CHAPTER III

METHODOLOGY

1. RESEARCH DESIGN

    Cross-sectional descriptive study.
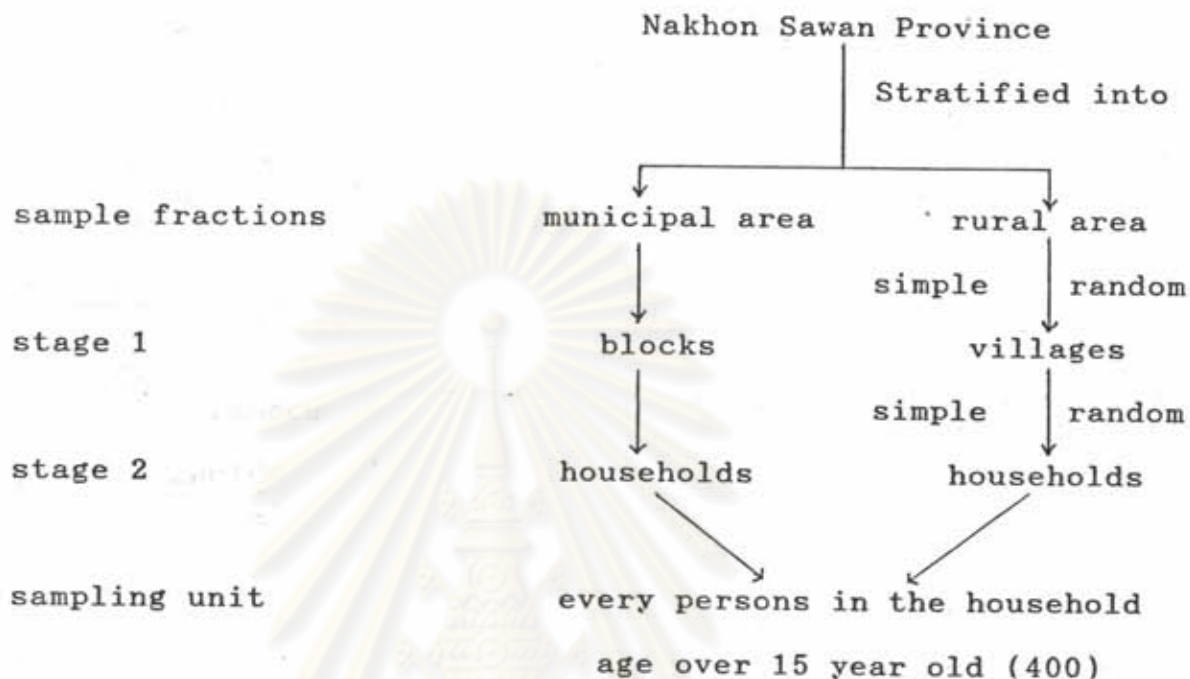
2. POPULATION AND SAMPLE SELECTION

    Population : population in the community age over 15 years.

    Sample selection : select from the population in the community of Nakhon Sawan Province about 400 samples by 2 stages random sampling technique.

    1. random sampling, the first stage sampling units by simple random sampling technique from sample fraction of municipal area and rural area sampling selection of blocks and villages.

    2. second stage sampling units will be households in each block and village by simple random sampling technique, the numbers of households distributed according to proportion of population in each area that was 1:7, by estimated that there will be at least 3 study units (sample population) in each household. (see diagram)

Sampling technique

	Nakhon Sawan Province	
	Stratified into	
sample fractions	municipal area	rural area
	↓	simple ∣ random ↓
stage 1	blocks	villages
	↓	simple ∣ random
stage 2	households	households
sampling unit	every persons in the household age over 15 year old (400)	

inclusion criteria :

1. people in the community age over 15 years.

2. stay at home on the day of data collection.

