

Lao People's Democratic Republic
Peace Independence Democracy Unity Prosperity

Ministry of Health
Council of Medical Sciences

Report on



Evaluation of the First Five Year
Health Research Master Plan
* 1992 - 1996 *

JUNE 1997

Supported by IDRC-Canada

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ສະໜັບສະໜູນໂດຍ IDRC-Canada

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1. Introduction

The evaluation of the First Five Year Health Research Master Plan (1992-1996) was based on :

1. The Policy of the Party on human resources development
2. The Government's policy on Science and Technology
3. Health strategic plan by the year 2000

- Decrees No 145/PCM dated 28/12/1989 and No 73/PM dated 10/5/1993 endorsed by the President of the Council of the Ministers about the organization and activities of the Ministry of Health

- Role and functions of the Council of Medical Sciences endorsed by the Minister of Health No 867/MoH dated 11/12/1990 and the Minister's decision on appointment of the honorable advisory committee, the executive committee and sub-committee of the Council of Medical Sciences No 532/MoH dated 25/7/1991.

The previous 9 Work Plans and the 5th of the present 6 Work Plans of the Ministry of Health.

2. Role of the responsible Institution.

The Council of Medical Sciences is an advisory body of the Ministry of Health to apply the Medical Sciences and technology and research findings. The Council of Medical Sciences has the duty to develop the National Master Plan for health research, propose the direction and health research priorities, coordinate for integration the National health research activities, support and create the awareness the needs in conducting research in various areas, to coordinate researchers with donors, in implementing research, and encourage the utilization of the research findings for health benefits of Lao people of all ethnic groups.

3. Objectives

3.1 To process a systematic revision of the planning, the implementation and the impact of the 1st Five Year Health Research Master Plan.

3.2 To determine the recommendations for implementation with target to ensure the effectiveness of the 2nd Five Year Health Research Master Plan.

4. Overview of the 1st Five Year Health Research Master Plan Development.

4.1. Development of the Health Research Master Plan.

The Council of Medical Sciences is formed from technical organizations at the expert level within the Ministry of Health. Initially there were only two permanent officials. Through implementation and based on the demand of practical works, the Ministry of Health decided to appoint an Honorary Advisory Committee, an Executive Committee and a Subcommittee of the Council of Medical Sciences composed totally of 78 members including the President and Vice President of the Council. The committee and Subcommittee are formed into 9 big basic disciplines such as fundamental sciences, internal medicine, external medicine, obstetric gynecology, pediatry, hygiene and epidemiology-tropical medicine, oto-ophthalmo-rhino-laryngo-stomatology, pharmacy and public health. The Council has a Cabinet composed of two main division such as the administrative division and the technical division which are assistant bodies including initially 4 staff, now 11 (including a driver), assuming all the activities of the Council of Medical Sciences of the Ministry of Health. At the end of September 1991 through the assistance of the Ministry of Sciences Technology and Environment, our Council of Medical Sciences received the financial and technical support from the International Development Research Center of Canada. The technical support was done through the Public health Faculty of Mahidol University. Therefore at the beginning of January 1992 the IDRC-CANADA introduced an expert researcher, being also Deputy Dean of Public Health Faculty of Mahidol University and specialized in research. He is assigned to assist us as technical consultant of IDRC. In collaboration with the president of CMS, this expert consultant collected health data from different institutes, departments and some provincial health department to analyze the potential capability to operate research in Lao PDR. Some interview forms were prepared and distributed to different parties involved. Besides that, consultative meetings were organized among administrators and senior technical staff from departments, institutes, schools, and various hospitals within the Ministry of Health, to build a consensus on the necessity to do research and to write the first Five Year Health Research Master Plan. Thus, the first National conference on priorities setting for health research was held on the 12-13-14th May 1992. Representatives from the Ministry of Sciences, Technology and Environment, from the Prime Minister's Cabinet, Departments, Institutes of the Ministry of Health and from 8 provinces (Savannakhet, Champassack, Xiengkhouang, Xayaboury, Vientiane, Luangphrabang and Vientiane municipality). These

representatives set up priorities based on 7 criteria: relevance of the problems, avoidance of duplication, feasibility, political acceptability, applicability of possible results and recommendations, urgency of data needed and ethical acceptability. The results of the meeting included 64 research topics which were priorities in 9 main disciplines, and for each discipline, topics were again selected based on priorities setting.

4.2. Strategy and Policy.

4.2.1 Strategy

The 1992-1996 period is the implementation period for the health research focusing on strategy application: the development of the research capability in Lao PDR under the financial support of IDRC-Canada and the technical support of the Faculty of Public Health, Mahidol University through organizing training workshops related to developing human resources for health research.

The second strategy of the 1st Five Year Plan for health research is to sensitize and encourage the technical officials from the central and provincial level to do health system research. This considered a key factor to turn theory into practice, to induce operational changes within the health system and as a crucial tool to implement the national health system as well as to improve health services.

