LAO PEOPLE'S DEMOCRATIC REPUBLIC

PEACE INDEPENDENCE DEMOCRACY UNITY PROSPERITY

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MINISTRY OF HEALTH

NATIONAL HEALTH RESEARCH MASTER PLAN FOR FIVE YEARS 1992-1996

FINANCIALLY SUPPORTED
BY IDRC - CANADA

COUNCIL OF MEDICAL SCIENCES

MAY 1992

Population (1990 estim.): 4.17 million Area: 236,800 km2

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* POLICIES - STRATEGIES PLAN AND RESEARCHS
* PRIORITIES OF THE RESEARCH AND PROJECTS
* IMPLEMENTATTION PLAN FOR 5 YEARS

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Part I: Policies, strategies, plan and researchs.

INTRODUCTION

Research is one important work and is one part of the strategies for socio-economic development for one country, due to the development process of human generally, especially for the development of Socio-economic for one nation, health situation of the ethnic people who are working hard, is one of the most important factor, and its meaning for the progress of that nation.

After the liberation in 1975, Lao People's Democratic Republic was established in our country. Lao People's Revolutionary Party has set up policy for development socio-economic within the country at different period very clearly including policy trend for public health. Began at the 3rd - 4th resolution, 2nd congress until 4th congress, it was the opening for the health sector to carry out their activities, especially for health sector leaders to see the progress of the research. According to the specificity and the actuality of our country, in the 5th congress of Lao People's Revolutionary Party, it was stated that the use of research is very necessary for our country. We have to understand clearly the trend about using technology (equipment half modernized) in different units accordingly to emphasis on human development for new technic and skilled personnel who can adapt to new technology. We have to do basic surveys, and information.

Public health is one of the medical sciences sector to solve public health problems as well as to improve the quality of manpower development for the research, improve on the preventive-curative, rehabilitation as well as medical and health management also need resource to carry out all the research activities successfully, the support is needed in manpower, funds, materials, and the success of the research must be recognized locally and international cooperation, coordination and support are indeed needed.

So, to reach health strategies for 3rd 5 years plan 1992-1996 as well as reaching the goal "health for all by year 2000". One of the key factors is to carry on the research and the research must have a proper master plan for the health researchers at central level and some provinces. For the past, research was not considered as an important field, had no commitment on research, and no funds or other factors for supporting, the ones who did the research because of their interests or their liking, the research was done separately, nothing to focus on, and the result was proposed to scientific conference only, but was not recognized locally and internationally and was not published, on the other hand because we did not have the center for co-ordinated research.

In the future, health research will be implemented according to this master plan. The research will be done in each research unit in departments, institutions, schools, hospitals, centers at central level and in some big provinces, and in future the research may be extended to other provinces throughout the country.

For the coming years according to health priorities based on different medical fields, the research must be divided on 3 big

fields such as: clinical, biomedical and health system research with the cooperation of the council of medical sciences M O H and Ministry of sciences and technology, both of which are the centers for cooperation locally and internationally, both of which are to look for funds, technique and materials necessary for the research and its progress.

In the past few years, WHO insisted that country members shall concentrate on health system research, which is one of the scientific way to be able to get all the research information for the decision making on health management. On the other hand, health system research must be based on the importance of that country, it would mean not only the ability to use available resources, but it would also draw the necessary aids from internationals as needed for this research, according to the research priorities for health of the community. On one hand it is useful for medical research in our country, on the other hand it is our humble participation for health system research of the world.

1.1 OBJECTIVE (PURPOSE) OF MASTER PLAN.

According to the resolution of President of Ministers Council number 145, of 28/12/89 about the structure and activities of MOH, especially the establishment of the Council of Medical Sciences, and according to the agreement of Minister of MOH about the roles of the Council of Medical Sciences which in future will be the consulting body for MOH; cooperate with Ministry of Sciences and Technology on research and using new modern medical equipment, at the same time set up strategies for health preventive curative rehabilitation, pharmaceutical and medical equipment to improve health of the Lao ethnic people.

To carry out the important roles, the executive members of the Council of Medical Sciences with the coordination of Ministry of Sciences and technology with the support of Ministry of MOH, see the importance and the need for the master plan on health research for 5 years under IDRC - CANADA support.

Objectives of the master plan for the research are:

A. To identify priorities of health problems to set up strategies for problems solving in the future.
B. To determine strategies for policies in research and identify the priorities in each level in health problems for the next 5 years, generally for solving medical sciences problems and specifically for solving health problems.
C. Act as counsellor for MOH in using funds material budget, manpower, especially for new technology in teaching, preventive curative and rehabilitation, including medical and health services, production of modern and traditional medicine.
D. Prepare new role for MOH regarding infrastructure for the research in which the council of medical sciences is the main coordination, which in future will become Academy of Medical Sciences, on the other hand, the master plan for the research

is the prediction, basing on the concept and the actual need of the professional in different fields. From the data gathering priorities problems were being noticed and assumption for the result was made. On the other hand, it was seen so clearly, that these are needs for manpower, researchers, training, budget, basic techniques and material infrastructure for the research coordination with other research units, the knowledge and usefulness of the research as well as the international cooperation.

E. Ensure of the budget from the government as well as from the international organization for the research in the health sector.

F. This master plan is for 5 years (1992-1996) which will be implemented at the same time as the 3rd 5 years plan in MOH. For the implementation of the research plan, monitoring and the evaluation during this 5 years seems to be quite short, some projects might not have found fund yet for the support or some might just start, so this master plan is a preliminary research for the development of health sector.

1.2 SCOPE.

The scope for the research is that, first of all health problems are seen through the surveillance, survey is of data collection and through the observation at limit time or through experiences, then identify priorities for setting up policy, strategies for problems solving by implementation plan at specific period for short and long term. Key factor for solving each health problems is the establishment and implementation of the research for developing and solving health system in each level from the most urgent need from little to big, from low to high and from narrow to wide.

The implementation of the research for developing and solving health system must be systematic and at different steps, in different research units sometimes at different places together with different topics in order to solve priority problems with the coordinated elements for the development and the support of the research in manpower, budget and motivation as well. The research organism in future will become Academy of Medical Sciences which will lead health researchers throughout the country, and is the representative for lao health research throughout the world.

From the data analysis, we would be able to know the answer from the question which we wanted to know before the research and it will tell us the need in all aspects for quality. In the future, the need for manpower, the improvement of technology, as well as the budget for the research, and the research must also be extended throughout the country. On the other hand, we have to extend the international cooperation based on bilateral and or other aid s in order to develop new technology in the field of teaching, preventive and curative, rehabilitation or drugs production including traditional medicine as well as to improve health ser -

vices for better care and accessibility. Also, the existing of AIDs in the Society, there are many HIV positive carries so the

research on the way of prevention and how to prevent the spread of the virus is the most needed.

1.3 RESEARCH POLICY FOR NATIONAL DEVELOPMENT.

For the development of one country and according to the specificity and the actuality of that country with certain policy of socio-economic development for different periods, it is necessary for the progress of the socio-economic and developing that nation as well. At the present, Research has became directly the Power for production, and the decision for the development and the progress of that country. Even for the countries with different political systems and socio-economics, have also agreed that Research is a big strategy for socio-economics as well as for the development of that nation. Development is not only flexible but is most needed also, especially for the developing countries, because the development is the progressing, it is the combination of 2 processes such as: the progress in quantity as well as the evolution of the quality. In each process the use of the research is the most reflection, for example: Economically, research has improved in effective and in productivity.

For this reason, the reach policy is set up for the progress of all the activities, for the effective and efficient of the progress of national development such as research policy for economic development (research for development of agriculture, industry, finance, commerce and services, and the research of natural resources and environment), research policy for social development (research for the development for quality of life, like for solving different problems in society to improve the living of the population, coordinating between families, communities and societies, including manpower and social welfare (youth, woman, children, elderly). At the same time research for the development of education-culture, health as well as research for politic, administration and defence.

Specifically, research policy has close relationship with education and health sector. The 2 of these sectors can supply the most manpower needed for the research of the other sectors. For this reason, research has became the most important strategy in the socio-economic development and strategy for national development as well.

1.4 RESEARCH POLICY FOR HEALTH DEVELOPMENT.

The success of research is very valuable for human beings. In the past few years in the health sector of developing countries, research has been very successfully, theoretically as well as technology, research methodology and the use of electronics, informatics, criotechnic, artificial material, ultrasound new

technique in sterilization and others, this has improved the health sector in the developing country in quality as well as quantity. so the appropriate research policy would help to carry out the above mentioned activities effectively and efficiently.

In one country's policy, research activities(R) is a pilot study, a design to monitor theories and to improve new technique in certain fields, but for the technology development(D) is the process of adapting the appropriate technique: the trial and the adapting the appropriate technique: the trial and the improvement of new technique to reach the appropriate use for the field concerned the main problem is to balance between the types of research such as:

- Basic research is the research for mew scope, new theory and methodology, mainly for the better understanding.
- Applied research is the research for new factors, it is the implementation of basic research.
- Adaptive research is the implementation of existing technique specific field.

Health sector is one of the scientific and technic sector , so health workers are the researchers and to reach the target of keeping good health for the people for long life expectancy, improve quality of care, by using all the skills and the knowledge and the research state clearly about research policy and to carry on brainstorming among researchers, the latters must be gathered together and discussed on the research of all aspects and all kinds in order to improve Health sector development.

So, research policy for health sector development is focused on:

- improve the preventive and curative of the diseases which endanger the quality of life and the society.
- support the research for the equitable health services delivery, in urban as well as rural especially in remote areas.
- support the research for health promotion of the people prevention of the diseases due to the effects of development of the country in socio-economics (diseases from low income which lead to malnutrition and infection such as: tuberculosis, tetanus, diarrhea, eczema, or diseases of the wealth such as cancer, diabetes, hypertension or diseases from social aspect (drugs abuse, accidents or AIDS), which the health sector strictly must put so much effort on the prevention for the latter.

As stated in the above is the research policy in order to solve or develop health sector.

2. HEALTH SITUATION IN LAO PDR.

2.1 SOCIO-ECONOMIC PROBLEMS.

Lao PDR is situated in middle of Indochina in South-East Asia, landlocked and developing country, has the borders at the east with Vietnam, at the West with Thailand, at the North with China and Myanmar, at the south with Kampuchea. Lao PDR has 236.800 square kilometers of land and is one of the underdeveloped countries. Its economics is mainly agriculture with self reliance and small production. Population are mainly farmers and its main product is rice with low technology. Average income US $ 202/person/year, National budget for health is 5%, budget allocation from health to peripheral is 50%.

2.2 POPULATION.

Health of the people is one of the population development there are 4,255,568 people in Lao PDR from population census in 1991, divided into 3 main groups: high land, middle land and low land ant there are 68 minorities. 2/3 of people live in plain area and along Mekong river and 1/3 live in mountainous area. 15% live in urban and 85% in rural area. 51% are woman, children above 15 years of age are nearly half of the population. Crude birth rate is 46,1%, growth rate is 2,6%, live expectancy is 50, 48 for males and 52 for females (census 1991). In administrative there is National Assembly, Council of ministers, ministries and its equivalent, 16 provinces, 1 municipality, 120 districts, 937 communes and 11,885 villages. According to socio-economics of the country and its population, there are still some factors which reflect to health of the people such as living, cultural and geographical factors.

a. Living factor: the way of life of the people in rural and remote areas are still lack of hygiene, still many areas do not have latrines, no potable water supply throughout the country, there is only 28% of the population has the access to potable water supply (1991 census) and good hygienic latrine of 12%. Animals are still kept under the houses, still have the habit of eating row food (fish, prawn, etc...).

b. Cultural factor: because of different minorities and customs and different levels of education. On one hand education level is one important factor to accept scientific knowledge and health as well, so that every one knows to care for oneself and knows the ways of healthy life in society. For the past few years, education in Lao PDR has improved, so that our cultural has progressed also, but there are still some people who are illiterates, some have eradicated the illiteracy already, but due to no practice became illiterate again. Female rate is higher than male 1-6 times. On the other hand, the old customs such as spirit belief-superstition, drink raw water, sleep with no mosquito nets, kitchen wares are not washed, defecation in the water or every where, alcohol and drugs abuse are problems in the society which have affects to the health of the people.

c. Geographical factor: due to large land, small population, density is 15.3 persons/km2 in remoted areas (Attapeu, Xiengkhouang, Samneua, 7-9 persons/km2. Population live by village. 10 to 100 houses in village, distances from one village to others are quite far, difficult communications, warm and humid weather which gives the chances for the spread of infection and the vectors including the environment infected through food, water, insects and animals which transmit to people. All of these give so much problems on the health prevention for the health promotion of all the Lao ethnic people and to slow down the devalopment of the health activities in Lao PDR.

Table 1: demographic statistics - 1983 to 1991, Lao PDR

	1983	1985	1986	1987	1988	1989	1990	1991
Population	3450549	3584603	3680782	3795736	3905013	4019081	4135835	4255502
Urban	517582	537720	553314	569360	585072	602862	620346	638332
Rural	2932967	3046883	3135468	3226376	3319941	3416219	3515289	3617170
Male	1690769	1756553	1807494	1859911	1913848	1969350	2026461	2085228
Female	1759780	1828250	1881268	1935825	1991965	2049731	2109174	2170340
Male 15 years and above	913015	948539	973833	1002074	1031135	1061037	1091808	1123470
Female 15 years and above	1007560	1050308	1077119	1108355	1140497	1173572	1207605	1242626
Fem 15-49 years	790176	824374	844727	869224	894431	920370	947060	974525
Pop. under 1 year	102723	108121	109814	112999	116276	119648	123118	126688
Pop. 1-4 year	483077	512349	516427	531403	546814	562671	578983	595760
Pop. 5 and above	2864749	2964133	3062521	3151334	3242723	3336762	3433528	3533100
Births	769472	184595	188374	193837	199994	205242	211194	217319
Live Births		165259			178886		189412	
Deaths under 1 year		19335			21109		22358	
Deaths 1-4 year		98883			105535		111745	
Natural growth rate %.		2.9			2.97		2.97+	
Crude Birth Rate %.		46.1			45.8		45.8+	
Crude Death Rate %.		17.1			16.1		16.1+	
Infant Mortality Rate %.		117			118		118+	
Deaths Rate pop 1-4 years %.		193			193+		193+	

Source : Central health statistic unit, Ministry of Health

2.3 MORBIDITY.

As mentioned above socio-economics and cultural, weather situation environment is infected with parasites bacteria directly or indirectly through water, animals, insects, plus the effects from 30 years of war which is the cause of high morbidity rate and mainly affected by the minorities, women and children. Causal diseases for morbidity result in low production, short life expectancy due to malaria, diarrhea, ARI, tuberculosis, diseases which cause epidemic (dengue fever, meningitis of B virus, measles, pertussis and dipntheria) leprosy and gonorrhea, malnutrition, trachoma and some urgent disease such as: difficult labour, injuries, appendicitis, ulceration of stomach-colon, internal hemorrhage, intoxication, etc... apart from these, there still are some handicapped people because the consequences of war, blind (from trachoma, cataract and leprosy), occupational diseases are very few.

2.4 MORTALITY.

Mortality rate is the most important indicator for health situation. In Lao PDR, mortality rate is still very high 154%. (1991 census). Causal diseases of the death collected in 8 provinces and 2 central hospitals were reported by statistic unit of MOH in 1990 are as followed:

Table 2; death cases due to causal diseases

Causes	Nos of case
1. Malaria	315
2. ARI	125
3. Meningitis	60
4. Diarrhea	51
5. Tuberculosis	31
6. Accidents	21
7. Anemia	20
8. Dysentery	19
9. Hepatitis	13
10. Tetanus	11
11. Hypertension	11

Children mortality rate 117%. (1985-1990).
Infant mortality rate (below 1 year of age) 103%.
Mortality rate of children 1-4 years 54%.(1991)
Causes of death in children are:
35% from diarrhea,
17% from malaria,
9% from ARI (1991).

