Infant Mortality and Maternal Mortality in Lao PDR

*Presented by:*

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Present MCH situation in LAO PDR

HOW TO ACHIEVE MDG 4 & 5
Health situation (source census 2005)

1. Crude Birth rate : 34.7
2. Crude Death rate : 9.8
3. Life expectancy : 61
   Female : 63
   Male : 59
4. MMR : 405/100,000 LB
5. IMR : 70/1000LB
6. U5MR : 98/1000LB
7. TFR : 4.5
8. ANC : 26.7%
9. Delivery at hospital: 10.8%
10. Postnatal care: 6.9%
11. CPR : 38%
12. EPI: DPT3: 51%
   Measles 43%
13. water supply : 67.15%
14. Sanitation : 45.68%
15. AIDS prevalence : 0.02%
16. IBN coverage : 60%
The goal from 2005 to 2020
Indicator to be achieved:

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<tbody>
<tr>
<td>IMR &lt; 1 (/1000)</td>
<td>104</td>
<td>82</td>
<td>70</td>
<td>55</td>
<td>45</td>
<td>30</td>
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<tr>
<td>U5MR (/1000)</td>
<td>170</td>
<td>106.9</td>
<td>98</td>
<td>75</td>
<td>55</td>
<td>40</td>
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<tr>
<td>MMR (/ 100,000)</td>
<td>656</td>
<td>530</td>
<td>405</td>
<td>300</td>
<td>260</td>
<td>180</td>
</tr>
<tr>
<td>TFR</td>
<td>6.7</td>
<td>4.9</td>
<td>4.5</td>
<td>3.9</td>
<td>3.4</td>
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Trend of Maternal mortality ratio in the past 15 years
Trends of Under-five Mortality and Infant Mortality

Source: UNICEF MICS database and MOH Lao
Goal 4: Reduce Child Mortality

- 1995: U5MR 170, IMR 104
- 2000: U5MR 107, IMR 82
- 2005: U5MR 98, IMR 70
- 2015 Target: U5MR 70, IMR 45

Lines represent U5MR (blue) and IMR (red).
Goal 5: Improve Maternal Health

- MMR (per 100,000)
- SBA (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>MMR</th>
<th>SBA</th>
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<tr>
<td>1995</td>
<td>650</td>
<td>14</td>
</tr>
<tr>
<td>2000</td>
<td>530</td>
<td>17</td>
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<tr>
<td>2005</td>
<td>405</td>
<td>23</td>
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<tr>
<td>2015 Target</td>
<td>260</td>
<td>50</td>
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Causes of maternal death

• Since the last decade, mother and child health was improved. For instance, IMR & MMR are slightly declined. But, it is still a challenge for Ministry of Health to accomplish this task.

• Some of the causes of maternal health death are unpreventable, but we can overcome this problem if we pay attention on the early stage of delivery (unpreventable 80% vs preventable cause 20%).
Main causes are:

1. Hemorrhage
2. Sepsis
3. Obstructed labour
4. Eclampsia
5. Abortion
Causes of Maternal Deaths
Asia

Haemorrage, 25
Eclampsia, 13
Abortion, 13
Other Direct, 8
Other Indirect, 20
Obstructed Labor, 7
Sepsis, 14
Causes of maternal death

1. Unpreventable:
   - Hemorrhage
   - Septic
   - Obstructed labor
   - Rupture of uterus
   - Abortion

2. Preventable:
   - Anemia
   - Eclampsia
   - Malaria
   - Others
Preventable vs Unpreventable Causes (present status)

Unpreventable, 80
Preventable, 20
Approaches to reduce MMR

• For unpredictable, non-preventable causes: delivery by skilled birth attendant; increased access and use of EmoC.

