

## **CHAPTER 3**

### **PROJECT EVALUATION**

#### **3.1 Introduction**

The training program using participatory learning approaches was implemented at Linfa Sub-district, Chaturaphukphiman District, Roi-Et Province, to educate and train a group of 30 women who were female village leaders and village health volunteers about cervical cancer knowledge and to promote screening service in the region. The duration of the project implementation was eight months during September 2000-May 2001. The project was evaluated for its input, its process during two-day training session and its outcomes at one month and six months post-training. The details of the project evaluation purposes, evaluation design including evaluation procedure and outcomes are discussed in the following sections.

#### **3.2 Purposes**

There were three purposes for evaluation of the project including: Input evaluation, Process evaluation and Outcome evaluation

#### **3.3 Evaluation Designs**

The project outcome was quantitatively evaluated using summative evaluation design, which derives from the modification of Tyler evaluation approaches (Tyler, 1943). Tyler who was well recognized as the leader of project evaluation proposed the conceptual framework of project evaluation in 1943. His concept emphasizes on setting the project

objectives to be mostly practical then evaluate the outcome of those objectives. The principal concept of the project evaluation is focusing on the project outcome that is relevant to the project targets. In other words, the project is said to be successful only if its objectives are successful. The guideline of evaluation design of this training project by participatory learning approach is shown in Table 3.1.

**Table 3.1 Evaluation designs of the training project by participatory learning approaches**

Evaluation purpose	Indicators	Information resource	Data Collection Method	Data Analysis	Evaluation Criteria
1. Input evaluation	1. Preparatory factors prior to project implementation  i. Staff - qualifications - experiences  ii. Budget  iii. Equipment	- Project information leaflets and brochures  - Staff	Questionnaires and Interview	- Determine the number of staff needed - Analyze staff qualifications and experiences with job functions. - Compare the required budget with the actual budget. - Adequacy of equipment	- Having at least 80% of staff available - Staff has relevant qualification and experiences. - Sufficient budget - Adequate equipment (less than 10 % error limit).
2. Process evaluation	Implementation plan - Satisfaction of participants with facilitators, training content, atmosphere and activities participation - Problems and conflicts	- Project leaflets and brochures - Participants - Training staff - Facilitators	- Relevant documents - Interview - Observation	- Compare the planned implementation period with real implementation period. - Analyses the training contents for problems and obstacles of the project.	- Process is run at least 80 % according to the plan. - Problems and conflicts resolved.
3. Output evaluation	- Knowledge and skills gain after the training	- Participants  - Training staff	- Relevant documents  - Post-test	- Compare knowledge gain before and after the training - Analyze	- Participants have gained their knowledge and skills.

Evaluation purpose	Indicators	Information resource	Data Collection Method	Data Analysis	Evaluation Criteria
	<ul style="list-style-type: none"> <li>- Outcome of activities</li> <li>- Use of knowledge to encourage other women to take cervical cancer screening service.</li> </ul>	<ul style="list-style-type: none"> <li>- Facilitators</li> <li>- Women coming for screening service after the implementation</li> </ul>	<ul style="list-style-type: none"> <li>- Interview</li> <li>- Observation</li> <li>- Screening registry report</li> </ul>	<ul style="list-style-type: none"> <li>- Statistically for mean, percentage, S.D. and Pair t-test.</li> <li>- Analyze training content</li> <li>- Compare no. of women coming for service before and after the training</li> </ul>	<ul style="list-style-type: none"> <li>- Increase in number of women in Linfa Sub- district receiving screening services</li> </ul>

### 3.4 Data Collection and Methods

Quantitative data were collected from the pre-training and post-training tests using the questionnaires conducted by the staff members of the health center at Linfa Sub-district. Qualitative data were obtained from group discussion session and by observation. The participants' involvement in the training activities were observed by the responsible facilitators who were previously trained in the course of resolutions for public health problems, organized by the Health Office of Chaturaphukphiman District and the District Hospital. The facilitators also have technical and professional experience in running participatory learning programs.



### 3.5 Data Analysis and Results

Quantitative data were analyzed by statistical methods. The values of percentage, mean and standard deviation were obtained for each set of data and pre-training and post-training data were compared using the Paired t-test. Qualitative data were analyzed according to their content by combining all factual information, atmosphere and any incidence occurring during the group discussion session and other activities and from observation of the participants during the training process

The results of process evaluation and outcome evaluation are reported by evaluation question:

### 3.6 Evaluation Questions

#### 3.6.1 Input Evaluation

Four questions for input evaluation were:

1. *Who will evaluate this project?*
  - Health personnel from the Health Center of Linfa Sub-district who was the initiator evaluated the project and owner of this project evaluated the project.
2. *Selection of facilitators has significant effects on successful outcomes of the training program. What are the selection criteria of the facilitators for this project to successfully achieve the project goal?*

