

EVALUATION OF THE XIENGHOUANG WAR VICTIMS ASSISTANCE PROJECT

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May 17-31, 1999

The evaluation report was conducted under the auspices of the United States Agency for International Development. The evaluation was conducted by the Displaced Children and Orphans Fund and War Victims Fund Contract (HRN-C-00-98-00037-00). The opinions expressed are those of the author and do not necessarily reflect the views of the U.S. Agency for International Development or Professional Resources Group International, Inc.

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ABBREVIATIONS

AIDS	acquired immune deficiency syndrome
ESF	Ecole sans Frontieres
ESL	English as a Second Language program
HIV	human immunodeficiency virus
HRD	human resource development
LAO PDR	Lao Peoples Democratic Republic
MAG	Mines Advisory Group
MCC	Mennonite Central Committee
MOE	Ministry of Education
MOH	Ministry of Health
NGO	nongovernmental organization
RDSF	Revolving Drug and Supply Fund
SCF/UK	Save the Children Fund/United Kingdom
UNICEF	United Nations Children's Fund
UXO	unexploded ordnance
WE	World Education
WVF	Leahy War Victims Fund



EXECUTIVE SUMMARY

In the 20 months since the previous review in July 1997, the Xiengkhouang War Victims Assistance Project has made substantial progress, both in reforming management systems to place authority within Lao government institutions and in restructuring the project according to the recommendations from the 1997 review. If this momentum can be maintained for the next 12 months in accordance with the recommendations in this evaluation, the project will be poised to expand to other project sites.

With regard to the project's emergency medical/surgical component, recommendations made in the July 1997 evaluation of Phase 1 have in large measure been achieved or are in progress. The project has been consolidated as outlined in the 1997 evaluation, except for certain remaining infrastructure improvements. The project has developed an effective organizational structure and has established a management structure at the provincial level. All committees and technical working groups are functioning and satisfactorily performing their desired roles. As a result, Lao government institutions have been able to assume increased ownership of the project in terms of policy and decision making.

One of the project's premier achievements has been its accomplishments in human resource development. The project has conducted multiple training programs in a comprehensive manner involving two major training institutions in Vientiane: Mahosot Hospital and Friendship Hospital. Upgrading the capacity of provincial and district health personnel has contributed to the project's accomplishments and to the sense of ownership that has been engendered.

In the project's education component, the project has developed, tested, and revised all sub-components and is currently implementing these subcomponents with positive impact. However, the project should further refine and revise these subcomponents so that processes and products can be expanded and sustained by the communities and the government. One of the project's most important outputs has been its development of a complete provincial-level local curriculum, one of the few, if not the first, under the Ministry of Education's recent policy.

Until now, one Xiengkhouang-based project coordinator with a medical background has coordinated both the emergency medical/surgical and the education components of the project. Although both components have made satisfactory progress under this arrangement, the education component would benefit from having a separate project coordinator with a background in primary and secondary education.

One weakness that remains unresolved in both components is the absence of a simple reporting system that collects data using indicators that can measure outputs and impact. The data being collected are still rudimentary, descriptive, lacking specificity, and not useful to evaluate impact. Although the project has clearly made impressive progress over the past two years, it is not

possible to make an assessment of its impact until more reliable indicators are developed and collected.

The organizational reforms that this project has pioneered at the provincial level in Xiengkhouang could ultimately have ramifications beyond the issue of unexploded ordnance and the War Victims Project. In two years, the project has effectively transferred authority and ownership from the Consortium to the Government of the Lao People's Democratic Republic (Lao PDR) and established a practical model for decentralizing authority to the provincial level. Other provinces with externally funded projects in other sectors could benefit from this experience to institute similar management and organizational reforms.

Although detailed recommendations for each component are contained in this report, several general recommendations deserve mention:

1. The project management structure at the province level, which is well organized and institutionalized for the emergency medical/surgical component, but less formally organized for the education component, has allowed the project to successfully decentralize authority. This structure should be maintained and strengthened until the end of Phase 2 of the project.
2. The Consortium should hire a separate coordinator for the education component, stationed in Xiengkhouang, at a professional level similar to that of the coordinator of the emergency medical/surgical component.
3. The balance of funds in the budget for Phase 2 (\$779,000, or 48 percent of the total budget) should be reprogrammed to support the recommendations from this evaluation.
4. Prior to the reprogramming exercise, the Consortium should document all commitments for construction, equipment procurement, and training, which either have been made via contractual agreement or are in process, to provide a more accurate estimate of the funds that would be available for reprogramming.
5. Based on the results of the reprogramming exercise and the availability of funds, the project should be provided with additional financial resources to follow the recommendations from this evaluation and produce systems that the project will require to expand to other sites.
6. If the project successfully implements the recommendations from this evaluation by May 2000, the project should be extended for an additional three years so that the emergency medical/surgical component can be expanded to one additional province and the education component can be expanded to new districts and communities within the four provinces in which it now operates.

7. To expand to and implement activities in new project sites, the project must have an adequate budget, qualified staff, and documented management systems.

INTRODUCTION

Background and History

Laos is a sparsely populated, mountainous country located between Thailand, Myanmar (formerly Burma), China, Cambodia, and Vietnam. The country is primarily rural and agrarian, with a per capita income of \$350, an under-five mortality rate estimated at 150 deaths per 1,000 live births, and an annual population growth rate of 2.4 percent. Medical facilities in Laos are underdeveloped, and virtually nonexistent below the district level. Published reports estimate that over one-third of adults are illiterate, and literacy levels among the remaining population, especially women, are low.

Laos became an independent member of the French Union in 1947. After a period of relative peace, internal conflict erupted in 1954 when pro-Communist Pathet Lao forces seized several provinces in northern Laos on the Vietnamese border in an attempt to align the country with China and Vietnam. In 1960, a military coup plunged the country into civil war and destabilized the country.

As the conflict in neighboring Vietnam escalated, Laos became inexorably involved. For the next 15 years, Laos was both a battleground and supply route for the Vietnam War. The northern provinces of Xiengkhouang and Houaphan were heavily bombed during land operations, and several southern provinces that straddled the Ho Chi Minh Trail were the target of heavy aerial bombing in an attempt to cut North Vietnamese supply lines. This intense wartime bombing left unexploded ordnance (UXO) strewn throughout these provinces. Despite relative peace over the past 25 years, these unexploded ordnance and the casualties they occasionally claim have created for Laos a lasting legacy of its volatile past.

In 1990, the Patrick J. Leahy War Victims Fund (LWVF) provided assistance for the prosthetic and orthotic needs of disabled persons in Laos. In 1992, the project was extended for three additional years. In 1995, the fund made a programmatic shift toward strengthening UXO prevention and posttraumatic medical/surgical treatment for UXO victims in the heavily affected Xiengkhouang Province, which is referred to as Phase 1 in this report. Funds for Phase 2 covering the period of 1997 to 2000 were obligated in May 1997. In July 1997, an evaluation team reviewed the project and made recommendations to sharpen its focus and transfer more responsibility to the appropriate Lao agencies during Phase 2.

Current Evaluation

A three-person evaluation team visited Laos from May 17-31, 1999, to assess the progress made thus far in Phase 2, to propose modifications for the final year of the Consortium grant, and to

make recommendations for expansion to other geographic sites. See Appendix 3 for a detailed Scope of Work for this evaluation.

Because the project still lacks a simple reporting system that collects data using indicators that can measure outputs and impact, it was not possible for the team to quantitatively evaluate the impact this project has had. Instead, the evaluation team compared results over the past two years with recommendations made in the 1997 project review to ascertain the progress made toward meeting those objectives. The team used the following methods to collect data and evaluate the project:

- C Desk review of current literature, project reports, and background documents. (See Appendix 13.)
- C Meetings and Interviews with key informants and community members. (See Appendices 1 and 2.)
- C Field visit to Xiengkhouang province and the districts of Kham, Khoune, Nonghet, and Phaxay to observe the project sites firsthand and interview staff from the Provincial Health and Education Departments and members of the community.

Evaluation Limitations

The evaluation team spent only 13 days in Lao PDR for this evaluation, an insufficient amount of time to conduct an exhaustive assessment of this complex project. The team had to prioritize meetings and interviews and limit them to key informants. The team spent only four days in the field, and therefore did not have sufficient time to visit project sites in the provincial capital of Phongsavan or to visit the five districts where the project is being implemented. Road conditions in Xiengkhouang during the rainy season were hazardous, and it was impossible for the team to reach the Phoukhout District for an on-site assessment of the situation there. It was also impossible for the team to visit project sites in other provinces. Therefore, the findings and recommendations on the education component were based primarily on observations and interviews in Xiengkhouang Province.

The most significant limitation this evaluation team faced was the dearth of quantitative data with which to evaluate the project. The emergency medical/surgical component collects routine data on the number of UXO accidents per district, those receiving treatment from the War Victims' Medical Fund, treatment sites, and other routine hospital data. The education component collects routine data on the number of sites where the project has been implemented and pre- and post-test scores for the UXO primary school curriculum. This data is too rudimentary to allow a serious analysis of the project's impact, and it does not accurately reflect the impact the project is trying to make. Hence, it was not possible for the team to make the quantitative assessments and

cost-effectiveness analyses requested in the Scope of Work. Until the project develops appropriate indicators and collects accurate data, subsequent evaluations will continue to suffer from this limitation.

THE EMERGENCY MEDICAL/SURGICAL COMPONENT

Background

This review and evaluation of the War Victims Project in Xiengkhouang assesses the project's progress by comparing results of activities conducted in Phase 2 (June 1997 to May 2000) with recommendations made during the July 1997 project review of Phase 1. The 1997 review suggested several underlying assumptions and fundamental guidelines to facilitate the project's evolution toward a reasonable degree of sustainability. These guidelines are still valid, and the project should continue to use them to guide the implementation of this project. The current view of these assumptions and guidelines is as follows:

- C The project should ensure that ownership of the project continues to move from the Consortium to the Provincial Health Office and Provincial Education Office of Xiengkhouang Province. Full implementation authority should remain at the provincial level (in accordance with the Ministry of Health's [MOH] decentralization policy) with an appropriate policy and coordination role for the National Rehabilitation Center. Policy and decision making should be vested with Lao officials, with the Consortium providing technical guidance and administrative support. The project should be Lao owned and Lao managed.

- C The project should develop the capacity of the Provincial Health Department to organize, manage, and sustain a network of secondary and tertiary medical/surgical facilities that can competently manage UXO accidents and other emergency trauma situations. Such improvements will strengthen the overall performance of the Provincial Health Service. Management, training, and reporting systems developed through the project can serve as models not only for expanding to other provinces, but also for upgrading the performance of other Provincial Health Departments as an ancillary goal.

- C The project should also make efforts to improve the capacity of the central-level institutions that train provincial personnel in emergency room care and medical/surgical techniques.

Nine recommendations emerged from the 1997 project review. A description of the progress made toward achieving each recommendation follows. The team recommended that a consolidation phase be implemented before expanding the medical/surgical component. Progress made toward consolidation is reviewed in detail.

Findings

Consolidation of Project Activities

The 1997 evaluation team recommended that the project's infrastructure, training, equipment, and drug inputs be amalgamated into a coherent package during a consolidation phase prior to any geographic expansion. Following is a list of the conditions established for consolidation and the progress made toward achieving these conditions.

Recommendation: The project should develop an organizational structure that places policy and decision making in the hands of the appropriate Lao agencies, with the Consortium as a facilitator and provider of technical assistance.

Finding: The project has developed an organizational structure based on functional committees with corresponding responsibilities for their technical areas. The committees are as follows: Hospital Rehabilitation, Training, Revolving Drug and Supply Fund, Medical Equipment, War Victims' Medical Fund, and War Victims' Quality of Life Rehabilitation. A Project Management Committee coordinates inputs and plans from each committee. Committee membership includes participants from the provincial and district levels, with Consortium staff providing technical assistance and administrative support. (See Appendix 5 for a project organizational chart.)

Recommendation: There should be functional management responsibility for planning, finance, administration, personnel, monitoring, and evaluation.

Finding: Each committee has conducted a needs assessment of their respective areas, developed a prioritized action plan for implementing the agreed-upon activities, and monitored implementation of these activities. For the past two planning cycles, each committee has successfully developed an individual committee annual plan that has been incorporated into a comprehensive annual plan.

Recommendation: Technical committees in each area should be operational.

Finding: The project has created all the committees, and they began functioning during Phase 2. The committees have met monthly and produced summary reports of their work. In October 1998, the project decided to convert these committees into technical working groups to more accurately reflect their roles and responsibilities, and to convert the Project Coordination Committee into a Project Management Committee with explicit responsibility to manage and implement the project.

Recommendation: The project should develop and operationalize a reporting/recording system.

Finding: The project has developed a reporting/recording system in conjunction with the War Victims' Medical Fund. Because the system was only recently introduced, staff have not yet had time to compile and analyze the data and evaluate the system. Such analysis and evaluation is forthcoming. Integration of this reporting system into the Provincial Health Department and hospital reporting system is pending. This system is inclusive and, once operating, should provide relevant data to assess progress in several areas.

Recommendation: The project should develop and operationalize a Revolving Drug and Supply Fund (RDSF).

Finding: The project has developed an RDSF that functions at the provincial hospital, and at the Khoun and Kham District Hospitals. The project has completed a needs assessment in the Phaxay, Phoukhout, and Nonghet Districts as a prerequisite for establishing an RDSF in those districts.

Recommendation: The project should ensure that the War Victims Medical Fund is operating satisfactorily.

Finding: The Xieng Khouang Public Health Service and the project reorganized the War Victims Medical Fund in October 1997. It is operating in the Xiengkhouang Province and in the Khoun and Kham Districts.

Recommendation: The project should install and operationalize the water and electrical supply required in emergency care facilities.

Finding: This area is a chronic problem. All district hospital facilities in Xiengkhouang have inadequate water supplies. All district facilities depend on a generator for their electrical supply. None of the district hospitals in Xiengkhouang Province, including those in the Kham and Khoun Districts, have a reliable water supply. A concerted effort supported by adequate resources is needed to resolve this problem. To improve water supply and electricity, the project should engage expert technical personnel to conduct a comprehensive assessment to find realistic and reasonable solutions to this chronic problem.

Recommendation: The project should ensure that standard equipment and medical supplies are in place and functioning in the emergency rooms.

Finding: The project has procured minimal but adequate medical equipment and supplies for medical/surgical treatment in the provincial hospital and in the Kham and Khoun District Hospitals. The project has conducted needs assessments for Phaxay and Nonghet. Medical equipment and supplies at the provincial hospital are adequate but should be routinely upgraded as appropriate and feasible.

Recommendation: The project should develop and approve annual operational plans on a timely basis.

Finding: The project has developed annual plans for 1998 and 1999, although the training and medical equipment portion of the 1999 plan has not yet been approved. For this process to be successful, the project needs to schedule activities in a timely manner and adhere to temporal benchmarks to coincide with the government's annual planning process.

Recommendation: The project should develop a comprehensive training plan.

Finding: The project has developed annual comprehensive training plans and has upgraded skill levels according to pre- and post-testing and observational exercises and interviews.

Recommendation: The project should conduct a series of workshops/seminars to provide a forum for government officials and Consortium staff to review recommendations from the 1977 project review and agree on a project implementation framework. This workshop should yield an agreement on a project organization and management structure that empowers the appropriate Lao agencies and forms technical committees responsible for planning, managing, and implementing activities.

