

**LAO PEOPLE'S DEMOCRATIC REPUBLIC  
PEACE INDEPENDENCE DEMOCRACY UNITY PROSPERITY**

# **REPORT OF EAR, NOSE and THROAT SURGERY MISSION**

**At**

**Oudomxay Provincial Hospital  
LAO, PDR**

**January 21-28, 2014**



**A Cooperation Between**

**Oudomxay Provincial Hospital,  
Setthathirat Hospital, Vientiane**

**and**

**Lao Rehabilitation Foundation (LRF)**



## CONTENT

<b>Title</b>	<b>Page</b>
Abstract .....	3
Background Information .....	4
Objective .....	5
Location and Duration .....	5
Teamwork .....	5
Instruments and Medicine .....	5
Responsible Unit .....	6
Technical Activity .....	6
Results.....	7
Budget and Expenditure .....	7
Discussion .....	7
Conclusion .....	8
Future Plans .....	8
Attachments .....	9

## ABSTRACT

**Title:** Ear, Nose and Throat Surgery Mission at Oudomxay Provincial Hospital, Lao PDR.  
Supported by Lao Rehabilitation Foundation

**Aim:** To decrease the prevalence of ear, nose & throat diseases in Oudomxay and to develop the surgical skills of Lao medical personnel.

**Teamwork:** Included 16 members, 2 US ENT endocrinologist-surgeons, 2 Lao surgeons, 2 Lao endocrinologists, 3 anesthesiologists, 4 OR nurses, 2 coordinators and the president of LRF.

**Methodology:** It took 4 months (October 2013 to January 2014) to prepare the mission, to register patients (hyperthyroid and cleft lip/palate). For hyperthyroid cases, blood test T3, T4, TSH and EKG were done prior to the arrival of the team. Patients were examined before surgery by experts with modern equipment (color-doppler ultrasound machine). Surgery was performed when deemed necessary and in order of priority. Post surgery follow up was provided.

**Result:** 75 patients were examined, treated by medicine and advised. 12 cases were selected for surgery (8 thyroidectomy and 4 cyst/tumor).

**Outcome:** All operations were successful and there were no complications.

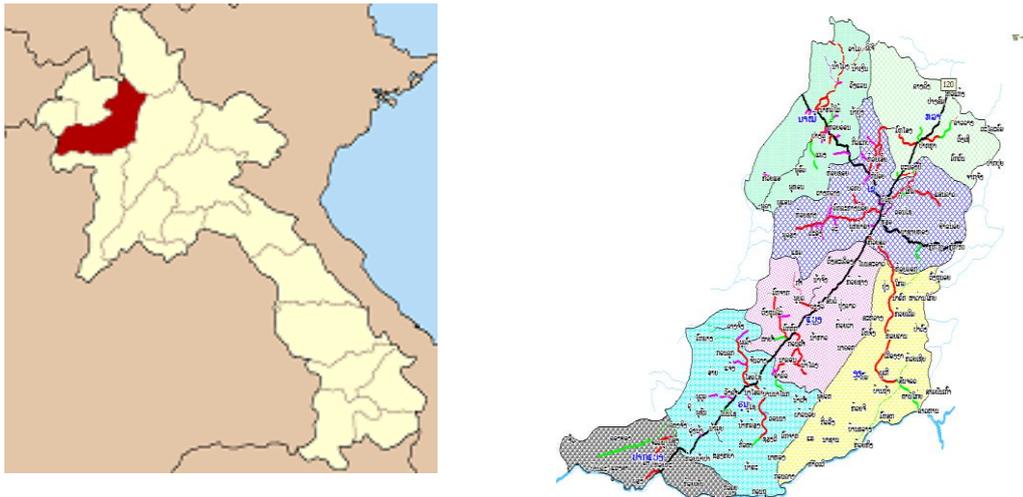
## I. Background Information

### 1. Oudomxay Provincial Hospital

Oudomxay province is the centrally located province of the 4 Northern provinces of Laos. It borders Phongsaly, Luang Namtha, Bokeo, Xayabury and Luang Prabang provinces. High mountains cover 85% of the land. The population according to the latest census (2010) is 285,874 and many poor people live in remote areas. The economy is mainly agricultural and farming.

