

CHAPTER III

Methodology

This chapter describes the method of data collection for exploring the extent of supply problems encountered in the supplies to the public health laboratory services which effect the quantity and condition of reagents, materials equipments and also the laboratory stakeholders.

The research is an exploratory study. It examines the phenomenon in the current system of laboratory supply and the process of the policy formulating, implementing include the current practice of the policy actors in the laboratory system.

1. Method of Data Collection

Two methods of data collection are employed in this study. They are in-dept interview of key informants and review of the available documentary evidence. Both qualitative and quantitative are collected. They include information on the laboratory supplies condition and the current practice of the key players in health laboratory that impact on the performance of the laboratory services.

1.1 Key Informant Interview

1.1.1 Sources:

All the data were collected at the central level from 12 key informants at different setting by face to face interview. The in-dept interviews were conducted using a semi-structured questionnaire with the key informants at the national hospitals laboratory and the national program centers. The unstructured interviewed was also used to interview the donors officers and the bureaucrats at the Ministry of Health because of their limited time. The unstructured interview was conducted in an informally (friendly, no official paper) atmosphere.

1.1.2 Selection Criteria

All agencies at central level, which fit the selection criteria, were included. The study analyzed problems of Ministry of health laboratory supply system that give negative impact to the health development, therefore, the selection criteria for the study setting were based on the current relationship with the Ministry of Health supply. The investigation considered only the agencies that regularly receive the laboratory supplies from the Ministry of Health with the organizations respond in providing the laboratory supplies.

There are eight national hospitals in the central level and five were selected. They are National Pediatric, Preh Kossomak, Preah Norodam Sihanu, Mother Child Health, and the Municipal Hospital. The three hospitals are excluded because they did not meet the criteria; Calmette Hospital is officially autonomous and does not receive lab supplies from the MoH. Tuberculosis Hospital that is a part of the national tuberculosis center is presently under the control of the National Tuberculosis Control Program and only receives supplies from the TB center. And Preah Ang Doun is a specialized hospital for ear nose and throat, which infrequently, received a very small amount of laboratory supplies and not regularly from MoH.

There are five national programs but only three (The National Malaria Control Program, the Tuberculosis and Leprosies Control Program, and the National Blood Bank) were regularly received supply from MoH. The two national programs namely, the Sexual Transmitted Disease has full supply from World Bank and the Expanded Program for Immunization do not have laboratory.

At the Ministry of Health, the organizations related with laboratory supply are the procurement unit of Financial Department and laboratories unit of Hospital Department. These two unite were also included in the study setting.

The key informants of this study were selected purposively based on the expectation in getting realizable information. The following criteria were included:

- He or she should be the chief of laboratory or the staff member responsible for

stock, reports and orders used in the laboratory that enables to provide clear information about conditions of laboratory supply.

- He or she should be the chief of supply department or person responsible for laboratory supply in the National Centers, or MoH who know well about the situation of laboratory in the whole program network or laboratory
- He or she should be senior officers responsible in the laboratory services so that information provided are reliable.

The key informants and types of study setting were illustrated in Table 3.1.

Table3.1.The Key Informants and Types of Study Setting

Type of Setting	Total Number of Setting	Total Number of Sample	Number of key informant in each setting	Position of Informants
National Hospital: - Mother Child Health - National Pediatric - Municipal Hopital - Preah Kossomak -Preah Norodam Sihanu	5	6	2 1 1 1 1	Lab chief &Lab advisor Laboratory chief Laboratory chief Laboratory chief Laboratory chief
National Program - Malaria Center - Tuberculosis Center - National Blood Bank	3	4	1 2 1	Chief of supply Dept. Chief of sup dept & Lab adv. Chief of supply
Ministry of Health: - Laboratory Unit - Procurement Unit	2	2	1 1	Vice chief of unit Vice chief of unit