Finding: The project conducted the following series of workshops/seminars from October 1997 to June 1998, which resulted in an agreed-upon organization and management structure for the project. Following is a list of the workshops/seminars and the dates that they took place:

- C Participatory Development (October 1997)
- C Needs Assessment (November 1997)
- C Planning Workshop (January 1998)
- C Coordination Workshop (March 1998)
- C Project Monitoring Workshop (June 1998)

Conclusion: The project has achieved most of the conditions for consolidation. Some problems with infrastructure in the provincial hospital, and in the Kham and Khoun District Hospitals

remain. At the provincial level, the project is making infrastructure improvements and is planning to complete others during this phase. In the Khoune and Kham Districts, electrical and water supply problems persist. A needs assessment for the Phaxay, Nonghet, and Phoukhout Districts has identified necessary infrastructure improvements, and the project has allocated funds for this purpose. Once consolidation of the project is completed at the end of Phase 2, the project will have reached the stage in which it can program a phased expansion process to one province. For substantiating information and data relevant to these findings for the Consolidation Phase of the project, see Appendices 6 through 12.

Organizational Development of Project Management

Recommendation: A project orientation seminar should be held at the beginning of the extension to design the organizational structure and management systems that will govern the medical/surgical emergency services under the extension.

Finding: Following a series of seminars with participants from the province, district, and central levels, the project established a new management structure consisting of a Management Coordinating Committee and six technical working groups. The project defined roles and responsibilities for each working group. The working groups are now responsible for planning, implementing, monitoring activities, and reporting on financial status. This organizational structure has created a sense of ownership for the provincial health office.

Planning, Implementing, and Evaluating Project Activities: Formation of the Committee Structure

Recommendation: The project should form a cluster of management and technical committees that will be delegated responsibility for developing detailed operating guidelines for all inputs relative to each specific working group.

Finding: The project has established a Project Management Committee and six working groups: Hospital Rehabilitation, Training, Revolving Drug and Supply Fund, Medical Equipment, War Victims' Medical Fund, and War Victims' Quality of Life Rehabilitation Working Groups.

Each of the working groups has the following responsibilities:

- C Define roles and responsibilities for each member,
- C Conduct a needs assessment providing reliable data that can be used as a basis for project planning in their specific area,
- C Prepare implementation guidelines,

- C Prepare annual plans containing annual outputs to be achieved,
- C Establish benchmarks and indicators to measure achievements,
- C Monitor implementation of activities, and
- C Evaluate implementation annually.

The status of activities in the Project Management Committee and the various working groups is as follows:

Project Management Committee

The Project Management Committee's role is to coordinate the work of all working groups and develop the annual plan. The committee has produced annual plans for 1998 and 1999. The latter plan is still pending full government approval.

Training Working Group

During Phase 2, the Training Working Group has arranged a wide variety of training programs at the central, provincial, and district levels. The working group arranged for central-level training to be conducted at Mahosot Hospital and Friendship Hospital. Areas in which training was conducted included organizational development of project management, emergency treatment and ICU management, anesthesia, surgery for physicians and nurses, nursing management techniques, laboratory and x-ray, pharmacy management, and stock control.

The collaborative arrangements that the working group has developed with Mahosot and Friendship Hospitals have been productive. Continued collaboration and joint planning between the working group and these hospitals will further strengthen both the training institutions and the quality of training. Efforts should now be directed toward institutionalizing these training programs by preparing standardized curricula, training manuals, and training materials that can facilitate expansion to other provinces.

Hospital Rehabilitation Working Group

The Hospital Rehabilitation Working Group conducted needs assessments at all sites, prioritized required improvements, coordinated decisions on construction and rehabilitation, prepared construction cost estimates and organized the bidding process, and participated in the selection of the winning bidder. The working group also monitored construction in each site.

A listing of ongoing and proposed renovation and construction for Xiengkhouang province for the Phase 2 of the project is as follows:

Location	Work	Committed	Proposed
Provincial Hospital	Ramp finance room concrete path recovery room post-op ward generator	\$25,783 \$6,000	\$7,165
Nonghet	training room water supply generator	\$7,100 \$1,730 \$2,500	
Phaxay	water supply hospital rehabilitation toilet repair generator	\$2,485 \$8,330 \$2,500	
Phoukhout	hospital rehabilitation		\$40,000
Khoune	water supply	\$3,000	
Total Committed		\$59,428	

Total Budget Phase 2:	\$115,000
Construction Completed:	\$17,260
Funds Committed:	\$59,428
Total (Completed and Committed):	\$76,688

War Victims' Quality of Life Rehabilitation Working Group

The project established the War Victims' Quality of Life Rehabilitation Working Group in June 1998 with a grant from SPUNK, a U.S. donor, through MINORS, a U.S.-based NGO that works mainly to help ethnic minority children. The working group manages a fund to provide direct assistance to UXO patients who had previously received assistance from the War Victims' Medical Fund for rehabilitation and to improve their quality of life. The working group has developed policies and guidelines that prioritize patients who will receive assistance and the level of assistance that will be provided. The fund targets handicapped UXO patients and their families who are accessible for follow-up, as identified by the respective village administrations.

Medical Equipment Working Group

This working group conducted a needs assessment at each of the three project sites, the Xiengkhouang Provincial Hospital, and the Kham and Khoune District Hospitals; determined the need for specific equipment and supplies; prepared bid requests to procure equipment; and monitored the procurement process. The provincial hospital received equipment and supplies at a

cost of \$11,897. Kham and Khouné received equipment and supplies at a cost of \$9,827. A summary report of the Medical Equipment Working Group can be found in Appendix 11.

The working group inventoried old and new equipment and combined it into sets ready for use in emergency care. Staff were trained to clean, sterilize, and organize the sets. Representatives of the working group oriented all district staff in the use of the new equipment.

Reporting/Recording

Recommendation: The project should develop a reporting/recording system that can quantitatively monitor progress toward achievement of benchmarks.

Finding: The project has had difficulty establishing benchmarks and indicators to measure the achievement of the working groups. It has established a preliminary set of indicators, but these indicators do not accurately reflect project objectives and expected outputs. The project will need additional training and discussion to develop practical and meaningful indicators that measure progress as well as impact.

Revolving Drug and Supply Fund

Recommendation: The project should review the RDSF to determine areas for further improvements. A plan/document needs to be developed that includes standard policies for fund administration and management, budgeting and accounting procedures, reporting/recording procedures, and procedures for periodic review and assessment.

Findings: The RDSF provides drugs and supplies for emergency and ICU care on a 24-hour basis. From July 1997 to March 1999, the RDSF Working Group further defined its mission. The RDSF was subsequently incorporated into the general pharmacy. By the end of 1998, 24 people from the Xiengkhouang Provincial Hospital and 3 people each from the Kham and Khouné Districts had been trained in management and organization of the hospital pharmacy, finance, and means testing. A cost recovery system was installed in the provincial hospital in March 1999. The working group developed a standard list of emergency medicines and supplies. Training is planned for Phaxay, Phoukhout, and Nonghet. The value of funds and drugs currently available in the RDSF is 2,694,500 kip in the Xiengkhouang Provincial Hospital, 519,800 kip in the Kham District Hospital, and 433,370 kip in the Khouné District Hospital.

War Victims' Medical Fund

Recommendation: The project should review the War Victims' Medical Fund to determine standardized policies and procedures for payment of specific services, management of the fund, and reporting/recording. The project should develop plans for fund-raising and for integrating this fund with other provincial or national revolving fund systems.

Finding: Prior to October 1997, the fund was administered by the Consortium. In October 1997, subsequent to the formation of a War Victims Fund Working Group, a needs assessment was conducted, policies for use of the fund were clarified, and a reporting/recording system was developed. The fund has been operating satisfactorily under the guidance of the working group. In June 1998, the project received a grant of \$10,000 through MINORS from SPUNK to staff a small socioeconomic rehabilitation project. A separate working group, the War Victims' Quality of Life Rehabilitation Working Group, was established to oversee this activity.

Health Manpower Development Plan

Recommendation: The project should establish a plan to improve managerial resources at all levels needed to support the delivery of adequate surgical care to UXO victims and other trauma cases.

Finding: Although the project has developed and implemented annual training plans, no comprehensive manpower development plan has been prepared. Consequently, it is difficult to evaluate how annual training plans mesh with larger manpower development objectives. Given the substantial effort required for the project to consolidate the diverse training inputs into an annual plan, this recommendation may have been too ambitious to address during this intermediate period, but it remains relevant and requires attention during the remainder of Phase 2.

Approval Process

Recommendation: The project should develop policies and guidelines to expedite and simplify approval procedures for all project activities, with responsibility delegated to the Provincial Health Department based on specific annual plans.

Finding: During the previous two years, the project has made significant progress in this area. Through reorganizations, the project has transferred authority and responsibility for project management and decision making to the Provincial Health Department. The director of the Xiengkhouang Provincial Health Department is the project director, and the Project Management Committee, under the direction of the chief of the Office for Technical Services in the Provincial Health Department, is explicitly responsible for day-to-day project management. The preparation of a comprehensive annual plan and budget facilitates disbursement of funds and subsequent implementation.

There are unresolved problems whose resolution would further expedite implementation:

- C The project director currently provides no formal approval of annual plans and budgets. Without the overlying authority bestowed by official approval, the annual plans are still

besieged by ad hoc requests for equipment, construction, and training not authorized in the annual plan.

- C The individual working groups request funds directly from the Consortium, creating confusion that undermines the role of the Project Management Committee. In the interest of simplicity and effective management control, working groups should request funds from one structural unit, preferably the Project Management Committee.

- C Funds are requested, advanced, and liquidated monthly, placing an unnecessary administrative burden on both Consortium and Provincial Health Department staff. Quarterly fund requests, advances, and liquidation would be more reasonable and would not compromise financial control. The Project Management Committee should be responsible for monitoring expenditures according to annual plans and budgets, and should report planned and actual expenditures to the project director quarterly.

- C Advances for project activities are provided in cash. Cash advances are impractical and not financially responsible. The Consortium should open a bank account in Phonsavanh so that advances can be deposited to the account via electronic transfer, then disbursed for project activities.

- C The Consortium plans to reduce its Xiengkhouang-based project coordinator position to half-time status by October 1999. Given the position's critical technical and administrative responsibilities, reducing it to half-time would have disastrous ramifications on project continuity and sustainability. The Consortium should attempt to extend the Xiengkhouang project coordinator position in its current full-time status until the end of Phase 2.

English Language Training and Development of Library Resources

The English as a Second Language (ESL) program began in Xiengkhouang Province in November 1997, using a curriculum and teacher's manual developed by the coordinator during the course of the program. The program's objectives are to provide education in (1) general and medical English language for beginners and advanced students and (2) reading medical texts and understanding lectures in English for physicians at an advanced level. The target population includes physicians, nurses, medical/health, and education staff.

Recommendation: The project should establish an English language training program with the following agenda: (1) improve the staff's ability to understand basic medical terminology, (2) enable staff to access medical and nursing literature, (3) facilitate interaction with foreign donors. The project should establish a library system so that staff have access to books and select journals.

Finding: The project has established an English language training program for staff of the Xiengkhouang Provincial Hospital, Provincial Health Office, and Provincial Education Office.

Classes, which began in November 1997, are taught by Lao ESL teachers, and supervised on a monthly basis by the expatriate ESL director, who co-teaches classes, provides in-service training, and evaluates progress. There are four classes per week, each with approximately 15 participants. These ESL courses aim to impart students with the following capacities:

Advanced Program

- C Read advanced-level medical materials.
- C Discuss common medical problems.
- C Understand intermediate-level lectures on medical problems.
- C Understand advanced grammar and writing and be able to write at an intermediate level.

Beginner/Intermediate Program

- C Understand basic spoken and written English.
- C Hold basic conversations in English.
- C Discuss and read about basic anatomy, medical problems, procedures, medications, and dosages.
- C Know the names of hospital departments and describe the work of various staff positions and daily schedules.

To date, the ESL program has accomplished the following:

- C ESL curriculum for beginning and advanced levels developed.
- C One student workbook produced and tested. One teacher's handbook produced and tested.
- C Four classes (three beginning and one advanced) with a total of 60 students conducted. The three beginner classes (45 students) have reached the intermediate level. The advanced class can now read and discuss medical texts and understand lectures in English.

- C English language skills of 12 physicians, 30 nurses, and 10 health and 8 education staff have been upgraded.
- C Five local English teachers have been trained in modern ESL techniques, which has also helped to improve English teaching in several schools in Phonsavanh.

The UXO project has developed the initial curriculum, materials, and staff needed to implement, test, and later expand an ESL program beneficial to medical/health and other staff. Although the program requires further development and refinement, it is functioning and can be continued by the Ministry of Health. The project has established a reference library but it is neither organized nor well utilized.

Analysis of Budget and Expenditures

Findings: A detailed report of actual project expenditures to date appears in Appendix 4. The project has expended 56 percent of its budget in 67 percent of the total project time period (May 1997 to present). This is a satisfactory rate of expenditure given the structural adjustments required subsequent to the 1997 project review and the non-trivial management and organizational development software those adjustments necessitated. The Consortium does not maintain records of fund commitments as well as expenditures; therefore, the evaluation team could not make a detailed assessment of funds available for the remaining 12-month period.

An analysis of expenditures was made for the Hospital Refurbishing line item under Medical Upgrading/Outreach. The total budget for this line item is \$115,000. By May 1999, the project had expended only \$17,000, or 15 percent of the budget. The project had however committed \$59,000 via signed contracts for construction and is arranging to commit an additional \$40,000 to upgrade the facilities at the Phoukhout District Hospital. Consequently, the project has either expended or committed 67 percent of this line, and will commit the remaining funds pending the results of this evaluation.

If similar analyses were made for the other project input line items in the budget, it is quite likely that funds available for the remaining 12 months in Phase 2 are quite small.

Recommendations

1. Complete consolidation of project activities in Xiengkhouang Province.

- C Overall, the project's consolidation efforts have been successful. However, chronic problems with infrastructure persist in all project sites. As described under the Findings of the Hospital Rehabilitation Working Group, the project is attempting to resolve these problems. In addition, renovation and other infrastructure improvements are necessary in the Phaxay,

Nonghet, and Phoukhout Districts before those sites can provide adequate emergency care for trauma patients.

- C Proceed with plans for infrastructure improvements in the Phoukhout District. The severity of the UXO problem in that district equals those of other districts. Because the road to this district is not passable during the rainy season, UXO and other trauma cases can not obtain emergency care for three to four months per year. Although no actual district hospital exists there, the governor has provided facilities for out-patient and in-patient care. Construction of an emergency room and minor surgery is warranted at this time to provide basic care, especially during the rainy season when patients can not be transported to the provincial capital.

1. Continue the organizational development of the Provincial Health Service by institutionalizing the project's annual planning and budgeting process to coincide with the government's annual planning cycle. Specific recommendations to simplify planning and approval of funds are as follows:

- C Establish a time schedule for developing the annual project plan and budget to coincide with the Government of Lao PDR's annual planning cycle.
- C Ensure that annual plans are formally approved and signed by the project director. Approved plans should be distributed to all working groups with instructions that funds will only be available for activities contained in the plan. Any activities not contained in the annual plan should be referred to the project director.
- C Institute a policy whereby only the Project Management Committee has the authority to make requests for funds to the Consortium. The Consortium should not respond to funding requests unless they are signed by the chief of the Project Management Committee.
- C Institute a policy whereby requests for funds are made on a quarterly basis. Advances and liquidation of funds should be done quarterly.
- C The Consortium should open a bank account in Phonesavanh and advance funds to this account electronically or through a manner that will provide sufficient security and financial control.
- C Funds should be found to extend the full-time status of the Consortium's Xiengkhouang-based project coordinator position until the end of Phase 2.
- C A series of workshops should be conducted to develop the 1999/2000 annual project plan and budget for October 1999 to May 2000.

- C Each working group should evaluate the activities conducted during the previous year before planning workshops.
- C The Project Management Committee should report routinely to the project director on expenditures for individual activities.
- C In the interest of transparency, the Consortium should produce quarterly reports of budget expenditures to date and balance in each line item. These reports should be distributed to the National Rehabilitation Center and the Provincial Health Department.

