Barriers to Accessing Nutrition Services at Community Level

A case study of Bolikhamxay Province
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<td>antenatal care</td>
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<td>CU2</td>
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<td>HIV/AIDS</td>
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Executive Summary

The purpose of the assessment has been to investigate and identify gaps and provide recommendations on how to improve 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 to Bolikhan District in Bolikhamxay Province are to a great extent similar and reinforce each other. The following different gaps were identified:

- **Insufficient financial and human resources**: Despite high-level support for development of the National Nutrition Policy (NNP), National Nutrition Strategy (NNS) and Plan of Action (NNSPA), implementation is still challenging, especially at sub-national 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 NNS has not been communicated in formats appropriate to subnational levels. District and health centre staff are not familiar with nutrition interventions, which clearly is a key obstacle for effectively implementation including limited financial resources.

- **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. There is a lack of skilled health staff with specific nutrition education and knowledge to provide nutrition services. Staff are assigned the additional responsibility of nutrition. This adversely impacts the delivery of nutrition services.

- **Lack of nutrition knowledge to provide effective nutrition counselling in communities**: Health staff tend not to offer appropriate recommendations on nutrition and growth promotion. Examples are that health staff do not to recognize stunted children, especially in areas where stunting is common. It is found that mainly only immunization is carried out in villages even though maternal and child health (MCH) integrated outreach services should be conducted on a quarterly basis in rural and remote villages. Nutrition awareness is not carried out due to lack of communication materials on nutrition and food intake.

- **Lack of nutrition knowledge and awareness at community level**: Women in communities are not seeking nutrition advice due to poor knowledge on nutrition and why and how nutrition services can help them or their child. This can also be linked to nutrition education at primary and secondary levels, as students do not receive any training on nutrition and there is limited advice at community level.

- **Increased knowledge on nutrition has a positive impact on feeding practices**: Evidence from the community level in Bolikhan District show that mothers who have received child nutrition advice are significantly more likely to feed the children with protein-rich food according to the advice given. This suggests that raising child nutrition awareness is an important intervention in helping improve child nutrition.

- **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 often do not speak the ethnic language spoken in the community. Access
to services often still remains a challenge due to distance, language and culture and there is low utilization of health services among the poorest households.

Based on the findings from a literature review and field visit to Bolikhian District in Bolikhhamxay Province the following recommendations are made:

**Investments in human resources**

- There is a high need to invest in human resources in order to improve the nutritional status in Lao PDR. There is a need to strengthen skills and confidence among health workers in providing nutrition promotion counselling.

**Financial resources**

- Sufficient budget must be secured to supply and provide adequate support to meet the minimum requirement of proper nutrition service provision at grassroots level, 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, targeting 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 specifically seek to reach adolescent girls with the focus of preventing early marriage and early pregnancy.

**Focus on interventions for different ethnic and cultural groups**

- It is recommended to recruit health workers from rural ethnolinguistic groups to work in their community after graduation. Communication materials, including audio-visuals, should be developed in the main local language and visual materials produced to reach women and men who are illiterate.

**Mass media campaigns for advocacy and awareness-raising**

- Communication channels such as video, YouTube clips or other channels should be used in local communities targeting children and mothers. Mass media campaigns should be used for advocacy and awareness-raising on nutritious food and the importance of the first 1,000-day window of opportunity.

**Comprehensive integrated outreach services and routine monitoring**

- Ensure the integration of maternal and child health services in IOS to improve access and coverage of MCH and nutrition services.

- Computerized and user-friendly of routine monitoring systems should be made available for health service provision at the grassroot level to collect, analyse and use good quality data and evidence regularly to guide action and track progress as well as to support the requirements of the national health information system.
1. Introduction

1.1 National Information Platforms for Nutrition in Lao PDR

The National Information Platforms for Nutrition (NIPN) is an international initiative of the European Commission with support from the Foreign, Commonwealth & Development Office (FCDO) of the United Kingdom Government and the Bill and Melinda Gates Foundation. This initiative is an integral part of the Government’s nutrition programme, which is implemented jointly by the European Union (EU) Delegation and UNICEF in the context of their Partnership for Improved Nutrition in Lao PDR in support of the National Nutrition Strategy 2015–2025 (NNS) and Plan of Action (2016–2020).

The NIPN programmatic approach is new, using complex steps to contribute to the global reduction of stunting for children under five years of age (CU5) in alignment with World Health Assembly 2025 targets. The programmatic approach in NIPN is considered a flexible model to help guide the choice of activities, methodologies and tools in countries where NIPN is being implemented.

The specific objective of NIPN is to build institutional capacities at both national and sub-national levels to manage and analyse information and data from all sectors which have an influence on nutrition; to track progress; and disseminate and use information to better inform their policies and strategic decisions.

The NIPN initiative will raise awareness on the links between nutrition-related programme inputs, outputs and outcomes through stakeholder engagement, coordination with key line ministries and capacity-strengthening activities.

1.2 Rationale of assessment

Nutrition is highly prioritized in Lao People’s Democratic Republic (PDR) with high-level government and development partners support for nutrition programming and interventions. Over the years, there has been increased funding from key development partners such as the European Union, World Bank, United Nations, USAID among others. Country stakeholders are however concerned that the nutrition results are not commensurate with the investments so far.

As part of the NIPN question formulation process, country stakeholders wanted to unpack the reasons behind the slow uptake of nutrition services at the community level. This assessment therefore seeks to explore some of the issues impacting the achievement of nutrition results in the country and to proffer recommendations that would contribute to the attainment of improved results.
1.3 Methodology

The study is mainly based on a literature review and has been supplemented with in-depth interviews and focus group discussions with key sectoral government representatives from the Ministry of Health (including Nutrition Centre and Maternal and Child Health Centre), donors and civil society organizations at the central and provincial levels. Also, interactions took place with district and health centre staff of the MoH as well as Village Health Committees, and a cross-section of community members (women, adolescents, pregnant/lactating mothers, men and other caretakers). Interviews were conducted with communities in order to get their opinion on barriers to accessing nutrition services and where possible to document good practices, which can serve as recommendations to decision makers.

A total of seven (7) interviews were conducted at the central level, sixteen (16) at subnational level and thirty-two (32) at the community level. These included:

**Central level:**
- Selected divisions under the Department of Hygiene and Health Promotion, Ministry of Health as follows: Primary Health Care (PHC) Division, Health Promotion Division, Nutrition Centre (NC), and Maternal and Child Health Centre (MCHC).

**Subnational level:**
- Bolikhamxay Provincial Health Department: Deputy Director, Hygiene Section (MCH and Nutrition) and Planning and Statistics Section;
- Bolikhan District Health Office: Director, Hygiene Unit (MCH and Nutrition) and Statistics Unit; and
- Health Centres: Nakoun and Ban Bor.

**Community level**
- Villages: Thasy and Nahanh. Four major focus group discussions were performed at community level with village health committees, adolescent girls, pregnant women, lactating mothers and caretakers.

For further details see annexes 1, 3, 4 and 5.

1.4 Selection of case study location

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 a diversity of minority ethnic groups with different cultures and traditions. Communities were selected in collaboration with staff at the District Health Office (DHO) and Health Centre. The villages of Thasy and Nahanh in the district were selected for the assessment.
1.5 Limitations

In Lao PDR nutrition services are an integral part of health services. However due to the focus of NIPN, and limitations on time and scope of the study, the focus will be on nutrition services related to maternal and child health (MCH) only. The study was conducted in the rainy season. This affected the scope and geographic coverage of the assessment.
2. Country Profile

2.1 Socio-economic situation
Lao PDR is a land-locked country in South East Asia and is categorized as a lower-middle income country by the World Bank. The population is 6.9 million, where the majority of the workforce (56 per cent) is engaged in agriculture, 70 per cent of the population lives in rural areas and about 8 per cent in areas with no roads.