Table 1 Overall steps for developing the 1st Five Year Health Research Master plan (1992-1996)

| | |
|-----------------------|--|
| December 1989 | President's Decree of the Council of the Government on the establishment of CMS |
| 1990-1991 | Establishment of role and functions of CMS |
| September 1991 | Visit of the IDRC-Canada consultant to advise on development trends for cooperation with CMS |
| November 1991 | *Consultation and agreement on IDRC-Canada support to CMS through technical cooperation with Mahidol University. |
| January 1992 | * Visit of the Consultant from IDRC- Canada for collecting health data and exploring potential conditions for research in Lao PDR. |

- * Consensus building on indispensability of research
 - * Consultative meeting of administrators and senior technical officials from various departments and institutes within the Ministry of Health in cooperation with the IDRC on preparation of the First Five Year Master Plan.
 - * Dispatch interview forms to departments, institutes, various hospitals and provinces for data collection
 - * Draft the first Five Year Health Plan
- May 1992**
- * Seminar on setting priorities of health research for the 1st Five Year Master Plan and pass the first Five year Master Plan
 - * Improve the first Five Year Plan
- October 1992**
- * Finalise the first Five Year Master Plan and send to the Ministry of Health (departments, institutes) and provinces to acknowledge and implement.
- May 1993**
- * Prime Minister's Decree approved CMS organization and activities
- 1993-1996**
- * Implementation of the 1st Five Year Health Master Plan
 - * Building health research capacity in Lao PDR
- End 1996**
- * Preparing the evaluation of the implementation of the 1st Five Year Master Plan on Health research
 - * Developing the 2nd Five Year Plan for health research

4.2.2 Policy

One important cornerstone representing policy as well as conditions facilitating the first strategy implementation was the establishment of the sciences and technology policy by the Sciences and technology organization in mid 1992. At the end of 1992 from that policy the medical sciences policy of the health sector was originated. The second importance cornerstone was the endorsement of the nine work plans of the Ministry of Health of which the ninth aimed to promote health research and in the following period, the nine work plans have been reduced into 6 work plans of which the 5th represent health research management.

4.3 The development of health research in Lao PDR.

The history of the health system research is developed based on three continuous phases as follows :

4.3.1 The First phase : consensus building

Consensus building begins with consensus at the consultative meeting among managers and senior technical staffs from Departments and Institutes within the Ministry of Health. It proceeds to the approbation in the national conference on priorities setting for developing the first five year plan, the collaboration of the committee and subcommittees of the Council (to participate in every ordinary and extraordinary meetings), the congratulations from many parties on the annual achievements that the Council of Medical Sciences has performed, the organization of the international meetings to sensitize the implementation of health system research within the country and encourage the cooperation on research to develop the health sector, the sound contribution of the consultant under the continuous support from the donor organization during the following five years.

4.3.2 The second phase : capacity building

The training activities were organized in order to develop the human resources and managers for research projects. The research activities emerged at the central level, in the southern and northern provinces. Among those research projects there were three outstanding ones that were selected to be presented at international level. The related scientific works were translated and published to

provide a variety of publications and training. Fellowships for study tours, for conferences and seminars at international level were obtained and awarded

4.3.3 The third phase : consolidation

The research activities in Lao PDR appeared with the establishment of the Council of Medical Sciences which is the advisory body as well as the coordinating center for research at internal and international level. Health research component was accepted earlier as one of the nine work plans of the Ministry of Health and has been included in the five work plans up to now. It has also been integrated into the management of the Ministry. The research methodology and design was introduced in the Medical Sciences Faculty of the National University of Laos.

5. Financial support

During the implementation of the first Five Year Health Research Master Plan, the Council of Medical Sciences received financial support from two sources:

5.1. From internal supports

Through the Ministry of Health, the support was provided as salaries for staff, administrative expenses (water, electricity, gasoline, telephone-faxes as well as office supplies). We received also some donations from state and private organizations such as the Pharmaceutical Factories No 2 and No 3, the former Vientiane hospital, Lao drug companies, Lao commerce companies and some from PhengLamphanh construction company.

5. 2. From international donors

Funding mainly from the International Development Research Center of Canada and partly from the World Health Organization and from the Council on health research for development Switzerland to build up the research capacity in Lao PDR. (see details in Table 2)

Table 2 : Summary of the internal and international supports during the implementation of the First Five Year Master Plan 1992-1996

| Countries or donor organizations | Number of projects | Total costs | | Utilized | | Remark |
|---|--------------------|-------------------|-------------------|-------------------|-------------------|---|
| | | Kip | US\$ | Kip | US\$ | |
| 1. IDRC (Canada) | 2 | | 366,562,96 | | 345,493,12 | |
| 2. WHO | 2 | 16,326,400 | | 16,326,400 | | |
| 3. World Aid | 1 | | 15,500 | | 7,204 | |
| 4. COHRED | 1 | | 1,585 | | 1,585 | fund for presentation of the research results |
| 5. Philippines | 1 | | 7,500 | | 7,500 | Research on Gender |
| 6. JICA | 1 | | 4,000 | | 4,000 | First National workshop on diarrhea |
| 7. CCL | 1 | | 4,000 | | 4,000 | First National workshop on diarrhea |
| 8. Drug Factory No2 | 2 | 1,000,000 | | 1,000,000 | | support different conferences |
| 9. Drug Factory No 3 | 1 | 450,000 | | 450,000 | | support the research conferences |
| 10. Lao Trade company | 1 | 20,000 | | 20,000 | | support the annual conference |
| 11. Vientiane hospital | 1 | 150,000 | | 150,000 | | support annual conference |
| 12. Pheng Lamphanh Construction Company | 1 | 20,000 | | 20,000 | | support annual conference |
| 13. Lao Drug company | 1 | 20,000 | | 20,000 | | support annual conference |
| Total | | 17,989,400 | 399,147,96 | 17,989,400 | 369,782,12 | |

6. Technical support

During the implementation of the First Five Year Health Research Master Plan, our CMS received direct technical support through several sources

1. Cooperation with the Public Health Faculty of Mahidol University under the financial support from the IDRC- Canada. The lecturers from Mahidol University, from the Health System Research Institute, one from the Thai Research Fund Board were invited by the Faculty of Public Health to train personnel for research in LaoPDR .

2. Some technical staff got funding through this IDRC from GTZ to be trained in Thailand on research methodology and management.

3. Some technical staff received support from WHO through the Medical Research Institute of Malaysia (IMR), and went to Malaysia and Brunei to share experiences about research on nutritional status of community.

