CHAPTERVI

THESIS PRESENTATION

For Master in Public Health

College of Public Health Chulalongkorn

University

SITUATION ANALYSIS OF LABORATORY SUPPLY SYSTEM : THE INFLUENCE OF KEY ACTORS IN CAMBODIAN HEALTH CARE SYSTEM

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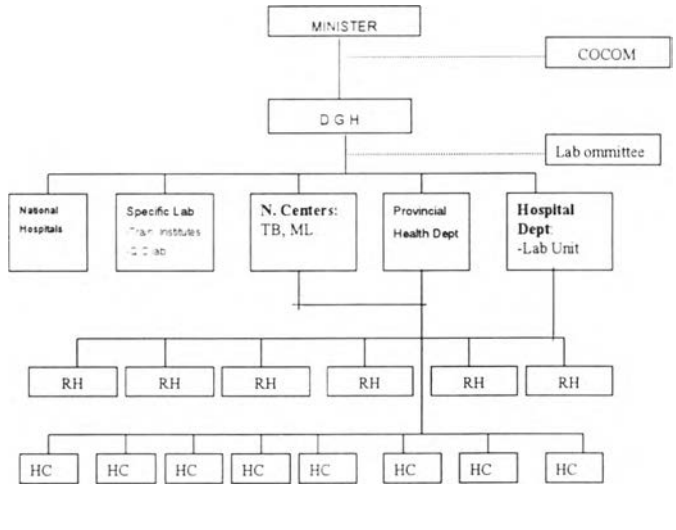
Current structure of laboratory services

Two types of laboratory services:

- National Programs: Specific disease control, public health purpose
- General Program: Clinical lab for support all diagnosis in hospitals

Two programs working together in the same laboratories

Organization structure of laboratory services

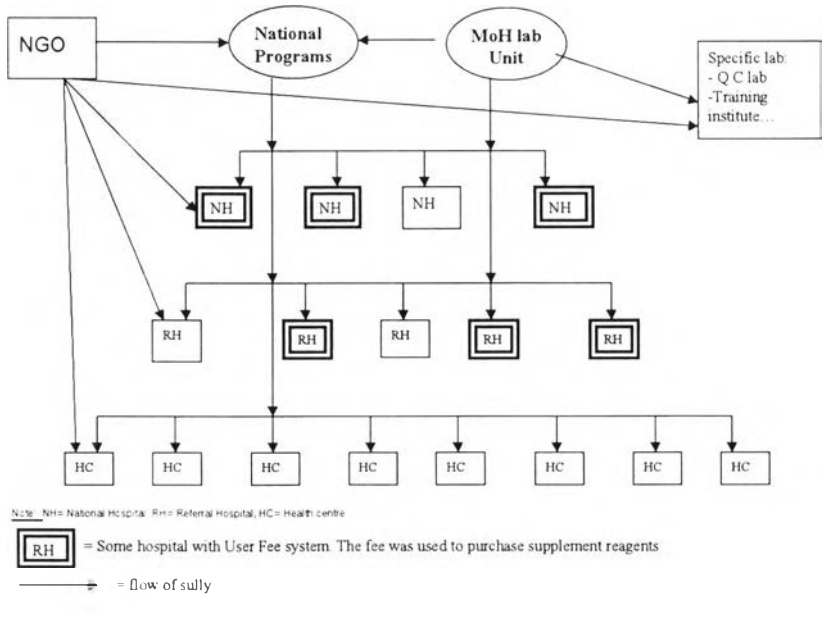


-DGF, DGH, DGI Director General of Finance Health, Inspection
-Dept Department
-RH Referral Hospital
-HC Health Center

Current Supply System

- **MoH**
  - Centralization
  - Gross purchasing at central level
  - All supplies purchased from one company.
- **NGOs:**
  - Interested on National Program
  - Separate system from MoH
  - Preferred technical support rather then recurrent budget

Diagram interrelationship of supply



PROBLEM SITUATION

The proportion of annual lab expenditure & MoH budget

Year	Lab exp. in US$	MoH exp. in US$	% of lab exp. of total MoH budget
1996	296,703	15.9M	1.86
1997	1,220,345	14.3M	8.53
1998	780,189	11.3M	6.90
1999	1,078,565	13.7 M	7.87
2000	1,302,122		

Sources: 1. MoH procurement unit
2. MOH budget expenditure book
3.MOH public & private partnership project report 2000

PROBLEM SITUATION (cont).