The public health care system includes 1 provincial hospital, 2 military hospitals, 6 district hospitals and 49 primary health care centers.

*Laos and Oudomxay provinces map*



Oudomxay Provincial Hospital is the primary government hospital of the Northern provinces. There is a plan to establish the Oudomxay Provincial Hospital as a Regional Hospital to expand service coverage to the neighboring provinces of Luang Namtha, Bokeo and Phongsaly . There are 92 beds with 135 staffs (88 F). The hospital is staffed by:

- Specialist (postgraduate)	16 ( 3 anesthesiologists, 1 ENT doctors)
- Medical doctor (graduate)	29
- Third level medicine (4 year training)	03
- Secondary level medicine (3 year training)	48
- Primary level medicine (1 year training)	39

The provincial hospital has an ENT department within the main hospital building. ENT surgery is undertaken in a shared operating theatre of the hospital and post-operative patients stay in the general medical ward. Human resources for ENT care are 1 doctor, (trained in Vietnam for 3 years).

ENT service is an important and necessary health care component of the provincial hospital; however it has limited functioning due to lack of specialist's skills and surgical equipment. Often, patients must be referred to Mahosot hospital in Vientiane Capital which most patients cannot afford.

For several years, the ENT team of ODX province, in cooperation with Lao Rehabilitation Foundation (LRF), has provided mobile health care in remote areas and ENT surgery at Oudomay provincial hospital. However many patients are still waiting for treatment. In June 2013, 126 patients were examined and treated by medicine. 14 cases were selected for surgery while 112 patients were placed under observation.

This mission was the fourth ENT surgical mission at Oudomxay Provincial Hospital funded by Lao Rehabilitation Foundation, USA.

## II. OBJECTIVE

### 1. General objective

- To decrease the prevalence of ear, nose & throat diseases.
- To cooperate with US experts to develop the surgical skills of Lao medical personnel.

### 2. Specific objective

- Improve the life of patients by performing thyroidectomy and other plastic surgeries.
- Teaching new technical and surgical skills to Oudomxay and Setthathirat surgeons for the examination of thyroid disorders and thyroidectomy.

## III. LOCATION AND DURATION

This mission provided services at Oudomxay Provincial Hospital for 8 days from January 21-28, 2014.

- January 21-22 examined all patients
- January 23-25 surgery
- January 26-27 monitoring cases post surgery

## IV. TEAM WORK

There were **16** team members:

### ▪ **Oudomxay Provincial Hospital (10):**

- Coordinator 01
- Thyroid specialist 01
- Surgeon 01
- Anesthesiologists 03
- Assisting nurses in OR 04

### ▪ **Setthathirat Hospital (Vientiane) (2):**

- Thyroid surgeon 01
- Endocrinologist 01

### ▪ **USA Team (4):**

- President of LRF 01
- ENT surgeons 02
- Coordinator 01

(Detail on attaches files)

## V. INSTRUMENTS AND MEDICINE

This mission was performed with the use of quality manual and automated equipment intended for mobile healthcare and effective medicines for treatment. It included:

1. Instruments and medicine for ENT examination
2. Instruments and medicine for ENT surgery
3. Instruments and medicine for anesthesia
4. Instruments and medicine for recovery and post surgery

(Detail on attaches files)

## **VI. RESPONSIBLE UNIT**

### **1. Oudomxay Provincial Hospital**

- Secured official agreements and approvals (LRF, MoH, MoFA).
- Provided leadership to register patients and make appointments.
- Provided location to examine and operate patients.

### **2. Lao Rehabilitation Foundation**

- Provided funding for medical equipment and medicine needed for the mission.
- Provided funding for blood testing of thyroid cases prior to the mission.
- Provided funding for per diem, transportation and accommodations for the Lao team.

