

# **CHAPTER IV**

## **DATA EXERCISE**

### **4.1. Introduction**

Community financing is one of the health financing strategies which has gained popularity because of its strength in terms of generating additional resources for the health sector and because at the same time, it can involve the community in the management and organization of health services.

For this reason, I decided to select this topic for my proposal. The proposed study is a cross sectional survey aiming to explore the possibility of introducing the community financing system as a method to finance health care and improve the accessibility to health services in a community of Cambodia.

The data exercise of the proposed study was conducted in Latlumkeo District, of Patumthany Province, Thailand. It is a type cross sectional survey, the method and sampling technique used to collect information of this data exercise can be seen on the section below on methodology. The purpose is to test the study instrument (household interview questionnaire) and the research methodology of the intended study which I developed during my study period.

## **4.2. Objective**

The objectives of this data exercise are as follows:

- ✧ To test the study instrument (household interview questionnaire) for the proposed study.
- ✧ To develop the skill and experience in field data collection and to learn how to tackle the unforeseen obstacles that may occur during the study.
- ✧ To use the information collected from this data exercise to handle the computer program in order to get acquainted with computer software and improve the data management skill.

## **4.3. Methodology**

### **4.3.1. Data Collection Technique**

Techniques used for this data exercise are the following:

- ✧ Household interview questionnaire
- ✧ Observation: characteristic and household's commodity are observe to compare with response about household income.

#### **4.3.2. Sample Size and Sampling Technique**

Since the aim is of this data exercise is to test the instrument and expose myself to the real situation so that I can familiarize with field data collection but not to obtain the reliable and representative information, there is no sample size calculation formula applied in this data exercise.

The sample size is 20 respondents which will require two days of interview, using purposive sampling. The sample of 20 was selected based on the fact that, it is suitable for my Thai colleague who assisted me in collecting information. The area comprises twenty households, located at a semi-rural area with a health center in the catchment area similar to the area of the intended study. During the interview process, we interviewed anyone, which we thought could answer the question.

#### **4.3.3. Location of data exercise**

Data exercise for the proposed study was conducted in Kukhvoang Tambon of Latlumkeo Amphur in Pathumtani Province; this area was selected for the following reasons:

- ✎ My Thai classmate is living in the area and agreed to assist me in the data collection; therefore it is convenient for me to collect information.

- This location is a rural setting in Thailand; therefore the population might have a similar background compared with the intended study area for my proposal, in terms of health system organization (health center) and community participation.

#### **4.3.4. Data Processing**

The information collected from field data exercise was keyed into a computer and analyzed using statistical software called EpiInfo version 6.02. The results are produced and displayed using descriptive statistics such as mean, lower and upper limit etc., Tables were used to present the finding.

### **4.4. Finding and Discussion**

#### **4.4.1. Household interview questionnaire**

##### **4.4.1.1. General characteristic of respondents**

Of the twenty people interviewed, the youngest respondent is 40 years old where the oldest is aged 78 years. Concerning income, on average, the households earn about 19,150 Baht on monthly basis; the lowest is 6,000 Baht and the highest is 35,000 Baht per month (see Table 4.1)

**Table 4.1. Age and Monthly Income**

Variable	Mean	Range
Age (mean $\pm$ SD)	60.0 $\pm$ 8.74	40-78 years
Income	19,150	6,000-35,000 Baht

Out of twenty respondents, seventeen or 85% of them are men and three or 15% are women. 13 person or 65% stated that they are married, only 1 person claim that he is single, another 6 person or 30% is widow. Concerning occupation, 12 people mentioned the fourth answer which is about "other job category such as housewife, old age or retired person who have no job", that questionnaire did not contained. This is because question leaves them with little choice and that is the weakness of this questionnaire and needs to be improved. The next majority is labor which have 5 people who claimed to be in this category.

Concerning educational level, all of them said that they have at least primary school, no one said that they have not been studying. Majority of them (16 person or 80%) finished only primary school, there was one person said that he/she finished university (see Table 4.2).