Lao PDR has reduced its poverty rate from 24.6 per cent in 2013 to 18.3 per cent in 2019. Approximately 8.6 per cent of the population in Lao PDR today lives on less than USD 1.9 per day, which is a decline from 15.6 per cent in 2012/2013. The rate of poverty reduction has been rapid in rural areas, while urban poverty reduction has stagnated. Despite some improvement in poverty reduction, lack of access to basic social services remains high especially in remote and rural upland areas. Five provinces account for more than half of the poor in Lao PDR: Savannakhet (20.6 per cent), Oudomxay (8.7 per cent), Khammouane (8.3 per cent), Saravane (8.0 per cent) and Luangprabang (7.7 per cent). Poverty is concentrated among minority ethnic groups and people with a low education level with the Hmong-lumien ethnic group having the highest level of poverty at 38.4 per cent compared to the national level which stands at 18.3 per cent.

The COVID-19 pandemic in 2020 has affected Lao PDR through multiple channels including tourism, trade, investment, commodity prices and lowered remittances. Depending on the duration of the COVID-19 pandemic, the country’s economy is estimated to experience a growth rate between minus 1.8 per cent and plus 1.8 per cent in 2020. This will be the slowest growth rate since 2020. Poverty is estimated to increase by 1.4 to 3.1 percentage points in 2020 meaning that poverty is estimated to affect between 96,000 and 214,000 people depending on the growth rate of the economy as mentioned above.

2.2 Nutrition situation
Since 2000 there has been extensive focus on reducing stunting in Lao PDR, which has resulted in a reduction in the stunting rate from 48.2 per cent to 33 per cent in 2017 and underweight from 36.4 per cent to 21.1 per cent in the same period as illustrated in graph1 below. In spite of this significant progress, there are still large differences in levels of stunting across the country, with poor and rural areas most affected. Stunting affects the growth and cognitive development of children. Wasting and underweight also have an impact on the potential growth of children. According to LSIS 2 the percentage of wasting was 9 per cent.

On average, stunting in Lao PDR has declined by approximately 1.5 per cent per annum, and underweight by approximately 1 per cent per annum, over the last six years.
As illustrated in graph 2 below every third child in Lao PDR under five years of age is stunted with wide differences between the 18 provinces in the country. In 2017, Vientiane capital had the lowest prevalence of stunting (13.8 per cent) and Phongsaly Province had the highest (54 per cent). As graph 2 shows, 11 out of 18 provinces have stunting rates above 30 per cent, which is classified as seriously high or critical according to WHO/UNICEF anthropometric classification.

Source: Multiple Overlapping Deprivation Analysis (MODA) on Stunting, 2019

UNICEF nutrition profile, 2019.
Children in remote, rural areas without access to a road have a much higher probability of being nutritionally deprived and stunted than children living in urban areas. Stunting is also highest among children living with a household head of Chinese-Tibetan and Hmong-lumien ethnicity. Stunting levels in provinces such as Sekong, Phongsaly and Xiengkhouang are particularly high.\(^2\)

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 children aged 6–23 months received the minimum diet diversity or the variety of foods required for optimal growth and development. Additional studies show that even though a range of food groups are available and consumed in the household, a significant proportion of children under 2 years old (CU2) are not fed these important food groups, which is partly attributable to limited nutrition knowledge in the household.\(^3,4\)

A total of 38 per cent of babies are introduced to complementary foods too early (before 6 months) while 55 per cent of children aged 6 months to 2 years do not have a diet that is sufficiently diverse and 31 per cent are not fed frequently enough. These children have poor quality diets that are lacking in essential nutrients. Around 40 per cent do not consume vitamin A and 46 per cent do not consume iron-rich foods on a daily basis. The poorest children have the least adequate complementary feeding practices.\(^5\)

There is limited information available about the dietary intake of Lao women. National data show that only one third (32 per cent) 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 less than three meals a day.\(^6\)

Micronutrient deficiency among the population remains a challenge. 44.1 per cent of children under five years are anaemic and 30 per cent of preschool children are suffering from vitamin A deficiency (VAD). Approximately 25 per cent of households do not consume adequately iodized salt. Thiamine deficiency is reportedly high among pregnant and lactating women because of high consumption of rice and diets low in vitamin B1. Thiamine deficiency in Laos has been associated with intrauterine growth retardation and infant mortality.\(^7,8\)

40 per cent of women of reproductive age are anaemic and 48 per cent develop anaemia during pregnancy. Women living in rural areas without roads are more likely to be anaemic than women living in rural areas with roads (42 versus 37 per cent). The prevalence of anaemia varies considerably by province; women in Khammouane Province are more than four times more likely than women in Sayaboury Province to be anaemic (62 versus 18 per cent). 26 per cent of children in Lao PDR have mild anaemia, 18 per cent have moderate anaemia, and <1 per cent have severe anaemia. Children aged under five (CU5) in Khammouane Province are more than two times more likely to be anaemic than children in Houaphan Province (59 versus 24 per cent). Poor Insufficient foetal growth and nutrition intake during pregnancy increases the risk of infant mortality and can have lifelong effects on the immune function and cognitive outcomes.\(^9\)

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\(^2\) Multiple Overlapping Deprivation Analysis (MODA) on Stunting, 2019.
\(^3\) LSIS 2, 2017.
\(^7\) LSIS 2, 2017.
\(^8\) NNSPA, 2016-2020.
\(^9\) LSIS 2, 2017.
Early initiation of breastfeeding (EIBF) in 2017 stands at 50.1 per cent while in 2011 the number was 39 per cent. 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.\textsuperscript{10}

Figure 1 illustrates that more than half of children under 6 months (55 per cent) are not exclusively breastfed, and more than two thirds of children aged under 2 do not meet the minimum diet standards in terms of meal frequency, quality and diversity. Low dietary diversity for children in Lao PDR is also linked to poor infant and young child feeding practices. However, continued breastfeeding beyond one year of age is relatively high (nearly 65 per cent of children aged 12–15 months still receive breast milk at one year).\textsuperscript{11,12}

**FIGURE 1: BREASTFEEDING PRACTICES IN LAO PDR**

![Breastfeeding Practices Diagram](image)

Source: LSIS 2, 2017, MODA 2019

\textsuperscript{10} LSIS 1, 2011, LSIS 2, 2017.

\textsuperscript{11} Multiple Overlapping Deprivation Analysis (MODA) on Stunting, 2019.

\textsuperscript{12} Nutrition in Lao PDR, World Bank, 2016.
During 2000 to 2017 Lao PDR recorded a significant decline in infant and CU5 mortality rates. The infant mortality rate decreased from 83 to 38 per 1,000 live births in the period from 2000 to 2017 while the CU5 mortality rate dropped from 118 to 47 per 1,000 live births. 87 per cent of under-5 mortality happens in the first year of life. Similarly, the maternal mortality ratio significantly declined from 546 to 185 per 100,000 live births between 2000 and 2017, and the total fertility rate declined from 3.2 in 2011 to 2.7 in 2017. 13, 14

2.3 Causes of malnutrition in Lao PDR

Malnutrition is caused by a range of complex and interrelated factors. The interplay of these factors at the individual level results in infection and inadequate dietary intake (immediate causes). These are influenced by household factors such as food access, health-seeking behaviours and infant and young child feeding practices (underlying causes). These are made worse by prevailing community and structural issues related to food systems, access to health, education, basic sanitation, poverty, climate change etc. (basic causes).

**FIGURE 2: CAUSES OF MALNUTRITION IN LAO PDR**

1. Inadequate nutrient intake
2. Food-water-vector-borne and infectious diseases
3. Household food insecurity
4. Food unavailability
5. Lack of access to food
6. Poor mother and child care
7. Poor environmental hygiene
8. Limitations to coordination
9. Insufficient human resources
10. Limitations around information on nutrition
11. Limitations to investment into nutrition interventions
12. Access to fundamental resources and services for households is insufficient in terms of quantity and quality (land, water, energy, markets, education, employment, income, technology, information, etc.).