3. Establish a continuing education/training program for upgrading provincial and district personnel.

- C A comprehensive plan for upgrading the technical and managerial skills of provincial and district staff involved with providing emergency care for trauma cases should be developed, implemented, and guided by annual training plans.
- C The two central-level training institutions—Mahosot and Friendship Hospitals—should be provided with resources to strengthen and standardize their emergency care training programs. These institutions should be assisted to develop training curricula, modular training programs, and training manuals that trainees can use as references at their work sites. In addition, these institutions should be provided with some audiovisual equipment to make presentations and produce materials.

4. Conduct a special workshop, to be attended by representatives of all working groups, to develop goals, objectives, and corresponding indicators to measure progress and impact.

- 5. Produce a high-quality, visually impressive report that documents activities, progress, and impact to distribute to donors, Government of Lao PDR officials, and other collaborating agencies.

6. Develop a provincial expansion module.

Before expanding the medical/surgical portion of the project to other provinces, the project should prepare a modular packet of “how to” manuals that describe the systems, process, and software developed through this project. The purpose of such a packet would be to create capacity in the provincial health services to provide emergency medical/surgical care for UXO and related trauma cases. The modular packet should include the following manuals:

- C Organizational development, policies, and guidelines
- C Management structure and systems
- C Financial accountability

- C Recording/reporting
- C Training and human resource development
- C Equipment requirements, procurement, and maintenance
- C Revolving Drug Fund
- C War Victims Medical Fund
- C Infrastructure rehabilitation

1. Plan for the expansion of the project’s medical surgical component to other provinces.

When consolidation in Xiengkhouang is completed at the end of Phase 2, the project should program expansion to one additional province. Criteria for such an expansion are as follows:

- C Consolidation of the project in Xiengkhouang completed
- C Provincial expansion module completed
- C Selection of provinces with the following characteristics:
 - o High prevalence of UXO trauma cases
 - o Contiguous with Xiengkhouang to share experience and receive support
 - o Complete agreement with the province, the MOH, and the Consortium

It is recommended that the Houaphan Province be selected for expansion. The project should initiate a one-year preparation phase for expansion, using manuals from the provincial expansion module with staff from Xiengkhouang, in order to accomplish the following:

- C Conduct a comprehensive needs assessment
- C Develop a project management structure
- C Initiate training
- C Initiate procurement of medical/surgical equipment
- C Initiate rehabilitation of required infrastructure
- C Evaluate the project preparatory phase

The implementation phase can begin in year 2 after the preparation phase is completed and evaluated.

8. Continue and expand English language training and further develop a reference library containing appropriate medical/surgical information resources. (See appendices for further information).

- C The Consortium should formulate a plan to more systematically implement and expand the ESL program for medical/health and other personnel. This plan should be based on several prior actions: (1) collation of the key components of the program in one volume: goal and

objectives, curricula for different groups; teaching-learning methods; explanation of materials; and assessment methods; (2) recording of experiences to date (including student assessment); (3) analysis of current methods and materials; and (4) survey of current and projected needs.

- C This plan should be discussed with the Ministry of Health with respect to (1) meeting the MOH's needs both within and outside the project area and (2) eventually accrediting and accepting the curriculum at the national level. These actions will lead to an ESL program that meets national as well as project needs. Accomplishment of this will depend on retaining the program coordinator position for the period of the project, preferably as a fully funded staff member.
- C The program should provide alternatives to the present classroom-only instruction to respond to the different needs of different groups, both at provincial and district levels. For example, the project should consider (1) self-study approaches that involve periodic teacher-facilitated group review and instruction; (2) intensive weekend courses, supplemented by self-study; and (3) intensive ESL retreats lasting one week or more.
- C The program should review and revise existing teaching materials based on past experiences and analysis by students, teachers, medical staff, education experts, and the program coordinator.
- C The program should develop student learning materials for use in self-study and situations where contact with teachers is limited.
- C In conjunction with the development of alternative teaching-learning methods and new materials, the program should develop and test appropriate student assessment indicators and methods. This should involve self assessment, teacher-executed assessment, and external supervisor assessment.

Conclusion

The project's emergency medical/surgical component has made substantial progress during the period October 1997 to May 1999 (Phase 2). Recommendations from the July 1997 evaluation of Phase 1 have been achieved in large measure or are in progress. The project has been consolidated as outlined in the 1997 evaluation, except for certain remaining infrastructure improvements described in this report. The project has developed an organizational structure and established a management structure at the provincial level. All committees and technical working groups are functioning and satisfactorily performing their desired roles. As a result, Lao ownership of this project has significantly increased in terms of policy and decision making. The project still needs to implement a basic integrated reporting/recording system that can measure progress and impact, and to complete the remaining infrastructure improvements.

A premier project achievement has been its accomplishments in human resource development. The project has conducted multiple training sessions involving two major training institutions in Vientiane—Mahosot Hospital and Friendship Hospital. Upgrading the capacity of provincial and district health personnel has contributed to the project's accomplishments and the sense of ownership that has been engendered.

The project is now poised to plan expansion in a phased manner while consolidating progress to date. The recommendations are structured to further strengthen specific management and implementation systems, to develop a provincial expansion module that can facilitate expansion to another province, and to establish an ongoing human resource development system for Xiengkhouang and future project sites in coordination with the two central training institutions.

THE EDUCATION COMPONENT

Background

The education component of the Xiengkhouang War Victims Assistance Project has the following objective: *To reduce the incidence of future war ordnance accidents through increasing awareness of children to better understand, recognize and address the dangers presented by UXO, by facilitating the development of lower secondary and primary school capacities to educate children.*

This objective is consistent with the aim of the Lao National UXO Programme Workplan 1998, which is to *reduce the number of civilian UXO casualties*. The objectives of the workplan are to create new awareness among rural communities of the continued dangers of UXO; educate villagers on ways to minimize the hazard caused by UXO; develop the capacity of Lao staff to manage and implement the National UXO Programme through formal and on-the-job training; and provide advanced or specialized training to selected personnel (e.g., medics).

Findings

Project Status/Progress

The project's education component was designed, tested, and implemented in Xiengkhouang in 1997. In 1998, it was expanded to three other provinces—Houaphanh in the North and Savannakhet and Salavan in the South—using the model from Xiengkhouang.

Sites and Participants

As of May 1999, the program had been implemented in 119 school clusters (with approximately three schools per cluster) in nine districts and four provinces, as shown in the following table.

Province	District	School Clusters	Teachers	Students
Xiengkhouang	Pek, Kham, Khoune, Phaxay, Phoukhout, Nong Het	87	967	32,552
Houaphanh	Sam Neua	11	137	3,980
Savannakhet	Xepone	11	117	2,403
Salavan	Salavan	10	167	6,434
Total		119	1,388	45,369

Curriculum and Materials

Documents and materials developed and distributed by the program include the following:

- One curriculum/teacher's handbook for primary grades 1–5
- One teacher training handbook
- Two textbooks (one original, one revised)
- Three cartoon books and one supplementary reading book
- Three UXO posters/learning aids
- Puppets and puppet shows in 19 school clusters, involving 96 student performers
- Student assessment tests for grades 1–3 and 4–5 (for use by teachers)
- Teacher assessment forms (for use by supervisors)

Management and Staff

Administrative, supervisory, and technical staff participating in the program include the following:

- Ministry of Education: director, Department of General Education
- Provinces: One provincial education officer (or assistant) and two to three staff in each province
- Districts: One assistant district education officer and four supervisors per district
- Consortium: One part-time advisor coordinator (Consortium assistant country representative), one UXO program advisor/coordinator (who assists with the education component in Xiengkhouang), one part-time administration officer, and three program staff.

Budget

Expenditures to date under the project's education component are as follows:

Item	Expenditures in US\$			
	1997	1998	1999	Total
Planning and coordination	0	1,287	1,726	3,013
Curriculum and materials	2,997	36,150	0	39,147
Training	7,998	22,628	8,426	39,052
Evaluation	3,409	8,368	1,625	13,402
Total	14,404	68,433	11,777	94,614

Project Implementation

The education component is currently operating effectively, and in accordance with program objectives, in 119 school clusters in four provinces.

Curriculum and Materials Development

The UXO education curriculum was developed by the Xiengkhouang Education Department from February to May 1997. The curriculum was then tested in eight schools in Xiengkhouang; revised by a group of teachers, officials, and Consortium staff in May 1998; and accepted by the Ministry of Education in 1998. During the 1997/98 and 1998/99 school years, the curriculum was distributed to 37 and 119 school clusters, respectively. The curriculum includes the definition, sources, location, and dangers of UXOs and information on how to prevent accidents.

The first UXO textbook was developed by representatives of the Provincial Education Department, Mines Advisory Group (MAG), UNICEF, and the Consortium during February to April 1997. The textbook was then tested in eight schools, revised during March to August 1998, reproduced as a single full-color text for all five grade levels, and introduced in all project schools in August 1998. The new student textbook follows the curriculum and includes drawings and photographs of UXOs and full-color sketches.

Three supplementary cartoons, a reading book, and three posters were developed by students and a professional writer during November 1997. These materials were then distributed to all schools.

Teacher and Staff Development

From June to July 1998, teaching-learning methods and the teacher training handbook were developed by representatives of the National Teacher Upgrading Center, Xiengkhouang Education Department, Mennonite Central Committee (MCC), and the Consortium.

A total of 45 education officials and supervisors and MCC staff then received training in the UXO curriculum. Following this training, from August to September 1998, these people trained 1,388 teachers in nine districts (15 total training sessions).

School and Community Practices

The schools participating in the program implemented the local UXO curriculum as part of the overall primary education curriculum. At grade levels 1–3, classroom instruction includes 14 hours over a period of four months, usually one hour per week. At grade levels 4–5, classroom instruction includes 26 hours over a period of six months, usually one hour per week

Teaching-learning methods are based on conventional teacher-to-student instruction, supplemented by role playing, drawing, puppet shows (in some sites), and other learner-centered methods.

At present, the community has no formal role with respect to the UXO curriculum. Informally, some villagers and communities have contributed to the program by motivating the children, or by supplying educational materials, small amounts of money, housing for visiting resource people, use of a sound system for puppet shows, and in one case a pig.

Administration and Coordination

The project has not done a good job in reporting and otherwise disseminating its many accomplishments and, thus, its influence on others has been limited.

In each province, the Education Department is responsible for administration and oversight of the program, including planning, budgeting, monitoring (five to seven days per month), and monthly meetings.

At the district level, the Education Department performs similar duties, with direct responsibility for implementation and assessment. At both district and provincial levels, the program involves coordination with medical/health staff, MAG (where available), UNICEF (as appropriate), and others.

The Consortium, through its field staff, has responsibility for technical assistance. In addition, it coordinates formally and informally with the Ministry of Education (MOE) and other government agencies, MAG, UNICEF, UXO Lao, and several NGOs (e.g., MCC and World Education [WE]).

Formal and informal coordination between the medical/health and education components of the project include (1) central-through-district medical staff assistance with curriculum development and teacher training, (2) quarterly meetings of medical and education staff in Xiengkhouang Province, and (3) plans for education staff assistance with the compilation of UXO data for use by medical staff.

Project Impact

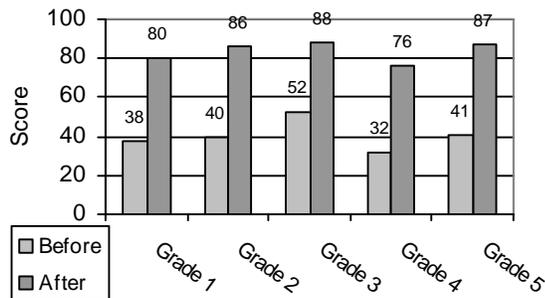
The project’s UXO education component has had a positive impact on students, school staff, district and provincial education officials, and the Ministry of Education.

Students

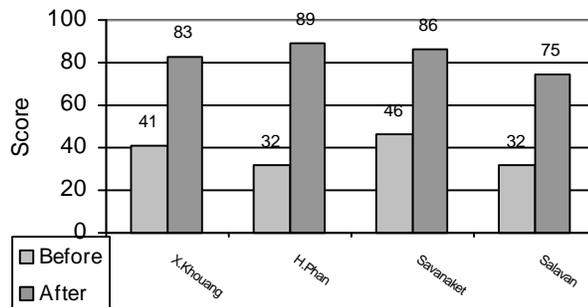
The results of the student assessments before and after studying the UXO curriculum are highly satisfactory: an average pre-test score of 38 percent and post-test score of 83 percent (combining all five grade levels and all four provinces). The pre-test to post-test scores improved markedly for each grade level and province as shown in the table at right. (See Appendix 14 for more detailed tables) At the same time, these impressive test scores should be viewed with some caution. The tests are paper-and-pencil only, and the pre- and post-test versions are identical. The tests are often quite simple with somewhat obvious answers. As a result, they may or may not reflect actual behavior changes when faced with a UXO decision.

Nevertheless, staff reports as well as limited interviews and discussions with students appeared to confirm that students would behave appropriately when faced with a UXO decision. For example, students would not play with UXOs, but would report any UXOs found and encourage others to do the same. Unfortunately, the statistics on UXO incidents in target areas have not changed sufficiently to reflect the impact of the program

Test Scores by Grade Level



Test Scores by Province



on student (or community) behaviors. Indeed, in some cases the number of reported accidents has actually increased, which may well be the result of improved reporting and recording, rather than increased risk behavior.

One negative impact of the curriculum was that some of the teachers instilled such fear of UXOs in their students that they refused to work in the fields. This problem has now been corrected. Another sometimes negative impact is that the instruction creates greater curiosity about UXOs.

In all interviews, students attested to their interest in the UXO studies. In particular, they enjoyed the full-color illustrated text, the supplementary reading materials, posters used in teaching, and extracurricular activities (e.g., puppet shows). Such interest is to be expected, especially when students compare UXO studies to their other conventional subjects, which have neither special learning materials nor the special attention given a new program..

Family and Community

The impact of the UXO curriculum on the family and the community was not formally assessed. Indeed, it is not a stated program objective. However, interviews with students, teachers, parents, and community leadership indicated that other members of the community had benefited indirectly in several ways: (1) students informed their parents and siblings of their UXO studies; (2) students showed their new, attractive textbooks to other family members, who enjoyed browsing through the pictures and/or reading the text; (3) appropriate student behavior toward UXOs was observed by others in the community; (4) interest in UXOs was widespread in villages where puppet shows were performed,; and (5) UXOs texts were placed in some local libraries. Project staff reported that they have observed less instances of people opening UXOs, using them for “dynamiting” fish, or selling them for scrap metal. One specific indicator of the project’s impact on the community was the keen interest in the textbook and puppet show by local leadership and parents associated with the Lad Huang School in Pek District, where a similar textbook appropriate for adults was requested.

Many people that the evaluation team met (including parents, teachers, and officials) noted that in addition to the threat of UXOs, children faced other potential dangers, such as drugs (legal and illegal), HIV/AIDS, gambling, and malaria. They felt it would be appropriate to include these in a more comprehensive curriculum that focuses on a range of risk behaviors rather than on a single behavior.

Local and National Government

Provincial, district, and school officials (both administrative and education) showed genuine interest in the UXO education program. They affirmed the importance of these studies for the children and community as a whole, as well as their desire to continue the program in the post-project period. Furthermore, along with parents interviewed, they felt that a similar curriculum or program would be beneficial to secondary school students and out-of-school youth and adults.

Such a program could be coordinated with the ongoing primary-education-level program, providing mutual reinforcement and greater collective benefit to the community.

The UXO education curriculum has also begun to have a positive impact on the behaviors of many (though not all) teachers, as evidenced by (1) ongoing integration of UXO topics into other subjects (e.g., Lao language, mathematics, “Life Around Us”); (2) the desire (though not much current practice) to use skills and lessons from the program in other subjects (e.g., puppet shows to teach other subjects); and (3) the desire to expand extracurricular activities under the UXO program, and use local resources in producing additional materials. Project staff also report increased knowledge of UXOs on the part of teachers and education officials. A nice by-product of the program has been the increase in confidence and planning, budgeting, and accounting skills of teachers and officials, and an improved sense of responsibility.

