



LAO PDR: Introduction of a user's guide of MCH Handbook



Maternal and Child Health Handbook, Lao PDR, 2015

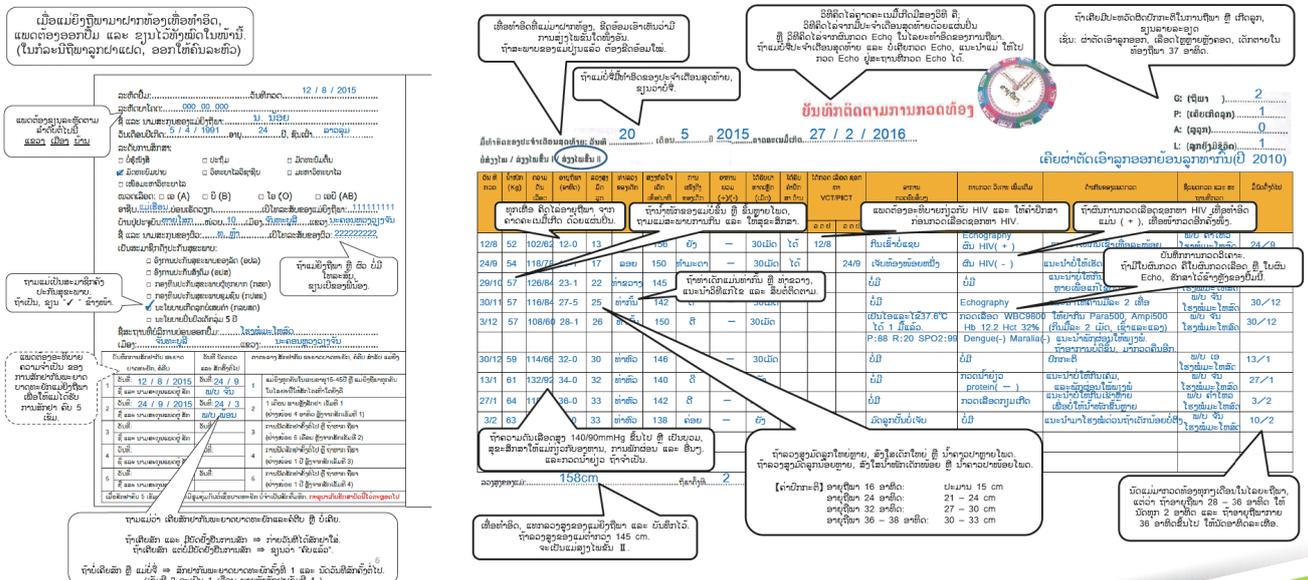
Background

According to the National Maternal Death Review in Lao PDR 2011-2013, lack of understanding on danger signs during pregnancy among women and delays in assessment of abnormalities by health workers are likely to have contributed to both maternal and newborn deaths. Since its introduction in 1995, the Maternal and Child Health (MCH) Handbook has been piloted and gradually scaled up to the entire Lao PDR. The promotion of the effective use of the MCH Handbook has been in the line with nation-wide dissemination of MCH care standards defined by Ministry of Health (MOH) since 2005. The use of the MCH Handbook as a recording tool as well as an education material is expected to contribute to reduction in maternal and newborn deaths through increasing awareness of women and their family members about risks and assisting health workers to timely assess their patients. However, in the process of scaling-up of the MCH Handbook, several challenges were identified in relation to its operations at primary health facilities: (i) health workers have difficulties in recording clients' data in the MCH Handbook; and (ii) health workers rarely use the MCH Handbook as an education material for pregnant women, mothers and their family members. Thus, to address inadequate use of the MCH Handbook, MOH decided to develop its user's guide for health workers.

Development of user's guide and training of health workers

Effective use of the MCH Handbook by health workers was defined as: (i) accurate data recording; (ii) clinically correct assessment based on the recorded data and referral within and/or beyond facilities; and (iii) health education for pregnant women, mothers and their family members. The MCH Handbook user's guide was designed to increase health workers' capacity in the use of the MCH Handbook. As accurate recording by health workers is essential, user's guide includes the concrete examples of data recording and tips for health education for respective pages of the MCH Handbook (Figure 1).

To assess the effectiveness of the user's guide and its training, an assessment was conducted at three health facilities in different provinces to enable the contents of the users' guide to be adjusted to geographical diversity of the country: i.e. Vientiane (urban); Salavanh province (rural); and Savannakhet province (rural). The total number of the trainees was 63, consisting of 18 doctors, 10 midwives, 30 nurses, and five from other professional groups. The levels of health workers' use of the MCH Handbook were assessed for five key MCH service stages: (i) 1st antenatal care (ANC); (ii) 2nd ANC and onwards; (iii) delivery care; and (iv) child immunization. Health workers were trained on the contents of



▲ Figure 1. An example of data recording in ANC pages of user's guide (Left: Initial ANC, Right: subsequent ANC)



Supportive supervision on the MCH Handbook at a health facility

user's guide for two days at their facilities. On Day 1, the contents of the user's guide were learned through the lecture and role-play sessions. On Day 2, trainers observed health workers' performance in caring clients and recording data. They further assessed whether the recording and education methods learned on Day 1 were surely practiced. Prior to the training, health workers' practices in caring patients and recording data in the MCH Handbook were assessed as the baseline. In addition, weaknesses in the use of the MCH Handbook were identified to find the areas and topics that should be more emphasized and focused in the training. Positive feedbacks towards the user's guide and its training were provided by trained health workers, such as "The training was very helpful and meaningful for my daily works." and "To more effectively protect the health of pregnant women, mothers and children by using the MCH Handbook, I learned the way of recording data in and conducting education session by using the MCH Handbook."