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14 LSIS 2, 2017.
As figure 2 above illustrates the causes of undernutrition in Lao PDR are multi-faceted and multisectoral. They range from factors that are determined before the child is born – such as mother’s stature, education, health, care, diet and age during pregnancy – to factors affecting the child after birth, like inadequate breastfeeding as well as low macro- and micronutrient intake due to low dietary diversity, and poor hygiene and sanitary environment, especially open defecation. Most factors are influenced by the lack of appropriate knowledge as well as social, gender and cultural norms and practices.15

The high prevalence of undernutrition remains a major challenge in Lao PDR. Despite impressive gains in economic growth over the past decade, Lao PDR has one of the highest rates of chronic malnutrition in South-East Asia.16 Undernutrition threatens lives and national socioeconomic development and 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.17

Malnutrition leads to enormous economic and human costs in Lao PDR. Nearly 2 million Lao citizens, mainly women and children, suffer from some form of malnutrition – and cannot achieve their full development potential. Every year, approximately US$197 million or 2.4 per cent of GDP is lost due to the level of maternal and childhood malnutrition. 73 per cent (US$142 million) of these losses come as a result of malnutrition during the first 1,000 days of life while a third (US$38 million) are related to maternal nutritional status and the roles mothers play in looking after their children.18

Poor nutrition in the first 1,000 days of a child’s life – from a woman’s pregnancy to the child’s second birthday – can lock them into a lifetime of health and social challenges that are devastating and irreversible. During this critical period, if a child doesn’t get the vital food and vitamins needed to grow and develop the brain, there is an augmented risk that the child will suffer various diseases throughout their whole life and will earn less when entering adulthood than if they had been fed vital foods and vitamins during the first 1,000 days.19 Good nutrition during pregnancy and in the first two years is important for cognitive development. Stunting is an indicator of cognitive capability and life potential; 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.20, 21

Household income, ethnicity, and mother’s education play an important role in child nutrition. According to LSIS 2, children of the poorest households are three to four times more likely to be stunted than children in the richest households, whilst wasting is two times less likely to affect them than children from poor households. Among the ethnic groups, stunting is two times higher among the Hmong-lumien (50 per cent) as compared to the Lao-Tai group (23 per cent). Also, children whose mothers had no education were three times more likely to be stunted (45 per cent) than children of mothers with higher education (17 per cent).

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18 The Economic Consequences of Malnutrition in Lao PDR, 2013.
19 Scaling up Nutrition Lao PDR, 2019.
There are high rates of early marriage and adolescent pregnancy, which increases the risk of undernutrition in both mothers and children.\textsuperscript{22} Lao PDR has one of the highest rates of early marriage in the region. According to a study from 2012, one-third of women marry before age 18, while one-tenth marry before age 15. Early marriage is often associated with early pregnancy.\textsuperscript{23} An initial Health Survey conducted by the Nam Theun 2 Power Company (NTPC) showed poor nutritional status for women, especially young adolescent girls. Age at first pregnancy was 18 years with a high fertility rate of 4.92; the mean number of children ever born was 4.47; and the mean number of children alive at the interview was 3.23. The average adolescent birth rate in South-East Asia is 47 births per 1,000 females aged 15 to 19, however, the average for Lao PDR is 94 births per 1,000 women aged between 15 and 19 years, the highest rate in the region.\textsuperscript{24, 25}

Food insecurity is widely assumed to be a major determinant of stunting in Lao PDR, however analyses show that lack of dietary diversity and a balanced diet are the main sources of inadequate nutrient intake in children and not access to food. As figure 3 below shows, the main food source in a Lao household is cereals, typically rice.\textsuperscript{26}

**FIGURE 3: SOURCES OF FOOD BY 7-DAY RECALL**

![Diagram showing sources of food by 7-day recall](Source: Fill the Gap, WFP, 2013)

\textsuperscript{22} Fill the Gap, WFP 2017.
\textsuperscript{23} Maternal Nutrition Brief, UNICEF 2019.
\textsuperscript{24} NTPC, Public Health Program Methodology, 2013.
\textsuperscript{25} Björn Andersson and Karin Hulshof, 2018.
\textsuperscript{26} Nutrition in Lao PDR, World Bank, 2016.
3. Organization and Structure of Nutrition Services

3.1 Main policies and strategies with focus on nutrition

Since 2000 there has been a focus on nutrition and reduction of malnutrition in Lao PDR. This first resulted in the endorsement of the National Nutrition Policy in 2008. This was followed by the development of the first National Nutrition Strategy (NNS) 2011–2015 and Nutrition Plan of Action for Nutrition (NPAN) 2011–2015, followed by a second NNS 2016–2025 and NPAN 2016–2020. Over the years, Lao PDR has prioritized nutrition as a development issue and has been active at the global stage through the Scaling Up Nutrition Movement (SUN) since 2011. The Government of Lao PDR included health and nutrition as one of its priority areas in the National Socioeconomic Development Plan (NSED). It also established the Nutrition Centre that operates under MoH and the National Nutrition Committee (NNC). NNC oversees the implementation of the NPAN and the NNC Secretariat is co-chaired by MoH and the Ministry of Agriculture and Forestry (MAF). The role of NNC is to address nutrition issues through a multisectoral approach and to coordinate multisectoral nutrition actions at the central level. At provincial and district levels, Provincial and District Nutrition Committees have been established and are headed by the Vice Provincial Governor with the Directors of the Provincial Departments serving as heads of the secretariat. This is expected to enhance nutrition governance, advocacy and implementation of high impact nutrition interventions in the country. The role of the committees is to monitor and evaluate implementation of nutrition activities, coordinate implementation of agreements and meetings on nutrition.

The NNS and NPAN (2011–2015) formed the first multisectoral framework providing the direction for all stakeholders involved in nutrition. These documents defined key nutrition interventions with clear roles and responsibilities of different sectors and stakeholders as well as a costed plan of implementation. The updated NNS (2016–2025) and NPAN 2016–2020 aim to strengthen the multisectoral approach to nutrition and more explicitly defines the interventions, approaches and institutional arrangements for achieving a more comprehensive action. The NPAN (2016–2020) has 29 priority interventions that are multisectoral in nature and are classified as priority 1 and 2 interventions; 22 of the interventions are considered as priority 1 due to their significant contribution to nutrition outcomes in the country. The Government of Lao PDR and development partners are expected to prioritize the implementation of these interventions. The remaining four interventions are classified as priority 2 and mainly include interventions that address communicable diseases, child immunization and vector-borne diseases. Currently the next NPAN 2021–2025 is under development in collaboration with the Government and development partners.

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3.2 Nutrition services currently offered in the country

Nutrition service provision in Lao PDR include: health and nutrition education promotion of exclusive breastfeeding, effective complementary feeding, management of acute malnutrition, growth monitoring, micronutrient and vitamin supplementation (iron and folic acid, vitamin A, zinc, micronutrient powders, etc.) and deworming as well as essential nutrition actions during antenatal care (ANC) and postnatal care (PNC).

To date, a large portion of health policy efforts have been directed toward improving access to health services as part of universal health coverage (UHC). 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 PHC and medical services are expected to be of high quality, safe, comprehensive, integrated, accessible to all and at affordable cost.\(^28\)

In pursuance of Lao PDR’s National Health Insurance (NHI) Strategy 2017–2020, the Government under the second phase of the Health Sector Reform Strategy (HSRS) implementation, has made a major policy decision to establish the NHI scheme and to progressively expand social health projection to the whole population through a unified scheme. This will integrate free health services for the poor, adopt a policy for free MCH services for mothers and CU5, and provide community-based health insurance.\(^29\) More than 90 per cent of the population is reported to be covered by public health insurance.\(^30\)

A comprehensive Integrated Outreach Service (IOS) is implemented as part of the PHC. This is part of government-led service delivery strategies to facilitate access to health and nutrition services for people from villages that have no health centres. IOS is expected to provide for a variety of needs of mothers and children, such as care during pregnancy – antenatal, postnatal and skilled assisted birth; hygiene promotion; maternal, newborn and child health and nutrition interventions; infant and child growth monitoring; immunization, vitamin A supplementation, deworming for children aged between 6 and 59 months; screening CU5 for acute malnutrition; health and nutrition education, addressing the family planning needs of the mother and appropriate service provision; and the data collection for each locality.

Under the National Immunization Programme (NIP), the district became the operational unit responsible for planning and managing the delivery of services through fixed health facilities and mobile IOS activities to villages. Villages in the catchment area of a district or health centre were classified into four zones, a system that is still used:\(^31\)

**Zone 0** are villages within three kilometres of a fixed immunization centre. They represent 14 per cent of all villages and about 27 per cent of the population.

**Zone 1** are villages where an outreach team can conduct a vaccination session within a day using non-motorised transportation – either by walking, riding a bicycle, or rowing a canoe to the village and return to the district health centre in the same day. Zone 1 villages represent 16 per cent of all villages and about 20 per cent of the population.