**Table 4.2. General characteristic of the respondents**

<b>Characteristic</b>	<b>Number</b>	<b>Percentage</b>
<b>Gender</b>		
Male	17	85%
Female	3	15%
<b>Marital Status</b>		
Married	13	65%
Single	1	5%
Widow	6	30%
<b>Occupation</b>		
Farmer	2	10%
Gov. Employee	1	5%
Labor	5	25%
Other	12	60%
<b>Education</b>		
Primary	16	80%
Secondary	3	15%
University	1	5%
<b>Total</b>	<b>20</b>	<b>100%</b>

#### **4.4.1.2.Utilization of health services and health expenditure**

All the respondents (20 person or 100%) know that there is a health center in their area, which is not surprising since this is a small area and Thai people may have better experience of using modern health care. Regarding knowledge about the available services provided by health center, immunization, family planning and services seem to be known by all respondents, whereas minor surgery and consultation were known by only 25% and 20% respectively. No one mentioned about delivery service at health center (see Table 4.3).

When question about whether they had visit health center if their family member get sick, 16 respondents (80%) said that they had visit more than five times. This answer may be distorted by the fact that the question do not specify the time period, therefore respondents might tried their best to recall.

Moreover 3 households (15%) said that they had never seek care at health center at all. Of these three households 2 respondents (66.7%) mentioned difficulty to travel and no drug available as the reasons for not visiting the health center. No body mentioned about no facility, no staff or that the services is expensive as the reason (see Table 4.3).

**Table 4.3. Knowledge and utilization of health center services**

Variable	Number	Percentage
1. Know location of health center	20	100%
2. Services available at health center		
Immunization	20	100%
Birth spacing	20	100%
Delivery	0	0%
Minor surgery	5	25%
Consultation	4	20%
Other	1	5%
3. Visit health center		
Never	3	15%
1 Time	0	0%
2-3 Times	0	0%
4-5 Times	1	5%
> 5 Times	16	80%
4. Reason for not visit health center		
No drug	2	66.7%
Difficult to travel	2	66.7%



About diseases experienced their family had during the last one month, twelve households (60%) stated that they had faced minor health problem such as fever, headache or fatigue. Medium health problem had been claim by three households (15%), no family said that they had have major health problem (see Table 4.4).

**Table 4.4. Number of households claimed to have health problem during the last one month**

Health problem	Yes	No	Total number
Minor health problem	12	8	20
Medium health problem	3	17	20
Major health problem	0	20	20

Regarding health care expenditure, out of 12 household who suffered from minor health problem, 8 of them stated that they spend between 50 to 100 Baht for health care. Two households mentioned that they had spend less than 50 Baht while the rest two said that they spend more than 100 Baht. Likewise out of three households who had medium health problem, two mentioned that it cost them between 100 to 500 Baht to seek care.

**Table 4.5. Household expenditure for minor and medium health problem**

Amount of Money spend	Number	Percentage
<b>Minor health problem</b>		
5-20 Baht	1	8.3%
20-50 Baht	1	8.3%
50-100 Baht	8	66.7%
100-500 Baht	1	8.3%
> 500 Baht	1	8.3%
<b>Medium health problem</b>		
50-100 Baht	1	33.3%
100-500 Baht	2	66.7%

#### **4.4.1.3. Knowledge and preference about prepayment scheme**

Regarding knowledge about prepayment system, 17 respondents (85%) expressed that they know about the system, only 1 person (5%) did not know and the rest 3 (10%) said they have no ideas about this (see Table 4.6).

When asking in more depth to determine whether they know exactly what the prepayment system is, all the 17 gave the correct answer, which is not surprising since Thailand applied health insurance or pre-payment.

Concerning the sources from which information about prepayment was obtained, in other words how the information reached the population, it seems that radio and TV is the most effective tool for spreading information since it was mentioned by 13 respondents (76.5%) (see Table 4.6).

**Table 4.6. Knowledge regarding pre-payment system**

Knowledge about prepayment	Number	Percentage
<b>Heard about prepayment</b>		
Yes	17	58%
No	1	5%
Don't know	2	10%
Mentioned the right answer	17	100%
<b>Sources of information</b>		
Radio/TV	13	76.5%
From relatives	4	23.5%

Although people might understand or not understand properly what prepayment system is, but when asking about their preference with brief explanation about the system, respondents are predominantly (19 respondents or 95%) preferred to join the scheme if it does exist. By the way this might not really happen in reality because some respondents might not do the same as they answer the question (see Table 4.7).