2.5 HEALTH SERVICES.

Before and after the liberation, Lao People's Revolutionary Party and the government have given the importance on health

promotion and the access to health services for all Lao People. The implementation was authorized directly to MOH, health sector has improved the infrastructure and health service throughout the country, especially in the rural remote and mountainous areas.

Personnel at different levels were motivated, health deliveries were extended to grass root, emphasized on preventive with slogan of health strategy such: the process of 3 hygiene (cooked food and clean drink. clean clothes, clean surrounds). This is to control on the epidemic and to solve the endemic diseases at the same time health personnel of different categories have been improved in quality for health delivery. All of these improvements have been reported in the 2nd National Health Conference and the 3rd National Health Conference was lately held on June 1992.

Health services throughout the country are as such: 8 central hospitals, 17 provincial hospitals, 121 district hospitals, 723 health centers and health posts. Throughout the country there are 7,922 beds, 850 at central level, 2018 at health center, 2568 at district and 2486 at health posts. There 10,032 of health personnel, 1303 physicians (high level personnel), 2789 assistants of different categories (middle level personnel), 5363 of low level personnel (eg-auxiliary-nurses). There are 3,08 physician, 6,55 assistant physicians and 12,60 auxiliary nurse per 10.000 population. In health services, we also have pharmacist (of high, middle and low levels) midwives of middle and low level, and some technicians, and at health post level there are traditional birth attendant (TBA) and some traditional medicine which are used for the treatment as well. The health post is collabcrated with traditional medicine section and pharmacy section of district hospital.

However health services delivery for the ethnic people is still not good enough, especially in the quality of delivery. There are not only shortage of health personnel, but lack of skills as well. There are small amount of managerial personnel and also lack of knowledge, lack of logistic, shortage of drugs and medical equipment, allocation is scared for the promotion and for the development and for the motivation of health personnel at the rural and remote areas. The referral system at different levels such as primary, secondary and tertiary levels is still weak. Health personnel at grass-root do not understand the roles and the functions of PHC, so that they can not fulfill their duties in caring for the people in their responsibilities, and let those people by pass to big hospitals such as provincial and central hospitals and it means that health personnel at grass root have nothing to do, while health personnel at central hospitals have so much to do.

2.6 HEALTH MANPOWER.

The main objective of health sector is to reach strategy target, promoting health of the people for longer life expectancy. On the other hand is to reach the strategy slogan of MOH "Health

for all by the years 2000".

So the roles of MOH for the present as well as for the future are such:

- Improve structure of PHC system.
- Control of infectious diseases programs.
- Promote Hygiene and Environment process.
- Provide basic drugs.
- Supervise and control of the distribution of drinks, food, drugs and toxic substances.
- Train and upgrade all levels of health personnel. Training and upgrading health personnel are the key factors to reach objectives and target to the health work. For the past 15 years, the Party, the government, and MOH had put the emphasis on the training and upgrading health personnel of all categories in the country and in overseas as well. This work is to be continued in the future with the supported fund.

Throughout the country there are different training schools such as:

Table 3: Health manpower produced from different schools in the country.

Type of schools	number	Future health delivery personnel
1. Faculty of Medicine (Univ. of Health Sciences)	1	735
2. Faculty of pharmacy	1	183
3. Faculty of dentistry (Assistant dentistry stop in 1991)	1	101
4. Faculty of dentistry (Begin in 1991)	1	17
5. School of public health	1	Periodic training to promote health personnel (1-3 month, 20-30 persons each training)
6. School of health technology (All fields including technician)	4	638
7. School of Auxiliary nursing.	16	700

The past and the present moment, these school have use their competencies to promote and upgrade continuously the lecturers, both in the country and in overseas, At the same time, the curriculum has been improved in order to train future health personnel for better quality, so that they would be active, patriotic and love their own people. So that they study hard professionally and surely hold on to the techniques, have good manners, fond of the research, have the ambition, participating in health services delivery in hospitals and in community, and on the

other hand participating for the health sector development.

In the conclusion, the training school for health services delivery in future have used many measures and ways in preparing health personnel are qualified with certain skills knowledge and good characters, ready for the participation of health services system effectively through PHC.

So, the appropriate plan in the first priority for training, for the development and for the distribution of health manpower and for effective health services.

In practices, there are still many problems need to be solved:

- The production of the schools, like future health delivery personnel are still not assured of the quality.
- Training curriculum of health personnel in different categories are not appropriate to the requirement of health situation in Laos and have no research training.
- Lecturers with master or PhD degree are very little, most of them are still young by age and by experiences in teaching methodology.
- Basic materials in the classes and in the laboratory are old fashioned types and inadequate to the actual need.
- Lack of logistics and documents for teaching library has limit number of books and medical documents and most of them are in foreign languages.
- No incentives for the motivation on the training and for the teachers or lecturers as well (no appropriate titles to match accordingly with the international for the teachers or lecturers in schools or in universities.)
- Most of the teachers or lecturers are concentrating on the teaching and take the research so easy. This is due to medical doctors or lecturers do not know how to conduct the research and do not know its objective.
- The productions (health personnel) trained locally and in overseas are chronically distributed to the central level.

2.7 FUTURE TREND.

The trend for the development and the establishment of the country is the objective of the Lao Revolutionary at the present which will be the basis for the changes in all aspects, generally including the success of new technology in the world and specifically for the development of Lao health sector.

So, the trend for the development of health sector, health research is the key factor in solving health problems and in developing health sector as well therefore, health research must served politically health sector to carry out the work like solving diseases which many people have the most such as: malaria, respiratory tract infection, parasites and socially transmitted diseases. Solving urgent problems improve effectively and in quality the preventive-curative, improve the training and the development of health manpower of all kinds effectively and in quality, adapt the environment, solving mother and child health,

gather the actual lessons in using traditional medicines for the treatment, look for traditional plants which would modify into traditional medicines, improve its quality and equitable distribution to assure the accessibility for the people especially providing to the need of basic medicines for the unchanged health in the next 5 years, such as contagious diseases, specifically malaria and parasites.Number of health manpower has increased in quantity, but quality is not assured. Drugs are not adequate to the need, and traditional medicines, not only the quality is not assured, but in quality, it is not adequate to the requirement also, and the importance is that it can not be replaced for the drugs and no assurance in taking drinks, food, drugs and substances.

Health delivery system may be improved in quality, but can not supply effectively in quantity. Many AIDS cases are existing, many cases still can not be controlled.

So, the research for health development in each level can not be avoided in order to get the optimistic change in health situation in the next 5 years for the health of the people and for the equitable health delivery, in order to improve the quality of life.

3. NATIONAL RESEARCH POLICY.

The progress of the research is one of the main factors for the socio-economic development of one country. At the present it's time for high technology, because it has the main power for production which influences the quick development in society and in the world as well.

The declaration at the 4th session of the Vth congress for the executives central party announced: view clearly the roles of the research which began in 1990, the world economics have been in competition for the research and have the intention to extent it up to the year 2000".

Actually, research in Lao PDR is new and still young, community has lack of knowledge about it, lack of exact and complete data, shortage of materials and information, limited researchers who are highly skilled. All of these are the obstacles which prevent the economic development, and the management of the research also.

For the urgent need and with the purpose of active participation in solving those above problems, so in june 1991 with the authorization of lao PDR's government, the ministry of sciences and technology has organized the seminar on research policy back ground, That was the chance for all the profession to do the research and its management use all skill and knowledge for the economic development generally and specifically for the effective development of each unit.

So, for the national research policy, it has to much with the changes at each period, espeacially according to the development of national socio-economic at that time to state on the trend of the

research and depending on the priorities problems to set up certain research project for now and for the future as well.

3.1 COUNCIL OF MEDICAL SCIENCES.

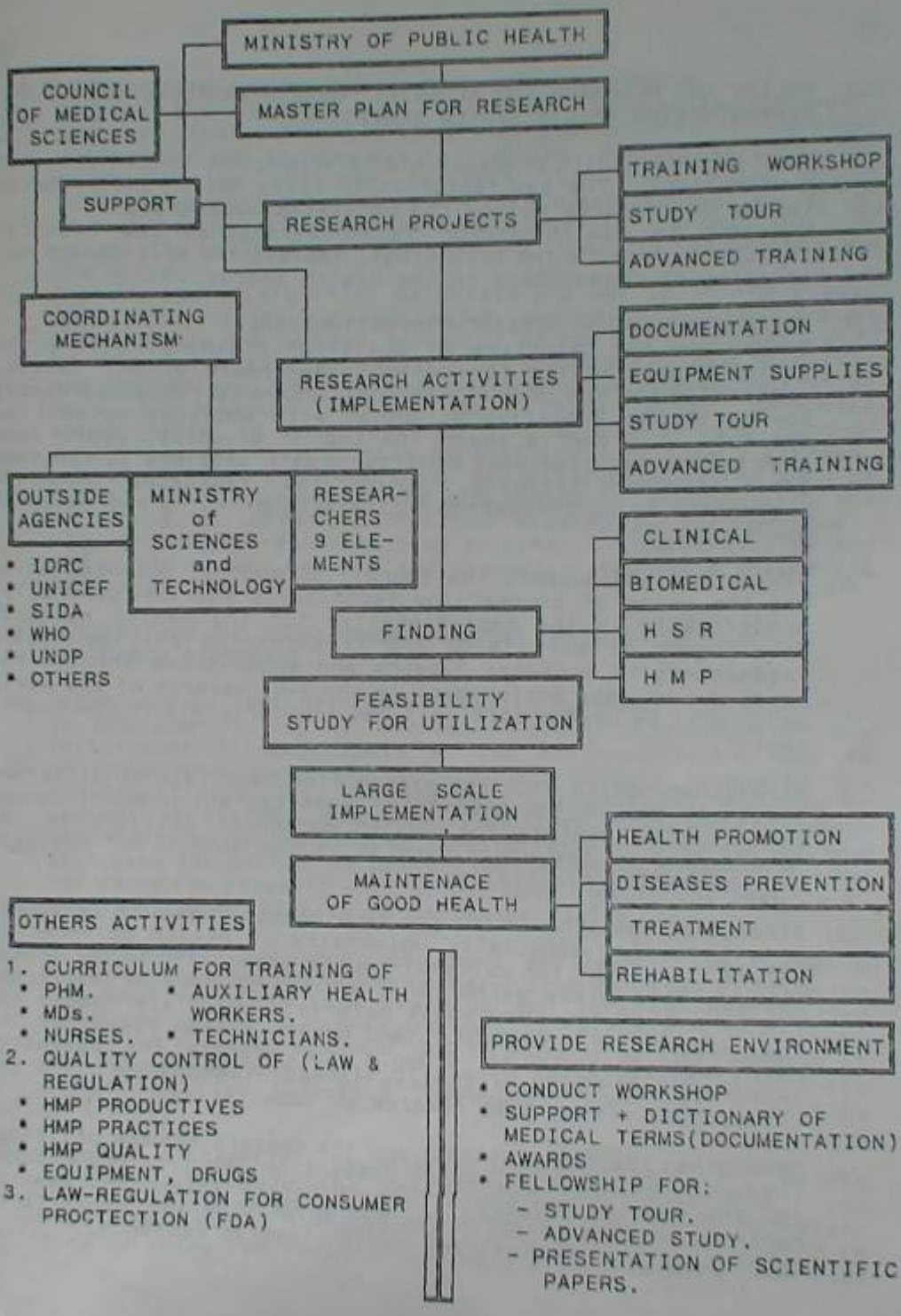
The main task of the Council of Medical Sciences is to provide on immediate and long term consultation to the MOH on medical and technological advancement and on research activities in health promotion, disease prevention, treatment with appropriate pharmaceutical and medical equipment and rehabilitation.

The council has specific roles such as:

1. Set up national health research master plan of health sector.
2. Propose the trend and the priorities of health research field for now and for the future.
3. Cooperate, especially with the ministry of sciences-technology about health research activities.
4. Support and sustain the research requirements of different fields according to the priorities, the work included: workshop, study tour, short and long term training, scientific documents and medical terms in order to establish lao medical dictionary.
5. Researchers and donors are closely related, utilizing research results to solve national health problem.
6. Look for funds or apply for the budget from the government through MOH for research implementation in the support and management of health research projects.
7. Monitor and evaluate research projects which are under the support of the council of medical sciences.
8. Co-operate with health information and education center in MOH and information center in Ministry of sciences-technology for the propaganda of the success of the local and international researchers.
9. Propose the curriculum for the development and upgrading of all kinds of health personnel promoting the competencies in the research participating in health problems solving.
10. Propose the statement for setting up medical legislation for the human rights, promoting health for health personnel and also for ethnic people.
11. Propose research policy statement in health sector, which the implementation can be relied on.

The executive committees of the Council of Medical Sciences consisted of members and subcommittees of expertized degrees, representing of 9 branch: medical section, surgical, gyneco-obstetrics, pediatric, tropical infection, ORL, dentistry, pharmacy nutrition and public health.

TABLE 4: ROLE OF COUNCIL OF MEDICAL SCIENCES



3.2. POLICY AND RESEARCH FOR ALLEVIATY HEALTH PROBLEMS AND STRENGTHENING HEALTH SYSTEM SERVICES.

To alleviate health problems and to strengthen health services system effectively, the key factor is to carry out on the research and stating on research policy (to be stated separately).

Research in health sector is to strengthen the research infrastructure, improve the technology, improve the development and the upgrading of researchers in the Health sector.

3.2.1 STRENGTHENING OF RESEARCH INFRASTRUCTURE.

a. Strengthen the structure by political training: giving the training politically for health researchers at all levels, especially for the ones at national levels to recognize deeply how to become qualified scientist with attitude as well as aptitude in order to reach the top of sciences. Apart from good behaviors, they much consider 3 main sections at the same time: teaching-training, doing the research, curative preventive or participating in the strengthening and managing health services.

b. Strengthen and support the council of medical sciences which has the roles of counselling technically for MOH generally, specifically is the representative for the health research development of all fields and is gathering all lao health researchers to exchange lessons and experiences through the trial and success achievement in the new research of the world which will be used accordingly and appropriately in the health sector.

c. Strengthen health services system like hospitals at different levels to ensure the quality of services which would become the training centers for health personnel delivery in the future, and on the other hand it is the source for research implementation clinically.

d. Strengthen the schools for the development of health personnel of all levels, especially university of health sciences to become the center for cultural-techno-scientific in the sector because this place gather all the researchers of different fields and it has some basic materials which are needed for the research in bio-medical and health system research. The main importance is to promote and upgrade the teachers-lecturers who had good success in teaching and in doing the research by giving some rewards or some titles.

e. Strengthen the institutions, and the centers for the political roles of the party in health prevention and treating disease for the people, and would turn to be the intensive research centers, because research can be implemented in 3 areas (bio-medical, clinic-medical and health, system research).

3.2.2 STRENGTHEND BASIC TECHNO-SCIENTIFIC MATERIALS.

a. Improve and enlarge the library of university, schools, centers, institutions, hospitals and council of medical sciences in MOH for the use in teaching, preventive-curative-rehabilitation and the research. Cooperate with health information and education center in MOH and information center of Ministry of Sciences-technology for announcing new scientific information regularly and timely to the country and the world.

b. Improve basic scientific materials and set up in the places where they still do not exist according to the actual situation at the central levels or at the big provinces, step by step, with special emphasis on university, big hospitals and the centers, institutions because these places consist of many professional fields which have great economics achievements in the research and experiment on techno-scientific. We have to take care of the locations (classes, equipment, chemical substances and other necessities such as books, scientific newspapers and document, according to the situation, establish labs for the research and for teaching).

c. Plan for budget-resources from internal and external aids for the establishment and the improvement of the basic scientific materials.