(data collection was performed on Saturday and Sunday and after workhour of workdays)

exclusion criteria :

people who cannot communicate by speaking and hearing.

sample size calculation :

by using the formula :

$$n = \frac{Z_{\alpha}^2 \ N \ P \ Q}{Z_{\alpha}^2 \ P \ Q + N \ E^2}$$

$$Z_{\alpha} = 1.96$$

P, Q use the higest variance = 0.5

E = 0.05

N = 1,091,807

(the Ministry of Interior, 1992)

n = 387

3. OBSERVATION AND MEASUREMENT

Operational definitons :

Alcohol use disorders are classifiedin DSM-3-R into

1. Alcohol abuse means the pathological use of alcohol with impair social function associated with alcohol use.

2. Alcohol dependence means there is physiologic tolerance or withdrawal symptoms from alcohol and pathological use or impair social function associated with alcohol use.

Alcohol use disorders will be measured by using an instrument developed by Hasin, 1990.

Measurements :

1. Demographic data about personal data : age, sex, marital status, religion, occupation, education, income, numbers of familial members, familial structure and familial history of alcohol drinking.

2. Questionaires that have been developed for measuring : drinking behavior and pattern of drinking, associated factors to alcohol use include familial history, psychosocial, cultural and belief, social value, etc., behavioral consequences include medical, physical, psychosocial, legal and accidents.

3. Personality profile by using 16 PF (Sixteen Personality Profile, Raymond B. Cattell, 1949, 1982). The 16 PF questionaires provides detailed information on 16 primary personality traits to assist professionals in mental health in a wide range of situations. The reliability co-effient was vary between 0.61-0.88, average 0.70. The 16 personality profiles are as follow :

Profile A : Reserved-Out going.

Profile B : Low-high intelligence.

Profile C : Emotionally instability-Stability.

Profile E : Submissive-Dominance.

Profile F : Serious-Happy.

Profile G : Self-indulgent-Conscientious.

Profile H : Shyness-Bold.

Profile I : Tough-Tender minded.

Profile L : Trusting-Suspiciousness.

Profile M   :   Practical-Imaginative.

Profile N   :   Genuine-Astute.

Profile O   :   Self-assured-Apprehensive.

Profile Q_1 :   Conservative-Experimenting.

Profile Q_2 :   Group dependency-Self-sufficience.

Profile Q_3 :   Undiscipline-Self-control.

Profile Q_4 :   Relaxed-Tense.

    4. Co-morbid mental problems and general well-being by using the General Well Being schedule, GWB, Harold J. Dupuy, 1977. It is a brief but broad-ranging indicator of subjective feeling of psychological well-being and distress for use in the community surveys. For the test-retest reliability was 0.85 and the internal consistency (co-efficient) was 0.91-0.95.

    5. Instrument to measure and identify alcohol use disorders according to DSM-3 R items developed by Hasin et al, 1990. The reliability was tested, Kw was 0.81.

    All of these instruments have been tested the reliability in the community before developing final and complete questionaires.

4. DATA COLLECTION

Data collection were performed by interviewing technique and using closed and open-ended questionaires. The interviewers are local health personels who have been trained how to use the questionaires and how to build good rapport and be a good interviewer. The proposed schedule will be set up for a meeting among staffs of the Provincial Chief Medical Office in Nakhon Sawan Province. Training the interviewers were arranged and monitoring on data collecting were performed periodically.

5. DATA ANALYSIS

1. Prevalence of alcohol use disorders.
2. Descriptive analysis of variables among alcohol use disorders, alcohol use and non alcohol use.

6. STATISTIC USED IN DATA ANALYSIS

Descriptive statistics such as mean and standard deviation for quantitative data, rate, percentage and proportion for qualitative data, chi-square, analysis of variance (ANOVA and F-test for comparision among groups to test difference of factors associated with alcohol use disorders.

7. ETHICAL CONSIDERATIONS

1. The interview session will be conducted under informal consent and confidentiality.

2. This protocol has to be approved by the ethical committee of the Faculty of Medicine, Chulalongkorn University.

3. The patients with alcohol use disorders who has been detected in the survey would be advocated and arranged for medical treatment from the health services provided in the area.

8. LIMITATION AND OBSTACLES

1. Obstacles of interviewing technique. The subjects of the study may not tell the truth. We can manage and overcome by using well-trained local health personels.

2. Alcohol drinking is not legally prohibited like other drugs or substances so it is not difficult to get the data. Concerning some social stigma we can manage by informing about objectives of this study and reassuring about the confidence and good rapport.