



Lao People's Democratic Republic  
Peace Independence Democracy Unity Prosperity

# Summary of the Implementation of

The 8<sup>th</sup> Five Year Health Sector Development Plan (2016-2020)

The 9<sup>th</sup> Five Year Health Sector Development Plan (2021-2025)

December 2020





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## **Part I**

# **Implementation of the 8<sup>th</sup> Five-Year Health Sector Development Plan (2016-2020)**

The implementation of the 8th five-year Health Sector Development plan (2016-2020) is aligned with the enactment of the 10th Lao People's Revolutionary Congress Resolution. This is also to continue with the breakthrough policy by implementing the health sector reform strategy aimed at contributing to LDC graduation by 2020 and to achieving Universal Health Coverage (UHC) by 2025 and the Sustainable Development Goals (SDGs) by 2030. The implementation of this five-year plan (2016-2020) has been compiled by prioritized task according to programs, sub-programs, and focus projects which allocated budgets from various sources into the actual implementation.

During the past five years, the health sector has been able to achieve many outstanding results compared to the 2016-2020 plan, and faced difficulties and challenges to continue to focus on implementation in order to achieve the target indicators.

## **I. Overall context**

### **A. International context**

In the past years, the international and regional situation has changed rapidly with both advantages and disadvantages, with the fundamental conditions being the strengthening of peace, friendship and development cooperation, as well as the integration of countries in the region in terms of socio-economic, cultural and security. Economic conditions in the ASEAN region are expected to grow at 4.5-5%, with Lao PDR ranking third (7%), behind Myanmar (7.7%) and Cambodia (7.1%). The People's Republic of China is the main economic development partner through the implementation of one road one belt project with the aim of turning from land lock to land link and regional integration. Thus, this has been reflected in the sharp increase in the number of Chinese tourists into Lao PDR which contributed greatly to the tourist industry in 2018 and 2019. However, there is a need to continue to focus on some aspects that might hamper the situation or have negative impacts on socio-economic development, trade, investment and tourism such as the pandemic of COVID-19, and to be aware of challenges with regards to terrorism, ISIS, and migration impact in Europe and Southeast Asia and the South China Sea. Also relevant: the impact from the petroleum industry, the increase in oil prices to almost 20% due to the exploration capacity and decrease of reserves, as well as high inflation rate of the US dollar, as well as global gold prices which continue to fluctuate and remain volatile.

### **B. Domestic context**

Domestically, the country has faced testing challenges such as the prevention and response to the COVID-19 outbreak, natural disasters, macroeconomic hardships, as well as the demolition of opposition forces and pessimists. However, we are proud especially under the leadership of the party - the state, the armed forces and ethnic peoples enhance the self-reliance and self-empowerment, self-tightening unity compactness, derived and implemented from the 10th Lao People's Revolutionary Congress Resolution and the 8th five year plan of the national socio-economic development plan with the strong aim and focus on the four breakthroughs which is reflected in the peace and stability in Lao PDR. This is also reflected in the Lao peace index for 2018 as the highest among neighboring countries. In the last five years we have witnessed great achievements which reflect the good health and better living condition as aligned to the health sector aim of improving the health of all people.



## **II. Key achievement of the 8th five-year Health Sector Development plan**

### **A. Political ideology**

The Ministry of Health's Party Committee has taken political ideology as a priority task in the front line and has provided close guidance and lead the party committee at each level to educate their party members and officials to perform under their organizations in various aspects. These include: advocacy for in-depth understanding and to scale up the 10<sup>th</sup> Party Resolution, the Party's Rules, the 8<sup>th</sup> Meeting Resolution of the Ministerial Party Congress; organizing education sessions and lectures on the history of political movements of the Party, the nation, and mass organizations and political morals of our leaders particularly in events to remark on or celebrate Army Day, Party Day, President Souphanouvong's birthday, cooperation and relationships diplomacy between Laos - Vietnam Day, in-depth study on the full quorum X Party Resolution, National Day on 2 December and President Kaysone Phomvihane's birthday. The Lao medical day was celebrated for the first time on 18 June 2017. Political sessions for the entire ministry to improve the party, with an in-depth understanding of all-important political documents have been completed.

Through the various channels and several types of advocating political ideology, the party members and civil servants understood and have confidence in the leadership of the party who sacrificed themselves and performed their political mandates well.

### **B. Technical work**

MOH leaders have paid attention to advise each level, and take the lead in the implementation of their technical works in accordance with their roles and responsibilities, and aligned to the 10<sup>th</sup> Party's Resolution, and 8<sup>th</sup> Five-year National Socio-Economic Development Plan, 8<sup>th</sup> Five-year Health Sector Development Plan and Health Sector Reform Strategy and the plans, programs and projects of the 8 programs, 42 sub-programs and 97 projects in the priority sectors of health, which are being successfully implemented as follows:

## **1. Program 1: Hygiene and health promotion**

### **1.1 Sub-program for mother and child health**

Maternal and child health care is a priority of the Ministry of Health and is being implemented at all levels and in all provinces throughout the country. The key indicators in mother and child health area are the mortality rate in children under 1 year old and under 5 years old, and the maternal mortality ratio and these are still high, despite achieving the Millennium Development Goals by 2015. The macro level of maternal and child health work has been managed and directed at central level by Department of Hygiene and Health Promotion and the Maternal and Child Health Center as the technical actor, including vaccination related to morbidity and mortality for women and children under 1 year old. The Maternal and Child Health Center has management duties with 5 major projects namely: immunization, reproductive health and adolescent health, free delivery service and free service for children under 5-year-old (quality of health care services improvement), prevention of mother to child transmission (PMCT) and integrated management of childhood illness (IMCI).

Project implementation is mainly focusing on technical improvement from central to sub-national level throughout the country in line with the strategy for integrated package on RMNCAH 2016-2025 that rotates around the services and is related to multiple sectors. There are 3 types of services: fixed site service, outreach service in focused nearby villages and service in remote villages that requires overnight stays. These are funded by government and development partners to implement and achieve the main targets in 2019 and 2020 as below:

- Reducing infant mortality rate from 57/1,000 live births (Census, 2015) to 34/1,000 live births (in 2019) and 30/1,000 live births (in 2020);
- Reducing the mortality rate of children under five-years-old from 86/1,000 live births (Census, 2015) to 42/1,000 live births (in 2019) and 40/1,000 live births (in 2020);
- Reducing the maternal mortality ratio from 206/100,000 live births (Census, 2015) to 167 (in 2019) and 160/100,000 live births (in 2020);
- Increasing the percentage of births attended by Skilled Birth Attendants from 64% (in 2015) to 75% (in 2019) and 80% (in 2020);
- Increasing the percentage of Fully Immunized Children from 79.5% (in 2015) to 90% (in 2019) and 95% (in 2020).

Through implementation over 5 years, outputs of each activity can be evaluated as follows:

### **1.1.1 Immunization project**

Immunization is an important task included in the 6<sup>th</sup> strategy and is a core work of mother and child health promotion which covers the whole country from central level to the province, district, health center, and village level. There are 3 strategies in immunization such as (1) outreach strategy; (2) non-stay overnight outreach strategy; and (3) stay overnight outreach strategy.

There are 4 – 6 rounds of regular immunization per year, and special planning has been set up for the hard to reach and high-risk areas by integration into mother and child health related works. Regular immunization during 12 months in 2019 in comparison with 2016 is slightly increased, but it is not on track if compared to the target. According to the regular immunization plan supported by the government, the target was not met on schedule.

The law on immunization was developed and endorsed by the National Assembly on 25/06/2018. With the Ministry of Foreign Affairs, MOH organized a GAVI Board Meeting at the end of November 2017 in Vientiane Capital City which received compliments and congratulations from GAVI management board and other participants.

There were visits for supervision of regular vaccinations conducted, along with monitoring of the training on interpersonal communication between district-health center-village, and monitoring of the micro planning development of district and health center levels. Plan for budget required support from government and development partners to supply vaccine and shipping vaccine nationwide. For the education campaign task, a video advertising campaign was designed in five languages: Lao Lum, Hmong, Laven, Akha and Khmu, in collaboration with the CCEH sponsored by UNICEF.

From the evaluation comparing the results of the Lao social indicators survey in 2011/12 (LSIS I) and in 2016/17 (LSIS II), the nationwide measles immunization coverage is 63.7% (LSIS I) and it has been increased to 66.0% (LSIS II). The province with the highest immunization coverage is Bolikhamxay (84.7%), followed by Xayaboury 79.7%. The province with the lowest immunization rate is Xaisomboun (39.7%) details in Figure 1.

Figure 1: Comparison of measles immunization coverage between LSIS I & LSIS II

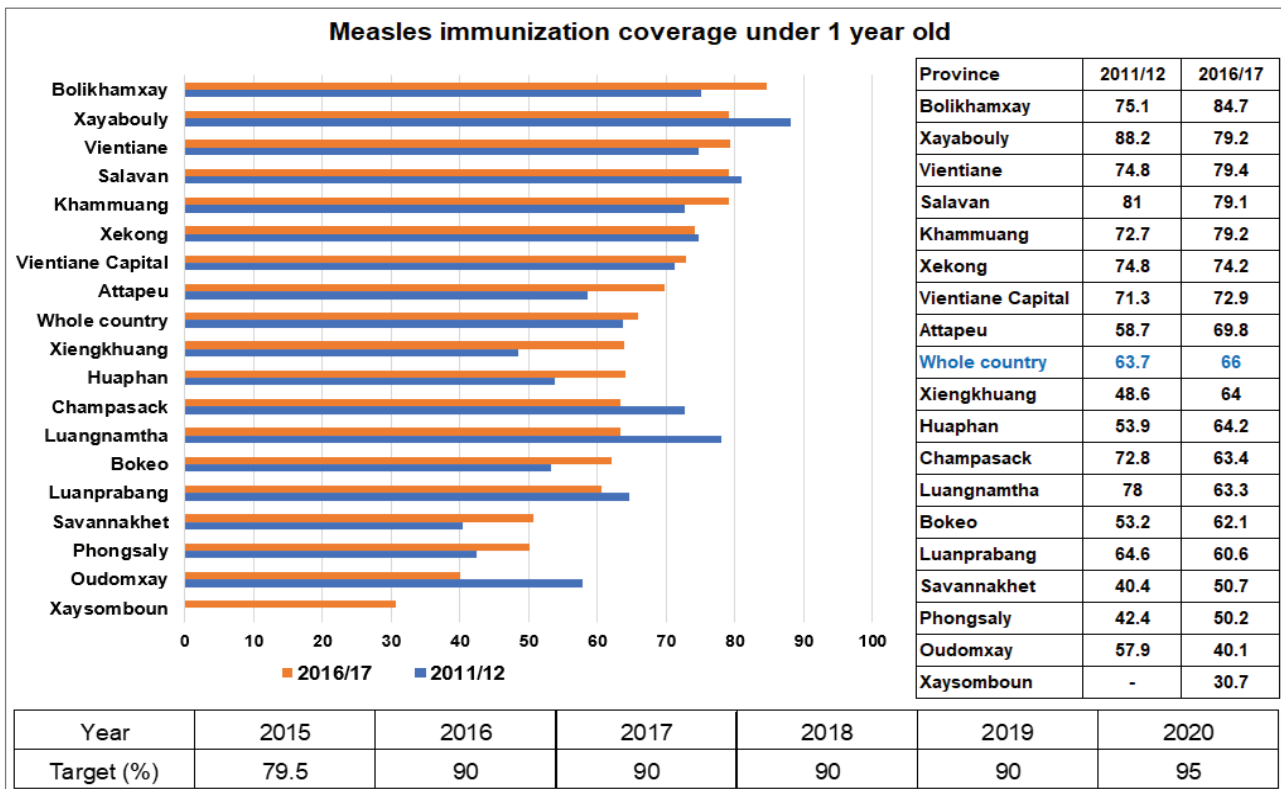
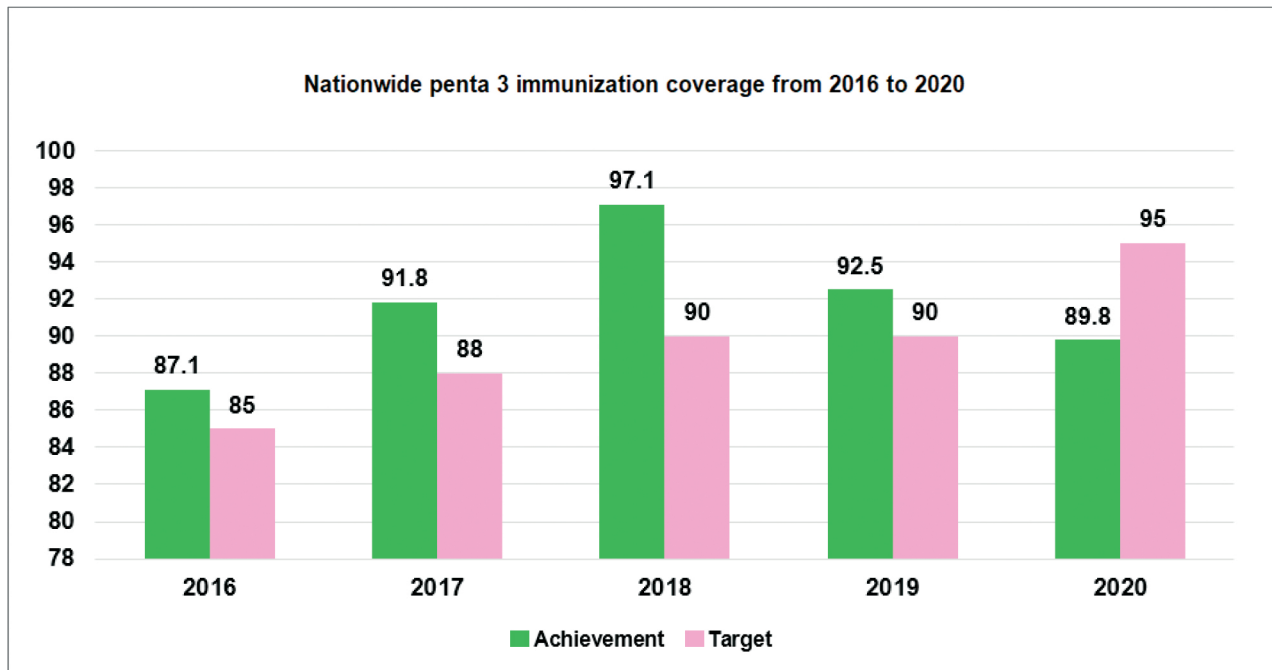


Figure 2: Comparison of nationwide Penta 3 immunization coverage from 2016 to 2020



**Data source:** DHIS2, DPC

For the nationwide Penta 3 immunization, during 2016-2020 as shown in Figure 2, coverage is higher than the target with the average 87-97%. For 2020 due to Covid-19 outbreaks in all regions of the world, the vaccination implementation was affected and is not on track. In 2020, the coverage achieved with only 89.8% was not being able to reach the set target. Therefore, in the future, strict measures should be taken in order to reach the target set by the National Assembly.

Specifically, in 2020 when compared to the target, it can be seen that only 4 provinces could achieve the provincial target set - Luangprabang, Houaphan, Sekong and Champasack (See Table 1).

Table 1: Immunization coverage of Penta 3 by province 2016 to 2020

Penta 3 immunization coverage (%)											
No.	Province	2016		2017		2018		2019		2020	
		Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target
1	Vientiane Capital	52.9	83	78.1	84	80.0	87	83.6	93	83.1	91
2	Phongsaly	59.8	80	83.6	81	94.0	84	96.6	85	89.2	95
3	Luangnamtha	66.5	94	87.0	95	90.0	97	88.2	92	85.0	95
4	Oudomxay	100.0	81	97.0	82	97.0	84	90.5	89	84.1	96
5	Bokeo	65.0	76	100.0	77	100.0	80	94.8	95	94.1	95
6	Luangphabang	87.4	88	98.8	89	100.0	91	100.0	93	108.8	96
7	Houaphan	92.5	79	98.4	80	97.0	85	94.0	85	93.1	90
8	Xayabuly	72.5	83	81.0	84	78.0	86	76.7	95	80.1	95
9	Xeigngkhuang	76.4	73	90.1	74	96.0	16	85.6	90	84.8	88
10	Vientiane	90.9	86	100.0	87	100.0	89	96.9	91	92.2	95
11	Bolikhambxay	76.7	92	92.0	93	98.0	96	95.9	94	84.8	95
12	Khammouan	78.5	94	89.0	95	85.0	97	88.5	90	85.2	95
13	Savannakhet	100.0	87	100.0	88	100.0	90	92.7	95	91.0	96
14	Salavan	100.0	95	100.0	97	100.0	99	100.0	97	94.3	97
15	Sekong	100.0	91	100.0	92	100.0	95	96.5	90	93.4	90
16	Chamapsack	100.0	92	100.0	93	100.0	96	100.0	95	101.6	95
17	Attapeu	91.1	98	98.0	99	85.0	99	91J	95	88.4	95
18	Xaysomboun	52.5	57	59.0	57	64.0	60	59.1	90	59.3	95
<b>Total</b>		<b>87.1</b>	<b>85</b>	<b>91.8</b>	<b>88</b>	<b>97.1</b>	<b>90</b>	<b>92.5</b>	<b>90</b>	<b>89.8</b>	<b>95</b>

Data sources: DHIS2, DPC

➤ **Some problems and challenges of vaccination are:**

- Many health centers have a limited number of staff, but being responsible for many tasks, both knowledge and competency of staff are also limited and some staff have not been trained on microplanning yet, or have been trained, but not yet applying it in implementation, especially in hard to reach and high-risk areas.
- The fixed site service still has a low coverage, and the quality of services is poor, in particular at health center level, the outreach service is relying on the availability of budget.
- The knowledge transfer campaign on the importance of vaccination to the authorities and people is still limited and not yet thoroughly implemented; some authorities and people still do not understand about the possible reactions after immunization and the reasons for giving several injections at the same time.
- Only health staff has ownership of regular vaccination, and as a result the vaccination rate is not high in comparison with the vaccination campaigns with participation from multiple partners and with ownership of the authorities;
- Concerning geographical conditions, many roads are in difficult situations, remote and accessible only in certain seasons. There is a lack of vehicles or vehicles available and some are in bad condition; many health centers have broken refrigerators and there is no vaccination at fixed sites, only by outreach services;
- Budget was not received on time as planned, often only received by the end of the year. Implementation is not timely and the system for management, monitoring and use of project budgets and foreign aids is

not well done yet, causing occasionally inefficient use of budgets and delays in reporting, which further cause subsequent problems;

- Supervision and monitoring at provincial and district levels has not been systematic and continuous. Many provinces and districts have not used the monitoring tools and have not focused on the problem areas. The identified problems have not been resolved in a timely manner due to the multi-tasking in the integrated supervision with limited time; sometimes, the person in charge of vaccination was not present. The system of reporting and sharing information, recommendations, and issues to be addressed is not well done or delayed, making the leaders unaware of the actual difficult situations.
- The system for surveillance and collection of data on occurrence of diseases collects raw data only. The data analysis is limited. The use of data in planning process is poor. There is confusion between the estimated number and actual figures for vaccination targets. Consequently, the report of the result on vaccination in many places does not reflect the reality.
- At the beginning of 2020, the outbreak of Covid-19 caused restrictions on travel to provinces, districts and villages, making it impossible for outreach teams to provide vaccination services as planned.

### **1.1.1 Reproductive and adolescent health promotion project**

#### **1.1.1.1 Sub-project on reproductive health and family planning**

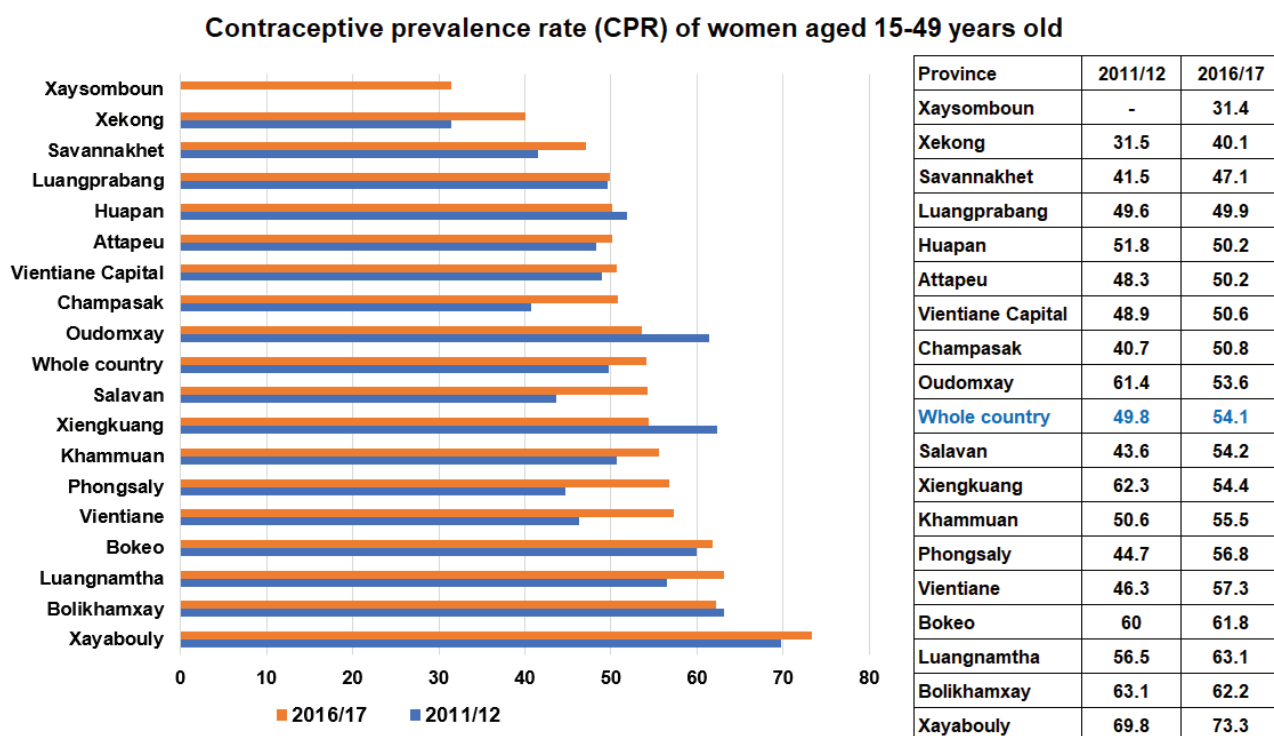
Reproductive health, family planning and adolescent health promotion related tasks have been implemented throughout the country from central to health center and community levels in association with the integrated mother and child health service package. The strategy on reproductive health policy has been revised, family planning commodities have been supplied sufficiently in collaboration with CCEH, focusing on minimizing and avoiding the stock out of contraceptives in each facility. In each facility, training and refreshing on daily recording has been conducted for reporting and preparing proper plans for requesting contraceptives. There is promotion of knowledge transfer to youth focusing on secondary school students in collaboration with Vientiane Youth Center to provide knowledge on reproductive health and family planning. In addition, there is upgrading of knowledge of health staff in the screening of cervical cancer and development of cervical cancer screening guidelines with financial support mainly from government and development partners.