4. Support funds from Ford Foundation through De Lasalle University of the Philippines was given for attending the Asia-Pacific Research conference in the Philippines.

5. Participation in the regional conference on research management in Thailand, supported by the Council on health research for development of Switzerland, and this organization has also given fellowships to two Lao researchers to present their research results in Jakarta (Indonesia). Table 3 shows the number of officials who received international support for study tours, conferences or seminars related to research activities during the past five years.

Table 3 Number of officials who got international support for study tours, conferences, or seminars related to research activities 1992-1996 (abroad)

| No | Type of activities that received international support funds | 1992 | 1993 | 1994 | 1995 | 1996 |
|----|--|----------------------------------|---------------------------------|---|---|-------------------------------|
| | | Number of officials and donor | Number of officials and donor | Number of officials and donor | Number of officials and donor | Number of officials and donor |
| 1. | Study visit to share experiences on HR planning | 4persons IDRC-Canada at Thailand | | | | |
| 2. | Training on research methodology for nutrition | 3persons IDRC-Canada in Thailand | | | | |
| 3. | Training on research management | | 3 pers. IDRC-Canada in Thailand | | | |
| 4. | Thai -Lao Scientific conference on cooperative health system research | | | 20pers IDRC-Canada in Thailand | | |
| 5. | Participation in the Health research committee meeting of the Western Pacific region | | | 1pers. WHO at Manila, in Philippines | | |
| 6. | consultation on joint health research project between Lao-Malaysia-Brunei | | | | 2 pers. WHO through IMR of Malaysia | |
| 7. | Study tour on research on Nutrition status within the communities (pre or post project) | | | 2 pers. WHO through IMR of Malaysia in Brunei | 2 pers. WHO through IMR of Malaysia in Brunei | |

| | | | | | | |
|--------------|---|--|--|------------------------------------|----------------------------------|---------------------------------------|
| 8. | Participation to a conference on research management | | | | 5 pers. COHRED in Thailand | |
| 9 | Research results presentation at Jakarta meeting | | | | 2 pers. COHRED in Indonesia | |
| 10 | Presentation of research findings on gender, sexuality reproductive health | | | | | 4pers. Ford Foundation in Philippines |
| 11. | Participation to the 2nd Asia-Pacific meeting on social sciences and medicine and to the First Asian conference on National prioritized research. | | | 2 pers. IDRC-Canada in Philippines | | |
| 12 | Participation in the conference on Gender roles in research and sustainable development | | | | 2 pers. IDRC-Canada in Singapore | |
| 13 | Participation in conference on health research of regional Western Pacific | | | | | 1 pers./ WHO in Manila, Philippine |
| 14 | Training on data processing and analysis for Nutrition | | | 2 pers. IDRC-Canada in Canada | | |
| 15 | Study tour on Nutrition (research on nutrition) | | | | 13 pers. IDRC-Canada in Thailand | |
| Total | | | | | | 61pers |

7. Summary of the Implementation of the 1st Five Year Health Research Master Plan.

Before 1992 research activities were not considered as high priority in Lao PDR. Communities lacked scientific knowledge, lacked health information specifically about health status of Lao people. Technical staff who knew about research were very limited in quantity as well as in their research quality. Without any funds or incentives for research activities, those who did research (especially the clinical research) were volunteers motivated by their own interests. Their research were completed and did not focus to solve the health problems of the country. The results of clinical research were presented at the annual scientific conferences , led by the Rector of the Medical Sciences University only, and the results from research were not widely disseminated either across the country or abroad, and importantly they were not utilized for health benefits. Being aware of the problems as well as the necessity of research work, the Council of the Medical Sciences of the Ministry of Health with the support of the former Ministry of Sciences and Technology (presently called Organization of Sciences Technology and Environment) asked the International Development Research Center of Canada to assist by sending at the beginning an HSR consultant. He assisted in preparing the National Seminar on research topics priorities setting in order to develop the Master Plan for Health research for the 1st Five Year on May 12 1996. The First Master Plan for Health research (1992-1996) was officially developed under the approval of the Council of Ministers with the resolution No 750 dated May 12 1992, with the financial support and technical cooperation from the Faculty of Public Health of Mahidol University under the support of the International Development Research Center of Canada and partly from WHO. The main goal of the First Five Year Health Research Master Plan is to sensitize people on health system research, and to promote the application of their results as tools for health management. It also aims to introduce new knowledge and utilize the available knowledge to improve the health status as well as the quality of life of the Lao people to meet the goal: health for all for the year 2000. Through implementation of the previous 9 work plans or the present five work plans, the main objective of the project is to develop the research capacity in Lao PDR. The activities related to the development of research in the country are the development of human resources for research that have been systematically implemented during the 5 past years through various related training such as training on research design and methodology research project management, data processing and analysis, management of information system, health system research, participatory action research, and training of trainers for health system research. Through organizing

various trainings, some technical staff have developed 11 small research projects which were implemented and their results disseminated. Nine projects are being implemented and 2 research projects have involved international cooperation. The officials concerned were invited to attend several international research conferences. To facilitate the above-mentioned training the Council of Medical Sciences has translated and edited scientific publications related to the training, including the English-Lao Medical Dictionary. It has contributed to other scientific related activities assigned by the Ministry of Health as well.

In conclusion, the Council of Medical Sciences consisting of two Divisions: (administrative and technical divisions which are the assistant bodies), has concentrated its intellectual and physical efforts from its inauguration date with only two permanent staff member, no work facilities, materials or equipment as well as anonymity inside the country and internationally. At the present time, it has an office, services, essential materials and equipment available in quite numerous quantity and is able to operate with increasing effectiveness. It gets increasing assistance from internal and international organizations and especially from the International Development Research Center of Canada, the WHO, the Council on health research for development of Switzerland and other countries. All of these are fundamental and are the reason for continuation of the activities, the enhancement of performance, and development of the 1st Five Year Plan towards the official development of the Second Five Year Master Plan for Health Research (1997-2001).