Health workers' use of MCH Handbook

Data were collected from health workers conveniently sampled both before (March-May 2016) and after training (June-August 2016), using the checklist on usage of the MCH Handbook. The checklist included the questions on: (i) screening high risks of clients and assessment of danger signs during pregnancy; (ii) explaining danger signs and responses to pregnant women; (iii) planning for the next ANC visit; (iv) plotting child's weight and length/height on the growth chart in the MCH Handbook; and (v) providing mothers with guidance on home-based care

using the MCH handbook. Fisher's exact probability test was conducted to compare the proportions between pre- and post-training.

The proportions of those practicing high risk assessment at the first ANC and referral need assessment at the site of delivery significantly increased (Table 1). Maternal risk screening by using the MCH Handbook was one of the most highlighted topics in the training. A significant difference was confirmed also in explaining danger signs and responses at the first ANC and providing guidance on home-based care using the MCH Handbook. As health workers were trained not only on data recording but also on using data recorded in the MCH Handbook, they became capable in evidence-based clinical decision-making and communication with clients. Thus, health workers' performance on the use of MCH Handbook significantly improved in the key areas between pre-and post-training.

Conclusion

It was confirmed that the MCH Handbook user's guide and its training enabled health workers to improve quality of MCH services. To keep health workers practicing proper use of the MCH Handbook, post-training supportive supervision would be necessary, when scaling up the user's guide of the MCH Handbook nationwide. Note that developing the user's guide and conducting the training program are essential parts of National Strategy and Action Plan for Integrated Services on Reproductive, Maternal, Newborn and Child Health 2016-2025.

Tomoko Takagi¹, Panome Sayamoungkhoun²
¹Ex JICA Japan Overseas Cooperation Volunteer,
 Pakkeum District Hospital, Vientiane
²Mother and Child Health Center, Ministry of
 Health, Vientiane

▼ Table 1. Health workers' use of the MCH Handbook before and after training

Type of knowledge and skills	Pre-training: n ₁	Post-training: n ₂	Odds Ratio (CI 95%)	P-value
1st antenatal care (n₁=38; n₂=42)				
- Screening high-risk clients and assessing danger signs and responses to pregnant women	13 (34.2%)	35 (83.3%)	0.11 (0.03-0.33)	<0.001**
- Explaining danger signs and responses and planning for the next ANC visit	22 (57.9%)	37 (88.1%)	0.19 (0.05-0.64)	0.004**
2nd antenatal care and onwards (n₁=40; n₂=41)				
- Assessing danger signs during pregnancy	3 (7.5%)	9 (22.0%)	0.29 (0.05-1.30)	0.116
- Taking records on any special symptoms, e.g., not being able to eat; having a stomachache and feeling uterine contraction ¹	18 (78.3%)	19 (63.3%)	2.06 (0.53-9.12)	0.366
Delivery care (n₁=16; n₂=15)				
- Assessing danger signs during delivery care	0 (0.0%)	4 (26.7%)	0.00 (0.00-0.99)	0.029*
- By referring to antenatal records, predicting problems during pregnancy	7 (43.8%)	12 (80.0%)	0.16 (0.02-0.85)	0.017*
- Taking records on delivery place, date, parity, and gestational week	16 (100.0%)	15 (100.0%)	[n.a.]	1.000
- Taking records on sex, weight, height, chest circumference, head circumference of a newborn	12 (75.0%)	13 (86.7%)	0.47 (0.04-4.02)	0.654
Child Immunization (n₁=24; n₂=24)				
- Measuring weight and height and plotting child's weight and length/height on the growth chart ²	9 (40.9%)	12 (50.0%)	0.70 (0.18-2.58)	0.766
- Explaining vaccination to be done at this visit and to be done at the next visits	10 (41.7%)	8 (33.3%)	1.42 (0.38-5.45)	0.568
- Providing guidance on home-based care using the MCH Handbook (about breastfeeding, supplementary feeding, dental health, accidents etc.)	0 (0.0%)	6 (25.0%)	0.00 (0.00-0.71)	0.009**

*<0.05, **<0.01

¹ n₁=23, n₂=30; ² n₁=22, n₂=24

Further readings

1. Lao PDR Maternal Death Review Steering Committee. *Report on Lao PDR Maternal Death Review, 2011-2013*. Vientiane: MOH; 2013
2. Nakamura Y. Maternal and Child Health Handbook in Japan. *JMAJ* **53**(4): 259-265, 2010.
3. Nagatani S, and Takagi T. Introduction of a user's guide of MCH handbook: an implementation report by JOCV. *The 10th International Symposium on Maternal and Child Health Handbooks*. Tokyo: The International committee on MCH Handbook; 2016.