Regarding services to be covered by prepayment scheme, majority of them (18 people or 90%) express that it should cover all health services deliver at health centers, two of them mentioned about antenatal care to be covered. That might be difficult for the insurance planner since the wide coverage made the higher premium, therefore might have result in less participation.

**Table 4.7. Preference about prepayment scheme and services to be covered**

	Number	Percentage
Willing to participate in the prepayment scheme	19	95%
Do not answer	1	5%
Type of services covered		
Cover all	18	90%
Antenatal care	2	10%

#### **4.4.1.4. Opinion regarding community involvement in management of health services**

Surprisingly, a great number of people (16 respondents) do not know whether the co-management and co-financing committee existed in the health center. This may be due to the fact that question is not understood by respondents or Thailand have different system which does not include a health center management committee. Out of these 16 people, 14 of them stated that they would like to have such a committee in the health center with (see Table 4.8).

About community involvement in health services, predominantly 18 and 15 respondents mentioned that population should involve in the management and financing of health center respectively. 18 people said that they should have their representative in the health center management committee and 15 preferred that village headman is suitable to represent them (see Table 4.8). In most of the cases, no people answer the question straight by saying no, it could be that some people do not want to express their opinion therefore they answer by saying that they do not know.

**Table 4.8. Opinion about community involvement in health center management**

Community participation	Yes	No	Don't know
Know committee exist	3	1	16
Would like to have committee	14	0	2
Think that people should involve in management	18	0	2
Think that people should control financing	15	0	5
Think that they should have their representative in committee	18	0	2

#### **4.4.2. Result of Observation**

Wooden and brick seem to be the most common material every house used to construct the wall in which 15 or 75% of houses that the wall made from wood while the rest 5 houses or 25% made from brick.

No walls made from other material such as palm leaves, makeshift or do not have wall. Likewise 16 houses are tile roof types and others 5 are zinc these suggest that the living standard is good (see Table 4.9).

About household commodities, particularly means of transportation, half of respondents claimed that they own bicycle, motorbike are owned by 13 houses, less than half (8 houses or 40%) have cars. Radio and television are predominantly owned by household which 18 and 19 houses have radio and TV respectively (see Table 4.9).

**Tables 4.9. General characteristic of household and their properties**

<b>Household's type and commodity</b>	<b>Number</b>	<b>Percentage</b>
<b>Type of wall</b>		
Wooden	15	75%
Brick/stone	5	25%
<b>Type of roof</b>		
Tile/brick	16	80%
Zinc	4	20%
<b>Commodities</b>		
Bicycle	10	50%
Motorbike	13	65%
Car	8	40%
Boat	15	75%
Ox cart	0	0%
Radio	18	90%
TV	19	95%

#### **4.5. Limitations**

- ⌘ In verbal communication language is a very important means, since this data exercise is not conducted in my country of origin, language is the main problem for me to properly understand the appropriateness of questionnaire, this might not happen when the study is conducted in Cambodia
  
- ⌘ Some questions concerning family income and expenditure were originally in Cambodian currency and need to be converted into Thai currency for data exercise in Thailand. Some error in exchange rate might have occurred while converting.
  
- ⌘ Some question regarding health services might be difficult to answer, since health system of the two countries (Cambodia and Thailand) are not the same.

#### 4.6. Lesson learned

- ⌘ Some question lack of exhaustive and mutually exclusive characteristics which provide limited answers for respondents to select. More answer categories should be incorporated. For instance question number 4 asking about occupation, others job category such as housewife, not working, retired must be added.
  
- ⌘ Some questions restrict respondents to choose only one answer which need to be modified, e.g. question 37 about type of house's wall, some house made mixed of wooden and concrete cement; therefore they should be able to select the two material. Others question with similar mistake are questions 11, 22 and 35.
  
- ⌘ Some questions are sensitive such as question 16 asking opinion about like or dislike health services, most of the respondents are reluctant to express their opinion.
  
- ⌘ Question 19 asking about payment system they would prefer is not clearly understood by the respondents, more explanation is needed.



- ⌘ Repeated skipping question might confuse the interviewers.
  
- ⌘ Although the quality of questionnaire has been improved and checked for validity and reliability before the data exercise, still the result show that findings are not completely reliable and valid yet. Further improvement of the questionnaire is needed, especially re-tested once the questions are translated into Cambodian language.