The recording and reporting of family planning services are not yet fully accurate and precise. Based on the information from supervision visit, the staff do not well understand recording and reporting. Most of the data are from health center level but trainees are from district level, mainly working on data entry. Refresher training on recording and reporting has been provided to district staff, but district staff have not provided training to health center level yet and there is no close and regular following up yet after the training.

The details on each method of family planning and contraception have been only quantitatively reported from each province, and data have not been thoroughly analyzed. According to the 2019 report on contraceptive methods throughout the country, the most popular methods are as follows: injection: 168,406 times, combined oral pills: 129,116 times, single pills: 60,318, IUDs: 43,748 times, condom: 24,200 times, implant: 23,573 times, female sterilization: 10,815 times and male sterilization: 4 times. Total is 460,181.

When looking at the indicators addressing family planning method use rate among women aged 15-49 years old, Figure 3 shows a comparison of contraceptive prevalence rate among women aged 15-49 years old between LSIS I & LSIS II. From LSIS I family planning use rate at national level was only 49.8% and increased to 54.1% in LSIS II. The province with the highest contraceptive prevalence rate is Xayaboury (73.3%), and followed by Bolikhamxay (67.2%), Luang Namtha (63.1%) and Bokeo (61.8%).

Figure 3: Comparison of contraceptive prevalence rate in women aged 15-49 years old between LSIS I & LSIS II



From the overall evaluation of outputs and achievement of the use of family planning methods in Lao PDR, it can be seen that the fertility rate in women aged 15-49 years old has declined considerably. The fertility rate from 3.2 children per one mother in 2011/12 is 2.7 children per one mother. It means that on average a woman has no more than 3 children nationwide. The provinces where women aged 15-49 had the fewest children were Vientiane Capital (2.0), followed by Xayabouly (2.1) and the third place is: Luang Namtha (2.5). In contrast, the province with the highest total fertility rate was Xaisomboun with 3.8 children per one mother. It is in line with the lower contraceptive prevalence rate in Xaisomboun province (31.4%).

Figure 4: Comparison of the total fertility rate in women aged 15-49 years old between LSIS I & LSIS II

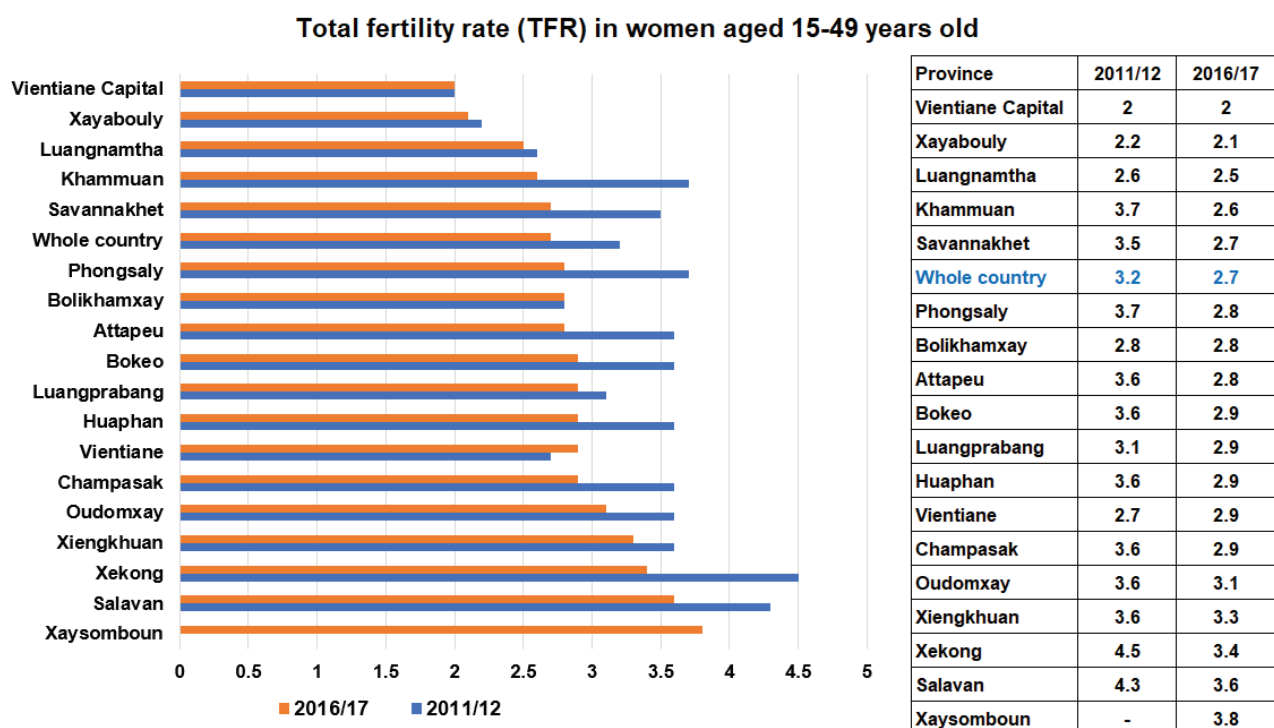
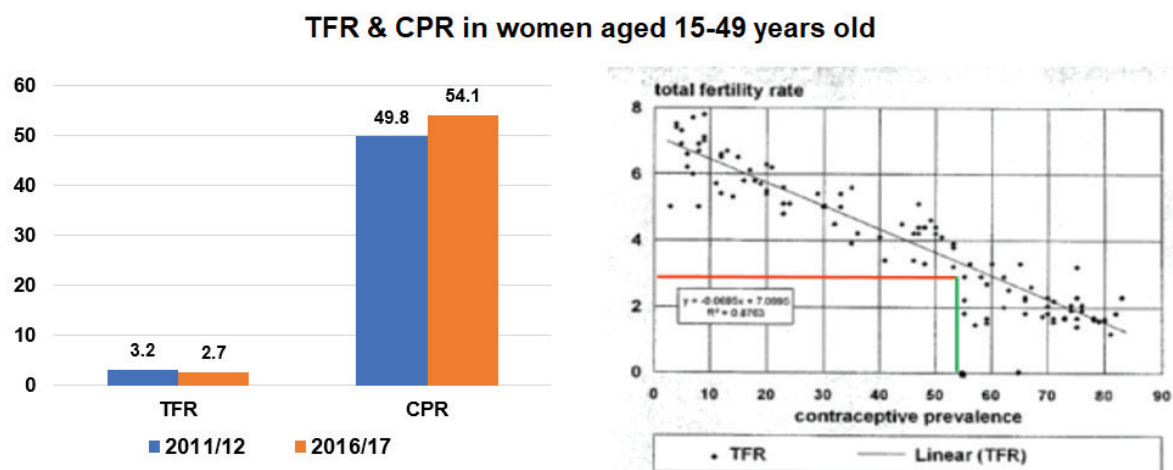


Figure 5 compares the total fertility rate with the contraceptive prevalence rate as statistically consistent. The fertility rate declined from 3.2 to 2.7 per one mother which is consistent with the contraceptive prevalence rate increase from 49.8% in 2011/12 to 54.1% in 2016/17. Although this figure is increasing, it is still not as satisfactory as it should be because if the fertility rate is 2.7, there is a need for the contraceptive prevalence rate of about 60% to be balanced.

Figure 5: Total fertility rate vs. Contraceptive prevalence rate in women 15-49 years old



There is an improved trend for coverage of maternal and child health services from 2016 to 2019. The rate of pregnant women having ANC 1 increased from 84.8% in 2016 to 97.5% in 2019; the rate of pregnant women having ANC 4 increased from 56.5% in 2016 to 72.3% in 2020; and the postnatal care (within 2 days) increased from 35.6% to 82%. Although the ANC1 increased and exceeded the set target, the rate of ANC4 is still lower than the set target. It is considered that almost half of pregnant women are still at-risk during pregnancy and delivery because there is no systematic and regular monitoring. The main reason for not having more than one ANC visit is that pregnant women do not see the importance of ANC visits or they do not receive enough information during previous ANC visits or because they are living in remote areas.

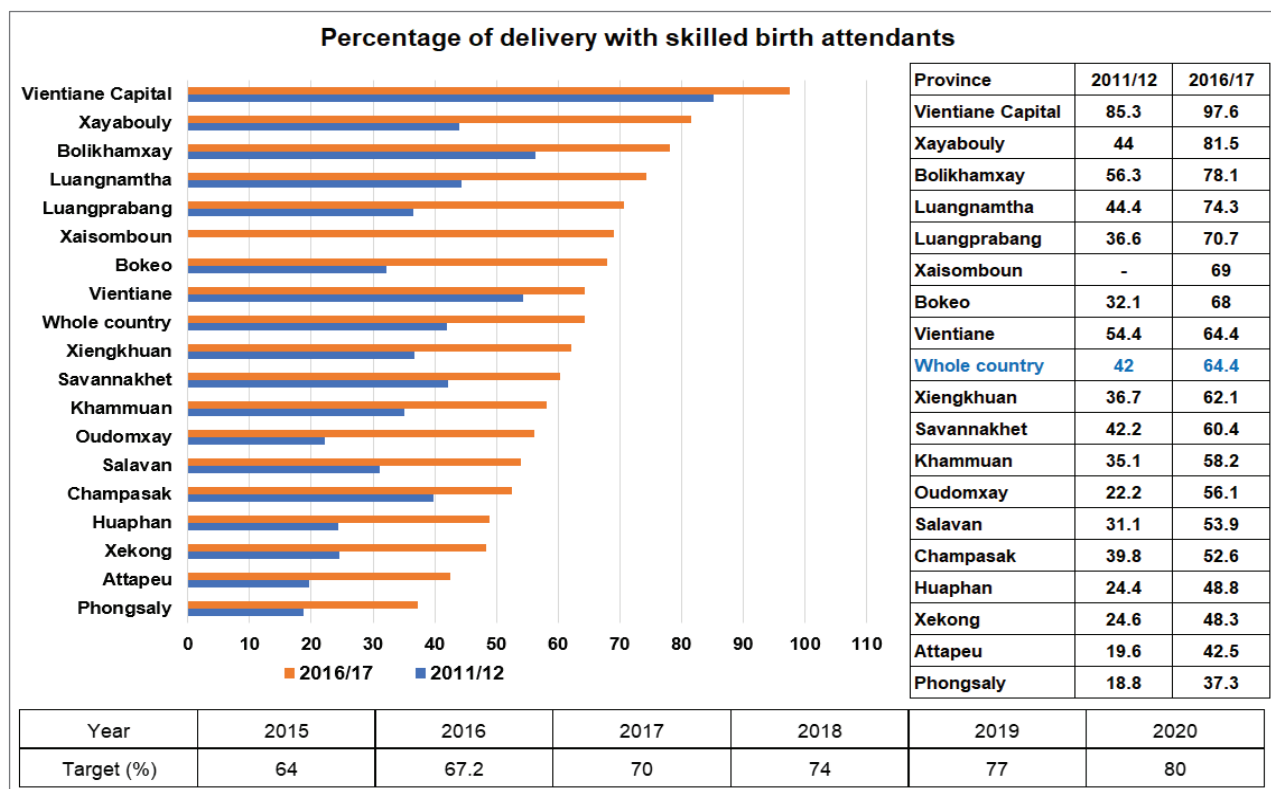
Table 2: ANC 4 coverage by province 2016-2020

No.	Province	2016	2017	2018	2019	7 months 2020
1.	Vientiane Capital	58.8	64.8	75.5	85.9	85.9
2.	Phongsaly	34.5	40.5	37.6	48.3	48.3
3.	Luang Namtha	47.5	52.8	55.3	66.2	66.2
4.	Oudomxay	67.5	61.6	65.5	65.6	65.6
5.	Bokeo	47.7	59.8	66.7	92.6	92.6
6.	Luang Prabang	51	63.4	79.4	82	82
7.	Houaphanh	50.8	54.1	57.5	68	68
8.	Xayaboury	60.1	58.4	58.9	64.9	64.9
9.	Xiengkhouang	57.8	80.5	68.9	80.8	80.8
10.	Vientiane Province	63.6	70.2	72.6	79.7	79.7
11.	Bolikhamxay	48.3	47	55.4	65.7	65.7
12.	Khammouane	44.3	50.2	62.2	60.8	60.8
13.	Savannakhet	79.8	68.3	77.8	67.7	67.7
14.	Salavanh	41.3	42.1	69.7	71.3	71.3
15.	Sekong	54.3	61.1	60.2	58.9	58.9
16.	Champasack	50	64.6	82.5	84.2	84.2
17.	Attapeu	31.2	32.6	41.5	52.5	52.5
18.	Xaysomboun	71.1	60.7	57.2	64.2	64.2
	Total	56.5	59.6	68.3	70.6	72.3

Data source: DHIS2

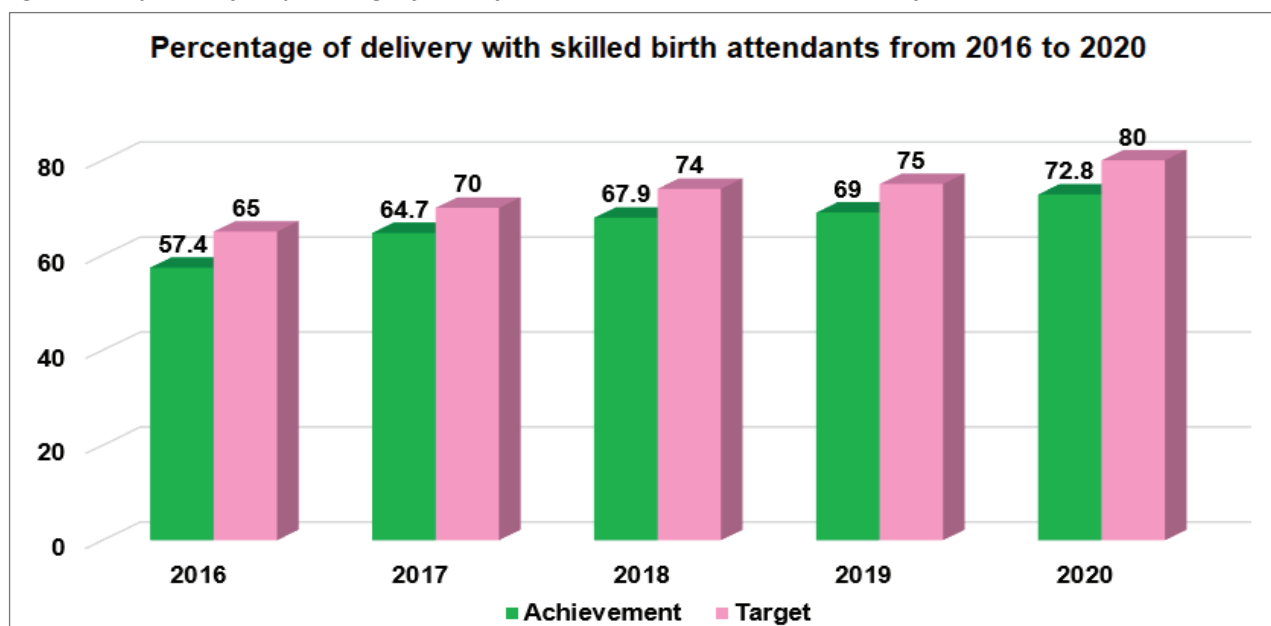
When comparing LSIS I (in 2011/12) and LSIS II (in 2016/17) the rate of delivery with skilled birth attendants increased from 42% to 64.4% (see Figure 6).

Figure 6: Comparison of the percentage of delivery with skilled birth attendants in LSIS I (2011/12) & LSIS II (2016/17)



The figure below shows the comparison of delivery rate with skilled birth attendants throughout the country from 2016 to 2020 collected from DHIS2. It shows that delivery with skilled birth attendants remains low and could not reach the set target of each year although there is an annual increase from 57.4 to 64.7, 67.9, 69% and 72.8% (see Figure 7).

Figure 7: Comparison of the percentage of delivery with skilled birth attendants nationwide from 2016 to 2020



Data source: DHIS2, DPC

From Table 3 below, it can be seen that in 2020 there are still 12 provinces that could not reach the target set for 2020. The provinces that could reach the target were: Bokeo, Luang Prabang, Xayabouly, Xiengkhouang, Sekong and Champasack. The main cause that some provinces cannot reach the target is poor, inaccurate,



and not on time data collection. In particular, municipalities of districts, provinces and Vientiane Capital do not have clear information, being unable to collect data on delivery outside public facilities (services of public security, national defense and the private sector). The solution needs more attention paid to providing good services and increase health education campaigns, collecting data completely, accurately and timely.

Table 3: Percentage of delivery with skilled birth attendants by province from 2016 to 2020

Percentage of delivery with skilled birth attendants (%)											
No.	Province	2016		2017		2018		2019		2020	
		Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target
1	Vientiane Capital	39	17	79.4	18	85.2	19	81.7	89	82.2	87
2	Phongsaly	38.4	49	40	53	40.1	56	43.8	69	47.5	80
3	Luangnamtha	50.6	66	56.6	71	61	75	68.6	77	71.8	80
4	Oudomxay	56.3	71	56.1	76	63.2	81	67.2	64.3	70.9	67
5	Bokeo	58.3	71	59.3	76	64.6	81	70.3	78.8	77.4	69
6	Luangphabang	65.3	72	75.9	77	83.7	82	86.2	76.5	89.2	85
7	Huaphan	57.6	71	59.4	76	61.3	81	66.9	83.4	71.0	85
8	Xayabuly	61.3	77	62.5	83	60.2	87	62.5	86	70.2	68
9	Xeigngkhuang	67.3	78	72.6	84	77.4	89	82.7	76	89.7	80
10	Vientiane	65.9	74	69.1	80	69.9	85	72.4	86.6	78.2	88
11	Bolikhamxay	57	73	61.6	78	64	83	66.7	78	71.2	80
12	Khammuan	47.2	59	53.1	64	53.1	67	58	77	61.1	82
13	Savannakhet	71.8	86	69.6	92	71.7	98	67.3	74	69.8	74
14	Salavan	56.1	68	60.8	74	62.5	78	65.5	69.8	67.3	80
15	Sekong	54.6	61	56.6	66	58.8	70	61.6	50	65.1	55
16	Champasack	64.6	63	70.1	68	75.4	71	71.6	72.9	77.6	76
17	Attapeu	40.6	47	42.1	51	39.9	54	44.2	55.1	48.2	56
18	Xaysomboun	53	60	58.2	64	61.1	68	63.3	71.1	66.5	80
Total		57.4	65	64.8	70	67.9	74	69.1	75	72.8	80

#### 1.1.1.2 Sub-project on maternal death review

Improving maternal death review surveillance leads to a better reporting of maternal death cases. The total number of maternal deaths reported in 2017 across the country is 138 cases. 119 cases were reviewed and investigated (86%) to explore the causes and identify solutions. However, it has not been implemented and resolved urgently, for example there is no blood storage resulting in shortage of blood to respond to emergency obstetric care. The technical solution is to guarantee implementation without mistakes and to improve the poor technical level and poor performance of staff.

However, the health sector has made the effort of using the maternal death data collection from DHIS2 to evaluate the situation of maternal deaths throughout the country, and also it is a requirement of the National Assembly to monitor the progress of 11 indicators. We try to collect data on maternal death. The number of maternal deaths in 2016 was 82. The data collection was not so good at the initial stage of data collection, so the number is not accurate. The number of maternal cases was 138 in 2017, 119 cases in 2018; 113 cases in 2019 and 106 cases in 2020. The number increased in some years because the DHIS2 reporting system was developed and improved gradually. The data collected now are clearer and more complete.