8. Analysis of the project planning

8.1. Problems

As mentioned above, before the implementation of the first Five Year Master Plan most of the communities could not imagine health system research, due to lack of credible information. The research that was implemented in central hospitals or in some big provincial hospitals were clinical research projects. Most of senior managers or policy makers did not use data for decision making or for planning. There was no formulation of regulation nor plan to do research and there were no incentives to make the technical staff aware of doing research.

8.2 Strengths

After the implementation of this plan, research has been included in one of the work plans of the Ministry of Health with the scientific and technological information of the world it has sensitized the technical staff at and beyond the central or provincial level to be interested in aware of doing research especially after

the training on research methodology and design of the health system in a full cycle of courses. Participants have learned how to write a research proposal. After getting support, the research plan has been implemented. During the past five years 21 of 64 proposed topics were implemented in the First Five Year Plan (that means 1/3 were implemented) (table 4) and 24 more topics were implemented by the Municipality Health office, the Mother and Child health Institute, the Institute of Hygiene and Epidemiology and Mahosoth Hospital. Support funds were raised by the researchers themselves.

8.3 Weaknesses

1. The selected research priorities for the first Five Year Plan were too many and not fit with the skill of researchers, most of whom were newly trained on research methodology.

2. The internal support was not available and the international support was very limited; there was no private support for research. In the one hand, many research topics were not legitimate of priorities and were not issued by the researchers or institutions themselves but by their representatives. That is why those topics were not developed into proposals to request for sponsorship for implementation. On the other hand the research results from the 11 projects which were disseminated were not utilized to solve the problems. Most of them were disseminated only among technical staff . They were not spread to the parties involved or to the communities. Some managers were not supportive; the internal financial support was not available and the international support was limited. Some parties were doing studies and surveys without cooperating with the CMS . They were arranging directly with superiors and requesting direct support from the donors. Regarding the organization, the operational role of the committee and sub-committee of the Council was only honorary because there was no direct financial compensation for the members, also most of the members had their own professional positions. Consequently in the past the direct and heavy duty felt to the staff of the CMS's cabinet including its President.

Table 4 Number of the research topics that were implemented during the First Five Year Master Plan with the supervision of the CMS under the financial support of IDRC-CANADA and WHO

| Research problems/topics | Number of topics |
|---|------------------|
| Disease control | 6 |
| Behavior | 3 |
| Nutrition | 2 |
| Health service management | 6 |
| Mother and child health | 3 |
| Development of human resources for health | 1 |
| Total | 21 |

9. Analysis of the project implementation

9.1 strengths

The implementation of the project assisted in building up the research capacity especially through the technical cooperation with the Faculty of Public Health of Mahidol University and under the financial support of the IDRC-Canada. Part of the technical support came from the Medical Sciences Research Institute of Malaysia and the University of the Philippines under the support of WHO and Far Foundation. The CMS was responsible for the expenditures of domestic training while those for the training and team lecturers from Mahidol University were handled by the IDRC that transferred the payment to them directly. WHO was directly responsible for the lecturers from the Institute Medical Research, of Malaysia.

The training related to the development of human resources for research in our health sector was accomplished different courses such as research methodology and design supported by the IDRC-Canada: these were conducted 3 times (2 at the Ministry level, 1 at Luangphrabang organized for 7 northern provinces). Such trainings supported by WHO were organized one time at the Ministry of Health and one time at Champasack province for technical staff from 5 Southern provinces. There were altogether 156 participants (36 females and 120 males), of whom 16 persons were trained at the Organization of Science Technology and Environment. Most of them attended a complete cycle of courses such as: health system research management, data processing and analysis, management of information system and health policy research. Furthermore two courses were conducted on participatory

action research with community participation, one time organized for the technical staff at Vientiane, and one time at Borikhamxay, totaling 34 persons (6 females, 28 males). The trainees totaling 25 persons (4 females, 21 males), for trainers was also organized for health system research. The trainees had potential capability and most of them had experience in research. In each evaluation after the training, some of the 25 new trainers trained other staff to develop a research team for different organizations on research methodology and design of health system. The total number of trainees were 95 (39 females and 56 males). The organizations were represented : the Mother and Child Care Institute, Vientiane, Huaphanh, Khammouane, Savannaketh, Xiengkhuang and Champassack province) (tables 5, 6, 7)

9.2 Weaknesses

The trainees have different backgrounds of scientific knowledge, leading to different perceptions of research methodology and design. Those who understood better could write a proposal and implement it as soon as they received support funding. The others would not implement or did not get support from their managers . They did not make any proposal or hesitated to do it because they consider it as difficult extra work to add to their routine tasks. Some of them were moved to another job not related to research. Although many works or translations were produced (compared with the years before 1992 when no publication at all was produced), they were still insufficient to be used as references for practicing research. Some of the publications although few in number, were in foreign languages, which difficult for the beginners who did not know that language to understand and presents a barrier to obtaining cited references.

From 175 questionnaires that were sent, 113 responses were received, of which there were 35 female (30.97%) and 78 males (69.03%). There were 91 technical staff (88,53%), 15 deputy Directors 13,76%, 7 Directors (6,42%), 67 interviewees from provincial level (60,36%), and 46 from central level (40,70%), 77 interviewees (68, 14%) had a good understanding of the health system research, and 111 of the 113 responses wanted to be researcher, only 2 (1,76%) did not want to be researcher. Regarding the upgradation of the research capacity , 35 interviewees (20,71%) would like to be trained on research methodology and 25(14,79%) would like to learn management of research project, 35 (20.75%) would like to learn data processing and analysis while 29 (17,76%) would like to learn English and computer use.

