Institute for Population and Social Research, Mahidol University
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Strengthening Community-based Cervical Cancer Screening Programme in a Thai Rural Community

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Research Report

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Foreword

Cervical cancer is one of the leading causes of death among Thai women. Many of these deaths could be prevented through early detection and treatment. Increasing coverage of cervical screening programs is thus an urgent priority for the country.

This report describes an experiment testing the effectiveness of a community–based program to raise coverage rates for cervical smear screening. The program involved cooperation between health providers, local organizations and women volunteers. The results are encouraging: the program was supported by local people and led to a 14 percent increase in screening rates. It could therefore serve as a model for interventions elsewhere in Thailand.

The research reported here is itself a collaborative effort. The project grew out of an operations research workshop organized by the Institute for Population and Social Research, together with the Population Council, as part of the Frontiers in Reproductive Health Program and World Health Organization. The research team included members of the Institute for Population and Social Research and of the 4th Regional Health Promotion Centre, Ratchaburi. The intervention team also included many local people in the Huai Pai sub–districts.

The Institute for Population and Social Research, Mahidol University, is a WHO Regional Centre for Reproductive Health, and provides training and conducts research on social aspects of reproductive health. IPSR seeks to promote research that is rigorous and that produces practical benefits for Thailand. I congratulate the authors for completing a project that meets both these objectives.

Associate Professor Sureeporn Punpuing
Director of the Institute for Population
and Social Research

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Research team

June 2010

Acronyms and Abbreviations

HPC	4th Regional Health Promotion Centre Ratchaburi
IARC	International Agency for Research on Cancer
IEC	Information, Education and Communication
IPSR	Institute for Population and Social Research
MOPH	Ministry of Public Health
NCI	National Cancer Institute
OR	Operations Research
PHO	Provincial Health Office
TAO	Tambon (sub-district) Administrative Organization
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
VHVs	Village Health Volunteers
VIA	Visual Inspection with Acetic Acid
WHO	World Health Organization

Executive Summary

Background

The Thai conventional model for health education about cervical cancer and cervical smears relies mainly on the good will of health providers and their network such as village health volunteers (VHVs). The current model has failed to reach the target women.

Project

This two–year operations research study tested a community–based model to increase knowledge and use of cervical screening services among Thai women aged 35 to 60. The model used existing health volunteer networks, local government and local health facilities to communicate with the target women about cervical cancer and screening. The study was conducted in two sub–districts in Ratchaburi province, one experiment sub–district and one control sub–district. Baseline and endline surveys were conducted. Six hundred and nine women were surveyed in the baseline and 616 in the endline in the experiment area; the corresponding figures were 442 and 416 in the control area. Seventy–five female volunteer educators were recruited and trained using participatory action learning techniques. Over a ten–month intervention period, the volunteer educators provided information

to their friends and neighbours about cervical cancer and screening. They used many communication methods, including face-to-face interviews, group discussions, community forums and a community broadcasting system. Local health providers and the local administrative organization were also involved in the activities. This study was jointly conducted by the Institute for Population and Social Research, Mahidol University and the 4th Regional Health Promotion Centre Ratchaburi. The project was fully funded by the UNDP/UNFPA/WHO/World Bank Special Programme on Research, Development and Research Training in Human Reproduction and WHO.

Results

Knowledge about cervical cancer

Improvements in knowledge about cervical cancer were greater in the experimental sub-district than the in control sub-district.

Item	Increase in experimental sub-district minus increase in experimental sub-district
The virus caused cervical cancer can be transmitted through sexual contact	12.0%
Cervical cancer takes several years to develop	6.2%
Regular cervical screening can prevent cervical caner	5.9%
Limiting number of sexual partners can prevent cervical cancer	6.0%

Attitude towards screening service

Women in the experimental sub-district developed more positive attitude towards cervical screening services than women control sub-district.

Item	Increase in experimental sub-district minus increase in experimental sub-district
Will definitely use the screening service if it can prevent cervical cancer.	4.7%
Discussed cervical cancer prevention with partner/husband	7.1%
Discussed cervical cancer prevention with mother or sisters	2.1%

Use of cervical screening services

Women in the experimental sub-district increased their use of cervical screening services more than the control counterparts. The local health centre was the most common source of screening service used.

Item	Increase in experimental sub-district minus increase in experimental sub-district
Use of cervical screening services in the last 10 months	14.2%
Use of screening services at the local health centre	7.9%

Cumulative coverage of cervical screening

Cumulative coverage of cervical screening increased much faster in the experimental sub-district than that in the control sub-district.

Year	Experiment sub-district minus control sub-district
2006	-0.1%
2007	8.0%
2008	18.5%

Involvement of local health providers and administrative organizations

The project involved the local health providers and sub-district (Tambon) Administrative Organization in cervical cancer prevention. In addition, the Tambon Administrative Organization provided funds to support to the volunteer educators and health providers.

Overall

This community-based model has successfully increased knowledge about and use of cervical screening services in the experimental sub-district.

Recommendations

- Thai Ministry of Public Health should scale up this model in other rural communities where access to information and services are limited.
- Local health providers and local administrative organizations should be involved in the community–based activities. Involvement of the local health providers enhances their knowledge about the population–based cervical cancer prevention and also increases the use of a local health centre as a source for screening services. In addition, local administrative organizations should provide funding support to sustain the activities.
- Local health providers need to be informed about national guidelines for the cervical cancer prevention programme. They also need to refresh their knowledge about population–based screening.

Table of Contents

List of Tables

List of Figures

Chapter 1
Introduction

This report presents the findings of the operations research which was conducted in one province in Thailand. This two years operations research used a community–based model whereby community networks were trained and provided information about cervical screening to the target women aged 35–60 years old in an experimental sub–district. Baseline and endline surveys were conducted in the intervention/experimental and control sub–districts to measure two main outcome variables, knowledge and use of cervical screening.

This report is organized as follows. Chapter one gives a brief overview of the situation of cevical cancer and prevention programmes in Thailand followed by the objective of the study. Chapter two describes the intervention. Chapter three describes the research methods. The results of the study are presented in Chapter four. The conclusion and recommendations are discussed in Chapter five.

1.1 Background

Cervical cancer is the most common type of cancer among women in Thailand, with an estimated incidence of 18–25 per 100,000 persons or 6,192 new cases and 3,166 deaths in 2000 (IARC, 2001). The number of new cases is projected to increase to around 8,000 persons in 2008 (Sriprung and Srivatanakul, not dated). Cervical cancer is a rare event among women under 20 years with the peak at around 45–50 years. As most of the cancer cases are diagnosed at a very advanced stage of the disease in Thailand, there is little chance of survival for most women (Deerasamee and Srivatanakul, 1999).

Cervical cancer can be prevented. Cytology screening with Pap smear is the most effective approach for cervical cancer control in middle–income countries (Miller, 1992; WHO, 2002). Experience in many industrialized countries indicates that an organized cervical screening programme is the key to successful

control of cervical cancer. Requirements include high (80% or more) coverage screening of at–risk women, regular screening every 3–5 years, adequate facilities and resources and adequate treatment services and appropriate management of abnormal smears (Miller, 1992; Coleman, et al, 1993; WHO, 2002). A recent review of screening programmes in developing countries indicates that existing programmes have had only a limited impact on the incidence of cervical cancer, despite a large number of cytological smears taken. This is because the programmes have not been well organized, testing is often of poor quality and testing is not efficiently targeted (Chamberlain, 1986; Sankaranarayanan et al, 2001).

Although cytology screening services have been available in Thailand for about 50 years, the services have mainly been used for diagnostic purposes, rather than screening for early detection of cervical cancer. In 1997 the government introduced a reproductive health policy. Cervical cancer is, however, among the key components of the policy (Warakamin and Takrudtong, 1998). The government states in the national policy for control of cancer that "... the Pap smear will be performed in women aged 35–54 years, with screening every five years. The government will support organized screening programmes as a means of reaching a high proportion of the at–risk population. Quality control systems for the screening tests and defined mechanisms for referral and treatment of abnormalities, will be in place..." (Deerasamee and Srivatanakul,

1999: 100). Although this national plicy was introduced, no official guidelines for the prevention of cervical cancer had been officially released and nor had a population–based cervical screening programme been implemented.

Mass media campaigns to raise women's awareness of cervical cancer screening have been organized by public and private health providers in Thailand. However, a national survey conducted in 2003 found that only 39 per cent of women aged 35–54 years had heard of Pap smears and 38 per cent had ever had smear tests (NSO, 2003). Low use of available screening service has many causes. A small scale study in Khon Kaen province by one of the authors of this proposal found that the most common reasons for women never having been screened were: being too young to be screened; feeling well and having no gynecological symptoms of concern; shyness; fear of cancer; and lack of knowledge about Pap smears (Prohmmo, 2002). Among women who had had Pap tests, many said that they did so because they had experienced gynecological problems. Early detection of cervical cancer was not a reason for testing. Qualitative results from the same study also identified concerns about the pain and discomfort of the Pap test, a need for better communication between providers and women, a desire for more information on the examination procedure, questions regarding the importance of the Pap test and a need for information about the severity and treatment of abnormal results. An earlier study found that many

women linked gyneacological problems, such as an itchy vagina, pain in the uterus and vaginal discharge, to cervical cancer (Boonmongkon et al, 2001).

In late 2005, the National Cancer Institute (NCI), Department of Medical Services, Ministry of Public Health launched a population–based cervical screening programme. This programme received financial support from the National Health Security Office to implement a 5–year comprehensive cervical cancer prevention strategy. Meanwhile the NCI released guidelines for the prevention and control of cervical cancer. This guideline was written by the NCI in collaboration with experts and specialists in cancer, including the Royal Thai College of Obstretricians and Gynecologists, the Royal Thai College of Pathologists, the Thai Society of Therapuetic Radiology and Oncology, the Thai Gynecologic Cancer Society, the Thai Society of Cytologists and experts from several school of medicine and regional hospitals (National Institute of Cancer, not dated). The guidelines were later revised and officially released on the website of the National Cancer Institute (http://www.nci.go.th) with the new title "*naew tang garn treud wi nit chai lae rak sa malang paak mod luke*" or "Guideline for the diagnosis and treatment of cervical cancer" (NCI, 2007). The current programme has targeted its information and screening services to women aged 35 to 60 years old. To avoid the unmanageable demands for screening and shortages of human resources during the initial stage of the programme, the Pap smear

is to be offered every five years to women aged 35, 40, 45, 50, 55 and 60 years. It is expected that within the 5-year period all women aged 35-60 will be screened at least once. Further investigation and appropriate treatment will be provided to those with abnormal tests. Health providers at all levels are responsible for providing information and education about cancer and screening of the target women through various means such as training, meetings and mass communication.

Meanwhile, the Department of Health, Ministry of Public Health has received financial support from the National Health Security Office to launch a cervical cancer prevention programme using visual inspection with acitic acid (VIA) technique in the provinces where resources are limited. The target population for this programme is slightly different from the programme proposed by the NCI, in that women aged 35-45 years are targeted. The VIA is low cost as the service is provided by nurses and any abnormal cases that are detected are treated on site. In 2007, districts in 17 provinces have implemented the VIA programme (NCI, 2007).

There is a compelling evidence that information, education and communication contributes to the success of cervical cancer control programme (Jayant et al, 1995; Ponten et al, 1995; WHO, 2002). Attempts to raise cervical cancer awareness of the public, particularly women, are crucial to the accessibility of cervical cancer

screening services (Abwao et al, 1998). Moreover, there is a need to assess basic knowledge regarding Pap testing among women undergoing routine screening to identify information gaps, especially among disadvantaged populations. Better understanding of the users' knowledge about Pap testing may increase adherence to follow–up when abnormalities are detected (Breitkopf, Pearson and Breitkopf, 2005).

In India, a collaborative approach used the existing public health facilities to perform VIA and to treat cervical abnormalities and involved community networks to disseminate education messages and encourage women to seek cervical screening by trained health providers (http://www.orh.org/html/cxca_progexamples.htm). This approach had reached a larger number of women to be recruited for screening and enabled health providers to screen more women than before the participation of community networks.

In Thailand, there have been several research projects evaluating methods for raising awareness and increasing coverage of women being screened for cervical cancer. However, none of the projects have sought to involve community networks in cervical cancer screening programmes. For instance, a mobile screening unit in Mae Sot District was used during a campaign targetting women aged 18–65 years (Swaddiwudhipong et al, 1999). Activities included the provision of health education, personal

invitations to the screening campaign and collection of cervical smears. Village health communicators (VHCs)[1] were included mainly to receive information and to invite the target women to receive cervical screening on the day of the campaign. Health education was provided solely by health providers. It was found that the proportion of women knew about smear test increased from 20.8% in 1991 to 75.5% in 1997, also the proportion of women who had smears increased from 19.9% to 70.1% in the same period. Although the use of mobile units successfully increased the knowledge and utilization of screening services, the rate of screening was much lower among older age groups than the younger. Other activities such as mass screening and visual inspection of cervix with acetic acid (VIA), a low–cost test and treatment programme, have been piloted (Major, 2003). However, the latter mainly focused on increasing coverage of cervical cancer screening and little effort has been made to provide information to women at risk. Health providers are often overwhelmed with their routine workload. They may not be able to take up additional responsibility to provide information to cover a large number of women.

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[1] VHCs were trained by the Ministry of Public Health to provide information to people in the community and assist health personnel with preventive measures and health promotion. The VHC system is no longer active.

Although the national cervical cancer prevention programme has been introduced in Thailand, the programme is still at the initial stage. Health providers themselves are often misinformed about cervical cancer screening. Information boards in some hospitals, including prestigious hospitals in Bangkok, offer Pap smears to women as young as 20 years of age and promote annual screening. There is a need to look for a workable and affordable model to make cervical cancer screening programmes widely accessible and to reach the target population.

1.2 Objectives

This operations research (OR) study aimed to test a community–based model to increase knowledge and use of cervical screening services among women aged 35 to 60. The model recruited and trained community networks which include female volunteers, local health providers and a local administrative organization. The trained female volunteer educators provided information about cervical cancer and cervical screening services to the target women.

Chapter 2
Intervention

The key intervention is the mobilization of community members to design and implement a community-based model for providing cervical cancer screening information to women aged 35–60 years. The intervention was carried out in three phases as follows.

2.1 Pre intervention phase

1) An initial visit was made to the Ratchaburi Provincial Health Office (PHO) and District Health Office. The aims of this visit were to inform government health officials about the project, to seek their participation, to recruit people to train the project volunteers and to select the experimental and control sub–districts. To avoid possible contamination, with messages spreading from the experimental sub–district to the control sub–district, the two sub–districts were separated by some distance. Subsequent visits to the officials were made to discuss the need for increasing resources to accommodate possible increases in the number of women using screening services after the intervention.

2) An initial visit was made to the experimental and control sub–districts. The research team met with the community leaders, including member of the Tambon Administrative Organization (TAO)[2], village heads and sub–district health personnel to obtain permission to conduct the study and to inform them about the study in detail. Another aim was to gather information on existing cervical screening programmes and the community profile, including a list of households and a list of target women.

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2 TAO is a local administration unit established under the decentralization policy introduced in 1999. As a local government, the TAO can collect revenues and is gradually taking on responsibility for providing health and social services and infrastructure. By 2010, all functions, facilities and personnel at central ministries will be devolved to TAO. Therefore, TAO will play a crucial role in the future in the provision of health and social services to the people in its jurisdiction.

3) Volunteer educators in the experimental sub-district were recruited. The research team recruited three groups of community members:

(1) Seventy eight volunteer educators selected from women's group leaders and village health volunteers (VHV)[3]. These volunteers were taken from all villages in the experimental sub-district, roughly 10 women from each village.

(2) Ten persons who were the local leaders and TAO members.

(3) Four local resource persons who were the community development officers and health centre personnel.

4) The researchers compiled training materials and reproduced Information, Education and Communication (IEC) materials on cervical screening. The training materials and IEC materials on cervical cancer and screening developed by the National Cancer Institute, Ministry of Public Health were used as the main materials for training the volunteers educators. The

3 All villages have village health volunteers who are appointed and given basic training by the Ministry of Public Health. They do not receive an allowance but are paid for the time spent in annual training. They also receive a free medical care under the government health insurance scheme. The role of village health volunteers is to provide health information and basic health care to a cluster of 10-15 neighbouring households. At present, there are 710,000 VHVs (Wibulpolprasert, 2002).

IEC materials were distributed to the target women. In the experimental sub–district, the IEC materials were distributed by trained volunteer educators while in the control sub–district they were distributed by the health centre personnel.