Selection criteria for the training facilitators were:

- All facilitators had previously received technical training and had professional experiences in health education using participatory learning approaches.
  - The project was well supported by the superior of all facilitators and the facilitators themselves.
  - It was convenient for the facilitators who work in the same area or in the nearby area to be able to contact and travel to the training venue together.
  - The facilitators had previously known one another and used to work together, making it easier to run the training activities.
3. *Who will provide the financial support for this project and is the current budget sufficient?*
- This project received financial support of 10,000 Baht from the Health Center of Linfa Sub-district. This amount of money was sufficient for organizing the training project.
4. *Are the materials and equipments necessary for this project adequate?*
- Materials and equipments necessary for the training were adequate as there were enough financial supports and strong collaboration from the relevant organizations.

### **3.6.2 Process Evaluation**

There are four questions for process evaluation as follows:

1. *Is the training process in accordance with the project plan?*

- **Participants and staff**

- 30 participants were expected to join in the training and this number of participants was achieved through out the project, constituting 100 % attendance exceeding the evaluation criterion of 80 % minimum.
- Eight facilitators were expected in the plan, however only seven facilitators participated in the training, accounting for 85.75 % attendance, which passed the minimum criteria set (80 %).

- **Time**

- Two-day training period was planned to be on 18-19 September 2000 and the actual training took place according to the planed time and date.
- Seasonal factor was considered in planning the time for the training session, as the majority of the participants are agriculturalists and normally available after the farming and planting season. The month of September was considered to be appropriate time for the training as it was the post-farming season.

- **Training venue**

- The appropriate training venue was selected by the participants to be at the Health Center of Linfa Sub-district. It is situated at the center of the Sub-district therefore convenient for the participants to travel for the training.

2. *How to measure the participation of the participants in this project?*

- By observing enthusiasm and keenness of the participants in joining the training activities and interviewing the participants by the facilitators.
- The participants were allowed to write and express their feelings about the training and about the facilitators.

3. *Are the participants satisfied with the training by participatory learning approach and with the facilitators? How?*

- From the facilitators' observation during the sessions of group discussion, lecture, acting (role-plays) and presentation, the participants were enthusiastic and enjoyed doing the activities as the majority of this group usually participates in the village activities. Some activities required high level of competition among groups and this required the group members to help each other in order for the group to win.
- Satisfaction of the majority of participants with the training using participatory learning approach and with the facilitators was at very high level. The participants that this training approach was relatively new to them and different from other training programs they had previously experienced expressed it. They enjoyed the activities especially the activity of personal potential improvement as it helped them to connect and understand the study content and materials they have learned through the day. In other words, the activity helped stimulating the learning process of the participants.

4. *Are there any problems during group discussion activities? And how to resolve the problems?*

- As most participants normally play a major role in the village, during the group discussion and presentation sometimes some participants, who were allocated to present the group work, spent too much time talking or sometimes present irrelevant materials. These problems were resolved by limiting the presentation time and the facilitators gave a signal (whistle) when the time was finished, The presenter then learned how to organize the presentation materials to be more concise and appropriate with the allowed time in the later presentation session. In the group discussion sessions, only few people were found to be quiet and not confident to express their opinions. The facilitators and other group members so helped to encourage them to speak.

### 3.6.3 Output Evaluation

Two questions for the output evaluation were:

1. *Do the participants gain their knowledge after joining the participatory learning training? And How to measure it?*

- The majority of the participants were found to have gained their knowledge after the training. This is indicated by the significant difference in the mean knowledge of the participants at pre-and post-test. The statistical method was also used to calculate the values of percentage, mean, standard deviation for each set of data and comparative analysis is



done by using a pair t-test. Table 3.2-3.6 showed the comparative data of the participants' knowledge level in cervical cancer.

**Table 3.2 Comparative analysis of mean of the participants' general knowledge in cervical cancer before and at one month after the training.**

Knowledge about cervical cancer	X	S.D.	P-Value
	(n= 30)		
Pre-test	5.40	1.33	0.002
Post-test	6.20	1.86	

\* P-value from Paired t-test

From the comparative statistical analysis in Table 3.2, it was found that the general knowledge in cervical cancer of the participants at one month after training increased significantly (P=0.002).

**Table 3.3 Comparative analysis of mean of knowledge about risk factors of developing cervical cancer, before and after training**

Knowledge about risks in	Mean	S.D.	P-Value
acquiring cervical cancer	(n= 30)		
Pre-test	34.67	4.44	0.000
Post-test	38.11	3.54	

\* P-value from Paired t-test

From the comparative statistical analysis in Table 3.3, the mean of the participants' knowledge about risks of cervical cancer increased significantly ( $P=0.000$ ) from the time of the test to at one month after training.