3.2.3 STRENGTHEN THE DEVELOPMENT AND THE TRAINING OF HEALTH RESEARCH PERSONNEL.

a. Survey and collect data on all health personnel who qualified in the country and in overseas to plan according to the requirement of each field at the national levels and in provinces throughout the country, one hand it is due to the individual capability to receive the continuous training or periodic training, short or long term training in post-university to become skilled specialist with MScs degree, who will have the duties for preventive, curative, rehabilitation and doing the research work at the same time in the hospitals, institutions or clinics in different fields.

b. Select health personnel who have skills and knowledge in teaching and like doing the research from the time of studying and send for long term training and later become skilled researcher with PhD Degree and work as lecturer in university of health sciences and continue to conduct on the research at the same time. University of health sciences should have the priorities in selecting personnel for next teaching generation.

c. Organize a scientific association within university of health sciences, becoming the center for the research in the university, draw attention of teachers-lecturers and staff within the university, especially draw attention of student to fond of doing the research and help with this work from that

time on wards in order to become researchers in the future. For this reason, Ministry must increase the fund for the health manpower development, especially development of researchers.

d. Organize the seminar on research methodology for health personnel in order to motivate on the research process for the development of health system and for the training of skilled researchers in the future, apart from this, there are study tours, international workshop and concerned scientific documentation on research.

4. BUILDING AND SUSTAINING RESEARCH CAPACITY.

4.1 THE REAL COMPETENCY.

The building and the sustaining of the research capacity in health sector are necessary and are the key factors to reach the health target from now up to the year 2000. So, for health research, to achieve the quality in diseases prevention, treatment, rehabilitation, production of drugs and traditional medicines, advanced training for health personnel of all kinds and as to solve health problems step by step. So the research will focus in the following areas:

- Area of organization and health management including health delivery personnel.
- Area of hygiene and preventive.
- Area of malaria and entomology.
- Area of MCH.
- Area of health promotion on otorhinolaryngology, ophthalmology and stomatology.
- Area of basic sciences.
- Area of pharmaceutical, nutrition and production.
- Area of medical diseases treatment.
- Area of surgical diseases treatment.

On one hand, health research is to provide new scientific information for health personnel who use new knowledge effectively in their professions continuously, which would be the important statement for solving problems technically and health problems as well.

Based on health problem area as above mentioned, the type of research included.

1. Bio-medical research.
2. Clinical research.
3. Health system research.

1. Bio-medical research is the research in the area of basic sciences,meaning biology, physiology, biochemistry, pharmacology, genetic, enzymology, bacteriology, immunology, nutrition; for example: study on women AIDS virus carriers, study on quality and standard of drug, study on immunities of children at school age, study on morbidity rate of children

who are and who are not immunized against 6 preventable diseases or incompletely immunized etc...

2. Clinical research is the experimental research in hospitals, institution or clinics, do the surveys on effective treatment through monitoring and evaluation the result. For example:

- The treatment of malaria with traditional medicine (Alcocacia macrolysa).
- New method in the treatment of pernicious fever.
- The treatment of liver cancer with one kind of traditional medicine.
- Tactics of the surgeons in front of patients with digestive hemorrhage.
- Treatment of kidney stones by lithotomy, etc...

3. Health system research is a methodology in collecting data for the use of appropriate resolution in solving health problems:

For example:

- Survey on the requirement of health personnel for the different specific fields.
- Survey on the health manpower development assuring the quality and the appropriate distribution of health manpower.
- Appropriate family planning.
- Local and cheap production of medical equipment.
- The use and pass on of appropriate technology.
- strengthen of health services.
- Evaluation on the teaching and learning.
- Evaluation on the competencies of health delivery personnel, etc...

For the effective move in the building of the research in this constraint situation, the sustaining of health research in different areas is important and necessary. So, for that reason the council of medical sciences in MOH with the cooperation with ministry of sciences and technology have to support and help fully.

* Firstly, this is to let the researchers see the importance of the research.
* Secondly, researchers must know research methodology. So, with international cooperation, a seminar should be organized on:
  - research methodology.
  - administrative and management of the research project.
  - data processing and data analysis.
  - writing research project, including project proposal for research implementation.
* Thirdly, the council of medical sciences through ministry of sciences-technology, is the one to look for funds from the international to provide to priorities research projects.
* Fourthly, monitor and coordinate until the projects's achievement.
* Fifthly, evaluation on the achievement, organize a conference to propagate on the result and utilize in the actual implementation.

4.2 INDIVIDUAL AND COLLECTIVE COMPETENCY.

Throughout the country, at moment, there are 10,079 health delivery personnel (November 1991), at the central level there are 1979 persons and 8100 persons at peripheral levels. There are 56 persons post university degree, 48 working at the central and 8 at the peripheral level (See the details in the table), for 56 persons of post university degree there are 44 with master degree and 12 with PhD degree. so, looking at the health personnel in quantity, we can see that personnel with post university degree are still little and especially the number of PhD who have written the thesis, gone through the defense and had the ability to conduct the research. But when we look at the real competencies and the interest of the collective, we can tell that there are of lost of people who got interest in this work since 1980. For the past 10 years, Dean and his deputies in University of medical sciences with Lao and Soviet medical doctors and the medical students in final year have presented some findings to scientific conferences 7 times (1980, 1981, 1982, 1983, 1984, 1985). Each time they have presented their findings by doing the survey, collecting the data on medical clinic, bio-medical, administration and health management. The 6th scientific conference has been organized in 1985 in Xiengkhouang province. It was conducted by the director and his deputies of the Lao-Mongolia hospital and with the cooperation of the university of medical sciences. In the conference lao and Mongolian medical doctors have presented their findings by doing the survey collected the data for one year and followed up. The last, 7th scientific conference was conducted in 1990, hosted by director and his deputies of the Lao-Soviet Friendship hospital. For the past conferences they were chaired by minister of MOH. He congratulated and pointed out the importance of each conference and it would be the back-ground for the health research in the future.

All of the mentioned above have demonstrated on the collective competency for the health research in earnest. We have to set up the research project with objectives and priorities in solving health problems and the project has to be recognized and supported officially as well as the manpower and the fund which can be obtained internally and externally.

4.3 INSTITUTIONAL INFRASTRUCTURE.

At the moment there are 21 departments, institutes, schools, hospitals, centers, etc... around MOH, and there are only 6 to 544 health personnel (see details in tables). There are lack and inadequate of equipment supplies, of what we have, they are not modern and useless. If we look at the needs for each field to solve health problems, and according to the collective competency, we realize that research can be carried out. For other units, including hospitals, schools, clinics or certain institutes also have the competency to conduct the research in bio-medical and clinico-medical. So in future each field has to organize or setup

a research unit. In big section like: hospitals, schools, can have many research units according to the specificity of work, some fields can set up research teams for example: Hygiene and epidemiology institute, Malaria and entomology institute, Hygiene and curative department, Tuberculosis control center, Dermatology center, Rehabilitation center, Plant research institute. The research teams have to take turn in going to the grass-root for doing the surveys, collecting data looks for ways in solving technique as well. Research infrastructure and research projects are under the support of the council of medical sciences which is under the direct supervision of MOH and with the coordination of ministry of sciences and technology.

The council of medical sciences has specific roles such as:
- manage research projects.
- coordinate local researchers with international.
- support on research projects by looking for funds and scientific documents for the research implementation and the funds for training of researchers and for scientific seminars, study tours or attend scientific conferences within the country or in overseas.

At the same time for the research units which belong to Hygiene and Epidemiology, Institute malaria, Institute and certain research units of Mahosot hospital and MCH institute which had the good background on the research already so the council of medical sciences have to support for their sustainable and becoming pilot research units for other new units.

4.4 STRATEGIES: TRAINING RESEARCH WORKSHOP, STUDY TOUR, ATTEND THE SCIENTIFIC MEETING.

To reach objectives in manáging and solving health problems improving quality of life for people, the key factor has to be solved urgently is the development of health research personnel. For the past 15 years MOH has recognized the importance of the research and personnel were trained at university and some were sent overseas for pos-university degrees. But in reality, the training, both inside the country and overseas was on the curative side more. But on the research, the training has to be broad for more experiences at the same time, especially the adaptive research and the applied research to be modernized such as: Master or PhD, so that the scientific personnel would be the beginning researchers who have the competencies and become the experienced researchers and are able to supervise on the research units or research teams in future.

To provide on the urgent requirement for researchers, we have to organize the continuous training and specific training inside the country such as:

Training scientific personnel on:
- Research methodology.

- Data collection, data analyzing.
- Training of trainers for health system research is training with quick and good result especially after this training the trainers should have:
  - the ability to plan and organize the same training.
  - the ability to report, talk, give speech.
  - give advice on the techniques on the research topic to the selected research project.
  - monitor the research project which is taken as one part of the training.
  - give advice on statistics about research project
  - able to manage on the training (finance, transport and other facilitating).

According to the real situation and the specificity, the trainers are able to plan organize and responsible for different training such as:

- the training for project proposal,
- the training for data collecting and data analyzing and report writing,
- the training for sustaining and maintaining the activities on health system research.

So, in the future the training as mentioned above is very necessary and can not be avoided, can be done inside the country or in overseas. This is so, to provide the urgent requirement on research personnel and to improve the basic skills and knowledge, improve on efficiency of the research in all levels.

At the beginning to do this training in the country, external experts (resource person) are needed for supervising, organizing the implementation, supporting with funds and in future we can manage it ourselves.

CONCLUSION: To reach strategies of health sector, we have to accelerate on 5 big areas:

1. Conduct a brainstorming session among researchers.
2. Council of Medical Sciences, with the cooperation of manpower development department should plan and state on training types for research personnel for 5 years starting from now till the year 2000 and send for the training in overseas, especially in Thailand, neighboring country, so that we don't have language problem or in other countries.
3. Improve the research infrastructure of Health sectoras in the forms or types mentioned above.
4. Coordinate with Ministry of sciences-technology for fund, organizing the training of trainers at national levels twice (1992-1993). Next authorize one field (may be university of health sciences) to set up system for training research personnel at university levels (begin at the time of students) and at post university continuously.
5. Organize on the job training inside the country and in

overseas, including study tour,attending scientific conference in the pacific or international level.

4.5 DOCUMENTATION.

Documentation is important and necessary for the use and the propaganda of information and the research result including: library, information bank and information analysis section.

In health sector there is one library in university of health sciences which has about 30.000 books, consisted of about 20.000 titles or topics in lao, French, English, Russian, Thailand and Vietnam (most of them are in French and at the Ministry of sciences-technology, there is one library with 20.000 books including 1.51 books about medical sciences.

For the good use of the library and for the researchers or research personnel to be able to get more references and information, so there is a need to strengthen and reorganize in the library, the way of arranging, registration by international rules, according to the numbers and the books titles, especially the librarian should have proper training on this. for tne very near future MOH should supply with some budget in order to buy some needed books for the research in the health sector. Apart from this we should get some aids to get more books with the topics in need. Apart from the library in university of Health sciences, centers, institutes, schools, hospitals and Council of Medical Sciences should have their own libraries and first of all to have books concerned about their fields, at the same time improve the information center to provide information according to the requirement.

For the propagation of research result, we can pass througn health information and education center, apart from this, information center in Ministry of sciences-technology with good cooperation, will propagate or the research result and follow-up the practice in health and medical sciences.

5. INTERNATIONAL SCIENTIFIC RELATIONS.

Health research is necessary for health sector development and for the health of the people. To reach objectives and apart from all the efforts of health manpower, the international cooperation is also very necessary for sustaining and assuring the effectiveness and the efficiency of health development.

Objective for international cooperation is not only for budget purpose, but sharing new research methodology, new knowledge and knowing how to plan and implementing the research too. On one hand the international cooperation is also sharing or exchanging experiences in the use of modern equipment, technology and data collection, survey the use of new techniques and the evaluation of the research result.

On the other hand the international cooperation is saving the fund,

manpower, supplies and avoiding the duplication and saving time for the research implementation.

So the international cooperation must be in the form of:

- Health manpower development especially researchers development.
- Exchange the research result.
- Cooperate with foreign experts in the research under certain topics based on bilateral or multilateral cooperation for the usefulness of countries concerned.
- Establish scientific journal, create translated teams and publishing scientific journal monthly.
- Exchange technical personnel for study tour.
- Train on technical: the job training.
- Attend scientific seminar.
- Attend scientific conference.

For the establishment and sustaining of health research sector at the beginning, we are lack of experiences, research methodology, management and budget. So for international cooperation and aids for now and future are most needed, especially with the cooperating of IDRC Canada which has head office in Singapore and with Mahidol University in Thailand which in the future will have cooperation with specific fields such as: nutrition project in Lao should cooperate with Nutrition institute, health administration with Faculty of Public health, or Malaria with Faculty of tropical medicine at Mahidol University, etc..., cooperate with People's Republic of China; and other International organizations like WHO, SIDA, UNDP, Save Children Fund, French, Germany, Australia, etc...evidently with international cooperation in any fields, country's policy on foreign cooperation must be respected and followed, with 5 principals of being together, peacefully working together, no interference of one another, for each other benefits. The main thing is that we have to be ourselves sustaining the research managerial, able to evaluate the techniques of each side, evaluate on the advantages more than the disadvantages and etc... the most importance is that we have to be careful always, take the action of decisions-making and sign the contract with stated time exactly for implementation each, and finally evaluate on the achievement, use of the new technology, step by step participate in the progress of the scientific-technic of the world.

However, council of medical sciences will carry its roles and use all efforts in order to get external aids not only on technology, but for sustaining other research units as well.

6. MASTER PLAN FOR IMPLEMENTATION, MONITORING AND EVALUATION.

Council of medical sciences has the duties to implement, Coordinating each research unit specifically, but generally monitoring and evaluation on master plan.

The roles of the Council of Medical Sciences committees are as such:

- Supervise annually on the implementation of each research unit, attend yearly scientific meetings of each unit.
- Give advice on implementation of the plan such as: organize research unit, reporting on the topic and the contents for yearly evaluation.
- Look for needed funds and supplies.
- Evaluation on the researchers achievements each year for appropriate incentives or rewards. The objectives of yearly supervising and evaluation are:setting up of necessary information,selecting the priorities, extending its uses.
- Evaluation of the implementation's effectiveness of each research unit.

