



CHAPTER VII

OUTCOME MEASUREMENT

Outcome Measures.

The outcome measures that were used as the indicator to answer the research questions include:

1. To determine the pattern of health services utilization.

1.1 Curative service utilization. The outcome has been measured in term of: "the number of illness cases utilizing each type of curative care".

For the cross-sectional studies, the illnesses has been the perception of the villagers and the data obtained has been the perceived morbidity. Therefore, in order to obtain the actual morbidity, the following criteria has been used for case definition in the follow-up studies :

- Diarrhoea is defined as 3 or more loose of water stools in a day (World Health Organization, 1973).
- Acute Respiratory infection is defined as having the following symptoms in the respiratory tract systems: cough with or without nasal discharge, fever, sore throat (Thailand Expert Committee of Upper Respiratory Tract Infections, 1987) and fast breathing, plus the duration of symptoms is less than 4 weeks (Riley et al., 1983).

1.2 Maternal and child health services utilization:

The outcome has been measured in term of:

- Number of women in reproductive age having utilized the antenatal health service, birth attendant, postnatal health service for their last children, vaccination service against tetanus in the last pregnancy, including family planning service.
- Number of children receiving immunization.

2. To determine the associated factors.

The associated factors in this study has included the sociodemographic (age, sex, education, occupation, income), the travelling difficulty and the mass media exposure by radio.

The outcome attributes being measured have been summarized in Table 8.

Data Collection Instruments.

1. Instruments.

The instrument used in this study have been the structured interviewed forms which can be divided into 2 parts; Questionnaires for cross-sectional study and Daily Interview Form for longitudinal study. Questionnaires has been constructed for data collection concerning demographic characteristics, socioeconomic status and the experience of previous health service utilizations. Daily interview form has been developed according to the Guidelines for research on acute respiratory infections : Memorandum from a WHO meeting, (Riley, 1982) and used to collect information about diarrhoea, respiratory tract infections and the

curative services utilization of each household for the prospective period of at least 7 month.

Table 8 Health indicator, their data sources and measurement instrument.

Outcomes	Health service categories	Health indicators	Data sources	Measurement instruments
PRIMARY OUTCOME MEASURE *	1. Curative	Number of cases utilize each type of curative care	Interviewer record	1. Questionnaires (perceived morbidity) 2. Daily interview form (actual morbidity)
	2. Maternal and child health	Number of cases utilize these services: - antenatal care - birth attendant - postnatal care - vaccination against tetanus - child immunization	Interviewer record	Questionnaires
	3. Family planning	Number of cases utilized the contraceptive service	Interviewer record	Questionnaires

SECONDARY OUTCOME MEASURE **	1. Curative	Number of cases utilized curative service <u>by the study variables.</u>	Interviewer record	Questionnaires
	2. Maternal and child health	Number of cases utilized the services <u>by the study variables.</u>	Interviewer record	Questionnaires
	3. Family planning	Number of cases utilized the contraceptive service <u>by the study variables.</u>	Interviewer record	Questionnaires

* Primary research question = pattern of health services utilization.

** Secondary research question = the associated factors.

The questionnaires must be examined to determine (a) whether it asks the question one wants to be asking, (b) whether it has been confusing to the respondent, and (c) whether it will elicit answers of a sort that has been most useful. The time to complete the entire questionnaires must be checked whether the respondent can reply to them in the time available (Smart, 1980). Therefore, the questionnaire has been pretested on a small number of subjects of similar characteristics to the study village. After the questionnaires was revised, they has been use by the trained interviewer to interview the study village.

To prevent the misunderstanding of the questions in the interview due to the language barrier, it has been necessary to hire the interviewer who can speak both Karen and Thai dialect. The interviewers has been trained to use questionnaires in order to obtain consistent data.

2. Reliability and validity.

Reliability and validity have been the essential characteristics of any measurement procedure. Reliability refers to the extent to which the procedure (or questionnaires) can yield comparable results on repeated occasions of measurement when the real phenomenon being measured has not changed. Validity refers to the degree to which a procedure (or questionnaires) measures what it is supposed to measure. Survey information may be invalid for a number of reasons, including poor understanding of the questions, poor recall on the part of respondents, unintentional distortion caused by the way the questions or answers have been presented, or intentional distortion. Validity and reliability may be high in one

population but very low in another, using exactly the same measures and procedures. Therefore, it is necessary to test the measures in the population of relevance. Reliability may be tested by checking for logical consistency among multiple measures of the same variable. Sometimes this is done by looking for the internal consistency of multiple items in the same questionnaire. In case that the questions have been inadequate to be repeated in the same questionnaires, it is more likely to involve readministering questions to some sample of respondents after enough time has elapsed that they would be unlikely to remember the answer they gave on the first administration. Validity may be checked by seeing whether other sources give information about the subjects which is consistent with what they said about themselves (Johnson, 1980).

In this study, the reliability of the questionnaires has been tested by repeating questionnaires to some subjects on a second occasion after one month and look at the consistency between answers to the same questions in the two occasions. The validity of the information from the questionnaires and daily interview record forms has been checked by asking the other members of the household. The completeness of completed questionnaires has been checked day by day. The literate interviewer in both Thai and Karen dialect, the pretest of the questionnaires and the training of the interviewer will also help to prevent the invalidity of the information.