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\(^{28}\) Primary Health Care Policy, MOH 2019.

\(^{29}\) Ministry of Health, 2017.

\(^{30}\) Quality of health care in the Lao People’s Democratic Republic, Asian Development Bank Institute, 2019.

Zone 2 are villages where an outreach team can conduct a vaccination session within a day using motorised transportation – either by motorbike, motorboat or using public transport. Zone 2 villages represent 15 per cent of all villages and about 15 per cent of the population.

Zone 3 are villages where an outreach team requires one or more overnights to reach the village and conduct a vaccination session. They represent 53 per cent of all villages and about 38 per cent of the population.

Under the district strategy, a team of 2 vaccinators and 1 volunteer are responsible for about 15 to 20 villages. Initially, each village would be visited 3 times a year in scheduled rounds of outreach during the dry season. However, in the past years, the scheduled number of rounds has increased to four.

### 3.3 Structure of nutrition service delivery

In Lao PDR nutrition services are carried out by health workers at health centres, district and provincial hospitals. There are approximately 1,060 health centres located throughout Lao PDR. The health centres are the primary health facilities responsible for delivering nutrition and PHC services including ANC, PNC, growth monitoring and nutrition counselling, provision of micronutrient supplementation, immunization and outreach services. Each health centre serves approximately 10 villages in its catchment area. As graph 3 below illustrates, the majority of households are within 10 kilometres of a health centre, but up to 63 per cent of rural households without road access are within 10 kilometres of a health centre and only two out of five households are within 10 kilometres of a hospital.

**GRAPH 3: ACCESS TO HEALTH CENTRES AND HOSPITALS**

- Less than 10 km
- 11-30 km
- More than 30 km

*Source: LECS 6, 2019*

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Depending on size of the village there is at least one health volunteer with limited equipment, who can assist with minor issues in the village. During the last few years, considerable effort has gone into improvement of PHC service delivery, especially MCH, by increasing the number of staff uptake and deployments to health centres. Though much progress has been made in improving MCH services, significant disparities exist nationwide, with the poor and geographically isolated ethnic groups having limited access to services.

Figure 4 below shows the PHC services structure in Lao PDR from provincial to family level with the health centre being the main provider of nutrition services at community level.

**FIGURE 4: PRIMARY HEALTH CARE SERVICES STRUCTURE IN LAO PDR INCLUDING NUTRITION SERVICES**

The Lao health sector is highly underfunded, which can have an impact on achieving some of the key nutrition indicators of the Sustainable Development Goal (SDG) targets, especially SDG 2: “End hunger, achieve food security and improved nutrition and promote sustainable agriculture”. For a long time, health sector financing, including nutrition, has faced challenges in Lao PDR due to the low level of investment and 20 per cent of the total health expenditure comes from external funding. Since 2011 there has been a significant increase in the government budget for health from US$11 per capita in 2011 to US$71 per capita in 2018 or about 2.8 per cent of GDP in 2018 is spent per capita. External finance still remains the main funding source for priority health programmes such as immunization, HIV, TB, and malaria.

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35 Financial protection and equity of access to health services with the free maternal and child health initiative in Lao PDR Health Policy and Planning, 2019.
3.4 Factors that hinder nutrition service delivery in Lao PDR

Lao PDR is facing several challenges in providing MCH services including nutrition service delivery to communities. These include:

**Access to remote/rural villages:** Many villages are located remotely with limited road access. Some villages are not accessible during the rainy season. Due to location of some communities, health centre staff are not able to visit villages, even though MCH outreach services should be provided on a quarterly basis. Furthermore, in some cases it is reported that health centre staff are not able to conduct growth monitoring during IOS, as they cannot transport or carry weighing scales and height boards to measure infants and children. This affects the growth monitoring of infants and children.\(^{37}\)

**Capacity and knowledge of health workforce:** Health staff have limited capacity to provide basic primary health care. A workforce survey of 120 health centres showed that 44 per cent of staff had never received in-service training on areas such as ANC and PNC, essential newborn care, nutrition and growth monitoring. Health workers therefore have very limited knowledge on nutrition. Examples are that health workers would give the same advice if a child was mild, moderately or severely malnourished and tend not to recognize stunted children, especially in areas where stunting is common. Only half of health centre staff would ask about breastfeeding. Also if a child is found to be stunted or underweight during growth monitoring, health centre staff would not counsel mothers on the nutritional status of their children.\(^{38,39}\) As part of IOS, health centre staff are supposed to conduct MCH outreach services to rural and remote villages on a quarterly basis, however it is found that the main focus is on immunization rather than comprehensive IOS in the villages.

The challenge of limited capacity of the health workforce could be attributed to the fact that the Lao education system does not train nutrition cadres or professionals. Also, pre-service training curriculum of health professionals offers little scope for nutrition courses. Students who wish to study nutrition have to do so outside the country.

**Lack of nutrition education materials:** Provision of nutrition education in villages is limited by a lack of Behavioural Change Communication materials for health staff to use for their sessions. Health centre staff reported that they do not provide nutrition education or counselling during IOS, as they have nothing to attract villagers’ attention, such as posters, brochures, flipcharts or other communication materials and to raise awareness on nutrition and food intake.

**Limited staff and staff rotation:** There is a shortage of qualified staff at health centres with an uneven distribution of health staff across the 18 provinces in the country. A workforce survey of 120 health centres showed that the average number of staff was four (4.4 health workers in urban health centres compared with 3.8 in rural centres) and on average staff had only six consultations per day.\(^{40,41}\) Furthermore, there is a limited number of trained female skilled birth attendant staff to enable access for ethnic women.

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\(^{38}\) Lao PDR Health Center Workforce Survey, World Bank, 2016.


\(^{40}\) Lao PDR Health Center Workforce Survey, World Bank, 2016.

Language barriers: In some communities, health staff are not able to speak the local dialect which hampers effective communication with community members. An example from the Lao PDR Health Center Workforce Survey 2016 showed that 85 per cent of health centre workers spoke the most common language in the community (typically Lao), and only 31 per cent spoke the second most common language.

3.5 Factors that hinder women’s access to nutrition services

The assessment identified various factors that hinder women’s access to nutrition services. These include financial, cultural and traditional barriers, poor education and lack of knowledge, physical access, food taboos and restrictions, and ethnolinguistic barriers.

Financial barriers: In Lao PDR, low-income households face greater barriers to accessing health care as some households cannot afford transportation costs to the hospital. As a result, they rely mostly on basic health care services from health centres, especially those in rural areas. A major reason for not using MCH services is a lack of knowledge regarding insurance costs, although immunization and MCH are free of charge. A study from Kham District in Xiengkhouang Province showed that 71.3 per cent of women did not use the ANC facility as they were living at too great a distance.

Poor access to quality nutrition services are persistent problems and affect women and poor households, leaving a large gap in essential services for mothers and children. For example, the recent Lao PDR Social Indicator Survey (LSIS 2) in 2017 found that while 97.3 per cent of pregnant women in the richest quintile had access to ANC, only 52 per cent of pregnant women from the poorest quintile received ANC from a trained health professional and over 36 per cent of pregnant women living in rural areas without roads had not received any ANC services.

The share of women in the poorest quintile who did not receive any ANC during the last pregnancy (75.2 per cent) is more than 10 times higher than the share of women in the richest quintile (6.6 per cent). Regarding safe delivery, institutional births range from 87 per cent in the wealthiest quintile to only 11 per cent in the poorest quintile. As a result, there are high socioeconomic and geographic disparities in reproductive, maternal, neonatal, child, and adolescent health outcomes in Lao PDR, and especially inequalities related to wealth and ethnicity.

For the rural poor, many of whom live in remote areas, distance to health facilities is a major barrier to access. While only 6 per cent of pregnant women living in urban area had no access to ANC, this figure was 19.5 per cent for pregnant women living in rural areas with road access. Moreover, only 34 per cent of pregnant women in rural households were assisted by a skilled birth attendant when giving birth, compared to the national average of 64 per cent.

Cost and time constraints make women return to work soon after giving birth, which impacts breastfeeding and complementary feeding. Often the child will be at home with grandparents or other family members and will not be exclusively breastfed for the first six months.