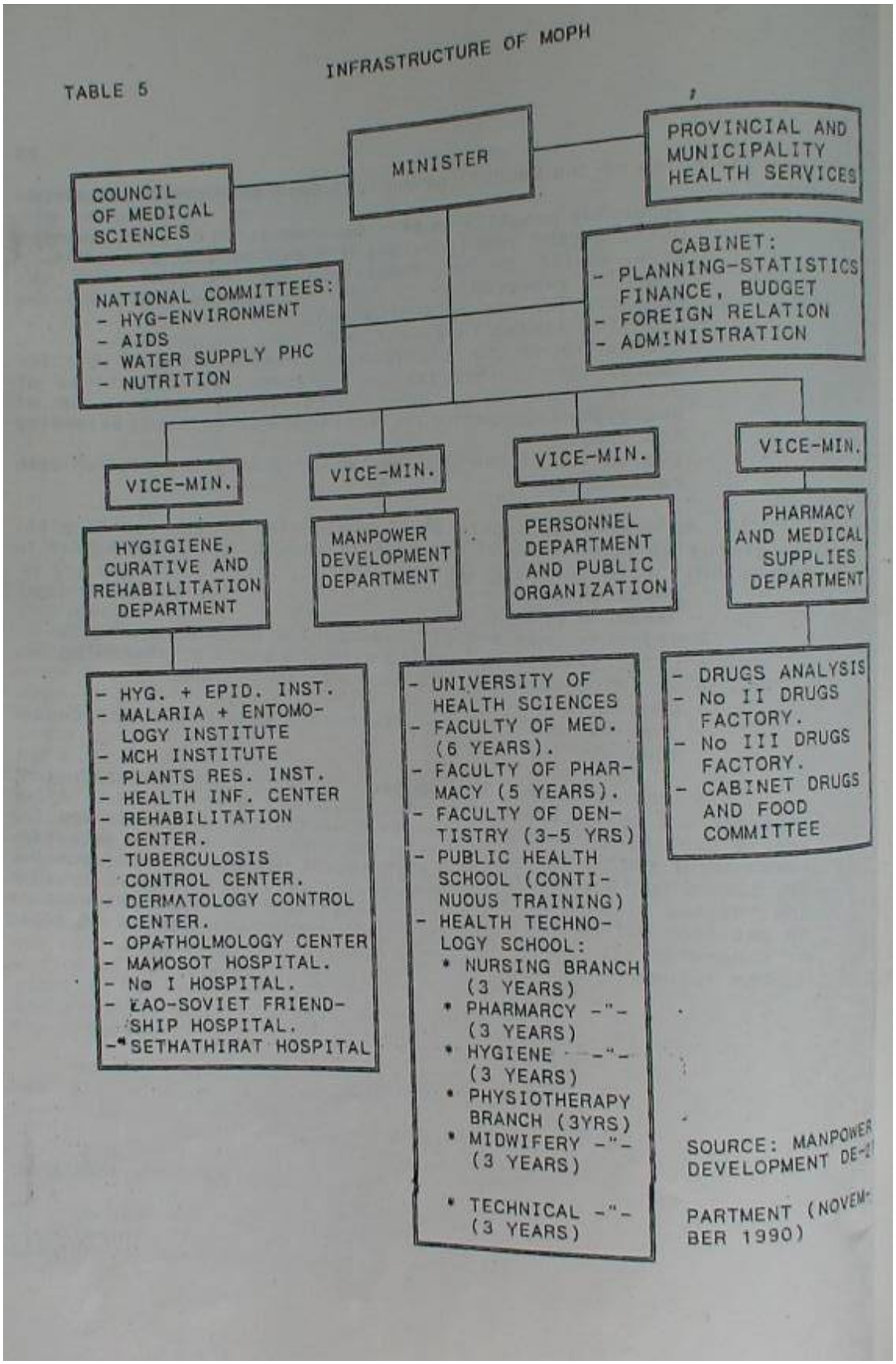
In implementing, supervising, evaluating of the master plan, the executive committees of the Council of Medical Sciences have to depend on the following criteria:

- Research policies.
- Research priorities.
- Effectiveness and efficiency of 9 programs elements.
- Effectiveness in working with the users of technologies.
- Staffing pattern and manpower development.
- Budget levels.
- Institutional infrastructure development process-indicator.

This master plan is supposed for 5 years implementation, regarded as quite short time for actual plan of action. After yearly meeting of medical sciences council, the proposals and the ideas about yearly evaluation of those committees will be gathered. So, according to the need of health sector research at each period, the advises of ministers of MOH, the priorities of health problem in addition with the advises of foreign experts (resource persons or supervisors). The master plan can be adapted, changed or added in the future.

TABLE 5

INFRASTRUCTURE OF MOPH



SOURCE: MANPOWER DEVELOPMENT DEPARTMENT (NOVEMBER 1990)

TABLE 6

LIST OF HEALTH PERSONNEL

ORDER	CATEGORIES OF PROFESSION	PLACES OF WORKING CENTRAL	PERIPHERAL	TOTAL
1	POST UNIVERSITY	48	8	56
2	HIGH LEVELS	580	445	1025
3	MIDDLE LEVELS	736	2014	2750
4	NURSES	395	5121	5516
5	PERSONNEL OF NON - PROFESSIONAL	220	412	632
	T O T A L	1979	8000	9979

SOURCE: COLLECTED IN NOVERMBER 1991
(MANPOWER DEVELOPMENT DEPARTMENT. MOH)

TABLE 7

HEALTH PERSONNELS IN DEPARTMENTS, INSTITUTES, SCHOOLS AND HOSPITALS AT THE CENTRAL LEVEL.

ORDER	DEPARMENTS	POST UNIVERSITY	HIGH	MIDDLE	NURSES	NON PROFESSIONAL	TOTAL
1	MINISTER AND VICE MINISTERS	2	3	0	0	0	5
2	CABINET	1	12	12	16	1	42
3	MANPOWER DEVELOPMENT	1	7	2	2	0	12
4	HYGIENE AND TREATMENT	2	8	1	1	0	12
5	PHARMACY	0	14	0	1	1	16
6	COUNCIL OF MEDICAL SCIENCES	2	3	0	0	0	5
7	FRIENDSHIP HOSPITAL	5	69	158	49	41	322
8	FOOD AND DRUGS COMMITTES	1	5	0	0	0	6
9	MAHOSOT HOSPITAL	10	122	199	161	62	554
10	No 1 HOSPITAL	11	13	17	21	8	70
11	TRADITIONAL MEDICINE HOSPITAL	0	10	1	5	0	16
12	HYGIENE AND EPIDEMIOLOGY INSTITUTE	3	37	17	7	4	68
13	MCH INISTITUTE	4	20	2	4	0	30
14	PLANTS RESEARCH INSTITUTE	1	11	8	15	3	38
15	MALARIA INSTITUTE	1	13	10	12	0	36
	T O T A L	44	347	427	294	120	1232

SOURCE: MANPOWER DEVELOPMENT DEPARMENT MOH 6/12/1991.

TABLE 8

HEALTH PERSONNELS IN DEPARTMENTS, INSTITUTES,
SCHOOLS AND HOSPITALS AT THE CENTRAL LEVEL.

ORDER	DEPARMENTS	POST UNIVERSITY	HIGH	MIDDLE	NURSES	NON-PROFESSIONAL	TOTAL
1	REHABILITATION CENTER	0	13	61	16	14	104
2	DERMATOLOGY CENTER	2	8	5	12	3	30
3	TUBERCULOSIS CENTER	0	13	16	8	1	38
4	DRUGS RESEARCH CENTER	3	3	0	1	0	7
5	HEALTH INFO.SYST. CENTER	1	12	11	6	0	30
6	OPTHAMOLOGY CENTER	1	3	4	2	2	12
7	FACULTY OF HEALTH SCIENCES	6	68	27	10	14	125
8	HEALTH TECHNOLOGY SCHOOL	0	24	47	4	0	75
	DOCTOR ASSITANT SCHOOL						
	IN LUANG PRABANG	0	6	6	2	4	18
9	DOCTOR ASSISTANT SCHOOL						
	IN CHAMPASAK	1	7	8	2	6	24
10	NURSERY CENTER	0	1	22	6	7	36
11	No II DRUGS FACTORY	0	23	25	8	5	61
12	No III DRUGS FACTORY	0	21	41	19	42	123
13	DRUGS SOCIETY	1	4	8	5	2	20
14	DRUGS ESTATE	0	4	0	0	0	4
15	STUDY IN OVERSEAS	0	22	28	0	0	50
	T O T A L	15	232	309	101	100	757

BOURCE: MANPOWER DEVELOPMENT DEPARMENT MOH 6/12/1991.

Part II: Priorities of Health research

Health research projects.

PART II: HEALTH RESEARCH PROJECTS.

A. BRANCH: BASIC SCIENCES.

1. TITLE OF PROJECT: COMPONENT AND BIO-CHEMICAL SUBSTANCE IN BLOOD OF NORMAL LAOTIAN HEALTHY PERSON.

- Characteristic of Project:
  This research has to focus on the component of bio-chemical substance in blood of normal healthy adult and children by using new technology combined with existing methods. This research will use material from Mahosot Hospital and University of Health Sciences. It will be divided into two parts:
  Research on formula of white blood cells and research on bio-chemical component of blood. There will use 200 sample per year.

- Objectives:
  * To use as tool for appropriate diagnosis and effective treatment.
  * To get standard data of normal healthy laotian.
  * To compare these date with European healthy people as used previously.

- Executing institutions:
  * Mahosot hospital
  * Faculty of Medicine

- Studied area:
  * Students at faculty of medicine
  * Mahosot hospital (Hematology unit)
  * Faculty of medicine (Microbiology unit)
  * Saythany district.

- Duration: 5 years

- Budget estimated: 71,415.00 US $
  (14,283.00 US $)

- Result of expected outcome: Implementation of Program will be completed 100% within 5 years.

2. TITLE OF PROJECT: DETECTION OF UTERINE'S CANCER FOR WOMEN WITH LESS CHILDREN AND WOMEN WITH MORE CHILDREN BY USING ANAPATHOLOGY STUDY OF ILL PATIENTS.

- Characteristic of Project:
  This is the study of data collection related to the evolution of cells in urine of women with less and more children. Whoever could be more factor at risk to be

cancer it will have to take measure for curative, preventive and classify the cancer in comparing with other countries.

- Objectives:
  * To search causes of Dysplasia by early diagnosis of primary stage of uterine cancer.
  * To classify uterine cancer of young lao women.
  * To take measure of curative and preventive matter.

- Execution institutions:
  * Ana-paht unit of Faculty of Medicine (University of Health sciences LPDR).

- Study areas:
  Hospitals in Vientiane municipality and other outpatients consultation.

- Duration: 5 years.

- Budget estimated: 62,250.00 US $
  (12,450.00 US $ / year)

- Result of expected outcomes:
  Implementation of program will be completed 100 % unless unpredicted change of responsibilities involved.

B. BRANCH: HYGIENE, EPIDEMIOLOGY AND TROPICAL DISEASES.

1. TITLE OF PROJECT: EPIDEMIOLOGICAL SURVEY OF "STONE" KIDNEY AND TO FIND OUT APPROPRIATE MEASURE OF PREVENTION IN SAVANNNAKHET PROVINCE.

- Characteristic of project:
  Research team work will investigate in the field by selecting one pilot district. The "kidney stone" will send to study with team work of french medical doctors.

- Objectives:
  1. To study causes of kidney stone in LAO PDR and especially in Savannakhet province.
  2. To take measure of preventive and curative matter in appropriate way.

- Executing agency: Provincial hospital of Savannakhet.

- Study area: Rural community.

- Duration: 3 years

- Budget estimated: 6,000,000.00 Kips
  (2,000,000.00 Kips/year)
- Expected outcomes:
  * Contribution for the large scale in PHC activities, mostly health education in minority ethnic group aiming to attain HFA/2000.
  * It is emphasized to prevent occurrence kidney stone in children.

2. TITLE OF PROJECT: EPI PROGRAM WITH SOME IMPACT IN THE HEALTH SYSTEMS.

* Characteristic of Project:
  - Problem priority in health system in LAO PDR.
  - Coverage of children under 2 years and women 15-45 years.
  - Key structure to improve health system at periphery level - one component of PHC.
  - Susceptible to the policies of government in the health promotion of mother and children.

- Objectives:
  * To analyze effectiveness of EPI program, impart on morbidity and mortality of children and women.
  * To evaluate system of EPI Program in the health system at whole in order to compare with other component of PHC.

- Executing agency: Institute of Hygiene, epidemiology (EPI Program)

- Study area:
  Some villages of district in every province and municipality that could be representative of health system. It is included other health facilities with outpatients consultation.

- Duration: 5 years

- Budget estimated:

	46,000.00 US $
1992:	10,000.00 US $
1993:	8,000.00 US $
1994:	8,000.00 US $
1995:	8,000.00 US $
1996:	12,000.00 US $

- Expected outcomes:
  1. To determine appropriate ways of strategy if given priority to EPI Program as component of PHC.
  2. With lessons learned, it should be apply to other area or not.

3. To evaluate cost/effectiveness.
4. to certify the role, the effective and effectiveness of EPI Program in the health system in order to improve health status of population.
5. To strengthen health system of all faciiities.

3. TITLE OF PROJECT: COVERAGE OF WATER SUPPLY, WASTAGE DISPOSAL, MAIN ACTIONS TO SOLVE PROBLEMS OF PUBLIC HEALTH.

- Characteristic of Project:
  1. To carry out survey, collection and analysis of data, demand and need of community in the health systems at districts communes and villages levels (targeted area)
  2. To consult and research, determine primarily action plan at districts, provinces.
  3. to study data at central, province, district, communes in targeted area.
  4. To participate in the implementation at targeted area (district, commune, villages)
  5. To supervise, evaluate program implementation and to take lessons learned.
  6. To report result of program implementation to districts, provinces and institutions.

- Objectives:
  1. To collect realistic data of theses areas.
  2. To look at way of overcoming problems step by step.
  3. To stimulate district, provinces, and central to be able to make improvement of their action plan.

- Executing agency:
  Institute of Hygiene, epidemiology
  (Hygiene and water supply unit)

- Study area:
  1. Vientiane Municipality.
  2. One province in the north.
  3. One province in the south.

- Duration: 3 years

- Budget estimated:

1993:	7,500.00 US $
1994:	2,000.00 US $
1995:	2,500.00 US $
	3,000.00 US $

- Result of expected outcomes:
  1. To get realistic basic data.
  2. To use, based on this information, for starting

program in other provinces.
3. To be villages, districts, provinces models for the program of water supply and sanitation that means improvement of health care of the community.

4. TITLE OF PROJECT: DISTRICT AS AREA OF STRATEGY, KEYS TO STRENGTHEN HIGH COVERAGE IN LAO PDR.

- Characteristic of Project:
  - Characteristic of high coverage in the whole country.
  - Special targeted population.
  - Particularly related to the organization of districts, provinces and other public organization.
  - Characteristic of long range to be priority of public health activities.
  - Contribution to the reduction of morbidity and mortality in women and children.

- Objectives:
  - To determine if strategy implemented is appropriate or not.
  - To take lessons learned from strategy implemented.
  - To use and develop strategy as process of this health sector as whole.
  - Contribution to the improvement of health infrastructure at peripheric level.

- Executing agency:
  Institute of Hygiene-epidemiology (EPI Program unit)

- Study area: Every province and some districts of provinces by using sampling and 30 cluster-survey.

- Duration: 3 years

- Budget estimated: 30 000.00 US $ (10,000.00 US$ / year)

- Expected outcomes:
  1. To define positive or negative impact of strategy used by MOH.
  2. To participate to the improvement of EPI Program more effective that the objectives could be attained.
  3. With these lessons learned, it will apply or modify strategy at early as possible.
  4. Ability to apply these lessons as strategy of PHC implementation of MOH.
  5. To participate for strengthening management of health system.

5. TITLE OF PROJECT: ERADICATION OF POLIO IN LAO PRD IN 1995

- Characteristic of Project:
  - Urgent needed and necessary to eradicate polio from LAO PDR in 1995 as accepted the goal of WHO of western Pacific region.
  - Among 6 countries of Western Pacific Region, LAO PDR is endemic area of this disease.
  - It is one activity of EPI Program

- Objectives:
  - To determine and identify if LAO PDR be able to eradicate this or not.
  - To find out difficulties and constraints if not eradicate in this period.
  - To give lessons learned to other countries.

- Executing institution:
  Institute of Hygiene and Epidemiology (EPI Program unit)

- Study area:
  Every province and municipality of Vientiane by taking districts and villages with 30 cluster-survey and sampling.

- Duration: 5 years.

- Budget estimated:

	44,000.00 US $
1992:	10,000.00 US $
1993:	8,000.00 US $
1994:	8,500.00 US $
1995:	8,000.00 US $
1996:	10,000.00 US $

- Expected outcome:
  1. To assure if polio will eradicate from LAO PDR or not as goal of WHO.
  2. Improvement of health care particularly stimulation of coverage.
  3. Lessons could be applied to eradicate other diseases such as tetanus for childbirth, measles.
  4. to assure that LAO PDR has acnieved its goal in 1995 according to WHO policies.
  5. To participate in strengthening health systems.

6. TITLE OF PROJECT: SURVEY OF HUMAN INFECTED OF HBs Ag.

- Characteristic of Project
  Survey to obtain human infected HBs Ag.

- Objectives: To estimate human infected HBs Ag in the whole country.