Table 5 Number of technical staff under the Ministry of Health who were completely trained on research methodology from 1992-1996.

| No | Institutions | Years of training | | | | Total |
|----|--|-------------------|------|------|------|-------|
| | | 1993 | 1994 | 1995 | 1996 | |
| 1 | Mahosoth hospital | 4 | 2 | - | 2 | 8 |
| 2 | Friendship hospital | 5 | 1 | - | 2 | 8 |
| 3 | Department of Organization and personnel | | - | - | 1 | 1 |
| 4 | Food and drug department | 3 | - | - | 2 | 5 |
| 5 | Faculty of Medical Sciences, National University | 4 | 2 | - | 2 | 8 |
| 6 | Mother and Child Care institute | 2 | 1 | - | 2 | 5 |
| 7 | National Institute of Hygiene and Epidemiology | | 1 | - | 2 | 3 |
| 8 | Food and drug analysis Center | 1 | - | - | - | 1 |
| 9 | College of health technology | 1(died) | - | - | - | 1 |
| 10 | Herbal Medicine Institute | | 1 | - | 2 | 3 |
| 11 | Eyes Care Center | 1 | - | - | - | 1 |
| 12 | Health Information and Education Center | 1 | - | - | 1 | 2 |
| 13 | Malaria and Parasites Institute | 1 | 1 | - | 2 | 4 |
| 14 | Cabinet | 2 | 1 | - | 1 | 4 |
| 15 | Tuberculosis control Center | 1 | | - | 1 | 2 |
| 16 | Hygiene and Preventive Department | 2 | 1 | - | 1 | 4 |
| 17 | Council of Medical Sciences | 1 | | 2 | 1 | 4 |
| 18 | Lao Women's Union | - | - | - | 1 | 1 |
| 19 | Mother and Child Care hospital | - | - | - | 1 | 1 |

| | | | | | | |
|----------------|--------------------------------------|---|---|---|-----------|---|
| 20 | Rehabilitation and orthopedic center | - | - | - | 1 | 1 |
| 21 | Dermatology Center | 1 | - | - | 1 | 2 |
| 22 | Curative care Department | - | - | - | 1 | 1 |
| 23 | Drug company | 1 | - | - | - | 1 |
| 24 | School of public health | 1 | - | - | 1 | 2 |
| 25 | Sethathirath hospital | - | - | - | 1 | 1 |
| Total : | | | | | 74 | |

Remarks: 16 technical staff from some Institutes were trained on research methodology at the Ministry of Sciences Technology and Environment in 1992 (8 persons), in 1994 (8 persons) Total = 90 persons

Table 6 Number of technical staff from 15 different provinces who were completely trained on research methodology from 1993-1996

| No | Provinces | Year of training | | | | Total |
|----------------|---------------|------------------|------|------|-----------|-------|
| | | 1993 | 1994 | 1995 | 1996 | |
| 1 | Savannakhet | 1 | 3 | - | - | 4 |
| 2 | Xayabury | 1 | 3 | 3 | - | 7 |
| 3 | Vientiane | 1 | 3 | - | 2 | 6 |
| 4 | Municipality | 1 | 3 | - | 1 | 5 |
| 5 | Champassack | - | 3 | - | - | 3 |
| 6 | Khammuane | - | 3 | - | - | 3 |
| 7 | Borikhamxay | - | 3 | - | - | 3 |
| 8 | LuangPhrabang | - | 3 | - | - | 3 |
| 9 | Luang Nam tha | - | - | 2 | - | 2 |
| 10 | Bokeo | - | - | 3 | 6 | 9 |
| 11 | Phongsaly | - | - | 3 | - | 3 |
| 12 | Xiengkhuang | - | - | 3 | - | 3 |
| 13 | Oudomxay | - | - | 3 | - | 3 |
| 14 | Huaphanh | - | - | - | 2 | 2 |
| 15 | Xaysomboun | - | - | - | 2 | 2 |
| Total : | | | | | 61 | |

Remarks: Some trainers had trained on research methodology and research design in short period of 1-2 weeks for 6 provinces (Huaphanh, Champassack, Vientian, Savannakheth, Khammuane, Xienkhouang,) and Mother and Child Institute) to develop a research team that included totally 95 persons(82 doctors, 13 assistants)

* Number of trainee were trained by trainers : 95 persons.

TOTAL = 156 persons

Table 7 Training activities on health system research 1992-1996 (organized by the CMS under the technical cooperation with Mahidol University) financially supported by IDRC-CANADA and partly by WHO

| No | Name of the training | Level | Time | Place | partici pant number | Main outcomes |
|----|---|----------------|---------------|----------------------------------|---------------------|---|
| 1 | National seminar on priorities setting for health research | Natio-nal | 12-14/5/1992 | Ministry of Health | 35 | First Five Year Master Plan 1992 -1996 |
| 2 | The First Seminar on health research methodology | Natio-nal | 28/6-8/7/1993 | Ministry of Health | 35 | Development of the 6 first projects on health research |
| 3 | The Second Seminar on health research methodology | Central | 12-14/3/1994 | Ministry of Health | 36 | Development of the 5 projects on health research (5 southern provinces) |
| 4 | The Third seminar on health research methodology | Provin-cial | 6-16/11/1995 | Luangphra bang | 28 | Development of the 8 projects on health research (8 southern province) (in process) |
| 5 | First seminar on Health research methodology supported by WHO | Natio-nal | 18-29/3/1996 | Ministry of Health | 36 | 2 research projects were developed(1 project is requesting the WHO support, 1 project is being implemented) |
| 6 | First seminar on data processing and analysis | Central | 2-7/5/1994 | Ministry of Health | 23 | the 6 first teams learned on data processing and analysis |
| 7 | First seminar on health research project management | Central | 17-22/10/1994 | Ministry of Health | 33 | The 6 first teams and 5 research teams (second teams)(11 team) learned research project management |
| 8 | Second seminar on data processing and analysis | Central | 6-11/2/1995 | Ministry of Health | 22 | The second health system research team learned data processing and analysis |
| 9 | First Thai-Lao scientific conference on health research cooperation | Interna-tional | 7-8/4/1994 | Sonthawin Hotel Tower(Thailand) | 70 | The Lao----Thai participants shared between them knowledge of the present health problems |