5) The baseline survey was conducted. Researchers from the Institute for Population and Social Research led the field team, consisting of one female field supervisor and 10 female interviewers. The survey was conducted between 18 June and 17 July 2007 in both the experimental and the control sub–districts.

6) Volunteer educators were trained. The research team from the 4th Regional Health Promotion Centre conducted a two–day training session on 4–5 June 2007 for the volunteer educators, community leaders and local resource persons. The training was held at the temple in the village. Several community leaders and local politicians presided over the opening and closing sessions. The trainers employed a participatory action learning approach. Several teaching methods were used to engage the volunteers, including role play, games, group working, mind mapping, flow charts and various other visual techniques.

The training sessions began with group interaction to share knowledge, exchange experience, analyse the strength and weaknesses of their community health services and predict the need for community health in the next three years. The trainers had generated discussion concerning cervical cancer with detailed

information on cervical cancer and the screening programmes were presented and action plan for community education about cervical cancer prevention was formulated (see Annex 4). The volunteers also outlined a master plan for a healthy community. This master plan was finalised in an additional one day workshop held at the 4th Regional Health Promotion Centre. The trained volunteers were to submit this community health development plan to local government for funding before the implementation took place.

Finally, the participants organized themselves as a community council for community health development or a group of health change agents. This was a volunteer community body to disseminate health information not only cervical cancer, but also about a wide range of health issues laid out in the training workshop. The members were to work in collaboration with village health volunteers. Pre–test and post–test measures of knowledge were taken.

2.2 Intervention phase

During the ten–month intervention between 9 July 2007 and 9 June 2008, the trained volunteer educators implemented various information and communication activities, described below.

Between 9 and 17 July 2007, coincidentially, the TAO organized a mobile team to meet the villagers in all villages in the sub–district as part of a campaign to educate the community about

democracy. The volunteer educators took the opportunity to join the mobile team. They introduced themselves and conducted public campaigns to raise awareness about cervical cancer. The leader of the volunteers took the lead, speaking to the villagers through the community public address system during the community forum.

Collectively, the volunteer educators conducted a public campaign for cervical cancer education and information dissemination. For example, each volunteer educator organised a group of villagers in her neighbourhood to discuss the problems and how to prevent cervical cancer. The volunteer educators also participated and gave group education in the campaign organized by the health centre personnel. The volunteer educators were invited to take part in monthly meeting among the village health volunteers at the health centre.

Each volunteer educator was responsible for providing knowledge about cervical cancer and screening services to a cluster of 10–15 households, mainly in her neighbourhood. Various approaches were used to reach the target women, their spouses and other household members, including informal meetings and group discussions, at a public place or people's homes, one–to–one communication and home visits. Each household was visited at least once over the intervention period. Special efforts were made

during the first and second rounds of the Pap smear campaigns at the health center between June and August 2007 and May and June 2008. During the home visits, the volunteer educators handed out a leaflet about cervical cancer and encourage the women to seek screening services from the nearest health facility or to make an appointment to join the Pap smear campaigns at the health centre.

In July–August 2007, information on cervical cancer and screening was disseminated to villagers through the community public address system. The information was read out by a TAO member who attended the workshop and was a member of the community council. A community radio F.M. 101.25 MHz was also used to broadcast information about cervical cancer.

The volunteer educators also established health information posts at their homes or at other places in the community. These included shops or gloceries at villages 1, 4, 5, 6, 7 and 8, beauty parlor at village number 4 and a village headman's house at village number 2.

2) The research team of the 4th Regional Health Promotion Centre Ratchaburi produced a pamphlet about cervical cancer and Pap smear screening. The volunteer educators distributed these to the target women and kept them at the information posts.

3) Monitoring and supervising the implementation of the intervention. During the 10–month intervention, the research team monitored and supervised the work of the volunteers six times: in the first week, the third week, the second month, the forth month, the sixth month and the eighth month. If possible, observations were made while the volunteers were disseminating the information. A meeting was organised at the end of each day, where the research team and volunteers discussed progress, concerns and possible solutions for problems encountered. The discussion and output of the meeting were documented by the research team and presented to the volunteers for feedback

2.3 Post intervention phase

1) The endline survey was conducted in April to May 2008 by the same data collection team that did the baseline survey, following the same sampling procedure.

2) The researchers conducted qualitative research using indepth interviews to explore issues arising from the endline survey, such as additional information needed and barriers to use of screening services. The participants who gave informed consent were interviewed. Participants in the in–depth interviews included health providers in the experimental and control sub–districts, 10 volunteer educators and 15 female respondents and

their partners in each sub–district. The criteria for selection of participants included whether or not they ever underwent cervical screening and whether they were in younger (< 45 years) or older (45 and over) age groups. Older women are at greater risk of developing cervical cancer than younger women, but studies in Thailand show that older women are less likely to be screened. The partners or spouses of the selected women were also interviewed in order to explore their views regarding cervical cancer screening and their role in providing information and support for the women to seek screening services and treatment. The interviews of partners or spouses of the women were conducted separately. Fieldnotes were kept and the interviwers were tape recorded. The research assistants transcribed the recorded interviews.

Chapter 3
Research Methods

3.1 Research site

This study was conducted in Ratchaburi province, located 80 kilometres west of Bangkok. The province was purposively selected on the basis that the Provincial Medical Chief and the health promoting team were keen to participate in the project and there were sufficient resources, especially medical technicians and medical equipment, for treatment of abnormal smears. Administratively, the province is divided into 10 districts and 104

sub-districts with a total population of around 791,000. Two sub-districts in Muang District were chosen with similar socio-economic and health coverage-one sub-district as an experimental group and the other as a control group. Three pairs of sub-districts were prepared by the staff of the 4th Regional Health Promotion Centre Ratchaburi. The health centre personnel from those health centres were invited to a meeting held at the 4th Regional Health Promotion Centre Ratchaburi to discuss the research project and to ask whether they were willing to participate.

Table 3-1: Number of households and eligible women in experiment and control sub-districts

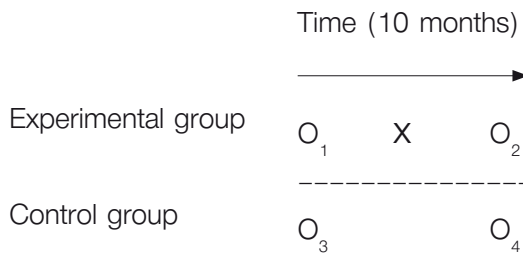
Village number	Experiment sub-district		Control sub-district	
	Number of households with eligible women	Number of eligible women	Number of households with eligible women	Number of eligible women
1	123	63	64	83
2	168	86	59	76
3	138	70	49	60
4	234	119	94	109
5	83	42	120	154
6	90	48	69	80
7	144	75	57	64
8	67	34	Na	Na
9	133	63	Na	Na
Total	1,180	600	512	626

Note: Data obtained from family folders held at the health centre.

3.2 Research design

Quasi–experimental design with the experimental group and control group was employed (see Figure 3–1). Women aged 35–60 years in both sub–districts were listed and included in the baseline and endline surveys. Neither the districts nor the target women are randomly selected in this study. As a result selection bias is likely to occur. However, in our analysis, we looked more specifically for selection effect through comparing outcome measures (knowledge about cervical cancer prevention, cervical screening programme and coverage of screening programme) both before and after the intervention and between groups.

Figure 3–1: Quasi–experimental design



Where:

O_1 & O_3 = Observations of women aged 35–60 years concerning knowledge about cervical screening and experience with Pap smear tests before the intervention.

X = Implementation of the strategies designed at the workshop by the community volunteers .

O_2 & O_4 = Observations of women aged 35–60 years concerning knowledge about cervical screening and experience with Pap smear tests 10 months after the intervention.

3.3 Sampling procedures

After selecting the study sites, the research team obtained household lists for all villages from the health centres. The field supervisor together with health centre personnel and the village leaders went through the lists and updated them. A new list of all households with women aged 35–60 years were prepared. It was found that the experimental sub–district was larger than the control sub–district. The research team randomly selected 600 households with at least one targeted women from the experimental sub–district whereas all households listed in the control sub–district were included in the baseline and endline surveys. The sample households with the targeted women were selected based on the proportion to the population size. The final lists of households were completed and used for the surveys.

If there were more than one targeted women in the same household, only one woman was randomly drawn for interviewing. If the respondent was not at home at the time of the first visit, the

interviewer asked the household members or neighbour to pass a word on to the selected woman to stay home or meet somewhere for interview. The interviewers made three attempts to revisit those who were not at home. If on the third visit, the interview could still not be made, the interviewer consulted with the field supervisor to select a new household to replace to non–response household. The replacement household was chosen using the method described above.

3.4 Research instruments

The research instruments were structured questionaires for surveys and interview guidelines for qualitative data. The questionaire was developed by the researchers based on an extensive literature review. A series of consultations were also organized with the experts and health providers before the questionaire was finalised and printed. The questionaire consisted primarily of structured questions with closed responses. The questionaire was piloted in two communities following the detailed sample procedure. This process explored a range of issues associated with the content as well as the acceptability of questions asked and the way the questionaire was delivered. At the end of the pilot, the research team and interviewers met to review the questionaire, to resolve any problems arising and to incorporate the results into the final version of the questionaire (see

Annex 1). The questionaire covered knowledge about cervical screening; sources of cervical screening information; whether or not respondents had ever had a Pap smear; when the most recent Pap smear was taken; whether and where they had received information on cervical cancer and screening; and sources of information.

3.5 Data collection

Quantitative and qualitative data collection strategies were used in this study. The quantitative data consisted of baseline and endline surveys. The baseline survey was conducted between 18 June and 17 July 2007 and the endline suvey in mid May 2008 by the same team of one experienced female field superviser and 10 female interviewers. Face–to–face interviews with the eligible women were conducted at the respondents' homes or places where they felt comfortable. The questionaire used in the endline survey was slightly modified from the baseline questionaire to incorporate questions that assessed the activities carried out by the trained volunteers.

The researchers also conducted qualitative research using in–depth interviews with all health providers, 10 community volunteers and 20 women to explore issues arising from the post–test findings. The interview guidelines are given in Annex 2. Topics include reasons for not using screening services and

additional information needed. The interviews were recorded and field notes were taken. These qualitative data were used to complement the information from the survey data. Health activities and programmes implemented in the study districts at the time of the study were documented to provide contextual information for evaluating the intervention.

3.6 Data analysis

The survey data were first used to calculate descriptive statistics on the study population. They were then used to evaluate the relationship between the intervention and two main outcome variables: knowledge of and attitude towards screening; and use of screening services. The percentage changes of observations (% difference between endline and baseline) for each outcome variable was measured by subtracting the endline observation with the baseline observation (O_2–O_1 for the experiment group and O_4–O_3 for the control group). The percentage differences between the experiment group and the control group (difference–in–difference) was further analysed. The difference–in–difference refers to the percentage changes in the experiment group minus the percentage change in the control group $\{(O_2–O_1)–(O_4–O_3)\}$. The difference in difference is the key measure of the success of the intervention. The intervention is considered to be effective, if the value of the difference–in–difference is positive.

Digital and tape recorded data from in-depth interviews were transcribed. The researchers searched for information from the transcription and field notes on key themes such as the reasons for not using cervical screening and the volunteer educators' attitude towards cervical screening services.

Chapter 4
Findings

This section describes major findings drawn from the two rounds of surveys of women aged 35–60 years old. Where appropriate, information drawn from the in-depth interviews of participants is also incorporated to complement the quantitative findings.

4.1 Social and demographic characteristics of the surveyed women

This section describes social and demographic characteristics of the female respondents in terms of age, education, occupation, marital status and sexual partner (See Table 4-1). The number of women included in the surveys in the experiment sub-district were 609 women at baseline and 616 women at endline and in the control sub-district were 442 women at baseline and 416 women at endline.

In general, interviewed women in the experimental and control groups were quite similar in terms of their age distribution, education, occupation, marital status and average number of sexual partners. In terms of ages, most women felt into the age group 40 years and older. The majority of interviewed women in both sites had primary education (or 6 years of schooling). About one fifth of women in the control group had secondary education, slightly higher than those in the experimental group.

The majority of women interviewed were engaged in agricultural activity, followed by unskilled or factory workers in the experimental district or self-employed traders in the control district.

Most women in both groups were married. Over three quarters of the women reported having had one sexual partner of which a slightly higher proportion was found in the experiment

group than the control group. The proportion who had ever had more than one sexual partner is also highest among women in the control district interviewed at the endline survey.

Table 4-1: Social and demographic background of respondents

Characteristics	Experiment group		Control group	
	Baseline	Endline	Baseline	Endline
Age				
Lower than 40	20.5%	18.0%	22.2%	19.5%
40–44	24.5%	23.9%	21.3%	23.8%
45–49	22.0%	23.1%	19.9%	18.3%
50–54	19.0%	19.2%	17.4%	20.2%
55 and over	14.0%	15.9%	19.2%	18.3%
Total	100% (609)	100% (616)	100% (442)	100% (416)
Education				
No education	6.2%	6.3%	3.6%	3.6%
Primary	82.1%	82.1%	76.5%	78.1%
Secondary	9.5%	7.5%	11.3%	11.5%
Post secondary	6.1%	4.4%	8.6%	6.7%
Total	100% (609)	100% (616)	100% (442)	100% (416)
Occupation				
Professional, clerical	6.1%	5.2%	6.1%	4.6%
Trade self–employed	20.9%	17.1%	20.8%	22.8%
Skilled workers	7.4%	8.3%	3.8%	9.7%
Unskilled or factory workers	24.3%	23.3%	20.6%	17.4%

Table 4-1: Continued

Characteristics	Experiment group		Control group	
	Baseline	Endline	Baseline	Endline
Agriculture self employed	29.9%	31.4%	36.9%	32.8%
Housewives	11.0%	13.5%	10.9%	11.8%
Other	0.5%	1.3%	0.9%	0.8%
Total	100% (609)	100% (616)	100% (442)	100% (416)
Marital status				
Single	3.8%	4.5%	8.5%	6.7%
Married	90.1%	82.8%	81.8%	77.3%
Divorced/separated/widow	6.1%	12.7%	9.7%	15.9%
Total	100% (573)	100% (616)	100% (411)	100% (415)
Number of sexual partners ever had				
None	4.3%	4.5%	7.7%	7.2%
1 person	87.5%	84.6%	82.1%	79.1%
2 persons	7.1%	9.3%	8.8%	12.3%
3 and over persons	1.1%	1.6%	1.4%	1.4%
Total	100% (609)	100% (616)	100% (442)	100% (416)

Notes: 1. Inclusion of two cases at the endline survey due to duplication.
2. Marital status of some responses in 2007 (or baseline) was not identified, so that this portion was treated as missing.
3. The numbers in parentheses are the number of respondents.

4.2 Knowledge about cervical cancer

This section assesses the effect of the intervention on knowledge about cervical cancer. It begins by describing the four aspects of general knowledge, followed by two aspects of specific knowledge. Throughout this section the research findings are presented in a similar format in tables and figures. The findings are presented as the percentage changes of the oberservations comparing the endline with baseline results of both groups (difference between endline and baseline) and the differences between the experiment group and the control group (difference–in–difference). The difference–in–difference refers to the changes in the experiment group minus the change in the control group. The difference in difference is the key measure of the success of the intervention. It is presented in the last column of each table and in each figure.

4.2.1 General knowledge

General knowledge about cervical cancer was almost universal in both groups. At the two rounds of the surveys nearly all women had heard about cervical cancer (Table 4-2). About two–thirds of women in both groups at the baseline were aware that cervical cancer could be prevented. Marked improvements in knowledge was observed in both groups though improvement was slightly higher (1.1%) in the experiment group. The experiment

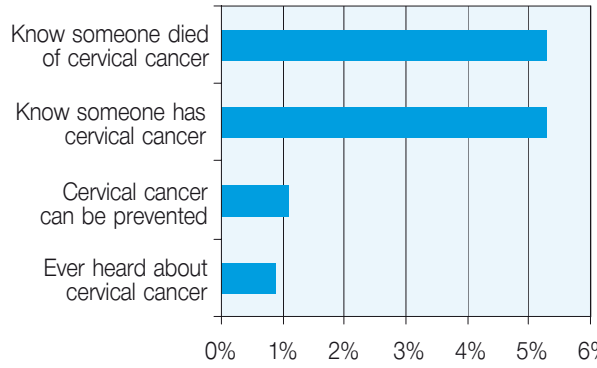
group had a higher percentage of interviewed women who reported having known someone who has cervical cancer who has died of cervical cancer than the control group. As shown in Figure 4-1, the difference in differences is 5.3%. The difference between the experiment and control groups can perhaps be explained by the greater increase in the number of women in the experiment sub–district who sought cervical screening. Of these cervical smear tests, 11 were positive in 2007 and 2 in 2008 (for details see page 63).

