Stunting levels in Lao PDR have decreased during the last 20 years, from 48.2 per cent in 2000 to 33 per cent in 2017. In spite of this significant progress, there are still large differences in levels of stunting across the country with the poor and rural areas the most affected. Every third child in Lao PDR under 5 years of age is stunted but there are wide inequalities across the 18 provinces in the country; 11 provinces have stunting rates above 30 per cent, which is classified as critical according to the WHO/UNICEF anthropometric classification. Wasting and underweight also have an impact on the potential growth of the children. According to LSIS 2 the percentage of wasting was 9 per cent in 2017, which is an increase from 6.4 per cent in 2011. The percentage of children aged 6-23 months receiving the minimum meal frequency has increased from 43 per cent in 2011 to 69 per cent in 2017, however only half of the children 6-23 months received the minimum diet diversity or the variety of foods required for optimal growth and development. In terms of exclusive breastfeeding during the first six months, there has been an increase over the last six years from 40.1 per cent in 2011 to 44.9 per cent in 2017. 40 per cent of women in the reproductive age are anaemic, while 48 per cent of women develop anaemia during pregnancy, 44.1 per cent of children under five years are anaemic.

This policy brief looks into the gaps where improvements can be achieved in access to nutrition services while also ensuring the quality of provision at community level. A case study from Bolikhan District in Bolikhamxay Province provides recommendations for improvement at community level.
Factors that hinder nutrition service delivery

Despite high-level political support for development of the National Nutrition Policy, National Nutrition Strategy (NNS) and National Plan of Action on Nutrition (NPAN), implementation of nutrition interventions is still challenging, especially at subnational levels. District and health centre staff are not familiar with nutrition interventions under the NPAN, clearly representing a key obstacle for effective implementation.

In general, there is a lack of skilled health staff with specific nutrition education and knowledge resulting in inability of health staff to identify and react to growth faltering in children, even in areas where this is common. Infant and child growth monitoring (GM) is conducted on a quarterly basis, but results are often not recorded on a GM chart and the opportunity to provide nutrition and health education is missed.

Implementation and delivery of nutrition services to remote communities is challenging, as health staff are not able to provide adequate support and nutrition services including comprehensive Integrated Outreach Services (IOS) due to insufficient budget allocation. This reflects a discrepancy between high-level political support and budget allocated to health centres level.

Factors that hinder women’s access to nutrition services

Poor knowledge regarding why and how nutrition services can help them or their child prevents women from seeking nutrition advice. Women with low education levels generally lack an understanding of the importance of nutrition during the 1,000-day window of opportunity from pregnancy, after delivery and up to a child’s second birthday. This can be linked to limited information about nutrition in the formal education system and limited awareness on nutrition. Non-Lao-Tai ethnic groups often do not benefit from nutrition education due to linguistic barriers, as the majority of health staff are of Lao-Tai origin and often do not speak the ethnic language spoken in the community.

In some communities women are not allowed to eat nutritious foods during and soon after birth, traditional practices that severely affect their health and lactation.
INTRODUCTION

Since 2000 there has been extensive focus on reducing malnutrition rates in Lao PDR: the stunting level has decreased from 48.2 per cent in 2011 to 33 per cent in 2017 and underweight rates from 36.4 per cent to 21.1 per cent in the same period. According to LSIS 2 the percentage of wasting was 9 per cent in 2017, which is an increase from 6.4 per cent in 2011. Children aged 6-23 months receiving the minimum meal frequency has increased from 43 per cent in 2011 to 69 per cent in 2017, however only half of the children aged 6-23 months received the minimum diet diversity or the variety of foods required for optimal growth and development. In terms of exclusive breastfeeding during the first six months, there has been an increase over the last six years from 40.1 per cent in 2011 to 44.9 per cent in 2017.

In spite of this significant progress, there is still a big difference in stunting levels across the country with poor and rural areas being most affected. Every third child in Lao PDR under 5 years of age is stunted. Vientiane Capital has the lowest prevalence of stunting (13.8 per cent) and Phongsaly Province has the highest (54 per cent). Out of 18 provinces, 11 have stunting rates above 30 per cent, which is classified as seriously high or critical according to the WHO/UNICEF anthropometric classification.

Children in remote, rural areas without access to a road have a much higher probability of being nutrition-deprived and stunted than children living in urban areas. The stunting level is highest among children living with a household head of Chinese-Tibetan and Hmong-lumien ethnicity.