Perhaps the greatest impact of the development, testing, and implementation of the UXO curriculum has been on the minds and abilities of education officials at the provincial and national level. This is one of the few instances in which the MOE policy of promoting the development of local curricula at the provincial level has been put into practice. The approach has now been formulated and approved, and the MOE is aware of the precedent setting nature of this project. Moreover, the Department of General Education has been observing this process closely and is interested in adapting this curriculum to include other risk behaviors, especially drug abuse and HIV/AIDS.

Implementation of 1997 Recommendations

As with the medical/surgical component of this project, the 1997 project review team made recommendations for the education component. A description of the progress made toward achieving these recommendations follows.

Slowed Rate of Project Expansion

Recommendation: The project, in collaboration with its partners, should strongly review its planned rate of expansion. Large expansion at this stage will strain the new systems.

Finding: Following discussion, the project staff implemented this recommendation, reducing the project’s previous expansion targets and ensuring that a tested and viable curriculum, teaching-learning materials, and trained staff were in place before the project expanded to additional districts in Xiengkhouang and three other provinces. The project’s geographical expansion did not place an undue burden on the qualitative aspects of the program.

Provision of Technical Assistance

Recommendation: The Consortium should participate more fully in the assessment and implementation of the hazard awareness curriculum. The role can and should be both active and passive.

Finding: Consortium staff increased from 1.5 staff in 1997 to 3.0+ in 1998, and they have been integrally involved in the development of all products and processes comprising the project's UXO education component. At present, a total of three full-time Consortium staff are assigned education duties at the provincial level, supported by one part-time advisor in Xiengkhouang, one part-time coordinator/advisor, and one administration officer at the national level.

UXO Curriculum Committee

Recommendation: The project should form a small, yet empowered, education committee that would meet regularly at the provincial level. The project should further test and refine the curriculum and train technicians. The project should administer end of the semester "tests/surveys."

Finding: Except for not establishing an education committee, the project has implemented all recommendations from the July 1997 project review. The project did not find it necessary to set up a committee because the Xiengkhouang Provincial Department of Education took a strong interest in developing the program and people from all levels were involved in the activities, including students, teachers, education and health officials, and Consortium staff. The process worked well.

Conclusions

All necessary subcomponents of the UXO education component have been developed, tested, revised, and are currently being implemented with positive impacts. However, further refinement and revision is needed to achieve a more effective process and product that can be expanded and sustained by the MOE.

Project Progress

The project has progressed quite well, having developed and tested the curriculum, materials, and methods in Xiengkhouang and expanded these to Houaphanh, Savannakhet, and Salavan Provinces. The project has plans to expand to an additional 53 school clusters in the four provinces (including three new districts).

Appropriateness

The project has developed an appropriate curriculum, together with teaching-learning materials, instructional methods, extracurricular activities, and an administrative and supervision system. However, each of these elements will need to be refined and adapted to differing needs and situations. The project needs to work on better integrating the medical/health and education components to ensure greater mutual reinforcement.

Impact

The project appears to have had an impact on the primary-level students participating in the program—at least on their attitudes. Due to the unavailability of sufficiently detailed statistics on UXO accidents, it was not yet possible for the evaluation team to confirm improvements in actual student behavior, although improvements may be inferred from test results and expressed attitudes. (However, caution should be exercised in using this data.)

The project has had an impact on the knowledge and capacities of education officials in development, administration, and supervision, and on teachers in implementing the curriculum. Even more importantly, the Ministry of Education now has a precedent-setting and viable approach to developing local curricula at the provincial level. The importance of such an action should not be understated.

Cost-Effectiveness

To date, the project's total investment in the education program has been \$94,614, approximately \$2.09 per student. However, cost per student is not a good measure of either economic or social cost-effectiveness. Such a measure does not take into account that the project (1) represents a capital investment in a model/approach that is already being expanded, (2) has set a precedent for the MOE in decentralized development and implementation; (3) represents an important step in community empowerment; (4) has generated considerable spin-off activity and raised awareness within the communities; and (5) has likely saved many children from injury and death. When these factors are taken into account, the education component has been cost effective.

Sustainability

The Lao PDR does not have the financial resources to develop staff or curriculum or to produce materials at the same level as the project. But the government does have the staff, knowledge, skills, and tested model to allow it to continue the program in the current target sites and expand to new sites in succeeding years. Both the concept and the practice (albeit at a reduced level) are sustainable without external assistance.

Recommendations

The education component of the Xiengkhouang War Victims Assistance Project should be continued, refined, and expanded in both the scope of the input and the geographical area. Accomplishing these goals will require additional time and budget beyond the current project end date of May 2000.

It is important to note that the project must consider its resources and capacities in implementing the recommendations, as they will require substantial efforts. Thus, the evaluation team recommends that the project (1) start small with major recommendations and expand gradually; (2) phase operations; (3) assign priorities; and (4) implement significant changes as pilot efforts, with built-in simple action research, allowing comparisons among different approaches in different areas.

Project Continuation and Expansion

Continuation and Expansion

1. The program should be continued and gradually expanded in existing districts, in accordance with local capacities. The program should include new districts and communities when (1) self-initiated requests are made; (2) local capacities are adequate; and (3) staffing, content, and process recommendations have been followed.
2. To achieve the necessary quality and quantity of the process and product as the program is continued, the project will need more funding and time than is allowed for in the current implementation plan, which ends in May 2000. The time frame for the project should be extended until September 2003 and accompanied by appropriate financial assistance. This will also require reprogramming of budgets and the need for additional funding during this last year of the current project phase.
3. The program must increase its efforts to record and disseminate its achievements and lessons learned in a systematic manner. Such increased effort could result in an attractive, user-friendly annual report and eventually a more comprehensive handbook for the project's education component.
4. The project and the donor should consider modifying the education component's objective to reflect a more holistic and sustainable approach that benefits the entire community. An example follows:

To reduce the incidence of future death or injury from war ordnance and other risks through increasing awareness of children, youth, and the community to better understand, recognize, and address UXO and other dangers, by facilitating the development of appropriate risk-reducing behaviors through improved capacities of educational systems.

Such a modification would result in a more integrated approach that is in tune with local needs and practices and is of greater interest to a wider range of government agencies and future donors, and would thus lead to increased sustainability. The project must refine its vision, operationalize this objective, and develop appropriate strategies for action, which should be disseminated to all concerned.

Transition - Think in Terms of Systems

5. Plans to continue and expand the program should provide for a transition to a community-government-supported effort, without external assistance and within two to three years after the program is initiated in any site. At the same time, transition plans must include provisions for flexibility to meet local conditions, needs, and resources (which is consistent with the existing provisions for the development of local curriculums). Small schools (grades 1–2 only) need special consideration.
6. The project must begin to conduct simple action research (as participatory as possible), as a basis for refining and expanding the program, to be submitted to the Ministry of Education to secure increased support and internalization.

Technical Assistance

7. The Consortium should increase its technical assistance in this model building and expansion phase through increased staffing to include the contracting of (1) an education program coordinator to oversee the program and provide technical advice in all areas, especially human resources development (the current overall program coordinator is overburdened); and (2) at least one additional staff member skilled in alternative teaching-learning methods and community development/awareness. The extent of the increase in staff will depend on (1) decisions on the extent of an expansion (both quantity and quality), and (2) availability of funding. If this increase in technical assistance is not forthcoming, the recommendations on quality and scope of input should be either scaled down substantially or dropped altogether.

Project Content

Curriculum

8. The current curriculum should be reviewed and revised (as appropriate) by a group including education and community awareness experts, teachers, students, medical/health staff, participating community groups, and media experts. Such a group should focus on (1) determining if a single curriculum for all five grade levels is appropriate; (2) making the curriculum adaptable to local needs; (3) improving the curriculum's user-friendliness; and (4) establishing objectives and resulting indicators.

9. The project must strongly consider expanding the focus of the UXO curriculum to include other dangers to children and associated risk behaviors. Examples of such potential dangers include exposure to illegal or legal drugs, HIV/AIDS, gambling, gunshot wounds, and malaria. The curriculum should strive to instill in the students the concept of “dangers to children and the community” and promote appropriate risk-reducing behaviors. The project should collaborate closely with UNICEF, particularly on its “Facts for Life” activities. A more widely based curriculum such as this should be structured so that it can be easily refined and adapted to local conditions, e.g., where drug abuse or HIV/AIDS is a particular problem.
10. Before the preceding suggestions are implemented, the project should lay the proper groundwork of analysis/research and coordination and collaboration with other organizations. In addition, the curriculum should be revised on a pilot basis before it is implemented in all project sites.

Target Populations

11. The project should discuss with the Ministry of Education the possibility of formulating and testing a curriculum to be implemented at the secondary education level and/or for out-of-school youth and adults. At a minimum, such an activity could involve producing a text/handbook for youth and adults that would be distributed to communities, and coordinating with the existing primary curriculum.

Project Process

Role of Community and Local Staff

12. The community should play an increased role in project efforts, for example, serving as a resource in selected teaching-learning activities; organizing joint activities (by the Women's Union, Youth Union, and National Front); and producing local materials. With regard to this increased role, the project must establish clear objectives and roles for all involved. Individual communities and schools should be permitted to work out their own arrangements, without having to operate under blanket regulations.
13. Local health officials should also play an increased role where possible, especially in teaching first aid, developing local materials, and coordinating reporting.

Human Resources Development

14. The project should plan and implement pre- and in-service human resources development (HRD) activities for the following groups: selected community members participating in the program (e.g., organization of supporting activities); teachers (e.g., new teaching methods, coordination with the community, improved student assessment); and education supervisors (new teaching methods or coordination with the community). A variety of HRD methods

should be considered, including formal training, on-the-job training, apprenticeship, and discussion. The project must collaborate closely with UNICEF to ensure that project teachers have the opportunity to participate in its National Teacher Upgrading workshops.

15. Consortium staff must be given opportunities to upgrade their knowledge and skills, such as study trips to Vietnam and Cambodia, on-the-job training in community awareness, or formal and informal training. A plan for this must be formulated.
16. The Consortium should strongly consider establishing an HRD unit to plan, organize, implement, and monitor the many necessary human resources development initiatives required, including upgrading skills in planning, management, coordination, instruction, assessment, community awareness, and technical areas. The proposed education component coordinator could head this unit. Such a unit could prove crucial to decentralization and eventual sustainability.

Teaching-Learning Methods

17. The project should develop an expanded repertoire of teaching-learning methods (e.g., simulation, observation, discovery learning, artistic expression, and use of UXO-disabled people in instruction) that can be used by individual schools and teachers in accordance with individual capacities and local conditions. New methods should be devised not only by education experts, but by local teachers, students, and community members. These should be included in the teacher's handbook and demonstrated during pre- and in-service training.
18. The use of puppet shows to increase both student and community awareness should be increased. At the same time, other similar media should be promoted, in accordance with local capacities and interests. Examples include community theater and local exhibitions.
19. The project must coordinate/collaborate closely with MOE and MOH agencies, UNICEF, MAG, and selected international NGOs (e.g., Save the Children Fund [SCF/UK] and World Education) in improving its teaching-learning methods.
20. The project should adopt effective UXO teaching-learning methods for use in other subjects. Examples include puppet shows, student simulations, and posters.
21. If the project decides to expand to higher-level students or the general community, appropriate secondary and out-of-school teaching-learning methods should be produced.

Teaching-Learning Materials

23. The project should emphasize locally produced materials, involving the efforts of teachers, students, health personnel, community members, and community groups. Such activities are

learning experiences in themselves and, thus, should be credited as instructional time under the curriculum. Eventually, they might even be included in a revised curriculum.

24. The present student textbook should be reviewed and revised (as appropriate) by a group including education and community awareness experts, teachers, students, medical/health staff, participating community groups, and media experts. This revision should be produced before the current production run is exhausted and should include the following considerations: (1) production costs (full color vs. partial color vs. black and white); (2) provisions for local adaptation; and (3) wisdom of including 1–5 grade studies in one volume.
25. If the program is expanded to higher-level students and/or the general community, appropriate secondary and out-of-school teaching-learning materials should be produced.
26. The project must collaborate closely with the MOE, UNICEF, MAG, and selected NGOs (e.g., SCF/UK, ESF) in improving its teaching-learning materials.

Student and Teacher Assessment

27. The project should form a group including education and assessment experts, teachers, students, health staff, and participating community groups to develop improved methods of and materials for assessing student progress. The project should focus more on measuring actual behaviors, as opposed to relying on paper-and-pencil tests. Therefore, the current indicators of achievement should be reassessed and revised as necessary.

28. The project should explore alternatives to paper-and-pencil-based assessment methods, including self-assessment, simulations or role playing, group assessment, student portfolios, cumulative assessment, and parental reporting.

Assessment Matrix
(number of students in cells)

Method/ Behavior	Method 1	Method 2	Method 3	Total
Behavior 1	6	0	3	9
Behavior 2	0	5	4	9
Behavior 3	4	0	8	12
Total	10	5	15	30

The process of exploring such methods could include the use of a matrix (shown at right) to assess a variety of behaviors with a variety of methods in order to arrive at a group/classroom assessment. At a minimum, the methods of assessment must be consistent with local participation and decentralization, wherein the community and school decide what is best. This will probably require a series of workshops alternating with field try-outs and simple research over a period of time.

29. The project should form a group including education and assessment experts, teachers, medical/health staff, and participating community groups to develop improved methods of and materials for assessing teachers' performance. The project should focus more on measuring the impact of teaching and local creativity. Therefore, the current indicators of teacher performance should be reassessed and revised as necessary.

30. The project should develop indicators and a method for assessing education supervisors and officials in supporting the curriculum and program.

Management and Coordination

31. A Ministry of Education coordinator responsible for cooperation and exchange with the project should be appointed. However, since the program still focuses on a local curriculum, the provinces should continue to take the lead.
32. The program should review its present management practices and formulate improved management methods that correspond to government systems and can be adaptable and flexible to local needs. This should be worked out among the involved parties at the provincial level.
33. The project should consider establishing an office in one of its sites in the South, with a small initial staff and adequate facilities and means of transportation to properly support expansion in the region while ensuring decentralization.
34. The project should review and revise mechanisms for coordination between the medical and education components to better ensure mutual reinforcement. This might include (1) jointly (Provincial Education Department and War Victims Fund) preparing a simple quarterly report to the provincial governor, supplemented by periodic meetings with the governor to discuss actions and qualitative elements; (2) where possible and practical, medical/health staff serving as resources to teach the UXO curriculum, and (3) enlisting school staff to assist with UXO data collection.
35. The project should identify key partners to be involved in further developing and expanding the education component (e.g., departments within the MOE, UNICEF, MAG, selected NGOs, and other donor-assisted programs with similar interests) and develop a coordination and cooperation plan.

Recommended Activities in Implementing Recommendations

The activities listed in the table on the following page are proposed as the bases for implementing the recommendations. This list includes only major actions that can be taken, and may be supplemented by additional activities.

Recommendation/Activity	Task Force¹	Workshop²	Agreement or Contract³	Study/research⁴	Remarks
Continuation and expansion					
Continuation/expansion		X	X		Reprogram >99-00 budget
Transition	X			X	MOE and CONSORTIUM
Technical assistance			X		Immediate action needed
Project content					
Curriculum		X		X	Provinces, w/ MOE, experts
Target populations	X		X		MOE + CONSORTIUM
Project process					
Role of community		X			Community and Provinces
Human resource develop.	X		X		HRD Unit is vital
Teaching-learning		X		X	Provinces, w/ MOE, experts
Materials		X		X	Provinces, w/ MOE, experts
Assessment		X		X	Provinces, w/ MOE, experts
Management and coord.	X	X			Provinces, w/ MOE
ESL program					
Systemization	X		X		MOH and CONSORTIUM
Teaching and materials		X		X	Collaborate w/ other ESLs
Assessment		X			Included in 4.2 workshop

¹Task Force: small group of individuals assigned a specific task, e.g., develop a plan for HRD,

²Workshop: organized to review/revise and/or develop a specific component, e.g., new curriculum,

³Agreement: formal agreement,

⁴Study/research: data collection, analysis and conclusions precedent to decision making or other activity. This will normally be simple action research or participatory action research.