- Executing institution:
  - Laboratory service of virology.
  - Institute of Hygiene epidemiology.
- Study area: Provinces (Vientiane, Luang Prabang, Savannakhet, Pakse).

- Duration: 3 years

- Budget estimated: 17,520.00 US $ (5,840.00 US $ / year)

- Expected outcome: Base on this data, to take measure of prevention.

7. TITLE OF PROJECT: MALARIA AND DRUG RESISTANCE.

- Characteristic of Project: It could be divided into two phases:
  - Research on effectiveness of antimalarial drug at present situation and effectiveness of combined drug.
  - In dept research on effectiveness of high potential action of drug or command drug (take 2-3 types) in LAOS.

- Objectives:
  To follow regularly situation of antimalarial drug against P. Falciparum in order to have more effective for the treatment of malaria.

- Executing agency: Institute of Malaria, Parasitic diseases and Entomology.

- Study area: one province.

- Duration: 2 years.

- Budget estimated: 229,930.00 US $ (excluded consultant's fee)

- Expected outcome: To reduce budget on spending to by unnecessary antimalarial drugs. As the same time to increase quality of treatment of malaria.

8. TITLE OF PROJECT: BIOLOGICAL CYCLE OF ANOPHELES VECTOR.

- Characteristic of Project:
  Program of long range because of it will have to collect data on specific characteristic of

Anopheles vectors of all provinces. Better to cooperate with endemicity of malaria Program.

- Objectives:
  To determine distribution and habits of mosquitoes vectors in Laos, relationship between vector and environment. - Executing institution:
- Execution agency: Institute of Malaria, Parasitic diseases and Entomology.
- Study area: All province in country.
- Duration: 5 years.
- Budget estimated: 580,670 US $ (excluded consultant's fee)
- Expected outcome:
  To have appropriate control of vectors especially the use of insecticides in specific areas. This process will reduce the expenditure of budget and also control environment.

9. TITLE OF PROJECT: EPIDEMIOLOGICAL STUDY ON PRIMARILY STAGE OF CANCER'S LIVER IN LAO PDR.

- Characteristic of Project:
  Program with epidemiological characteristic, to study factors of liver's cancer occurrence in Laos that are problems of public health. Study will aim at people with liver symptoms. Team research combined with expertise skill from entero-gastric, radiology, anatomiplogy and laboratory.
- Objectives:
  1. To identify characteristic and type of liver's cancer of laotian.
  2. To study factors on socio-economic, living conditions and other factors that are possible to be causes of cancer and to take measure of prevention.
- Executing agency: Mahosot hospital.
- Study area: Mahosot hospital and hospital 103.
- Duration: 5 years.
- Budget estimated: 20,000.00 US $
  (first year 15,000.)) US $ and after, each year 1,400.00 US $)

- Expected outcome:
  To identify type of liver's cancer of laotian, causes and factors of occurrence and after to take measure of prevention in order to reduce this cancer.

10. TITLE OF PROJECT: LEVEL OF RESISTANCE OF JAPANESE ENCEPHALITIS.

- Characteristic of Project:
  Survey to determine amount of antigen in cobay blood and to identify if species of antigen persisted or not.

- Objectives: To determine if in Laos this antigen exists.

- Executing agency: Institute of hygiene-epidemiology (Laboratory of Virology)

- Study area: Provinces : Vientiane, Luang Prabang.

- Duration: 3 years.

- Budget estimated: 10,872.00 US $ (3,624.00 US $ / year)

- Expected outcome:
  With results obtained, it is proposed to take effective measure for prevention.

11. TITLE OF PROJECT: - STUDY ON MOSQUITOES.
- EPIDEMIOLOGICAL STRATIFICATION.

- Characteristic of Project·
  - Program of long range, it is necessary to carry out malaria survey on spleen palpation, geographical situation of each province, as the same time to carry out blood survey.
  - coordination with program of mosquitoes vectors.

- Objectives:
  To reduce malaria cases based on data of enlargement of spleen and parasite rate according to geographical situation.

- Executing institution: Institute of malaria, Parasitic diseases and Entomology.

- Study area: All provinces in country.

- Duration: 5 years.

- Budget estimated: 580,670.00 US $ (not included consultant's fee)

- Expected outcome:
  To have appropriate control of malaria and to reduce unnecessary expenditure of government budget.

12. TITLE OF PROJECT: SCHISTOSOMIASIS SITUATION.

- Characteristic of Project:
  Long period of research because of survey at every village near the river less than 6 Km (survey could be carry out at all villages of Mekong river). Survey on snail collection and identify them. Study on dog, cat, buffaloes...)

- Objectives:
  Collection of data on schistosomiasis in the whole country. Places defined their distribution.

- Executing institution: Institute of Malaria, Parasitic diseases and Entomology.

- Study area: All villages near mekong river.

- Duration: 5 years.

- Budget estimated: 417,343.00 US $ (not included boat and consultant's fee)

- Expected outcome:
  If program has implemented, it will have to reduce this parasitic disease and at lat to eradicate this.

C. BRANCH: DEVELOPMENT-ORGANIZATION ON HEALTH MANAGEMENT.

1. TITLE OF PROJECT: ASSESSMENT OF PERFORMANCE OF HEALTH PERSONNEL PRODUCED BY UNIVERSITY OF MEDICAL SCIENCES FROM 1987-1991.

- Characteristic of Project:
  This program has characteristic of assessment of performance of health personnel in 17 provinces.

- Objectives:
  1. To asses skill and knowledge in their practical work for health care of people.

2. to look for ways to improve quality of their performance that they were already trained from University of Medical Sciences.
3. It aims is to improve curriculum of teacning methodology that is related to the realistic health situation.

- Executing agency: University of Medical Sciences.

- Study area: Health service of provinces (17 provinces) and municipality.

- Duration: 1 year.

- Budget estimated: 6,000.00 US $

- Expected outcome:
  1. Possible to measure their practical work for health care service of people and to look at their improvement.

  2. To improve curriculum of teaching methodology that is not related to the realistic health situation.

2. TITLE OF PROJECT: STUDY SURVEY OF PERI-NATAL DEATH IN LAO PDR.

- Characteristic of Project:
  Program as pilot study to supervise and evaluate, and improve basic needs of health personnel and health facilities at peripheric level as areas selected.

- Objectives:
  1. To get data on peri-natal death (this do not exist before).
  2. With this data, it will help appropriate planning for health care service of mother and children in order to reduce their mortality rate and also to look for causes of death.

- Executing agency: School of Public Health.

- Study area: Mahosot hospital, Sethathirat hospital, Hospitals of Bokeo, Luang Prabang, Khammouane, Savannakhet, Champasak, Attopeu, Xiengkhouang.

- Duration: 2 years

- Budget estimated: 3,992.00 US $
  (1,996.00 US $ / year)

- Expected outcome:
  1. It could be basic data to compare with other provinces and other countries.
  2. To get mostly causes of morbidity of mother and children and to look for measure of prevention.

3. TITLE OF PROJECT: STRENGTHENING HEALTH FACILITIES FOCUSSED AT DISTRICT LEVEL IN REMOTE AREAS.

- Characteristic of Project:
  Program as pilot study to supervise and evaluate, and improve basis need of health personnel and health facilities at peripheric level as areas selected.

- Objectives:
  1. To seek for situation of health care facilities in remote areas and to find out ways to solve problems.
  2. To find out problems of health infrastructure in remote areas and to propose solutions to solve these problems.

- Executing agency: School of Public Health and department of health personnel.

- Study area: Provinces of vientiane, Savannakhet, Champasak, and Luang Prabang (each province takes 2 districts remote areas)

- Duration: 2 years.

- Budget estimated: 12,000.00 US $
  (6,000.00 US $ / year)

- Expected outcome:
  1. To know wny health care service for people do not be functioning.
  2. To help to solve or improve health care service in the remote area in the future.

4. TITLE OF PROJECT: ESTABLISHMENT OF HEALTH STATISTIC CENTER FOR COLLECTION OF DATA AT DISTRICT PARLAY (SAYGNABOURY PROVINCE).

- Characteristic of Project:
  Program as pilot study to supervise and evaluate, and to improve basic needs of health personnel and

  health personnel at peripheric level as areas selected.

- Objectives:
  1. To have all health data from low levels.
  2. To be district model first at parlay district.
  3. To be acceptable and more realistic to report data collection to MOH.

- Executing agency: School of Public Health and department of health personnel.

- Study area: District of Parlay and other 4 district of Saygnaboury.

- Duration: 3 years.

- Budget estimated: 15,000.00 US $
  Year I = 10,000.00 US $
  Year II = 3,000.00 US $
  Year III = 2,000.00 US $

- Expected outcome:
  1. To set up solid center in practical work.
  2. Should be extracted lessons learned for other districts and provinces.
  3. to report available health information to department of health Planning and Statistic at MOH.

5. TITLE OF PROJECT: STRENGTHENING HEALTH FACILITIES FOCUSSED AT DISTRICT LEVEL IN URBAN AREAS.

- Characteristic of Project:
  Program as pilot study to supervise and evaluate, and improve basic needs of health personnel and health facilities at central level as areas selected.

- Objectives:
  - To seek for situation of health care facilities in urban areas.
  - To find out problems of health infrastructure in Municipality and to propose solutions to solve these problems.

- Executing agency: School of Public Health and department of health personnel.

- Study area: 2 districts in urban area of Municipality.

- Duration: 2 years.
- Budget estimated: 12,000.00 US $ (6,000.00 US $ / year).

- Expected outcome:

To help to improve quality of health care service mostly health infrastructure in urban areas.

6. TITLE OF PROJECT: ANTIMALARIAL ACTIVITIES THROUGH PHC.

- Characteristic of Project:
  Malaria is endemic disease and more widespread in Laos. Children, pregnancy and old people are considered as high risk group. Antimalarial Program was already launched and carried out its activities through the country, but selected one province as pilot study that got more effective measure of prevention. It is then based on these experiences to start Project of antimalarial activities through PHC in this province for PHC implementation of antimalarial activities.

- Objectives:
  1. To reduce morbidity of population at risk.
  2. To reduce mortality due to malaria in high endemicity of malaria.
  3. To train community health workers able to understand symptomatology of malaria and to give appropriate treatment.

- Executing agency:
  1. Institute of malaria and parasitic diseases.
  2. department of Hygiene, curative and rehabilitation.
  3. Health service at all level in Champasak province.

- Study area: Champasak province.

- Duration: 2 years.

- Budget estimated: 40,000.00 US $ (20,000.00 US $ / year)

- Expected outcome:
  1. Population in high endemicity of malaria would receive treatment for the first contact with health personnel and morbidity, mortality due to malaria would reduce.
  2. community Health workers at village level will have more skill and knowledge for appropriate treatment of malaria.

7. TITLE OF PROJECT: CONTROL OF IODINE DEFICIENCY DISORDERS (IDD) THROUGH PHC.

- Characteristic of Project:
  IDD is the major problems of public in LAOS. The

people in mountainous area are more affected. IDD control measure in the past was limited in some area. It is then necessary to take some specific measure to control IDD in the whole country focussed at mountainous area (remote area).

- Objectives:
  1. To reduce prevalence of goiter in mountainous area focussed at children of 6-18 years old.
  2. To improve health status of population better than before.
  3. To stimulate agricultural production in the country.

- Executing agency:
  1. Department Hygiene, curative and Rehabilitation.
  2. Health service of province, district, commune and village administrative.
  3. national commercial center, at province and at district.

- Study area: Provinces of Luang Namtha, Oudomxay, Bokeo, Phongsaly, Saravanne, Champasak, Sekong, Vientiane.

- Duration: 5 years.

- Budget estimated: 300,000.00 US $
  (60,000.00 US $ / year)

- Expected outcome:
  If program was carried out in mountainous area, people 6-18 years old would be protected from IDD.

D. BRANCH: INTERNAL MEDICINE.

1. TITLE OF PROJECT: CONTROL OF IDD IN SAVANNAKHET PROVINCE.

- Characteristic of Project:
  - Salt production in Savannakhet can be sufficiently covered for its population and also for its neighboring provinces, but salt is not iodized.
  - To make iodize salt and distribution for population in area of high encemicity of goiter.
  - To combine this measure with oral iodized oil in capsules and in injection.

- Objectives:
  To reduce prevalence of goiter with simple methodology and low cost.

- Executing agency: provincial hospital in Savannakhet.

- Study area: remote villages.

- Duration: 3 years.

- Budget estimated: 8,329.00 US $

- Expected outcome:
  Reduction of mental retardation of people and reduction of morbidity and mortality due to IDD. Its prevention needs to take regularly iodized salt for the whole community.

2. TITLE OF PROJECT: TREATMENT OF SEVERE MALARIA IN SAVANNAKHET HOSPITAL.

- Characteristic of Project:
  To rehabilitate and strengthen ICU, the rate of malaria cerebral is quite high compared with other diseases in Savannakhet hospital. It is necessary to send physicians to train in this matter and after to bring all equipment needed to be used.

- Objectives:
  - To reduce mortality rate due to malaria in Savannakhet hospital.
  - With experiences gained from malaria treatment, it will be used for other provinces in the country.

- Executing agency: Savannakhet provincial hospital.

- Study area: ICU of provincial hospital.

- Duration: 3 years.

- Budget estimated: 8,390.00 US $

- Expected outcome:
  - Reduction of mortality due to severe malaria.
  - To get basic for research in the future and with these experiences it is important to present to medical students.

3. TITLE OF PROJECT: CONTROL OF TUBERCULOSIS IN LAO PDR.

- Characteristic of Project: Whole country.

- Objectives:
  1. To find out all cases of tuberculosis and to give appropriate treatment.
  2. To reduce number of tuberculosis cases that they will not be problem of Public Health.

- Executing agency: Antituberculosis Center ant MOH.

- Study area: Antituberculosis Center at MOH.

- Duration: 10 years in order to limit source of transmission.

- Budget estimated: 100,000.00 US $ / year.

- Expected outcome:
  Positive impact for health improvement but take very long period.

4. TITLE OF PROJECT: CONTROL OF CARDIO-VASCULAR DISEASE (RHEUMATISM, HYPERTENSION, HEART FAILURE).

- Characteristic of Project:
  Program as research on prevention of disease: rheumatism, hypertension as high prevalence in lao people. It has trends to get cardio-vascular more predominant in LAO PDR. as the same time, heart failures was found more and more higher in urban city that needed to collect data in order to have good prevention. This is also related to international day (1992) for prevention and control of heart disease.

- Objectives:
  Study research on rheumatism, hypertension and heart failure especially in la population.

- Executing agency: Lao-Soviet Friendship hospital.

- Study area: Hospital in Vientiane Municipality and hospital in some provinces.

- Duration: 5 years.

- Budget estimated: 70,000.00 US $ (14,000.00 US $ / year).

- Expected outcome:
  - To have measure of prevention of rheumatism, hypertension and heart failure.
  - to increase life expectancy of population.

5. TITLE OF PROJECT: LUNG DISEASES AND ITS PREVENTION.

- Characteristic of Project:
  Program as for data collection of lung diseases to identify different types of lung diseases in LAO PDR. Based on this data, it will take appropriate

measure of prevention. To start, Project will focus at central hospital that could be able to give diagnosis and after that expedition of its activities to some provincial hospitals.

- Objectives:
  To collect situation of lung diseases and particularly to identify of tuberculosis aimed at more effective prevention and treatment.

- Executing agency: Lao-Soviet Friendship hospital.

- Study area: Hospital in Vientiane Municipality and hospitals in some provinces.

- Duration: 5 years.

- Budget estimated: 50,000.00 US $ (10,000.00 US $ / year).

- Expected outcome:
  - To reduce number cases of lung diseases and tuberculosis.
  - To have standard of treatment and to have more experiences for prevention.
  - To strengthen health promotion of people.