1.1.3 Tool

The tool used for collecting information was questionnaire (see appendix D), notes were taken for all the wording of the respondents that related to the problems being studies. The questionnaire was divided into five sections. The first section of the questionnaire was about the general information of the informants such as name, position, period of working in the laboratory and name of the hospital. The second section was focused on the supply resources and the amount of supplies from each source. There was an additional instrument; it was the equipment guideline, which extracts the very basic from the standard list of laboratory committee, was used to check on the equipment (see appendix C). The third section was for collecting the information about condition of laboratory supplies from the MoH and donors supply process. Each respondent were asked to list the problems and explain the reasons. The fourth section was inquired about the supply management process that they usually do for getting supplies. The final section was asked about the personnel, which included the information about numbers of staff capacity, and incentive or other type of payment.

The questionnaire was prepared in English but interview were conduct in local language. Only one questionnaire was used, but interview at the national centers did not asked on section fifth because the respondent are work at the head quarter. The questionnaire is given in the appendix D. Each note and questionnaire was checked

immediately after the interview and edited at the end of the interview day; the note coding was translated into English. The respondents were then contacted again to fill in the missing points by phone.

Interview with key informants at the MoH procurement and laboratory unit with the laboratory advisors were conducted as unstructured interviewed focused on the problems related to supply management, and allocation of resources.

1.1.4 Period of Data collection

The data collection took 20days, starting from February 10, to February 30, 2001. The Director General of Health approved on 16 February, 2001 (appendix E). The respondents were contacted by phone for appointments during wait for official letter.

1.2 Document Reviewed

A methodical review of available document was undertaken and data were collected from all types of the MoH documentary evidence from year 1995 to year 2000. The information included:

- Financial expenditure data of the MoH, from health expenditure book 1995-1998, consolidate report 1999 and 2000 and World Bank expenditure briefing note 1998.

- Published and unpublished policy document of the MoH for instant, health policy and strategies planning year 2000, medical equipment policy document, health sector reform, and laboratory draft policy.
- Reports of the laboratory coordination committee meeting, laboratory workshops, surveys, supervisions, the meeting minutes, and the related materials were collected.
- International organization project activities or agreements that related to laboratory such as agreement on renovation and construction of the laboratory facility, equipment supplies were revised.
- Supply documents for laboratory services, procurement lists, annual order list distribution lists and the price lists of laboratory products from the ministry of health purchasing and private company were taken.
- Informal discussions about related issues in the past, that can be the important evidence were, considered.

2. Data Analysis

The data were quantitatively and qualitatively analyzed by simple descriptive. Based on the notes, the analysis will include identifying themes, developing coding categories, and then grouped it according to the category of information. The analysis will attempt to explained what 's and why 's laboratory supplies is problem.

The obtained data were sorted according to these categories: Problems on the condition of laboratory supplies (reagents and material) from Ministry of Health, that were about the quality, quantity and price. Problem of laboratory supplies from the supply system of international donors that were include their resources allocation and technological practice in the laboratory services. The allocation process and the management of supplies that related to the laboratory supplier from the Ministry of Health and the Ministry of Economic and Finance receivers.

The analysis was done into four aspects according to the system situation. Firstly, analyzed the MoH laboratory structure and organization involving the supply system, to see how the current structure effect the condition of laboratory supplies. Secondly, was analyzed the management of supplies, the analyzed aim to see the disadvantage and the problem in the current laboratory system, regarding procurement, allocation, information and the monitoring system. The third aspect of the analysis was about the financial allocation process for health sectors. The system of money flow from the Ministry of Economic and Finance to Ministry of Health and the gap between the current budgets allocate and the total budgets plan. Finally, to view the effect of each policy actors on the laboratory supply system. For this regard the current interaction between the policy actors (CoCom Laboratory subcommittee and the top MoH policy makers (CoCom), was analyzed. In addition, the coordination between the policy makers and the policy implementers (Laboratory planers) was identified. The analysis also illustrate on the laboratory professional at the implementation level, to see the

effect of these people on the performance of the laboratory services.

Along with the primary data, the secondary data from reviewed the document were added and analyzed together.