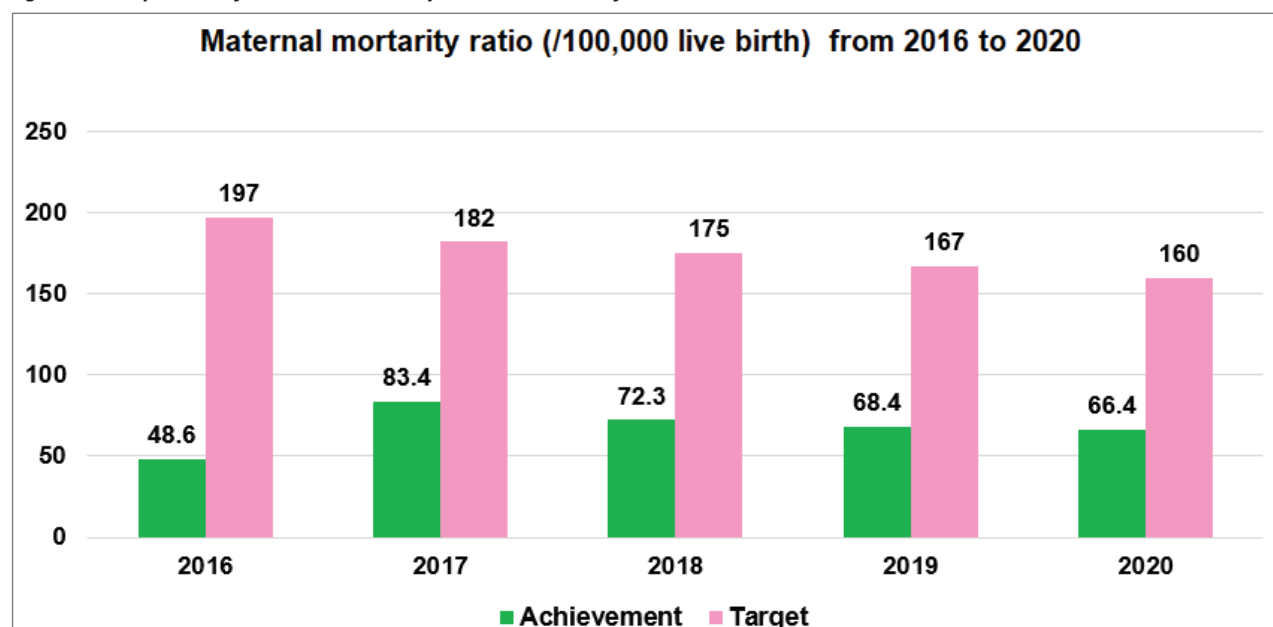
Table 4: Number of maternal deaths (persons) during pregnancy and delivery in 18 provinces from 2016 to 2020

Number of maternal deaths from 2016 to 2020

No.	Province	2016	2017	2018	2019	2020
1	Vientiane Capital	5	8	9	2	3
2	Phongsaly	5	3	6	5	1
3	Luangnamtha	6	7	4	4	5
4	Oudomxay	7	12	12	3	13
5	Bokeo	3	11	9	6	2
6	Luangphabang	7	14	5	11	3
7	Huaphan	3	4	4	2	5
8	Xayabuly	7	6	4	6	7
9	Xeigngkhuang	6	5	11	4	10
10	Vientiane	1	7	3	10	8
11	Bolikhamxay	2	4	2	2	5
12	Khammuan	1	8	8	10	9
13	Savannakhet	7	19	19	20	9
14	Salavan	12	8	6	10	9
15	Sekong	2	3	3	2	2
16	Champasack	5	14	8	7	8
17	Attapeu	3	4	6	6	5
18	Xaysomboun	0	1	0	3	2
Total		82	138	119	113	106

Figure 8 below shows a comparison of maternal mortality ratio in the whole country which demonstrates that from 2017 to 2020 the ratio of maternal death has declined from 83.4 to 72.3, 68.4 and 66.4 respectively.

Figure 8: Comparison of maternal mortality ratio nationwide from 2016 to 2020



Data source: DHIS2, DPC

If looked at deeper at the provincial level, the data collection up to 2020 shows that there are 6 provinces that could not reach target set for 2020 such as: Luang Namtha, Oudomxay, Xayabouly, Xiengkhouang, Vientiane Province and Borikhamxay (see Table 5).

Table 5: Maternal mortality ratio by province from 2016 to 2020

Maternal mortality ratio (/100,000 live birth)

No.	Province	2016		2017		2018		2019		2020	
		Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target
1	Vientiane Capital	26,2	178	41,9	164	47,3	157	10,6	35	16.0	33
2	Phongsaly	95,1	344	58,6	318	119,7	306	102	292	20.8	249
3	Luangnamtha	114,7	212	135,8	196	78,6	188	79,7	110	101.1	94
4	Oudomxay	76,1	237	131,8	219	132,8	211	33,5	143	147.0	23
5	Bokeo	60,1	146	244,5	135	186,5	129	126,7	152	43.1	172
6	Luangphabang	64	289	130,8	267	47,7	257	107,5	165	30.0	148
7	Huaphan	35,6	216	48,1	200	48,7	192	24,7	184	62.6	177
8	Xayabuly	71,6	338	62,7	312	42,7	300	65,5	58	78.2	66
9	Xeingkuang	83,3	132	70,8	122	158,5	117	58,8	177	150.1	134
10	Vientiane	10,8	101	77,1	93	33,5	89	90,9	85	92.4	83
11	Bolikhmxy	25	62	50,8	57	25,8	54	26,2	52	66.8	50
12	Khammuan	9,2	223	75,1	206	76,6	198	97,8	189	90.3	181
13	Savannakhet	30,3	189	83,4	175	84,5	168	90,4	138	41.4	100
14	Salavan	108,6	202	72,9	187	55	180	92,4	173	84.0	160
15	Sekong	55,7	148	83,8	137	83,9	131	56	185	56.1	180
16	Champasack	32,8	160	93,1	148	53,8	142	47,8	136	55.6	110
17	Attapeu	65,7	270	88,3	249	133,2	239	134,4	120	113.4	160
18	Xaysomboun	0	106	32,4	98	0	95	97,8	101	65.7	97
Total		48,6	197	83,4	182	72,3	175	68,4	167	66.4	160

Data source: DHIS2, DPC

Table 6 below demonstrates that the maternal mortality ratio remains still very high compared to neighbouring and regional countries. From the global report (2017), the maternal mortality ratio in Lao PDR is 185 per 100,000 live births, Cambodia is 160/100,000, Myanmar is 250/100,000, Vietnam is 43/100,000 and Thailand is 37/100,000.

Table 6: Comparison of maternal mortality ratio (/100,000 live births) in ASEAN countries from 2000-2017

Maternal mortality ratio (/100,000 live birth)

Country	2000	2005	2010	2015	2017
Brunei	28	29	28	30	31
Cambodia	488	351	248	178	160
Indonesia	272	252	228	192	177
Lao PDR	544	410	292	209	185
Malaysia	38	31	30	30	29
Myanmar	340	299	265	246	250
Philippines	160	156	144	127	121
Singapore	13	13	10	9	8
Thailand	43	43	42	38	37
Vietnam	68	54	47	45	43

Sources: Trends in Maternal Mortality 2000 to 2017 Estimated by WHO, UNICEF, UNFPA, World Bank Group and The United Nations Population Division

## Challenges on maternal mortality ratio

Most of the maternal deaths reported from provinces are simply the number of death cases and there are no clear data on live births as a denominator to calculate (estimate number) the ratio. The analysis of place of birth and cause of death is still limited. Data collection on maternal death is mostly based on the report from healthcare facilities only (hospitals). Some of the death cases which occurred outside of healthcare facilities or at home have not been reported. Although the provinces have reported and reviewed all cases of maternal death and investigated all cases, the quality of the investigation and diagnosis of some maternal death cases is still unclear. The maternal mortality ratio is an important indicator approved by the National Assembly but was not included in the LSIS II (in 2016/17), and so it cannot be compared with LSIS I.

### 1.1.1 Free services delivery and care for children under 5 years old project

It is an important policy to reduce mother and child mortality and encourage women and children to receive essential health care services at health facilities by implementing free services policy throughout the country. At present, the transfer to national health insurance bureau to pay for various services has been completed. The Maternal and Child Health Center has continued to improve the quality of its services such as the development of a standard guideline for ANC, safe abortion guidelines, maternal death reviews and respond guidelines. There is now a Decision of the Minister of Health on the division of responsibilities for subsidizing labor and care of children under 5 years old (No. 2157/MoH, dated 28/9/2017).

Data collection on facility birth and under 5-year old children admitted without payment is a good start according to the free services policy of the government. However, the number has not been analyzed systematically and used in planning in the future. It is not possible to estimate how many women came for free delivery and how many children under 5 received free services, and how much they need to self pay including the number covered by health insurance, or the number of women who gave birth in private hospitals or clinics.

Table 7: Number of women received free delivery services versus number of maternal and child deaths

Items	2016	2017	2018	2019	9 months 2020	Progress
Number of pregnant women received free ANC services	344,233	427,659	476,167	520,157	299,707	The services are increased
Number of pregnant women received free delivery services	79,823	93,837	97,569	100,730	57,521	
Number of pregnant women received free PNC services	68,917	76,482	80,480	82,972	48,887	
Number of deaths of children under 1 year old	2,208	2,596	2,593	2,336	1,911	Child death declined
Number of deaths of children 1 to 5 years old	333	372	275	363	250	
Total of deaths of children under 5 years old	2,541	2,968	2,868	2,699	2,161	
Number of maternal deaths	82	138	119	113	106	Reporting online
		N/A	N/A	N/A	N/A	Direct report to MCHC

The number of pregnant women receiving free services in 2019 compared to 2016 increased to 51% (175,924 persons) from 344,233 persons (2016) to 520,157 persons (2019) and the number of maternal and child deaths declined (LSIS I & LSIS II). However, where there are favourable conditions (major cities) with alternatives services, most pregnant women and children are likely go to provincial hospitals, central hospitals, or private hospitals and clinics and some go to receive services in neighboring countries. At present, we are not able to collect complete data from such facilities yet.

### 1.1.1 Prevention of mother to child transmission (PMCT) project

Prevention of mother-to-child transmission (PMCT) is an important task to screen HIV infection in pregnant women and their husbands and to get everyone involved and understood about how to prevent it effectively. The Maternal and Child Health Center has been assigned by the Ministry of Health to take the lead in the prevention of HIV infection from mother to child in close collaboration with the Center for HIV/AIDS and STIs (CHAS). This task received technical support from the Thai Ministry of Health and USCDC Bangkok, which is funding some activities. The HIV blood test reagent is supported partly by the Global Fund and partly by the Lao government to find people living with HIV. In the past year, a dissemination workshop on PMCT implementation and training on counseling for couple to screen HIV infection in pregnant women and husbands in Champasack and Savannakhet provinces was successfully completed. Supportive supervision visits and sharing lessons learned meeting on PMCT in Savannakhet, Vientiane Capital and Luang Prabang was also conducted. All pregnant women who have received ANC will receive HIV counseling and testing and their husbands or sexual partners are encouraged to receive blood test as well.

Table 8: Number of pregnant women who received HIV counseling and blood test for PMCT in 2019

No.	Province	Pregnant women received counseling	Pregnant women received blood test	Percentage (%)
1.	Vientiane Capital	10,449	9,106	87.15%
2.	Phongsaly	2,455	820	33.40%
3.	Luang Namtha	2,889	1,003	34.72%
4.	Oudomxay	3,511	1,086	30.93%
5.	Bokeo	3,995	1,885	47.18%
6.	Luang Prabang	7,191	1,663	23.13%
7.	Houaphanh	4,895	1,563	31.93%
8.	Xayaboury	6,686	2,060	30.81%
9.	Xiengkhouang	5,142	853	16.59%
10.	Vientiane Province	8,586	1,858	21.64%
11.	Bolikhamxay	5,615	1,901	33.86%
12.	Khammouane	4,746	1,092	23.01%
13.	Savannakhet	10,043	946	9.42%
14.	Salavanh	5,841	1,406	24.07%
15.	Sekong	1,168	972	83.22%
16.	Champasack	8,549	1,183	13.84%
17.	Attapeu	2,575	537	20.85%
18.	Xaysomboun	1,065	124	11.64%
Total		95,401	30,058	31.51%

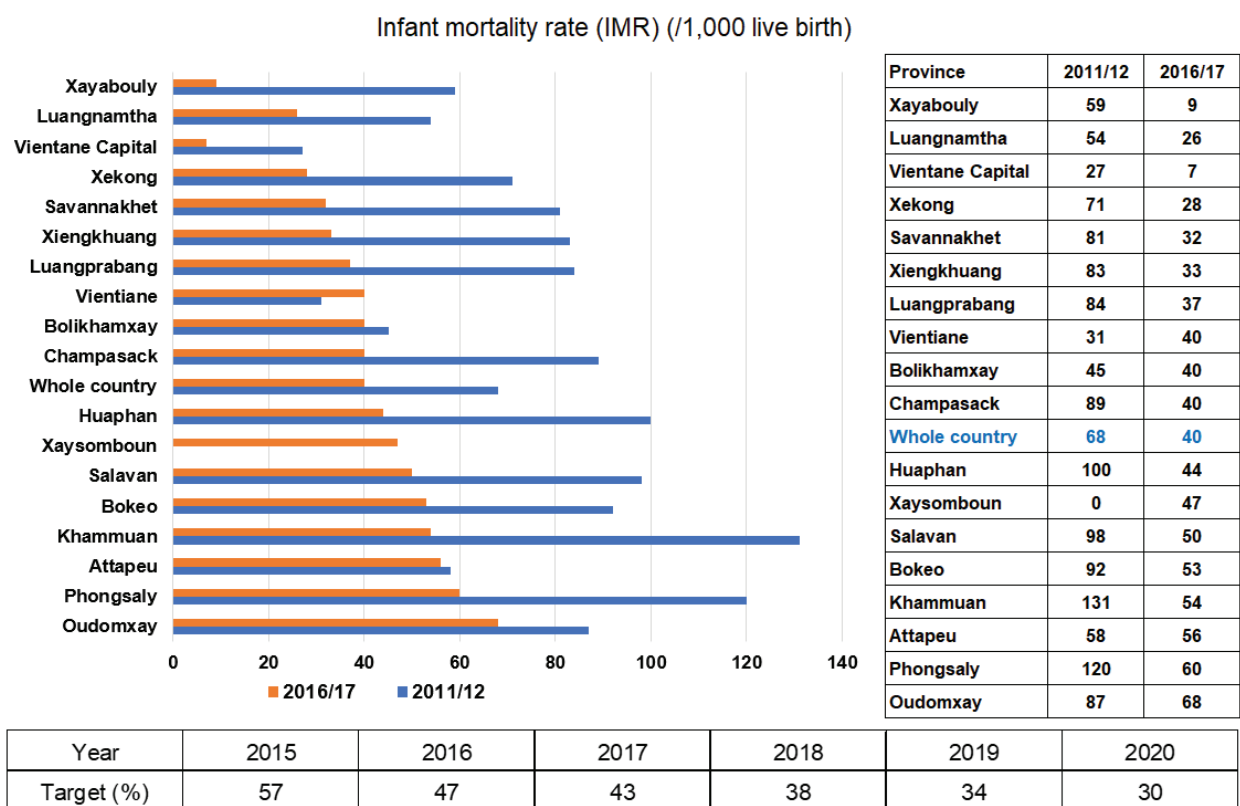
There are 4 target provinces and almost every district that provide HIV counseling and testing for all pregnant women who received ANC (Luang Prabang, Vientiane Capital, Savannakhet, and Champasack). It can be seen that the number of pregnant women who received ANC and counseling and testing is higher than other places. However, the percentage of pregnant women who received blood test and counseling is very low in Savannakhet (9.42%), and highest in Vientiane Capital (87.15%). Overall, the number of pregnant women who received counseling and blood test is low and the target of 50% of pregnant women receiving ANC was unable to be reached.

### 1.1.1 Integrated management of childhood illness (IMCI) project

The infant mortality rate (children under 1 year old) is decreasing rapidly. From the survey in 2011/12 the rate at national level was 68/1,000 live births and decreased to 40/1,000 live births (LSIS II). The provinces with

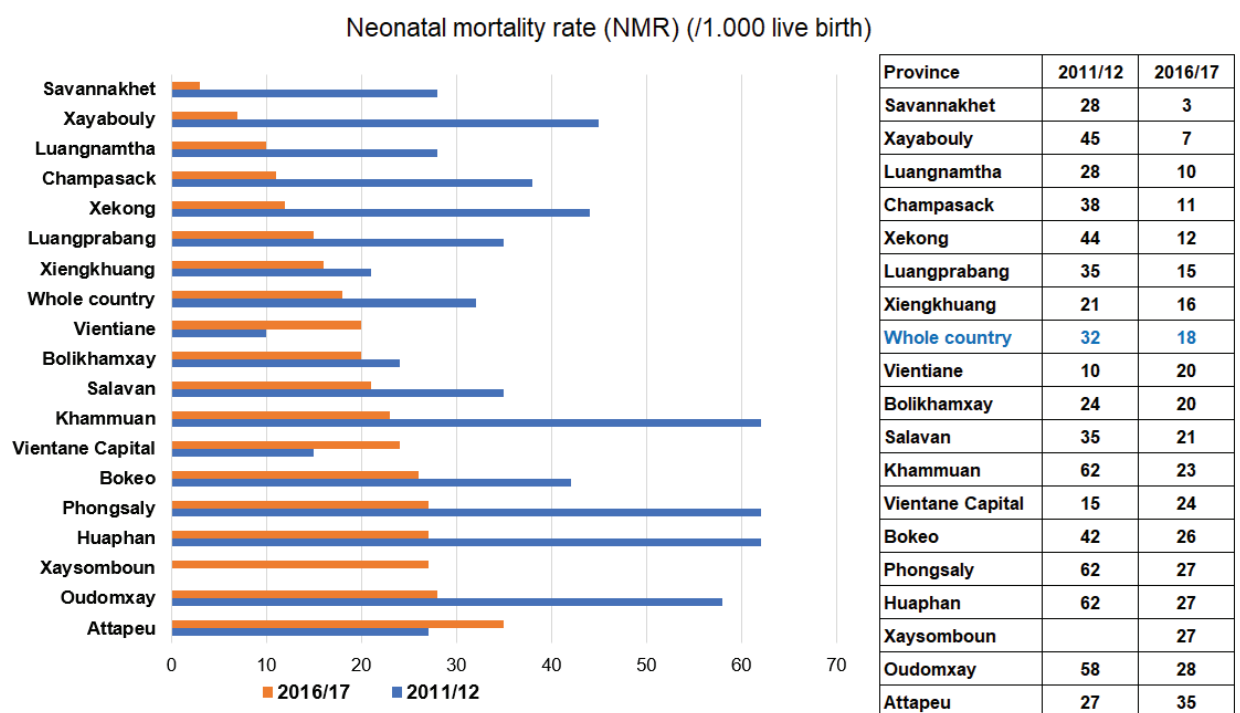
the highest infant mortality rate are Oudomxay (68/1,000), followed by Phongsaly (60/1,000) and Attapeu (56/1,000). The province with the lowest infant mortality rate is Xayabouly (9/1,000) - see more details in Figure 9.

Figure 9: Comparison of infant mortality rate between LSIS I & LSIS II



When comparing the data from the Lao social indicators survey (LSIS II) in 2016/17, the nationwide neonatal mortality rate is only 18/1,000 live births, which decreased from 2011/12 (LSIS I) to 14/1,000 (32/1,000 live births) - see Figure 10.

Figure 10: Comparison of neonatal mortality rate between LSIS I & LSIS II



Despite the broad expansion of the health sector and improved services, the infant mortality rate based on UN estimates, especially among newborns, is as high as in Myanmar (22/1,000), the highest rate in Southeast Asia. See Table 9.

*Table 9: Comparison of neonatal mortality rate in ASEAN countries, 2016-2019*

**Neonatal mortality rate (/1.000 live births)**

Country	2016	2017	2018	2019
Brunei	4	5	5	6
Cambodia	16	15	14	14
Indonesia	14	12	13	12
Lao PDR	29	28	23	22
Malaysia	4	4	4	5
Myanmar	25	24	23	22
Philippines	13	14	14	13
Singapore	1	1	1	1
Thailand	7	5	5	5
Vietnam	12	11	11	10

Sources: Levels & Trends in Child Mortality, Report 2017-2020 Estimated developed by the UN Inter-Agency Group for Child Estimation

More infant deaths are now being reported due to improved multi-channel reporting systems such as child death surveillance at the Maternal and Child Health Centers and from the district information software 2 (DHIS2) where inputs are entered from health centers. The Maternal and Child Health Center, in collaboration with the Association of Pediatricians and children's hospital has updated the training guidelines on treatment via Integrated Management of Childhood Illness in the community based on technical principles from the World Health Organization.

*Table 10: Number of deaths of children under 1 year old from 2016 to 2020*

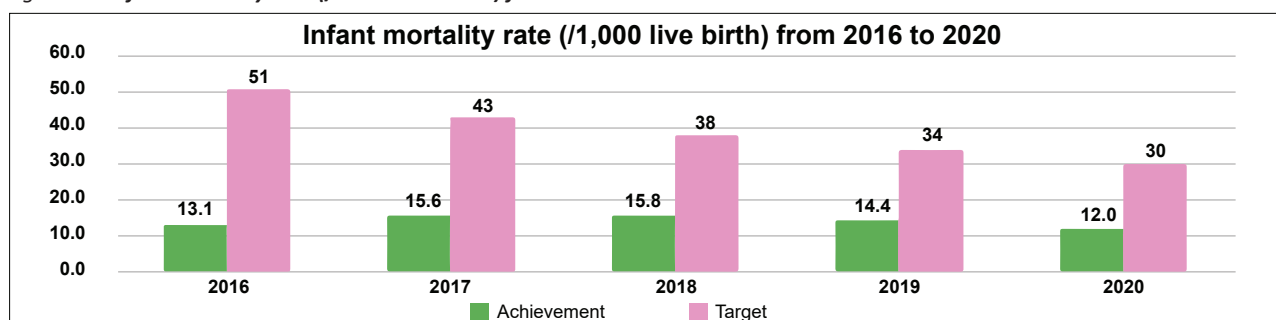
**Number of deaths of children under 1 year old from 2016 to 2020**

No.	Province	2016	2017	2018	2019	2020
1	Vientiane Capital	49	87	130	113	77
2	Phongsaly	101	77	68	67	34
3	Luangnamtha	50	48	92	95	87
4	Oudomxay	167	167	171	166	130
5	Bokeo	92	157	141	105	60
6	Luangphabang	170	167	161	124	106
7	Huaphan	134	197	162	126	111
8	Xayabuly	72	75	65	53	40
9	Xeigngkhuang	182	165	175	150	148
10	Vientiane	58	62	76	70	70
11	Bolikhamxay	105	106	79	116	96
12	Khammuan	241	333	316	303	229
13	Savannakhet	267	283	296	305	232
14	Salavan	183	324	293	225	181
15	Sekong	85	87	98	85	46
16	Champasack	122	141	169	161	161
17	Attapeu	95	91	70	48	82
18	Xaysomboun	35	29	31	24	21
Total		208	2,596	2,593	2,336	1,911

As with maternal mortality reports, the infant mortality rate is mostly only a numerical report (raw data). Mortality rates have not been calculated compared to 1,000 live births due to the difficulties of collecting the number of live births each year because the system for collecting or registering births and deaths in the village is not yet fully optimal. The analysis of causes of death by district and village and the determination of cause of death is still limited due to the staff responsible for data collection and reporting having limited knowledge. The DHIS2 is used all over the country and there is entry of individual data. It appears that in some districts and health centers it is not yet implemented well.