Poor nutrition in the first 1,000 days of a child’s life – from pregnancy to the child’s second birthday – can lock them into a lifetime of health and social challenges that are devastating and irreversible. National data show that only one third of women meet a minimum dietary diversity of five or more food groups. A study conducted in four provinces in Lao PDR found that only 44 per cent of pregnant women reached a minimum dietary diversity, while 10 per cent ate fewer than three meals a day.

Good nutrition is important for cognitive development in the first 1,000 days of a child’s life. Stunting is an indicator of cognitive capability and life potential and children born in Lao PDR today can expect to be only 45 per cent as productive compared to those who benefit from optimal nutrition and education. Malnutrition leads to enormous economic and human costs in Lao PDR. Nearly two million Lao citizens, mainly women and children, suffer from some form of malnutrition and cannot achieve their full development potential, resulting in negative effects on overall human capital of the country. Malnutrition threatens lives and national socioeconomic development, is associated with reduced school enrolment, poses a challenge to the attainment of education targets, and has an impact on development and economic growth in later years.

Food insecurity is widely assumed to be a major determinant of stunting in Lao PDR, but studies show that a lack of dietary diversity and a balanced diet are the main sources of inadequate nutrient intake in children, rather than access to food. Even though different food groups are available to and consumed in the household, a significant proportion of children under 2 years old are not fed a full range, indicating that nutritional knowledge is limited.
Approach and selection of case study

As part of the National Information Platforms for Nutrition (NIPN), country stakeholders wanted to unpack the reasons behind the slow uptake of nutrition services at community level. An assessment was carried out to explore some of the issues impacting the achievement of nutrition results in the country and to proffer recommendations that will contribute to the attainment of improved outcomes.

A literature review was conducted and interviews and focus group discussions were held with key sectoral government representatives from the Ministry of Health at central level as well as discussions with stakeholders at central and subnational levels. Interviews were held with Provincial Health Department, District Health Office and Health Center staff and with Village Health Committees, adolescents, pregnant/lactating mothers and other caretakers at community level.

Bolikhan District in Bolikhamxay Province was selected for the case study. The District is highly diverse with a mix of lowland and semi-mountainous areas as well as several minority ethnic groups with different cultures and traditions. Thasy and Nahanh Villages were selected in collaboration with staff at the District Health Office (DHO) and health centre staff.

Nutrition services in Lao PDR and Bolikhamxay Province

Access to health insurance, good health and well-being for all “leaving no one behind” is the overall goal of Primary Health Care (PHC). It also seeks to give people of all ethnic groups across the country better access to more efficient and effective basic health services.

The comprehensive Integrated Outreach Services (IOS) is a government-led service delivery to facilitate and provide access to health and nutrition services to villages without health centres. IOS provides a variety of mother and child services, such as: antenatal care (ANC), postnatal care (PNC), skilled assistance at birth, promotion of exclusive breast feeding, effective complementary feeding, hygiene promotion, maternal, newborn and child health and nutrition interventions, infant and child growth monitoring (GM), immunization, micronutrient and vitamin supplementation (iron and folic acid, vitamin A, zinc, micronutrient powders, etc.), deworming for children aged between 6 and 59 months, screening children under 5 years (CU5) for acute malnutrition, nutrition and health education that also addresses the family planning needs of the mother with appropriate service provision, and routine data collection for each locality.

In Bolikhamxay Province nutrition services are included in the mother and child (MCH) service package both at health facilities and in the community. The main focus of routine (non-comprehensive) IOS is on immunization and/or other MCH services rather than infant and child growth measurement and nutrition awareness-raising. The average IOS attendance rate is 60–70 per cent at provincial and district levels, and 90 per cent at health centre and community levels.

“To achieve national development indicators related to health requires; access to health insurance, good health and well-being for all-leave no one behind”

- PHC Policy, 2019.
Structure of nutrition services

Nutrition services are carried out by health staff at district and health centre level. There are approximately 1,060 health centres located throughout Lao PDR. These are responsible for delivering nutrition and PHC services as well as ANC, PNC, child growth monitoring and nutrition counselling, provision of micronutrient supplementation, immunization and outreach services. Each health centre has a catchment area of approximately 10 villages. 63 per cent of rural households without road access are within 10 kilometres of a health centre; 86 per cent of rural households with road access are within 10 kilometres; and for urban households, the figure is 97 per cent. During the last few years, much effort has gone into improvement of PHC service delivery, especially MCH, by increasing the number of staff deployments and uptake to health centres.

Bolikhamxay Province has 42 health centres and IOS is carried out in all 291 official villages in the province. In Bolikhan District non-comprehensive IOS is organized monthly, but does not include infant and child GM, as the main focus is immunization and other MCH services. Comprehensive IOS (including GM) is carried out quarterly in the community and routinely at the health facility. IOS implementation in each locality is unstandardized and/or inconsistent. Comprehensive IOS is not fulfilled due to shortage of equipment, staff, funding and transport.