• For preventable, predictable: prevention, early diagnosis, treatment.
**Estimates of increasing prevention**

- **Haemorrhage, 25**
- **Sepsis, 14**
- **Eclampsia, 13**
- **Obstructed Labor, 7**
- **Abortion, 13**
- **Other Indirect, 20**

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- **Dx/Rx:** malaria, Tb, STIs, hookworm, anaemia, UTI
- **Correct Mod/Sev Anaemia; mgmt of 3rd stage labour:** reduce to 15%
- **Vit A supp:** reduce to 11%
- **Vit C/E, Aspirin:** reduce to 7%
- **Reduce Stunting:** reduce to 4%
- **Adequate contraception:** reduce to 3%
Impact of the low ANC

• Lack of information:
  – Safe delivery → infection, complication
  – BF → Child growth
  – FP → Abortion
  – Immunization → Septic
  – Nutrition → Low birth weight:
    » Asphyxia, hypothermia, neonatal infection…
Present MCH situation in LAO PDR

HOW TO ACHIEVE MDG 4 & 5
Trends of U5MR and IMR in the past 15 years
Looking back(2): Persistence of Causes of Death
WPR, 2000-2003

High-mortality areas

- Diarrhoea: 27%
- Measles: 32%
- Neonatal conditions: 18%
- ARI: 2%
- Other incl. injuries: 1%

Middle-mortality areas

- Diarrhoea: 20%
- Measles: 18%
- Neonatal conditions: 13%
- ARI: 1%
- Other incl. injuries: 0%
Causes of under-five mortality in Lao PDR
Causes of neonatal mortality in Lao PDR
Phases of intrauterine growth

- Phase 1: Hyperplasia (increase in cell number)
  - 1st Trimester
- Phase 2: Mixed Hyperplasia and Hypertrophy (increase in cell size)
  - 2nd Trimester
- Phase 3: Hypertrophy
  - 3rd Trimester
Nutritional Requirements throughout pregnancy

• **1\textsuperscript{st} Trimester:** Cell Division (i.e., increases in number of new cells) = Protein and micronutrients

• **2\textsuperscript{nd} Trimester:** Cell Division and Cell size = protein, MN, Calories

• **3\textsuperscript{rd} Trimester:** Cell size = Calories
How to solve the problem

• Start from pregnancy:
  – ANC is key issue
  – Delivery by skill birth attendant
  – Post partum care
  – New born care
  – Micro-nutrient & Breastfeeding
  – Immunization
  – Integration of management childhood illness (IMCI)
  – Impregnated bed-net
How to solve the problem

• Health Education:
  – To increase awareness of mothers about:
    • The importance of antenatal care attendance
    • How to prepare for save delivery
    • How to intake food
    • Immunization
Essential Package for Child Survival

• Skilled attendance during pregnancy, delivery and immediate postpartum
• Care of the newborn
• Breastfeeding and complementary feeding
• Micronutrient supplementation
• Immunization of children and mothers
• Integrated management of sick children
• Use of insecticide-treated bed-nets
Warning point

CHILD DEVELOPMENT STATUS
فادซอ ໂសນឧណេះដែន

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<thead>
<tr>
<th>&lt; 6 ឆ្នាំ</th>
<th>6-11 ឆ្នាំ</th>
<th>12-23 ឆ្នាំ</th>
<th>24-35 ឆ្នាំ</th>
<th>36-47 ឆ្នាំ</th>
<th>48-59 ឆ្នាំ</th>
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<td>គ្រូង</td>
<td>គ្រូង</td>
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W/A  H/A  W/H
MCH services

For pregnant
- ANC
- Immunization
- Health education

For children
- Well baby check-up
- Immunization

Nutrition
- Immunization

Immunization

Health education
- RH
- BF
- SM
- Immunization
- Nutrition
- IMCI

ANC
MOTHER AND CHILD HEALTH ACTIVITIES

ANC

- Immunization
- Nutrition
- Health Education

Clean Delivery

- Skill care
- Danger signs

Safe Delivery

- New born resuscitation
- Prevention of hypothermia
- Immediate Breastfeeding

Immediate New Born Care

- Clean umbilical cord
- Early postpartum visit
- Children immunization

Postnatal care for mother and new born

Happy Family
Improvement of MCH activities

BARRIERS:
- Geographical
- Economical
- Socio-cultural

Providers

Good Communication

Receivers

MOH
MCH
Hospitals
Health centers

MCH services

Utilization

Women
Children
Family

Donors

Community
In conclusion

- MMR reduction as well as IMR require community action.
  (involvement/participation of the community is key issue)
Country profile

- Population: 5,621,982
- Area: 236,800 km²
- Density: 23,7
- Provinces: 17
- Districts: 141
- Villages: 10,553
- Central and provincial hospitals: 21
- District hospitals: 127
- Health center: 739
- Health staff: 11,504
- GDP: 450 USD
- Education: 78%
Mother and child health situation