- Reagents and equipments were reported under utilized:
  - Microscope slides during this period have not been used because of fungus on its surface (report lab committee 1999)
  - The new spectrophotometers (each unit cost around 10,000US$) provided are unused because its need expensive reagents (supervision report 1999)

PROBLEM SITUATION (cont).

- Used equipment donated are useless because of maintenance problems and no spare parts (Medical Equipment Committee report 1999)
- Reagents supplies in general are costly that lead to increase the expenditure in each laboratory.
- Imbalance of supplies (national workshop, lab committee report)

IMPACT

- Poor quality → unreliability of test result
  ↓
  Diagnosis and treatment
- Inadequacy → unavailability of test
  ↓
  Inappropriate treatment
- High cost → High Service fee → Community expenditur
  ↓
  MoH expenditure

OBJECTIVES

1) Explore the extent of the problems related to the condition of supplies, reagent equipment, and laboratory professional

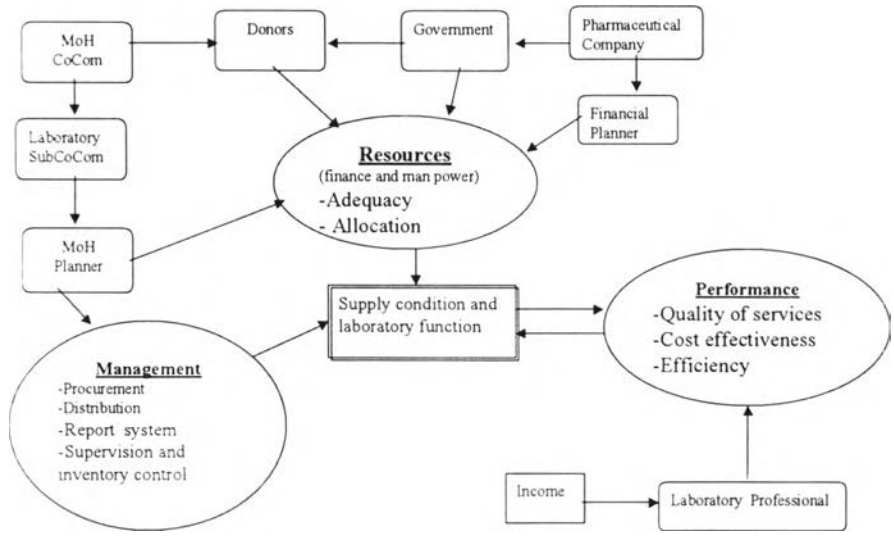
2) To identify the factors influencing the performance of laboratory services

3) To propose possible strategies for improving the lab supply system.

SCOPE

-Key actors involving in the supply system

- The Laboratories regularly receive supplies from MoH



Framework of influencing factors on the lab supply system

METHODOLOGY

Qualitative and quantitative approach

Data collection methods:

1) Key informants Interview:

- Tool: questionnaire
- Selection criteria :
  - Study setting: central level, labs regularly get supplies from MoH & MoH responsible agencies
  - Purposive sample: laboratory chief or staff responsible in stock and report, and officers from MoH

2) Documents review: all document evidences.