Comprehensive IOS is highly acceptable and is preferred by the community in terms of convenience and satisfaction.

Factors hindering nutrition service delivery to communities

Remote locations with limited road access means that health centre staff are often not able to visit villages, even though integrated outreach services should be provided on a quarterly basis. Some villages are also not accessible during the rainy season. In some cases, including Bolikhamxay Province, health centre staff are unable to carry out GM as scheduled, as equipment for measuring height and weight is too difficult to transport on the back of a motorbike.

Health staff have limited knowledge and education on nutrition and do not have the capacity to provide proper nutrition advice to villagers. A workforce survey of 120 health centres showed that 44 per cent of staff had never received in-service training in areas such as ANC and PNC, essential newborn care, nutrition and/or GM. As a result, health workers would give the same advice if a child was mild, moderately or severely malnourished and would tend not to recognize stunted children, even in areas where stunting is common.

In Bolikhamxay Province training sessions are provided at all levels, but they are too short and not as frequent as required. It is unlikely that all staff have received proper training on comprehensive IOS, and their competency on nutrition counselling is low. In addition, refresher training is not made available at all levels.

Throughout Lao PDR, including Bolikhamxay Province, there is a high rotation of staff and volunteers. There is no effective preparation for a handover between outgoing and incoming staff.

Health staff are often not able to speak the ethnic language of the local community. An example in the Lao PDR Health Center Workforce Survey 2016 showed that 85 per cent of staff spoke the most common language in the community (typically Lao), and only 31 per cent spoke the second most common language. Posters and leaflets in Bolikhamxay Province are only available in the Lao language thus ignoring ethnic minorities and illiterate groups.
Factors hindering women’s access to nutrition services

Women with a low level of education generally lack knowledge and understanding of the importance of nutrition and food sources during pregnancy, after delivery and the 1,000-day window of opportunity. Nutrition education is not provided at school and there is limited awareness-raising on a balanced and nutritious diet throughout the country. There have been several campaigns on exclusive breastfeeding practices and supplements, and most newborn babies are breastfed, but not necessarily exclusively during the first six months. Due to poor weaning practices and insufficient breastfeeding for an infant to develop rapidly, some children do not get adequate nutrition, leading to poor weight gain followed by stunting. Limited knowledge of nutrition and infants’ requirements are also related to food taboos and restrictions, which are practiced in many communities during and after birth in the belief that this will lead to smaller babies and easier deliveries. The lack of nutritious food affects lactation and the health of mother and child. In some cases the mother will only to drink herbal water after the birth, in some cases for as long as forty days, producing poor quantity and quality of breast milk which can lead to the death of the newborn baby.

Low-income households face greater barriers to accessing health care. Data shows that 75.2 per cent of women in the poorest quintile did not receive any ANC during their last pregnancy compared to 6.6 per cent in the richest quintile. 36 per cent of pregnant women living in rural areas without roads had not received any ANC services and only 52 per cent of pregnant women from the poorest quintile received ANC from a trained health professional.

Lao PDR has one of the highest rates of early marriage in the Asia region. Early marriage and early pregnancy rates increase the risk of undernutrition in both mothers and children. Young women who drop out of school are less likely to utilise health and nutrition services such as ANC and family planning.

In rural households the workload in rice fields leads to women returning to work soon after giving birth, consequently impacting breastfeeding and complementary feeding practices. Often the child will be at home with grandparents or other family members and will not benefit from exclusive breastfeeding for the first six months and will instead be given chewed sticky rice. In urban areas there is an increase in the use of infant formula replacing breastfeeding.

Evidence from the community level in Bolikhan District shows that mothers who have received child nutrition advice are significantly more likely to feed their children with protein-rich food according to the advice given. This suggests that raising child nutrition awareness and providing behaviour change communication are important interventions in helping improve child nutrition outcomes.