When taking the data from DHIS2 to assess the progress of decrease of infant mortality rate compared to the 2020 plan, it was found that there were 1,911 deaths of children under 1 year old in 2020. Estimating figures it is equal to 12/1,000 (report from health facilities), which is lower than the 2020 plan that estimated 30/1,000. It is considered to be able to meet the target approved by the National Assembly.

Figure 11: Infant mortality rate (/1,000 live births) from 2016 to 2020



The province that could not reach the target was Luang Namtha which has not been able to reach the target since 2019. The cause may be the target was set too low. (See Table 11).

Table 11: Infant mortality rate (/1,000 live birth) from 2016 to 2020

Infant mortality rate (/1,000 live birth)

No.	Province	2016		2017		2018		2019		2020	
		Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target
1	Vientiane Capital	2.6	33.1	4.6	25	6.8	22	6	20	4.1	18
2	Phongsaly	19.2	83.5	15	63	13.6	55	13.7	46	7.1	19
3	Luangnamtha	9.6	76.9	9.3	58	18.1	51	18.9	45.8	17.6	15
4	Oudomxay	18.2	71.6	18.3	54	18.9	47	18.6	15	14.7	16
5	Bokeo	18.4	82.2	32	62	29.2	55	22.2	30	12.9	28
6	Luangphabang	15.5	59.7	15.6	45	15.4	39	12.1	19	10.6	19
7	Huaphan	15.9	59.7	23.7	45	19.7	40	15.5	21	13.9	18
8	Xayabuly	7.4	59.7	7.8	45	6.9	39	5.8	9	4.5	8
9	Xeigngkhuang	25.3	63.6	23.4	48	25.2	42	22	33	22.2	22
10	Vientiane	6.3	37.1	6.8	28	8.5	25	7.9	23	8.1	23
11	Bolikhamxay	13.1	57.0	13.5	43	10.2	38	15.2	13	12.8	15
12	Khammuan	22.2	76.9	31.3	58	30.2	51	29.6	42	23.0	37
13	Savannakhet	11.6	50.4	12.4	38	13.2	33	13.8	25	10.7	24
14	Salavan	16.6	72.9	29.5	55	26.9	49	20.8	32	16.9	30
15	Sekong	23.7	75.6	24.3	57	27.4	50	23.8	40	12.9	38
16	Champasack	8	42.4	9.4	32	11.4	28	11	23	11.2	22
17	Attapeu	20.8	59.7	20.1	45	15.5	40	10.8	25	18.6	24
18	Xaysomboun	11.3	57.0	9.4	43	10.1	38	7.8	33	6.9	29
	Total	13.1	57	15.6	43	15.8	38	14.4	34	12.0	30



Compared to the ASEAN countries, based on UN estimates, Lao PDR and Myanmar are still ranking high in the region at 36/1,000 live births (see Table 12).

*Table 12: Comparison of infant mortality rate in ASEAN countries from 2016 to 2019*

**Infant mortality rate (1,000 live birth)**

Country	2016	2017	2018	2019
Brunei	9	9	10	10
Cambodia	26	25	24	23
Indonesia	22	21	21	20
Lao PDR	49	49	38	36
Malaysia	7	7	7	7
Myanmar	40	39	37	36
Philippines	22	22	22	22
Singapore	2	2	2	2
Thailand	11	8	8	8
Vietnam	17	17	16	16

Sources: Levels & Trends in Child Mortality, Report 2017-2020 Estimated developed by the UN Inter-Agency Group for Child Estimation

Similarly, according to LSIS II (in 2016/17), the province with the highest mortality rate of children under five-year-old is Oudomxay (71/1,000 live births) while the national average is 46/1,000. The province with the lowest mortality rate of children under five-year-old is Xayabouly (11/1,000). Compared between the 2 surveys, there is a significant reduction of 33 points from 79 to 46/1,000 live births. See Figure 12 for details.

Figure 12 below summarizes the comparison of mortality rates of neonates, infants (children under one-year-old), and children under five-year-old between LSIS I & LSIS II. The neonatal mortality rate decreased from 32 to 18/1000, the infant mortality rate from 68 to 40/1000 and the mortality rate of children under five years old from 79 to 46/1000 live births.

Figure 12: Comparison of children under 5 mortality rate between LSIS I & LSIS II

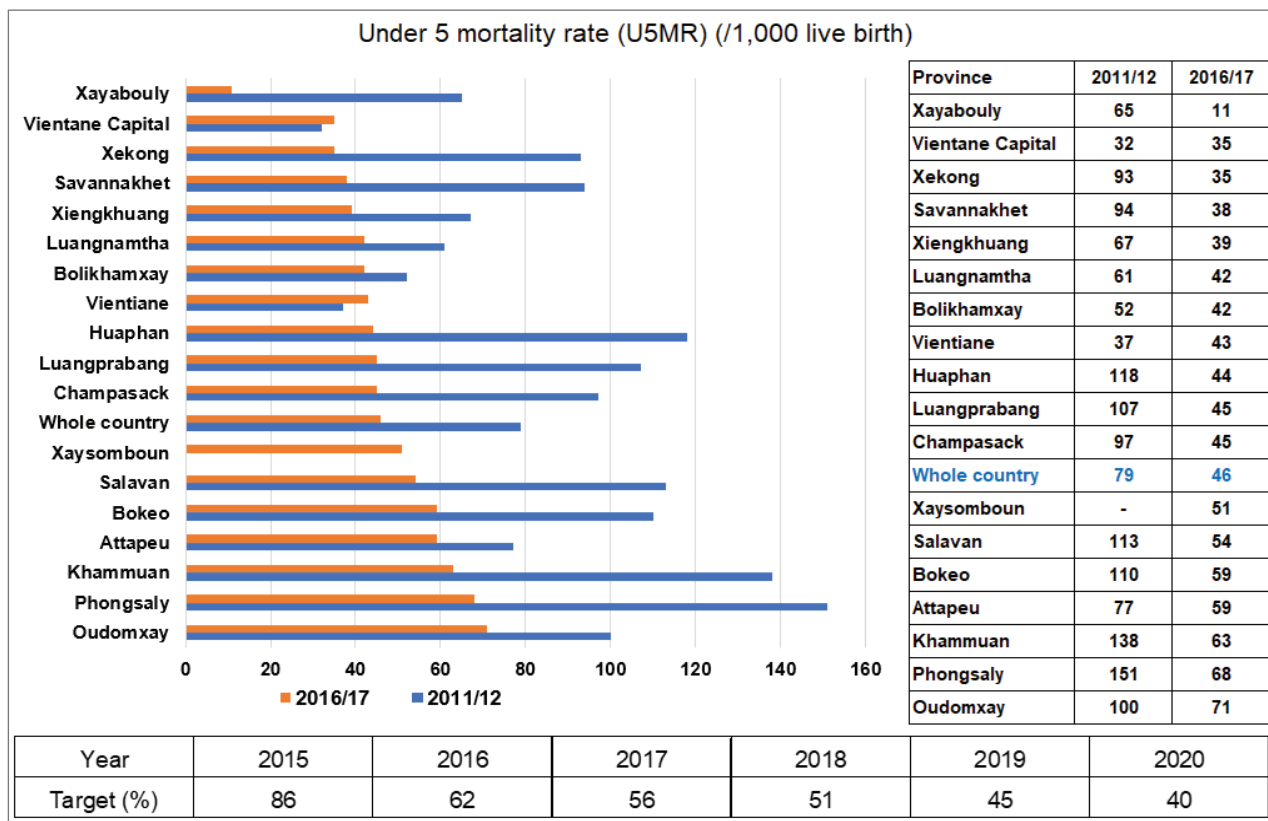
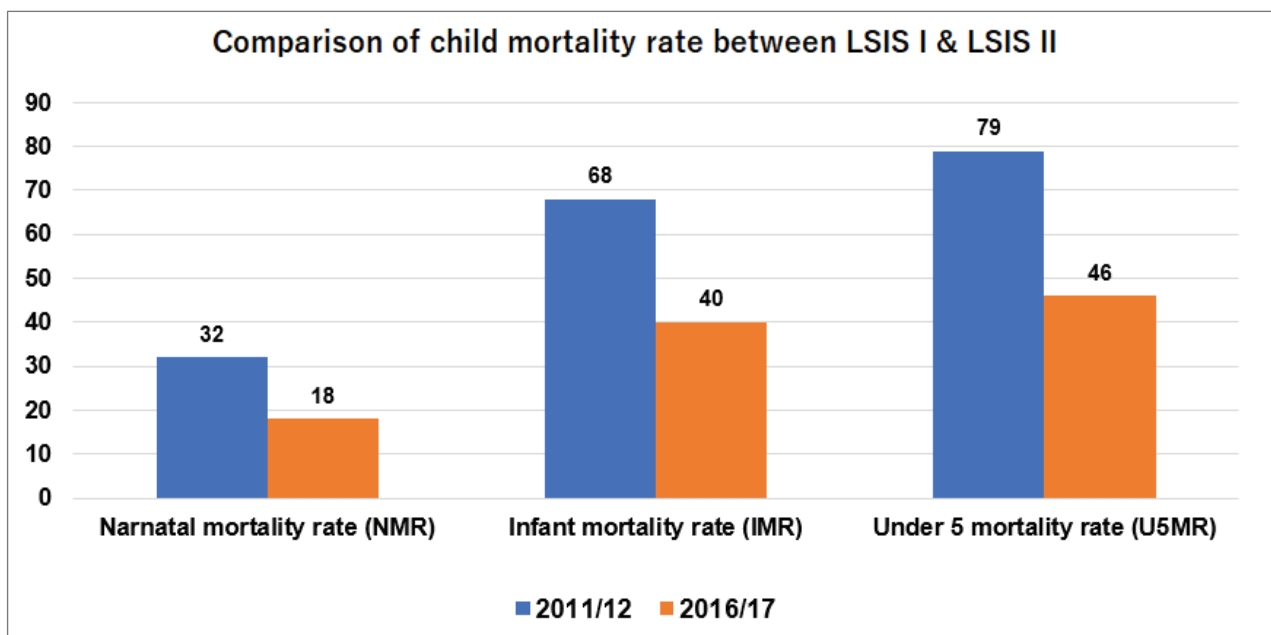


Figure 13: Comparison of child mortality rate between LSIS I & LSIS II



According to DHIS2 the number of deaths of children under five years old in 2016 was 2,541, and increased to 2,968 children in 2017. Then it began to decrease to 2,868 in 2018 and 2,699 in 2019. In 2020, there were only 2,161 children under five deaths (see table 13).

Table 13: Number of deaths of children under 5-years-old from 2016 to 2020

No.	Province	2016	2017	2018	2019	2020
1	Vientiane Capital	49	98	159	143	91

2	Phongsaly	109	90	75	71	37
3	Luangnamtha	61	54	5	102	90
4	Oudomxay	173	198	192	190	145
5	Bokeo	102	178	159	122	68
6	Luangphabang	209	187	187	150	122
7	Huaphan	162	220	181	149	136
8	Xayabuly	80	87	72	57	48
9	Xaigngkhuang	217	203	200	173	155
10	Vientiane	63	66	87	81	83
11	Bolikhamsay	126	118	101	147	107
12	Khammuan	273	383	343	328	253
13	Savannakhet	319	324	350	343	275
14	Salavan	203	367	325	269	210
15	Sekong	101	104	110	92	48
16	Champasack	141	153	200	195	179
17	Attapeu	111	104	85	59	87
18	Xaysomboun	42	34	37	28	27
Total		2,541	2,968	2,868	2,699	2,161

Figure 14 compares the under-five mortality rate per 1,000 live births showing that the target has been achieved from 2016 onwards and has a tendency to be declining gradually since 2018 (see Figure 14). When comparing at provincial level, Table 14 shows that only Luang Namtha province could not achieve the target in 2020.

Figure 14: Children under five mortality rate from 2016 to 2020

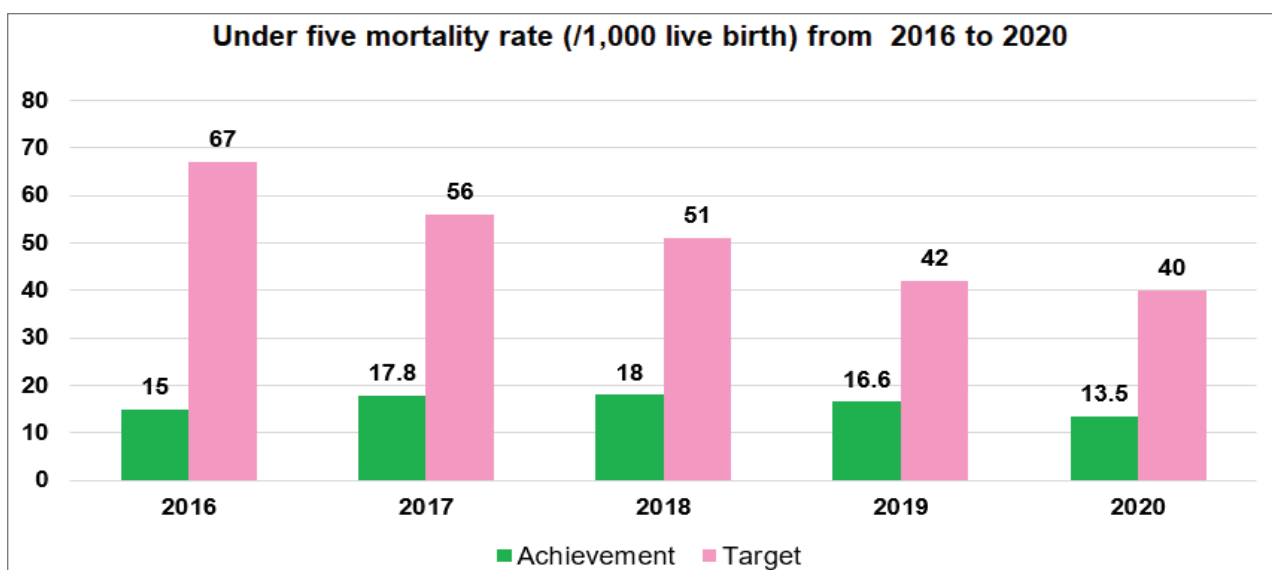


Table 14: Children under five mortality rate from 2016 to 2020

Children Under five mortality rate (/1,000 live birth)

No.	Province	2016		2017		2018		2019		2020	
		Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target
2	Phongsaly	109	90	75	71	37					
3	Luangnamtha	61	54	5	102	90					
4	Oudomxay	173	198	192	190	145					
5	Bokeo	102	178	159	122	68					
6	Luangphabang	209	187	187	150	122					
7	Huaphan	162	220	181	149	136					
8	Xayabuly	80	87	72	57	48					
9	Xaigngkhuang	217	203	200	173	155					
10	Vientiane	63	66	87	81	83					
11	Bolikhamsay	126	118	101	147	107					
12	Khammuan	273	383	343	328	253					
13	Savannakhet	319	324	350	343	275					
14	Salavan	203	367	325	269	210					
15	Sekong	101	104	110	92	48					
16	Champasack	141	153	200	195	179					
17	Attapeu	111	104	85	59	87					
18	Xaysomboun	42	34	37	28	27					
Total		2,541	2,968	2,868	2,699	2,161					

1	Vientiane Capital	2.6	38	5.1	32	8.3	30	7.5	24	4.8	23
2	Phongsaly	20.7	98	17.6	82	15	74	14.5	49	7.7	69
3	Luangnamtha	11.7	91	10.5	76	19.9	69	20.3	6	18.2	16
4	Oudomxay	18.8	84	21.7	70	21.3	64	21.2	19	16.4	18
5	Bokeo	20.4	97	36.3	81	32.9	73	25.8	45	14.6	33
6	Luangphabang	19.1	69	17.5	58	17.8	53	14.7	21	12.2	25
7	Huaphan	19.2	71	26.5	59	22	54	18.4	61	17.0	54
8	Xayabuly	8.2	69	9.1	58	7.7	53	6.2	10	5.4	10
9	Xeigngkhuang	30.1	74	28.7	62	28.8	56	25.4	44	23.3	26
10	Vientiane	6.8	43	7.3	36	9.7	33	9.2	25	9.6	23
11	Bolikhmxy	15.8	67	15	56	13	51	19.3	17	14.3	16
12	Khammuan	25.1	91	36	76	32.8	69	32.1	52	25.4	50
13	Savannakhet	13.8	59	14.2	49	15.6	45	15.5	30	12.7	28
14	Salavan	18.4	86	33.4	72	29.8	65	24.9	37	19.6	36
15	Sekong	28.1	89	29.1	74	30.8	67	25.8	48	13.5	46
16	Champasack	9.3	49	10.2	41	13.5	38	13.3	28	12.4	0
17	Attapeu	24.3	71	23	59	18.9	54	13.2	35	19.7	34
18	Xaysomboun	13.6	67	11	56	12	51	9.1	35	8.9	31
Total		15.0	67	17.8	56	18.0	51	16.6	42	13.5	40

Compared to the ASEAN countries, Lao PDR still has the highest under-five mortality rate: boy 50 and girl 41 per 1,000 live births (see table 15).

Table 15: Comparison of children under five mortality rate in ASEAN countries

**Children Under five mortality rate (/1,000 live birth)**

Country	2016		2017		2018		2019	
	boy	girl	boy	girl	boy	girl	boy	girl
Brunei	11	9	11	10	12	11	13	10
Cambodia	34	27	33	26	31	25	30	23
Indonesia	29	23	28	22	28	22	26	21
Lao PDR	70	58	69	58	52	42	50	41
Malaysia	9	8	9	7	8	7	9	8
Myanmar	55	46	53	44	51	42	49	40
Philippines	30	24	31	25	31	25	30	24
Singapore	3	3	3	3	3	3	3	2
Thailand	14	11	11	9	10	8	10	8
Vietnam	25	18	24	17	24	17	23	17

Sources: Levels & Trends in Child Mortality, Report 2017-2020 Estimated developed by the UN Inter-Agency Group for Child Estimation

## 1.2 Health promotion sub-program

### 1.2.1 Education-communication for health project

The Health Communication Strategy has been updated to align the goals and indicators with the goals of the Ministry of Health and the Sustainable Development Goals, as well as to develop an implementation plan for the strategy. Health communication activities are supervised at the provincial, district and health center level in six provinces of: Bokeo, Luang Namtha, Luang Prabang, Xiengkhouang, Sekong and Attapeu. Medical staff have been campaigning to provide information in conjunction with providing services to patients at the same

time to ensure that people have access to health information such as maternal and child health, vaccinations, nutrition, 3-cleanliness hygiene and others along with services.

The revised role of the center was endorsed and the Medical-Health Education Information Center was renamed the Center of Communication and Education for Health on 14 February 2019.

Forty-eight health education staff from 18 provinces and central level have drawn lessons learned from the implementation of communication for health with Ha Tinh province, Vietnam, by exchanging lessons on coordination mechanisms and public participation in disease prevention and health care. Provincial and district health education staff from 10 provinces have upgraded their knowledge on communication for health using the newly developed health education training manual aiming at providing knowledge, attitudes and behaviors on maternal and child health care and communicable diseases of people as a reference for revision of communication for health strategy and plan of action.

The staff of the Center of Communication for Health and staff of Health Education of Vientiane Capital have drawn lessons learned from the implementation of the Communication for Health in Khon Kaen, Thailand.

7 staff members including 5 females from the Center of Communication for Health have completed the upgrading of their qualification to master degree level.

Facilitators at village level in 720 villages from 4 provinces: Oudomxay, Phongsaly, Xieng Khouang and Houaphanh have upgraded nutrition knowledge from the central, provincial and district levels through the Social Behaviour Change Communication (SBCC). Village heads and village volunteers from villages and districts of Savannakhet province can report on immunization and infant care of integrated mobile services by using Information Voice Record-(IVR).

People have received information on maternal and child health care, nutrition, as well as seasonal illnesses through 240 episodes on national television programs and 720 radio programs, broadcasting 376 news, TV spots, 8 radio spots, 7,860 advertisements through radio broadcasts, 1,200 magazines, and 7 advertisements in traditional festival, bus stations and markets. People from 7 districts of Luang Namtha province and 4 districts of Savannakhet province have received information on health care using 224 small LCD projectors at village level, 224 small speakers and 4,500 memory cards containing videos on health care. Visual and audio advertisement media and 861 printed media produced by public, international and non-governmental organizations were included in the database to manage and control any duplication and contents for consistency.

The main problems and challenges of medical information and health education are the implementation of policies on the management of information and advertisement media, which are not yet centralized. People

have done that differently. Health education campaigns have limited access to target groups in remote and ethnic areas, and there is a shortage of technical staff, equipment, vehicles and budget.

