CHAPTER III

RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

The research was a cross-sectional descriptive and analytical study.

A self-report questionnaire in Thai and English was used for the quantitative study and an in-depth interview was used for the qualitative study. In some cases family member assisted the family head to answer the questions so in a small percentage of cases the questionnaire was not strictly self reported.

3.2 THE STUDY POPULATION

The study population was villagers from three village and three different districts: Song Phee Nong, Ban Pho Moo and Ban Doo Moo in Supanburi province where outbreaks had occured more than once.

3.3 SAMPLING SIZE

Danieis formula was used for the quantitative study

$$n = \frac{N z^2 p (1-p)}{d^2 (N-1) + z^2 p (1-p)}$$

n - Sample size

N – 432 households

z- The reliabiiity confidence at the 95% CI= 1.96

p- Proportions of high knowledge 0.50; (from study of Sonja J. Olsen to support this assumption), (Olsen, 2005) My final calculated sample size was 203.

3.4 SAMPLING METHODS

3.4.1 Questionnaire survey

Two hundred and three households were systematically selected. One adult per house older then 17 was interviewed, using a structured questionnaire designed to evaluate knowledge, response in case of new outbreaks of AI and satisfaction with government actions on Veterinary Emergency Preparedness. During the entering of questionnaire data, 10 questionnaires were not taken into account because some answers were missing or incomplete.

3.4.2 Group discussion

Sixty villagers previously affected by outbreaks were in group discussion during two days and were interviewed by two independent Thai translators and by two veterinarian officers from the headquarters of the Department of Livestock Development. This interview was mainly focused on the villager's perception and comments.

3.5 VALIDITY TEST

The questionnaire was revised using recommendations from AI experts from DLD and FAO.

3.6 REALIBILITY TEST

Prior to starting the actual study, an interviewer's pilot-tested questionnaire was conducted in same province but in different district, during two weeks with 30 interviews. The questionnaire was adjusted to obtain validity. Some question was changed because pilot subject did not understand them. The Chronbach's Alpha Coefficient for internal consistency was 0.79 for the knowledge part and 0.76 for the practice part.

3.7 DATA ANALYSIS METHODS

The data was analyzed by the SPSS program (Analytical Software).

The significant level was set at $\alpha = 0.05$.

Descriptive statistics were used to describe population characteristics. The data were expressed as number, frequency and percentages, means and standard deviations.

For inferential statistics, the Independent T test was used to analyze two sample means when the two samples were independent of one another with continuous variables and chi square for the categorical variables. One-way ANOVA was used to compare the means of more than two levels or groups of continuous an independent variable. The factor was either discrete or continuous (different sources of information, different groups of people, etc.).

Content Analysis was used to analyze qualitative data and to have more explanations and descriptions from the affected farmers.

3.8 ETHICAL CONSIDERATIONS

The risk of disclosure of individually identified data is not possible since all data was totally anonymous. Participation of all responders in this study was strictly voluntary. Every interviewee was informed about the objectives of the study. The interviewer was presenting the study objectives and was asking the interviewee is she/he accepting to participate in this study. In order to guarantee anonymity of each participant, the names of interviewees, their addresses or other identifying information was not collected. An informed consent advice was written on the first page of the interview explaining the type of research carried out and the reasons for these questions. Because this study is anonymous, only informed voluntary assent was obtained.