APPENDICES

APPENDIX A - SCOPE OF WORK

Xieng Khouang War Victim's Assistance Project

This is a draft of the evaluation plan for the Xieng Khouang War Victim's Assistance Project in Laos. The ideas outlined in this document are based on discussions between the project staff and the Lao government counterparts. We look forward to receiving comments and suggestions on this outline by February 10 in order to submit this plan to the Ministry of Health in Vientiane. This will facilitate the government's requirement for visa and authorization for outside consultants.

Purposes of the evaluation:

The goal of this evaluation is to review the project's progress to date. The results of the evaluation (both support for some aspects and suggestions for improvement in other aspects) will be used as guidelines for an eventual expansion of project activities in the Lao PDR.

Objectives of the evaluation:

To assess the project progress in consolidating the past activities and review the effectiveness of the project in building the capacity of the province to implement and administrate project activities.

To evaluate the effectiveness of the project's medical upgrade program in the areas of a) emergency services, b) surgical treatment and c) post-operative care at the province and district hospitals. Specifically this will assess how the medical training program has improved the emergency care received at the target hospitals and whether the improved services are sustainable with the hospital's resources.

To evaluate the appropriateness of hospital rehabilitation work and of medical equipment and how that has changed the capacity of hospital staff to treat UXO patients.

To assess the impact of the UXO education program on school children (both in terms of reducing the risk of UXO accidents and the quality of education provided to school children regarding UXO).

To review the project process. This will include evaluation of the following: 1) Lao government approval process; 2) project management issues; 3) local capacity building aspects; 4) local government's involvement/participation in the project; and 5) project sustainability.

In addition the team should look at how the Xieng Khouang War Victim's Assistance project fits into Lao national policy in the area of emergency care and UXO Education work.

Determine if and how the work of UXO Lao and the Project could be better coordinated or otherwise linked to achieve increased effectiveness of both programs in reducing UXO related accidents.

Are there ways that USAID can or should provide increased support or monitoring to increase or improve effectiveness and impact?

In view of expansion to other provinces, the evaluation team should look at the cost-effectiveness of the current project approach, the relevancy of current project objectives, possible target areas, and the staff capacity and resources required for project implementation and desired impact.

Time Frame for the evaluation:

May 17th May 30th , 1999

Locations:

Xieng Khouang and Houaphan provinces in the north
Savannakhet and Salavane provinces in the south

Method of Evaluation:

It is important for the evaluation team to review this project both quantitatively and qualitatively in the Lao context and in particular in the Xieng Khouang context. Since this is a follow-up of the project review done in June 1997, much of the data gathering will be in comparison with the last review.

Presentation of findings:

As stated above the results of this evaluation will be used for potential expansion of project activities. The team is responsible for report writing. This report will include a list of contacts including names, titles, institutional address and phone and fax number (if possible), and any relevant attachments such as questionnaires developed or used in the evaluation. The report must be completed using Microsoft Word for Windows and copies of the report must be submitted in hard copy and on diskette.

Evaluation Team:

Consortium staff is not included on the list below but will be involved in all stages of the evaluation as requested by the team

Manny Voulgaropoulos, medical aspects of the project.
Ken Kampe, education/CD specialist, for the education aspects of the project.
Representative of Lao Government (Ministry of Health.)
Representative of Lao Government (Ministry of Education.)
Independent Lao medical or public health specialist.
Translator.

A. Document review

Training and evaluation reports

1. Evaluation reports from Medical trainers (overall core training, surgery training, district level training, Anesthesia training, Nursing training,...)

Review of training materials developed during the project period

- a. Primary school UXO awareness text. Teacher's manual for primary school text.
- b. Materials for surgery, anesthesia and nursing curricula.

Review of other materials developed during the project period

The evaluation team will also have access to and can review the following documents

- a. Project document
- b. "Project Indicators" document which was developed in 1997.
- c. 1997 evaluation report
- d. Past quarterly reports submitted to USAID.
- e. Statistical information of the War Victims Medical Fund
- f. Past surveys in schools in four provinces in the project areas.

B. Discussions and Interviews with collaborating agencies and individuals

Interview in Vientiane with appropriate staff from the National Rehabilitation Center, Ministry of Health and Ministry of Education

Interview with medical trainers from Mahosot and "Friendship" hospitals

Interview with the staff from UXO Lao

Interview with other relevant staff of Unicef, MCC, CCL and other international agencies

C. Field Evaluation

The strategy for this part of the evaluation will be developed by the evaluation team during the Vientiane meeting. Listed below are people who have been involved in the project and should be contacted:

At provincial level

1. Staff from the Province Health Department.
2. Staff from the various departments of the Province Hospital: hospital administration, surgery, anesthesia, nursing, emergency room, revolving drug and supply fund.
3. ADB: medical director.
4. Department of Education: Dr. Somjay, selected teachers.
5. Province government administration: Vice-governor and representatives of project committee.
6. Mines Advisory Group and/or other international agencies working in the area.

2. At district level

- a. District Hospital Administration
7. Participants in the training program and other nursing staff as available.
8. District office of Education
9. MAG or Handicap International staff

Vientiane, April 1999

APPENDIX B - BIBLIOGRAPHY

General:

Phase II Project Proposal – Xieng Khouang War Victims Assistance Project, April, 1997

Xieng Khouang War Victims Assistance Project Progress Reports – Consortium, July, 1997 to March, 1999

National Survey of the Socio-Economic Impact of Unexploded Ordnance in Lao PDR –Handicap International/ UXO: Final Report, 1997 and Province and District Reports for Xieng Khouang, Houaphan, Savanakheth and Salavan

Project Agreement between the government of the Lao PDR and the Consortium – Xieng Khouang War Victims Assistance Project, February, 1998.

Materials Produced by the Medical Project:

Project Management Training Series #1- #4: Participatory Development, Needs Assessment, Planning, Coordination

Training of Trainers Manual – Dr. Jitsawong and Dr. Sumanta, with Xieng Khouang Training Network trainers, May 1998.

Year Plan for 1998 – Xieng Khouang Department of Health, March, 1998.

District Emergency Training Manual – Draft – Xieng Khouang Training Network

Basic Operating Room/ Surgical Nurse Handbook: Mrs. Mimala Pathoumxad, RN, Jan, 1997.

Pharmacy Management Handbook – Draft – Mahosot Hospital Management trainers, November, 1998

Student Follow-up Handbooks –students who studied in Vientiane in 1998

Materials Produced through the Education Project:

UXO Education Curriculum and Teacher's Manual – Xieng Khouang Provincial Department of Education, 1997 and Revised Version 1998

Cartoon Books: Shooting for Birds, The Man who met Bad Luck in the Rice Field, Digging for Worms – Xieng Khouang Provincial Department of Education Creative Arts Workshops, 1997

Posters: Teach your children about the danger of UXO, Bombs are Dangerous, There are many bombs in the ground so be careful when doing labor – Xieng Khouang Provincial Department of Education Creative Arts Workshops, 1997

Short Stories by Children – Xieng Khouang Provincial Department of Education Creative Arts Workshops, 1997.

Materials Produced through ESL Project:

Beginning Level English Lessons – Mr. James Higbie, 1997

Advanced Level English Lessons (Medical Topics) – Mr. James Higbie, 1997-99

Advanced Level English Lessons (General) – Mr. James Higbie, 1998.

APPENDIX C - CONTACT LIST

Medical/Surgical Component

Consortium/ Laos – PO Box 6782, Vientiane, Lao PDR, Tel: 856-21-214524; Fax: 856-21-217553

Mr. Michael Peyra, Director

Mr. Martin Dunne, Deputy Director

Ms. Barbara Lewis, WVAP Project Coordinator

Mr. Somsack Chandara, Xieng Khouang Administration Coordinator

Dr. Siphone Sithiwongsaeng, Medical Project Officer

Ms. Sudjai Louangwitsa, Medical Project Assistant

Mr. James Higbie, Coordinator, ESL Program

Kham District Hospital – Kham District, Xieng Khouang Province, Lao PDR

Mr. Maiphone, Director of Hospital

Dr. Ye Yang, Emergency Room Doctor

Khun District Administration and Khun District Hospital – Khun District, Xieng Khouang Province, Lao PDR

Mr. Khamsai Phannapha, District Vice-Governor of Khun District

Dr. Xaithong Phaiyasao, Director of Hospital, Project Management Committee

Mr. Linthong, Khun district Hospital management team, Hospital Rehabilitation working group.

Dr. Bounphaeng, Emergency Room Doctor.

Lao-Soviet Friendship Hospital – Vientiane, Lao PDR; Tel: 856-21-413303/ 06; Fax: 856-21-413663

Dr. Som Ock Kingsada, Vice-Director

Dr. Wanliem Bouaraong, Chief of Traumatology

Dr. Tawan, Surgeon, Traumatology Committee

Dr. Somphit, Surgeon

Dr. Gongkham, Surgeon

Mahosot Hospital – Vientiane, Lao PDR, Tel: 856-21-214018; Fax: 856-21-214020

Dr. Gongsab Akgawong, Vice-Director

Dr. Bounthaphany Bounxouei, Vice-Director

Dr. Thanakhan, Medical Administrator

Dr. Vimone Soukhaseum, Director of Laboratory Services

Mrs. Bounthan, Director of Nursing

Mrs. Aphone, Nursing Team

Ministry of Health – Vientiane, Lao PDR
Dr. Somphet, Department of Planning and Cooperation
Dr. Saykham, Department of Curative Medicine

National Rehabilitation Center – Vientiane, Lao PDR, Tel: 856-214044
Dr. Thongchan Thepsomphou, Director
Mr. Chansy Lounthone, WVAP Coordinator/ National Rehabilitation Center

Nong Haet District Administration and Nong Haet District Hospital – Nonghaet District, Xieng Khouang Province, Lao PDR
Mr. Neng Thong Ya, District Vice-Governor of Nong Haet District
Dr. Jaw Lor, Director of Hospital, Project Management Committee
Mr. Jing Sa Lee Wong, Deputy Director of Nong Haet Hospital, Hospital Rehabilitation Working Group.

Phaxai District Administration and Phaxai District Hospital – Phaxai District, Xieng Khouang Province, Lao PDR
Mr. Khamfeua Pheddawong, District Governor, Phaxai District.
Dr. Bouaphan, Director of Hospital, Project Management Committee
Mr. Somwang, Vice-Director of Hospital, Hospital Rehabilitation Working Group

United States Embassy – Vientiane, Lao PDR
Ms. Margaret Macmillon, Deputy Chief of Mission

Xieng Khouang Province Administration – Xieng Khouang Province, Lao PDR
Mr. Khambong Phayoudone, Province Vice-Governor

Xieng Khouang Provincial Department of Health – Xieng Khouang Province, Lao PDR
Dr. Bouasone Sinouanthong, Director of Provincial Department of Health
Dr. Nanthi, Management Team of Provincial Health Department, Project Management Committee
Mr. Khambone, Architect for Provincial Department of Health, Hospital Rehabilitation Working Group.

Xieng Khouang Provincial Hospital (Lao-Mongolian Friendship Hospital) – Xieng Khouang Province, Lao PDR
Dr. Somsavai Maniphadone, Director of Hospital, Project Management Committee
Dr. Bounxai Nouanthasim, Deputy Director of Hospital, Chair of Medical Training Working Group
Dr. Bouawan Uthajid, Head of Surgery Service of Provincial Hospital, WVMF
Dr. Sivai Wongthongjid, Surgeon, Chair of Equipment Working Group
Dr. Chantala Pheddawheung, Director of Province Hospital Pharmacy, Chair of Pharmacy Working Group (Revolving Drug and Supply Fund)
Mrs. Bounthong, Nursing Committee, Medical Training and Equipment Working Groups.

Mrs. Amphone, Surgery Nurse, Collector of statistics of UXO patients

Education Component

Vientiane

Mr. Khamhoung Saklokham	Director, Dept. of General Education, MOE
Dr. Thongchan	Director, National Rehabilitation Center, MOPH
Dr. Chansee	National Rehabilitation Center, MOPH
Dr. Saykham	Ministry of Health
Dr. Somphet	Ministry of Health
Mr. Bounpone Sayasenh	National Program Director, UXO Lao
Ms. Khamphab	Community Awareness Officer, UXO Lao
Mr. Phil Bean	CTA, UXO Lao
Ms. Enda Dowd	Community Awareness Advisor, MAG
Mr. Preecha	UNICEF
Ms. Amanda Bissex	Assistant Project Officer, UNICEF
Mr. Michiel Peyra	Country Director, Consortium
Mr. Martin Dunn	Deputy Country Director, Consortium
Mr. Somsak	Consortium
Mr. Jim Higbie	Coordinator, ESL Program, Consortium

Xieng Khouang – Provincial Personnel

Mr. Khamkone	Deputy Governor, Xieng Khouang Province
Dr. Buasone	Chief, Provincial Dept. of Health
Mr. Saythong	Chief, Provincial Dept. of Education
Mr. Somjay	Assistant Chief, Provincial Dept. of Education
Mr. Saengthong	Staff, Provincial Dept. of Education
Ms. Barbara Lewis	Coordinator/Advisor, Xieng Khouang UXO Project
Mr. Sounthorn	Education Component, Xieng Khouang UXO Project
Mr. Vanthong	Education Component, Xieng Khouang UXO Project
Mr. Rattanavong	Education Component, Xieng Khouang UXO Project

Paek District, Xieng Khouang

Mr. Thongsy	Principal, Lad Huang School
Mr. Saengduan	Teacher, Lad Huang School
Ms. Khampone	Assistant Head, Lao Women's Union
Ms. Buasone	Parent
Mr. Sysuphan	Head, Lad Huang School PTA
Mr. Buasy	Head, National Front
Mr. Siangkhammy	Head, Youth Union
Various teachers	Lad Huang School
Various students	Lad Huang School
Mr. Somsanid	Assistant Chief, District Dept. of Education
Mr. Sypha	Supervisor, District Dept. of Education