Table 4-2: General knowledge about cervical cancer

Knowledge	Experiment Group			Control Group			Difference in difference
	Baseline	Endline	Difference between Endline &Baseline	Baseline	Endline	Difference between Endline& Baseline	
Ever heard about cervical cancer	97.7%	99.5%	1.8%	98.9%	99.8%	0.9%	0.9%
Cervical cancer can be prevented	66.3%	88.2%	21.9%	62.4%	83.2%	20.8%	1.1%
Know someone has cervical cancer	26.1%	32.6%	6.5%	19.7%	20.9%	1.2%	5.3%
Know someone died of cervical cancer	17.6%	25.3%	7.7%	14.9%	17.3%	2.4%	5.3%

Note: * P–value < .05, ** P–value < .01 and *** P–value < .001

Figure 4-1 Difference–in–difference in general knowledge about cervical cancer



4.2.2 Cause of cervical cancer

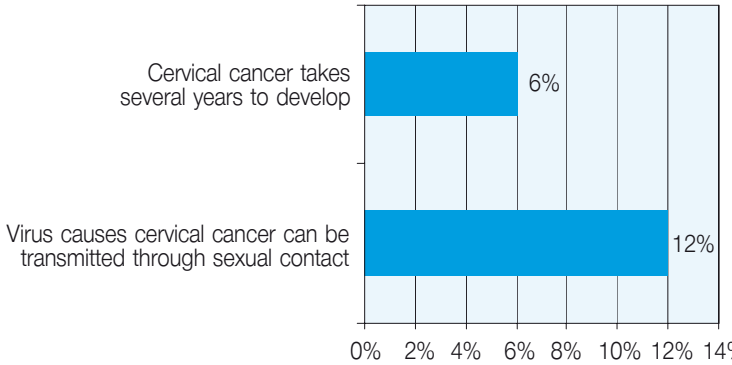
Over the course of intervention, the volunteer communicators distributed a leaflet and discussed cervical cancer with their neighbours, focusing particularly on the cause and prevention of cervical cancer. In general, the experimental group gained more knowledge about the cause of cervical cancer than control group (Figure 4-2). At post–intervention, the experimental group had significant higher score (12%) in knowledge that the virus causes cervical cancer can be transmitted through sexual contact than the control group ($p < .01$). The increase in knowing that cervical cancer takes several years to develop was 6 percent higher in the experiment group.

Table 4-3: Knowledge about cause of cervical cancer

Knowledge	Experiment Group			Control Group			Difference in difference
	Baseline	Endline	Difference between Endline &Baseline	Baseline	Endline	Difference between Endline &Baseline	
Virus causes cervical cancer can be transmitted through sexual contact	45.2%	68.9%	23.7%	48.2%	59.9%	11.7%	12.0%**
Cervical cancer takes several years to develop	63.5%	81.3%	17.8%	65.2%	76.0%	11.6%	6.2%

Note: * P–value < .05, ** P–value < .01 and *** P–value < .001

Figure 4-2: Difference–in–differences in knowledge about cause of cervical cancer



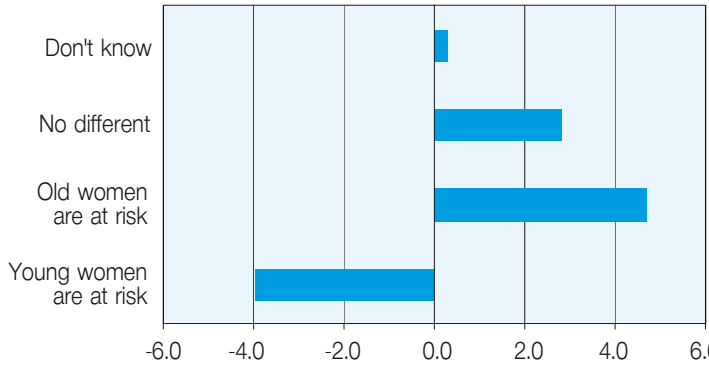
Women aged 35 years or older are at heightened risk of developing cervical cancer. The current Thai national guidelines for cervical screening programme have targeted women aged 35–60 years. Knowledge about at–risk groups is presented in Table 4–4 and Figure 4–3. Well over half the surveyed women in both groups had correct knowledge about the risk group. However, a drop in knowledge at the endline surveys occurred in both groups, with a relatively larger drop in the control group.

Table 4-4: Knowledge about at risk groups of cervical cancer

Knowledge	Experiment Group			Control Group			Difference in difference
	Baseline	Endline	Difference between Endline &Baseline	Baseline	Endline	Difference between Endline &Baseline	
Young or old women are at risk of developing cervical cancer?							
Young women	10.7%	7.5%	–3.2%	7.9%	8.7%	0.8%	3.9%
Older women	57.1%	52.6%	–4.5%	60.9%	51.6%	–9.2%	4.7%
No difference	27.1%	40.0%	12.9%	25.5%	35.6%	10.1%	2.8%
Don't know	5.1%	3.9%	–1.2%	5.6%	4.1%	–1.5%	0.3%
Total	100%	100%		100%	100%		

Note: * P–value < .05, ** P–value < .01 and *** P–value < .001

Figure 4-3: Difference–in–difference in knowledge about risk group for cervical cancer



4.2.3 Prevention

Three preventive measures of cervical cancer were assessed: use of condom, limiting sexual partners and having regular cervical screening. The results are presented in Table 4–5 and Figure 4–4. About half of the surveyed women in both groups at the baseline survey knew about having regular cervical screening as a preventive measure for cervical cancer. A dramatic increase in knowledge was observed among the experiment group, 5.9% higher than the control group. Women in both groups were less aware that “limiting the number of sexual partners” was a preventive measure for cervical cancer. The knowledge also was appeared to decline at the endline survey, with a significantly larger (6.4%) decrease observed among the control group ($p < .05$).

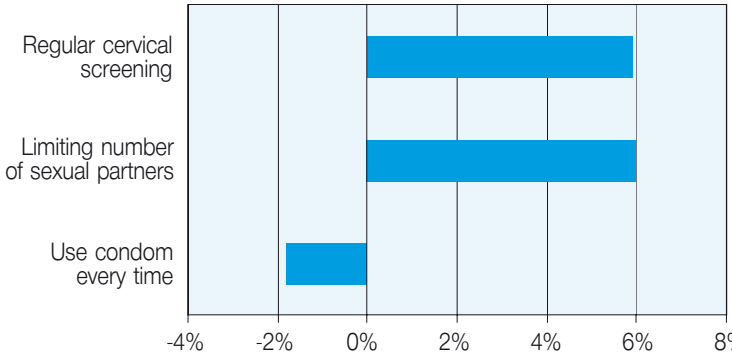
Safe sex practice has been promoted as an effective preventive measure for sexually transmitted diseases including cervical cancer. This preventive measure was included in the information pamphlets and community campaign in this study. Surprisingly, less than 10% of surveyed women at baseline survey knew about it. Improvement in knowledge at the endline survey was observed for both groups but with a slightly higher percentage increases was observed in the control group than the experiment counterpart (1.8%).

Table 4-5: Knowledge about the prevention of cervical cancer (answer "yes" to the question)

Knowledge	Experiment Group			Control Group			Difference in difference
	Baseline	Endline	Difference between Endline &Baseline	Baseline	Endline	Difference between Endline &Baseline	
Use condom every time can prevent cervical cancer	8.9%	16.4%	7.5%	7.0%	16.3%	9.3%	−1.8%
Limiting number of sexual partners can prevent cervical cancer	11.0%	10.6%	−0.4%	12.2%	5.8%	−6.4%	6.0%*
Regular cervical screening can prevent cervical cancer	55.7%	65.7%	10.0%	52.6%	56.7%	4.1%	5.9%

Note: * P−value < .05, ** P−value < .01 and *** P−value < .001

Figure 4-4: Difference–in–difference in knowledge about the prevention of cervical cancer



4.3 Knowledge about cervical screening services

Women interviewed in both groups had good general knowledge about cervical screening or Pap smear tests and virtually all of them had heard about smear tests. More specific knowledge regarding cervical screening is described as follows.

4.3.1 Source of screening services

The surveyed women reported several public and private health facilities where cervical screening services were available. The three most common sources of cervical screening services at the baseline survey for both groups were government hospitals,

private hospitals and private clinics (Table 4–6). A government health centre, the nearest health facility in both sub–districts, was much less recognized as a source of cervical screening services than a private clinic in both groups at the baseline survey.

An increase in knowledge about sources of cervical screening was observed for all types of facilities, but particularly in the public health centre. The percentage increases were higher in the experiment group than the control group for most source of services. The largest increase was observed for the public health centre, which was 21.7% higher at the endline survey in the experiment group ($p < .001$).

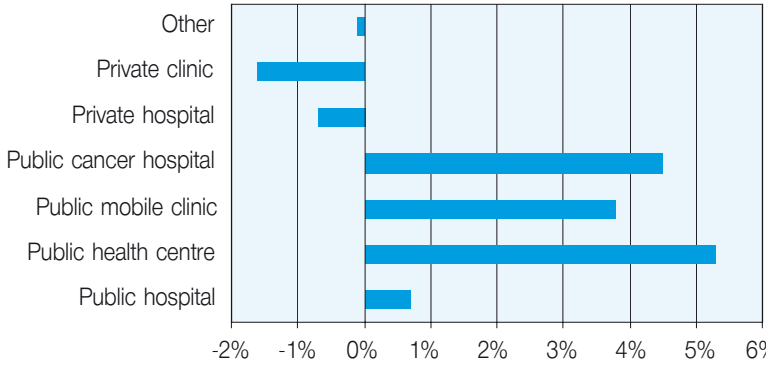
Table 4-6: Knowledge about the source of cervical screening services

Knowledge	Experiment Group			Control Group			Difference in difference
	Baseline	Endline	Difference between Endline &Baseline	Baseline	Endline	Difference between Endline &Baseline	
Public hospital	98.7%	99.8%	1.1%	99.1%	99.5%	0.4%	0.7%
Public health centre	70.6%	92.3%	21.7%	60.0%	76.4%	16.4%	5.3% ***
Public mobile clinic	64.4%	78.1%	13.7%	73.3%	83.2%	9.9%	3.8%

Knowledge	Experiment Group			Control Group			Difference in difference
	Baseline	Endline	Difference between Endline &Baseline	Baseline	Endline	Difference between Endline &Baseline	
Public cancer hospital	2.6%	6.5%	3.9%	1.8%	1.2%	–0.6%	4.5% *
Private hospital	93.8%	93.8%	0.0%	95.5%	96.2%	0.7%	–0.7%
Private clinic	90.5%	91.1%	0.6%	91.6%	93.8%	2.2%	–1.6%
Other	1.5%	0.3%	–1.2%	1.1%	0.0%	–1.10%	–0.10%

Note: * P–value < .05, ** P–value < .01 and *** P–value < .001

Figure 4-5: Difference–in–differences in knowledge about the source of cervical screening services



4.3.2 Source of information about screening services

The interviewees received information about cervical screening from several sources, as shown in Table 4–7. The media, health providers and health volunteers were the three most common sources. In increase in women who received information from health providers was greater in the control sub–district than in the experiment sub–district. Lay persons such as friends, family members and partners also played an important role in providing the information to the women, particularly in the experimental group (Figure 4–6). Marked increases in the village health volunteers as a source of information were also observed in both sites, though the increase was higher in the control area.

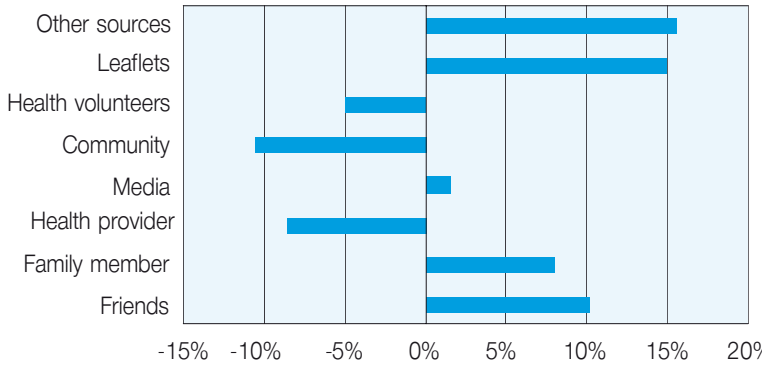
Table 4-7: Source of information about cervical screening services

Knowledge	Experiment Group			Control Group			Difference in difference
	Baseline	Endline	Difference between Endline &Baseline	Baseline	Endline	Difference between Endline &Baseline	
Friends	46.6%	66.9%	20.3%	43.0%	53.1%	10.1%	10.2%*
Siblings	37.6%	55.2%	17.6%	29.0%	41.3%	12.3%	5.3%
Partner	19.9%	32.6%	12.7%	14.5%	25.6%	11.2%	1.5%

Knowledge	Experiment Group			Control Group			Difference in difference
	Baseline	Endline	Difference between Endline &Baseline	Baseline	Endline	Difference between Endline &Baseline	
Health provider	76.4%	87.8%	11.4%	67.0%	87.0%	20.0%	−8.6%
Media	90.1%	89.6%	−0.5%	89.6%	87.5%	−2.1%	1.6%
Community	45.5%	58.8%	13.3%	31.4%	55.3%	23.9%	−10.6%*
Health volunteers	66.2%	81.8%	15.6%	49.8%	70.9%	21.1%	−5.5%
Pamphlets	48.9%	69.0%	20.1%	50.7%	55.8%	5.1%	15.0%***
Other sources	5.4%	24.5%	19.1%	13.1%	16.6%	3.5%	15.6%***

Note: * P−value < .05, ** P−value < .01 and *** P−value < .001

Figure 4-6: Difference−in−difference in knowledge about source of information for cervical screening



A number of campaign activities were organized by health personnel in the control sub–district, through conventional channels such as exhibition board, pamphlets and health education incorperated into routine services at the health centre. No outreach activities or mass cervical screening were observed over the period of the study in the control site. The increases in the education campaign activities in the control site could be explained by the launch of the national cervical control programme aimed at reducing deaths due to cervical cancer and at improving the coverage of cervical screening among the target women (details of the programme was described on page 4). To some extent, an increase in the knowledge about cervical cancer in the control group could be explained by these health education activities. However, the routine education activities as has been performed in the control sub–district did not seem to have been as effective as the approach taken in the experimental sub–district.

The use of trained volunteer educators in the experimental sub–district accounted for the increase in knowledge about cervical cancer and the use of available cervical screening services. Through the volunteer educators, information about cervical cancer and screening services reached the target women and community. The volunteer educators can communicate easily with their fellow villagers. Although many volunteers were not confident discussing medical aspects of cervical cancer in detail, their

presence in the neighbourhood and their repeated visits to the target women as reassurrance of the need to seek cervical screening service.

The volunteer educators also played an important role in persuading women who were skeptical about the services or who had never used the services to finally seek screening. Volunteers who encountered women who strongly resisted screen visited them several times to talk directly and to give detailed information about cervical cancer and screening. The volunteers were aware that changing perceptions and behaviour can take time and effort, so that several visits to the women's homes were needed.

> *I feel comfortable talking with and advising my friends and fellow villagers about cervical cancer and screening. I persuaded them to seek cervical screening. Some turned up but some refused to visit the health centre. I think the best way to communicate with them is talk directly whenever I have a chance. (Song aged 38, volunteer educator)*

> *When I meet someone who does not know about the smear test and is afraid to use the services, I tell her straight away that even with some abnormal symptoms, she has to get tested soon. I also give details information about cervical cancer. (Ka-lao aged 49, volunteer educator)*

4.3.3 Specific knowledge about interval and timing of cervical screening

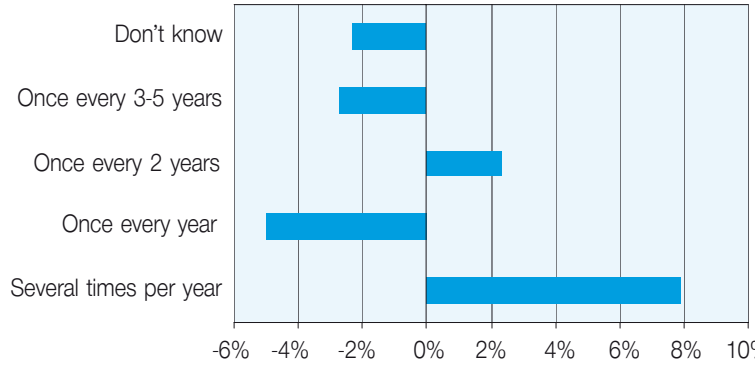
The current national guidelines for cervical screening programme recommend that women aged 35–60 years are screened once every 5 years. As can be seen in Table 4–8, less than 5% of the women in both sites knew that the recommended frequency was, once every 3–5 years. There appeared to be a decline after the intervention in the percentage of those who knew how often cervical screening should be sought. The majority of women still thought that a woman should be screened once every year as had been recommended in the past. More worrying is that nearly one in four thought that screening should be done several times in one year and that there seems to have been no change in this proportion after the intervention (Figure 4–7). The education through the volunteer communicators was not effective in communicating such technical information.

