CHAPTER 3

Evaluation

Introduction

This study was an evaluation research that focussed on process of implementation in accordance with the model for DM prevention and control in Yasothon Province. The researcher evaluated this study on the basic of research goal and objectives. Furthermore, in this chapter evaluated the factors to make it work or not, namely input (boss support, funding, time, policy and respondent cooperation), research methodology (studied areas, sample sizes, research instruments and data analysis) and research problems. Next, the researcher evaluated this study was successful or unsuccessful. To evaluate this research was benefit to improve the research methodology in the future.

Purpose

- To improve evaluation research

Objectives

- 1. To evaluate research efficiency.
- 2. To evaluate research effectiveness.
- 3. To summarizes research problems.

Evaluation Design

This study was summative evaluation.

Evaluation Questions

- 1. Was the DM service system process of screening and treatment assessed?
- 2. Was the support system process of medical and medical equipment support, development of health personnel and VHVs' potential, development of the information system and supervision assessed?
- 3. Were the implementation problems and obstacles identified?
- 4. Did the boss support this research; if he did, how?
- 5. How much funding was used in this research, was it efficiently used?
- 6. How was the time used for research management; was it efficient?
- 7. Did the organization have a policy to support this research; if so, what is it?
- 8. Did the respondents cooperate in data collection; if they did, how?
- 9. How did the researcher's position affect the cooperation of the respondents?
- 10. Was the research methodology (namely, studied areas, sample sizes, research instrument and data analysis) suitable?
- 11. What were the research problems?
- 12. Did the research results achieve the expected outcomes, and how were these achieved?

 Table 4: Criteria of Evaluation

Evaluation Question	Criteria	Evidences	
1 Was the DM service system	-The assessed results of the DM	- The DM service	
process of screening and	service system of screening and	system conclusion	
treatment assessed'?	treatment system.		
2. Was the DM service system	-The assessed results of the DM	- The DM service	
process of screening and	service system of screening and	system conclusion	
treatment assessed'?	treatment system.		
3. Was the support system	-There were assessed results of	- The support system	
process of medical and medical	the support system of medical	conclusion	
equipment support, development	and medical equipment support,		
of health personnel and VHVs'	development of health personnel		
potential, development of the	and VHVs' potential, develop-		
information system and super-	ment of the information system		
vision assessed'?	and supervision.		
4. Were the implementation	-There was the identification of	- The problems and	
problems and obstacles	problems and obstacles to	obstacles conclusion	
identified'?	implementation.		
5. Did the boss support this	- There was research support	- The approval	
research; if he did, how?	such as funding, time, and	record of funding,	
	vehicle.	time and vehicle	
6. How much funding was used,	- Comparison of funding use	- Plan for using	
was it efficiently used?	with the plan.	funds	

Evaluation Question	Criteria	Evidences	
7. How was the time used for	- Comparison of time use with	- Plan for time	
research management; was it	the plan.	management	
efficient'?			
8. Did the organization have a	- There was a policy for DM	- The policy for DM	
policy to support this research, if	prevention and control	prevention and	
so, what is it?		control	
9. Did the respondents cooperate	- There was respondent coopera-	- Tape cassette	
in data collection; if they did,	tion in collecting data such as	recording and copies	
how'?	giving the data themselves and	of documents	
	the documents to analyze.		
10. How did the researcher's	- The researcher's position was	- Jobs description of	
position affect the cooperation of	external evaluator.	the researcher	
the respondents?			
11. Was the research method-	- Comparison of the methodo-	- Plan for methodo-	
logy namely, studied areas,	logy used with the plan.	logy	
sample sizes, research instru-			
ments and data analysis suitable?			
12. What were the research	- The research problems were	- The summarization	
problems'?	identified.	of research problems	
13. Did the research results	- The research results were	- The improved DM	
achieve the expected outcomes,	offered to the boss and	prevention and	
and how were these achieved?	improved the DM prevention	control model	
	and control model.		

Evaluation Question	Criteria	Evidences	
	- Some problems could be	- The problems that	
	solved.	could be solved	