Mr. Bounthan

Supervisor, District Dept. of Education

Koun District, Xieng Khouang

Mr. Buathong

Assistant Chief, District Dept. of Education

Mr. Somboun

Supervisor, District Dept. of Education

Mr. Yui

Principal, Phosy School

Teacher & students

Phosy School

Nong Het District, Xieng Khouang

Mr. Khampha

Chief, District Dept. of Education

Mr. Yuasy

Supervisor, District Dept. of Education

Mr. Thongsy

Supervisor, District Dept. of Education

Ms. Juaya

Principal, Nong Xang School

Ms. Khanthong

Teacher, Nong Xang School

Mr. Syphon

Teacher, Nong Xang School

Mr. Beeja

Teacher, Nong Xang School

Mr. Yingha

Teacher, Nong Xang School

Various students

Nong Xang School

APPENDIX D - ITINERARY FOR MEDICAL/SURGICAL PROJECT EVALUATION

- 17/5/99 Team arrives in Vientiane
Full team meets to discuss scope of work, logistics and concerns
Meeting with Dr. Thongchan, Director of National Rehabilitation Center to discuss objectives for evaluation
Full team meets, including Dr. Somphet and Dr. Saykham, representatives of Ministry of Health, Mr. Chansi, National Rehabilitation Center to continue discussions on scope of work and itinerary.
- 18/5/99 Team meets in morning to continue discussions
Travel to Xiengkhouang
Full team meets in afternoon with Mr. Khamkon Phayadone, Vice-Governor, to discuss project progress.
Medical team meets with Dr. Bouasone, Head of the Department of Health, to discuss project progress
- 19/5/99 Medical team continues meeting with Dr. Bouasone to further discuss project monitoring
Meeting with Dr. Somsavai, Director of Provincial Hospital and representatives of Working Groups to discuss working of project management structure. Representative of each working group presented a report on the progress of the working group.
Discussions with the working group members continued into the afternoon.
Tour of Province Hospital, including Emergency Room/ ICU and current work being undertaken under the Project, interviewed UXO patient currently being treated under WVMF
Visited Advanced English Class (medical topics)
- 20/5/99 Medical team visits Khun District Hospital, meets with Mr. Khamsai, the District Vice-Governor, and Dr. Xaithong, Khun Hospital Director, discusses water system work then tours renovation work done at Hospital.
Medical team travels to Phaxai District Hospital, meets with Mr. Khamfeua, District Governor, and Dr. Bouaphan, Director of the Hospital, views rehabilitation work currently in progress.
- 21/5/99 Medical team visits Kham District Hospital, meets informally with Hospital staff.
Medical team travels to Nonghaet District Hospital, meets with Mr. Neng Thong Ya, District Vice-Governor, and Dr. Jaw Lor, Hospital Director, discusses progress of project to date, views

rehabilitation work currently in progress

22/5/99 Meeting with Xieng Khouang based Consortium staff to review training materials produced by project.
Met with Mrs. Bounthong about medical training network and system of needs assessment and follow-up of
Travel to Vientiane

23/5/99 Team meeting in Consortium Office, Vientiane to start preparations for report writing

24/5/99 Report preparations and writing of first draft of report

25/5/99 Meeting with Dr. Som Ock, Vice-Director, Dr. Wanliem, Head of Traumatology, and surgeons of training team at Lao-Soviet Friendship Hospital about Xieng Khouang student training conducted at Friendship Hospital in 1998.
Meeting with Dr. Gongsab, Dr. Bounthaphany, vice-directors of Mahosot Hospital and members of training team about trainings conducted at Mahosot in 1998.
Continue with writing first draft of report

26/5/99 Start to formalize first draft of report
Meeting with entire team to discuss recommendations

27/5/99 Continue work on report
Meeting with entire team and Dr. Bouasone and Dr. Somsavai for feedback on recommendations, and discussion on Phoukhout District Hospital

28/5/99 Evaluation debriefing with Consortium staff and Lao PDR government officials, including Dr. Thongchan, Director of National Rehabilitation Center and representatives from Xieng Khouang Provincial Department of Health

29/5/99 Team meets to discuss organization of remaining work for draft report writing.

30/5/99 Dr. Voulgaropolous departs from Vientiane.

Itinerary for Education Project Evaluation

- 16/5/99 Review project documents; travel from Chiangmai to Bangkok; discussion with Randall Arnst, co-designer of education component of project
- 17/5/99 Travel from Bangkok to Vientiane; discussions with Consortium staff
- 18/5/99 Travel from Vientiane to Phonsavanh (Xieng Khouang); discussions with government officials and project staff
- 19/5/99 Discussions with government officials & project staff and observation of school activities, Paek District
- 20/5/99 Discussions with government officials & project staff and observation of school activities, Koun District
- 21/5/99 Discussions with government officials & project staff and observation of school activities, Nong Het District
- 22/5/99 Discussions with Project staff; travel from Phonsavanh to Vientiane
- 23/5/99 Review of project documents; outline of consultant report
- 24/5/99 Discussions with: UXO Lao, MAG, UNICEF, and MOE
- 25/5/99 Review of project documents & notes; outline of consultant report; discuss integration of medical and education components of the project
- 26/5/99 Review of documents; complete outline of draft report; meet with U.S. Embassy representatives; discuss draft report with project staff
- 27/5/99 Discuss draft report port with project staff; discussion with evaluation team
- 28/5/99 Additional discussion of draft report; debriefing with MOE staff and others
- 29/5/99 Revision of draft report; discussion with evaluation team
- 30/5/99 Final preparation of draft report
- 31/5/99 Last minute discussions; travel to Bangkok and Chiangmai

APPENDIX E - SUMMARY REPORT, PROJECT MANAGEMENT COMMITTEE, JUNE 1999

Second project period:

July – October, 1997: planning for the management trainings.

October, 1997 – June, 1998:

During the second phase, the project management has been run by a Project Management Committee (the Project Coordination Committee) overseeing the Technical Working Groups. The Working Groups Each have their scope of work, defined by the members themselves and have a chair, co-chair, secretary and accountant. After the corresponding trainings, each Working Group did their own needs assessments, work plans, implementation, follow-up and monitoring.

We started with 5 Project Management trainings, which were led by Consortium staff and included the following content:

Participatory Development: October, 1997

1. The introductory workshop consisted of people who had participated in the project work before – such as the trainees who had participated in the surgery/ anesthesia/ nursing trainings in 1996-1997 - or were identified as likely to be involved in the future, such as the head nurse of the surgery department. The first workshop included both education and medical:

- C What is development?
- C Consortium's history and philosophy on participatory working methods.
- C USAID – what it is, reviewed findings of evaluation of July, 1997.
- C Exercises on defining ownership and participatory method of working.
- C Discussed management / committee structure.
- C Work plan for selecting committee members.
- C Representatives who attended this workshop, went to both districts to discuss the main points of the workshop and in these meetings, the provincial and district health departments selected the members of the committees.

2. Needs Assessment November, 1997:

This workshop included the new committee members:

- C Review of the prior workshop
- C What it is and why it's needed.
- C Data gathering – what is needed for each committee and data gathering methods.
- C Work Plan for needs assessment.
- C During December, the committee members gathered data at the three sites (Province Hospital, Khun and Kham).

3. Planning Workshop January, 1998:
 - C Review of prior workshops and analysis of the methods used so far, including problem solving around confusion of participation, data gathering.
 - C Identified needs and started to formulate plan for the coming year.
 - C At the end of the workshop, members still had problems identifying objectives, goals, plans, etc. so the process was continued in individual meetings.
 - C At the end of March, the year plan for training was presented at the central level. Two staff from Xieng Khouang came to Vientiane to talk directly with representatives from the Curative Medicine Department and central level trainers.

4. Coordination Workshop March, 1998:
 - C What is coordination?
 - C Discussed goals / objectives of each committee and methods of coordination to ensure that if people receive training, they have the equipment to support their new skills, etc.

5. Project Monitoring June, 1998:
 - C Importance of monitoring, on-going nature of evaluation.
 - C Committees started to write indicators, did some data gathering to see if they were reasonable.
 - C This work continued. Some of the committee members were absent as they went to study in Vientiane. In October, the list of indicators was proposed and accepted by the group. In December, the coordination meeting included a day of making the forms to gather the data, which was simplified to a three page basic data form. In January, the committees started to gather the data when they did needs assessments for the new districts.

Other project management achievements:

- C Objectives of committees and roles of each member are defined.
- C Committees are more involved in writing budgets for activities, payment for activities (such as per diems for province trainers), and making summaries for activities. The chair and the accountant in each committee have received additional training to do this.
- C Project management training for the new districts was coordinated with and largely conducted by province staff.

June – December, 1997:

The Coordination committee members attended the above workshops. In their committee work, they decided to hold their meetings on a quarterly basis, and that work at specific sites would be handled by the committee member at that site. In October, a project coordination meeting was held to work out some of the project management problems; they decided at that time to change the name of the group to the Project Management Group and the names of the committees to Working Groups. They devised a structure for the management structure that reflects their sense of ownership. They also drew up the activities and achievements of the project from October, 1997 to October, 1998 and reviewed the organization of each committee. In the December meeting, they reviewed the activities of the previous quarter, made the work

plan, discussed the project management training for the new districts and drew up data gathering forms for the indicators.

New districts:

October and December, 1998: Management team of new districts attended the project management meetings.

January – March, 1999: Series of 3 project management/ orientation trainings: Participatory Development, Needs Assessment and Project Monitoring, Planning. These trainings were carried out by province staff trainers.

After March, 1999: Planning process further proceeding with trainings for new districts to start in June, 1999.

Process in general:

1. In general, the management structure has contributed to a strong sense of ownership, cooperation and the morale of not just the committee members but other staff at the hospitals. Consortium staff has received fewer direct requests for assistance, and people seem to work through their committees.
2. In the early stages, committee members were confused about the process and their own roles in ownership. This became evident during the planning workshop in January, and more work went into identifying committee member roles such as chair, co-chair, secretary and the accountant.
3. Project monitoring has been and still continues to be problematic. Although the working groups participated in formulating the indicators and drew up the data gathering forms, the actual data gathering has been slow, the indicators have been difficult to calculate and have yet to be analyzed.

Project Management Trainings

Project Management Training for Province and Kham/ Khun districts			
Trainers: Consortium staff and consultants			
Name of training/ trainers	No.	Dates	Topics
1. Participatory development Consortium Vientiane staff	28	October, 1997 (3 days)	Participatory development; introduction to project structure and goals of working groups. Reviewed overall project goals, and findings of USAID evaluation team of July, 1997. Attended by both medical and education
1a. Follow-up of training / Department of Public Health & Consortium		November (one day at each site)	Representatives from Province Hospital and Department of Public Health went to each site and trained staff in topics of 1 st training. Committee members selected in a group process.
Needs Assessment Consortium Vientiane based staff	28	November (3 days)	Need assessment, data gathering methods, and decision making of each committee on data gathering for each group. Work plan developed for data gathering in December.
2a. Follow up on Workshop #2		December	Each committee followed the work plan agreed upon in the November workshop. After data gathering, each committee met in January to discuss their findings.
Planning workshop Consortium XK based staff and outside Lao consultant	32	January, 1998 (4 days)	Reviewed prior project management activities and discussed problem areas. Steps to making a plan and drawing up draft plans for each working group.
3a. Follow up of workshop #3		February – March, 1998	In subsequent committee meetings, roles of each committee further defined and objectives of each committee. Continued work on each committee's plans.
Name of training/ trainers	No.	Dates	Topics
3b. Presentation of work plan for 1998		30-31 March, 1998	Presentation of workplan to Vientiane level trainers and Curative Medicine Department officials.
Coordination Consortium XK based staff	32	April, 1998	Objectives and scope of work of each committee, roles of each committee member, better communication.
Project Monitoring Consortium Vte and XK based staff	26	June, 1998	Rationale and steps for doing evaluation, steps in developing indicators.
Project Monitoring follow up		July – December	Committee members met on further defining indicators. Developed forms in December
Data gathering on indicators		January – May	Data gathering along with gathering baseline data on new districts.
Project Management Training for new districts (Phaxai, Phoukhout, and Nonghaet)			
Trainers: Provincial Health Department/ Hospital staff and Consortium XK based staff			
1. Participatory development	18	11-13/1/99	Participatory development; introduction to project structure and goals of working groups
2. Needs Assessment	22	15-17/2/99	Data gathering and project monitoring indicators
3. Planning workshop	30	9-12/3/99 and throughout Mar.	Steps to making a plan and drawing up draft plans for each working group.
Needs assessments in new districts Implemented by Working Group representatives			
Nong Haet	16	18-20/2/99	Assignment after needs assessment workshop with old working group staff going to new districts. Basic data for indicators collected in new districts
Phoukhout	11	24/2/99	
Phaxai	16	25/2/99	

APPENDIX F - TRANSLATION OF FORMS FOR WAR VICTIMS MEDICAL FUND, ADMISSION FORM

- Province Hospital
- Kham Hospital
- Khun Hospital

Data of the patient:

Name.....Address: Village.....District.....

Age.....Sex: M F

Grade of study if in schooloccupation of patient.....

occupation of family.....number of people in family.....

ethnic group..... average annual income of family.....

Data about the accident:

Location of accident (inside village, rice field, forest, distance from home):
.....

Date of accident:

What was the patient doing at the time of the accident (playing, digging and other):
.....

After the accident, the patient received what kind of help before being sent to the hospital (first aid, assistance in being sent to the hospital and other):

Data of Hospitalization:

Condition of the patient when admitted to the hospital: (*in this section, they medical staff write the types of wounds and their location, whether the patient is consciousness, estimate on loss of blood, etc.*)

Date and location of each treating hospital:

Site # 1 Hospital..... Day.....Month.....Year.....

Site # 2 Hospital..... Day.....Month.....Year.....

Site # 3 Hospital..... Day.....Month.....Year.....

Date of discharge.....Number of days in hospital.....

(*Date of completion of form*) atHospital.....dd/mm/yr

Name of person completing the form..... Position.....signature

Notes:

- C This form was revised in the beginning 1998 to be better able to collect basic data on patients. Additions to the form included socio-economic data, grade of study (to collect data for UXO education project), and a breakdown of each site where the patient received treatment.
- C This form is supposed to be filled out when the patient enters the hospital with the date of discharge and signature filled out before sending to finance.
- C In addition to this form, there monthly summary form which is kept on the surgery floor of the province hospital for entering basic data about the patient: name, age, address, activity. This information is available for CST staff to enter the WVMF case number and so the data is available for the monthly MAG and CST coordination meeting. CST and WVMF team members update this monthly and enter the expenses so the information is readily available (this system started in Jan, 1999)

TREATMENT SUMMARY FORM

Surgeries done during hospitalization:

- 1.....
- 2.....
- 3.....

General treatment and medicines used:.....

Tetanus shot given.....within 8 hours after 8 hours

Antibiotics used:

Laboratory studies/ x-ray:

- 1.....
- 2.....
- 3.....

Number of units of blood transfused (if done):

Condition of patient on discharge:

- Normal
- Complication, Description.....
- Handicapped
- Loss of consciousness
- Died
- Sent to another treatment site

Plan/ advise for patient on follow up:

atHospital.....Date

Signatures of Head of hospital and treating doctor at bottom of form

Additional Forms:

List of use of funds for UXO patient:

Name: Age:.....

1. List of medicine and supplies:

No.	Name of med/ supply	Date for billing each type of med. and supply							amt	total price
		9/5	10/5	11/5	12/5	13/5	14/ 5	15/5		
1	<i>cloxacilline 1 g</i>	4							4	7400
2	<i>H2O2</i>	4	2	2	1	3		4	16	4800
3	<i>sterile gloves</i>		1	2			3			2100

ETC.....

2. Per Diem

Dates admitted to the hospital: from to

Total number of days:..... Amount of per diem:

atHospital.....date

Signatures:

Management team of hospital

Treating doctor

Pharmacy doctor

(for per diem): person receiving the money.

Notes:

- C This form should be completed and sent to the health department each week, so they can reimburse the hospital for the medicines used that week from the money the health department has on hand.
- C Included with the pharmacy form are the prescription forms and the receipts for the medicine.
- C There is an additional form for reimbursement for travel.

APPENDIX G - SUMMARY REPORT, REVOLVING DRUG AND SUPPLY FUND, JULY 1997 – MARCH 1999

I. General:

In the second project period, there was improvement of the structure of the organization making it more effective.

II. Organization of the working group:

Objective of the group: This group has the role of supplying medicine and supplies for emergency care and ICU care that is sufficient and on time (*meaning 24 hour access*).

III. Activities:

Activity	Month	Location/ site	Results
1. Project management training	10/97 – 6/98	Phonesavanh	Structure is organized to manage the project
2. Monthly meetings	Since 11/ 97	Consortium office	Exchange of ideas
3. Funds within the RDSF	3/99	Province Fund	2,694,500 kip
		Kham Hospital	519,800 kip
		Khun Hospital	433,370 kip
4. Follow up/ motivation on monthly basis		Indicators for: Province Kham Khun	100% 100% 100%
5. Pharmacy management	10-11/ 98	Mahosot Hospital	Able to set up 24 hour emergency drug cabinet at Province and Khun Hospitals
6. Needs assessment of new districts	2/99	Phaxai Phoukhout Nonghaet	Able to get data from the new districts

IV. Improvements from the RDSF:

1. There is sufficient medicine for emergency medicine and ICU treatment
2. It's convenient for the medical staff and for the patient who has had an accident.
3. The RDSF has progressed in being able to make a small profit.