6. TITLE OF PROJECT: SITUATIONAL DISEASE OF ENDOCRINOLOGY IN LAO PDR, ITS MEASURE OF PREVENTION AND TREATMENT.

- Characteristic of Project:
  Disease due to endocrinology such as goiter and diabetes constituted also problem of health in LAO PDR. Collection of data of these diseases is necessary to take measure of appropriate prevention and treatment.

- Objectives:
  1. Collection of data.
  2. Appropriate prevention and treatment.
- Executing agency: Internal medicine of Lao-Soviet Friendship hospital.

- Study area: Hospitals in Vientiane Municipality and other hospitals in some provinces.

- Duration: 5 years.

- Budget estimated: 40,000.00 US $ (8,000.00 US $ / year).

- Expected outcome:

1. Data collected due to these diseases.
2. Take measure of preventive and curative matter.
3. Improvement of health promotion of people.

7. TITLE OF PROJECT: TRIAL ON TRADITIONAL MEDICINE USES FOR CURE OF OPIUM ABUSE.

- Characteristic of Project:
  - This test of traditional medicine (roof) in order to seal its effects for cure of opium abuse.
  - To observe their behavior after using traditional medicine.
- Objectives:
  This is if positive impact to use for treatment of those who got opium abuse and to reduce their habits of opium used.

- Executing agency: Psychiatry unit of Mahosot hospital.

- Study area: Psychiatry unit.

- Duration: 2 years.

- Budget estimated: 30,000.00 US $
  Year I = 20,000.00 US $
  Year II = 10,000.00 US $

- Expected outcome:
  Its results are used for curative of opium used as traditional medicine.

8. TITLE OF PROJECT: PARASITIC DISEASES AND ITS PREVENTION.

- Characteristic of Project:
  Program as research on collection of data of parasitic diseases in Laos, after to take measure of prevention, parasitic diseases in Laos are widespread, but research and health education and appropriat treatment

- Objectives:
  To get realistic data of parasitic disease, to advise community for health education and appropriate treatment.

- Executing institution:
  Infection unit of Lao-Soviet Friendship hospital.

- Study area: Hospitals in Vientiane Municipality.

- Duration: 5 years.

- Budget estimated: 40,000.00 US $ (8,000.00 US $ / year).

- Expected outcome:
  1. Reduction of infected cases.
  2. Taken measure of prevention and appropriate treatment.
  3. Collection of realistic data of parasitic cases in vientiane Municipality.

9. TITLE OF PROJECT: SITUATION OF ECZEMA, METHODOLOGY OF DIAGNOSIS AND ITS TREATMENT.

- Characteristic of Project:
  Eczema in Laos is also widespread if compared with other skin diseases. In the past, diagnosis, treatment and prevention of this diseases were not very understood by many physicians, It is then necessary to research on diagnosis, treatment and its prevention.

- Objectives:
  To collect data of eczema diseases, to give appropriate treatment and prevention and also use of traditional medicine for curative matter.

- Executing institution:
  Skin disease unit of Lao-Soviet Friendship hospital.

- Study area: Hospitals in Vientiane Municipality and hospitals in some provinces.

- Duration: 5 years.

- Budget estimated: 40,000.00 US $ (8,000.00 US $ / year).

- Expected outcome:
  1. To have data of eczema, to take appropriate measure of curative and preventive aspects.
  2. To reduce the rate of people infected due to this disease.

10. TITLE OF PROJECT: POPULATION BEHAVIOR STUDY ON MENTAL DISORDERS.

- Characteristic of Project:
  Study on behavior of population on mental disorders, study on old kind of treatment

(superstition) has been practiced long ago, and it will stimulate patients to practice in ways more concrete.

- Objectives:
  1. To study on behavior of population on appearance of mental disorders.
  2. To reduce superstition among population .
  3. To stimulate patients to practice ways of treatment more concrete.

- Executing institution: Psychiatry unit of Mahosot hospital.

- Study area: Psychiatry unit.

- Duration: 2 years.

- Budget estimated: 8,000.00 US $
  Year I = 5,000.00 US $
  Year II = 3,000.00 US $

- Expected outcome:
  To educate community to understand problems of public health (mental disorders), to prevent superstition and to advise patient's family to practice of treatment more concrete.

11. TITLE OF PROJECT: KIDNEY TRIAL FILTER.

- Characteristic of Project:
  In LAO PDR (Lao-Soviet Friendship hospital) has 3 years ago on kidney trial filter. There got already some experiences, but it is necessary to have program supported on financial contribution and expand its activities to other places.

- Objectives:
  Improvement of kidney trial filter in order to save patients's life.

- Executing institution: Lao-Soviet Friendship hospital.
- Study area: - Lao-Soviet Friendship hospital.
  - Mahosot hospital.

- Duration: 5 years.
- Budget estimated: 50,000.00 US $ (10,000.00 US $ / year).

- Expected outcome:
  1. Maintenance, provided supplied and equipment for kidney trial filter.
  2. to strengthen appropriate technology of kidney trial filter.

3. to save patients'life from acute or chronic of kidney's failures.

12. TITLE OF PROJECT: STRENGTHENING DIFFERENT LEVEL OF HEALTH FACILITIES IN LAO PDR.

- Characteristic of Project:
  Program as study of different level of health facilities aimed at improvement of quality of their performance in future in LAO PDR. This Program is related to the government policies that health facilities have to give good health care service for people and covered in the whole country.

- Objectives:
  To strengthen effective and effectiveness of health care service better than before.

- Executing institution:
  - Lao-Soviet Friendship hospital.
  - Department of Hygiene, curative and rehabilitation.

- Study area: Hospitals in Vientiane Municipality, hospitals in some provinces and hospitals in some districts.

- Duration: 5 years.

- Budget estimated: 50,000.00 US $ (10,000.00 US $ / year).

- Expected outcome:
  It would have to improve health facilities in some hospitals better than before.

13. TITLE OF PROJECT: PROGRAM STUDY ON CANCER OF LIVER.

- Characteristic of Project:
  1. More widespread in LAO PDR and negative impact for the society. The rate observed 4.32% of inpatients recorded in a service of gastro-entero-hepato unit (Mahosot hospital).
  2. Research will determine causes and factors of diseases and to identify species of cells of cancer, also study on factors of relationship; among them.
  3. Research focussed on patients having received echography with suspect cancer.
  4. Only research focussed on inpatients in gastro-entero unit.

- Objectives:
  To seek for causes and factors of disease.

- Executing agency: Gastro-entero-hepato unit of Mahosot hospital.

- Study area: Gastro-entero-hepato unit of Mahosot hospital.

- Duration: 5 years.

- Budget estimated: 16,000.00 US $ (3,500.00 US $ / year).

- Expected outcome:
  1. To determine causes and factors of cancer.
  2. To take curative and preventive matter.
  3. To identify cells of cancer in Laos.
  4. It should be basic for appropriate planning in future.

14. TITLE OF PROJECT: CIRRHOTIC HEPATITIS.

- Characteristic of Project:
  1. Cirrhotic hepatitis was more observed among inpatients in gastro-entero-hepato unit (5.17%) of inpatients in Mahosot hospital.
  2. Research will give explanation on causes and factors of diseases.
  3. Focus only at inpatients.
  4. Selection of patients suspected cirrhotic hepatitis used echography.

- Objectives: To seek causes and factors of cirrhotic hepatitis.

- Executing institution: Gastro-entero-hepato unit of Mahosot hospital.

- Study area: Gastro-entero-hepatc unit of Mahosot hospital.

- Duration: 5 years

- Budget estimated: 24,900.00 US $.

- Expected outcome:
  1. To determine causes and factors of cirrhotic hepatitis.
  2. To have data for planning and prevention.
  3. To identify specific characteristic of this disease in LAO PDR.
  4. To be first step for training physicians in hospitals to become expertise in this field.

15. TITLE OF PROJECT: PROGRAM STUDY ON ACUTE OR CHRONICAL GASTRITIS.

- Characteristic of Project:
  Study to determine if theory on salty food constituted factors stimulated gastritis and after become cancer of stomach. Chronical gastritis of inpatients in Mahosot hospital in 1983-1989 got average rate 11.71% compared with other patients.

- Objectives:
  To seek causes and factors of relationship of salty food and chronical gastritis.

- Executing agency: Gastro-entero-hepato unit of Mahosot hospital.
- Study area: Gastro-entero-hepeto unit of Mahosot Hospital.
- Duration: 5 years.

- Budget estimated: 8,400.00 US $ / year.

- Expected outcome:
  1. It will determine relationship of salty food and gastritis (followed by urinary Ionogramme test).
  2. It will possibly determine preventive matter of cancer of stomach.
  3. To identify specific characteristic of chronical gastritis in Lao PDR based on symptoms and society.

E. BRANCH: PEDIATRIC.

1. TITLE OF PROJECT: CAUSES AND EFFECTIVENESS OF TREATMENT IN SMALL BABIES OF ACUTE VITAMIN BI DEFICIENCY AFFECTED ON RESPIRATORY SYSTEM AND AFTER TO TAKE MEASURE OF PREVENTION

- Characteristic of Project:
  1. Trial treatment in provincial hospital.
  2. Assessment.
  3. Collection of data, to seek causes (mother's nutrition)
  4. Use these experiences for other places in the country.
  5. Health education for mother (to change habits of mother who is forbidden to eat some protein after recently delivered).

- Objectives:
  1. To reduce rate of occurrence of vitamin BI deficiency in small babies aged less than one year.

2. to reduce mortality rate of children less than one year.
3. Health education for mother to take appropriate food mostly after recently delivered.

- Executing agency: I C U of Mahosot hospital.

- Study area: Mahosot hospital, Sethathirat hospital, Lao-Soviet Friendship hospital, Institute of MCH, Hospitals of Vientiane Municipality, Radiology Unit, Institute of Hygiene and Epidemiology.

- Duration: 3 years.

- Budget estimated: 53,000.00 US $.

- Expected outcome:
1. To get standard table of treatment that will be used in the whole country.
2. To increase skill and knowledge in diagnosis and treatment of this disease in order to reduce mortality in children by using simple method.

2. TITLE OF PROJECT: EFFECTIVENESS OF QUININE FOR TREATMENT OF CEREBRAL MALARIA.

- Characteristic of Project:
1. Clinical study related to the use of quinine for the treatment of severe malaria in different system of health facilities (use intravenous injection of quinine 3 times/day, 2 times/day).
2. Study in the main hospitals and in 3-4 provincial hospitals in the country.

- Objectives:
1. To use these experiences for treatment of malaria in the country mostly in remote area that there are problems of supplies and shortage of drugs.
2. to advise physicians for treatment of malaria with simple method, but more effective.

- Executing agency: I C U Service - Mahosot hospital.

- Study area: Five big hospitals in the municipality and Vientiane province, three provincial Hospital in the North, Middle and in the South of Lao PDR.

- Duration: 2,5 years (28 months).

- Estimated budget: 15,000 US $.

- Expected outcome:
  - The physicians will get the standard table of treatment, that will be used int the whole country as well as in the remote area which lack of drugs, equipments and health manpower.
  - To limit amount of patients crowded in the central hospital.

3. TITLE OF PROJECT: MOTHER'S BELIEF THROUGH HEALTH CARE SERVICE AND ESPECIALLY FOR NUTRITION.

- Characteristic of Project:
  It will start to collect information in rural areas and observe behavior in different minorities ethnic group, it will study in different step such as:
  1. questionnaire.
  2. study on document and report situation analysis concerned.
  3. setting assumption.
  4. setting objectives.
  5. research design.
  6. research method.
     Action before implementation as:
     - research proposal.
     - equipment ready for analysis.
     - pilot study.
     - test tool use for analysis
     - proposal to authorities concerned in order to consider budget.
  7. data collection
  8. analysis and interpretation of data.
  9. reporting and presenting of data analysis.

- Objectives:
  To study impact on behavior, belief and culture vis a vis health of mother and child.

- Executing agency: Institute of MCH and Lao women's union.

- Study area: rural community of different minorities ethnics groups.

- Duration: 1,8 year.

- Budget estimated: 99,7920.00 US $.

- Expected outcome: This is exactly human resources development. From this analysis, effective expected outcome would be:

1. problems could be early resolved.
2. problems happened with majority of people.
3. finding solution to improve problems.
4. problems that no one has undertaken before.

4. TITLE OF PROJECT: COMMUNITY SURVEY ON BEHAVIOR AND BELIEF OF MOTHER TOWARDS DIARRHEAL DISEASES WITH NUTRIENT DEFICIENCY.

- Characteristic of Project:
  Survey of data collection on environment and life condition of people in rural areas, mountainous areas (3 villages). At the same time to collect data or average on mortality and morbidity of some diseases. To study on nabits and knowledge of mother towards health care or feeding of child, or reaction of mother when child was sick. To study on environmental situation, source income of family. This program will be supported by different structure authorities, some institutions of MOH, WHO, UNICEF and NGO etc...

- Objectives:
  To get study behavior and belief and practice in feeding their child, their children's health care concerning with diarrhea.

- Executing agency: Diarrhea section (Mahosot hospital).
- Study area: Hospitals in Vientiane municipality and some in rural areas.

- Duration: 27 months (start from 12/92 - 5/94)

- Budget estimated: 82,413.00 US $.

- Expected outcome:
  1. This methodology of survey will be used to apply for other activities of National development.
  2. Change habits and behavior of mother in feeding their child.
  3. Improve health promotion of mother and child and life's condition of mother.
  4. Reduction of morbidity and mortality of children.

5 TITLE OF PROJECT: TREATMENT AND CONTROL OF DENGUE FEVER.

- Characteristic of Project:
  Dengue Fever (DF) or Dengue Hemorrhagic Fever (DHF) constituted major problems of public health. This

is very serious problem because of based on the last outbreak years ago, there were caused much lost, a lot of children deaths. Problems always happened in the area of treatment and control of vectors, main source of transmission:

- In the past no project specific to study in this matter (feasibility).
- If this program has been financially supported, it would have effectively implemented because of not political study (political acceptability).
- To improve, from this study, skill and knowledge of health personnel (applicability).
- Problems of urgent data needed, it is necessary to collect detail information on treatment and epidemiological situation.
- Community awareness on severity of DHF and obviously they will contribute in this matter (ethical acceptability).

- Objectives:
  1. To seek for appropriate planning measure for control of DHF.
  2. To prevent or eradicate Aides Vectors.
  3. To improve skill and knowledge of physicians in this field.

- Executing agency: Hospitals Sethathirath and Mahosot.

- Study area:
  - Sethathirat
  - Mahosot
  - Antimalarial station of Vientiane Municipality
  - Institute of Hygiene-Epidemiology.
  - Laboratory and radiology of Mahosot, Sethathirat hospitals.
  - Laboratory of Serology in Thailand.

- Duration: 5 years.

- Budget estimated: 75,000.00 US $.
  (This is divided in 3 parts)
  1. treatment.
  2. prevention and control of vectors.
  3. laboratory and serology (to identify in Laos or Thailand, it will use ELISA method to detect IgM, IgG from patients of DF and compared with Japanese encephalitis).

- First Program of 2 years = 30,000.00 US $
- Second Program of 2 years = 30,000.00 US $
- Third Program of 1 year = 15,000.00 US $

- Expected outcome:
  This is to increase skill and knowledge of physicians for treatment and control of DF not only in Vientiane Municipality, but in the whole country.

6. TITLE OF PROJECT: WATER AND DIARRHEA, PROBLEMS OF DIARRHEA DUE TO EARLY FEEDING SUPPLEMENTARY FOOD.

- Characteristic of Project:
  1. General problem: morbidity rate due to diarrheal disease in Laos remains high and determination of its causes are not yet developed. However, may be due to not drinking not clean water, drinking not boiled water, problem of latrines used...
  2. Early supplementary food may be causes of contamination due to do not clean properly equipment used.
  3. In principle, babies could be growth normally up to six months by breast feeding even without any supplementary food. With only breast feeding child up to six months, babies have been not only protected from diseases but mother gave all of their lovely to babies and as the same time to reduce expenditure of family.