| | | | | | | |
|----|---|---------------|----------------|--|-------|---|
| 10 | Second Lao-Thai scientific conference | International | 28-29/9/1995 | Lanexang Hotel (Vientiane) | 70 | 4 health research projects were developed that need to be improved before requesting funds |
| 11 | Seminar on participation action research (PAR) | Provincial | 4-9/12/1995 | VangVieng district hospital (Vientiane province) | 16 | 1 project was developed (in process of implementation) |
| 12 | Seminar on participation action research (PAR) | Provincial | 6-10/1996 | Provincial hospital of Borikhamxay | 18 | 1 project was developed to solve local health problems (under process of implementation) |
| 13 | Seminar on health policy research associated with the report/presentation of the research results | National | 22-27/1/1996 | Ministry of Health | 40+60 | The researchers reported their research findings in front of senior managers and health policy makers from different institutes within the Ministry of Health and from some provinces . The health managers and policy makers are aware of the utilities of the health system research as a tool to manage the health sector |
| 14 | Training of trainers seminar for health system research | National | 1-11/4/1996 | Ministry of Health | 25 | 25 trainers for health system research. In the future they will train health staff to compose a research team in the institutes and in their provinces |
| 15 | first seminar on management of Information system | Central | 29/4-14/5/1996 | Ministry of Health | 23 | The participants learned to evaluate data needs and to manage the information system in its whole contents and utilize the information system management to monitor the quality of the health services |
| 16 | Second seminar on management of information system | provincial | 1-6/6/1996 | Provincial health service of Champasack | 28 | The participants from 6 southern provinces learned information needs and how to utilize them for decision making and for monitoring the quality of health services |

Table 7. Training activities on health system research 1992-1996 (organized by the CMS under the

| | | | | | | |
|----|---|------------|---------------|--|----|--|
| 17 | Seminar on health research project management | provincial | 14-19/10/1996 | Provincial health service of Luang prabang | 25 | 8 health system research team of the Northern provinces got to know how to manage their own research projects |
| 18 | Third seminar on health research project management | Central | 23-28/2/1996 | Ministry of Health | 22 | The research teams from different institutes plus some senior managers learned health system research project management and the utilities of the health research as tools to manage the health sector |
| 19 | Third seminar on data processing and analysis | central | 11-6/11/1996 | Ministry of Health | 25 | 8 research teams of the Northern provinces learned about data processing and analysis |
| 20 | Seminar on evaluation of the implementation of the First Five Master Plan for Health Research | National | 12-13/6/1997 | Lanexang Hotel | 54 | Evaluation of the First Five Year Master Plan for Health Research and development of the Second Five Year Master Plan for Health Research |

In order to facilitate the concerned trainings, the CMS translated, edited various scientific books into Lao Language for distributing to the participants of each workshop. In addition, these books have also been distributed to the library of different departments, Institutes, schools, Hospitals, and provincial health departments across the country. These were altogether 18 items (see table 8)

Table 8 Produced and translated publications by the CMS that were utilized for the related training and that facilitated research activities from 1992- to 1996

1. Setting priorities for health research for 5 years: 200 publications in Lao language and 200 in English (to distribute to every department , institute and provinces across the country)
2. The First Five Year Master Plan for Health Research (200 publ.)
3. Policy on Medical Sciences for Health Sector (1000 publ.)
4. Leaflets on the CMS's role (3000)
5. Health research methodology, published 3 times (IDRC-CANADA)
1994= 300 publ.; 1995= 300 publ.; 1996 = 300 publ.
6. Research methodology (WHO) 1995 (200 publ.)
7. Management methods for research projects 1994 (600 publ.)
8. Data processing and analysis 1995 (300 publ.)
9. Participation action research (PAR) 1995 (300 publ.)
10. Training of trainers for health system research 1996 (300 publ.)
11. Cooperation on health system research between Mahidol University and the Council of Medical Sciences 1995 (200 publ.)
12. Glossary of English-Lao Medical dictionary 1500 words, 1995 (200 publ.)
13. Draft English-Lao Medical Dictionary (32 publ.)
14. Hand out on scientific works at the First National Conference on Diarrhea (200 - works grouped in 5 books, in three languages: French, English, and Lao)
15. Translation of the WHO's publication entitled: Health and New Horizon in health ,1996 (300 publ.)
16. Abstracts of the health system research results 1993-1995 , printed in 1996 (300 publ.)
17. Principles and methods to nominate Assistant Professor , Associate Professor and Professor
18. English Lao Medical science Dictionary containing 56 000 words (1000 pub,)

Along with the invitation to attend the international conference in the region since 1993, the CMS has prepared Scientific or Country reports which related to research activities in Lao PDR. This is a contributing factor in advertising our health sector work. These reports included 10 main topics (see table 9)

Table 9 Scientific works and country reports presented at international conferences in the region from 1993- to 1996

1. Education for balance between the development and peace in Asia in the 21 th Century. Thailand 15 Dec. 1993.
2. Health service organization and management towards the year 2000 Techno- Indo China 18-24 Aug. 1994
3. The status of the health research in Lao PDR Manila 15 Aug. 1994
4. Women and health activities towards HFA by the year 2000. Singapore 24-27 Jan 1995.
5. Lao Women's Culture and science. Thailand 23-28 Septa 1995
6. The major factors affecting the health of women in Lao PDR. Beijing 4-15 Sept. 1995
7. The current status of national health research in Lao PDR. Thailand 17-21 Dec. 1995
8. Gender, sexuality and reproductive health, Cebu- Philippines 8-13 Jan 1996
9. Promotion of women in science and technology in Lao PDR
10. The current status of national health research activities in Lao PDR. Manila 5-9 Aug. 1996

In addition, in order to have a broad propaganda and to establish scientific knowledge for public, since 1992 the CMS has written different titles concerning research activities on health which were sent to publish in Science - Technology bulletin, Lao Women Union, and Alounmay. There were altogether 18 titles (see table 10).