Table 4-8: Knowledge about the frequency of cervical screening

Knowledge	Experiment Group			Control Group			Difference in difference
	Baseline	Endline	Difference between Endline &Baseline	Baseline	Endline	Difference between Endline &Baseline	
Several times per year	29.1%	30.8%	1.7%	33.8%	27.6%	-6.2%	7.9%
Once every year	60.4%	59.1%	-1.3%	59.5%	63.2%	3.7%	-5.0%
Once every 2 years	3.5%	5.5%	2.0%	2.0%	1.7%	-0.3%	2.3%
Once every 3-5 years	3.2%	1.8%	-1.4%	1.0%	2.3%	1.3%	-2.7%*
Don't know	3.9%	2.8%	-1.1%	3.8%	5.0%	1.2%	-2.3%
Total	100%	100%		100%	100%		

Note: * P-value < .05, ** P-value < .01 and *** P-value < .001

Figure 4-7: Difference–in–difference in knowledge about the frequency of cervical screening



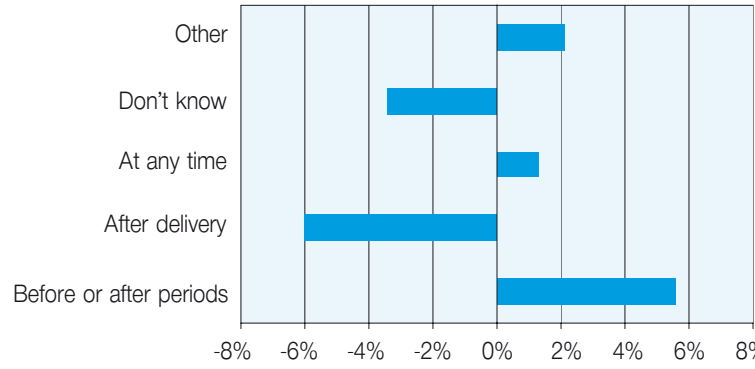
The optimum time to take a smear sample is mid–cycle. Thus the women were recommended to seek smear test after or before menstruation and to avoid the immediate menstrual phrase. Table 4–9 and Figure 4–8 present assessments of the women's knowledge about appropriate times for having cervical smears. At the baseline survey, slightly less than half the women in both groups knew that cervical smears should be taken before or after periods. It appears that the experiment group gained 5.6% more knowledge compared to the control group. Worryingly, nearly one third of the women in both sites believed that they could seek smear test at any time they liked and about one in ten did not know the appropriate time to seek services.

Table 4-9: Knowledge about timing for cervical screening

Knowledge	Experiment Group			Control Group			Difference in difference
	Baseline	Endline	Difference between Endline &Baseline	Baseline	Endline	Difference between Endline &Baseline	
Before or after periods	48.4%	56.3%	7.9%	43.9%	46.2%	2.3%	5.6%
After delivery	7.1%	2.6%	-4.5%	4.3%	5.8%	1.5%	-6.0%**
At any time	30.4%	29.2%	-1.2%	33.8%	31.3%	-2.5%	1.3%
Other	4.9%	2.4%	-2.5%	7.7%	3.1%	-4.6%	2.1%
Don't know	9.2%	9.1%	-0.1%	10.4%	13.7%	3.3%	-3.4%
Total	100%	100%		100%	100%		

Note: * P-value < .05, ** P-value < .01 and *** P-value < .001.

Figure 4-8: Difference-in-difference of knowledge about appropriate time to seek cervical screening



4.3.4 Attitudes towards cervical screening services

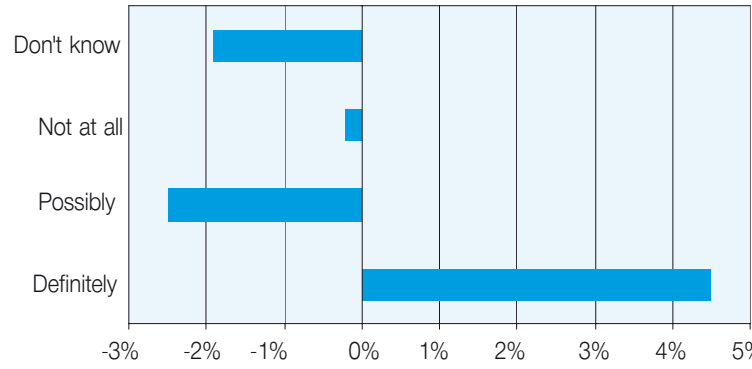
Attitudes towards health services are an important factor influencing clients' decisions to use the available services. In response to the statement "you will use cervical screening services, if it can prevent cervical cancer", the majority of women in both groups said that they would definitely use the services. The women in the experimental group showed a 4.5% greater increase in this response than those in the control group (Table 4–10 and Figure 4–9).

Table 4-10: Perception about cervical screening

Perception	Experiment Group			Control Group			Difference in difference
	Baseline	Endline	Difference between Endline &Baseline	Baseline	Endline	Difference between Endline &Baseline	
Will you use screening service, if it can prevent cervical cancer?							
Definitely	76.6%	83.0%	6.4%	76.3%	78.1%	1.8%	4.5%
Possibly	15.7%	10.6%	–5.2%	14.0%	11.3%	–2.7%	–2.5%
Not at all	6.9%	5.4%	–1.5%	9.5%	8.2%	–1.3%	–0.2%
Don't know	0.8%	1.1%	0.3%	0.2%	2.4%	2.2%	–1.9%
Total	100%	100%		100%	100%		

Note: * P–value < .05, ** P–value < .01 and *** P–value < .001

Figure 4-9: Difference–in–difference in attitudes toward cervical screening services



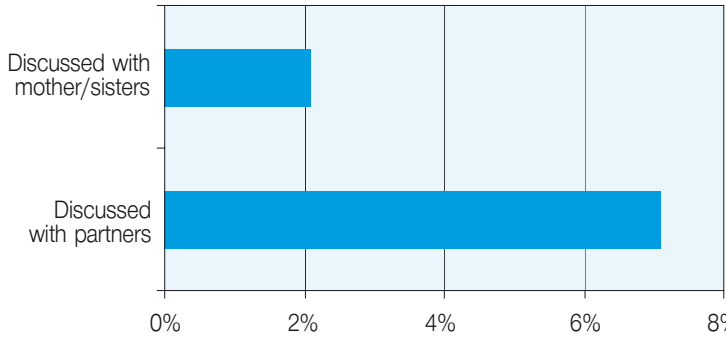
If women can openly discuss the prevention of cervical cancer with family members and friends, this create a mechanism for the family to share knowledge and to encourage women to seek cervical screening services. It appears from the study that at the endline survey the women in the experimental group were more likely to talk about the prevention of cervical cancer with their family members than their counterparts in the control group. The extent of the percentage differences in the discussion between experiment and control groups were 7.1% with partners and 2.1% with mother/sisters respectively (Table 4–11 and Figure 4–10).

Table 4-11: Communication within family about the prevention of cervical cancer (percent of those who said 'yes')

Items	Experiment Group			Control Group			Difference in difference
	Baseline	Endline	Difference between Endline &Baseline	Baseline	Endline	Difference between Endline &Baseline	
Discussed with partner/husband about cervical cancer prevention	25.3%	38.3%	13.0%	17.4%	23.3%	5.9%	7.1%
Discussed with mother or sisters about cervical cancer prevention	35.8%	52.6%	16.8%	24.2%	38.9%	14.7%	2.1%

Note: * P–value < .05, ** P–value < .01 and *** P–value < .001

Figure 4-10: Difference–in–difference in family communication about the prevention of cervical cancer



4.4 Use of cervical screening services

About two thirds of interviewed women in both groups said that they had ever been screened at least once in their life time. The average number of smear tests among those who had been screened was 2–3 tests (Table is not included).

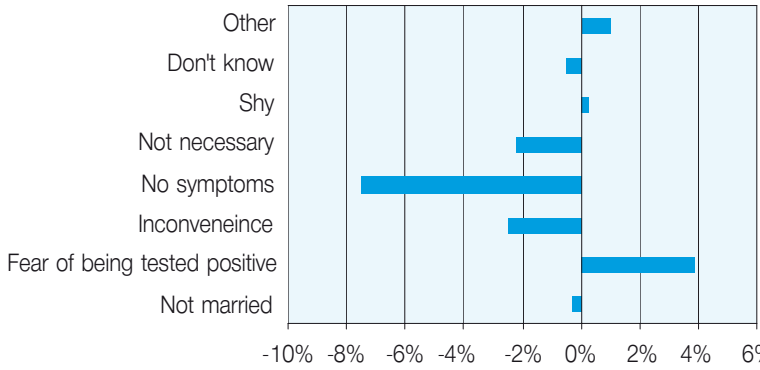
Women who had never received cervical screening were asked further questions the reasons that they never been screened. The results are presented in Table 4–12 and Figure 4–11. The two most common reasons for not seeking cervical screening cited by both groups were “having no gynecological problems” and “inconvenience”. Inconvenience in using the available service remained the top reason given by the interviewed women in both sites at the endline survey. A considerable drop occurred in the percentage of those who responded that “having no gynecological problems”. The drop was 7.5% larger in the experiment group. “Fear of being tested positive for cervical cancer” increased 7.2% in the experiment group, 3.9% higher than in the control. The increases in the number of women reported fear of being tested positive for cervical cancer is not beyond our expectation. This is due to the fact that the more numbers of smear tests particularly among those who have never been screened probably resulted in a number of abnormal tests.

Table 4-12: Reason for not seeking cervical screening services

Reason	Experiment Group			Control Group			Difference in difference
	Baseline	Endline	Difference between Endline &Baseline	Baseline	Endline	Difference between Endline &Baseline	
Not married	3.4%	5.5%	2.1%	5.4%	7.8%	2.4%	−0.3%
Fear of being tested positive	13.5%	20.7%	7.2%	12.2%	15.5%	3.3%	3.9%
Inconvenience	32.4%	38.6%	6.2%	29.3%	38.0%	8.7%	−2.5%
No gynecological problems	30.4%	12.4%	−18.0%	36.1%	25.6%	−10.5%	−7.5%
Not a cause of concern	16.9%	15.1%	−1.8%	13.6%	14.0%	0.4%	−2.2%
Shy	9.2%	6.9%	−2.3%	8.8%	6.2%	−2.6%	0.3%
Don't know	6.8%	2.7%	−4.1%	7.5%	3.9%	−3.6%	−0.5%
Other	5.2%	7.5%	2.3%	4.1%	5.4%	1.3%	1.0%

Note: * P−value < .05, ** P−value < .01 and *** P−value < .001

Figure 4-11: Difference–in–difference in reasons for never used of cervical screening services



4.4.1 Current use of cervical screening services

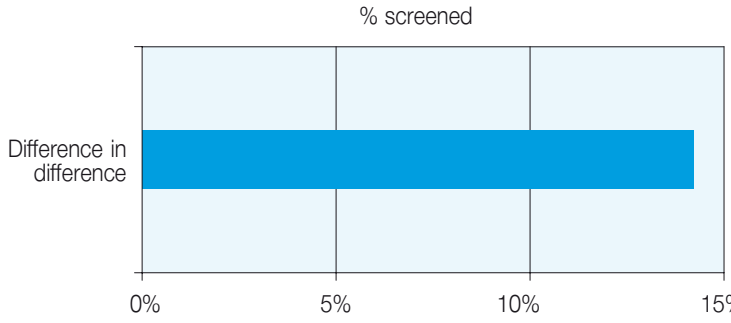
The current use of cervical screening services was investigated by asking respondents whether they were screened in the 10 months before the survey. Before the implementation of the intervention, about one quarter of interviewed women in both groups had been screened. An increase in the percentage of women being screened was observed in both groups, but the increase was 14.2% significantly higher in the expermental group at $p < .01$ (Table 4–13 and figure 4–12).

Table 4-13: Percentage of women who used cervical screening services in the last 10 months

Use of cervical screening	Experiment Group			Control Group			Difference in difference
	Baseline	Endline	Difference between Endline &Baseline	Baseline	Endline	Difference between Endline &Baseline	
% Screened	22.7%	48.7%	26.0%	23.5%	35.3%	11.8%	14.2% **

Note: * P-value < .05, ** P-value < .01 and *** P-value < .001

Figure 4-12: Differences and difference-in-difference in the use of cervical screening in the last 10 months



4.4.2 Reasons for seeking cervical services in the last 10 months

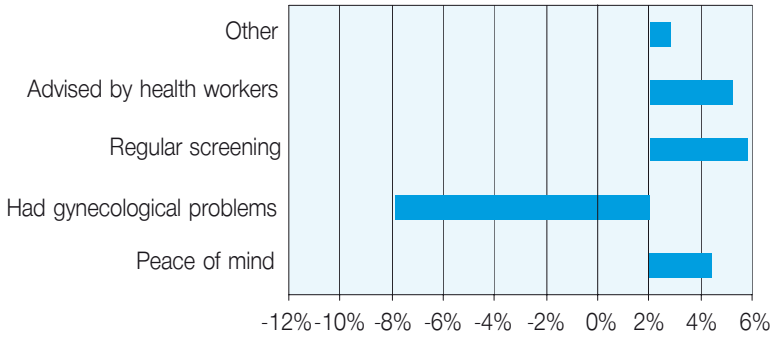
The reasons for seeking current cervical screening were presented in Table 4–14. The positive reasons for seeking screening included “regular screening”, “peace of mind” and “advised by health providers or volunteers”. The majority of women in both groups tended to give more positive than negative reasons for their health seeking behaviour and there were increases in the percentages giving most reasons. The experimental group had a larger percentage increase in all three reasons, 2.8% for regular screening, 3.8% for peace of mind and 3.2% for advised by health providers or volunteers respectively (Figure 4–13). There was a reduction in the percentage of the women who gave a negative reason particularly in the experimental group.

Table 4-14: Reasons for seeking cervical screening in the last 10 months

Reasons	Experiment Group			Control Group			Difference in difference
	Baseline	Endline	Difference between Endline &Baseline	Baseline	Endline	Difference between Endline &Baseline	
Peace of mind	39.1%	40.4%	1.3%	41.5%	40.0%	−1.5%	2.8%
Had gynecological problems	26.1%	11.6%	−14.5%	17.0%	12.4%	−4.6%	−9.9%
Regular screening	34.8%	44.4%	9.6%	32.1%	37.9%	5.8%	3.8%
Advised by health workers	9.4%	19.0%	9.6%	7.5%	13.9%	6.4%	3.2%
Other	4.3%	4.3%	0.0%	8.5%	7.7%	−0.8%	0.8%

Note: * P−value < .05, ** P−value < .01 and *** P−value < .001

Figure 4-13: Difference−in−difference in reasons for using cervical screening services in the last 10 months



4.4.4 Source of current cervical screening services

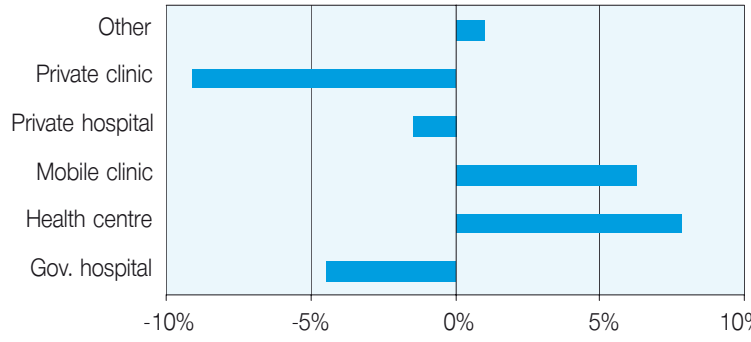
In general, the women interviewed sought cervical screening from government health facilities, particularly hospitals (Table 4-15). However, there was a shift from hospitals to health centres at the endline survey in both groups. The rise in the use of the local health facility, the health centre, was 7.9% higher in the experimental group than in the control group (Figure 4-14). A significantly increase in the use of the mobile clinic for cervical screening among the experiment group was also observed ($p < .01$). About one fifth of the interviewed women in both groups relied on private clinics for their cervical screening at the baseline survey. The use of private clinics fell sharply in the experimental group but remained the same in the control group.