### **1.2.1 Worker and community health promotion project**

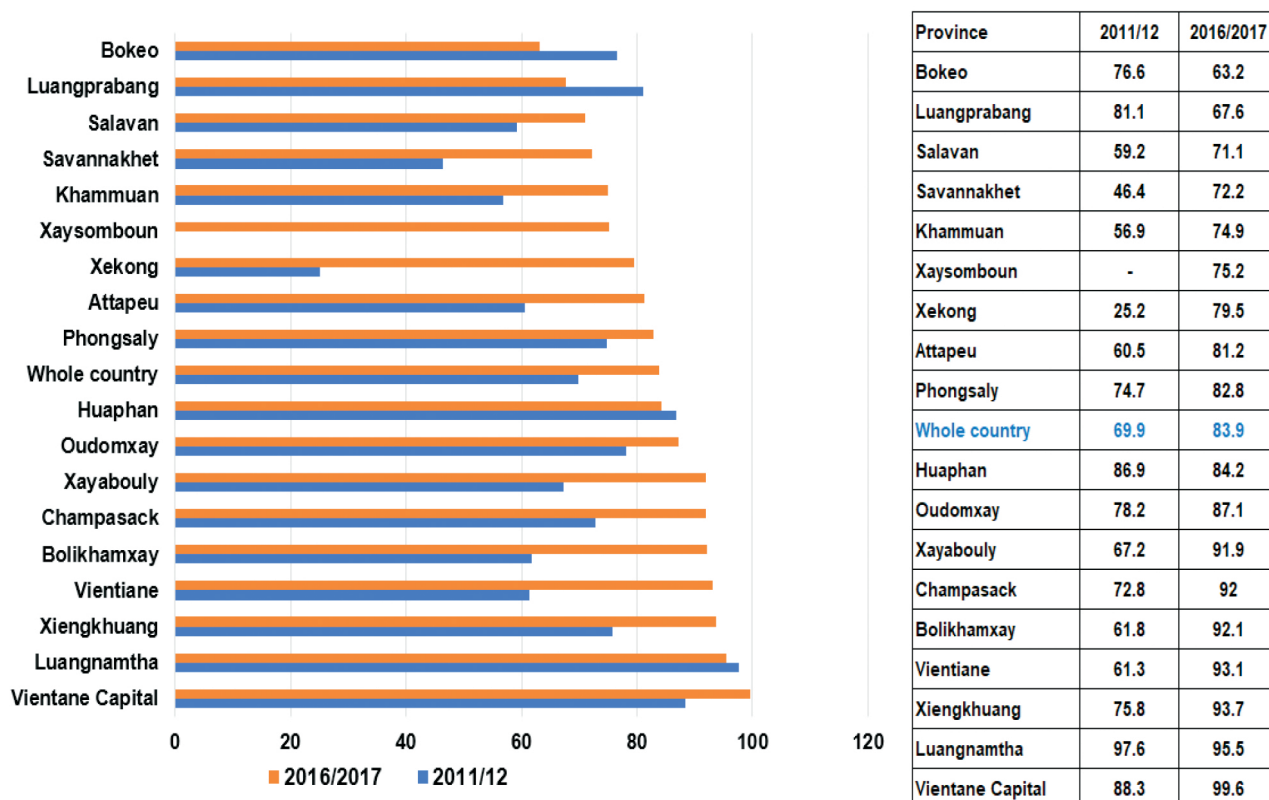
The Environmental Hygiene and Occupational Health Management Division, Department of Hygiene and Health Promotion, is directly responsible for technical matters, having the role of monitoring and issuing workers' health and safety certificates to ensure a subsidy incentive in three sections: State Printing House, Department of Mapping and National Library.

The Workers' Health Promotion Program aims at providing health care to workers, freeing workers from psychological effects, health effects and accidents in the workplace and environmental pollution such as non-standardized light, color, noise and chemicals. It is now seen that those doing these jobs still have low awareness of their own health protection. Training of doctors, staff and workers in various sectors in conjunction with workplace inspections in environmental inspections, development of manuals on health management in collaboration with the Ministry of Labor and Social Welfare and the World Health Organization in the inspection of workers' health management, monitoring, and giving advice on a regular basis to ensure the good health of staff in various sectors is underway.

### **1.2.1 Clean, safe water management project**

Figure 15 compares the water consumption coverage between LSIS I & LSIS II, showing an increase from 69.9% in 2011/12 to 83.9% in 2016/17. The highest coverage was in Vientiane Capital 99.6%. Provinces in need of further attention are: Bokeo, Luang Prabang, Saravan, Savannakhet, Khammouane, Xaysomboun and Sekong (<80%).

Figure 15: Comparison of clean water consumption coverage between LSIS I & LSIS II



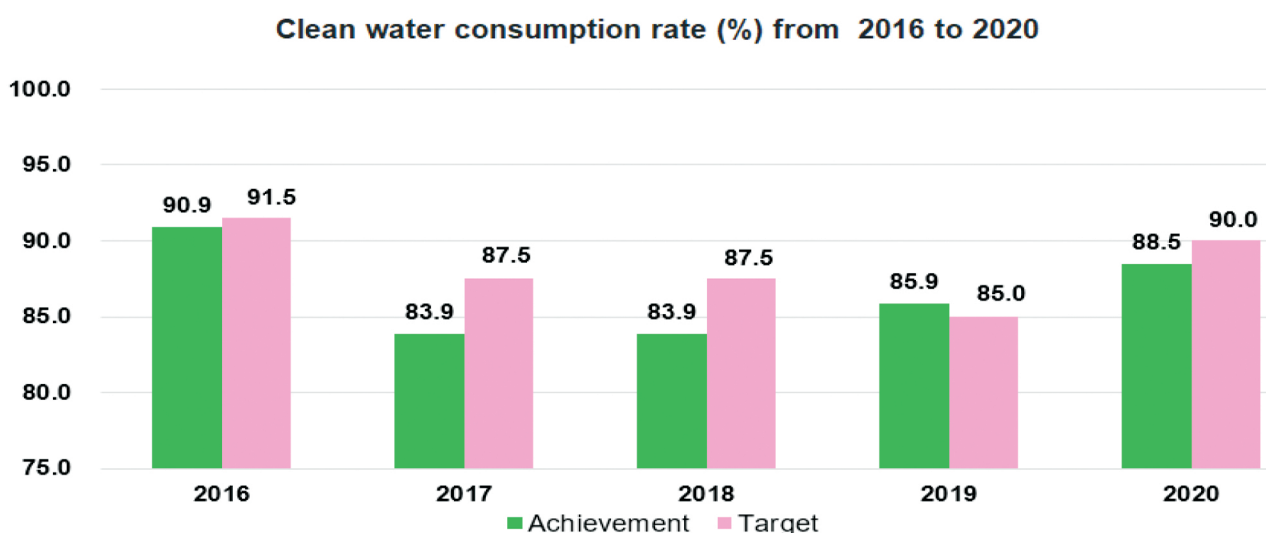
Year	2015	2016	2017	2018	2019	2020
Target (%)	85.7	86.6	87	88	89	90

The policy on rural water, sanitation and hygiene has been endorsed by the Minister of Ministry of Health (No:215/MOH, dated 30 January 2019). The development of the National Strategy on Rural Clean Water Supply, Sanitation and Hygiene 2019-2030, has been completed (No: 0947/MOH, dated 19 April 2019); the agreement document on the management of standard techniques and provide rural clean water, has been completed (No:0738/MOH, dated 4 May 2017). Beside this, the development of guidelines on the implementation of rural water supply safety plans has been completed.

. Training on water supply safety plans and monitoring water quality in 17 provinces and Vientiane Capital has been conducted. A plan-budget and project proposal for 100 clean water supply projects to be supported by grant from China has been prepared. The community-led multi-sectoral plan to eliminate schistosomiasis and other parasitic and waterborne disease in Khong and Mounlapamork district, Champasack Province coordinated with the Department of Communicable Disease Control has been implemented/conducted.

The clean water consumption rate based on the target set in 2016 by the National Assembly was 91.5% and for 2020 was 90%. . At present, the reporting situation on its progress is not so clear due to lack of monitoring. Many places were affected by national disasters and reporting from each province is still an accumulated number which cannot be guaranteed for accuracy. The reasons why the target in some years was not reached were due to disasters and climate change causing floods, landslides, water sources damaged, and some abundant water sources becoming dried up during in the dry season and experiencing floods during the rainy season, thus affecting coverage of clean water consumption that could not reach the set goal (see details in Figure 16). In near future, the figures for clean water coverage from each province will be reported/recorded into the DHIS2 system.

Figure 16: Comparison of achievement and target of clean water consumption rate from 2016 to 2020



Comparing the implementation and targets set by the provinces, it is seen that there are 14 provinces that could not reach their target yet (see Table 16 for details).

Table 16: Clean water consumption coverage from 2016 to 2020 by province

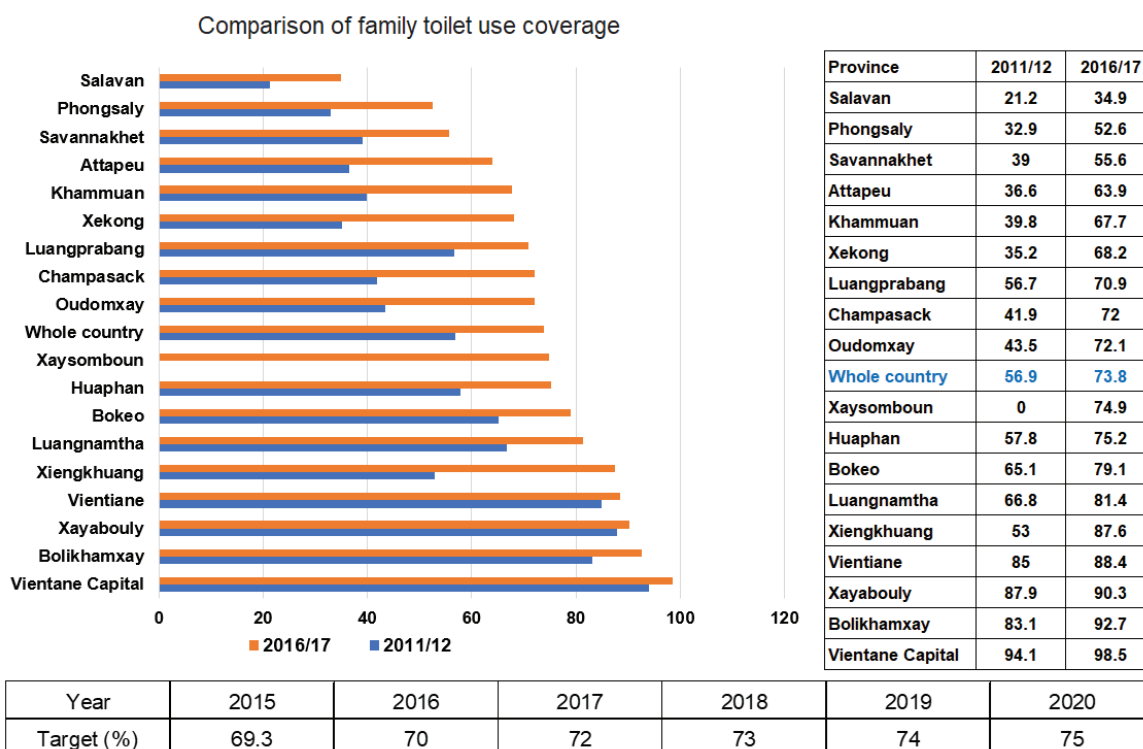
**Percentage of access to clean water (%)**

No.	Province	2016		2017		2018		2019		2020	
		Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target
1	Vientiane Capital	99.8	99.9	99.6	99.9	99.6	99.9	99.9	93.5	99.9	100.0
2	Phongsaly	67.3	72.0	82.8	85.3	82.8	85.3	82.0	78.5	83.3	90.0
3	Luangnamtha	85.4	85.5	95.5	87.0	95.5	87.0	92.5	78.2	93.9	95.0
4	Oudomxay	95.0	95.0	87.1	91.7	87.1	91.7	91.7	93.9	91.3	95.7
5	Bokeo	94.3	95.0	63.2	94.4	63.2	94.4	94.1	94.8	95.0	95.4
6	Luangphabang	95.6	96.2	67.6	96.4	67.6	96.4	88.5	88.5	97.1	95.6
7	Huaphan	86.8	85.5	84.2	88.0	84.2	88.0	84.0	84.0	87.0	90.0
8	Xayabuly	95.2	95.2	91.9	86.7	91.9	86.7	94.0	83.2	94.0	94.1
9	Xeigngkhuang	83.4	83.5	93.7	84.7	93.7	84.7	87.0	89.0	85.6	86.5
10	Vientiane	85.0	85.0	93.1	87.7	93.1	87.7	85.0	82.3	76.1	88.0
11	Bolikhamxay	92.4	94.2	92.1	92.4	92.1	92.4	95.0	84.7	95.5	96.0
12	Khammuan	88.6	90.0	74.9	88.6	74.9	88.6	89.8	92.2	89.8	94.2
13	Savannakhet	99.6	90.0	72.2	92.4	72.2	92.4	96.0	95.0	97.5	96.9
14	Salavan	81.8	82.2	71.1	86.0	71.1	85.5	86.5	80.0	89.6	90.0
15	Sekong	69.2	70.4	79.5	79.4	79.5	79.4	80.9	81.8	83.1	90.0
16	Champasack	87.6	88.5	92.0	90.8	92.0	90.8	92.5	82.3	93.9	92.0
17	Attapeu	76.1	80.2	81.2	51.8	81.2	51.8	80.0	80.0	86.0	85.0
18	Xaysomboun	88.8	90.2	75.2	88.0	75.2	88.0	86.1	68.0	87.0	89.4
	<b>Total</b>	<b>90.9</b>	<b>91.5</b>	<b>83.9</b>	<b>87.5</b>	<b>83.9</b>	<b>87.5</b>	<b>85.9</b>	<b>85.0</b>	<b>88.5</b>	<b>90.0</b>

Figure 17 compares the coverage of family toilet use between LSIS I & LSIS II, showing that there was an increase from 56.9% in 2011/12 to 73.8% in 2016/17. The highest coverage was in Vientiane Capital at 98.5% and the lowest rate was in Saravane province at 34.9%.

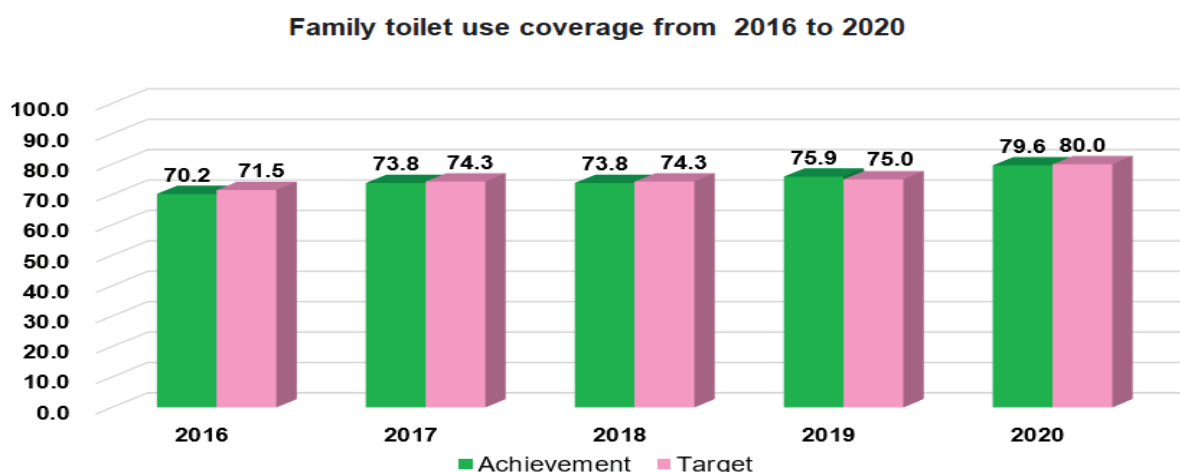


Figure 17: Comparison of family toilet use coverage between LSIS I & LSIS II



According to the report of the National Center for Environment Health and Water Supply, the national latrine utilization coverage of the household from 2016 to 2019 was above the expected 2019 target from 70.2 to 75.9% (see Figure 18). For 2020 it showed the latrine utilization coverage of household was 79.6% which was very close to the national target set at 80%.

Figure 18: Comparison of the implementation with the target of family toilet use coverage from 2016 to 2020



At the provincial level, there are still many provinces that could not achieve the target set. Declaring a village, district or province to be Open Defecation Free (ODF) in 2025 remains a major challenge due to disasters from floods and landslides devastating and destroying latrines, especially in the southern and central provinces of Laos.

Table 17 below shows the family latrine utilization coverage at provincial level compared to the target. Provinces that could not achieve the targets are: Luangnamtha, Bokeo, Luangprabang, Huaphah, Xayabouly, Saravan, Sekong and Attapeu, which will need more financial support and a special effort to enable the declaration of open defecation free province.

Table 17: Latrine use coverage by province from 2016 to 2020

Latrine use coverage (%)

No.	Province	2016		2017		2018		2019		2020	
		Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target
1	Vientiane Capital	99.6	100.0	98.5	99.9	98.5	99.9	99.9	100.0	99.9	100.0
2	Phongsaly	42.1	45.5	52.6	53.0	52.6	53.0	54.0	52.3	56.0	46.6
3	Luangnamtha	82.9	85.5	81.4	81.6	81.4	81.6	82.9	75.6	76.9	85.0
4	Oudomxay	65.6	66.4	72.2	62.7	72.2	62.7	65.2	70.0	75.5	73.9
5	Bokeo	78.8	79.0	79.1	78.8	79.1	78.8	88.4	87.9	88.9	93.0
6	Luangphabang	65.3	66.5	70.9	66.2	70.9	66.2	66.5	71.2	68.9	83.0
7	Huaphan	82.6	83.2	75.2	87.0	75.2	87.0	84.5	82.0	84.5	89.4
8	Xayabuly	93.7	95.0	90.3	90.2	90.3	90.2	93.3	100.0	93.9	95.0
9	Xeigngkhuang	79.0	80.5	87.6	85.4	87.6	85.4	85.2	84.4	91.2	90.8
10	Vientiane	70.0	71.5	88.4	76.9	88.4	76.9	76.0	79.7	95.9	79.0
11	Bolikhamxay	89.8	90.0	92.7	94.2	92.7	94.2	99.0	93.0	99.0	99.4
12	Khammuan	56.7	58.0	67.7	56.7	67.7	56.7	61.4	61.8	91.0	79.5
13	Savannakhet	69.1	70.0	55.6	70.3	55.6	70.3	73.3	74.0	75.9	75.1
14	Salavan	29.7	30.5	34.9	39.1	34.9	39.1	49.4	37.9	55.4	76.3
15	Sekong	60.4	61.5	68.2	70.5	68.2	70.5	76.0	65.9	79.2	85.0
16	Champasack	64.7	65.4	72.0	81.6	72.0	81.6	82.5	70.6	83.0	82.0
17	Attapeu	31.4	33.5	63.9	61.1	63.9	61.1	68.9	75.0	77.0	80.0
18	Xaysomboun	81.8	82.5	74.9	83.1	74.9	83.1	84.5	69.0	92.0	85.2
	Total	70.2	71.5	73.8	74.3	73.8	74.3	75.9	75.0	79.6	80.0

The number of villages declared as Open Defecation Free (ODFs) increased from 309 villages in 2016 to 1,159 villages in 2020, which covers 12 districts such as: 7 districts in Borikhamxay province (Pakkading, Paksan, Thaphabat, Khamkeut, Viengthong, Bolikhan and Xaychamphone); one district in Sekong province (Thateng); 2 districts in Vientiane province (Keo-oudom and Viengkham); and 2 districts in Huaphanh province (Xiengkhor and Hiam). Despite the progress, 23.9% of the population is still practicing open defecation (32.6% in rural areas compared to 4.25% in urban areas).

### 1.2.1 Tobacco and alcoholic beverages control project

To translate and implement effectively and efficiently the Law on Tobacco Control and the Law on the Control of Alcoholic Beverages, the Decree on the Organization and Activities of the National Committee for Tobacco Control, the Decree on the Tobacco Control Fund, the decree on the ban on advertising to promote the consumption of tobacco and Decision on the enforcement of the Law on tobacco control, the Department of Hygiene and Health Promotion on behalf of the Secretary of the National Committee for tobacco control organised a high level conference on the implementation of the law on tobacco control and achievement of Sustainable Development Goal 3.

The report on the implementation of tobacco control activities, tobacco tax status and the implementation of the law on tobacco control in Lao PDR for submission to the Government as well as for monitoring the progress on the use of the Tobacco Control Fund has been completed. Monitoring of the implementation of the Decision of the Minister of Health No. 1067/MOH has been conducted in collaboration with the Ministry of Industry and Commerce, the Ministry of Finance, and the Ministry of Public Security aiming at encouraging the printing of visual health warnings for the coverage of 75%. The World No Tobacco Day was celebrated with two major events: the Conference on Achieving the Sustainable Development Goals under

the Implementation of the Law on Tobacco Control and the Walk for Health Activity. In addition, a campaign to abstain from alcoholic beverages and to avoid driving while drinking alcoholic beverages on the occasion of traditional festivals and fairs was conducted.

Checking of alcohol drinking and non-drunk driving at the 2018 International New Year was conducted in collaboration with the Secretariat of the National Commission for Road Safety, the Traffic Police Department of the Ministry of Public Security, the Capital City Public Health Department, the Capital City Traffic Police Department, the Traffic Police Division of 4 districts. 10 breath alcohol testers were donated from the World Health Organization; advertising signs post for people to abstain from alcoholic drink and avoid driving while drinking alcoholic beverages on the occasion of the Lao New Year festival in major provinces were installed; and advertising materials needed to control tobacco and alcoholic beverages were also published.

## **1.2.1 Sanitation-environmental hygiene project**

### **A. Waste management in healthcare facilities**

Waste management in health care facilities is the responsibility of the Department of Hygiene and Health Promotion in collaboration with the Department of Health Care and Rehabilitation for the development of manuals and legislation. The Environmental Hygiene and Occupational Health Management Division has developed the Decision on Waste Management by reviewing and revising the Decision on Health Care Waste Management (revised version No. 1373/MOH, dated 23 November 2017).

### **B. Food sanitation management**

It is important to ensure that people are consuming safe food and beverages, free from germs and chemical contamination. This work is under the direct responsibility of the Department of Hygiene and Health Promotion, the Department of Food and Drug, in collaboration with the provincial and capital health departments. Drafting of the decision on food sanitation management has been completed, and inspection visits were made for food sanitation at hotels, restaurants, meeting halls serving general conferences and important national days. However, such inspections and management are still limited due to lack of staff, and there are no detailed legal documents on the punishment and fining of violators. It is difficult for the management of food sanitation in markets and roadside food stalls because some vendors do not pay attention to the quality of food, food containers.

### **C. Health impact assessment**

Health and occupational safety standards have been drafted. The training of trainers on health impact assessment for central level and Savannakhet technical staff has been completed; the health impact assessment has been conducted and health impact assessment certificates were issued for three development projects: Xekatom Hydropower Project in Champasack Province, Nam Theun 1 Hydropower Project in Bolikhamxay Province, and Nam Kong Hydropower Project in Attapeu Province. Training of trainers on health impact assessment was conducted in Vietnam for central level technical staff; the training of trainers on health impact assessment has been conducted for the technical staff at the central level and 2 target provinces of the project. Supervision and monitoring of the health impact assessment of development projects to which the health impact assessment certificates are issued twice a year were carried out. These included the Hongsa Lek Nai Power Plant, the Xe Pian-Xe Nam Noi Hydropower Plant, the Nam Ngiep 1 Hydropower Plant, and the development project that was certified in 2017. In addition, the relevant staff have attended a consultation meeting and field visits to provide comments on the report on environmental, social and natural impact assessments of development projects together with the Ministry of Natural Resources and Environment.

