REPORT OF

MOBILE HEALTH CARE

For Dental, E.N.T Diseases, Expectant Mothers and Pediatric Services in the Remote Areas of:

Namor district
Oudomxay Province, Lao PDR.

February, 2011

By: Oudomxay Provincial Hospital

Supported by: Lao Rehabilitation Foundation
Refer to planning of mobile health care in the remote area of Namor district, Oudomxay province of February 2011.
Refer to the agreement letter of Oudomxay Provincial Hospital of February 05, 2011.

I. BACKGROUND INFORMATION

1. Namor District, Oudomxay Province

Namor district is one of the poorest districts of Oudomxay province, bordering LuangNamtha province and China. It consists of 64 villages and 5,474 houses of which 1,262 are considered extremely poor.

The population is 34,771 (2010), it is inhabited by different ethnic groups: Khmu, Yao, Hmong, LaoHui, Lantan and others, each with their own identity, culture, traditions, costumes and languages. Many people are living in remote areas of high mountains and the economy is subsistence farming.

Map of Laos and Oudomxay Province:

The public health system is extremely underdeveloped. There is only one district hospital (15 beds), five healthcare centers providing service to the entire population. The public health system provides limited access to medical doctors and diagnostic equipment for ENT, dental, expectant mother and pediatric service. In most cases, patients are referred to provincial hospital, but are generally unable to afford transportation cost to the provincial hospital.

Cavitas dentitis and deafness are critical public health problems and the healthcare of expectant mothers and children is a priority for the ministry of public health and provincial public health in Laos.

Unfortunately, patients are unable to get treatment in these highly remote areas.

This two day mission at Namor district hospital (February 6-7, 2011) provided checkups for expectant mother on the 3rd phase of pregnancy and pediatric health care check-ups that will help decrease maternal and infant mortality rates. This program is supported by Lao Rehabilitation Foundation, USA.

II. OBJECTIVE
1. **General objective**
   - Broaden the coverage of health services for people in remote areas, ethnic minority groups and the urban poor.

2. **Specific objective**
   - Decrease the prevalence of deafness, cavitas dentis and the maternal-infant mortality rate.
   - Health education for dental and ENT care as well as healthcare education for expectant mothers.
   - Resource development for Namor district hospital to provide better health care for ENT and dental diseases.

### III. LOCAL AND DURATION

This mission provided service at Namor district hospital for 2 days on February 6-7, 2011.

### IV. TEAM WORK

There were 30 team members:

- **Oudomxay Provincial Hospital (12):**
  - Pediatric doctor 01
  - Gynecologist doctor 01
  - Dentist 02
  - E.N.T doctor 01
  - Nurse assistance 05
  - Driver 01

- **Namor district hospital (10):**
  - Medical Doctor 01
  - Nurses and local staffs 09

- **Observer (8):**
  - President of LRF 01
  - ENT surgeon 01
  - General surgeon 01
  - Financial advisors 03
  - Coordinator 02

### V. EQUIPMENT AND MEDICINE

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

1. Instruments and medicine for ENT service.
2. Instruments and medicine for dental service.
3. Instruments and medicine for expectant mothers.
4. Instruments and medicine for pediatric services.

(Detail on attaches files)

### VI. RESPONSIBLE UNIT
1. **Oudomxay Provincial Hospital**
   - The official agreement and the Lao team worked from UDX provincial hospital.
   - Provided information to Namor district to appoint patients in remote areas.

2. **Namor district hospital**
   - Prepared location and provided information to appoint patients in remote areas.

3. **Lao Rehabilitation Foundation**
   - Provided funds for the medical equipment and medicine for the mission.
   - Provided funds for expenses that included a per diem, transportation and accommodations for the Lao team.

**VII. TECHNICAL ACTIVITY**

1. **Preparing**
   - Cooperated in partnership with district hospitals, writing a proposal and secure agreements from Oudomxay Provincial Hospital and Public Health Department.
   - Requested funding from Lao Rehabilitation Foundation, USA.

2. **Practicing**
   - Cooperated in partnership with the provincial and district hospitals.
   - Divided team work into 4 teams: E.N.T, dental, expectant mothers, and pediatric.
   - Equipment set-up.
   - Registration of cases was completed by local staff.
   - Examination and diagnosis was performed with manual or automated equipment.
   - Treated patients with medicine or medical procedures.
   - Advised and educated patients about their disease and medicinal procedures.

**VIII. RESULT**

This mission has serviced all patients in need, with no regard to gender, age, ethnicity and religion, serviced all patients with dental and ENT diseases, expectant mother and pediatric service for a total of 692 patients (388 females) free of charge as follows:

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Target No. patients</th>
<th>Examined and treated</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT</td>
<td>300</td>
<td>222 (108F)</td>
</tr>
<tr>
<td>Dental</td>
<td>400</td>
<td>307 (186F)</td>
</tr>
<tr>
<td>Expectant mother</td>
<td>50</td>
<td>45</td>
</tr>
<tr>
<td>Pediatric</td>
<td>200</td>
<td>118 (49F)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>950</strong></td>
<td><strong>692 (388F)</strong></td>
</tr>
</tbody>
</table>
1. **ENT Service** (2 ENT doctors, 1 nurse assistant):

Examined and treated E.N.T disease, activities performed:

- Listening tests.
- Treat otitis media.
- Treat nose infections.
- Treat amygdalis

The number of patient examined and treated 222 cases (108 females), the main ENT causes were:

- Otitis Media acute and chronic 92 cases
- Otitis Externa acute and chronic 58 cases
- Pharyngitis 34 cases
- Otalgia 19 cases
- Rhinitis 16 cases
- Other 03 cases

2. **Dental Service** (2 dentists, 2 nurses assistant)

Examined and treated dental diseases, activities performed:

- Extraction of dentitis.
- Treat cavities.
- Calciferous cleaning.
- Health education (provided a toothbrush and toothpaste.)