Table 4-15: Source of current cervical screening (in the last 10 months)

Source of service	Experiment Group			Control Group			Difference in difference
	Baseline	Endline	Difference between Endline &Baseline	Baseline	Endline	Difference between Endline &Baseline	
Public hospital	54.0%	33.0%	−21.0%	51.9%	35.3%	−16.6%	−4.4%
Public Health centre	13.9%	49.7%	35.8%	9.4%	37.3%	27.9%	7.9%
Public mobile clinic	5.8%	7.7%	1.9%	10.4%	6.0%	−4.4%	6.3%**
Private hospital	5.8%	1.3%	−4.5%	5.7%	2.7%	−3.0%	−1.5%
Private clinic	18.2%	7.0%	−11.2%	20.8%	18.7%	−2.1%	−9.1%***
Other	2.2%	1.3%	−0.9%	1.9%	0.0%	−1.9%	1.0%

Note: * P−value < .05, ** P−value < .01 and *** P−value < .001

Figure 4-14: Difference−in−difference in source of last cervical screening service used in the last 10 months



The marked increase in the use of local health facilities particularly in the health centre for cervical screening could be accounted for the improve in the knowledge and skills of the health providers about the screening program. Interviews with health personnel in the sub–districts indicated that the community information campaign was much easier to run than the provision of extra cervical screening services, which would require more resources and effort. More importantly, health center staff's lack of technical skills for taking smears and lack of knowledge about the population–based screening system are fundamental obstacles to implementing the cervical screening programme. The local health personnel also claimed that the health centres had shortage of medical resources to accommodate the new screening services. They felt that they needed special training for taking smears and cervical cancer prevention, plus support from the health authority.

We don't feel confident to provide cervical screening right now. What we need are (1) comprehensive training session about smear taking techniques and cervical screening program, e.g. population–based, record keeping, referral system, sound and appropriate way to communicating the Pap test results with the target women, etc. (2) Technical support from the provincial health authorities especially at the initial stage of the programme, technical support and close supervision should be provided by responsive health authorities from the District Health Office, Provincial Health Office and the Central Hospital. (Head of health centre at experiment sub–district)

4.5 Coverage of cervical screening

Data on women who sought cervical smear tests in 2006–2008 in both sites were also collected from health records from health centres, hospitals and private clinics in Ratchaburi Province. As can be seen in Table 4-16, in the experimental sub–district the number of women receiving smear tests increased from 44 in 2006 to 320 in 2007. However, the number of smear tests dropped to 160 tests in 2008. In the control sub–district there was an increase in the number of smear tests over the same period, though the the numbers were much lower than in the experimental site.

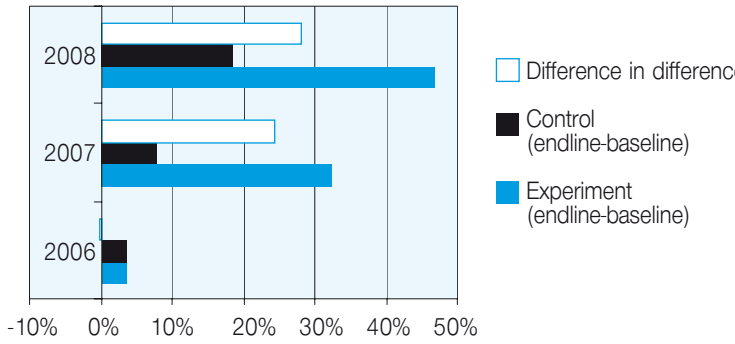
Table 4-16: Number of target women aged 35–60, number of Pap smear tests and cumulative coverage rate comparing the experiment and control sub–districts, 2006–2008

Sub–district		2006	2007	2008
Experiment	No. of target women (35–60)	1,216	1,126	1,121
	No. of new smear tests	44	320	160
	Cumulative coverage (%)	3.62	32.33	46.74
	No. of test positive	Na	11	2
Control	No. of target women (35–60)	620	626	649
	No. of new smear tests	23	27	70
	Cumulative coverage (%)	3.71	7.99	18.49
	No. of test positive	Na	0	0

Source: Data on cervical screening were collected from existing records at health centres and hospitals. Repeated cervical smears were excluded from the estimates.

To estimate the coverage rate of the cervical screening, the total number of target women was needed. This data were also collected from the health centre where the updated records were being kept. Figure 4-15 depicts the cumulative percentage coverage of cervical screening in experimental and control sub–districts. The number of target women was collected from the health centre and further updated with the health personnel. Attempts were made to estimate the coverage of cervical screening in both sites. In 2006, cervical screening coverage rates were equally low in both sites (3.6% in experimental and 3.7% in control respectively). The cumulative coverage in the experimental site reached 32% in 2007 and further increased to 46.7% in 2008. The coresponding figures for the control sub–district were much lower, 7.9% in 2007 and 18.5% in 2008.

Figure 4-15: Cumulative percentage coverage of cervical screening among women aged 35–60 years, 2006–2008



The significant differences in the coverage rates clearly reflected the success of the intervention where the trained volunteer educators were actively involved in communicating the cervical screening programmes in the community. As mentioned earlier that the local administrative organization and local health providers worked concertedly with the volunteers in the process of the information dissemination at the community levels.

4.6 Community activity outcomes

The community activity outcomes is a collective group of community members who are voluntarily organized themselves to carrying out community health activities. These groups are the by–product of this project intervention.

4.6.1 Women self help group

The volunteer educators concluded from their experiences communicating with their friends and neighbours that women undergoing screening need moral support, particularly if they require further diagnosis and treatment. A small group of trained volunteer educators led by the volunteer representative organised a self–help group. A member of the self–help group accompanied the women who wanted to have a smear test in town or at the local health centre. They also visited the women whose test results were abnormal to encourage them to seek further tests and treatment

at the Ratchaburi Central Hospital, a referral hospital in the province. This is a crucial stage in cervical cancer prevention because the women may have to visit the hospital several times. In the experimental sub-district, there were five women who had abnormal test results who initially refused to go to the hospital. The self–help group went to visit each woman individually and persuaded them to go for further treatment and promised to accompany them to the hospital.

The self–help group also contacted staff at the 4th Regional Health Promotion Centre for information on how and where the test was to take place. In addition, the self–help group agreed to give a small gift to each woman at the hospital. Such activities are important for many women who often are very shy and reluctant to ask questions of the health personnel. The group feel more confident in dealing with health professionals and feel that they understand the way the hospital works. The activities carried out by the self–help group are welcomed by the villagers, the Tambon Administrative Organization and local health personnel.

4.6.2 Funds for supporting the volunteer educators campaign activities

Raising funds was not originally part of the intervention. The Director of the 4th Regional Health Promotion Centre donated 2,000 baht for an initial fund to be used by the volunteer council

in their campaign activities. The President of the Tambon Administrative Organization who was presided over the workshop also donated 2,000 baht and another 2,000 baht was given by one candidate standing for the upcoming election of the President of the local government. In addition, the Tambon Administrative Organization agreed to fund the first round of cervical screening campaign organized by the volunteer educators community and health centre personnel, up to a maximum of 20,000 baht. Moreover, the Tambon Administrative Organization promised to give more money to support the volunteers' community activities in the future.

4.6.3 Local organization involvement

The Tambon Administrative Organization supported the community activities from the time the intervention was initiated. Five Tambon Administrative Organization staff participated in the training workshop and later collaborated with the volunteer educators in providing health information. The Tambon Administrative Organization President was committed to supporting activities laid out in the community master plan and to further community projects to be carried out by the council for community health development. The Tambon Administrative Organization allowed the volunteer educators to use its facilities, such as its meeting room and loudspeakers. In addition, the

Tambon Administrative Organization took many ideas and activities in the master plan developed by the volunteer educators and integrated them into an operation plan for the organization.

The active roles played by the Tambon Administrative Organization in the project came as a surprise to many villagers but was well accepted by many volunteer educators. They wanted to see the continuation of such activities. One volunteer educators described the situation as follows.

> *I am very pleased to see the involvement of the staff and president of the Tambon Administrative Organization. I am sure the villagers will be pleased too. I would say that this is probably the first time that we have worked together so well. Who would have thought that we as villagers could use facilities at the Tambon Administrative Organization. I am hoping that the relationship will be continued for much longer and their current involvement was well received (Pranee, leader of volunteer educators).*

4.6.4 Villagers and health providers networking

A health center is a grass roots public health facility which provides basic medical services, including cytology smear taking. For specific programmes such as cervical screening, the health personnel are instructed by central authorities to follow the cervical

control guidelines. At the local level, however, the health personnel are supposed to give health education, update the list of target women, take smears, send the slides to the hospital for testing, pass on the test results and keep records. According the staff head, the health centre has always been understaffed. At present there are only three personnel include her. She contended that, given their already–heavy workloads, it was not possible to perform the additional tasks to high quality standards. Even when a smear test is offered at the health centre, she expected that not many women would turn up for the test because the women did not want to expose themselves to the providers, whom they knew well. Lack of medical supplies and resources were another barrier to carrying out screening at the health centre. All these issues were brought to the attention of the health providers at the 4th Health Promotion Centre and the Ratchaburi Central Hospital. The health professionals at both institutions were sympathetic to the health centre and offered technical assistance with the cervical cancer campaign carried at the health centre. The response from the higher health level facilities was very positive and gave the health centre personnel confidence to carry out the campaign activities.

The volunteers and women want this campaign to continue. So far we are very pleased that the campaign of cervical screening has reached the target women. The multiple methods used for disseminating information are working well. The roles played

by the health personnel from the 4th Regional Health Promotion Centre Ratchaburi as resource persons and facilitators are also important. It should be continued after the project has ended (Head of health centre, aged 59).

The villagers viewed this collective activity as providing genuine benefits to users and they wanted to see other health services offered in a similar fashion. The volunteers also expressed their appreciation for assistance given by health providers from all levels.

> *A rumor spreads around that a woman became sick because of undergoing the Pap smear test. In actual fact, after consulting with the health personnel from the 4th Regional Health Promotion Centre Ratchaburi, it became apparent that the woman had cystitis, which was not related to the Pap smear. Because they were able to consult with the health personnel about the misunderstanding, the volunteers could quickly correct the idea and prevent further misconceptions about the cervical screening (Pranee, volunteer educator leader, aged 43)*

4.6.5 The master plan for a Healthy Community

The volunteer educators organized themselves as a council for community heath development. The main purpose of the council was working together to tackle local health problems. They worked in collaboration with the village health volunteer club, the health center personnel and the Tambon Administrative Organization. The council had hands–on experiences in formulating and implementing the action plan on cervical cancer campaign. Hence, they wanted to deal with other health issues discussed in the training workshop. These issues were accepted as major health and health–related problems including drugs addiction, food and nutrition, sanitation and environment, income generation, health and physical activity and family. The council for community health development prepared a master plan using the concept of Healthy Community with the assistance of the 4th Regional Health Promotion Centre Ratchaburi (please see Annex 5). The Council for Community Health Development will submit this master plan to the Tambon Administrative Organization for financial support. If the plans are approved, the council will-take the lead in implementing the activities. For technical support, they will consult and work with concerned authorities.

Chapter 5

Conclusion and recommendations

5.1 Conclusion

This operations research used a community-based intervention whereby community groups, especially trained female volunteer educators, local administrative organization and health providers, worked together to provide information, communication and education about cervical cancer to the target women aged 35-60 years. The volunteer educators received training from staff at the 4th Health Promotion Centre. The trainining used a

participatory action learning process to enable the trainees to stimulate the discussion and formulate an action plan for cervical cancer prevention. Information about cervical cancer and cervical screening were integrated into the training session. Community health problems were also discussed, as many participants raised concerns that a number of health problems needed urgent action, including drug abuse, diabetes and obesity, heart disease and the environment. The intervention period lasted for 10 months when trained volunteer educators were implementing the information campaign in the community. The volunteers used various means to convey the information to the target women and the community including face–to–face and group communication, mass campaigns and radio and loudspeaker broadcasts. They also distributed an information leaflets which was reproduced by the 4th Regional Health Promotion Centre Ratchaburi to the women.

A baseline survey was conducted before the training and an endline survey was conducted after the intervention by the same team of female field supervisors and female interviewers. The survey data were used to investigate changes in knowledge and attitudes about cervical cancer and screening and the use of screening services. The researchers also collected observations and conducted in–depth interviews with selected women and partners, volunteer educators, health personnel and community leaders. The qualitative data were used to complement the quantitative findings.

Summary of Findings.

- Knowledge about the cause of cervical cancer. Women in the experiment group had 12.0% higher increases in knowledge than those in the control group for the item “virus caused cervical cancer can be transmitted through sexual contact”. They had 6.2% higher increases for the item “ cervical cancer takes several years to develop”.
- Knowledge about cervical cancer prevention. The experiment group had bigger improvements in knowledge than the control group regarding “regular cervical screening can prevent cervical cancer” (5.9%). Two aspects of prevention that both groups were less aware of were “limiting number of sexual partners” and “use condom every time”. The aspects of cervical cancer that the interviewed women had low knowledge about were “use condom every time can prevent cervical cancer” and “limit number of sexual partner can prevent cervical cancer”.
- Knowledge about source of cervical screening service. The interviewed women had good knowledge about the sources of screening services.
- Knowledge about timing of cervical screening. The women in the experiment group had a 5.6% bigger increase than the control group in correctly answering a question on whether cervical screening should be taken before or after the period.

- Knowledge about frequency of cervical screening. The majority of women had poor knowledge about the frequency of screening. Over half of the women in both groups said that cervical screening should be sought once every year. No changes in knowledge were observed at the endline surveys.
- Attitude towards cervical screening service. The experimental group had an approximately 4.7% larger increase than their control counterparts in stating that they would definitely use the screening service if it can prevent cervical cancer. At the endline survey, the experiment group was more likely than their control counterparts to talk about the prevention of cervical cancer to their partners (a difference of 7%) and other family members (a difference of 2%).
- Use of cervical screening service. At the baseline survey about one quarter of women in both groups had used screening services in the last 10 months. The increase in the current use of screening services was 14.2% higher in the experiment group than in the control group between the baseline and endline surveys.
- Source of current screening service. There had been increased in the use of local health centre as the source of cervical screening services and the health centre became

the most common source at the end of the intervention. The extent of increase was larger in the experiment group (8%).

- Cumulative coverage of cervical screening. Based on an existing data, the coverage of cervical screening was about 4% of the target women in both groups in 2006. The percentage differences in the coverage between the experiment and control groups were 24% in 2007 and 28% in 2008.

It can be concluded that the model of volunteer educators that was tested in this operations research has improved knowledge about cervical cancer and cervical screening services and has increased the use of the available screening services. In addition, the involvement of local health providers and the local administrative organization in the project enhanced the cervical cancer prevention activities and made them more sustainable.

5.2 Recommendations

The conventional Thai model for health education as widely practice relies mainly on the goodwill of health providers and their networks such as village health volunteers. This current model has so far failed to reach the target women. To increase access to cervical screening services, we recommend that the Thai Health Ministry should scale up the community–based model tested in

this project in other rural communities where access to information and services are limited. This community–based model uses trained female volunteer educators to talk about cervical cancer with the target women and to encourage them to seek cervical screening. The intervention also involved the local health providers and the local administrative organization in the cervical screening programme. Through the project, local health providers learned a great deal about the national guidelines for the cervical cancer prevention programme and population–based screening. They collaborated with the volunteer educators in providing health information and screening services. Future education and screening programs should also seek involvement from local administrative organizations.

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Annex

Annex 1: Questionaire

ID NUMBER — — — — —

Strengthening community-based cervical cancer screening programme in a Thai rural community

Institute for Population and Social Research, Mahidol University

WOMEN'S QUESTIONAIRE (POSTTEST)

NAME OF DISTRICT .....

NAME OF VILLAGE/CLUSTER .....

IDENTIFICATION	
Place name.....	—
Name of household head	
Village or cluster number.....	— — —
Household number	— — —
Name and line number of woman.....	—

INTERVIEWER VISIT				
	1	2	3	Final visit
Date	.....	.....	.....	Day — —
				Month — —
				Year — — —
Interviewer's name	.....	.....	.....	Name —
Results*	.....	.....	.....	Result —
Next visit: Date				Total no. of visit —
Time				
RESULT CODES:				
1 COMPLETE	4 REFUSE			
2 NOT AT HOME	5 PARTLY COMPLETED		7 OTHER (SPECIFY).....	
3 POSTPONED	6 INCAPACITED			

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
Name.....	Name.....		
Date.....	Date.....		

Consent form

My name is _____ an interviewer for the project studying access to the cervical cancer screening program which is conducted by the Institute for Population and Social Research and the 4th Regional Health Promotion Center Ratchaburi.