### 1.2.1 Climate change project

The national strategy on health sector adaptation to Climate Change has been completed and approved (No. 1344/PH, dated 20 November 2017). Training of trainers for the staff of the central level and 5 target provinces of the project on climate change vulnerability assessment was conducted 2 times with 42 participants. Training of trainers for staff of central level and 5 target provinces of the project in country and abroad was conducted 3 times.

## 1.3 Nutrition sub-program

### 1.3.1 Micronutrient project (vitamin A supplement, deworming, iodine and fluoride salts, iron, zinc, mineral salts vitamin powder)

Retraining of district health workers and health center staff on the distribution of one weekly iron tablet was conducted in Savannakhet for four provinces under the auspices of the World Health Organization, with a total of 195 participants in 2016, as detailed below:

Table 18: Summary of the number of districts and health centers that were re-trained to distribute iron tablets in 2016

No.	Provinces	Number of districts	Number of health centres	Participants
1	Savannakhet	5	45	53
2	Salavan	4	28	45
3	Sekong	3	26	40
4	Salavan	4	47	57
Total		16	146	195

Procurement of daily iron tablets, vitamin A and deworming drugs through UNICEF with the government budget was undertaken for the fiscal year 2015-2016 in the amount of 1,947,012,776 kip, as the following details:

- Daily Iron tablets: 136,180,000 tablets;
- Deworming: 1,743,000 tablets;
- Vitamin A (1 hundred thousand units): 175,000 tablets;
- Vitamin A (2 hundred thousand units): 1,743,000 tablets.

9 tablets of iron/folic acid were provided on a daily basis for 138,200 pregnant women (9%); 109,096 postpartum women received 90 iron/folic acid tablets (23%); 233,628 women aged 12-44 years received weekly iron/folic acid tablets (12%); 191,191 (26%) had a second round of deworming for 6-59 months; 191,191 infants (26%) were provided vitamin A of 100,000 units for 6-11 months; 83,117 infants (99%), provided vitamin A of 200,000 units for 12-59 months; 196,541 infants (12%) were accessed nationwide through the non and mobility units of provincial Maternal and Child Health; procurement and delivery of zinc medicine to 317 health centers for children under 5 years old in 4 provinces (Oudomxay, Luang Prabang, Savannakhet and Champasack) was undertaken; weekly iron tablets to 411,273 reproductive women, including 7 provinces (Phongsaly, Oudomxay, Saravan, Sekong, Attapeu, Xieng Khouang, Houaphanh) were provided in 2017.

The plan of the need for 6 kinds of basic nutritional drugs and 4 kinds of medical supplements of all provinces throughout the country for 2018 was prepared.

Basic essential medicines such as anthelmintics for children, zinc for children with diarrhea in the hospital, iron for reproductive and pregnant women, vitamin A 100,000 IU (Tab) and vitamin A 200,000 IU (Tab) were procured for all 18 provinces, by the government and World Bank budgets.

Medical food for malnourished children (RUTF (Tin), F-75 (Carton), F-100 (Carton) was provided to the provinces with high malnutrition by the government budget and vitamin powder and minerals were provided to 6 month old and under 5 years old children of 4 UNICEF targeted provinces with high anaemia rates: Attapeu, Savannakhet, Saravan and Houaphanh;

In collaboration with the Department of Food and Drug, the Drug and Medical Supply Center, the provinces and relevant parties, the degradation of quality of iron tablets is resolved and the management of summary reports on the distribution of nutrition medicines is monitored ensuring that there are no shortages and no deterioration. Field visits for screenings to detect malnourished children was conducted in coordination with relevant international organizations.

Medical supplements (ECPN and Nut butter) were distributed to risk groups; knowledge, advice and counseling on breastfeeding and infant and young child care, cooking tips, menu, cleanliness and hygiene of cooking in the kitchen of temporary camp accommodation was given.

### **1.3.2 Breastfeeding and infant and young child feeding (IYCF) promotion project**

A meeting to mobilize support on nutrition work and the celebration of International Breastfeeding Week 2016 was organized.

In 2017, a program for supplying supplements for malnourished and underprivileged children under the age of 5 was implemented. The activities focused on strengthening the capacity of communities and changing the behaviour of caregivers of infants and children in 4 provinces, 10 districts: Luang Prabang (4 Districts: Phonexay, Viengkham, Phonethong and Pakxeng), Khammouane Province (2 districts: Nhommalath and Mahaxay), Bolikhamxay Province (2 Districts: Bolikhan and Viengthong) and Xayabouly Province (2 Districts: Xaysathan and Xieng Hon).

The project assessed the nutritional status of 22,048 children under the age of 5 out of a total number of 28,032 children, of which 8,692 children (39%) were malnourished with substandard weight (underweight) and 7,039 children (32%) wasted or thin. The results of the 45-day infant feeding program showed that the malnourished child had an 89% improvement in nutrition.

Capacity building was provided for health center staff in target groups who have received basic nutrition training; provided basic nutrition assessment equipment to health centers, village volunteers, women's unions, and village health committees.

Training in counseling to change behavior was conducted, with organizing a recommended range of nutritious foods.

Ready-to-eat food supplements from World Food Program were provided for pregnant women and children aged 6 to 23 months in 16 districts, 1,110 villages of 3 provinces of Luang Namtha, Oudomxay and Sekong covering 95% of the target.

A meeting for consultation and evaluation of the implementation of breastfeeding in Lao PDR was held on 24 August 2018 at the Nutrition Center. Some staff attended training on how to massage breasts to produce more milk on 24 August 2018 at the Lao Women's Union.

A manual for creation of a multi-sectoral nutrition model village was prepared, approved and disseminated to central and provincial levels for implementation.

The government has allocated funds to identify malnourished and the risk children, and has provided nutrition training to medical staff, village volunteers, and village women.

Nutrition equipment and local food supplies such as eggs, milk and cooked rice soup were provided for malnourished children, while health education counseling and advertisement were provided for parents, caretakers and communities in high-priority provinces with highly malnourished children (Champasack and Sekong) covering 08 districts, 579 villages, 53 health centers. A total of 49,057 children under the age of 5 and 35,992 people were examined and it was found that 21,463 children were malnourished and 5,270 children were provided additional meals. After the supplementation of food (45 days), 100% of these infants had weight gain.

**Table 19: Summary of the number of people trained and equipped for the two provinces**

Province	No. of people trained				Equipment		
	Provincial level	District level	Health centers	Village	Weight +baby crib	height stick	Speaker
Sekong	6	8	56	516	34	34	45
Champasack	6	8	50	1,203	34	34	45
Total	12	16	106	1,719	68	68	90

The project to build model nutrition villages was implemented; basic nutrition training was provided to 2 central staff, 5 Sangthong district level staff and 30 village volunteers, women and village chiefs, including a total number of 37 staff members.

One bag of fresh milk a day and one egg a day were provided to children under 5 years of age in 10 villages of Sangthong District, Vientiane Capital for a total number of 886 children.

The initial assessment of the nutritional status of the program was conducted among 608 children under the age of 5, it was found that 49.34% (300) children were malnourished with substandard height (stunted), 29.11% (177) children were malnourished with substandard weight (underweight) and 13.6% (83) children were acutely malnourished (wasted), which was a higher rate than the results of the Social Survey Index 2017 (LSISII). In this target group infants received 200 cc of milk and an egg each day.

Nutrition measurement equipment was provided; training on basic nutrition education and health education was provided to change the behavior of growing children and maintain the health of women and children properly.

Provincial, district and health center levels have been monitored and supported; the village health committees and village volunteers have been monitoring the growth of children under 5 years of age.

Manuals were developed and training courses on nutrition promotion services were organized for doctors and teachers in 15 kindergartens in the Vientiane Capital and Sangthong District, with a total of 30 participants.

Health examination and nutritional assessments were conducted and health education was provided for teachers and children on the spot; A total of 139 children in public health kindergartens were also assessed: it was found that 7 children were moderately stunted, 2 severe, 25 moderately and 3 severely underweight, 14 were overweight and 12 obese, and 14 moderate and 1 severe malnutrition of weight. In Sangthong District Kindergarten, there were 49 children, 12 children were found to be moderately malnourished, 1 child was severely malnourished, 1 child was severely malnourished and 3 children were severely malnourished in 3 aspects.

### 1.3.3 Project on improving consumption and access to safe food to prevent and reduce

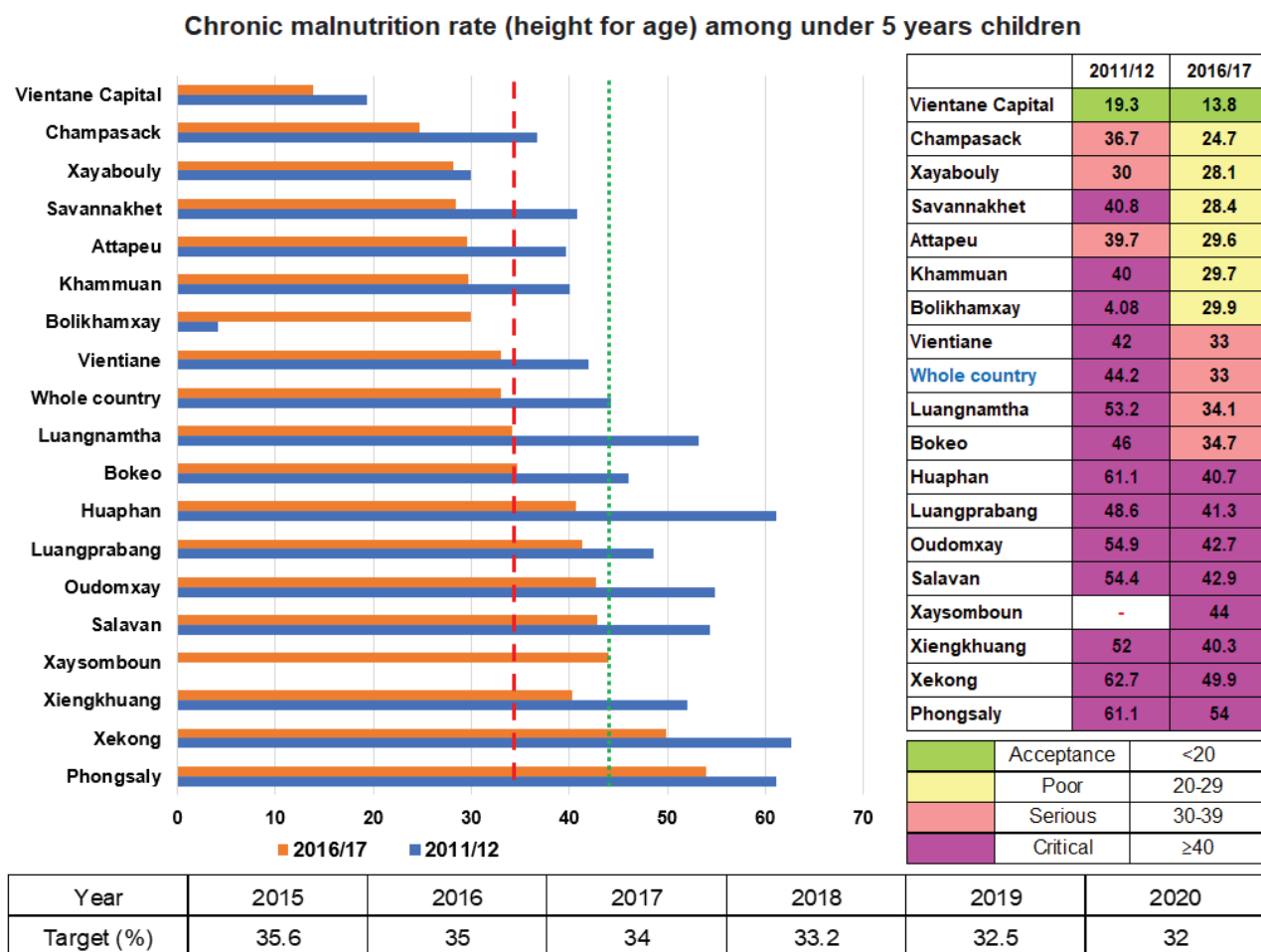
## foodborne diseases and vectors

A management committee for the iodized salt fund was established, and the quality inspection process of all salt factories and inspection of salt imports at 8 checkpoints has been improved throughout the country. Some staff have participated in ASEAN Food Safety and Nutrition Training in Indonesia (Laos, Thailand, Cambodia, Vietnam, Philippines and Indonesia participating). The topic of the training was food contamination and foodborne illness and the inspection of food hygiene in hotels, guesthouses and markets. Nutrition empowerment project

Nutrition is a priority task for Lao PDR, as well as for the region and the world. It was incorporated into the Sustainable Development Goals in the goal number 2, which is within the framework of ASEAN cooperation and integrated into the VIII<sup>th</sup> National Socio-Economic Development Plan of the Lao PDR. In the past, nutrition work has been implemented in many sectors, focusing on 22 measures focusing on the reduction of stunting (low height-for-age), underweight (low weight-for-age) and wasting (low weight-for-height). According to targets approved by the National Assembly, important indicators to be achieved for 2018 were as follows:

According to the Lao Social Indicator Survey 2016/17, the rate of chronic malnutrition with a very high level (Critical)  $\geq 40\%$  still exists in 7 provinces: Phongsaly, Sekong, Xieng Khouang, Saravan, Oudomxay, Luang Prabang and Houaphanh. The national average is 33% compared to the projected 2018 plan of 33.2%, which can be evaluated as achieved. Compared to the 2011/12 census, there was a lot of progress (for details, see Figure 19). Very high rates of chronic malnutrition in LSIS I were found in 13 provinces (purple and above 40%) and LSIS II in only 7 provinces (see Figure 19).

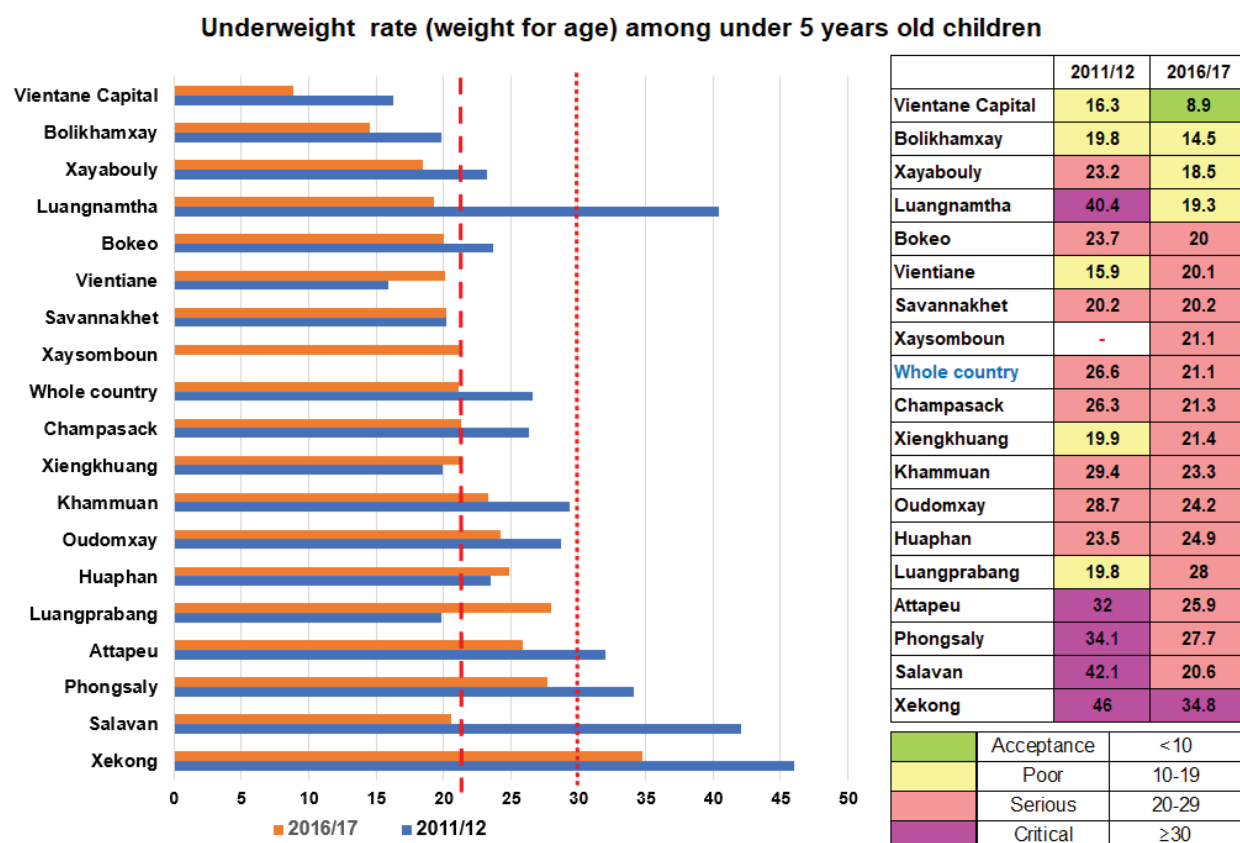
Figure 19: Comparison of stunting among children under 5 years old between LSIS I & LSIS II



Similarly, malnutrition in the 2016/17 survey has seen significant progress because there was only one province, Sekong, which had a very high level (Critical)  $\geq 30\%$  compared to 2011/12 with 4 provinces (Sekong, Saravan, Phongsaly and Attapeu). The national average is 21.1%, compared to the projected 2018 forecast of 21%, which can be assessed as having a quite high potential to reach the target (see Figure 20 for details).



Figure 20: Comparison of underweight (weight for age) among children under 5 years old between LSIS I & LSIS II



Year	2015	2016	2017	2018	2019	2020
Target (%)	25.5	24.2	22	21	20.5	20

In contrast, the rate of acute or severe malnutrition in children under 5-year-old, comparing two consecutive surveys, has increased. At the national level, 2011/12 it was 5.9% and in 2016/17 was 9%, with an increase of 3.1%. There were only four provinces with a downward trend: Luangnamtha, Bokeo, Vientiane Capital, and Bolikhambxay. The causes of the increase will be studied further. For details, see Figure 21.

Figure 21: Comparison of the rate of severe malnutrition (weight for height) children under 5 years old between LSIS I & LSIS II.

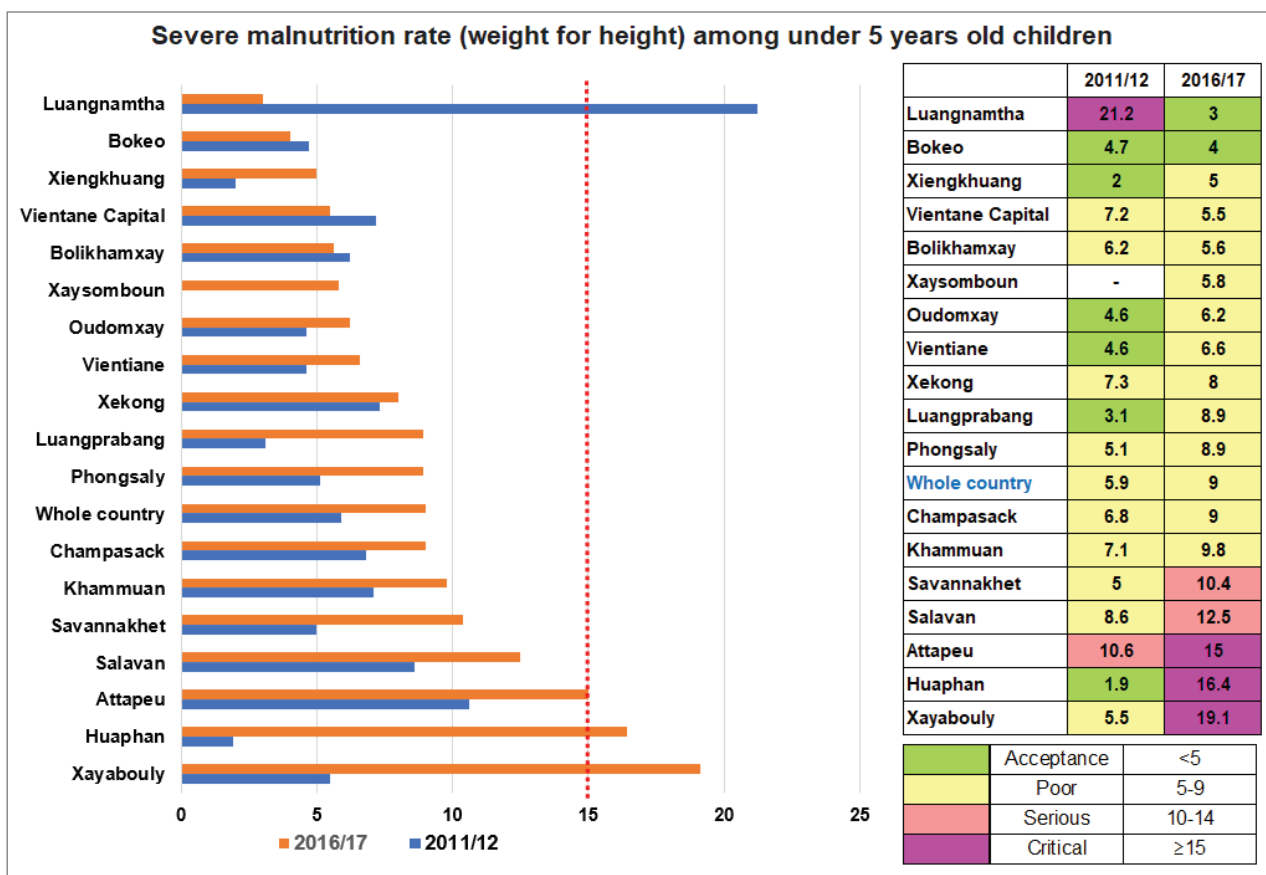
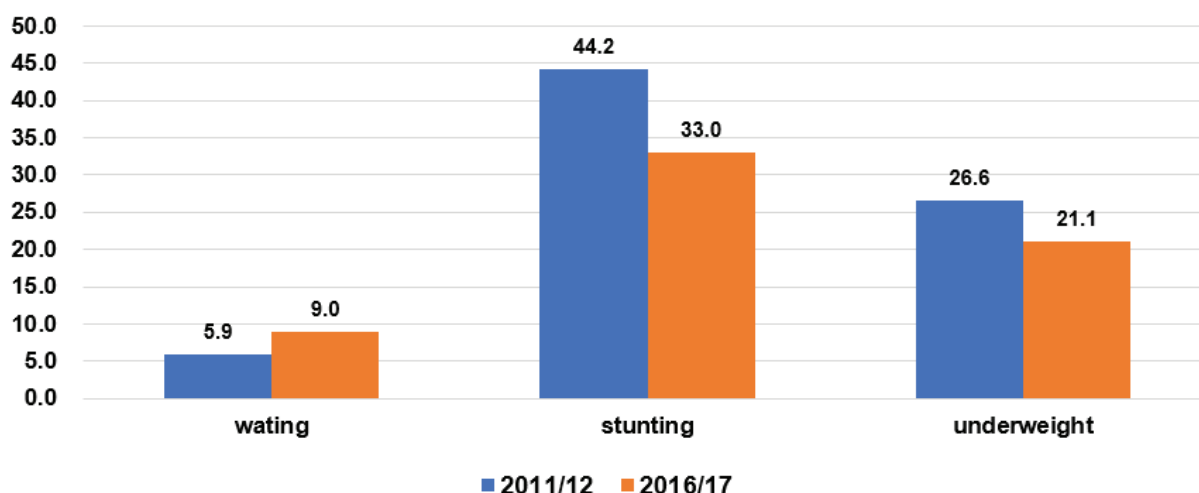


Figure 22 below shows a comparison of malnutrition rates in children under 5-year-old between LSIS I & LSIS II. From the results of the survey between 2011/12 and 2016/17, the rate of chronic malnutrition in terms of stunting decreased from 44.2% to 33.0% (a decrease of 11.2% or an average of 2.24% per year). Similarly, the rate of underweight decreased from 26.6% to 21.1% (a decrease of 5.5% or about 1.1% per year). In contrast, the rate of wasting increased from 5.9% to 9.0% (an increase of 3.1%), which deserves attention.