42 Financial protection and equity of access to health services with the free maternal and child health initiative in Lao PDR 2019.
43 Factors affecting the utilization of antenatal care services among women in Kham District, Xiengkhouang Province, Lao PDR
Ethnolinguistic barriers: While non-Lao-Tai ethnic groups in rural areas generally show a higher burden of child stunting, there are still linguistic barriers that prevent them from benefiting fully from nutrition services even when these are made available to them. Non-Lao-Tai ethnic groups often are unable to benefit from health and nutrition education/counselling due to linguistic barriers, as the majority of the health centre staff is of Lao-Tai origin and do not speak any of the ethnic languages. Due to a lack of access to formal education, many Hmong-Iumien and Mone-Khmer women cannot understand Lao or may be too shy to speak it.

Limited nutrition knowledge: In some communities newborn babies are traditionally fed chewed rice, this increases the chances of infection as the infant has not fully developed its gastrointestinal system. Most babies are breastfed, but reliance on breast milk alone after six months is a problem, as this is insufficient for the required growth. Due to poor weaning practices and poor quality of complementary foods to meet their needs, babies may lose weight, increasing their likelihood of stunted growth. Poor and insufficient nutrition in the age group from 6 to 24 months, leaves children permanently stunted and this loss can never be regained, even if the child receives sufficient food intake after two years. It is becoming increasingly clear that key opportunities for improving life chances and interventions take place when rapid brain development takes place during the first two years of life and in adolescence.

Food taboos and restrictions: Women are commonly limited to a certain diet during and after pregnancy due to traditional beliefs; some women may not be allowed to eat nutritious foods severely affecting their health and lactation. Withholding food and giving only herbal water soon after the birth, in some cases for as long as forty days, are practices that have inevitable consequences affecting the health of both mother and child.

Women in some ethic groups will not give birth at a clinic due to the cultural belief that pregnancy and childbirth are a natural event and do not require medical treatment. Some women prefer to give birth on a hot bed drinking only herbal water; some communities believe that preparing for a birth is a bad omen for the birth; others believe that colostrum is unhealthy for the newborn. Mothers often report that they are encouraged to restrict food intake during pregnancy so they can have smaller babies and easier deliveries, and food restrictions often continue through the delivery and breastfeeding period.

For already under-nourished mothers, these factors affect recovery from childbirth and adequate production of breast milk with the possibility of dehydration. There is a great need for education and awareness around feeding and it is vital for communities to understand the importance of the right food intake during and after pregnancy and for children aged under five.

47 NTPC, Public Health Program Methodology, 2013.
4. Case study from Bolikhan District, Bolikhamxay Province

4.1 Profile of case study area

There are seven districts in Bolikhamxay Province with a total of 291 villages, 42 health centres and more than 500 delivery points. Integrated outreach services (ISO) are being carried out in all 291 villages with monthly frequency. Poverty in Bolikhamxay Province has increased from 14.7 per cent in 2013 to 20.6 per cent in 2019. Table 1 shows the nutritional status and health indicators in the province.

**TABLE 1: SELECTED INDICATORS FOR BOLIKHAMXAY PROVINCE**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Underweight CU5</td>
<td>14</td>
</tr>
<tr>
<td>Stunting in CU5</td>
<td>20</td>
</tr>
<tr>
<td>Wasting in CU5</td>
<td>16</td>
</tr>
<tr>
<td>Infant mortality (per 1,000 live births)</td>
<td>14</td>
</tr>
<tr>
<td>Under-five mortality (per 1,000 live births)</td>
<td>17</td>
</tr>
<tr>
<td>Maternal mortality ratio (per 100,000 live births)</td>
<td>28.6</td>
</tr>
<tr>
<td>Diarrhoea in CU5</td>
<td>7</td>
</tr>
<tr>
<td>Anaemia in CU5</td>
<td>45</td>
</tr>
<tr>
<td>Anaemia in women of reproductive age</td>
<td>52</td>
</tr>
<tr>
<td>Exclusive breastfeeding</td>
<td>48</td>
</tr>
<tr>
<td>Bottle-feeding</td>
<td>48</td>
</tr>
<tr>
<td>Minimum acceptable diet (6–13 months)</td>
<td>32</td>
</tr>
<tr>
<td>Received vitamin A (children 6–59 months)</td>
<td>95</td>
</tr>
<tr>
<td>Received vitamin A (children 6–11 years)</td>
<td>79</td>
</tr>
<tr>
<td>Iron for pregnant women</td>
<td>89</td>
</tr>
<tr>
<td>Low birth weight</td>
<td>4</td>
</tr>
</tbody>
</table>

*Source: LSIS 2 and Annual Report of 2019 and Implementation Plan of 2020, Bolikhamxay Province*

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46 LECS 6, 2019.
Bolikhan District consists of a mixed topography with a mix of lowland areas and semi-mountainous areas. Bolikhan District is located 26 kilometres from Bolikhamxay Province with the total area of 2,917 km². The district is bordered by Thathom District, Xaysomboun Province to the north, Pakxan District to the south, Viengthong District to the east and Thaphabat District to the west.

The total population is 56,583, of which 27,864 are female (49.24 per cent), with 10,017 families and a population density of 15 people/km². Bolikhan District is divided into six administrative areas and nine health areas. There are 44 administrative villages and 96 immunization delivery points. Of the families 6.9 per cent are still living under the poverty line. There are three major ethnic groups: the majority is Hmong-Iumien (more than 60 per cent), the remaining 40 per cent are Lao-Tai and Mone-Khmer.

The majority of inhabitants in Bolikhan District are mainly engaged in rice farming, followed by gardening and large animal raising as an additional means of generating income for the family. The average income is US$1,384/person/year.

### SUMMARY OF KEY HEALTH AND NUTRITION SERVICES IN BOLIKHAN DISTRICT

- Nutrition services were included in the MCH service package at both health facility level and in the community;
- Non-comprehensive IOS was organized monthly with the main focus on immunization and other MCH components rather than growth monitoring;
- Comprehensive IOS was organized routinely at the health facility and quarterly in the community. They included ANC, PNC, growth monitoring, health and nutrition education/counselling, provision of micronutrient supplementation, immunization and monitoring of demographic information (including births and deaths);
- Comprehensive IOS was highly acceptable and preferable in the community – in terms of satisfaction and convenience. The average IOS attendance rate was 60–70 per cent at provincial and district levels, and 90 per cent at health centre and community levels (where the team visited);
- A comprehensive IOS was not fulfilled due to shortage of equipment, staff, funding and transport;
- Monitoring is more vertically/programme approach and is not fully integrated; and
- Four main packages were applied for routine monitoring of nutrition services in Bolikhamxay Province. They are DHIS2, MS Excel, MS Access and WHO Anthro.

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4.2 Factors that hinder provision of nutrition services in Bolikhan District

During interviews the following factors hindering provision of nutrition services in the community were mentioned:

**Human resources:**

- There is often staff rotation, especially at district and lower levels. There is no proper preparation for hand over between the outgoing and incoming staff. This also leads to a shortage of human resources in terms of skills and numbers and therefore temporary personnel are hired. The proportion of temporary contracts remains high, resulting in a lack of continuity in the provision of services;
- Although a number of training sessions were provided at all levels, they are too short and not as frequent as required. It was unlikely that all health centre staff have received proper training on comprehensive IOS;
- In-service training during supportive supervision was performed but it is unclear how efficient and effective this was since the skills in nutrition services required improvement;
- Refresher training was not made available at all levels;
- There is a major requirement for capacity-building on nutrition information, counselling and data analysis for health professionals; and
- Nutrition assessment package is not standardized due to inconsistencies: the Provincial Health Office (PHO) trained health staff on WHO Anthro but Lao-Luxemburg Health Project, Statistics Division (MoH) and MCH Centre introduced their own package with different results.

**Inadequate health education materials:**

- Generally, nutrition information is limited. Health and nutrition materials are insufficient, are out of date, limited to only posters and some brochures and are available only in the main Lao language, which is not possible for everybody to read; and
- Growth monitoring results are often not recorded in the growth monitoring chart leading to lost opportunities to provide nutrition and health education on individual growth and development.