V. Things that need to be improved

Will need to find a way to provide the basic emergency medicines for the new districts.

Additional comments on the RDSF:

1. Item #3 reflects the value of the money on hand plus the value of the medicine in the revolving drug funds. In March, the RDSF was incorporated into the general hospital pharmacy.
2. Provision of the initial fund of medicines was arranged through Consortium funds in 1996. Initially, the fund had trouble because of pharmacy staff lacking the training to run it, and it was moved to the surgery floor and several surgery nurses were trained in the use of the fund and became the resource people for both the province and the districts of Kham and Khun. The price of the medicine was 15% above the wholesale price and the fund could be built up.
3. In 1997, coordination with a local pharmacy was improved and 3 months contracts were agreed upon to try to stabilize the cost of buying medicine so reasonable plans could be made. In 1998, inflation affected the fund because they couldn't buy medicine below the price they sold it at. The pharmacy supply didn't want to continue with contracts. Better coordination with the WVMF resulted in faster running of paperwork so they could get reimbursed sooner. In spite of the difficulties, the fund was further able to build itself up.
4. Monthly meetings: during 1997, meetings often involved checking mathematics and improving the forms to make them more simple. In later meetings, they have dealt with the issues of better coordination with WVMF, and implementing the cost recovery system. Most recently, meetings have dealt with orienting and educating new district members.
5. At the end of 1998, 20 people from Xieng Khouang (14 from the province and 3 each from Kham and Khun) attended a pharmacy management training which was organized into pharmacy, finance and means testing/ information. Although they had discussed the theory of implementing cost recovery, they were able to see how Mahosot Hospital manages their system and consult with the staff there.
6. In March, the province hospital started the cost recovery system.
7. One indicator for "general health" of the drug and supply systems was using a list of 10 drugs at the district level, and 15 drugs at the province level and comparing what was there when the staff from the province checked at the districts. The down side of this was that all sites make sure that these drugs are available, even though other drugs might not be available, so it's not a very good indicator.
8. Because all sites are in fact, able to keep medicines in stock with money on hand, the province started to follow up and motivate quarterly rather than monthly and otherwise, follow up on problems during the monthly meetings. Once the new districts start their drug cabinets, the RDSF team will follow up monthly.

APPENDIX H - QUALITY OF LIFE REHABILITATION WORKING GROUP SUMMARY, JUNE 1999

This is the newest group in the organizational structure. It is composed of the head of the NRC based in Phonesavanh as the chairman, another NRC staff as vice chairman and one representative from each district for a total of 7 people.

June – December, 1997:

The original grant of \$10,000 comes from a New York based group called SPUNK which donated the money through MINORS, a NGO which currently has a coordinator based in Consortium. The goal of the fund is to provide direct assistance to UXO patients, so the donors haven't been interested in setting this up as a revolving fund.

When the grant was received, Consortium discussed this with NRC concerning how this fund would be implemented. At first, the Department of Public Health was going to be the implementing agent and it was considered to be work of the War Victims Medical Fund. The committee members received a training at NRC in August; Dr. Thongchan was the lead trainer. Then the committee members worked on establishing the policies as they felt there was too large a potential pool of recipients.

During the following months, there was a lot of discussion because the Department of Health wasn't sure about its role, and that maybe other departments were more appropriate. Finally, it was decided that NRC would take the lead in this and the two NRC staff became the chair and vice-chair in cooperation with district health department staff. In order to work smoothly though, the committee sought and obtained a resolution from the XK Provincial Administration in January.

In the meantime, the committee had interviewed 12 patients who had previously received assistance from the War Victims Medical Fund and determined the first four patients who needed the most assistance according to the policy below. After the resolution was obtained, the working group started in the implementation for the first patient.

Patient & family	Direct Assistance	Educational Assistance	Small Business Assistance	Total of assistance (kip)
1. Phou Vieng	house			14,185,632
2. Thongsavanh	water buffalo			1,400,000
3. Lingthong		tutoring	buy & sell things at the market	not yet committed
4. Xai	chickens	tutoring		not yet committed
Total Expenses of Group in USD: \$3078				

In the case of Phou Vieng above, he and his family have expressed an interest in startup funds for

a small business. The Families of Lingthong and Xai haven't haven't determined what they would like to do as yet.

Example of the use of the fund:

The case of Phou Vieng was the most severe. He was digging a post hole for a fence and hit a shell. He was severely injured and the hot metal ignited gas in cans under his house, and the house burned down. He lost his hand and leg on one side and was hospitalized in Vientiane for 6 months. During the time that he was in the hospital, his wife stayed with him, leaving their children with a relative; one of the children died of typhoid during this time. In usage of the fund, everyone agreed that his case was the most severe and that the family needed housing as the most basic level of assistance. Since he had been a contract worker with the military at the time of the accident, the military donated the land and the labor and the fund provided the funds for the materials of the house.

General points about the fund and working group:

- C Outside of the policy below, the group also has a document on its self organization. It is one of the 6 working groups and is overseen by the Project Management committee which approved the list of patients to be helped as well as the size and nature of the assistance.
- C The group does have general training needs which are outlined in its work plan for the year, which includes a simple accounting training (3 days) and then elements for small business – survey, management, etc. The working group members will then be able to teach the recipients of the assistance. They also plan for Somsack to use his experience as a veterinarian to teach the working group members on care of animals.

Following is a translation of the policy which was signed by the province administration in agreement on the fund:

1. Description of origin of fund.
2. Objectives:

In order to rehabilitate the quality of life of former UXO patients who had previously received help through the War Victims Medical Fund through the following:

- C Rehabilitate the economic development of the family.
 - C Raise the level of education
 - C Socially and culturally.
3. People who have the right to receive help from the fund:
UXO patients who had their accident after 4/96 until now and received help as listed below:
 - C Handicapped people and the family of the handicapped UXO patient who received help from the War Victims Medical Fund.
 - C Receive agreement from the village administration of their home village
 - C Located in XK province and live in along a road where follow up is possible.
 4. Limits of the assistance:
 - a. Areas of activities:

C Economic/ business:

- Agriculture: planting, animal raising.
- Handicrafts: weaving, embroidery, basketry, and blacksmithing
- Equipment and handtools for building, small construction, carpentry.

C Education:

--Vocational training (concerning about point for economic/ business)--Funds for general education (necessary learning materials, tutoring)

C Cultural/ society

- Problem solve, promote the village administration to help build the conditions for a handicapped person improve their quality of life.
- Build conditions to help the handicapped person to help himself.
- In certain cases, there will be a direct grant for services.

C Limits on funding:

Funds for provision of large animal (cow, buffalo)	1,000,000 kip
Funds for provision of small animals (pig, goat)	500,000 kip
Funds for poultry (ducks, chickens)	500,000 kip
Funds for fish raising	500,000 kip
Funds for small business startup	500,000 kip
Funds for handicrafts	500,000 kip

--Other areas of social help and direct grants, the committee along with the village administration and other concerned parties will consider what is appropriate on a case by case basis.

--In the area of agriculture, will consider the growth cycle (short and medium length) of the plants and supply the equipment needed for that.

--In the area of education, will build the conditions the age of the person, their own abilities, and their talents in studying a vocation as follows:

Primary level: 200,000/ person/ school year.

Lower secondary: 250,000/ person/ school year

Upper secondary: 300,000/ person/ school year

--For people with talent, will consider vocational schooling for the basic level.

Organization of the work:

1. Set the priorities for choosing the recipients of assistance:

- Head and nervous system trauma resulting in retardation or paralysis.
- Double amputation of arm/ leg
- Blinded in both eyes
- Single amputation of arm/ leg
- Severe economic hardship of the family as a result of the UXO accident

The group of priority patients will be chosen by the above criteria and receive assistance

before and other patients will be considered in order by the committee.

2. Limitations of the assistance:

- For assistance for economic development, can choose 1 activity.
- In the case of direct grant, the project management committee will agree with the services and amount of aid, along with the working group.
- In the case of vocational training, the patient and family can choose 1 activity.

APPENDIX I - SUMMARY OF HOSPITAL REHABILITATION

Phase 2

1. Overview:

A. Structure of the group: The Hospital Rehabilitation Group is a working group of the War Victims' Assistance Project that has the job of improving the site of medical treatment. The members comes from the various areas of the Department of Public Health:

--Department of Public Health: 2 people (*including the Department's architect*)

--Province Hospital: 1 person.

--District Hospitals: 5 people (*one from each district*)

The committee is under the direction of the Project Management Committee.

B. Working methods:

In performing the work to improve the hospitals and some of the equipment, the work is performed in the following steps:

- Improvement of the working group itself so its own work goes smoothly by having regular meetings on a monthly or quarterly basis along with the project management committee.
- Coordination with other involved working groups and services.
- Survey of each target site of the Project in order to gather data to do needs assessments.
- Make the plan together in order to choose the priority areas.
- In the time that there is construction work going on: the working group will the concerned parties in order to organize the estimation and the bidding process, choose the construction companies out of the 3 bids.
- Will follow up and promote the work in each site.
- Make reports for the head of the working group and for the project management committee.

II. Past activities:

In the past there were the 3 project sites: the province hospital, Kham Hospital and Khun Hospital which received a total budget for hospital rehabilitation of \$115,000. In the second phase, the total activities for these three sites have been \$17,260.

A. Province Hospital:

- Built and renovated the ER/ ICU areas, built an oxygen storage room and renovated a classroom:

 C The ER has been in use since 3/1998

 C The ICU room has been in use since 11/1998

The work on these 2 sites have made treatment convenient and cleaning easy

 C Oxygen storage room – these repairs make it convenient to get oxygen to use in the

ER and also make the storage of oxygen safer.

- C The classroom was originally fixed up for the English classes, which not only has made it convenient for the English classes to meet there, it is also a classroom for other trainings.
- C Sent one of the generators donated by the DoD to Vientiane to be fixed, but because of difficulties, this work hasn't been completed.
- C Fixed the heads of 8 oxygen tanks so that they can be used safely.
- C Improved the radio system by providing another battery.
- C Total budget for these renovations of the Province Hospital: \$14,118.42

B. Khun District Hospital:

- C Repaired the emergency room and ICU room, minor surgery, on call room for medical staff, sterilization room and painted the entire hospital.
- C Improved the radio system by providing another battery. There has been coordination with MAG, so that the battery can be charged in the evenings when they charge their batteries.
- C Fixed the water system but there are still problems with not enough water in the well during the dry season as the well isn't deep enough.
- C Total budget for renovation of Khun Hospital: \$2,853.98.

C. Kham District Hospital.

- C Improved the electrical system by running a wire to the laboratory so they can use it when the generator is running.
- C Improved the radio system by providing a battery; Kham district is also charging their batteries at MAG.
- C *(Fixed the antennae of the radio after it had fallen down in a storm; at that time, the mechanics re-aimed it so they could radio the province more easily).*
- C Total budget for Kham: \$287.60

Total budget for the three sites in the second phase: \$17,260

Proposal for other work not previously considered:

- Fix the ceiling of the emergency room at Kham House and build a housing over the well.
- Repair the Eye Surgery room at the province hospital
- Renovate the postoperative ward at the province hospital.
- Continue the project

Other work committed for this year

1. Province Hospital:

- Ramp from ground floor to second floor.
- Repair of recovery room

Concrete walkway extending from oxygen storage area around emergency room.

Concrete walkway in parking lot to connect with ramp.

Provision of a generator

Fixing a room for finance

2. Nong Haet

Training room

water system

Consider generator after checking what size generator ADB is providing

3. Phaxai Hospital

Water system rehabilitation

Hospital rehabilitation

Provision of generator

4. Khun

Water system repairs – changing from well system to gravity feed system.

5. Phoukhout Hospital – discussions still in planning phase.

APPENDIX J - SUMMARY REPORT, MEDICAL EQUIPMENT WORKING GROUP, 1999

1. Overview:

The Equipment Working Group is composed of 14 people: 1 person from the Department of Health, 3 people from the Province Hospital and from each of the district hospitals 2 people.

The Equipment Working Group has the role of: providing medical equipment in order to be used in emergency/ ICU care of UXO patients.

2. Situation of the Hospitals before the Phase II activities of the project:

- None of the hospitals had systematic data about medical equipment.
- At the Khun and Kham Hospitals the instruments used for emergency care, wound care, laboratory and medical furniture weren't sufficient.
- The Province Hospital lacked instruments for treatment of emergency problems, such as equipment for airway management, oxygen tanks, and had only a small amount of equipment for wound care. Other problems were emergency equipment, necessary orthopedic equipment, laboratory equipment and chemicals and medical furniture.
- About the new districts, we've just finished gathering data.

3. Activities that were implemented in the past:

- Data gathering at each site to do a needs assessment, set priorities and choose necessary medical equipment.
- Bidding and choosing the company in order to order the equipment
- Organization the old equipment and incorporating new equipment into the standard sets.
- Provision of equipment and distributing the equipment that was ordered to the three sites as follows (*these were the items that were ordered in November, 98 and handed over in Feb, 99*):
 - Province Hospital – list of 36 items for a total of \$11,897
 - Kham and Khun Hospitals – list of 25 items for a total of \$9,827

4. Results and Improvements in the various activities:

- C Inventory of the the medical equipment at each site.
- C From the needs assessment, can determine the necessary equipment and what each site lacks.
- C The old and new equipment are organized and available to be used immediately when a patient arrives.
- C The necessary equipment was supplied as follows:
 - The Province Hospital received surgery equipment such as instruments to use for wound care, suturing and emergency care; the ER/ ICU areas received beds for the

patients, oxygen tanks to guarantee availability when an emergency case arrived. The laboratory received equipment such as a centrifuge, chemicals and a spectrophotometer (*see below in notes*)

- Kham and Khun received equipment for wound care, minor surgery, lab and injection, resuscitation equipment.

5. Problems encountered during implementation:

- C Still coordination problems between the team and the Project resulting in delay in ordering the equipment.

6. In general, the coordination is smooth and because the roles are clearer, it is better than before:

Equipment budget used up to now:	\$23,378
Equipment for hospitals:	\$21,724
Province Hospital:	\$11,897
Meung Kham	\$9,827
Meung Khun	\$9,827

Notes:

1. The important aspect of the equipment working group progress has been the recognition of the need for inventory, organization systems for equipment readiness. In coordination with the medical training group, they have written lessons on cleaning equipment, organization of equipment sets, and sterilization. When the equipment was distributed, a representative of the team went to the districts to explain how the surgical instruments were to be added to the equipment sets.
2. Laboratory equipment provision has been slow because it's been hard to get a definite list from the province hospital on what is needed and how much. Last year, Dr. Vimone from Mahosot Hospital went to follow up the previous lab work and assess what the laboratory staff need for training and he reviewed this with them.
3. The final equipment list was revised after the work plan was proposed – during this time, the work on agreement of what is contained in the various equipment sets was completed so they were actually able to figure out what they needed. A meeting was held in Vientiane with representatives from the equipment group and Dr. Bouasone; this was also attended by Dr. Amphai from the Mahosot lab so agreement was reached. The final revisions were made with the company and then the list was sent to both NRC and the province health department before the order was signed in the beginning of November.
4. The Spectrophotometer: Several were donated to the Ministry of Health, however, although it had been allocated to Xieng Khouang, in order to use it required other equipment and training. Dr. Amphai was able to help determine the list for ordering the equipment and one of the XK staff

trained on this machine at the Mahosot lab last year. The lab chemicals were ordered through Mahosot. The final step will be for central level lab staff to help the staff in XK set up the system.

5. The Working Group is currently researching prices for a list of equipment that includes equipment for the new districts, orthopedic equipment and patient monitoring equipment. It is anticipated that this will use the remainder of the budget.