Data Analysis: taxonomies in four categories

The Key Informants and Types of Study Setting

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

FINDING

Materials and Reagents Problems (MoH)

- Slide about 14,000 to 20,000 boxes which is 70% of annual order have mold and unused (6 US$ / boxes)
- Giemsa about 200liters which is 70% of Annual purchasing do not give proper staining, found expired in all laboratory networks.
- Malaria dipsticks (10 to 15 expensive than normal test) always used in normal case because of supplies in short shelf-life (ML center)

FINDING (cont.)

- Many expensive reagents found expired due to improper allocation. The waste found from 3 hospitals about 12,600 US$ (1% of lab budget for year 2000)
- The MoH provided in average 81% to national program and 34% to general program in acceptable need.

FINDING (cont.)

National Program	% supplied by MoH	% supplied by Donor	% from Hospital fee	% of Adequate
Blood Bank	80	20 (WB, GVC)		80
TB-Lepro	95 (1997,98, 99) 20 (2000)	5 (JICA) 80 (WB)		95 20
ML	70	30 (EU, WB)		70
Hospital	**% supplied by MoH**	**% supplied by Donor**	**% from Hospital fee**	**% Staff Funding**
Municipal	20			80
Norodam	30			70
Pediatric	40	40 (Unicef)	20	
MCH	30	20 (JICA)	50	
Kossomac	50		15	35

FINDING (cont.)

- Price of reagents were high 28,4% higher than the free market, calculate in total lab budget in 1999, the waste is 306,000US$

  (higher than budget in 1996 = 296,700)

"The price is quite high, if the MoH purchased properly we won't have shortage"

FINDING (cont.)

- Equipment problems (donors)
  - 20 set of microscopes are lower quality than requirement (TB)
  - Many equipments found unfit with the current practice (Blood Bank, MCH, TB, & NIPH)
  - Donated equipments found outdated model and unused
  - Equipments supplies not on the priority area.

THE INFLUENCING ACTORS

- **Gov. administrator& Economic planners**
  - Over centralization practice on financial allocation for health sector
  - Long process of documents for funding approval
  - Budget promised always less than budget allocated & the MoH can use only 70% of her budget
  - Facilitate high cost by choosing monopoly suppliers (no price competition)

THE INFLUENCING ACTORS (cont.)

- **Laboratory coordination committee**
  - Indifferent leadership (lack of relationship with upper level)
  - Conflict among members (different objectives)
  - Rare meeting lead to no further development plan

THE INFLUENCING ACTORS (cont.)

The MoH Laboratory Planner

- Poor management practice in supply:
  - Miss judgment in prioritization
  - Imbalance and inappropriate allocation
  - Ineffective information management
  - lack of monitoring system (supply no control)
- Lack of creating effective strategies

THE INFLUENCING ACTORS (cont.)

The international donors

- Lack of knowledge about laboratory situation in Cambodia:expensive technologies and inappropriate equipment
- Used their own plan and strategies in managing the services under their support
- Focus on specific project rather than the whole system

(many donors support the same program-duplication encourage separate system. difficult for MoH to manage)

THE INFLUENCING ACTORS (cont.)

- **Laboratory Professional**
  - Low salary cause the negligence of the work
  - Concern on private income causing problem on supplies.
  - Unequal incentive affect efficiency of work and least collaboration among staff

CONCLUSION

The current supply is inappropriate:

- Misused and improper allocation of resources
- Lack of coordination :
  - Internal suppliers & External suppliers
  - Suppliers and user
- No comprehensive system for supply
- Lack of effective agreement on aid assistant
- Ineffective of services performance cause by low payment of lab professional.

RECOMMENDATION

- Government should revise the policy on centralization with more flexible adaptation to the urgent and priority need in health sector.
- Promote more dialog from the lowest to the highest level for health investment.
- Coordination committee should formulate and implement policy regarding donor role and standard criteria in agreement regarding donor assistance

RECOMMENDATION

- Establish effective system for laboratory supply with acceptable standard.
- National program should receive only 40% and the general program 60% of the MoH supplies.
- Staff Salary should be supplemented from a well managed fee system.

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