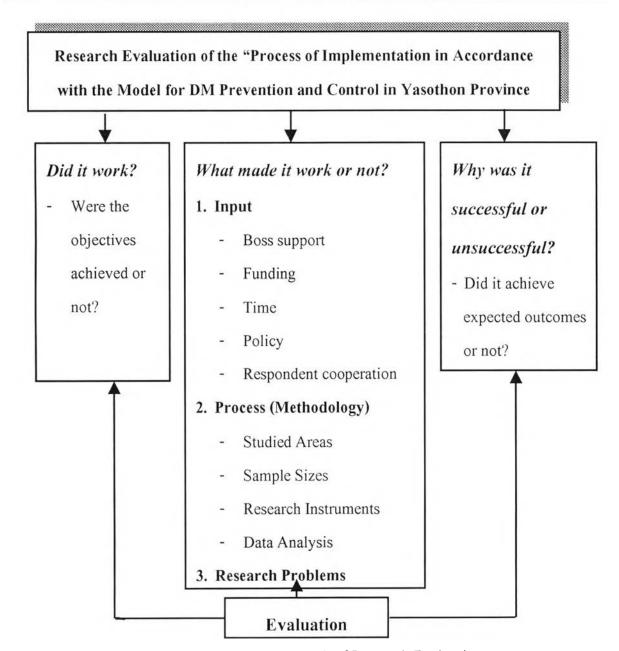


Figure 9: Conceptual Framework of Research Evaluation

Data analysis and Results

Evaluation Methodology

- This study used a quantitative approach, based upon documentary analysis and it was respective evaluation.

Evaluation Question No.1 – 3

- 1. Was the DM service system process of screening and treatment assessed?
- 2. Was the support system process of mdical and medical equipment support, development of health personnel and VHVs' potential, development of the information system and supervision assessed?
 - 3. Were the implementation problems and obstacles identified?

Results

Th researcher could assess every specific objective. There were assessed results of the DM service system of screening and treatment, and support system, and the problems and obstacles of implementation were identified (the detail is shown in Chapter 3). The data is shown in Table 5:

 Table 5 : The Comparison of Research Results with Research Objectives

Research Objectives	Research Results	
1. To Evaluate the Processes of	f the:	
1.1 DM Service System		
1.1.1 Screening System	Assessed	
1.1.2 Treatment System	Assessed	

Table 5: The Comparison of Research Results with Research Objectives
(Continuous)

Research Objectives	Research Results
1.2 Support system	
1.2.1 Medical and Medical	Assessed
Equipment Support	
1.2.2 Development of Health	Assessed
Personnel and VHVs	
1.2.3 Development of the	Assessed
Information System	
1.2.4 Supervision	Assessed
2. To identify the problems and	Identified
obstacles to implementation	

4. Did the boss support this research, if he did, how?

Result

Yes, he supported many things for this research, namely:

- 4.1 authorizing use of the money from health care reform project in the amount 10,000 Baht
 - 4.2 permitting the researcher to work on government time and
 - 4.3 authorizing the vehicle and driver to collect data.

- 5. How much funding was used in this research, was it efficiently used?
- 6. How was the time used for research management; was it efficient?

Results

The researcher found the comparison of money and the time used for researchwith the plan budget and schedule proved the use of both money and time was efficient. That is to say, the money and time allocation were less than the plan budget and schedule. The data is shown in Table 6:

Table 6: The Comparison of the Money and Time with the Plan Budget and Schedule

Resource Allocation	Plan budget and	Performance	Difference
	Schedules		
- Money	19,800 Baht	10,858 Baht	- 8,942
- Time and period of imp	lementation		
Data Collection	6 Days	6 Days	None
 Data Analysis 	2 Months	2 Months	None
and summarization	1		
• To submit the resu	llts of Jul. 2000	Jul.2000	None
research to the top	manager		
• To submit the resu	lts of Jul. 2000	Jul.2000	None
research to medica	al		
specialists and con	ference		
the model			

Table 6: The Comparison of the Money and Time with the Plan Budget and Schedule (Continuous)

Resource Allocation	Plan bu	idget and	Performance	Difference
	Sche	edules		
• To submit the	results of	Sep. 2000	Sep.2000	None
research to dist	rict manage	ers		
and conference	the model			
• To improve the	model	Oct.2000	Oct.2000	None

7. Did the organization have a policy to support this research; if so, what is it?

Result

Yes, there was a policy to support this research. It was the policy for DM prevention and control that the PCMO strictly determined as its focus policy in 1997. (The detail was shown in p. 117 - 118)

Evaluation Question No. 8

8. Did the researcher's position affect the cooperation of the respondents; if it did, how?

Result

Yes, they cooperated collecting data. That is to say, they gave the data themselves and copied the documents that the researcher needed. Furthermore, they permitted the researcher to use a tape cassette for interviewing.

Evaluation Question No. 9

9. How did the researcher's position affect the cooperation of the respondents?

Result

Because the researcher was the chief of the mental health and non-communicable disease division in Yasothon Provincial Health Office, her major role was to evaluate the job responsibilities in her division and provide recommendations to the top manager of the province. So it might affect the cooperation of the respondents.