Table 10 Publications of the technical Journal of Sciences and Technology, Lao women and Arounmay during 1992-1996

1. Research policy and Master Plan on health research
2. Role of the Health system research in Health for all by the Year 2000 strategy
3. Technical cooperation between the Council of Medical Sciences and Mahidol
4. Ethnic of physicians
5. First step of the Lao-Thai cooperation on health research
6. Women and health activities towards HFA by the year 2000
7. Health services organization and management from now to the year 2000
8. Outstanding social scientists, national heroes of the new history
9. Danger of tobacco to health in scientific view
10. Evolution of the strategy for the essential national health research
11. Role of the CMS in the development of the Master plan for health research for 5 years
12. Role of the CMS in promoting Health system research
13. Role of the CMS in promoting PAR.
14. Role of the CMS in promoting MIS.
15. New Horizon in Health
16. Role of the Women in development
17. Promotion of Women in sciences and technology
18. Importance of the health policy research in health development

In order to promote health system research activities in Lao PDR, the CMS sought for funds from International organizations in establishing International Science Conferences 3 times: a national diarrhoeal conference (supported by CCL, JICA and a Pharmaceutical factory No 2), a Science Conference which aimed to conduct a cooperative health system research between Lao and Thai (supported by IDRC - CANADA). This conference was held at Lane Xang Hotel Vientiane, and one conference was conducted at Mahidol University. There were between 20-50 Lao and Thai technical staff.

10. Conclusion

In fact the implementation of the First Five Year Master Plan for health research in Lao PDR started from nothing, together with the organization of the CMS. The CMS has gradually been growing not only in quantity of manpower, but management experiences as well as in facilities and equipment. It has successfully

become the advisory body for the Ministry of Health and the National Center to promote the coordination of the intracountry research and to induce the cooperation and coordination with international research. Research and related activities were organized and managed by the CMS under the financial support of the IDRC-CANADA and the technical support through a good cooperation with the Faculty of Public Health of Mahidol University. In spite of many difficulties encountered due to lack of manpower and experiences that had limited the number of research projects and research management and support that did not meet the real needs of the task, we can openly say that we have the capacity to do the fundamental research as well as the integration of the health system research into the fundamental health activities. This can be done according to the stages of sciences behavior that the developed world has experienced such as

- Stage of awareness creation and consensus building within the party or within the related groups.
- Stage of capacity building for health research operation
- Stage of consolidation, described by the above indicators of different stages of the development.

Besides this, even the research number was few but they had created some outstanding researchers who sent their research findings to be selected internationally (three projects were selected to be presented internationally). This brought a reputation, glorification and more confidence on potential capacity to do research in LaoPDR. The human resources for research have increased every year (that means the personnel trained in Master degree are available in every department, school, hospital, center and those who are graduated in Ph.D. degree are increasing in many places. At the Faculty of Medical Sciences of the National University of Laos, the research training discipline was introduced for the first time in the past 20 years. It showed that the embryo of the basic medical sciences and of the public health have been gradually growing. On the one hand the health sector is one of the sectors that have attracted international support, financially as well as technically, especially to initiate the capacity building for health research during the past five years. This has contributed in bringing our research findings to present step by step within the country and abroad. The strengths and weaknesses that were described above in the review constituted the basis and strong reasons for continuing to build up the research capacity for strengthening the health research parallel to the Second Master Plan of the health sector of Lao PDR.

11. Recommendations

To enhance the organization for performing scientific activities with more efficiency and efficacy in the future, especially in implementing the Second Five Year Plan, it is necessary to improve the organization in accord with the research role, the mechanism, the strategy and the adequate methodology of the parties involved, especially of the Council of Medical Sciences. This will strengthen the health research capacity in Lao PDR for health benefits of the Lao people of ethnic groups as well as integrate the health system research into the management at different levels systematically, strongly and dynamically at the policy and operations levels.

Mechanism for prioritized setting of the problems for doing research will be decentralized and determining locally, within the departments, institutes, schools and different centers, with precise identification of the research topics especially to find out the prioritized problem. After that they should make a plan, and it is their responsibilities to develop a project proposal to request support through the CMS, as the coordinating organization for research activities of the country, or the CMS will request for funding them through the Ministry of health. This coordination always starts from the priorities setting of the research problems proceeding to promoting the application of the research findings.

* The health policy research should be the duty of the macro management departments that will identify national health issues on policy, e.g., health system research (HSR) and Health policy research (HPR). That means looking for data to inform the high level managers for policy making, developing strategy and an adequate National Plan.

* The Operational Research (OR) should be under the responsibility of the institutes, hospitals, and different centers as well as provinces. The topics should be the priority issues to solve management problems (this means to improve the quality of the planning) and management process accordingly to the scientific system. Prioritizing will be assisted by data which are available or will be collected and analyzed. This will serve the decision making in different stages of management to solve problems with efficiency and with high efficacy. Therefore, this will help to develop increasingly the quality of our works parallel to the gradual development of the sciences and technology level, especially in execution of the modernization plan to maintain institutional sustainability as well as to develop the sciences and technology to meet international standards.

