot infect the child in her womb through her blood.			
18 Discrimination on HIV infected person and their family is a barrier to control HIV infection.			
19. HIV infected person no need social and pschycological support in addition to drug treatment			
20. Take care the person who get HIV infection is necessary for sustainable prevention and control AIDS disease.			
21. Using condom, during sexual intercourse, can prevent the transmission of HIV/AIDS and other sexually transmitted infection(STI).			
22. Members in the family no need to discuss about prevention of AIDS.			

Statement	Agree	Uncertain	Disagree
23. Use of condom makes loose sexual potency.			
24. It is unnecessary to pay the money for condom use.			
25. Using condom is time taking of sex relation.			
26. Your regular sexual partner/spouse will feel unhappy when using condom.			
27 Making love with only one partner is boring.			

Part IV Participation of Village Health Volunteer on HIV/AIDS prevention and control program.

Please put the mark (✓) in the box (□) you agree

1. Do you participate in the HIV/AIDS educational session to community?

□ Yes □ No

2. Do you participate in the community campaigns to prevent AIDS?

□ Yes □ No

3. Do you participant in home visit for AIDS patient?

□ Yes □ No

4. Do you participate in assist the child of PLWHA families?

□ Yes □ No

5. Do you participate in refer the AIDS patient to have treatment at the government hospital?

□ Yes □ No

6. Do you participate in teaching the Home-based care to the family member of PLWHA?

□ Yes □ No

7. Do you participate organize the public funds for AIDS patient in the community?

□ Yes □ No

8. Do you participate in Broadcasting knowledge about HIV/AIDS through village public address system?

□ Yes □ No

9. Do you take part in community participation in AIDS activities on special occasion?

□ Yes □ No

10. Do you participate in seeking for ARV to those who have HIV infection?

□ Yes □ No

11. Do you involve in seeking for condoms to prevent HIV transmission in the community?

□ Yes □ No

12. Do you take part in seeking for financial support for families of infected HIV persons?

□ Yes □ No

13. Do you involve in arranging special meeting between HIV infected people and non-infected people to minimize the feeling of discrimination for infected people?

□ Yes □ No

14. Do you participate in activities to prevent IVD in the community?

□ Yes □ No

Part V Sources of HIV/AIDS Information.

Please give a ✓ mark in the □ according to the source you know that you ever received information about HIV/AIDS prevention and control program.

1. Which of the following ways provide you information about HIV/AIDS prevention and control? (You can select more than one source)

□ 1) Radio
□ 2) TV/Video
□ 3) News Paper
□ 4) Health Magazines
□ 5) Leaflet
□ 6) Books
□ 7) Other (specify)……

2. Which of the following individuals have provided you about HIV/AIDS information?

(You can select more than one answer)

□ 1) Doctor/Nurse
□ 2) Friends
□ 3) Neighbors
□ 4) Family member
□ 5) Village headmen.
□ 6) Village leader
□ 7) Other (specify)…….

BIOGRAPHY

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