Evaluation Question No. 10

10. Was the research methodology (namely, sample areas, sample sizes, research instrument and data analysis) suitable?

Result

The comparison of the research methodology (namely areas, sample sizes, research instruments, and data analysis) with the plan schedules was suitable. The research methodology was relevant to the plan schedules, except the sample sizes were

less than the plan specified because some health personnel must perform many tasks.

The data is shown in Table 7:

 Table 7: The Comparison of the Research Methodology with the Plan Schedules

Methodology	Plan Schedules	Performance	Difference
Areas			
* Hospitals	3 Places	3 Places	None
* District Health Office	3 Places	3 Places	None
* Health Centers	6 Places	6 Places	None
* Villages	6 Places	6 Places	None
Sample Sizes			
* Health Personnel	27 Persons	25 Persons	-2
* VHVs	6 Groups	6 Groups	None
Research Instruments			
* In - Depth Interview Fo	orms Apply	Apply	None
* Focus Group Discussion	on Apply	Apply	None
Forms			
* Documents			
- DM/OPD Card	Apply	Apply	None
- NCD. Form	Apply	Apply	None
- Referral Form	Apply	Apply	None
- Referral Record	Apply	Apply	None

Table 7: The Comparison of the Research Methodology with the Plan Schedules (Continuous)

Methodology	Plan Schedules	Performance	Difference
Research Instruments (Co	ntinuous)		
- DM Central Registry	Apply	Apply	None
Program			
- Drug Form Request	Apply	Apply	None
- Supervise Record	Apply	Apply	None
- Lab Record	Apply	Apply	None
Data Analysis			
* In - Depth Interview	Content Analysis	Content Analysis	None
* Focus Group Discussion	n Content Analysis	Content Analysis	None
* Documents	Content Analysis	Content Analysis	None

11. What were the research problems?

Result

1. This research was qualitative research. The researcher used the in – depth interview and focus group discussion technique to collect data. In – depth interviews were about 30 minutes to one hour and thirty minutes and focus group discussions were about 45 minutes to two hours each. As these were a long periods, some of sample sizes were tired and bored with the questions.

- 2. There were many documents, namely DM/OPD cards, the researcher could not bring out of hospital to xerox. The researcher employed the hospital staff to copy these and lost time.
- 3. Some of health personnel just arrived to work at the research areas, so they did not know everything.

12. Did the research results achieve the expected outcomes, how were these achieved?

Result

The expected outcomes of this research were:

- 1) to obtain the results of the study and offer them to the top administrator for considering the direction of this model to determine the appropriate policy and performance, and
- 2) to solve the problems and obstacles and improve performance strategies for higher quality services.

This research was achieved expected outcomes because after the research was completed, the researcher submitted the results of this study to the assistant of PCMO of Yasothon Provincial Health Office. Then the researcher consulted the medical specialist for improving the screening and treatment model and performance (20th July 2000). Next, the researcher invited the district health officers and hospital directors to a conference about the new model and adjusted it again (on 19th September 2000). Then the research invited the health personnel responsible for DM prevention

and control in hospitals and district health offices in Yasothon province to listen to the new model (on 7^{th} November 2000). The new model is shown in Figure 10 - 13

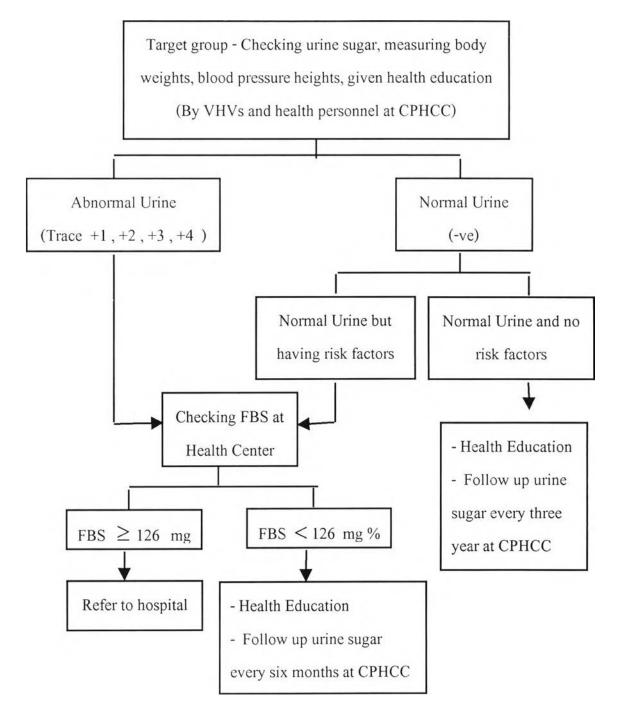


Figure 10: DM Screening at the CPHCC (New Model)