1. Access to MCH services is poor
   - Economic burden
   - Distance and transportation difficult and time consume.
   - The social status of women and children within the family is poor (depending on parents and husband)
   - Social-cultural believed that "Pregnancy and child birth is a natural process, many women prefer to deliver at home"
2. **Quality of MCH services**
   - The quality of services is poor
   - Routine MCH services (ANC, Delivery, Postpartum care, basic care services) do not have the standard
   - Capacity of the facility to manage pregnancy related complication is inadequate (also referral system is not functional item of the regulation and transportation)
3. Low capability of management (integration, coordination)
   - Services provide as a vertical project
4. Human resource for MCH
   - The capability of MCH staff need to improve in term of communication skills and the performance of routine MCH services as well as their assistances (villages health volunteers and traditional birth attendants)
1. Every woman will have access to a skilled professional attendant during pregnancy and delivery.

2. Every woman of child bearing age will receive iron and acid folic supplements.

3. Every district and provincial hospital will provide emergency obstetric care.
Content of policy (cont')

4. Every woman of child bearing age should receive the information & services on reproductive health.

5. All pregnant women should be immunized against tetanus.

6. Every new born should be breastfed within 1 hour of birth and exclusively breastfed for the first 6 months of life.

7. All children should receive complementary food from 6 months of age up.
8. All children should be fully immunized according to the national immunization schedule including vitamin A supplementation.

9. All children under 5 should receive an appropriate treatment during their illness.

10. All services at the clinics should be free of charge including ANC, normal delivery and as well as well child clinics.

11. All children and women should sleep under insecticide treated bed-net and receive prophylaxis and treatment for malaria according to the National treatment Guideline for malaria.
Strategies

1. Improving quality of services.
2. Promoting of MCH activities.
3. Improving management of the organization and services.
4. Developing outreaches activities as a regular part of MCH activities.
5. Mobilizing communities for MCH.
6. Developing MCH model facility.
7. Promoting of birth in the facilities where there is access of Essential Obstetric Care.
• 1. Improving quality of services
  – Depend on many factors( Knowledge, Attitudes and the skills of Health workers, available of drug supply and equipment, infrastructure of health facility, management of MCH activities.
  – Provide appropriate training for MCH staff at the right time (upgrade health centre should be the first to receive training on routine ANC).
  – Establish a standard of a good routine services (ANC, Delivery, postpartum care).
• 2. Promoting of MCH activities
  – Promote the utilization of MCH services with many reasons.
  – Disseminate the information to the community to be familiar on using MCH.
  – Encourage the women to use the services.
• 3. Improving management of the organization and services
  – Need to be reorganize the role and the functions of each project in the MCH center.
• 4. Developing outreaches activities as a regular part of MCH activities
  – Joint activities which the existing services (need multi skill, enough budget, guideline).
• 5. Mobilizing communities for MCH
• 6. Developing MCH model facility
• 7. Promoting of birth in the facilities where there is access of Essential Obstetric Care.
Activities

• Establish a standard of a good quality routine services for mother and child.
• Capacity building.
• Early detection of common causes of obstetrical complications.
• Early emergency triage, assessment and treatment for children.
• Renovation of facilities.
• Provide the necessary supply & equipment.
• Strengthen referral system.
• Extend implement of PMCT programme.
Activities (cont’)

• Introduce MCH regulation
• Develop IEC materials
• Provide information and Health education on MCH
  Promote well child clinic checking Inform free of charge serves on ANC, normal delivery and well child check up.
• Training (especial the grass root level)
• Regular monitoring, supervise and evaluation
• Making a comprehensive team using uniform services
• Integration of services and collaboration with other sectors
Activities (cont’)

– Integration and collaboration with communities and mass organizations related sectors
– Maternity waiting home
– Delivery home
– Produce IEC material
– Disseminate the information to the community to be familiar on using MCH services at health facility
Performance indicators

• Increase ANC
• Increase delivery by skill birth attendant
• Post partum care
• CPR
• Increase EPI coverage
• Increase well child check up
• Reduce malnutrition of children and mothers
• Increase exclusive breastfeeding
• Increase number of HIV screen in pregnant women.
• Prevention and control of micronutrient deficiencies and infection diseases
Thank you for your attention