**Table 3.4 Comparative analysis of mean of knowledge in severity of cervical cancer, before and at 1 month after training**

Knowledge in severity of cervical cancer	Mean (n= 30)	S.D.	P-Value
Pre-test	30.83	4.94	0.000
Post-test	34.20	4.42	

\* P-value from Paired t-test

From the comparative statistical analysis in Table 3.4, the mean of the participants' knowledge in severity of cervical cancer increased significantly ( $P=0.000$ ) from the time of the test to at one month after the training.

**Table 3.5 Comparative analysis of mean of knowledge about importance of screening for cervical cancer, before and at 1 month after the training**

Knowledge about importance of screening for cervical cancer	Mean (n= 30)	S.D.	P-Value
Pre-test	24.23	4.76	0.001
Post-test	27.10	3.28	

\* P-value from Paired t-test

From the comparative statistical analysis in Table 3.5, the mean of the participants' knowledge about advantages of screening for cervical cancer increased significantly ( $P=0.001$ ) from the time of the test and at one month after training.

**Table 3.6 Summary of comparative data of the participants' knowledge in cervical cancer, before and after the training**

Knowledge level	Good (%)	Medium (%)	Need improvement (%)	Mean (n=30)	S.D	P-value
1. Knowledge about Cervical cancer						
• Pre-test	3.3	50.0	46.6	4.4	3.3	0.002
• Post-test	13.3	53.3	33.3	6.2	1.1	
2. Risk factors						
• Pre-test	3.3	83.3	13.0	34.6	4.4	0.000
• Post-test	30.0	70.0	0	38.1	3.5	
3. Degree of severity						
• Pre-test	13.3	63.3	23.3	30.8	4.9	0.000
• Post-test	33.3	63.3	3.3	34.1	4.4	
4.Importance of screening						
• Pre-test	16.6	66.6	16.6	24.2	4.7	0.001
• Post-test	33.3	63.3	3.3	27.1	3.2	

\* P-value from Paired t-test

The comparative statistical analysis shown in Table 3.6 indicated that the participants' knowledge level about cervical cancer in all sections increased significantly ( $P=0.05$ ) from the time of the test to at one month after the project training.

2. *How to measure that the participants further apply their knowledge gained from the training program (i.e. by encouraging other female villagers to come for screening)?*

- The post-training meeting was conducted on a regular basis by the health staff to further discuss about knowledge, understanding and any problems that the participants might have after the training.
- Information on distribution of cervical cancer knowledge was also obtained from talking to women who received screening at the Linfa Health Center after the training.
- The number of women participating in screening at the Linfa Health Center and at the Chaturaphukpiman District Hospital was collected (from the registration record) during six months after the training.
- The outcome follow up at one month after the training was focused on:
  - a). Participant's' involvement in the post-training survey and campaign activities for fertile women to screen for cervical cancer. This included:
    - Survey of the number of married women in the village during one-month period after the training.
    - Provision of knowledge in cervical cancer and the importance of screening at their convenience, for example, in the form of individual and group talking and announcement in the local broadcast news.
    - Recommendation to receive screening on every Wednesday at either the Health Center or the District Hospital.

- Organize a list of the intended women for the Health Center to arrange an appointment for cervix screening.
- b). The participants of some villages even led other women to the Health Center for the screening.
- Screening service rate at Linfa Health Center and Chaturaphukphiman District Hospital was monitored over the six-month period after the training and the outcomes are shown in Table 3.7 and 3.8. It can be seen from Table 3.7 that the result of the implementation accounted for 98.8% achievement of the target plan within 6-month period. Table 3.8 also indicated a significant increase in percentage coverage of the target group, compared to the statistic of the same period in previous years.

**Table 3.7 Target and actual numbers of women receiving screening service during six-month post-training period**

Targeted 15% of fertile women who receive family planning service in 2000	Actual number of women screened during 1 October 2000-31 March 2001	%
101	100	98.8

\* Source: Registry record of cervical cancer screening, Linfa Health Center and Chaturaphukpiman District Hospital

**Table 3.8 Screening record of the 6-month post-training period in comparison with the records of the same period in the past 3 years**

Period	Total no. of fertile women who receive family planning service	No. Of fertile women who receive screening.	% Coverage of the target group
Oct 1997- Mar 1998	508	9	1.35
Oct 1998- Mar 1999	519	8	1.2
Oct 1999-Mar 2000	613	9	1.4
Oct 2000-March 2001	625	100	14.6

\* Source: Registry record of cervical cancer screening, Linfa Health Center and Chaturaphukpiman District Hospital