I invite you for interview today because the Ministry of Public Health has targeted the cervical screening program to women aged 35-60, who are at risk of developing cervical cancer, for early detection. Cervical cancer is preventable disease and regular screening is the most effective measure. In this survey, I am going to ask you about your understanding about cervical cancer and your experiences in the use of cervical screening services. In addition, your personal information such as age, education, occupation and marital status will also be collected.

As an interviewer, I received extensive training. I will interview you at home or other place that you feel comfortable where there is no other people presents. Please feel free to answer the questions and you have the right to refuse participate in the survey or to answer or to skip the questions as you wish and at anytime. Your responses will be recorded in the questionaire and no one apart from the research team will have access to the questionaire. The questionaires will be kept confidential and none of personal information will be disclosed.

Consent form:

I was invited to participated in the research relating to the strengthening cervical cancer screening program. I have read thoroughly the information sheet and or was told about the project. I had an opportunity to ask questions about the project and my participation which all my concerns were clarified to my satisfaction. I voluntarily agree to participate in the survey and I have the right to withdraw from the survey at anytime I wish. My decision to withdraw from the survey will not affect me in any way.

Respondent read the information sheet [ ]

Interviewer read to the respondent [ ]

Agree to give information [ ]

Refuse to particiopate [ ]

Signature: Respondent _____ date _____

Interviewer _____

SECTION A: RESPONDENT'S BACKGROUND

NO	QUESTION	CODING CATEGORIES	Code	SKIP
Q1.1	In what month and year were you born? USING THE GREGORIAN CALENDAR	Month.....		
		Don't know month	99	
		Year.....		
		Don't know year	9999	
Q1.2	How old were you at your last birthday? (IF DON'T KNOW MAKE AN ESTIMATE)	Age in completed years.....		
Q1.3	Where were you born?	Village, Sub-district, District, Province _____ _____		
Q1.4	Were you born in or outside the municipality?	In Out Don't know	1 2 9	
Q1.5	Is your current place of residence the same as your place of born?	same	1	
		different district in the same province	2	
		different province	3	
		other (specify)	9	

NO	QUESTION	CODING CATEGORIES	Code	SKIP
Q1.6	Are you currently married or in a stable union or living with a man?	Single, not in partnership	1	
		YES, married-living with husband	2 →	Q1.8
		YES, married BUT not living with husband	3 →	Q1.8
		YES, living with a partner who is not a legal husband	4 →	Q1.8
		in a stable union but not living with the partner	5 →	Q1.8
		Separated from Husband or Partner	6 →	Q1.8
		Divorced from Husband	7 →	Q1.8
		Widowed from husband or stable partner	8 →	Q1.8
Q1.7	If you are not currently married or are without a partner, have you ever been married or lived with a partner in the past?	Yes	1	
		No	2	
Q1.8	Up until now, how many sexual partners do you have?	number .....persons		
Q1.9	What is the highest year of schooling you have attended?	(specify)		

NO	QUESTION	CODING CATEGORIES	Code	SKIP
Q1.10	What was your main occupation last year? That is, what kind of work do you spend most of your time doing? READ OPTIONS	Professional, scholar, manager Clerk, administrator Trader, service, business Employee in trade, services skilled workers (trade) unskilled worer (include domestic workers) wage labourer agriculture: self-employed agriculture: workers pensioner housewives student unemployed other (specify).....	1 2 3 4 5 6 7 8 9 10 11 12 13	
Q1.11	Last year, what was your partner/husband's main occupation? That is, what kind of work do you spend most of your time doing? READ OPTIONS	Professional, scholar, manager Clerk, administrator Trader, service, business Employee in trade, services skilled workers (trade) unskilled worer (include domestic workers) wage labourer agriculture: self-employed agriculture: workers pensioner student unemployed other (specify)..... don't know	1 2 3 4 5 6 7 8 9 10 12 13 99	

NO	QUESTION	CODING CATEGORIES	Code	SKIP
Q1.12	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	yes	1	
		no	2 ➔	Q1.5
Q1.13	How many births were born alive? IF NONE, RECORDED '00'	number of live birth.....		
Q1.14	How many living children do you have? IF NONE, RECORDED '00'	number of living children.....		
Q1.15	How many still births have you ever had? (A STILL BIRTH IS A BABY THAT IS BORN DEAD AFTER 7 MONTHS OF PREGNANCY) IF NONE, RECORDED '00'	number of still births		
Q1.16	Did you have any miscarriage or pregnancies that spontaneously terminated and did not result in a live birth?	yes	1	
		no	2 ➔	Q1.18
Q1.17	If yes, how many times?	number of miscarriage		
Q1.18	Did you have any abortion (including aborted with ya satri or the menstrual regulation drugs)?	Yes	1	
		No	2 ➔	Q1.20
Q1.19	If yes, how many times?	number of abortion		

NO	QUESTION	CODING CATEGORIES	Code	SKIP
Q1.20	Are you pregnant now?	Yes	1	
		No	2	
		not in union	8	
		Don't Know	9	

SECTION B: KNOWLEDGE ABOUT CERVICAL CANCER

NO	QUESTION	CODING CATEGORIES	Code	SKIP
Q 2.1	Have you ever heard of an illness called cervical cancer?	yes	1	
		no	2	
Q2.2	Is there anything a person can do to avoid getting cervical cancer?	yes	1	
		no	2	
Q 2.3	Do you know someone personally who has cervical cancer?	yes	1	
		no	2	
Q 2.4	Do you know someone personally who died of cervical cancer?	yes	1	
		no	2	
Q 2.5	Can the virus that causes cervical cancer be transmitted through sexual contact?	yes	1	
		no	2	
Q 2.6	Can a woman prevent getting cervical cancer by having regular cervical screening?	yes	1	
		no	2	

NO	QUESTION	CODING CATEGORIES	Code	SKIP
Q 2.7	Can a woman reduce her chance of getting cervical cancer by using condom every time she has sex?	yes	1	
		no	2	
Q 2.8	Have you ever talked about ways to prevent getting cervical cancer with your friends?	yes	1	
		no	2	
Q 2.9	In your opinion, younger or older women are at high risk of developing cervical cancer?	Younger women	1	
		Older women	2	
		No difference	3	
		Don't Know	9	
Q 2.10	What can a person do to prevent cervical cancer? Can answer more than one Do not read the responses	Use condom	1	
		Do not have multiple partners	2	
		have a regular cervical screening	3	
		other (specify)	4	
		don't know	9	
Q 2.11	Is it true or false that cervical cancer takes several years to develop?	true	1	
		false	2	

SECTION C: AWARENESS OF CERVICAL CANCER PREVENTION

Q 3.1	Have you ever heard of cervical cancer screening service?	yes			1	
		no			2 ➔	Q4.1
Q 3.2	Do the following health facilities provide cervical screening services? Read all answers		Yes	No	Don't know	
		Government hospital	1	2	9	
		health centre	1	2	9	
		mobile clinic	1	2	9	
		private hospital	1	2	9	
		private clinic	1	2	9	
		other (specify)....	1	2	9	
Q 3.3	Where do you get information about cervical screening services? Read all answers			yes	No	
		Friends		1	2	
		siblings		1	2	
		partner/husband		1	2	
		health personnel		1	2	
		media such as radio, tv		1	2	
		community groups		1	2	
		other (specify)		1	2	
Q 3.4	Were you ever told by health personnel about cervical screening service?	yes			1	
		no			2	

Q 3.5	Were you ever told by a community health volunteer about cervical screening services?	yes	1	
		no	2	
Q 3.6	Were you ever told by your friends about cervical screening services?	yes	1	
		no	2	
Q 3.7	Were you ever given any leaflets or pamphlets about cervical cancer and screening?	yes	1	

SECTION D: ATTITUDES TOWARDS CERVICAL SCREENING SERVICES

Q 4.1	Have you ever had a pelvic exam or a speculum exam?	YES	1	
		NO	2 ➔	Q4.3
Q 4.2	If yes, how did you feel about your experience?	(specify)	➔	Q4.4
		.....		
Q 4.3	If no, how do you think you would feel about a pelvic exam?	(specify)		
		.....		

Q 4.4	How would you feel about having a pelvic exam if it could help to prevent you from getting cervical cancer? READ OPTIONS	DEFINITELY, WILL GO FOR IT	1	
		MAYBE	2	
		DEFINITELY NOT	3	
		DON'T KNOW	9	
Q 4.5	How would you think your women friends or relatives would feel about having pelvic exam?	DEFINITELY, WILL GO FOR IT	1	
		MAYBE	2	
		DEFINITELY NOT	3	
		Don't know	9	
Q 4.6	Do you think your husband or partner would approve you for having a pelvic exam?	YES	1	
		NO	2	
		Don't Know	9	

SECTION E: USE OF CERVICAL CANCER SCREENING SERVICES

NO	QUESTION	CODING CATEGORIES	Code	SKIP
Q 5.1	How many times have you ever been screened for cervical cancer?	NEVER	00	
		..... TIMES	→	Q5.3
Q 5.2	What was the main reason that you have never been screened?	not married	1 →	
		fear of having dtected cancer	2 →	
		too young	3 →	Q5.4
		inconvenient to use	4 →	
		cost too much	5 →	
		other (specify)	6 →	

NO	QUESTION	CODING CATEGORIES	Code	SKIP
Q 5.3	How old were you when you had your first cervical cancer screening?			
		..... YEAR		
Q 5.4	In the last 10 months, have you ever been screened for cervical cancer?	yes	1	
		no	2 ➔	Q5.8
Q 5.5	What made you decided to seek cervical cancer screening?	PEACE OF MIND	1	
		HAVING GYNECOLOGICAL PROBLEMS	2	
		ROUTINE CHECK UP	3	
		OTHER (SPECIFY)	4	
Q 5.6	Where did you have your cervical cancer screening?	Public sector govt. HOSPITAL	1	
		govt. HEALTH CENTRE	2	
		MOBILE CLINIC	3	
		OTHER (SPECIFY).....	4	
		PRIVATE sector PRIVATE HOSPITAL	5	
		private CLINIC	6	
		OTHER (SPECIFY).....	7	
Q 5.7	Would you be comfortable going there for your cervical cancer screening again?	definitely yes	1	
		not sure	2	
		definitely not	3	
Q 5.8	What would be the best place for you to go for cervical cancer screening?	(SPECIFY)		
		DON'T KNOW	9	

NO	QUESTION	CODING CATEGORIES	Code	SKIP
Q 5.9	What would be the best time for you to go for cervical cancer screening?	DURING THE PERIOD	1	
		BEFORE OR AFTER THE PERIOD	2	
		OTHER (SPECIFY).....	3	
		DON'T KNOW	9	
Q 5.10	How often have you had cervical cancer screening?	ONCE EVERY YEAR	1	
		ONCE EVERY 2 YEARS	2	
		ONCE EVERY 3 YEARS	3	
		ONCE EVERY 4-5 YEARS	4	
		IRREGULARLY	5	
		NEVER BEEN SCREENED	6	
Q 5.11	In the last 10 months, have you visited a health facility for care for yourself?	YES	1	
		NO	2	
Q 5.12	Did the staff at the health facility speak to you about cervical cancer prevention?	YES	1	
		NO	2	
Q 5.13	In the last 10 months, were you visited by a health provider who talked to you about cervical cancer prevention?	YES	1	
		NO	2	
Q 5.14	Have you ever talked about ways to prevent getting cervical cancer with your partner/husband?	yes	1	
		no	2	
		never married	8	

NO	QUESTION	CODING CATEGORIES		Code	SKIP
Q 5.15	Have you ever talked about ways to prevent getting cervical cancer with your sister or mother?	yes		1	
		no		2	
Q 5.16	Now I would like to ask you some questions about barriers to the use of cervical cancer screening. When you want to get cervical cancer screening, is each of the following a big problem or not?				
		big problem	NOT A BIG PROBLEM		
	Knowing where to go.	1	2		
	Getting permission to go.	1	2		
	Getting money needed to go.	1	2		
	The distance to the health facility.	1	2		
	Having to take transport.	1	2		
	Not wanting to go alone.	1	2		
	Concern that there may not be a female health provider.	1	2		

SECTION F: QUESTIONS OR COMMENTS BY THE RESPONDENT

Q6.1	Do you have any questions or additional comments you would like to share with me before we conclude this interview?			
Q6.2	RECORD THE TIME	HOUR		
		MINUTES		

Thank you for your cooperation

Annex 2: Interview guidelines

Women participants (and probably husbands or partners)

- What are the main reproductive health concerns for young women and older women? (Do not prompt for cervical cancer.).
- If cervical cancer was mentioned, ask how they are concerned about cervical cancer, for instance, the disease is more or less importance in women in relation to ages, perceived prevalence of cervical cancer. If cervical cancer was not mentioned, asked if the women have heard of cervix cancer.
- Access to health information, particularly cervical cancer and screening services. What information and services are available in the community or nearest town. Ask about their opinions about the information and services and their experiences about getting the information and using the services.
- Ask whether they ever had pelvic exam or speculum exam? How would they feel about such an exam? How would their husbands or partners feel about having pelvic exam? How would they and their husbands feel about such an exam if it could help to prevent the women from getting cervical cancer?

- What are other health activities or programmes concerning cervical cancer prevention are available in the areas? Detail description of the activities.
- What has made it difficult or might make it difficult for the women to go for cervical cancer screening services? What would make it easier for the women to go for cervical cancer screening services?
- (For those who have had abnormal smear tests.) What advice did they receive from health providers and volunteers? Have they received further investigations and treatment? How well do they understand the cervical screening programme? What, if any, additional information concerning the programme should be provided?

Community communicator volunteers

- How confident are you to communicate with your neighbours about cervical cancer and cervical screening services?
- What are you currently doing to communicating the information on cervical cancer and screening services to your neighbours? How do you feel about the ways you are doing and whether you are satisfied?
- What are your opinions about the women's responses to the information and mode of information dissemination.

Health personnel

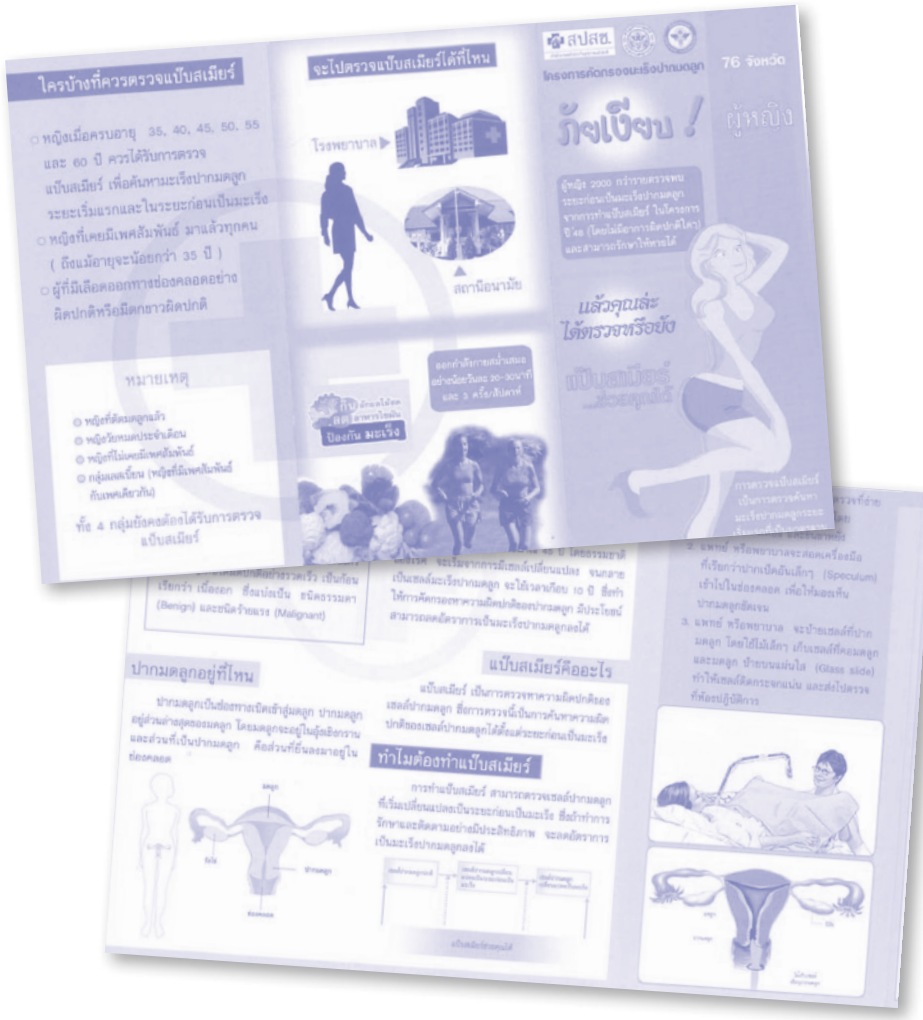
- Basic information about the health facility such as type of health facility, personnel, services available and some health statistics.
- What public educational materials are available to inform women of cervical cancer prevention? How are materials/ messages delivered to women? What are the main messages? What are the strengths and weaknesses of the materials? How can the weaknesses be improved?
- What health education strategies are conducted in the community to encourage women to be screened and to be informed of their screening test results? How effective are these strategies? How can they be improved?
- What health education strategies are undertaken in the health centre to encourage at-risk women to be screened?
- What strategies are used to identify eligible women and to recruit these women for screening services? How can these strategies be improved?
- Where are the screening tests performed? Who performs the screening tests in each facility? Can you perform the screening tests? Are you and your staff received special training for performing the screening tests?