The number of patient examined and treated 307 cases (186 females), the dental treatment performed:

- Extractions 173 cases
- Cavities repair 75 cases
- Calciferous cleaning 59 cases

3. **Expectant Mother Service**: (1 gynaecologist, 1 nurse assistant)

Activities performed:

- Examination of the fetus by Ultrasound Echography.
- Health education including follow up hospital visits, especially for the cases deemed problematic.
The number of expectant mother examined: 45 cases (lowest age is 17 years old and oldest is 45 years old, age average 24.5 years old):
- 17-18 years old 05 cases
- 19-35 years old 37 cases
- 36-45 years old 03 cases

Examination of the fetus by ultrasound echography was generally normal. 12 cases (28%) were declared problematic:
- Transverse presentation 08 cases
- Breech presentation 04 cases

All problematic cases were advised to follow up at the provincial hospital, only 2 cases (17% of all problematic cases) could afford going to the provincial hospital.

4. **Pediatric Service**: (1 Pediatrician, 1 nurse assistant):

Pediatric service, activities performed:
- General pediatric exam.
- Examine infectious diseases and provide medicinal treatment.
- Health education.

The number of patient examined and treated: 119 cases (49 females), the main causes of children diseases were:
- Pneumonia 56 cases
- Cold fever 34 cases
- Diarrhea 18 cases
- Tonsillitis 07 cases
- Parasites 04 cases

5. **Other service**

- Provided cost of transportation, treatment and hospital stay for one case (Skin cancer), from Ban Pangdou village, Namor district to provincial hospital.
- Donated basic medicine to Namor district hospital to help poor people.
IX. DISCUSSION

The main cause of deafness is otitis media acute and chronic which we diagnosed in 41% of all cases ENT diseases (222 cases). Untreated otitis in children and teenagers will often evolve to Mastoid (Cholesteatumm) if not treated. This situation could easily be improved with education and medical instruments for ENT care on a district level.

The main cause of dental disease is dentitis, Extraction dentitis, for 56% of all dental cases (307 cases) were performed. The main need of the patients we have seen is dental prosthesis which our mobile team is not equipped to provide. Education remains an important factor to reduce the occurrence of dental diseases.

We are concerned with the high number of problematic cases of expectant mothers, 28% of all cases serviced (45 cases). In fact, the main causes of infant mortality are breech and transverse presentations in pregnancy. These cases should be followed up at the provincial hospital, but for the majority of people, distance, lack of funds and limited accessibility to the hospital make this option unavailable.

Pneumonia is the most common pediatric disease. 47% of all cases we have seen (119 cases) were diagnosed as such. Our mission can only provide medicine and health education. Hospital follow up is difficult. Without treatment, pneumonia can involved to be severe pneumonia which can be fatal.

Unfortunately, many patients have not yet received treatment in this highly remote area. Accessing healthcare services include the following major barriers:

- The lack of government funds allocated to ENT, dental, expectant mother and pediatric health care in remote areas.
- The lack of education and medical instruments for ENT and dental care on a district level.
- Limited awareness of the availability of primary ENT and dental care.
- The continued practice of traditional medicine.
- Distance and limited accessibility to the hospitals.
- Villagers simply cannot afford to travel to provincial hospitals.

X. CONCLUSION

This mobile health care mission in remote area at Namor district hospital during February 6-7, 2011 served 692 patients. Ethnic minorities and urban poor were treated for ENT, dental, obstetric or pediatric care with no regard to gender, age, ethnicity and religion. All services and medicine to patients provided by Oudomxay Hospital medical team joined by the local teams were free of charge. The mission was entirely funded by Lao Rehabilitation Foundation.

It is positive that we:

- Treated impoverished patients who otherwise would not have received help.
- Decreased cavitas dentitis and deafness in Oudomxay province, decreased infant mortality and prevented maternal mortality rate in Oudomxay province.
- Improved health care for expectant mother in the 3rd phase of pregnancy in remote areas.
- Recorded data of risk factor of expectant mother on the 3 phase of pregnancy and pediatric diseases for the planning of further missions.
XI. EXPENDITURE

The total expenditure for this mission was $5,852 USD (Five thousand eight hundred and fifty two USD) and includes:

- Instruments and equipment $880
- Medicine (drugs) from US $1,057
- Medicine (drugs) from Laos $2,350
- Transportation and accommodation of LRF $720
- Accommodation and per diem of team work (Lao) $490
- Provided transport and accommodation of patient $75
- Other $280

(Detail on attach files)

XII. RECOMMENDATIONS

- The Oudomxay provincial public health and hospital should continue to provide official agreement and team work for mobile health care in remote area.
- The LRF Inc. should continue cooperation and support with funds, medicine and equipment for mobile team to service patients in remote areas.
- The LRF Inc. should continue to provide funds (transportation, accommodation and medicine) for poor expectant mothers who have difficulty to access health care at provincial hospital.
- The LRF Inc. should continue to provide funds to screen and treat ENT and dental diseases at primary school of Xay district 79 schools.