**Inadequate nutrition supplies:**

- Shortage of growth monitoring supply: insufficient and non-standardized child weighing scale and height/length board measurements;
- Stockouts of vitamin A, deworming tablets and Japanese encephalitis vaccine;
- No food supplementation during comprehensive IOS; and
- Lack of transportation for comprehensive IOS, leading to use of private transport.
4.3 Factors hindering access to community nutrition services

Factors hindering women’s access to nutrition services in the community:

- Women have a low education level and are generally lacking knowledge and understanding of the importance of nutrition and food sources during pregnancy, after delivery, and during the 1,000-day window of opportunity;
- The economic burden of some households, as some non-Lao-Tai households have a lower economic status and cannot afford to buy nutritious food;
- Accessibility to a health centre, as some villages are in remote and difficult locations and transportation is expensive;
- High early marriage and early pregnancy rates that lead to school dropout, default of the health and nutrition service (no ANC, no family planning, high parity), poor childcare and nutrition, poverty;
- Low quality of IOS in terms of skills, efficiency, effectiveness, lack of incentive and of food supplementation, shortage of growth monitoring tools and health education materials;
- Low level of knowledge and competency on nutrition counselling/information; and
- Nutrition and health information is inadequate although its main source is from health professionals, social media and family.

4.4 Factors that could impact nutrition service delivery in Bolikhan District

Interviews held at PHO down to community level during the case study in Bolikhan District provided evidence of some good practices that could be applied in other provinces in Lao PDR:

- High commitment and strong support from PHO and DHO management;
- Good coordination at all levels of health service provision leading to high participation rates;
- Organized non-comprehensive and comprehensive IOS on a monthly and quarterly basis respectively. Comprehensive IOS is highly acceptable and preferred by the community;
- Existence of a computerized routine monitoring tool at health centre level. The database is an important tool for routine data collection and to facilitate better service provision; and
- Nutrition assessment can be done at health centre level and the growth monitoring results can be made available to the Village Health Committees for feedback and to organize nutrition and health education for mothers of malnourished children.
5. Conclusion

The purpose of this assessment has been to investigate and identify gaps in, and provide recommendations on how to improve access to, nutrition services, as well as to ensure the 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. The assessment has identified different gaps, which are as follows:

- **Insufficient financial and human resources:** Despite high-level support for nutrition and development of a National Nutrition Policy (NNP), National Nutrition Strategy (NNS) and National Plan of Action for Nutrition (NPAN), implementation of nutrition interventions is still challenging, especially at district and community levels. There is an insufficient level of financial and human resources with an unclear linkage between national and subnational levels. Also, the NNS has not been communicated in formats appropriate to subnational levels and especially at district and health centre levels staff are not familiar with the NNS and 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. If a student wants to study nutrition, this has to be done outside Lao PDR, for example in Thailand. This means that throughout Lao PDR there is a lack of skilled health staff with nutrition education and knowledge; health staff are usually assigned the responsibility and learn on the job from senior colleagues. Often health staff at district and health centre level do not have any specific training in nutrition. These issues adversely impact the organization and delivery of nutrition services.

- **Lack of nutrition knowledge to provide proper nutrition education and counselling in communities:** Due to poor knowledge and education on nutrition, health staff tend not offer appropriate recommendations about nutrition and child growth and would offer the same advice whether a child had moderate or severe malnutrition. Health staff also tend not to recognize stunted children, especially in areas where stunting is common. As part of the IOS, health centre staff are supposed to conduct MCH outreach services to rural and remote villages on a quarterly basis, however it is found that the main focus is on immunization. Health centre staff reported that they did not raise awareness on nutrition and food intake nor provide health and nutrition education or counselling during outreach as they have nothing to attract villagers’ attention, such as posters, brochures, flipcharts or other communication materials.

- **Lack of nutrition knowledge and awareness at community level:** Women in communities are not seeking nutrition advice and counselling due to poor knowledge regarding nutrition and why and how nutrition services can help them or their child. This can also be linked to nutrition education and curriculum at primary and secondary levels, as students do not receive any education on nutrition. Some schools have a school garden initiative, where students learn about cultivating vegetables and food intake, but it is not part of the curriculum.
• **Increased knowledge on nutrition has a positive impact on feeding practices:** Evidence from the community level in Bolikhan District shows that mothers who have received child nutrition education and advice are significantly more likely to make use of the knowledge and feed children protein rich food such as eggs, dairy products and legumes and nuts. Findings also showed that mothers who had received nutrition advice had changed their traditional habits and started to feed children according to the advice provided by health centre staff. After the age of six months, mothers would provide food supplementation, then introduce nutritious food such as vegetables, meat, fish, fruits. This suggests that raising child nutrition awareness and providing behavioural change communication are important interventions in helping to improve child nutrition outcomes, as part of a set of broader necessary interventions.

• **The ethnolinguistic context and culture are barriers for accessing nutrition services:** The literature review and field visit found that non-Lao-Tai ethnic groups often do not benefit as much from nutrition education and counselling due to linguistic barriers as the majority of health centre staff are of Lao-Tai origin and often do not speak the ethnic languages of the community. Furthermore, where health facilities are available, access to services often remains a challenge due to cost, distance, language and cultural barriers and there is low utilization of health services among the poorest households. Some women, if they feel healthy and have no discomfort during pregnancy, feel it is unnecessary to attend ANC or to give birth at a clinic. Some women also find it embarrassing to attend ANC services.
6. Recommendations

Based on the findings from the literature review, interviews and focus group interviews in Bolikhamxay Province the following recommendations are made:

**Investments in human resources**

- There is a great need to invest in human resources in order to improve the nutritional status in Lao PDR. There is a need to strengthen skills and confidence among health workers in providing nutrition and growth promotion counselling. The capacity of trainers should be strengthened at central and provincial levels to roll out nutrition counselling training at all levels, from the district and health centre to village health workers. Regular supervision and monitoring of health workers and their counselling skills is required. Nutrition counselling should be added to the pre-service and in-service training curriculum and supervisors and trainers must spend sufficient time with grass-roots health workers to improve their skills. Supervisors at community level should have good knowledge and understanding of all awareness-raising materials and packages used.

- Allocate more staff, especially female midwives and nurses, to health centres to provide sufficient numbers to deliver the necessary nutrition services to communities. Diversity of ethnic groups among staff at the health facilities must be ensured to help reduce language barriers with major ethnic minorities.

- Scale up nutritional counselling packages with a focus on exclusive breastfeeding for the first 6 months, continuing for up to 2 years, while providing complementary feeding practices starting at 6 months, adequate and diverse diet for pregnant women and lactating mothers.

- In the long term, develop educational programmes for training of nutritionists at university level and build the resource base of skilled nutritionists in the country. Establish designated positions for nutritionists to manage nutrition programmes and interventions.

**Financial resources**

- Sufficient budget must be secured to provide adequate support to meet the minimum requirements of proper nutrition service provision at grass-roots level. This will assist health centre staff to provide nutrition counselling and awareness-raising activities on nutritious food to consume before, during and after pregnancy.

- Provide financial resources to make height boards and scales for measurement available in every village in the country.
Social and behaviour change communication

- Information with a focus on appropriate feeding practices for infants and young children should directly target mothers and other caretakers in the household, including men.
- Use communication channels to improve awareness, change behaviours and encourage better nutrient intake. Use local services to positively influence knowledge, attitudes and social norms and to reach multiple levels of society.
- Use awareness-raising campaigns to reach specifically adolescent girls with the aim of preventing early marriage and early pregnancy, as evidence shows that early pregnancy increases the risks of children being stunted.

Focus on interventions for different ethnic and cultural groups

- The ethnic and linguistic diversity of Lao PDR, especially in rural areas, also presents a fundamental challenge for the provision of nutrition services to communities. It is recommended to recruit health workers from rural ethnolinguistic groups to work in their community after graduation.
- Communication materials, including audio-visual tools, should be developed for ethnic groups and translated into the main local languages to make implementation of information campaigns less of a challenge. Information materials are essential in motivating the community to improve their living conditions, develop a sense of responsibility towards nutrition for themselves, members of their family and communities.