- Is there sufficient equipment and supplies available in the health facility for screening services?
- How are the screening services delivered: as part of routine preventive health services for women; as part of maternal and child health services; as a special campaign for cervical cancer prevention? Other?
- How are women notified of their screening test results? Who communicates the results to the women? How well does it function? Is there counseling at the time results are provided? Is a woman given a copy of her results, or is it recorded in a client record card kept by the woman?
- What referral system is in place for abnormal results needing further diagnosis, treatment and follow-up.
- What areas for capacity building concerning cervical cancer screening programme should be improved?
- Over all, what are the strengths and the weaknesses of the screening services? How can the weaknesses be improved?
- Are women and community member involved in communicating messages to their peers and educating women about cervical cancer screening? What evidence is there for the level and degree of peer communication in the community?

- What institutions are or could be involved in community strategies to involve women and improve their participation in screening programs?
- What are other health activities or programmes concerning cervical cancer prevention are available in the areas? Detail description of the activities.
- What and how much you know about cervical cancer control programmes in Thailand and in the province? Would you think the available programmes do enough to prevent the women from developing cervical cancer? Why?

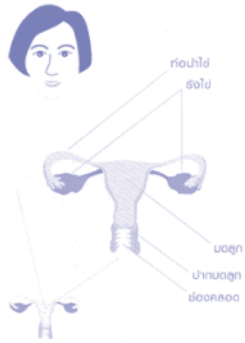
Annex 3: IEC materials

1. A 2-page pamphlet which includes brief information about cervix, the problem about cervical cancer in Thailand, who should seek smear tests, sources of services, what pap smear test is, why pap smear is important and procedure for a smear taking.



2. Information booklet about cervical cancer and pap smear. This booklet was reproduced by the 4th Regional Health Promotion Centre. Contents included in the booklet are: where is the cervix, what is cancer, what is cervical cancer, HPV, risk factors for cervical cancer, cervical screening, what is pap smear, how smear taken, who should get tested, how women to prepare for smear test, when the test result come out, how the test result tell us, what to do if the test is normal, what to do if the test is abnormal and name and contact number of volunteer educators and health staff. Pictures below are the scan of the booklet.

ปากมดลูกอยู่ที่ไหน??



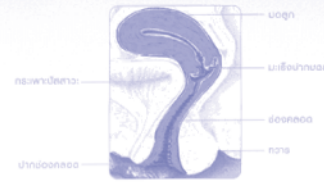
มะเร็ง (เนื้อร้าย) คือ อะไร

มะเร็ง คือ การเจริญเติบโตผิดปกติของเซลล์จนเป็นก้อน สามารถลุกลามสู่อวัยวะใกล้เคียง หรือแพร่กระจายไปตามเส้นเลือดและเส้นน้ำเหลืองสู่อวัยวะที่ห่างไกลได้

มะเร็งปากมดลูกในหญิงไทยเป็นอย่างไร

มะเร็งปากมดลูก คือ เนื้อร้ายที่เกิดขึ้นในบริเวณปากมดลูก ซึ่งเป็นส่วนล่างของมดลูกและเป็นส่วนที่ยื่นเข้ามาในช่องคลอดส่วนบน ทำให้สามารถมองเห็นได้จากการตรวจภายใน

มะเร็งปากมดลูกในสตรีไทยพบมากเป็นอันดับ 1 หรือ 2 สลับกับมะเร็งเต้านม ในแต่ละปีมีผู้ป่วยรายใหม่ไม่น้อยกว่า 6,000 คน และมีผู้ป่วยตายไม่น้อยกว่า 2,000 คน อุบัติการณ์ในปี 2545 คือ 19.8 ต่อแสนประชากร ประมาณการว่าประเทศชาติเสียค่าใช้จ่ายในการดูแลรักษาไม่น้อยกว่าปีละ 400 ล้านบาท



ผู้หญิงจะรู้ตัวได้อย่างไรว่าเป็นมะเร็งปากมดลูก

- ระยะเริ่มต้นจะไม่มีอาการใดๆ เป็นมะเร็งที่เติบโตช้าๆ ใช้เวลาประมาณ 10 ปี เพราะฉะนั้นการพบตั้งแต่ระยะแรกจึงสำคัญมาก.!! รักษาหายได้เกือบ 100 %
- ระยะเริ่มมีอาการ คือ มีเลือดออกทางช่องคลอดหลังมีเพศสัมพันธ์ อาจมีระดูมากและหลายวัน เลือดออกระหว่างหรือหลังการร่วมเพศ หรือหลังวัยหมดระดู อาจมีตกขาวมีกลิ่นคล้ายปลาเหลือง น้ำคาว หรือระบม มีกลิ่นเหม็น
- ระยะหลังๆ จะมีอาการ ปวดเหมือน น้ำหนักลด มะเร็งลุกลามสู่อวัยวะใกล้เคียง และกระจายไปในเส้นเลือดเส้นน้ำเหลือง ทำให้ปวดในผู้ชายจึงกรน ปวดหลัง ปวดขา ขาบวมข้างใดข้างหนึ่ง อาจมีปัสสาวะหรืออุจจาระไหลทางช่องคลอด หรืออาจมีกระดูกหักได้ง่าย

มีเหตุใดบ้างที่ทำให้ผู้หญิงเสี่ยงต่อการเป็นมะเร็งปากมดลูก

มะเร็งปากมดลูกเกิดจากสาเหตุใดยังไม่ทราบแน่ชัด แต่ทางการแพทย์พบว่ามีปัจจัยเสี่ยงที่เกี่ยวข้องกับการเกิดมะเร็งปากมดลูก ดังนี้

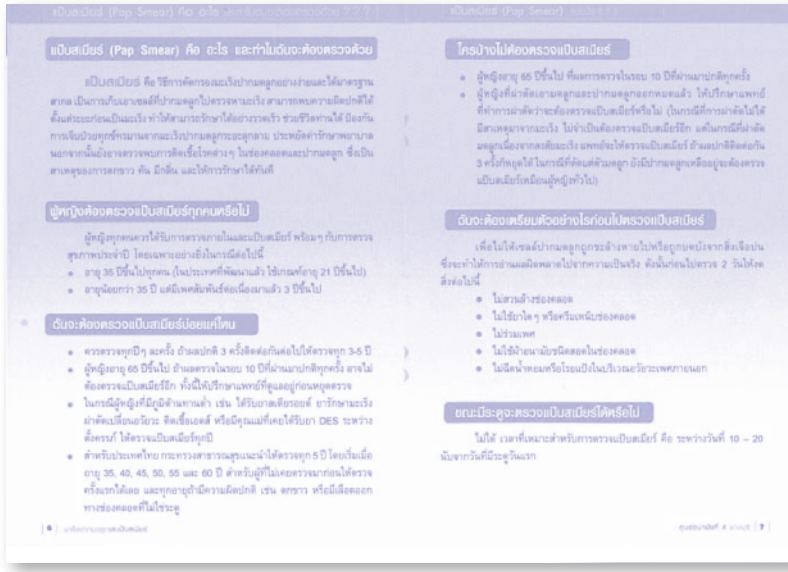
- การติดเชื้อไวรัสหงอนไก่ (Human Papilloma Virus, HPV)
- การมีเพศสัมพันธ์ตั้งแต่อายุน้อยๆ (ต่ำกว่า 18 ปี)
- การมีเพศสัมพันธ์กับชายหลายคน
- สามีหรือเพื่อนชายมีเพศสัมพันธ์กับหญิงหลายคน
- การอักเสบเรื้อรังบริเวณปากมดลูก จากเชื้อโรคต่างๆ หรือการกระทบกระเทือน
- ดูแลอนามัยที่ไม่ถูกสุขลักษณะ
- ผู้ที่มีภูมิต้านทานต่ำ เช่น ผู้ติดเชื้อ HIV ผู้ที่ผ่าตัดเปลี่ยนอวัยวะ ผู้ที่ได้รับยาบางชนิดนานๆ (Steroid, Chemotherapy)
- สตรีที่มีมารดาซึ่งได้รับยา Diethyl stilbestrol (DES) ระหว่างตั้งครรภ์ช่วงปี 2513 - 2523

ไวรัสหงอนไก่ (HPV) คืออะไร

- HPV เป็นไวรัสที่ติดต่อทางเพศสัมพันธ์ที่พบบ่อยที่สุด
- HPV มีมากกว่า 100 สายพันธุ์ แต่มีประมาณ 40 สายพันธุ์ที่ติดต่อทางเพศสัมพันธ์ และมีประมาณ 15 สายพันธุ์ที่ก่อให้เกิดมะเร็งปากมดลูก
- ประมาณ 75 % ของชายและหญิงที่มีเพศสัมพันธ์ จะเคยติดเชื้อนี้มาบ้างแล้ว โดยไม่รู้ตัว เพราะมักจะไม่มีอาการผิดปกติอะไรให้สังเกต
- ผู้หญิงส่วนใหญ่ที่ติดเชื้อ HPV ไม่ได้หมายความว่าจะเป็นมะเร็งปากมดลูก
- แม้การติดเชื้อ HPV จะไม่มีอาการ แต่เชื้อ HPV บางสายพันธุ์ทำให้เซลล์ปากมดลูก เปลี่ยนแปลงเป็นมะเร็งได้ การตรวจเป็นประจำเพื่อหาการเปลี่ยนแปลงนี้
- ปัจจุบันมีวัคซีนป้องกันการติดเชื้อ HPV ได้เพียง 2-4 สายพันธุ์ ดังนั้นแม้ว่าที่มีวัคซีนป้องกัน HPV แล้วก็ยังจำเป็นต้องมีการตรวจคัดกรองมะเร็งปากมดลูกเช่นเดียวกับสตรีทั่วไป

ความสำคัญของการตรวจคัดกรองมะเร็งปากมดลูก

การคัดกรอง คือ การค้นหาความผิดปกติก่อนที่จะมีอาการของโรค ทำให้พบรอยโรคตั้งแต่เริ่มเป็นใหม่ๆ การรักษาก็จะง่ายและได้ผลดีที่สุด เพิ่มคุณภาพชีวิตและประหยัดค่าใช้จ่าย และจากธรรมชาติของมะเร็งปากมดลูกที่ใช้เวลาการเปลี่ยนแปลงช้าๆ ใช้เวลาหลายปี ทำให้การตรวจคัดกรองสามารถพบมะเร็งระยะเริ่มต้นและรักษาชีวิตสตรีอย่างได้ผลดีมามากแล้วในหลายๆ ประเทศ



แปปสเมียร์ (Pap Smear) คือ อะไร และทำไมต้องตรวจด้วย

แปปสเมียร์ คือ วิธีการคัดกรองมะเร็งปากมดลูกอย่างง่ายและได้มาตรฐานสากล เป็นการเก็บเอาเซลล์ที่ปากมดลูกไปตรวจหาและมะเร็งสามารถพบความผิดปกติได้ตั้งแต่ระยะก่อนเป็นมะเร็ง ทำให้สามารถรักษาได้อย่างรวดเร็ว ช่วยชีวิตท่านได้ ป้องกันการเจ็บป่วยทุกข์ทรมานจากมะเร็งปากมดลูกระยะลุกลาม ประหยัดค่ารักษาพยาบาล นอกจากนั้นยังอาจตรวจพบการติดเชื้อไวรัสต่างๆ ในช่องคลอดและปากมดลูก ซึ่งเป็นสาเหตุของการตกขาว คัน มีกลิ่น และให้การรักษาได้ทันที

ผู้หญิงต้องตรวจแป๊ปสเมียร์ทุกคนหรือไม่

ผู้หญิงทุกคนควรได้รับการตรวจภายในและแป๊ปสเมียร์ พร้อมๆ กับการตรวจสุขภาพประจำปี โดยเฉพาะอย่างยิ่งในกรณีต่อไปนี้

- อายุ 35 ปีขึ้นไปทุกคน (ในประเทศที่พัฒนาแล้ว ใช้เกณฑ์อายุ 21 ปีขึ้นไป)
- อายุน้อยกว่า 35 ปี แต่มีเพศสัมพันธ์ก่อนอายุ 3 ปีขึ้นไป

ฉันจะต้องตรวจแป๊ปสเมียร์บ่อยแค่ไหน

- ควรตรวจทุกปีๆ อะครั้ง ถ้าผลปกติ 3 ครั้งติดต่อกันต่อไปให้ตรวจทุก 3-5 ปี
- ผู้หญิงอายุ 65 ปีขึ้นไป ถ้าผลตรวจในรอบ 10 ปีที่ผ่านมาปกติทุกครั้ง อาจไม่ต้องตรวจแป๊ปสเมียร์อีก ทั้งนี้ให้ปรึกษาแพทย์ที่คุณอยู่ก่อนหยุดตรวจ
- ในกรณีผู้หญิงที่มีภูมิต้านทานต่ำ เช่น ได้รับยาสเตียรอยด์ ยารักษามะเร็ง ผ่าตัดเปลี่ยนอวัยวะ ติดเชื้อเอดส์ หรือมีคุณแม่ที่เคยได้รับยา DES ระหว่างตั้งครรภ์ ให้ตรวจแป๊ปสเมียร์ทุกปี
- สำหรับประเทศไทย กระทรวงสาธารณสุขแนะนำให้ตรวจทุกอายุ 5 ปี โดยเริ่มเมื่ออายุ 35, 40, 45, 50, 55 และ 60 ปี สำหรับผู้ที่ไม่เคยตรวจมาก่อนให้ตรวจครั้งแรกให้เลย และทุกอายุถ้ามีความผิดปกติ เช่น ตกขาว หรือมีเลือดออกทางช่องคลอดที่ไม่ใช่ระดู

ใครบ้างไม่ต้องตรวจแป๊ปสเมียร์

- ผู้หญิงอายุ 65 ปีขึ้นไป ที่ผลการตรวจในรอบ 10 ปีที่ผ่านมาปกติทุกครั้ง
- ผู้หญิงที่ผ่าตัดเอามดลูกและปากมดลูกออกหมดแล้ว ให้ปรึกษาแพทย์ที่ทำการผ่าตัดว่าจะต้องตรวจแป๊ปสเมียร์หรือไม่ (ในกรณีที่การผ่าตัดไม่ได้มีสาเหตุมาจากมะเร็ง ไม่จำเป็นต้องตรวจแป๊ปสเมียร์อีก แต่ในกรณีที่ผ่าตัดมดลูกเนื่องจากสงสัยมะเร็ง แพทย์จะให้ตรวจแป๊ปสเมียร์ อันแปปสีติดต่อกัน 3 ครั้งก่อนครับ ในการนี้ที่ผ่าตัดแต่ตัวมดลูก มักมีปากมดลูกเหลืออยู่จะต้องตรวจแป๊ปสเมียร์เหมือนผู้หญิงทั่วไป)

ฉันจะต้องเตรียมตัวอย่างไรก่อนไปตรวจแป๊ปสเมียร์

เพื่อไม่ให้เซลล์ปากมดลูกถูกระล้างหายไปหรือถูกบดบังจากสิ่งเจือปน ซึ่งจะทำให้การอ่านผลผิดพลาดไปจากความเป็นจริง ดังนั้นก่อนไปตรวจ 2 วันให้งดสิ่งต่อไปนี้

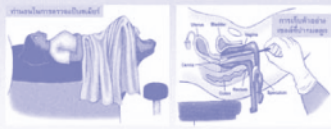
- ไม่สวนล้างช่องคลอด
- ไม่ใช้ยาใดๆ หรือครีมเหน็บช่องคลอด
- ไม่ร่วมเพศ
- ไม่ใช้ผ้าอนามัยชนิดสอดในช่องคลอด
- ไม่ฉีดน้ำหอมหรือโรยแป้งในบริเวณอวัยวะเพศภายนอก