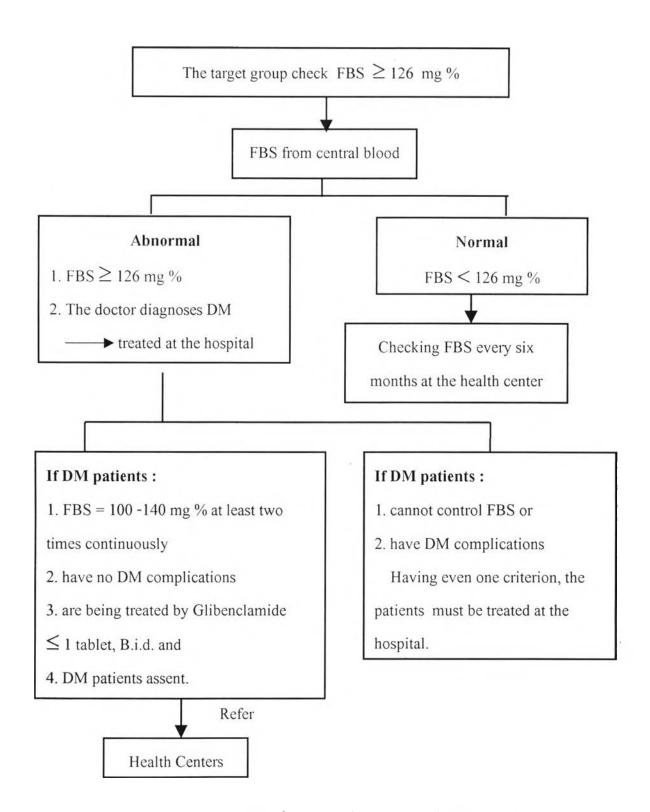
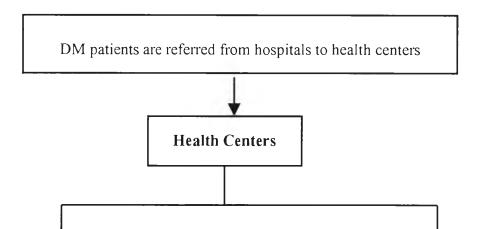


Figure 11: DM Treatment System at the Hospitals (New Model)



Patients meeting any one criterion must

be referred to a hospital:

- 1. FBS <80 mg%: refer to hospital immediately but if the patients don't agree to go to a hospital, the health center level personnel must stop DM drug and appoint them to recheck 2 days continuously. If FBS < 80 mg% refer to hospital.
- 2. FBS > 160 mg % at least two times continuously.
- 3. FBS > 200 mg % refer to hospital immediately.
- 4. Having DM complications.
- 5. Being treated at the health center for sixmonth course.

If the DM patients:

- 1. FBS = 80 160 mg %
- 2. no DM complications, being treated at health center:
- 2.1 Treatment by Glibenclamide in same dose and health education
- 2.2 Following up FBS every six months and
- 2.3 Being treated at the health center for six -month course must be referred to hospital.

Figure 12: DM Treatment System at the Health Centers (New Model)

Summarizing the Direction to Care for DM Patients in Yasothon

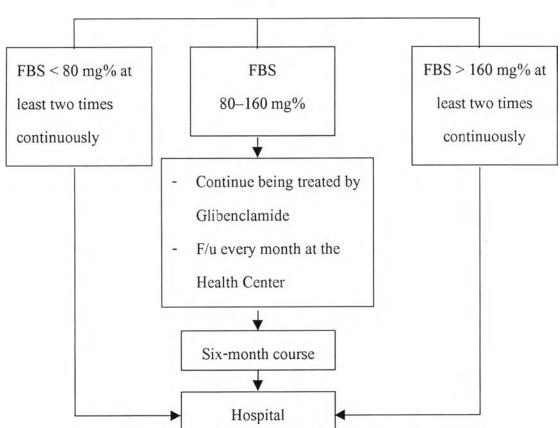
Screening test: Urine sugar is +ve (trace, +1, +2, +3, +4)

Referring to recheck FBS at the health center and hospital

Beginning to be treated at the hospital

- Glibenclamide ≤ 1 tablet, B.i.d
- FBS. = 100 140 mg% at least two times continuously

Referring to Health Centers



FBS < 80 mg% (if the patients assent) or > 200 mg% referred to hospital immediately

Figure 13: Direction to Care for DM Patients in Yasothon Province (New Model)

The researcher helped to solve problems by:

- 1. Requesting to the PCMO for funds to buy urine strips and supports health centers in screening target groups
- 2. Explaining to health personnel their responsibilities in hospitals, district health offices and health centers relating to the target group. Now they quite understand it
- 3. Approving the DM prevention and control model and explaining it to the responsible personnel and
- 4. In some hospitals the DM patients were not crowded after they used the new model.