Use of mass media campaigns for advocacy and awareness-raising

- Use mass media campaigns for advocacy, awareness-raising and knowledge on nutritious food and diverse diets.
- Use communication channels such as film, Youtube clips or other media used in local communities targeting children and mothers.
- Educate families on the importance of the first 1,000-day window of opportunity and what the family can do to provide appropriate feeding and care practices for infants and young children as well as pregnant and lactating mothers.

Comprehensive integrated outreach services and routine monitoring

- Improve IOS activities and the management information systems to ensure nutrition is fully integrated in maternal and child health services.
• Effectively monitor the comprehensive IOS provided by health workers. A computerized and user-friendly routine monitoring system should be made available for the health service provided at the grass-roots level to collect, analyse and use good-quality data and evidence regularly to guide action and track progress as well as to support the requirements of national health information system.

• Improve the quality of comprehensive IOS to be more attractive and effective thus encouraging the community to make best use of the services. Providing food supplementation in the community could offer an alternative option.
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## Annex 1: Interview and focus group discussion by level

<table>
<thead>
<tr>
<th>Interview guide for central level</th>
<th>Focus Group Discussion guide for subnational level</th>
<th>Focus Group Discussion guide for community level</th>
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<tbody>
<tr>
<td>• Integrated outreach service (IOS) strategy / system</td>
<td>• Additional information:</td>
<td>• General knowledge and understanding of nutrition and the importance of IOS</td>
</tr>
<tr>
<td>• Linkage between nutrition, MCH, PHC</td>
<td>• Manpower – number of health staff, mandate of nutrition and MCH units</td>
<td>• Ever take part in the IOS or elsewhere</td>
</tr>
<tr>
<td>• Human resources: number of nutrition staff in each level, training received, type of training, staff rotation (since nutrition programme)</td>
<td>• Basic knowledge and understanding of nutrition and the importance of IOS</td>
<td>• Type of service received in the community</td>
</tr>
<tr>
<td>• Mandate of nutrition staff</td>
<td>• Services they are providing and skills on IOS</td>
<td>• History and experience in pregnancy, lactating mothers and child feeding practices</td>
</tr>
<tr>
<td>• Monitoring, reporting and management information system</td>
<td>• Target areas and tools and materials used for IOS</td>
<td>• Knowledge of nutrition and food intake; agricultural production and nutrition</td>
</tr>
<tr>
<td>• Advantages and disadvantages of IOS</td>
<td>• Community and family support, participation and IOS attendance rate</td>
<td>• Knowledge of nutrition, pregnancy and infants</td>
</tr>
<tr>
<td>• What are the main problems that you cope with the nutrition service provision</td>
<td>• Advantages and disadvantages of implementation</td>
<td>• What do women see as barriers for not using nutrition services?</td>
</tr>
<tr>
<td>• Recommendations: what are the solutions to increase access to nutrition services</td>
<td>• Coordination role / mechanism</td>
<td>• Source of nutrition and health information</td>
</tr>
<tr>
<td>• Project support</td>
<td>• Human resources</td>
<td></td>
</tr>
</tbody>
</table>
### Observation of comprehensive IOS

- Skills in IOS, especially in growth monitoring:
- Growth monitoring skills:
  - Length - for children under 2 YOs (lay down) and
  - Height – for 2 YOs and above (stand)
  - Set up scale properly
  - Position of a child
  - Clothes (especially in cold season)
- Skills in reading weighing scale
- Recording properly/correctly in the record keeping
- Filing system

### Checklist of the health facilities

- Integrated outreach services:
  - ISO arrangement
  - Home visit of high risk
  - Referral system – severe cases
  - Village Health Committee
  - Type of service provision and material use during IOS
  - Growth monitoring tool and list of CU5
- Monitoring tool and equipment:
  - Family files
  - List of target population (CU1, CU5, reproductive age and pregnant women)
  - Paper-base (forms) / computerized - manage by whom
  - Supervision support mechanism
  - In-service training provided
  - Availability of growth monitoring guide/manual
  - Record keeping for specific nutrition/health services
- Health education materials
- Food supplementation if any – menu, food preparation, managed by whom
- Community and family participation and support
### Annex 3: List of participants at central level

<table>
<thead>
<tr>
<th>ID</th>
<th>Date</th>
<th>Full Name</th>
<th>Gender</th>
<th>Organization</th>
<th>Position</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23-09-20</td>
<td>Dr. Khamsehang Philavong</td>
<td>F</td>
<td>Nutrition Center</td>
<td>Deputy Director</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>28-09-20</td>
<td>Dr. Viengvilay Chanthavong</td>
<td>F</td>
<td>Department of Hygiene and Health Promotion</td>
<td>Chief of Division</td>
<td>Primary Health Care Division</td>
</tr>
<tr>
<td>3</td>
<td>29-09-20</td>
<td>Dr. Phouthong Rattanavong</td>
<td>F</td>
<td>Maternal and Child Health Center</td>
<td>Chief of Section</td>
<td>Child Health Promotion Section</td>
</tr>
<tr>
<td>4</td>
<td>29-09-20</td>
<td>Dr. Konesanouk Singphongphet</td>
<td>M</td>
<td>Maternal and Child Health Center</td>
<td>Deputy Chief of Section</td>
<td>Child Health Promotion Section</td>
</tr>
<tr>
<td>5</td>
<td>29-09-20</td>
<td>Dr. Amliene Phonsila</td>
<td>M</td>
<td>Maternal and Child Health Center</td>
<td>Technical</td>
<td>Community Mobilization Section</td>
</tr>
<tr>
<td>6</td>
<td>29-09-20</td>
<td>Ms. Viphavanh Siphonexay</td>
<td>F</td>
<td>Maternal and Child Health Center</td>
<td>Technical</td>
<td>Planning of Health Prevention Section</td>
</tr>
<tr>
<td>7</td>
<td>02-10-20</td>
<td>Dr. Souvankham Phommaseng</td>
<td>F</td>
<td>Department of Hygiene and Health Promotion</td>
<td>Deputy Chief of Division</td>
<td>Health Promotion Division</td>
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## Annex 4: List of participants at subnational level

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<th>Gender</th>
<th>Organization</th>
<th>Position</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>06-10-20</td>
<td>Dr. Douangta Leuangmilay</td>
<td>F</td>
<td>Bolikhamxay PHO</td>
<td>Deputy Director</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>06-10-20</td>
<td>Dr. Bang On Phaimany</td>
<td>F</td>
<td>Bolikhamxay PHO</td>
<td>Deputy Chief of Hygiene Section</td>
<td>Nutrition</td>
</tr>
<tr>
<td>3</td>
<td>06-10-20</td>
<td>Ms. Thanousone Sayachanh</td>
<td>F</td>
<td>Bolikhamxay PHO</td>
<td>Technical, MCH and Nutrition</td>
<td>Nutrition</td>
</tr>
<tr>
<td>4</td>
<td>06-10-20</td>
<td>Mr. Keobandid Hombaykham</td>
<td>M</td>
<td>Bolikhamxay PHO</td>
<td>Technical, Statistics and Planning</td>
<td>Statistics</td>
</tr>
<tr>
<td>5</td>
<td>07-10-20</td>
<td>Dr. Khamvene Phengphakeo</td>
<td>M</td>
<td>Bolikhan DHO</td>
<td>Director</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>07-10-20</td>
<td>Ms. Choumaly Phommasane</td>
<td>F</td>
<td>Bolikhan DHO</td>
<td>Chief of Health Promotion Unit, Maternal and Child Health</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>07-10-20</td>
<td>Ms. Somchay Sonesida</td>
<td>F</td>
<td>Bolikhan DHO</td>
<td>Technical, Health Promotion Unit</td>
<td>Maternal and Child Health</td>
</tr>
<tr>
<td>8</td>
<td>07-10-20</td>
<td>Ms. Sengdao Louangsouvannavong</td>
<td>F</td>
<td>Bolikhan DHO</td>
<td>Technical, Health Promotion Unit</td>
<td>Maternal and Child Health</td>
</tr>
<tr>
<td>9</td>
<td>07-10-20</td>
<td>Ms. Bouakham Phommasane</td>
<td>F</td>
<td>Bolikhan DHO</td>
<td>Technical, Statistics Unit</td>
<td>Statistics</td>
</tr>
<tr>
<td>10</td>
<td>07-10-20</td>
<td>Mr. Khongdeth</td>
<td>M</td>
<td>Nakoun HC</td>
<td>Chief of Health Center</td>
<td>Primary Health Care</td>
</tr>
<tr>
<td>11</td>
<td>07-10-20</td>
<td>Ms. Keutlavanh Phengkhamdy</td>
<td>F</td>
<td>Nakoun HC</td>
<td>Deputy Chief of Health Center</td>
<td>Health Promotion (MCH/nutrition)</td>
</tr>
<tr>
<td>12</td>
<td>07-10-20</td>
<td>Mr. Phengphet Sensouphanh</td>
<td>M</td>
<td>Nakoun HC</td>
<td>Technical</td>
<td>Health Promotion (MCH/nutrition)</td>
</tr>
<tr>
<td>13</td>
<td>07-10-20</td>
<td>Ms. Latsamy Naphayvong</td>
<td>F</td>
<td>Nakoun HC</td>
<td>Technical (volunteer)</td>
<td>Health Promotion (MCH/nutrition)</td>
</tr>
<tr>
<td>14</td>
<td>08-10-20</td>
<td>Ms. Khampheng Manikhong</td>
<td>F</td>
<td>Ban Bor HC</td>
<td>Deputy Chief of Health Center</td>
<td>Health Promotion (MCH/nutrition)</td>
</tr>
<tr>
<td>15</td>
<td>08-10-20</td>
<td>Mr. Khamphet Khamchanla</td>
<td>M</td>
<td>Ban Bor HC</td>
<td>Technical</td>
<td>Pharmacy</td>
</tr>
<tr>
<td>16</td>
<td>08-10-20</td>
<td>Ms. Ounla Phouininhom</td>
<td>F</td>
<td>Ban Bor HC</td>
<td>Technical</td>
<td>Primary Health Care</td>
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**Annex 5: List of participants at community level**