* To strengthen the implementation of the health research of the country it is needed to develop the health information system of which the Ministry of health should decide which organization will be adequate to carry out the task and this organization should start its role immediately. It is the way to develop the database to become a real system.

* The Ministry of Health should give the opportunity to the CMS to coordinate the research as well as to directly involve foreign supports to implement the research project of each research institute. The CMS will particularly report about the progress of the problems in each period so that the Ministry of Health can solve the problem at time and systematically and in a timely manner.

*The Ministry of Health should consider the research works as one of the criteria reward by awards, promotions or honorific nominations. On the other hand, it is a factor to sensitize the health research process in Lao PDR

* The Ministry of Health should allocate some annual budget to the CMS in one of its six work plans for redistributing to different prior research projects within the Ministry as well as to provinces to sensitize the research process within the country.

* The leaders of the Ministry of Health as well as the high level policy makers should motivate the research process through giving opportunities to researchers to present their findings and to ensure the utilization of those findings for accurate decision making, to serve step by step as a correct management for health benefits of the Lao people to ethnic groups

12. Annexes List of persons got involved with CMS activities

The list of important personnel and lecturers who have contributed to training manpower for research and writing, translating, and editing documents related to the training during the implementation of the First Five Year Master Plan on health research

Annex 1. Lao lecturers

1. Dr. Bounngong Boupha, Chairperson of the responsible Committee for training, President of the Council of Medical Sciences, Ministry of Health.
2. Mr. Khamhoung Heuangvongsy, Director of the Human resources and Organization Department.
3. Dr. Chanpheng Southivong, Head of the Technical division, CMS
4. Dr. Keonakhone Houamboun, Deputy head of the Technical Division, CMS
5. Dr. Outhone Anothai, Deputy Director of Savannakhet hospital
6. Dr. Soukphathai, Director of the VangVieng district Health service, Vientiane province.

Annex 2. Thai lecturers. On behalf of the technical cooperation through Mahidol University under the financial support of IDRC-CANADA.

1. Dr. Somchai Durongdej, consultant of IDRC-CANADA, Deputy Dean of Research, Faculty of Public Health, Mahidol University, Chief of training during the past five year.
2. Dr. Sonsai Lualisouvanh, Director of the Tropical Disease Institute, Mahidol University.
3. Prof. Pradith Charoenthaithavy, Rector of Mahidol University
4. Mr. Vichanh Phanith, Chief of the National Foundation Board to support the National research of Thailand
5. Prof. Praseuth Thongchareuan, Deputy Dean of Mahidol University.
6. Dr. Somsack Chounharas, Director of the Health system Research Institute, Ministry of Health, Thailand.
7. Dr. Thavathsay Voraphongsathone, Chief of the Statistic Department, Faculty of Public Health, Mahidol University.
8. Dr. Monthana Pradiprasen, Chief of Nutrition Department, Faculty of Public Health, Mahidol University.
9. Dr. Phonephanh Pangnarathaboundi, Chief of the Epidemiology

9. Dr. Phonephanh Pangnarathaboundi, Chief of the Epidemiology Department, Faculty of Public Health, Mahidol University.
10. Dr. Southi Athitpangnakhom, Deputy Chief of the Statistic Department, Faculty of Public Health, Mahidol University.
11. Dr. Virasing Mouangmen, Chief of Surgery, Ramathibodi hospital, Mahidol University.
12. Dr. Soukiet Vivatvongkasem, Lecturer of the Statistics Department, Faculty of Public Health, Mahidol University.
13. Dr. Thonglo Dejthai, Chief of Public Health Department, Mahidol University
14. Dr. Somchath Toracksa, Deputy of Public health Department, Mahidol University
15. Dr. Sousana Makalasala, Chief of the Computer Centre, Rajvithi Hospital
16. Dr. Rouchira Mangkhalasiri, Chief of Social Medicine, Nakonrajasima Hospital
17. Dr. Naiphinit, Chief of Anatomy Department
18. Dr. Kanit Kaimook, Deputy Chief of Computer Department, Faculty of Public Health, Mahidol University.

19. Dr. Bencha Yoddumnern Atic, Director of the Institute for Population and Social Research, Mahidol University.
20. Dr. Sarinanh Kitisouksathit, Lecturer, Institute for Population and Social Research, Mahodol University.
21. Dr. Amara, Lecturer, Institute for Population and Social Research, Mahidol University.
22. Dr. Souli Chanthamoli, Deputy Chief, Department of Healath Education and Behavioural Sciences, the Faculty of Public Health, Mahidol University.

Annex 3. Foreign lecturers as WHO's consultants

1. Dr. Stephen Karel, Expert of WHO, Representative in Vientiane, LaoPDR.
2. Dr. Meun San Ly, Chief of Epidemiology Department, Medical Sciences Research Institute of Malaysia.
3. Dr. Opheria Mendosa, Chief of Statistic Department, Institute of Phillipine.

Annex 4. Documents writing, translating, editing, publishing , used for the training courses

Lao side

1. Dr. Boungnong Boupha
2. Dr. Sourasay Phommala
3. Dr. Chanpheng Southvong
4. Dr. Bounlom Kzobouahom
5. Dr. Syda Sayavong
6. Dr. Khampheng Phonglusa
7. Miss. Nialoun Vongpasouth

Thai side

1. Dr. Somchai Durongdej
2. Dr. Thavatsay Voraphongsathon
3. Dr. Soukiet Vivuthvongkasen
4. Dr. Thonglo Dejsay
5. Dr. Somchat Theracksa
6. Dr. Southi Athipanhgnakom
7. Dr. Bencha Yodumnern Atick
8. Dr. Sirimonth Kithisouksathit