- Objectives:
  1. To reduce the percentage of diarrheal disease till half from now to the year 2000.
  2. To study on causes of the occurrence of diarrheal disease and to define strategies for the prevention and control and stimulate community for health education.

- Executing institution: Institute of MCH.

- Study area: Hospital of Vientiane Municipality, hospital of some provinces and Institute of Hygiene and Epidemiology.

- Duration: 5 years.

- Budget estimated: 400,000.00 US $.

- Expected outcome:
  Reduction of percentage of diarrheal disease till half from now to the year 2000, to get appropriate strategies for the control of diarrheal disease.

7. TITLE OF PROJECT: HYPERTENSION AND CEREBRAL VENOUS ACCIDENT.

- Characteristic of Project:
  Clinical and bacteriological study, to test on antibiotic drug as usual used and easy to get it in LAO PDR for the treatment of severe infectious disease based on bacteriological diagnosis confirmation.
- Objectives:
  To get answers that what types of antibiotic still used in LAO PDR and got more effective for treatment of infectious disease related to antibiogramme for, laboratory. To compare in vitro and in vivo.
- Executing agency: I C U of adult and children.
- Study area: Hospitals (Mahosot, Sethathirat, nO 103, Vientiane hospital, Lao-Soviet Friendship hospital).
- Duration: 2 years.
- Budget estimated: 8,000.00 US $ / year.
- Expected outcome:
  1. Facilities to have study research because of these hospitals are in Vientiane Municipality and also there are laboratory for culture and antibiogramme test. Otherwise, it is easy to get antibiotic for treatment of patients.
  2. Result of outcome will be published and establish standard schedule for the treatment of patients.

8. TITLE OF PROJECT: TREATMENT AND CONTROL OF JAPANESE ENCEPHALITIS.

- Characteristic of Project:
  - Japanese encephalitis' in LAO PDR has obviously caused many death in children even no epidemiological outbreak. If compared Dengue Hemorrhagic Fever, Japanese Encephalitis has also characteristic of outbreak. There supposed in the past this disease occurred in Vientiane Municipality that diagnosis confirmed by physicians more experiences.
  - In 1989-1991, identification of this disease was carried out in Vientiane Municipality by Dr. Khampe, Dr Douang Do with cooperation with Save Children Fund of UK, especially Ms Libby Kennard. We have send specimens to Thailand. Three years of

study, there found that this disease existed in Laos. If compared with Dengue Hemorrhagic Fever, symptomatological confirmation and schedule standard for treatment did not yet study in detail.
- This program will attain and achieve its objectives if having financial support, because this is not affected political situation of the country.
- Japanese Encephalitis, even though this is not urgent problem to get data, but it is obviously main problem of public health because according to statistical report that 2/3 dead due to Japanese Encephalitis and 1/3 of this disease got mental disorders. Nowadays, because of health education Vientiane Municipality, mothers sensibilised to bring their children to cheek health care when they were sick.

- Objectives:
  1. To reduce mortality rate and also to determine distribution of Japanese Encephalitis.
  2. To study on its symptoms and to take appropriate measure of curative that could be used in the country.
  3. To study on the control measure of Culex vectors of Japanese Encephalitis.

- Executing institution: Mahosot Hospital, Sethathirat Hospital.
- Study area:
  - Setnathirat hospital,
  - Mahosot, antimalarial station of Vientiane Municipality.
  - Institute of Hygiene, Epidemiology and its laboratory.
  - Laboratory in Thailand.
  - laboratory at Mahosot and Sethathirat hospitals.

- Duration: 3 years.

- Budget estimated: 50,000.00 US $.
  It will be divided in three parts (Clinical study, Vectorial study: culex. laboratory study based on CSF: in Laos or in Thailand).
  First 2 years = 35,000.00 US $
  Third year = 15,000.00 US $

- Expected outcome:
  Positive outcome for the country because of getting new ideas on this subject. Past no program studied in this subject, results of prevention and control

could be submitted to the government. Also it should be proposed to use vaccine anti-Japanese Encephalitis from Thailand, but price is more expensive.

F. BRANCH: PHARMACY-FOOD-NUTRITION.

1. TITLE OF PROJECT: CONTROL OF CONSUMPTION, FOOD, DRUG AND OTHER TOXICAL SUBSTANCE IN LAO PDR.

- Characteristic of Project:
  Control daily safety for the consumption of food, drugs, any kinds of drink, other toxical subsistence in the society. Society has not been protected for health care and also for long life expectancy.

- Objectives:
  Supervise and monitoring, control quality of consumption, food, drug. Control quality of good distribution. Legislation of food control. To collect data in order to launch health ecucation, to research and to identify.

- Executing agency: Faculty of Pharmacy (University of Health Sciences).

- Study area: In the market of Vientiane Municipality and also in some provinces. Coordinating committee: Committee of food and drugs, quality control laboratory, pharmaceutical factories No 2 and 3.

- Duration: 5 years.

- Budget estimated: 375,000.00 US $ (75,000.00 US $ / year).

- Expected outcome:
  1. Consumption of drink and food with high quality.
  2. To make strict control of food, drink and drugs distribution without quality.
  3. safety for consumer in the whole country.

2. TITLE OF PROJECT: ALOCACIA-MACROLYSA AND TREATMENT OF MALARIA.

- Characteristic of Project:
  Study on effect of Alocacia-macrolysa on treatment of malaria, study on detail of herbs, chemical components, method of preparation. Test in vivo. To collect data and to analyze.

- Objectives:
  Malaria is widespread through the country. It is necessary to combine traditional medicine and western medicine for treatment of malaria that could be eradicate in mountainous area of high endemicity.

- Executing agency: Institute of traditional medicine (coordination with survey unit, chemical unit and factory unit, and also with some hospital in provinces and Institute of Malaria and Parasitic Diseases-Entomology).

- Study area: Institute of Malaria and Parasitic Disease Entomology, hyperendemicity of Malaria.

- Duration: 5 years (from starting program).

- Budget estimated: 10,000.00 US $ (2,000.00 US $ / year).

- Expected outcome:
  - To have traditional medicine for treatment of Malaria in remote villages.
  - To reduce morbidity rate in mountainous area.
  - To increase agricultural production.

3. TITLE OF PROJECT: RESEARCH ON ETIOLOGY OF LIVER'S CANCER, ITS PREVENTION AND TREATMENT BY TRADITIONAL MEDICINE MORE EFFECTIVE IN LAOS.

- Characteristic of Project:
  As to study on data collection and as the same time trial treatment of traditional medicine according to realistic situation of Laos. There are difficulties of communication, low level of education among population, importation of food is not properly controlled. Liver's cancer was found mostly before 40 years old of age.

- Objectives: Presently and in the future, it is aimed to reduce mortality rate due to this disease.

- Executing agency: Committee of control food and drugs.

- Study area: Hospital of traditional medicine.

- Duration: 3-5 years.

- Budget estimated: 21,000.00 - 35,000.00 US $
  (7,000.00 US $ / year).

- Expected outcome:
  If positive outcome of research, it will contribute to use this in the whole country; and also it will contribute for the development of traditional medicine in health sector as a whole.

4. TITLE OF PROJECT: STUDY FACTORS ON SOCIAL-ECONOMIC AND CULTURE OF LAOTIANS WITH PROBLEM OF FOOD AND NUTRITION.

- Characteristic of Project:
  Study on data collection from questionnaire and to implement planning action. Activities of 2 phases, each for 18 months, Study and assessment of nutritional deficiency in each remote areas with different living conditions. Test first in training and after assessment if positive results, it should be expanded to other places.

- Objectives:
  To collect data on children growth, problems of nutrition in rural areas but facilities to get food.

- Executing agency: Council of Medical Sciences.

- Study area: Fishery pilot study, places usually catching and eating fishes, places with difficult to find food. Two urban district of Vientiane Municipality, two districts in Vientiane Province and one district in Champasak province.

- Duration: 36 months.

- Budget estimated: 364,132.00 US $.

- Expected outcome:
  Results obtained not only in tne area of nutrition in fishery places but it will be to develop other places. Based on data collection and its analysis it will help to plan to reduce problems of nutrition. Health personnel will get more lessons learned and experiences in the field of nutrition.

5. TITLE OF PROJECT: SURVEY ON PLANTS AS TRADITIONAL MEDICINE, TRADITIONAL INDICATION TABLE ON LEAVES OF SPECIAL PLANTS AND TRADITIONAL HEALER WITH ADVANCE AGE.

- Characteristic of Project:

Program characteristic to collect basic data concerning plants related to traditional medicine in Laos. It will constitute its exploration: collection of treatment table of traditional medicine in order to combine with western medicine for treatment.

- Objectives:
  1. To reduce cost of import of drugs from abroad.
  2. To promote people to use traditional medicine in the whole country mostly in rural villages.

- Executing agency: Institute of traditional medicine.
- Study area:- 17 provinces in the country, it will complete to get data in 3-4 provinces each year (for two persons).
  - It will focus at buddhist temples.

- Duration: 5 years.

- Budget estimated: 3,600,000.00 Kips for transportation, perdie, and hotels.
  1,000,000.00 Kips for printing.
  In total: 4,600,000.00 Kips (920,000.00 Kips/year, about 6,433.00 US $)

- Expected outcome:
  1. After survey, it will have types and species of traditional medicine distribution in the country.
  2. Collection of treatment table of traditional medicine from all traditional healers, to select, to print and to use for treatment of patients.

G. BRANCH: OPTHALMO-OTORHINOLARYNGOLOGY-STOMATOLOGY.

1. TITLE OF PROJECT: EYE INFECTION OF NEWBIRTH (NEWBORN EYE INFECTION).

- Characteristic of Project:
  Study on practical work of auxiliary nurses in different hospitals, provinces, districts, health station.

- Objectives:
  1. Reduction of social diseases.
  2. Reduction of newborn's blindness.

- Executing agency: Ophthalmology center, central and provincial hospitals.
- Study area: Ophthalmology center, central and provincial hospitals.

- Duration: 5 years.

- Budget estimated: 50,000.00 US $ (10,000.00 US $ / year).

- Expected outcome:
  To practice this work in the country according to appropriate technic.

2. TITLE OF PROJECT: SITUATION OF BLINDNESS AND ITS CAUSES.

- Characteristic of Project:
  1. Because of no data of blindness's causes in Laos.
  2. To collect all diseases, causes of blindness and to treat or surgery operation.
  3. To estimate number of newborns and after to calculate amount of health personnel.

- Objectives:
  To collect data and to make appropriate plan.

- Executing agency: Ophtnalmology center.

- Study area: Ophthalmology center, Vientiane Municipality, Vientiane province, Savannakhet, Champasak, Luang Prabang.

- Duration: 5 years

- Budget estimated: 100,000.00 US $ (20,000.00 US $ / year).

- Expected outcome:
  There will not be epidemiology of blindness in Laos.

3. TITLE OF PROJECT: DEAFNESS IN CHILDREN IN PRIMARY SCHOOL.

- Characteristic of Project:
  1. At the beginning to collect data in primary school in Vientiane Municipality in 1993 and after to make assessment.
  2. Based on experiences in Vientiane Municipality, it will expand to other provinces:
     - Champasak in 1994,
     - Savannakhet in 1995,
     - Luang Prabang in 1996.

- Objectives:
  To seek its cause, to take measure of treatment and prevention.

- Executing agency: Mahosot hospital (Otorhinolaryngology unit)

- Study area: Primary school in Vientiane Municipality, Luang Prabang, Champasak.

- Duration: 5 years.

- Budget estimated: 50,000.00 US $ (10,000.00 US $ / year).

- Expected outcome:
  1. To get data on deafness of children in primary school in the whole country.
  2. To promote children with deafness able to go to school for deaves or able to go to normal primary school after surgical operation or treatment with Hearing Aids.

4. TITLE OF PROJECT: CATARACT SURGICAL OPERATION WITH POSTERIOR CHAMBER CONSERVATION BY REPLACING ARTIFICIAL CRYSTALLIN.

- Characteristic of Project:
  Treatment by cataract surgical operation if not use artificial crystallin, it is no able to improved its quality. To solve socio-economic impact, it is necessary to use artificial crystallin in children with one eye of cataract.

- Objectives:
  1. To solve problems of seeing.
  2. Patients able to carry out their daily work.
  3. Reduction of expenditure for surgical operation and glass.

- Executing agency: Opntnalmology center of Thongpong.

- Study area: Ophthalmology center of Thongpong.

- Duration: 5 years.

- Budget estimated: 50,000.00 US $ (10,000.00 US $ / year).

- Expected outcome:
  1. Reduction of side effect due to ordinary operation.
  2. To be able to see well as normal person.
  3. Reduction of handicapped due to problems of eye.

5. TITLE OF PROJECT: FOREIGN BODIES IN THE LOWER RESPIRATORY TRACT.

- Characteristic of Project:
  1. At the beginning, training of physicians to have experience in this matter.
  2. After, improve quality of medical equipment that

will use for solving problems of foreign bodies in lower respiratory tract.

- Objectives:
  1. Increase technical level of physicians who will have more experiences.
  2. Physicians able to use update of new technical equipment better than before.
  3. Health education for community to realize problems of foreign bodies in the lower respiratory tract of their children by using radio, TV, Newspapers.
- Executing agency: Mahosot hospital (Otorhinolaryngology unit)
- Study area: Manosot hospital (Otorninolaryngology unit)
- Duration: 5 years (1992-1996).
- Budget estimated: 30,000.00 US $.
  10,000.00 US $ for training of health personals.
  20,000.00 US $ for medical equipment.
- Expected outcome:
  1. Reduction of mortality rate of children due to this problem.
  2. Change behavior of people habits to be care of taking danger food.

6. TITLE OF PROJECT: AMYDALECTOMY OF CHILDREN 6-13 YEARS OLD BY USING ANESTHESIA RETROVERSION OF THROAT

- Cnaracteristic of Project:
  Amydalectomy of children is program as for treatment. This is to prevent infection that it will be rheumatism. Program to focus first to patients in Vientiane Municipality and after it would be to expand its activities to provinces.
- Objectives:
  1. To prevent chonicaltonsilitis in children by using surgical operation.
  2. Reduction of antibiotic use for treatment of chronical tonsillitis in children.
  3. To prevent rheumatism and other diseases.
- Executing agency: Lao-Soviet Friendship hospital.
- Study area: Lao-Soviet Friendship hospital and Mahosot hospital (Otorhinolaryngology).
- Duration: 5 years.

- Budget estimated: 10,000.00 US $ (2,000.00 US $ / year).

- Expected outcome:
  If use this kind of operation, throat retroversion, it will solve problems of chronical tonsillitis.

D. BRANCH: SURGERY.

1. TITLE OF PROJECT: SURVEY OF SCHISTOSOMIASIS IN KHONG ISLAND, MEASURE OF TREATMENT AND CONSEQUENCES OF SURGICAL OPERATION ON PORTAL HYPERTENSION.

- Characteristic of Project:
  Survey of schistosomiasis in Khong Island included patients with severe consequences for surgical operation.

- Objectives:
  To get data of people due to this disease included patients with severe consequences and to take measure for treatment.

- Executing institution: Mahosot hospital (Surgery unit).

- Study area: Mahosot hospital, district of Khong Island.

- Duration: 5 years.

- Budget estimated: 50,000.00 US $ (10,000.00 US $ / year).

- Expected outcome:
  1. To get number of patients due to schistosomiasis.
  2. Treatment by surgical operation.
  3. Reduction of mortality rate.

2. TITLE OF PROJECT: BONES SURGICAL OPERATION FOR CHANGES BEHAVIOR OF HANDICAPS DUE TO BACKWARD BELIEF FOR TREATMENT AFTER FRACTURE.

- Characteristic of Project:
  1. To collect neighbor of handicaps after accidents.
  2. To solve problems of handicaps by using handicaps operation.