## **VII. TECHNICAL ACTIVITY**

### **1. Preparing**

- 4 months to prepare (October 2013 to January 2014). LRF coordinator in Vientiane and eye doctor at Oudomxay Hospital to advertise the purpose of the mission, plan activities and get agreements and approvals from Oudomxay Provincial hospital, Provincial Public Health, Governor, Administrative Office of Ministries of Health and Foreign Affairs.
- Register patients with blood test (T3, T4, TSH), EKG and make appointments.
- Prepare equipment, supplies, medicine, budget and teamwork in Laos and USA.

### **2. Activities performed**

Provided service to all registered patients. The team used manual and automated equipment to examine and treat patients.

The team of specialized surgeon, endocrinologist from US, surgeon and endocrinologist from Setthathirat Hospital, also surgeons and anesthesiologists from Oudomxay hospital joined together for:

#### **Physical Examination**

Thorough physical examination of patients was performed and recorded for weight and height, pulse rate and regularity, blood pressure, cardiac examination (EKG). Thyroid enlargement (diffuse or nodular) was recorded by ultrasound imaging.

#### **Surgery**

Hyperthyroid, goiter and cyst surgeries were performed while teaching new surgical techniques for thyroidectomy to Setthathirat and Oudomxay Hospital surgeons.

### **3. Other activities**

Lao Rehabilitation Foundation donated two new patient monitors with adult and neonate sensors, one new ultrasound machine with abdominal and vaginal probes from DAK Foundation and some other medical equipment and supplies to Oudomxay Provincial Hospital.

## VIII. RESULTS

All registered patients were examined, with no regard to gender, age, ethnicity and religion free of charge for a total of 75 patients (72 females), 12 surgeries were performed as follows:

### Surgeries performed:

No.	Treatment (Surgery)	Target	Treated (operated)
1	Thyroidectomy	23	8
2	Cyst/Tumor	2	4
3	Cleft lip/palate	0	0
	Total	<b>25</b>	<b>12</b>

## IX. BUDGET AND EXPENDITURE

The projected budget was **28,086 USD** (twenty eight thousand and eighty six USD).

The total actual expenditure increased to **30,305 USD** (thirty thousand three hundred and five USD) as unbudgeted anesthesia equipment and supplies were provided to Oudomxay hospital:

The actual expenditure is as follows:

– Instruments and equipment from USA	\$11,800
– Medicine from USA	\$6,390
– Medicine from Oudomxay hospital	\$2,191
– Transport and accommodation of USA team	\$8,450
– Transport and accommodation of Lao team	\$1,205
– Preparation and fuel	\$269

(Detail on attach files)

## X. DISCUSSION

As evidenced by the high number of thyroid cases registered during this mission, there is a high prevalence of goiter and hyperthyroid cases in Oudomxay. Expectedly, this trend will continue without a plan to treat and prevent.

The primarily concerned of many patients was cosmetic. Patients were advised of the possible complications of thyroid surgery such as: postoperative bleeding, infection, numbness, scarring, weakness or paralysis of vocal cord with change in voice, difficulty swallowing airway obstruction (requiring tracheotomy), need for lifelong replacement of thyroid hormone and/or parathyroid hormone and calcium, recurrence of mass, failure to diagnose, risk of death and anesthesia risks. A signed waver was required from each patient prior to surgery. Some patients elected to postpone surgery.

Only few cleft lip/palate patients were registered as Smile Train Project is now serving the Northern provinces of Laos. 1 cleft lip and 1 cleft palate patients were registered, however surgery could not be performed as cold and pneumonia did could not permit general anesthesia.

The number of surgeries performed is below target, because of the above mentioned problems.



## **ATTACHMENT DOCUMENTS**

1. Photo of Activities
2. Photo of Case Post Surgery
3. Teamwork
4. List of Information and Approval Letters
5. List of Expenditure