APPENDIX K - SUMMARY MEDICAL TRAINING WORKING GROUP, MARCH 1999

Table1: Trainings between October, 1997 – March, 1998 (9th & 10th quarters)

Project Management Training			
Name	Date	No. Participants	Comments
1. Participatory development	Oct/97	28	Participatory development; introduction to project structure and goals of working groups
2. Needs Assessment	Nov/ 97	28	Data gathering
3. Planning workshop	Jan/ 98	32	Steps to making a plan and drawing up draft plans for each working group.
4. Coordination	Mar/98		Steps in improving coordination and communication
5. Project Monitoring	June/ 98		Steps in evaluating work of each committee, development of indicators

Table 2: Central Level Medical Training Activities April – December, 1998 (11th through 13th Quarters)

Site -- Training Course	Date	# of Partici- pants	Comments
Vientiane			
Emergency surgery	23/6 - 22/8 and 14/8 - 6/11	#1: 1 #2: 1	Orthopedics at Friendship Hospital, abdominal/pediatric surgery at Mahosot Hospital.
Emergency medicine/ ICU	23/6 - 15/8 and 14/8 - 6/11	#1: 1 #2: 1	Adult/ pediatric emergency rooms and ICU at Mahosot Hospital
Anesthesia	23/6 - 15/ 12	1	Mahosot Hospital
Surgical nursing, Nursing management	23/6 - 15/8 and 14/9 - 6/11	#1: 2 #2: 2	Orthopedics at Friendship Hospital, abdominal/ pediatric surgery at Mahosot Hospital.
ER/ ICU nursing, Nursing management	23/6-15/8 and 14/8 - 6/11	#1: 1 #2: 1	Adult/ pediatric emergency rooms and ICU at Mahosot Hospital
X-ray technician	14/8 – 6/11	1	Friendship Hospital
Lab training	23/6 - 22/8 and 14/8 - 6/11	#1: 1 #2: 1	#1: general lab training, management. #2: use of spectrophotometer
General Principals in Rehabilitation of Handicapped	August	8	Training at NRC
Pharmacy management	28/9 – 9/10	#1: 11 #2: 9	Training in pharmacy, finance and management for province and district staff involved in revolving funds. Trainees included 14 staff from Province Hospital and 3 staff each from Kham and Khun District Hospitals

Table 3: Province and District Based Medical Training Activities April – June, 1998 (11th Quarter)

Training Course	Location / Date	# of Participants	Comments
Province level trainings:			
training of trainers	Province Hospital: May	16	two-week training on techniques of participatory training
Laboratory Management	Province Hospital: May	5	Follow-up on technique from training of 3/97 and needs assessment by central level trainer for central level training
War Victims Medical Fund	Phonesavanh: May	40	training on policy of WVMF for government officials
District Training:			
aseptic technique/ injections	Khun: April	13	three-day training for nurses
oxygen training	Khun: May	17	two-day training for all doctors and nurses
War Victims Medical Fund	Khun: May	22	training on policy / data collection for WVMF
War Victims Medical Fund	Khun: May	42	training on policy of WVMF for government officials
Follow-up:			
Evaluation of injection technique	Province: June Khun: May		Survey/ direct observation on level of knowledge before training (province) and after training (Khun)

Table 4: Summary Province and District Based Trainings: July – September, 1998 (12th Quarter)

Province Training			
X-ray technician training	9/7 – 21/ 8	2	On the job training with Friendship Hospital trainer
X-ray film interpretation	9/7 – 21/8	21	2 hr/ week training for doctors and nurses in reading x-ray films.
ER training for district and province staff	3/8 –4/ 9	6	5 week on the job training with mobile team doctors; 40 hours theory
On the job nurses OR training	June – Nov.	13	Central level OR nurse providing feedback and training
Intramuscular injection techniques	23/9	12	Training for head nurses – consistent information on technique, how to give feedback to staff, and how to provide supervision
Sterilization and asepsis	24-25/ 9	12	One day of theory and one day practice
District Training:			
Suctioning – Khun	27/7	27	Use of manual suction equipment
Suctioning – Kham	25-26/8	26	Use of suction equipment and review of oxygen equipment use.
Instrument organization – Kham	17/8	22	Inventory and organization of surgical instrument sets for minor surgery and wound dressing care.
Instrument organization – Khun	20/ 8	22	Inventory and organization of surgical instrument sets for minor surgery and wound dressing care
First aid for teaching training	July – August		In Xieng Khouang, teams of 6-8 people attended the teacher training; 1 trainer taught one hour of theory and demonstrated. The other co-trainers supervised the trainees in bandaging techniques. District hospital staffs in new districts participated where appropriate. Mobile team staff also participated.

Table 5: Training Summary for October to December 1998 (13th Quarter)

Site – Training Course			
Province level training – mobile team staff			
Anesthesia – ICU/ER	September – November	15	11 hours of theory, on-the job training for anesthesia assistant (1 person), ICU/ER staff, and month long training for Dr. from Khun District Hospital
Surgery	September – November	15	10 hours of theory, on-the-job training. Supervision of Kham District Dr. who is studying postgraduate course in surgery.
Nursing management of OR	July – November	7	On-the-job training which resulted in re-organizing the OR
CPR	30/11/98	15	2 hour refresher training for doctors and nurses.
Province level training – province level and mobile team staff			
Training	Dates	# of Partici- pants	Comments
Wound and dressing care	3/12/98	15	Trainers included nurses who studied in Vientiane and nurse from mobile team.
Hip IM injection techniques for trainers	25/10	3	One day course for head nurses to establish IM injection protocol and system for training and giving feedback to nurses in each section
Hip IM injection techniques for nurses	25/10-3/11	20	Each of the head nurses taught and evaluated the nurses in the sections
District level training			
Hip IM injection technique for Kham District Hospital	10/11/98	21	
Hip IM injection technique for Khun District Hospital	18/11/98	12	

Table 6: Trainings January – March, 1999 (14th Quarter)

Vientiane			
Training	Date	No. of participants	Comments
None			
Province level trainings – province trainers			
Training	Date	No. of participants	Comments
Oxygen therapy and suctioning	1/99	30	
Project Management Training for new districts			
1. Participatory development	11-13/1/99	18	Participatory development; introduction to project structure and goals of working groups
2. Needs Assessment	15-17/2/99	22	Data gathering and project monitoring indicators
3. Planning workshop	9-12/3/99 and throughout Mar.	30	Steps to making a plan and drawing up draft plans for each working group.
Needs assessments in new districts			
Nong Haet	18-20/2/99	16	Assignment after needs assessment workshop with old working group staff going to new districts. Basic data for indicators collected in new districts
Phoukhout	24/2/99	11	
Phaxai	25/2/99	16	
District level training follow-up			
Kham Hospital	12/2/99	20	Evaluation of trainings from 1998
Khun Hospital	23/2/99	10	
Sub-district health center training			
Group 1	4/3/99	16	First aid, bleeding control, transport of patient to district or province hospital. Province trainers.
Group 2	25/3/99	14	

Summary

Improvements as a result of medical training:

Area	Improvement	Comments
Medical Management Knowledge and skills which developed during medical management trainings.	Staff are able to do needs assessments, identify problems, plan, implement and monitor	Outputs from workshop books Minutes from meetings
	In general, staff at province and district hospitals understand the goals and work of the project	Qualitative: staff at hospitals make requests to working group members
	Goals, objectives and work of each committee are clear; changes are discussed in meetings.	1998: workshop book #4 1999: workshop book #1
	Roles of each member of the committee is clear; each committee has chair, co-chair, secretary and budget assistant.	
Management of Training Working group: Systems which have developed to carry out trainings.	Training network: Core group of trainers who conducted district and province level	15 government staff and 1 CST staff trained as trainers in 1998.
	Number of trainings during 1998 increased; number of people trained increased	List of trainings
	Supervision system improved	List of trainings that included head nurses at each site Report of Follow up of training in 1999
	Coordination of trainings with other government agencies and NGO's.	Meetings with JOCV Trainings with ADB subdistrict staff Coordination with mobile group/ central level trainers. Coordination with DOE on first aid trainings with primary school teachers.
	Currently working on training texts	See training materials list
In all of the following trainings, students who learned in Vientiane are able to teach their skills to others in the province and districts after their return. Many of the students hadn't received TOT , but after their return, they worked with staff who had been trained in TOT to teach the content.		
Emergency medicine/ ICU:	Knowledge of theory, improved treatment in the areas of: practice of basic life support, follow up of patients, danger signs, referral and transport.	Qualitative; evaluation after training hasn't been done.
Anesthesia	Additional person trained in anesthesia, so two anesthesiologists at province hospital. Person trained has received more training in use of spinal anesthesia. Basic level training of local anesthesia for two district doctors	Spinal anesthesia performed at province hospital in 1998 (after the training): 18 Number of patients who received anesthesia during training period (data from training report/ Dr. Aphone): General: Spinal: Evaluation of use of local anesthesia at district level

		hasn't been done.
Surgery	<p>Nursing: training in knowing names and use of instruments, organization of sets, sterilization.</p> <p>Surgeon: better technique in general, learned new techniques in emergency surgery, surgical treatment of UXO and other accidents.</p>	<p>Post-test scores at Friendship Hospital: 70%</p> <p>Review of students' follow up books.</p>
Nursing	<p>Improved nursing management, especially in the are</p> <p>Able to improve the management of the nursing service in the operating room, treatment room for wound care, Eas of patient care, patient follow up, taking care of the equipment, organizing of operating room.R/ICU and other areas.</p>	<p>Assessment of nursing ability after trainings done only at the district level. At province, have assessed injection technique only.</p>
Lab/ X-ray	<p>Technical staff in both areas have improved their skills and learned new skills.</p> <p>Able to use modern equipment with correct technique</p>	<p>Data from province hospital – more lab tests and x-rays done each year.</p>
Pharmacy	<p>New knowledge, both in theory and practice about setting up revolving drug system, finance, means testing.</p>	<p>Establishment of cost recovery system.</p>

Things to improve:

- C In future trainings, pick the appropriate location for training and appropriate person for training.
- C Before starting the training, all materials should be completely arranged. There should be the assignment of who takes responsibility for each step of the lesson.
- C The minutes, documents and data for each training should be organized so that it's convenient to assess data or reports.
- C There should be another TOT in order to broaden the base of people in every technical skill at both the province and district levels.
- C Equipment necessary for carrying out the new skills should be provided on time.

Proposal:

- C Should continue medical education activities regularly.
- C Continue ESL training
- C Raise training per diems
- C Project should continue

Summary

Materials produced by Medical Training Program

1996 – 1999 June

Summary of materials:

1. Workshop materials are produced after each workshop from the outputs of the workshop itself. For each activity, the objectives, equipment and steps of the process are written so they can be used as a resource for the future. The Project Management books from the first sessions of management training for the Province Hospital and Kham and Khun districts were used for planning and implementing the trainings for the new districts of Phaxai, Phoukhout and Nonghaet in 1999.
2. Training materials: written in Lao by Lao trainers at the district and province levels. Some medical training materials use Thai materials as source materials. Much of the medical training material has not been developed into textbooks yet, except where noted.

Area	Content
Project Management Training:	
1st set (1997-98)	Books produced for initial trainings for Province Hospital, and Kham and Khun district hospitals
Workshop Book #1	Participatory Development
Workshop Book #2	Needs Assessment: steps in doing needs assessment, outline of data gathering forms for each committee and schedule for needs assessment.
Workshop Book #3	Planning: Participants opinions on previous workshops and work, steps for developing a plan and each committee's basic work in developing their plan.
Year Plan for 1998	Activities for each committee and schedule for 1998.
Workshop Book #4	Coordination: participants responses to rationale for coordination, how to better coordinate, objectives for each committee and roles of each committee member.
Workshop Book #5	Project monitoring and indicators: each committee started to propose and research indicators.
2nd set (1999)	
Workshop Book #1	Participatory Development – finished, not yet printed or distributed.
Workshop Book #2	Needs Assessment, identification of problems, project monitoring indicators – finished, not yet printed or distributed
Workshop Book #3	Planning Workshop: steps for development of plan, identification of problems.
Year plan for 1999	In development as of 24/5/99
Training of Trainers	
TOT training manual	TOT Handbook – written by TOT trainers Dr. Jitsawong and Dr. Sumanta for workshop in May, 1999. TOT workshop outputs handbook – expanded lessons of TOT handbook with outputs and lesson plans from workshop participants.

Area	Content
Medical Training	
Laboratory manuals	<p>Hematology</p> <p>Urinalysis and cytology</p> <p>Bacteriology</p> <p>Parasitology and stool analysis</p> <p>Mahosot laboratory trainers wrote these lessons which were used during the training of 3/97. The trainers have subsequently used these manuals to develop more comprehensive material, which is yet unpublished.</p>
X-ray manual	<p>X-ray interpretation manual for use by medical staff: general principles on viewing x-rays, normal and abnormal x-rays of chest, abdomen, bones. Written by Dr. Somxai of Lao Soviet Friendship Hospital.</p>
Nursing Manual	<ol style="list-style-type: none"> 1. Text for basic nursing training based in Xieng Khouang – basic nursing principles, operating room procedure and organization, sterilization of equipment, organization of equipment. Written by Mrs. Mimala of Mahosot Hospital for training in Nursing, 1996. 2. Nursing management: Theory of nursing practice. This was written by Mrs Aphone and Mrs. Bounthanh of Mahosot Hospital for nursing management training (will be conducted in 1999). 3. Nursing lessons: general introduction to Mahosot ER/ ICU areas including protocols for common procedures and lessons on diseases most often seen at Mahosot; used in nursing training in 1998, not yet fully compiled.
Pharmacy management manual	<p>Lecture notes compiled during two sets of management trainings in October/ November, 1998. The content is from the trainings in pharmacy, finance and means testing. This is still being reviewed by Consortium and Mahosot trainers.</p>
Surgery lessons	<ol style="list-style-type: none"> 1. Lessons from training in 1996 – 97 in surgery techniques, written by Dr. Somphit. 2. Lessons of Mahosot trainers from training of 1998 3. Lessons from Mobile group trainings in Xieng Khouang, 1998.
Anesthesia lessons	<ol style="list-style-type: none"> 1. Lessons from training in 1996-97 in anesthesia, resuscitation, patient monitoring. Written by Dr. Phouwang. 2. Local anesthesia lessons – local infiltration, blocks (digital, wrist, etc), complication: currently being revised.
Emergency room/ ICU lesson	<ol style="list-style-type: none"> 1. CPR materials: lessons used during 1998 trainings. This would be the next priority as there is nothing similar in Laos.
District Trainings manual (in development)	<ol style="list-style-type: none"> 1. Lessons from trainings in 1998. Written by Xieng Khouang training network. Currently developing into textbook for 1999 district trainings.

APPENDIX L - RESULTS OF STUDENT ASSESSMENTS

The results of student assessments in the four program provinces (all grade levels combined) during the 1998/99 school year are shown in the table below.

Province	District	High score range*	
		Before	After
Xieng Khouang	6 districts	39-68%	76-88%
Salavan	Salavan	29-40%	68-83%
Houa Phan	Sam Neua	21-44%	84-95%
Savannakhet	Xepone	21-76%	79-96%
Total	9 districts	21-76%	68-96%

* From low scores to high scores between various grade levels

The results of pre and post testing for individual grade levels during the 1998/99 school year for all districts (combined) are shown in the table below.

Grade Level	High score		Medium score		Low score	
	Before	After	Before	After	Before	After
Grade 1	38%	80%	45%	18%	17%	2%
Grade 2	47%	86%	36%	12%	17%	2%
Grade 3	59%	84%	31%	15%	10%	1%
Grade 4	37%	77%	58%	22%	5%	1%
Grade 5	48%	88%	48%	11%	4%	1%
Total	45%	83%	44%	16%	11%	1%