Good practices

Evidence gained in Bolikhan District from interviews at the Provincial Health Office (PHO) down to community levels shows examples of some good practices, which can be applied in other provinces and increase the provision of nutrition services in Lao PDR. These are also initiatives that can be carried out in the short run, as the development of a human resource base and increased financial resources are long-term investments.
THE BOLIKHAN DISTRICT CASE STUDY FOUND THAT:

- There is strong commitment and support from PHO and DHO management.
- Health service provision is well coordinated at all levels, which leads to a high participation rate.
- Non comprehensive and comprehensive IOS are organized on a monthly and quarterly basis respectively.
- At the health centre level the computerized monitoring tool provides routine data collection and facilitates better service provision.
- Nutrition assessment can be done at health centre level and the growth monitoring results can be made available to the Village Health Committees (VHC) for feedback and to organize nutrition and health education for mothers of malnourished children.
CONCLUSION

The assessment has identified gaps for the Government of Lao PDR to focus on for improving access to nutrition services as well as to ensure quality of nutrition service provision at community level. Findings from the literature review and field visit are to a great extent similar and reinforce each other.

**Insufficient financial and human resources:**
Despite high-level support for development of the National Nutrition Policy, NNS and NPAN, implementation of nutrition interventions is still challenging especially at subnational levels. There is an insufficient level of financial and human resources with an unclear linkage between national and subnational levels. It was found that the NPAN has not been communicated in appropriate formats to subnational levels. District and health centre staff are not familiar with nutrition interventions under the NPAN, which is clearly a key obstacle for effective implementation.

**Lack of trained nutrition cadres and limited pre-service training:**
The Lao education system does not offer nutrition education and only a few general courses are available at university level. This means that there is a lack of skilled health staff with specific education and knowledge to provide nutrition services, adversely impacting the organization and delivery of nutrition services.

**Lack of nutrition knowledge to provide effective nutrition counselling in communities:**
Poor knowledge regarding nutrition means that staff are inadequately informed to offer appropriate recommendations to parents. Health staff often do not recognize stunting in children, even in areas where this is common. MCH outreach services to rural and remote villages should be conducted on a quarterly basis, however it is found that mainly immunization is carried out in the villages.

**Lack of nutrition knowledge and awareness at community level:**
Women do not seek nutrition advice due to poor knowledge as to why and how nutrition services can help them or their child. This can be linked to limited information on nutrition in the education system and limited awareness-raising activities.

**Increased knowledge about nutrition has a positive impact on feeding practices:**
Evidence from the community level in Bolikhan District shows that mothers who have received child nutrition advice are significantly more likely to feed their children with protein-rich food according to the advice given. This suggests that raising child nutrition awareness and providing behaviour change communication are important interventions in helping to improve child nutrition outcomes.

**The ethnolinguistic context and culture are barriers for accessing nutrition services:**
Non-Lao-Tai ethnic groups often do not benefit from nutrition education due to linguistic barriers, as the majority of health staff is of Lao-Tai origin and may not speak the ethnic languages of the community.
RECOMMENDATIONS

Improving access to nutrition services in Lao PDR is a long and challenging process, which will require massive short- and long-term investments across sectors and at different levels. There is a need to invest in the human resource base starting with a focus at primary school level and increasing students’ knowledge on nutrition, raising awareness through education at vocational and university level to enable health staff to provide nutrition education and advice to communities. Financial support is also needed to enable health staff to carry out nutrition services, and to support efficient monitoring and reporting.

**Investment in human resources**
Invest in human resources in order to improve the nutritional status in Lao PDR. It is also necessary to strengthen skills and confidence among health workers in providing nutrition information and counselling.

**Financial resources**
Secure sufficient budget to supply and provide adequate support to meet the minimum requirement of nutrition service provision at grass-roots level. Health centre staff should be able to provide nutrition counselling through, for example, cooking classes and awareness-raising activities on nutritious food to consume before, during and after pregnancy.

**Social and behaviour change communication**
Strengthen the awareness campaign on nutrition. Information should target mothers and other caretakers, including men, in the household, directly with a focus on appropriate feeding practices for infants and young children. Awareness-raising campaigns should reach adolescent girls in particular, with the focus of preventing early marriage and early pregnancy.

**Focus on ethnic and culturally targeted interventions**
Recruit health workers from rural ethnolinguistic groups to work in their community after graduation. Communication materials should be developed in the main local language and visual communication materials should be used to reach women and men who cannot read.

**Use of mass media campaigns for advocacy and awareness-raising**
Use communication channels such as video, YouTube and other social media channels in local communities to target children and mothers. Mass media campaigns for advocacy and awareness-raising on nutritious food should be used to highlight the importance of the first 1,000-days window of opportunity.

**Comprehensive IOS and routine monitoring**
Improve the integrated outreach services and management information systems to ensure nutrition is fully integrated in maternal and child health services.

Make available computerized and user-friendly routine monitoring systems for health service provision at the grass-roots level to collect, analyse and use good quality data and evidence regularly to guide actions and track progress as well as to support the requirements of the National Health Management Information System.
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How to improve access to nutrition services at community level
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