ขณะมีระดูจะตรวจแป๊ปสเมียร์ได้หรือไม่

ไม่ได้ เวลาที่เหมาะสำหรับการตรวจแป๊ปสเมียร์ คือ ระหว่างวันที่ 10 – 20 นับจากวันที่มีประจำเดือนครั้งแรก

การตรวจแป๊ปสเมียร์ทำอย่างไร

โดยทั่วไปแพทย์หรือพยาบาลจะทำการตรวจแป๊ปสเมียร์พร้อมกับการตรวจภายใน ซึ่งเป็นการตรวจที่ง่าย รวดเร็ว และไม่เจ็บปวดแต่อย่างใด สามารถทำได้ทั้งที่สถานีอนามัย โรงพยาบาล คลินิก หรือหน่วยแพทย์เคลื่อนที่ในชุมชน สตรีที่รับการตรวจจะนอนหงายและชันเข่าขึ้นทั้งสองข้าง แพทย์หรือพยาบาลที่ตรวจจะค่อยๆ ใส่เครื่องมือ ที่เรียกว่าสเปคูลัม มีลักษณะคล้ายปากเป็ด เข้าไปในช่องคลอด เพื่อเปิดดูปากมดลูกด้วยสายตาว่ามีสิ่งผิดปกติหรือไม่ หลังจากนั้นจะใช้ไม้ปาดๆ หรือไม้พันสำลีหรือขนแปรงเล็กๆ ป้ายมูกที่ปากมดลูกเพื่อเก็บตัวอย่างเซลล์ แล้วนำมูกนั้นมาป้ายบนแผ่นกระจกเล็กๆ เพื่อส่งไปตรวจยังห้องปฏิบัติการเซลล์วิทยาต่อไป



ฉันจะทราบผลการตรวจเมื่อไร

โดยปกติจะใช้เวลาประมาณ 1 เดือนจึงจะทราบผล ผู้หญิงส่วนใหญ่จะมีผลปกติ และส่วนน้อยเท่านั้น คือ ประมาณร้อยละ 6 ที่มีผลผิดปกติ การมีผลตรวจผิดปกตินี้ไม่ได้หมายความว่าจะเป็นมะเร็งทั้งหมด บางส่วนพบมีการเปลี่ยนแปลงเล็กน้อย บางส่วนเป็นการติดเชื้อหรือการระคายเคือง ซึ่งสามารถรักษาให้หายได้ง่าย

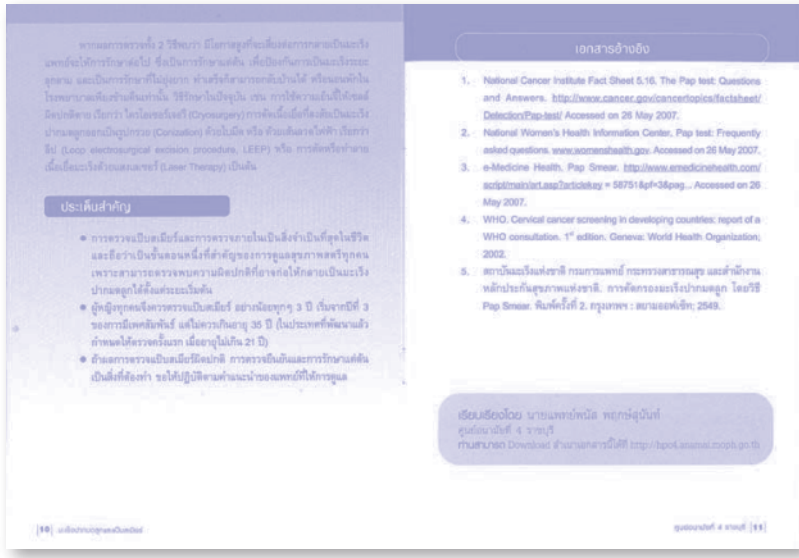
ฉันจะเข้าใจผลการตรวจได้อย่างไร

- ผลลบหรือปกติ หมายความว่า เซลล์ปากมดลูกไม่มีการเปลี่ยนแปลง และไม่มีการติดเชื้อ
- ผลบวกหรือผิดปกติ หมายความว่า เซลล์ปากมดลูกมีการเปลี่ยนแปลง ซึ่งสามารถระบุว่าเป็นระยะก่อนกลายเป็นมะเร็ง หรือเป็นมะเร็งชนิดใด หรือเกิดจากการติดเชื้อ เช่น เชื้อรา เชื้อหนองใน เชื้อตามโรคอื่นๆ เชื้อไวรัส HPV หรือเชื้ออื่นๆ ส่วนใหญ่เซลล์ปากมดลูกที่ผิดปกตินี้ จะกลับมาเป็นปกติได้เอง หรือภายหลังการรักษาอย่างถูกต้องแล้วๆ จะสามารถป้องกันการกลายเป็นมะเร็งได้

หากผลแป๊ปสเมียร์ของฉันผิดปกติ แล้วจะทำอย่างไรต่อไป

การมีเซลล์ปากมดลูกเปลี่ยนแปลงผิดไปจากปกติ หากผลระบุว่ามีการเปลี่ยนแปลงไม่มาก แพทย์มักจะให้ตรวจซ้ำภายใน 6 เดือน ซึ่งส่วนใหญ่เซลล์จะกลับมาปกติได้เอง แต่หากตรวจซ้ำแล้วยังไม่ปกติ หรือผลการตรวจพบว่าเซลล์มีการเปลี่ยนแปลงรุนแรง แพทย์จะต้องตรวจยืนยันด้วยวิธีอื่นๆ ให้ชัดเจน เช่น

- การใช้กล้องขยายส่องดูเซลล์ที่ปากมดลูกโดยตรง จะเห็นรายละเอียดของเซลล์ที่มีการเปลี่ยนแปลงได้ชัดเจน วิธีนี้เรียกว่า คอลโปสโคปี (Colposcopy) และแพทย์อาจป้ายปากมดลูกด้วยน้ำส้มสายชูอ่อนๆ จะทำให้เห็นขอบเขตของเซลล์ผิดปกติได้ชัดเจนขึ้น
- การนำชิ้นเนื้อเล็กๆ จากปากมดลูกไปตรวจทางพยาธิวิทยา ซึ่งอาจนำไปจากผิวปากมดลูก (Cervical Biopsy) หรือจากภายในช่องปากมดลูก (Endocervical Currettage) ขึ้นอยู่กับความผิดปกติที่พบ



ประเด็นสำคัญ

- การตรวจเป็นสเมียร์และการตรวจภายในเป็นสิ่งจำเป็นที่สุดในชีวิต และถือว่าเป็นขั้นตอนหนึ่งที่สำคัญของการดูแลสุขภาพสตรีทุกคน เพราะสามารถตรวจพบความผิดปกติที่อาจก่อให้กลายเป็นมะเร็งปากมดลูกได้ตั้งแต่ระยะเริ่มต้น
- ผู้หญิงทุกคนจึงควรตรวจเป็นสเมียร์ อย่างน้อยทุกๆ 3 ปี เริ่มจากปีที่ 3 ของการมีเพศสัมพันธ์ แต่ไม่ควรเกินอายุ 35 ปี (ในประเทศที่พัฒนาแล้วกำหนดให้ตรวจครั้งแรก เมื่ออายุไม่เกิน 21 ปี)
- ถ้าผลการตรวจเป็นสเมียร์มีความผิดปกติ การตรวจยืนยันและการรักษาแต่ต้นเป็นสิ่งที่ต้องทำ ขอให้ปฏิบัติตามคำแนะนำของแพทย์ที่ให้การดูแล

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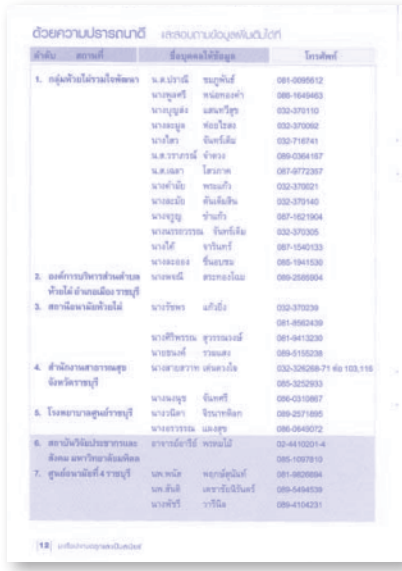
ศูนย์อนามัยที่ 4 ราชบุรี
ท่านสามารถ Download ต้นฉบับเอกสารนี้ได้ที่ http://bpo4.anamai.moph.go.th



ด้วยความปรารถนาดี เลขานุการและข้อมูลพื้นฐานสำหรับ

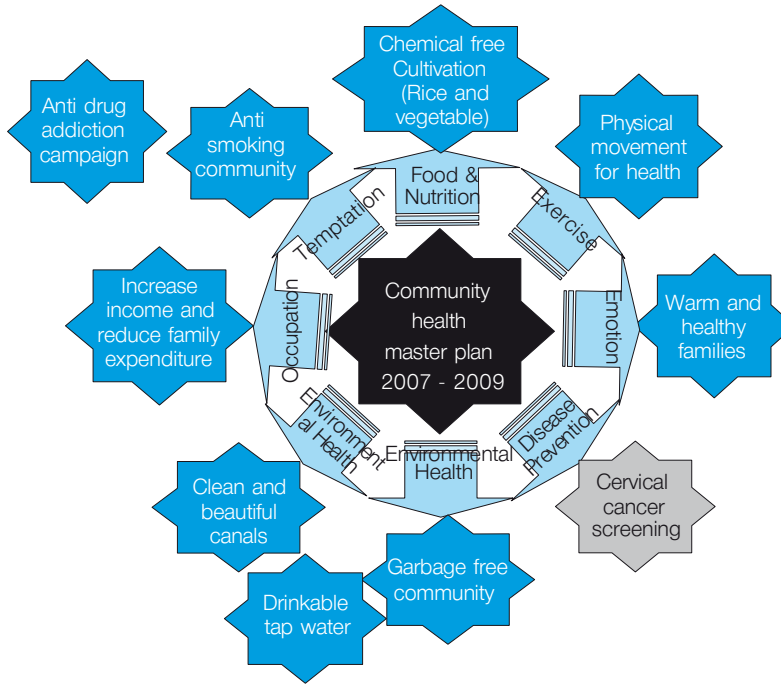
ลำดับ	สถานที่	ชื่อบุคคลให้ข้อมูล	โทรศัพท์
1.	กลุ่มพัฒนาสังคมและสวัสดิการ	น.ส.ปราณี ธนูพันธ์	081-0095612
		นางบุญศรี หน่อคองคำ	086-1649463
		นางบุญส่ง แสนหวิสุข	032-370110
		นางละมูล ห่อไธสง	032-370092
		นางไสว จันทร์สัน	032-716741
		น.ส.วรากรณ์ จำหวง	089-0364167
		น.ส.เสงา ไสวภาพ	087-9772357
		นางคำมี พรมแก้ว	032-370521
		นางละมัย ศันสันสิน	032-370140
		นางจรูญ ช่ำแก้ว	087-1621904
		นางณรงวรรณ จันทร์เจิม	032-370305
		นางได้ จารินทร์	087-1540133
		นางละออง ชื่นอบชม	085-1941530
2.	องค์การบริหารส่วนตำบลห้วยไผ่ อำเภอเมือง ราชบุรี	นางพรณี สระทองโอม	089-2585904
3.	สถานีอนามัยห้วยไผ่	นางวิรพา แก้วยิ่ง	032-370239
			081-8562439
		นางศิริพรรณ สุวรรณมงคล์	081-9413230
		นายชนงค์ วรมนตร	089-5155238
4.	สำนักงานสาธารณสุขจังหวัดราชบุรี	นางสายสวาท เต่งตระกูล	032-326268-71 ต่อ 103,116
			085-3252933
		นางนงนุช จันทศรี	086-0310867
5.	โรงพยาบาลศูนย์ราชบุรี	นางวนิดา จิรนาทลือลา	089-2571695
		นางอรวรรณ แสงสุข	086-0649072
6.	สถาบันวิจัยประชากรและสังคม มหาวิทยาลัยมหิดล	อาจารย์อรวิรี์ พรหมไม้	02-4410201-4
			085-1097810
7.	ศูนย์อนามัยที่ 4 ราชบุรี	นพ.หนัด พฤกษ์สุนันท์	081-9626694
		นพ.สันติ เศรารัชนิวินทร์	089-5494539
		นางพัชรี วาทีนิล	089-4104231

Annex 4: An operation plan for the community prevention of cervical cancer by the volunteer educators

Activity	2007						2008					
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Public forum in 9 villages in collaboration with the Tambon Administrative Organization												
Home visits to conduct face-to-face communication and identifying the target women												
Broadcast of information via the Tambon Administrative Organization loud speaker												
Broadcast of information via the community radio programme												
Establish a community information post												
Conduct a community cervical screening campaign												

Annex 5: Community Health Master Plan

Diagram below depicts the main community health issues raised by the trainees in the training workshop.



Annex 6

Research team

	Institute for Population and Social Research, Mahidol University	the 4th Regional Health Promotion Center Ratchaburi
Principle investigator	Dr. Aree Prohmmo	Dr. Panus Preuksunand
Researcher	Dr. Aree Jumpaklay	Patcharee Wareenil
Project administrator	Kullawee Siriratmongkhon	
Research assistant	Chanjira Wichai	

Resource persons and trainers from the 4th Regional Health Promotion Center Ratchaburi

Dr. Panus Preuksunand

Mantana Buawattana

Jintana Chunhamukda

Wipapan Supprasert

Sirilak Charoenpol

Annex 7: Photo Gallery

Pre-test field supervisor and interviewers

Field supervisor: Ms. Reudeewan Pewnuan

Interviewers: Ms. Apinya Raddeang, Ms. Apinya Suwannasuan, Ms. Benja Pungubon, Ms. Chatchadaporn Phrommo, Ms. Chomphunut Chairattanaporn, Ms. Kanchana Tantiwanichakosol, Ms. Pajaree Pueakthong, Ms. Panee Seneewong na Ayutthaya, Ms. Panngam Sunthorn, Ms. Patcharee Wareenin, Ms. Phensuk Masukarat, Ms. Pornnipa Pueakhom, Ms. Punyanut Wongmahajerm, Ms. Siriporn Chinachachawarat, Ms. Siriporn Rujiwat, Ms. Susinee Vorasrisothorn, Ms. Wannida Thongserm, Ms. Yupadee Ngamyingyoud

Post-test field supervisor and interviewers

Field supervisors: Ms. Reudeewan Pewnuan and Ms. Siriporn Rujiwat

Interviewers: Ms. Kamolchanok Kongpermpoon, Ms. Apinya Raddeang, Ms. Apinya Suwannasuan, Ms. Benja Pungubon, Ms. Chatchadaporn Phrommo, Ms. Chomphunut Chairattanaporn, Ms. Kanchana Tantinichakoson, Ms. Napapa Srimawong, Ms. Pajaree Pueakthong, Ms. Panee Seneewong na Ayutthaya, Ms. Panngam Sunthorn, Ms. Patcharee Wareenin, Ms. Phensuk Masukarat, Ms. Pornnipa

Pueakhom, Ms. Preampreeda Leeluan, Ms. Punyanut Wongmahajerm, Ms. Siriporn Chinachachawarat, Ms. Vareeporn Chanpen, Ms. Wanthana Rakpong, Ms. Wannida Thongserm, Ms. Yupadee Ngamyingyoud

Field coordinators

Name	Position
Huaipai sub-district	
1. Ms. Ratchaneekorn Keowying	Head of Huaipai health centre
2. Mr. Tanong Ruemsaeng	Huaipai health centre personnel
3. Ms. Siriporn Suwannawong	Huaipai health centre personnel
4. Mr. Winai Tappiya	Leader of Huaipai VHVs
5. Ms. Pranee Chonpoopan	Leader of the volunteer health educator
6. Mr. Boonsong Saentaweesuk	VHV
7. Mr. Amnuay Pralak	Former President of the Huaipai TAO
8. Mr. Reangsak Lakhawatanaroj	Current President of the Huaipai TAO
Kaoraeng sub-district	
1. Ms. Malee Jindawong	Kaoraeng health centre personnel
2. Mr. Ampan Thong	Kaoraeng health centre personnel
3. Ms. Khanitta Udomjindasawad	Kaoraeng health centre personnel
4. Ms. Wonpen Taoyand	Kaoraeng health centre personnel
5. Ms. Prissana Buapaen	Kaoraeng health centre personnel
6. Mr. Somchai Wechsuwon	Leader of Kaoraeng VHVs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