Figure 22: Comparison of malnutrition rate among children under 5 years old between LSIS I & LSIS II

**Comparison of malnutrition rate among children under 5 years old between LSIS I & LSIS II**



The nutrition work is led by the National Commission for Nutrition, chaired by a Deputy Prime Minister, and assisted by the Secretariat of the National Commission for Nutrition in the administration and monitoring. There is a multi-sectorial coordination and cooperation mechanism in the implementation of nutrition solutions. The results of the previous implementation are as follows:

#### **A. Nutritional personnel development (training, seminars and meetings)**

The training of trainers on nutrition and food science for 100 participants from central level, all provincial hospitals and people in charge of nutrition in 18 provinces throughout the country was completed. Training courses of Lao-American Nutrition Institute (LANI) Series I and II were conducted for 12 staff members from Mahosot Hospital, Setthathirat Hospital and from Oudomxay Provincial Hospital (Grant from the United States). Nutrition and food science training was provided for staff throughout the country involving the Education and Sports Sectors, Agriculture and Forestry Sector, Lao Women's Union and the Central Committee for Rural Development and Poverty Alleviation, and 100 trainers were trained in collaboration with the Temasek Foundation in collaboration with the University of Vocational Education, Singapore with government funding. Some staff participated in the training as a senior trainers of the Highland Farmer Family Nutrition Promotion Project (LANN) in order to further train the district staff of the target project provinces of Houaphanh and Oudomxay. Laboratory staff were trained and the nutritional status of mothers and children was assessed by using the FTIR (Fourier Transform Infrared spectroscopy) instrument by the International Atomic Energy Agency (IAEA). While preparing to receive the first FTIR in Lao PDR, 7 staff were trained to use new techniques to assess maternal and child nutrition. The Ministry planned to upgrade the Nutrition Center to a National Nutrition Institute. Currently the preparation for the development of the mandate, the feasibility study for the establishment of the institute has been completed and ready for submission to the higher levels for consideration and approval.

#### **B. Update and develop nutrition manuals**

The manual for severe malnutrition management was developed and 195 trainers were trained for Central Hospitals, provincial and district health hospitals in 8 provinces. The development of a training manual for trainers on communication to change the nutrition behaviour in society, was developed in collaboration with the Department of Hygiene and Health Promotion, Maternal and Child Health Centers and Clean Water Centers. This manual will be utilized in four project provinces (Phongsaly, Oudomxay, Houaphanh and Xieng Khouang) for the nutritional behavior transformation communication supported by the World Bank. The manual for Integrated Management of Acute Malnutrition (IMAM) was completed; the draft decree on the control of infant and baby food marketing products to promote breastfeeding was prepared.

#### **C. Scientific research, surveillance, monitoring and evaluation**

A survey on access to nutrition gap in Lao PDR was conducted and a workshop to analyze, discuss, and disseminate the results of the survey was organized. The collection of LSISII data was carried out in collaboration with the National Statistics Center; the collection of data on food consumption for Lao people was conducted in collaboration with the Institute of Public Health; the assessment of nutrition for behavior change was conducted in collaboration with the Poverty Alleviation Organization in Houaphan Province together with the Rural Development and Poverty Alleviation Organization. The designation of specific nutrition indicators for the Department of Hygiene and Health Promotion was completed, consisting of 36 indicators. Some staff participated in the DHIS2 nutrition information workshop, where nutritional indicators were revised, including 13 indicators.

#### **D. Nutrition coordination work of the Secretariat of the National Committee for Nutrition**

- 1) Coordination strengthening has been improved by compiling the list of the Committee members and the Secretariat to be included in the resolution on the appointment of the National Nutrition Committee (No. 93 / PM, dated 25 November 2016), to be further submitted to the Prime Minister's Office. At

the provincial level, for example, all provinces have established provincial nutrition committees and secretariats throughout the country and are active; 40 district-level nutrition committees were also established;

- 2) The development of communication strategies to change social behaviors on nutrition was completed. Monitoring was developed and the revision of nutrition indicators approved by the National Assembly were implemented;
- 3) The first National Conference on Nutrition was organized with 300 participants from the central-provincial levels in 5 sectors (health, agriculture-forestry, education-sports, planning and international organizations);
- 4) The 10 measures of the health sector and 4 measures of the multi-sector in the revised nutrition strategy and action plan were translated into the framework of the VIII Five-Year Health Development Plan and the 2017 Annual Action Plan;
- 5) The Ministry and UNICEF have signed a Memorandum of Understanding (MOU) on the Vaccination of Maternal and Child Health, Water and Hygiene and Nutrition for the year 2017-2018, (\$7,201,854 in total). This included activities in 10 health measures and multi-sectoral coordination activities in 10 target provinces: Phongsaly, Bokeo, Luang Namtha, Houaphanh, Xieng Khouang, Luang Prabang, Khammouane, Savannakhet, Saravan and Attapeu;
- 6) The Ministry and Save the Children have signed a Memorandum of Understanding (MOU) on the Nutrition Behavior Change Project with the total of \$ 3.7 million, targeting two provinces: Khammouane and Savannakhet, covering six districts, 471 villages. The project was implemented from January 2017 to December 2019;
- 7) The Ministry of Foreign Affairs agreed to allow SDC to sign a Memorandum of Understanding and the Ministry of Public Health to sign a Memorandum of Understanding with SNV under the Highland Farmer Family Nutrition Promotion Project for a total of \$7 million. The project has a duration of 5 years, with 2 target provinces, 4 districts, 40 villages: Houaphanh and Oudomxay;
- 8) The EU project will provide budget support through the German Government owned Development Bank (KfW) to provide water supply to small towns in Savannakhet (Nong and Sepon). The project has a three-year implementation period of 15 million Euros;
- 9) The development of a manual for multi-sectoral nutrition implementation at each level and the multi-sectoral model nutrition establishment manual were preliminarily completed;
- 10) A consultation meeting on the revision of nutrition indicators in the health sector was held. Overall results were discussed with the Department of Planning and Cooperation to include some indicators in the District Health Information Management System, version 2;
- 11) Summary of the results of mapping the partners, resources and local coverage of the implementation of 22 priority measures to address nutrition in 2017, coordination meetings to improve coordination work in 11 provinces: Khammouane, Savannakhet, Saravan, Attapeu, Houaphanh, Xieng Khouang, Luang Prabang, Bokeo, Luang Namtha, Phongsaly and Oudomxay, were completed.

## **1.4 Primary health care sub-program**

### **1.4.1 Model health village project**

The establishment of model health villages is a contribution to rural development and poverty reduction in accordance with the three-built directions. The guidelines for establishing model health villages have been revised, family standards and standards for health villages have been revised, and preparations are underway for a ministerial meeting. At present, model health villages cover 78.9% of all villages, an increase of 118 villages compared to 2016. In 71 focus districts, consisted of 608 villages, 358 villages, equivalent to 58.9% of the total focus villages have already been declared model health villages (see Figure 23).

Figure 23: Accreditation rate and declaration as a model health village from 2016 to 2020

### Accreditation rate and declaration as a model healthy village (%) from 2016 to 2020

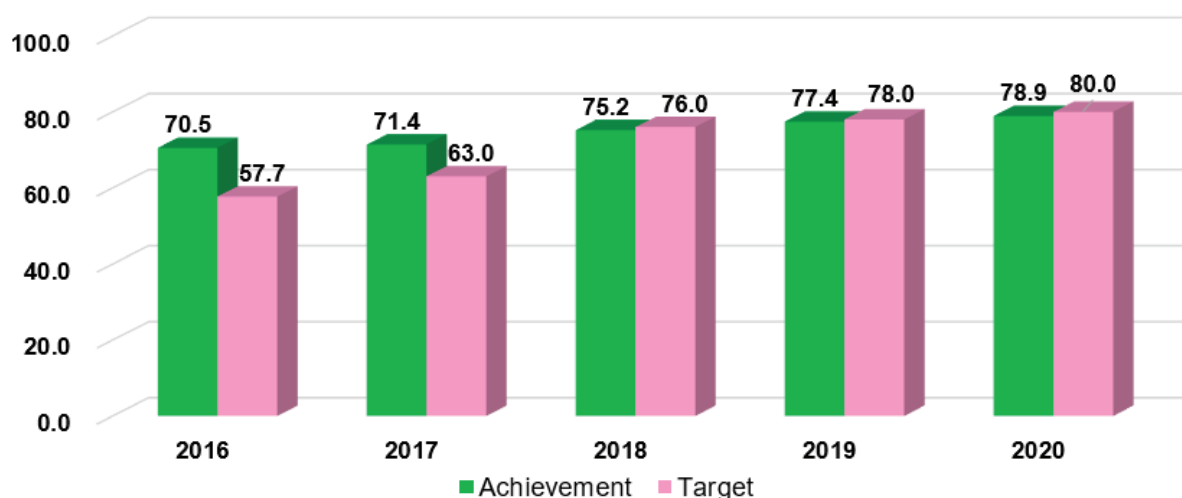


Table 20 summarizes the data on model health villages by province, showing that the provinces with less than 50% of projections are Phongsaly and Saravan, which are related to the rate of latrines and access to clean water, which requires special investment.

Table 20: Summary of data on model health villages from 2016 to 2020

Accreditation rate and declaration of model health village (%)											
No.	Province	2016		2017		2018		2019		2020	
		Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target
1	Vientiane Capital	98.7	92.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2	Phongsaly	33.9	32.6	34.3	35.4	39.2	42.8	44.0	43.9	46.9	45.0
3	Luangnamtha	81.5	65.3	82.5	70.9	84.7	85.5	90.1	87.8	85.4	90.0
4	Oudomxay	82.8	65.0	83.9	70.6	87.5	85.2	87.9	87.5	89.0	89.7
5	Bokeo	81.4	68.0	82.4	73.9	88.7	89.1	89.9	91.5	89.9	93.8
6	Luangphabang	75.5	60.2	76.5	65.4	77.8	78.9	79.4	80.9	79.7	83.0
7	Huaphan	77.3	60.2	78.3	65.4	79.3	78.9	80.9	80.9	80.9	83.0
8	Xayabuly	88.4	66.8	89.5	72.5	88.6	87.5	89.6	89.8	89.6	92.1
9	Xeingnkhuang	69.8	56.2	70.7	61.0	73.4	73.6	75.7	75.6	79.9	77.5
10	Vientiane	86.9	72.5	88.0	78.8	88.7	95.0	92.1	97.5	94.0	100.0
11	Bolikhamxay	87.4	69.4	88.5	75.4	91.1	90.9	93.8	93.3	99.0	95.7
12	Khammuan	85.8	67.0	86.9	72.8	89.9	87.8	89.3	90.1	89.0	92.4
13	Savannakhet	52.7	55.7	53.4	60.5	65.4	73.0	68.0	74.9	69.6	76.8
14	Salavan	18.5	31.9	18.7	34.7	25.4	41.8	32.3	42.9	40.4	44.0
15	Sekong	45.4	57.9	46.0	62.8	59.5	75.8	59.9	77.8	67.5	79.8
16	Champasack	87.2	65.9	88.3	71.6	89.4	86.4	89.6	88.6	89.6	90.9
17	Attapeu	56.8	53.7	57.5	58.3	61.0	70.3	64.4	72.2	66.4	74.0
18	Xaysomboun	74.1	62.6	75.0	68.0	83.1	82.1	85.4	84.2	85.4	86.4
	Total	70.5	57.7	71.4	63.0	75.2	76.0	77.4	78.0	78.9	80.0

#### 1.4.2 Community service integration project

The integration of comprehensive community health services is a health promotion service at the village level by promoting maternal and child health, nutrition, clean water - environmental hygiene and building a model

health village in order to improve the network of primary health care services and improving the organization of village level medical staff, Village Health Volunteers (VHVs), and Village Health Care Committees (VOCs) in integrated nutrition services, for unity and improvement of coordination and monitoring at each level.

The improvement and upgrading of the activities of village volunteers, village health promotion committees was done in coordination with the provinces, by training health workers to work in the village, be able to record the target population, create a family file, and provide prompt and accurate reports regularly to the health center in order for the health center to enter quality information into the DHIS2 system. At present, there are 14,551 village volunteers: compared to 2019 an increase of 779 people. There are 4,121 drug revolving funds in the villages. Compared to 2016, there was a decrease of 139 drug kits due to the expansion of the services provided by health centers. A comprehensive community health service integration project was implemented in nine target provinces, 60 districts and 3,732 villages, covering 996 remote villages, equivalent to 76% of the total number of remote villages' nationwide (1.312 villages).

The expansion of maternal and child health care covered all priority areas and remote rural areas by providing equal quality services, especially the use of vaccines and controlling disease outbreaks. In addition, health promotion and health education promotion, environmental sanitation and clean water have taken care of supplying water and encouraged community ownership of sanitation to end defecation in order to focus on the implementation of nutrition work in accordance with the strategy and one multi-sectoral action plan of the National Commission for Nutrition.

## **2. Program 2: Communicable disease prevention and control**

As a focal point for international health regulations and health security, the CDC Department is responsible for diseases surveillance, research, and summary of communicable disease control activities aimed at identifying problems, causes, and risk factors and liaison with relevant parties and responding in a timely manner.

A significant amount of legal and regulation documents were completed such as: the establishment of laws on the prevention and control of communicable diseases; Role and responsibilities of the Department of Communicable Disease Control have been defined; the DCDC stamp has been approved; the national policy on the surveillance and communicable disease control has been developed as well as the policy on the management of laboratory's standards, the strategy on prevention and control for dengue, malaria, tuberculosis, HIV and STIs. The national policy and strategy on neglected tropical disease prevention and control was finalized. In addition, three decrees such as the Prime Minister's agreement on the appointment of the National Committee for Communicable Disease Prevention and Control (No. 77 / PM, dated 10 December 2018); the Minister's Agreement on the lists of communicable disease and severity ranking of communicable diseases (No. 1956 / MOH, dated 11 July 2019); and the Minister's agreement on the establishment of the secretariat of National Committee for Communicable Disease Prevention and Control (No. 2915 / MOH, dated on 11 September 2019) were promulgated.

### **2.1 Epidemiological sub-program**

#### **2.1.1 Project to strengthen on surveillance and response for diseases outbreak and illness**

The Presidential Decree on the Law of Communicable Disease Prevention and Control was completed and promulgated on December 19th 2017. Regarding communicable diseases outbreaks in Lao PDR and the pandemic of COVID-19, suspected cases and specimens were collected for analysis since January 2020 onwards. There are also some seasonal diseases outbreaks such as diarrhea, dengue, influenza, measles, VDPV1, pertussis, severe respiratory infections, typhoid fever, hepatitis A, food poisoning. There are regular weekly reports

generated by the National Disease Surveillance System for 18 diseases/ symptoms, with daily reports once there is an outbreak of any disease.

The Emergency Operations Center (EOC) has been upgraded to international standards to monitor and guide the response to communicable diseases outbreak and public health emergencies. Public health activities at the Wattay International Airport have been implemented since 2016 onwards, with certification stamp, direction-sign, and uniformed health workers at points of entry in 2019.

## **2.2 Public health laboratory service sub-program**

### **2.2.1. Project on strengthening of laboratory services at all levels**

Laboratory testing aligned with standard operation procedures (SOP) and achieved 75% as per the indicator (target >80%). More than 85% of outbreak's cases performed risk assessment and were reported within 24-48 hours. Timely investigation and rapid response were conducted for outbreak early responses and the laboratories' testing was conducted with accuracy, timeliness to ensure alignment with quality and biosafety practices. In 2017, there were seven provincial laboratories and 10 central laboratories that apply laboratory quality and bio-safety management.

#### **2.2.1.1 Virus surveillance and repatriation project at the Lao Institute of Pasteur**

Close tracking of dengue fever virus required demographic data, mosquito information, weather forecasts and environmental information for 7 years up to 2018. This helped with the prediction of outbreaks of dengue fever for 2019. The laboratory room of Institut Pasteur has biological safety level 3, with the ability of verifying the Ebola virus test as per the preparedness plan to respond in Laos as the outbreak occurred in African countries in 2019. In February 2020, there was a confirmed infected case with ZIKA virus in a new-born infant with brain malfunction. It was the first case in the Lao PDR which confirms that there is virus species circulating in Laos.

#### **2.2.1.2 Parasitic disease study project**

Studies indicated resistance to the antimalarial drug artemisinin has been reported in Savannakhet, Saravan, Champasack, Sekong and Attapeu provinces. The latest case of artemisinin resistance was found in the northern part of the country in Phongsaly province. The Studies used advanced diagnostic techniques to confirm malaria infection and mapping of resistance (PCR, LAMP, ELISA).

#### **2.2.1.3 Vaccine preventive disease study project**

Hepatitis A (HAV) studies in Xiengkhuang province and Vientiane Capital have shown higher prevalence rates of infection in adults. In addition, the low prevalence rate of infection in adolescents and children in Laos may reflect better hygiene practices. A study of pathogens on farmed poultry products in collaboration with the Faculty of Agriculture, National University of Laos found that high ratio of the virus in poultry products indicated various types of coronavirus and anaemia in chickens. Genetic analysis also found that there is cross-breeding transmission of the virus between chickens and ducks. Additionally, there was also a study of hepatitis B infection among Lao dentists.

#### **2.2.1.4 Medical entomology project**

In 2019, 15 international students from 10 countries were trained in international medical entomology by the International Institute of Pasteur Network. The ECOMORE 2 project, which researched on larvae population and Aedes mosquitoes in Vientiane Capital and analyzed the usefulness of novel Periproxyphen-treated in 2 Care traps as a means of targeted Aedes vector control was completed. The Arbovec Plus project monitors the insecticide resistance of dengue vectors in six provinces of the Lao PDR and validates high-throughput PCR diagnosis test to identify insecticide resistance in Aedes populations. There is also a project that carried

out an inventory of Culicidae, Phlebotomina and Ceratopogonidae as well as their diversity density and population dynamic inside and around caves, and determines the dipteran vectors in caves where bats are living.

### 2.2.1.5 Vector-born disease surveillance program (Arboshield)

Dengue fever, malaria surveillance networks for military personnel, military hospitals in six provinces and one institute (a 4-year project), including provision of some laboratory equipment and surveillance equipment were established. Training on basic knowledge of epidemics, biosafety, diagnostics, infectious diseases and medical entomology to military medical doctors throughout the country was conducted. One-year on-the-job training for military analysts of the Army Institute of Immunology at the laboratory of Lao Institute Pasteur was provided.

## 2.3 Sub-program on control of HIV/AIDS and sexual transmitted infections (STI)

### 2.3.1 Project increasing access to quality HIV/AIDS testing, treatment and care services

Reduce The rate of HIV infection was reduced by 0,28% in the general population aged 15-49 years, in female sex worker (FSW) by less than 2%, and among men who have sex with men (MSM) by less than 3%. Counseling and testing facilities were expanded - 189 (45 sites for central/provincial levels, 122 for districts and 22 for health centers) In addition, there are 11 ART sites in 8 provinces.

Table 21: Target indicators for HIV/AIDS

Items	Target	Result	Remark
Estimation of HIV prevalence in the general population both male and female	<0,5%	0.28%	AEM 2019
HIV prevalence among female sex workers (FSW)	<2%	1%	IBBS 2017
HIV prevalence among men who have sex with men (MSM)	<3%	2.5%	IBBS 2017
Pregnant women and new infants born to women living with HIV, and adults receive ARV treatment and care	90%	56%	2019

### 2.3.2 Governance and strategic information project

- The national strategic plan 2021-2030, and action plan 2021-2025 on HIV/AIDS and STIs developed
- HIV treatment guidelines, and other essential guidelines, forms, posters and IEC/BCC materials with dissemination to ART facilities developed
- Province and health facilities available for HIV/AIDS activity implementation plan 2018-2020
- Re-organizing of the National Commission Control of AIDS completed
- the Review and strengthening law, policy and advocacy plans completed
- All 8 key implementing stakeholders involved in HIV strategy and action plan
- Strengthening governance and institutional capacity building for 24 high level staff in 8 provinces and 8 pilot three builds districts completed.
- Partial financial support of the government and international partners received
- Additional financial support for HIV quality improvement for HIV adherence counseling services for 45 health facilities and 5 certified ART sites provided
- Drugs and important equipment for provincial/district hospitals procured.