<table>
<thead>
<tr>
<th>ID</th>
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<th>Full Name</th>
<th>Gender</th>
<th>Position/Job</th>
<th>Role</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>07-10-20</td>
<td>Mr. Souvilay Ouanmaikhen</td>
<td>M</td>
<td>Village Head</td>
<td>Village Health Committee</td>
</tr>
<tr>
<td>2</td>
<td>07-10-20</td>
<td>Ms. Vong Keungbounmy</td>
<td>F</td>
<td>Head of LWU</td>
<td>Village Health Committee</td>
</tr>
<tr>
<td>3</td>
<td>07-10-20</td>
<td>Ms. Phoneseng Phengmany</td>
<td>F</td>
<td>Village Health Volunteers</td>
<td>Village Health Committee</td>
</tr>
<tr>
<td>4</td>
<td>07-10-20</td>
<td>Ms. Phone</td>
<td>F</td>
<td>Student</td>
<td>Adolescent girl</td>
</tr>
<tr>
<td>5</td>
<td>07-10-20</td>
<td>Ms. May</td>
<td>F</td>
<td>Student</td>
<td>Adolescent girl</td>
</tr>
<tr>
<td>6</td>
<td>07-10-20</td>
<td>Ms. Manivanh</td>
<td>F</td>
<td>Student</td>
<td>Adolescent girl</td>
</tr>
<tr>
<td>7</td>
<td>07-10-20</td>
<td>Ms. Mouk</td>
<td>F</td>
<td>Student</td>
<td>Adolescent girl</td>
</tr>
<tr>
<td>8</td>
<td>07-10-20</td>
<td>Ms. Oythong</td>
<td>F</td>
<td>Student</td>
<td>Adolescent girl</td>
</tr>
<tr>
<td>9</td>
<td>07-10-20</td>
<td>Ms. Vonechay</td>
<td>F</td>
<td>Tailor</td>
<td>Pregnant woman</td>
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<tr>
<td>10</td>
<td>07-10-20</td>
<td>Ms. Lae</td>
<td>F</td>
<td>Housewife</td>
<td>Pregnant woman</td>
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<tr>
<td>11</td>
<td>07-10-20</td>
<td>Ms. Noutthong</td>
<td>F</td>
<td>Teacher</td>
<td>Pregnant woman</td>
</tr>
<tr>
<td>12</td>
<td>07-10-20</td>
<td>Ms. Ammala</td>
<td>F</td>
<td>Housewife</td>
<td>Lactating mother</td>
</tr>
<tr>
<td>13</td>
<td>07-10-20</td>
<td>Ms. Pha</td>
<td>F</td>
<td>Housewife</td>
<td>Lactating mother</td>
</tr>
<tr>
<td>14</td>
<td>07-10-20</td>
<td>Ms. Siphone</td>
<td>F</td>
<td>Vendor</td>
<td>Lactating mother</td>
</tr>
<tr>
<td>15</td>
<td>07-10-20</td>
<td>Ms. Lonny</td>
<td>F</td>
<td>Lactating mother</td>
<td></td>
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<tr>
<td>16</td>
<td>07-10-20</td>
<td>Ms. Siphone</td>
<td>F</td>
<td>Lactating mother</td>
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<tr>
<td>17</td>
<td>07-10-20</td>
<td>Ms. Phim</td>
<td>F</td>
<td>Lactating mother</td>
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<tr>
<td>18</td>
<td>07-10-20</td>
<td>Mr. Song</td>
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<td>Husband</td>
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<tr>
<td>19</td>
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<td>Mr. Sed</td>
<td>M</td>
<td>Husband</td>
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<tr>
<td>20</td>
<td>08-10-20</td>
<td>Mr. Bounlath</td>
<td>M</td>
<td>Village Head</td>
<td>Village Health Committee</td>
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<tr>
<td>21</td>
<td>08-10-20</td>
<td>Ms. Bouala</td>
<td>F</td>
<td>Deputy Village Head and VHV</td>
<td>Village Health Committee</td>
</tr>
<tr>
<td>22</td>
<td>08-10-20</td>
<td>Ms. Vone</td>
<td>F</td>
<td>Housewife</td>
<td>Pregnant woman</td>
</tr>
<tr>
<td>23</td>
<td>08-10-20</td>
<td>Ms. Chongxong</td>
<td>F</td>
<td>Farmer</td>
<td>Pregnant woman</td>
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<tr>
<td>24</td>
<td>08-10-20</td>
<td>Ms. On</td>
<td>F</td>
<td>Housewife</td>
<td>Lactating mother</td>
</tr>
<tr>
<td>25</td>
<td>08-10-20</td>
<td>Ms. Viengmany</td>
<td>F</td>
<td>Housewife</td>
<td>Lactating mother</td>
</tr>
<tr>
<td>26</td>
<td>08-10-20</td>
<td>Ms. Vieng</td>
<td>F</td>
<td>Farmer</td>
<td>Lactating mother</td>
</tr>
<tr>
<td>27</td>
<td>08-10-20</td>
<td>Ms. King</td>
<td>F</td>
<td>Housewife</td>
<td>Lactating mother</td>
</tr>
<tr>
<td>28</td>
<td>08-10-20</td>
<td>Ms. Sone</td>
<td>F</td>
<td>Farmer</td>
<td>Lactating mother</td>
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<tr>
<td>29</td>
<td>08-10-20</td>
<td>Ms. Lanh</td>
<td>F</td>
<td>Farmer</td>
<td>Lactating mother</td>
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<tr>
<td>30</td>
<td>08-10-20</td>
<td>Ms. Bang</td>
<td>F</td>
<td>Housewife</td>
<td>Lactating mother</td>
</tr>
<tr>
<td>31</td>
<td>08-10-20</td>
<td>Mr. Noukeo Yang</td>
<td>M</td>
<td>Upland rice field, rubber plantation</td>
<td>Husband</td>
</tr>
<tr>
<td>32</td>
<td>08-10-20</td>
<td>Mr. Keo</td>
<td>M</td>
<td>Farmer</td>
<td>Husband</td>
</tr>
</tbody>
</table>
Annex 6: Family files

Family files – list of population / demographic information of each village has been entered and regularly updated in MS ACCESS. Family files facilitate printing of the required list of target population for specific service provision.
The list of nutrition assessment results for CU5 at individual level in each village was given to the VHC for feedback and to organize nutrition and health education for malnourished children.
Access NIPN Dashboard and Data Repository on:
https://nipn.lsb.gov.la/