- Objectives:
  1. To study and assess handicap problem after accident.
  2. To take measure for treatment, or changes by surgical operation.

- Executing agency: Mahosot hospital (Surgery unit)

- Study area: Mahosot hospital, nospital of provinces and district.
- Duration: 5 years (1992-1996).
- Budget estimated: 30,000.00 US $ (6,000.00 US $ / year).
- Expected outcome:
  1. Reduction of handicap due to fracture.
  2. To repair after-effects.
  3. To promote handicaps to live normally in our society.

3. TITLE OF PROJECT: STUDY TYPE AND IDENTIFY ETHOLOGY OF LITHIASIS OF URINARY TRACT SYSTEM AND TO SEEK FOR TREATMENT OR SURGICAL OPERATION.

- Characteristic of Project:
  To identify chemical component of lithiasis, analyze its causes in order to treat with western medicine, traditional medicine or operation.
- Objectives:
  1. To study its causes and its chemical components.
  2. To take measure of prevention.
  3. Study result of treatment and effect after operation.
- Executing institution: Mahosot hospital (surgery unit).
- Study area: Mahosot nospital, hospital of provinces and districts.
- Duration: 5 years.
- Budget estimated: 30,000.00 US $ (6,000.00 US $ / year).
- Expected outcome:
  1. To analyze type of lithiasis, to find out its causes related to particular situation of Laos.
  2. To find out standard of treatment and appropriate surgical operation.
  3. To be able to give advise measure of available preventive matter in order to reduce number of lithiasis.

4. TITLE OF PROJECT: SURVEY OF GOITER PREVALENCE IN THE COUNTRY (MOUNTAINOUS AREAS, PLAIN AREAS), DIAGNOSIS CONFIRMATION BY MATERIAL, ADVISE ON TREATMENT BY DRUGS AND BY SURGICAL OPERATION.

- Characteristic of Project:

1. Collection of goiter in mountainous area and plain area by using laboratory confirmation.
2. Treatment by some drugs and surgical confirmation.

- Objectives:
  1. In order to collect data of goiter mostly IDD in the country and to find out appropriate way of treatment that will use drugs and surgical operation.
  2. To assess results obtained.

- Executing agency: Internal and external medicine and outpatients consultation.

- Study area: Mahosot hospital, hospitals of provinces and districts and also some health centers.

- Duration: 5 years (1992-1996).

- Budget estimated: 30,000.00 US $ (6,000.00 US $ / year).

- Expected outcome:
  1. Reduction number of goiter.
  2. To get standard of treatment that will use drugs and surgical operation.
  3. To find out measure of preventive matter.

5. TITLE OF PROJECT: IMPORTANCE OF RADIOLOGY DEVELOPMENT WITH HEALTH INFRASTRUCTURE IN LAO PDR.

- Characteristic of Project:
  Program has to focus on organization and management capabilities concerning a study on the realistic situation of radiology sectors in accordance with health infrastructure in the country and also to study geographical situation and specific characteristic of laotians in order to compare evolution of medical technology in other countries. This is to assess on the development radiology infrastructure in LAO PDR.

- Objectives:
  Data obtained will complete for health planning activities and at the same time it is to provide appropriate radiology equipment to realistic situation of health infrastructure.

- Executing agency: Department of Hygiene, curative and Rehabilitation and Mahosot hospital.

- Study area: Hospitals of all provinces and all central hospitals.

- Duration: 2 years.

- Budget estimated: 7,500.00 US $.
  Year I = 5,000.00 US $
  Year II = 2,500.00 US $

- Expected outcome:
  1. MOH will get directive of radiology sector development.
  2. To increase more confidence on diagnosis confirmation, to reduce patients to come to central hospital, and also to motivate physicians at hospitals more convenience at low level.

6. TITLE OF PROJECT: STUDY SIDE EFFECT OF LITHIASIS'S URINARY TRACT SYSTEM BY USING ECHOGRAPHY.

- Characteristic of Project:
  Program with epidemiological study and to find out probability of preventive measure of urinary lithiasis. Research study on patients with urinary lithiasis encountered by change or patients with symptomatology by using Echography and radiology.

- Objectives:
  1. To assess on epidemiology of urinary lithiasis of laotians.
  2. To take appropriate preventive matter of side-effect conducted to death or incapability in working due to kidney deficiency.

- Executing agency: Mahosot hospital (Radiology sector).

- Study area: Mahosot hospital and hospital 103.

- Duration: 2 years.

- Budget estimated: 10,000.00 US $ (5,000.00 US $ / year).

- Expected outcome:
  To have preventive measure in order to do not get side-effect that will conduct to kidney deficiency due to urinary lithiasis that would be resolved.

E. BRANCH: GYNECO-OBSTRETIC.

1. TITLE OF PROJECT: STANDARD AVERAGE OF WEIGHT AND HEIGHT OF NORMAL LAO BABIES RECENTLY DELIVERED.

- Characteristic of Project:
  To collect at least 1000 normal lao babies recently

delivered in order to get average of their weight and height.

- Objectives:
  In order to be basic data for the newborn in LAO PDR.

- Executing agency: Mahosot hospital (Gyneco-obstretic section).

- Study area: Mahosot hospital and others in the municipality.

- Duration: 18 months

- Budget estimated: 2,000,000.00 Kip / year.

- Expected outcome:
  To get average of wight and heignt of normal lao babies in LAO PDR. This will use in Gyneco-obstretic in the whole country.

2. TITLE OF PROJECT: WOMEN AT RISK DURING PREGNANCY DUE TO DO NOT CONSULT HEALTH PERSONNEL IN HOSPITAL AND IN HEALTH CENTER.

- Characteristic of Project:
  Pilot study in some areas in order to get model area and after to expand its activities in districts and in municipality during 5 years.

- Objectives:
  1. Reduction's accident of delivered.
  2. Reduction of mortality rate after delivered.
  3. To take preventive measure.

- Executing agency: Sethathirat hospital (Gyneco-obstretic section)

- Study area: Hospitals of Sethathirat, hospitals of District and other hospitals in Vientiane Municipality.

- Duration: 5 years.

- Budget estimated: 250,549.00 US $ (50,110.00 US $ / year).

- Expected outcome:
  1. To strengthen activities of MCH better than before.
  2. To get women at risk in every village.
  3. To follow health care of MCH as a whole.

3. To reduce mortality rate of motner and children till 5%.

3. TITLE OF PROJECT: BEHAVIOR OF LAO WOMEN WITH CONTRACEPTIVE ACTIVITIES.

- Characteristic of Project:
  To use questionnaire first on birth spacing and contraceptive use with different level education family in Vientiane Municipality.

- Objectives:
  To use limit budget with more effective.

- Executing agency: Mahosot hospital (Gyneco-obstretic service).

- Study area: Mahosot hospital (Gyneco-obstretic service).

- Duration: 2 years.

- Budget estimated: 4,000.00 US $.

- Expected outcome:
  This could be basis information for birth spacing.

HEALTH RESEARCH PROJECTS
(CLASSIFICATION OF HEALTH RESEARCH PROJECT ACCORDING TO PRIORITIES)

NO	TITLE OF HEALTH RESEARCH PROJECTS	BUDGET (US $)
1.	Assessment of performance of health personnel produced by University of Health Sciences from 1988 to 1991.	6,000.00
2.	Standard average of weight and height of normal lao babies recently delivered.	4,196.00
3.	Newborn eye infection.	50,000.00
4.	Study survey of peri-natal deaths in LAO PDR.	100,000.00
6.	Survey of schistosomiasis in Khong Island, measure of treatment and consequences of surgical operation on Portal Hypertension.	50,000.00
7.	Control of IDD in Savannaket province.	8.392.00
8.	Causes and effectiveness of treatment in small babies of acute Vitamin BI deficiency affected on respiratory system and after to take measure of prevention.	68,000.00
9.	Effectiveness of quinine for treatment of malaria cerebral in LAO PDR.	15,000.00
10.	Treatment of severe malaria in Savannakhet provincial hospital.	8,390.00
11.	Mother's belief through health care service and especially for nutrition.	99,792.00
12.	Community survey on behavior and belief of mother towards diarrheal disease with nutrient deficiency.	82,413.00
13.	Epidemiological survey of "stone" kidney and to find out appropriate measure of prevention in Savannakhet.	8,392.00
14.	Control of consumption, food, drugs and other toxical substance in LAO PDR.	375,000.00
15.	Control of tuberculosis in LAO PDR.	100,000.00

16.	Control of cardio-vascular disease (rheumatism, hypertension heart failure.	70,000.00
17.	Lung disease, tuberculosis and its prevention in LAO PDR.	50,000.00
18.	EPI program and its impact on health infrastructure.	46,000.00
19.	Strengthening health facilities focussed at district level in remote area.	12,000.00
20.	Women at risk during pregnancy due to do not consult health personnel in hospital and in health center.	250,549.00
21.	Behavior of lao women with contraceptive activities.	6,000.00
22.	Treatment and control of DF.	75,000.00
23.	Establishment of health statistic center for collection of data at district Paklay (Saygnaboury province).	15,000.00
24.	Situation disease of endocrinology in LAO PDR, its measure of prevention and treatment (goiter, diabetes)	40,000.00
25.	Water and diarrhea, problem of diarrhea due to early feeding supplementary food.	400,000.00
26.	Coverage of water supply, wastage disposal, main actions to solve problems of public health.	7,500.00
27.	Districts as areas strategies, keys to strengthen high coverage in LAO PDR.	30,000.00
28.	Component and bio-chemical substance in blood of normal laotian healthy person.	71,150.00
29.	Detection of urine's cancer for women with less children and women with more children by using anapathology study of ill patients.	62,250.00
30.	Hypertension and cerebral venous accident.	8,000.00
31.	Bones surgical operation for change behavior of handicaps due to backwards belief for treatment after fracture.	30,000.00

32.	Study type and identify ethology of lithiasis of urinary tract system and to seek for treatment or surgical operation.	30,000.00
33.	Strengthening health facilities focussed at district level in urban areas.	12,000.00
34.	Alocacia-macrolysa and treatment of malaria.	10,000.00
35.	Program research on ethology of liver's cancer due to consumption.	35,000.00
36.	Deafness of children in primary school.	50,000.00
37.	Antimalarial activities through PHC.	40,000.00
38.	Survey of goiter prevalence in the country (mountainous area, plain area), diagnosis confirmation by material, advise to use drugs and surgical operation.	30,000.00
39.	Cataract surgical operation with posterior chamber conservation by replacing artificial crystallin.	50,000.00
40.	Trial on traditional medicine uses for cure] opium abuse.	30,000.00
41.	Parasitic diseases situation and its prevention.	40,000.00
42.	Eradication of Polio in LAO PDR in 1955.	44,00.00
43.	Situation of eczema, methodology of diagnosis and its treatment.	40,000.00
44.	Control of IDD trough PHC.	30,000.00
45.	Survey of human infected of HBs AG.	17,520.00
46.	Malaria and drug resistance.	229,930.00
47.	Study factors on socio-economic and culture laotians with problems of food and nutrition.	364,132.00
48.	Survey of plants as traditional medicine, traditional indication table on leaves of special plants and traditional healer with advance age.	6,433.00
49.	Population behavior study on mental disorders.	8,000.00
50.	Biological cycle of Anopheles vectors.	580.670.00

51.	Epidemiological study on primarily stage of cancer's liver in LAO PDR.	20,800.00
52.	Importance of Radiology development with health infrastructure in LAO PDR.	7,500.00
53.	Level of resistance of Japanese encephalitis B.	10,872.00
54.	Foreign bodies in the lower respiratory tract.	30,000.00
55.	Study side-effect of lithiasis's urinary tract system by using echography.	10,000.00
56.	Study side-effect of lithiasis's urinary tract system by using echography.	10,000.00
57.	Study on mosquitoes. Epidemiological stratification.	850,670.00
58.	Amydalectomy operation of children 6-13 years old by using anesthesia retroversion of throat.	10,000.00
59.	Schistosomiasis situation.	417,343.00
60.	Kidney trial filter	50,000.00
61.	Strengthening different level of health facilities in LAO PDR.	50,000.00
62.	Liver cancer program research.	16,000.00
63.	Cirrhotic program research.	24,000.00
64.	Program study on acute or chronical gastritis.	8,400.00

Part III: Implementation plan for 5 years (1992–1996).

PART III: PROGRAM IMPLEMENTATION
5 years (1992 - 1996)
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I.PROGRAM OF REFRESHERS AND TRAINING OF HEALTH PERSONNEL.

A.SHORT TERM	ESTIMATED OF PERSONNEL AND BUDGETS (US $). 1992	1993	1994	1995	1996
1. 1. Workshop on research methodology in country.	20/5000	20/5000	20/5000	20/5000	20/5000
1. 2. Workshop on research methodology in abroad.	5/5000	5/5000	5/5000	5/5000	5/5000
1. 3. TOT for health system research in country.	20/5000	20/5000	20/5000	20/5000	20/5000
1. 4. TOT for health system research in abroad.	5/5000	5/5000	5/5000	5/5000	5/5000
1. 5. Participation on technical conference for research in abroad.	3/4500	3/4500	3/4500	3/4500	3/4500
1. 6. Training on computer use for data analysis in abroad.	3/4500	3/4500	3/4500	3/4500	3/4500
1. 7. Training on research management in country.	20/5000	20/5000	20/5000	20/5000	20/5000
1. 8. Training on research management in abroad.	3/4500	3/4500	3/4500	3/4500	3/4500

1. 9. Fellowship.	3/4500	3/4500	3/4500	3/4500	3/4500
1.10. Exchanges of researches experiences	3/4500	3/4500	3/4500	3/4500	3/4500

ESTIMATED OF PERSONNEL AND BUDGETS (US $).

B. LONG TERM	1992	1993	1994	1995	1996
1.11. Upgrade to Master.	3/54000	3/54000	3/54000	3/54000	3/54000
1.12. Upgrade to PhD.	2/36000	2/36000	2/36000	2/36000	2/36000

II. PLANNING ON SUPPLIES AND EQUIPMENT OF SOME DEPARTMENT AND INSTITUTION.

	Estimated of budgets (US $).				
	1992	1993	1994	1995	1996
2. 1. Council of medical sciences: Provision of computer included printing system, books and scientific document to library.	5000	5000	5000	5000	5000
2. 2. Establishment scientific journal, translation and printing monthly journal	20 000	20 000	20 000	20 000	20 000
2. 3. Institute of of Hygiene and Epidemiology: provision of S&E to laboratory	10 000	10 000	10 000	10 000	10 000

2. 4. Institute of Malaria and Parasitic Disease: provision of S&E to laboratory	10 000	10 000	10 000	10 000	10 000
2. 5. Institute of MCH: provision of S&E to laboratory	10 000	10 000	10 000	10 000	10 000
2. 6. Mahosot hospital: provision of technical equipment to laboratory	20 000	20 000	20 000	20 000	20 000
2. 7. Center of pharmaceutical analysis. Provision of technical equipment to laboratory	10 000	10 000	10 000	10 000	10 000
2. 8. Faculty of of pharmacy	20 000	20 000	20 000	20 000	20 000
2. 9. Lao-Soviet Friendship hospital: provision of technical equipment to laboratory	20 000	20 000	20 000	20 000	20 000

ACKNOWLEDGEMENTS

The standing Committees of the Council of Medical sciences would like to express our gratitude to ministry of health, Ministry of Sciences and technology and other organization at all levels of 2 ministries for the support and the co-operation which we have received throughout from the beginning especially in the preparing of the seminar on the development health research Master plan for the next five years.

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On this occasion we would like to express our gratitude to the leadership of the 2 ministries, Health and Sciences technolcgy. Your virtue will be forever remain in our history book of medical sciences of LAO PDR HEALTH.

President of the Council of Medical Sciences.

Dr. Boungnong BOUPHA.

PERSONNEL INVOLVED IN THE PREPARATION AND SUPPORT OF THE MASTER PLAN.

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