## 2.4 Sub-program on malaria, parasitology and entomology

### 2.4.1 National malaria control project

In 2016, the control and elimination of malaria strategy was launched, with 15,465 cases confirmed of malaria infection and 1 case confirmed as a malaria death. The Annual Parasite Incident (API) was 2,51/1000 population, and in 2020 there were 2,553 confirmed malaria cases and no deaths; the API was 0,18/1000 population, which means the number of malaria confirmed cases reduced 83% in the year 2020 compared to the year 2016. At present, 13 northern provinces have approached target elimination by 2025, and 5 southern provinces are still malaria control areas. In addition, the national program has been implementing malaria vector surveillance and monitoring of main malaria vector such as An. Dirus and An. Minimus that are found widely in every province in the country. Vector control measures are mainly distribution of 1,418,952 long-lasting insecticide nets (LLINs) covering 2,270,323 vulnerable people (1,5 people / LLIN). Other strategies are more on social mobilization through health education campaign in different channels such as local loudspeakers, radio, television, printed materials, posters, magazines and others to make people, including ethnic minorities, aware on malaria prevention and to ensure early access to malaria services when needed.

Table 22: *Malaria Control: achievements on outcomes and impact indicator (2016-2020)*

No	Indicators	Achievement				Targets
		2016	2017	2018	2019	2020
1	Annual blood examination rate % (ABER)	4,1	3,9	4,2	7	3,5
2	Annual Slide Positive Rate (SPR) %	5,7	3,6	3,1	1,2	5
3	API/1000 population	2,4	1,4	1,3	0,86	2,5
4	Annual patient malaria death/100.000 people	0,02	0,03	0,09	0	<5
5	Proportion of population at risk potentially covered by LLINs distributed	1,6	1,6	1,8	1,8	1,5

### 2.4.2 Dengue fever control project

Dengue fever control activity was focused on source reduction. HI (Household Index), BI (Bureau Index) indicators were used to monitor. In 2016, the average HI = 21.18, BI = 46.66 and in 2019 HI = 17.17; BI = 22.17. It showed that the indicator of larvae in 2019 was lower than in 2016 but it was still above the standard (HI <5; BI <10). Health education activity was carried out based on 5 main contents through radio, loudspeakers, television, and distribution of posters, published-media, guppy fish, and use of insecticide. In case Dengue fever outbreak occurred, fogging was conducted. There was ongoing mosquito surveillance as well.

### 2.4.3 Neglected tropical diseases control project

Neglected Tropical Diseases Control is an important work area. There are priorities diseases which were targeted for elimination such as elephantiasis by 2020, schistosomiasis by 2030. The aim is to ensure that 75% of primary and secondary school students receive deworming tablets (expected to reach 90%). For opisthorchiasis (Ov), paragonimus disease and trichinosis, the aim is controlling in order not to be a public health problem. The prevalence of elephantiasis infection in 2016 was 0.08% and in 2019 there was no reported case. For prevalence infection of OV, it was 70% in 2016 and 77% in 2019.

## 2.5 Tuberculosis (TB) control sub-program

### 2.5.1 Tuberculosis (TB) control project

Currently, the national TB control network has expanded to the district level and reached 100%, covering all 148 districts and 98% of health centers nationwide. Diagnosis of tuberculosis with a rapid molecular screening (Xpert MTB/RIF test, Cepheid) has been expanded in 13 sites in 12 provinces. It is also able to test TB drug

resistance. TB incidence in Lao PDR decreased from 182/100,000 in 2015 to 153/100,000 in 2019 and the estimated mortality rate decreased from 43/100,000 in 2015 to 30/100,000 in 2019. GeneXpert testing was increased from 35% in 2015 to 61% in 2019. The TB notification new rate and recurrent cases increased from 66/100,000 (4,536 cases) with 37% TB treatment) in 2015 to 92/100,000 (6,548 cases) with 57% TB treatment) in 2018. In the first 6 months of 2019 this decreased to 53%. 85% of all forms of TB patients in 2015 had a positive HIV test and HIV patients with TB were treated with ARVs. The treatment success rate of new and recurrent TB patient was more than 85% set by the World Health Organization since 2015.

Table 23: *Technical success and indicators of Tuberculosis control activities*

Indicator	Unit	Achieved				Targets
		2016	2017	2018	2019	2020
New and recurrent TB cases	Person	5,156	5,730	6,548	4,846	8,592
TB case notification rate	person/100,000	72	82	92	67	102
TB treatment coverage	%	42	49	57	44	70
Drug resistant TB patients enrolled	Person	36	40	51	37	
Treatment success rate of new and relapse TB cases	%	87	86	90	89	
Case fatality rate of registered patients	%		6.6	5.8	6	<5
Percentage of patients with TB and HIV tested	%	95	90	74	76	100

## 2.6 Sub-program to control diseases from animals to humans

### 2.6.1 Avian influenza prevention and control project

Simulation exercises in response to H5N1, H7N9 avian influenza were conducted. In addition, anti-bird flu outbreaks were launched in Luang Prabang in 2016, Pak Ngum district, Vientiane Capital and Thathom district, Xaysomboun Province in 2017. The legal task was completed for reviewing of national operation plans to prepare for and respond to major influenza pandemics on public health. Since 2008 to the present, there have been no reports of avian influenza in humans, but outbreaks in animals have been reported annually.

### 2.6.2 Rabies prevention and control project

World Rabies Day was celebrated on September 28 each year and we continue to monitor and report cases and deaths from rabies every year.

## 3. Program 3: Health Care Services

### 3.1 Sub-program on the development of health care service network (curative care)

#### 3.1.1 Health service network reform project

The health service network has been gradually improved and modernized in terms of both quantity and quality. The management system, ethics, and morality were given increased attention. Much infrastructure has been improved and constructed.

#### ❖ Infrastructure construction

##### ○ The government has invested as follows:

- 1) Completed modern hospital of 308 beds at the Friendship Hospital, loan from Austria;
- 2) Completed the diabetes ward construction project at Setthathirat Hospital;
- 3) Completed the rehabilitation project of the building for children with disabilities at the national center for medical rehabilitation;

- 4) Completed the construction project for outpatient emergency ward at Thongpong Ophthalmology Hospital;
- 5) Completed construction of the administrative office for Mothers and Children Hospital;
- 6) At the local level, investment was in: the construction of Xaysetha District Hospital (Attapeu province), the renovation of Xiengkhor District Hospital (Huaphan province), the renovation of Meuang Ngeun District Hospital (Xayabouly province), the renovation of Samouay Community Hospital (Saravan province), the construction of the guest house at Sankham health center in Kham District (Xieng Khouang), the renovation of Khokka health center in Pakbeng District (Oudomxay province), the construction of a delivery ward in Phou Vieng health center, Khoun District (XiengKhouang province), and construction of delivery room of Bengvilai health center in Sanamxay District (Attapeu province), the construction of a health center in Pak Gnong, Tha Thom District (Xaysomboun province), and construction of a health centre in Phadaeng area Poungka village, Kwan District (Huaphan province).

o **Assistance from friendly foreign countries such as:**

- 1) Construction project of 200-bed provincial hospitals in Xiengkhouang and Houaphanh provinces with the assistance of the Government of the Socialist Republic of Vietnam;
- 2) The construction of a modern 630-bed Mahosot hospital with the assistance of the People's Republic of China;
- 3) Construction of an emergency outpatient ward in Setthathirath Hospital with the provision of medical equipment, including Champasack Hospital with assistance from JICA;
- 4) The construction of Bolikhamxay provincial hospital with the assistance of the government of Luxemburg.

Table 24: *Provision of medical equipment at different stages and levels*

Name	List
Mahosot Hospital	Digital Radio fluoroscopy, Laparoscopic surgery equipment ear-nose-throat
Setthathirath Hospital	Laparoscopic surgery equipment (Minimally Invasive surgery equipment)
Paksong, Sepone, Viengthong , Nambark Community Hospitals	Surgical light bulbs
Vientiane Province Hospital	Laparoscopic surgery equipment (gallbladder, appendix, abdomen)
Attapeu Province Hospital	Digital X-ray machine
Oudomxay Province Hospital	Dental chair
Oudomxay Province Hospital, Savannakhet Province Hospital	Mobile X- ray machine
Phaoudom, Kenthao, Botaen Community Hospitals	Mobile X- ray machine
Khua, Khamkeut, Phaoudom Community Hospitals	Anaesthesia machine
Saravan Province Hospital	Digital X-ray
Paksong, Khamkeut, Phaoudom Community Hospitals	Surgical kit
Mahosot Hospitals	Major Surgical kit
Sepon, Paksong, Champasack Community Hospitals	Major Surgical kit
Champasack, Nambak Community Hospitals	Surgical kit for hysterectomy
Khamkeut, Paksong, Khongsedone, Sepone Community Hospitals	Surgical kit for hysterectomy
Kenethao Community Hospitals	Orthopaedic surgery kit
Xiengkhouang, Samtai, Kenethao, Phaoudom, Khong, Paksong, Khamkeut, Viengthong Community Hospitals	Vital signs monitoring machine
Sing, Samtai, Kenethao, Phaoudom, Nalae, Hongsa, Champasack, Khongsedone, Sepone, Viengthong Community Hospitals	Surgical kit for Hemorrhoid
Luangprabang, Champasack, Savannakhet Province Hospitals	Electrocardiogram Exercise Stress test
Luangprabang, Champasack, Savannakhet Province Hospitals	Holter EKG 24 h

Name	List
Viengthong, Khongsedone Community Hospitals	Surgical table
Kenethao Community Hospitals	Incubator
Nalae Community Hospitals	Oven
Nambark, Viengthong Community Hospitals	Autoclave 70l
Oudomxay Province Hospitals	Delivery table
Bortene, Xanexay Community Hospitals	Ultrasound
Sepone Community Hospital	X-ray film processor
Oudomxay Province Hospital	Syringe Pump
Sayaboury, Luang Prabang Province Hospital	Monitoring

### 3.1.2 Health service strengthening project for medical facilities

Technical capacity in pediatric, obstetrics and gynecology, internal medicine, outpatients, surgery, anesthesia, medical instruments, radiology, ultrasound and laboratory of medical staff and technical nurses from 5 provincial hospitals, 54 community hospitals, was strengthened (in total 135 people).

#### ❖ Mother and child work:

The National Strategy and Action Plan for the Integrated Reproductive, Maternal, Newborn and Child Health Services 2016-2025 was implemented by appointing a committee responsible for reducing maternal and child mortality; the development of training courses for trainers, trained medical doctors was completed; Pocketbook on Early Essential Newborn Care (EENC) was printed; emergency obstetric care and improved handbook of antenatal care and postnatal care developed.

EENC supervision visits conducted in 12 provinces and 12 districts; the 2017 EENC annual review meeting and annual review meeting on the implementation of safe delivery and Emergency Obstetric Care (Emoc) and 2018 Plan was conducted and a technical meeting on assisting emergency obstetrics cases throughout the country organised. Meeting to agree on funding support for the 2018 annual plan on Emoc was organized and monitoring visit on Emoc in Xieng Khouang Province conducted. Training of Early Essential Newborn Care trainers undertaken in Luang Namtha, Bokeo, Oudomxay, Attapeu, Sekong, Luang Prabang, Xayabouly, Khammouane and Savannakhet Provinces.

## 3.2 Sub-programs for the development of services (curative care) on thematic subject

### 3.3.1 Project to develop and strengthen the referral system for health services (treatment) at each level

Development of the guideline on the referral system for health services was completed and the dissemination of the decision of the Minister of Health on the management of emergency medical services in Vientiane Capital was undertaken.

### 3.3.2 Health services (curative care) strengthening project: traditional medicine, internal medicine, pediatrics, obstetrics and gynecology, outpatient, orthopedics, emergency, resuscitation, rehabilitation, dermatology, dentistry, nursing, medical techniques.

#### Health services data during the period 2016 to 2020:

- 1) **Mahosot Hospital.** The hospital comprised of 450 beds, 518,138 outpatient visits, 138,447 emergency check-ups, 70,131 inpatients, 14,757 major surgeries, 2,790 medium surgeries, 5,131 minor surgeries, 302 heart surgeries, 8,787 deliveries, 590,583 blood tests, 8,141 radiography, an average of 4 days of

admission in the hospital;

- 2) **Friendship Hospital.** 300 beds, 616,372 outpatient visits, 247,663 emergency patients, 579,844 inpatient visits, total surgeries 34,772, 6,965 deliveries, 550,259 Lab tests, 261,228 radiography tests, an average of 5 days admission in the hospital, and 1,687 deaths. Training on “Assessment of Unconscious Patients” for rescue volunteers of 08 foundations in the capital city was organized;
- 3) **Setthathirat Hospital.** 250 beds, 167,228 outpatient visits, 59,051 emergency patients, 33,732 inpatients, 2,795 major surgeries, 1,326 medium surgeries, 1,653 minor surgeries, (5,774 total surgeries);
- 4) **Mother and Child hospital.** 150 beds, 14,105 outpatient visits, 884 emergency patients, 2,165 inpatients, 213 NICU+PICU patients, 572 major surgeries, 44 medium surgeries, 1,496 births, 5,322 laboratory test, 4,408 radiography tests, an average of 4 days admission in the hospital, bed occupancy rate of 69.85%, and mortality rate of 0%;
- 5) **Children's Hospital.** 70 beds, 149,028 outpatient visits, 89,675 emergency patients, 20,244 inpatients, 11,734 allergy check-ups, 13,583 blood diseases, and continued to implement 5 - good 1 - bad satisfaction policy. In particular, there is good reception, with welcomes by a young receptionist, a facilitator for patients who come to receive services in the hospital; and at the same time, satisfaction of the service receiver was assessed. A project on infection prevention (cleanliness) was assessed by creating indicators of cleanliness in 13 divisions; The five-pronged program (clear, convenient, clean, standardized, habit-forming) has been implemented;
- 6) **Centre of Medical Rehabilitation.** 100 beds, 9,857 outpatient visits, 1,422 inpatients, 149 pediatric patients with mental disabilities, 198 below knee prostheses provided, 107 above knee prostheses provided, 176 spinal orthosis treated. Patients at the Orthopedic Clinic examined to draw lessons learned and improve the quality of rehabilitation on a regular basis. Staff upgraded by providing training on medical rehabilitation and prosthetics-orthotics and wheelchair;
- 7) **Eye Care and Treatment Centre.** 16,541 outpatient examinations, 104 emergency examinations, 2,401 inpatients. Free cataract surgery for poor people throughout the country in 2016, (5,718 cases). In 2017, 6,359 cases were operated on and in the first 6 months of 2018, 3,052 cases were operated on;
- 8) **Dermatological Centre.** 30 beds, 1,281 outpatient visits, 21 inpatients, 7 patients left the hospital. 9 medium surgeries, 83 minor surgeries, 22 laser treatments, 25 UVB, 33 skin health examinations. The average hospital admission was 7.6 days. The proportion of new patients with leprosy: 0.04/10,000; proportion of new disability patients with stage 2 leprosy 33%;, patients with multiple sclerosis 34%;, female patients with multiple sclerosis 66%. New patients with leprosy were covered by 100% Multi Drug Therapy. Disability prevention undertaken in Village Collectives, where leprosy patients are organized into self-care groups: Houay Chot Village (Bokeo), Pak Luem Village Luang Prabang, KM 30 Village (Champasack), Sop Pong Village (Huaphan), Sivilai Village (Khammouane), and Somsanouk Village (Vientiane).

### 3.3 Sub-program for the prevention and control of non-communicable diseases

#### 3.3.1 Multi-stakeholder national implementation project for the prevention and control of non-communicable diseases

the Meeting for the dissemination of policies, strategies and draft national action plans on national multi-sectoral participation completed and the multi-stakeholder structure of the National Commission for the implementation of multi-stakeholder cooperation in the prevention and control of non-communicable diseases in Lao PDR proposed.

### **3.3.2 Injury and accident surveillance project, including mental health and addiction**

Training conducted for hospital staff in 6 provinces to strengthen mental health services (Vientiane, Oudomxay, Bokeo, Houaphanh, Luang Namtha and Phongsaly with 127 participants).

### **3.3.3 Project on the use of WHO/PEN in the prevention and control of non-communicable diseases**

Project monitored, supported and evaluated the implementation of the project using the necessary kits in the implementation of the work/control of non-communicable diseases (LAO/PEN) at provincial hospitals, community hospitals and health center in Vientiane, Champasack, Xayaboury and Luang Prabang. Strengthened the registration of cancer patients and provided training to provincial hospitals throughout the country, “103” hospital and “5 April” hospital with a total number of 81 participants. Provided technical training for the team in charge of mental health services of 10 provincial hospitals (Oudomxay, Bokeo, Houaphanh, Xieng Khouang, Vientiane, Oudomxay, Bokeo, Luang Namtha, Phongsaly and Houaphanh). Organized technical meetings on the implementation of policies, strategies and action plans for the prevention and control of Non-Communicable Diseases (NCD).

## **3.4 Sub-program to develop the quality and standards of health services (Curative care)**

### **3.4.1 Project on the accreditation of quality and standards of health services (Curative care) of public and private health facilities**

The project completed the formulation of 5 - good 1 - poor satisfaction policy with indicators and disseminated it to provinces throughout the country. In addition, guidelines have been developed to standardize the quality of services at all levels of health facilities, such as: infection prevention and control guidelines for intermediate and primary care facilities, and practical manuals for the disinfection, sterilization of medical equipment; manuals for the nursing job description; manuals for basic nursing training; professional nurse competencies; nursing practice standards and recommendations on the scope of nursing practice and scope of midwifery practice; Lao ICD10 system used to implement disease recording according to the ICD 10 system and compiled 90% translation of ICD 10 disease codes; improved the tool for the implementation of RUD into RUTD (RUTD = Rational Use of Technology and Drug).

The project completed a workshop to disseminate knowledge on the management of cases of acute respiratory infections and the management of cases of malaria to the private sector clinics that provide general medical services together with a team of trainers from the Central Hospital in Champasack province.

The project conducted training on infection prevention and control for staff of 5 central hospitals, 5 treatment centers and 88 district hospitals from 10 provinces and Vientiane Capital implemented a project on respiratory treatment by oxygen therapy and provided oxygen generators to 120 community hospitals throughout the country.

### **3.4.2 Project on the management of health professionals and ethics**

The Decision of the Minister of Health on the Health Professional Council (No. 0131/PH, dated 19 January 2017), defining the location, roles, rights and responsibilities, organizational structure and working plan of the

Health Professional Council completed; legislation on the work of the Health Professional Council gathered information on services, teaching-learning and practical training disseminated. Currently, the formulation of 540 MCQs test items, 540 items for Dentistry and 540 items for Midwifery MCQs has been completed; the draft of Ethics Handbook for medical doctors, Dentist Ethics and Nursing/Midwifery Ethics, and scope and standards of doctors' practice completed.

### **3.4.3 Development of tools for the management of health services (Curative care)**

Working system in the hospital, and improved service fee improved; Ministerial Agreement on the Management of Emergency Medical Services in Vientiane Capital completed; and the drafting of legislation on the issuance of health professional licensing and the registration of some health professionals completed, namely:

- Ethics for medical doctors, dentists, nurses/midwives drafted;
- Scope and standard of practice for medical doctors, dentists, and nurses/midwives drafted;
- Instructions on the implementation of the Decree on private hospitals completed;
- Agreement on the management and operation of private clinics completed;
- Revision of the agreement on the organization and operation of the Department of Healthcare and Rehabilitation completed;
- Agreement on the division of tasks for the Vice-Chairs of the Health Professional Council completed;
- Agreement on the issuance of Health professional licenses and registration for health professionals in Lao PDR completed;
- Ministerial instruction on the management of investment in the establishment of private hospitals in accordance with the Prime Minister's Decree No. 15/GO completed;
- Draft guidelines on the allowance for public health workers who work directly in the public health facilities completed;
- Draft of the ministerial agreement on the organization and operation of traditional medicine hospitals completed;
- Completion of the draft agreement of the Minister of Health on cooperation with the private sector in the development of healthcare services in public hospitals.

## **4. Program 4: Consumer protection for food, drugs and medical products**

### **4.1 Sub-program on management of drugs and medical products**

#### **4.1.1 Quality, drug safety and medical products promotion project**

Development of a strategic plan for better pharmaceutical management in the hospital through the National Pharmaceutical Management Conference across the country in 2017 completed (which is pertinent to the use of reasonable drugs, the health insurance system for all and the implementation of the new policy of the Ministry of Health in accordance with the slogan of 5 Good 1Satisfaction).

Developing and improving the legislation under the law completed such as: regulation on pharmaceutical retail stores; regulation on disposal drugs and medical products; regulation on establishment of drug and medical products import and export companies (revised version) and guidelines and disseminated those regulations and guideline to entrepreneurs and regulatory authority across the country. Developing and revised guidelines such as essential drug list 7th version, Pharmacovigilance guideline and organized dissemination and training workshop across the country completed. System for reporting Adverse Drug Reaction (ADR) and monitoring and supervision for ADR and Advert Event Following Immunization (AEFI) reporting system throughout the country established. The program managed, monitored, inspected and supported the business units of manufacturing,

import and retail of drugs in comparing with other related programs to promote implementation of good practices such as GPP, GWP, GMP, and regulations.

Domestic pharmaceutical manufacturing factories to meet the standards of Good Manufacturing Practice (GMP) up to 5 out of 8 pharmaceutical factories improved. There is 1 medical equipment manufacturing factory, 89 pharmaceutical export-import companies including an increase of 30 companies from 2016. There are 3,134 pharmacies, including an increase of 703 pharmacies from 2016, and a total of 1,865 medicines have been registered, an increase of 210 items.

The program disseminated information annually through media platforms such as spots on news, television, radio about rational use of medicines (RUM) and Antimicrobial Resistance (AMR) throughout the year. Information on legislative information, warnings, news disseminated annually, and Food and Drug Department (FDD) work posted on website 200 times in total. Followers who have so far visited the website number of 272,000.

Figure 24: Number of village drug kits in Laos

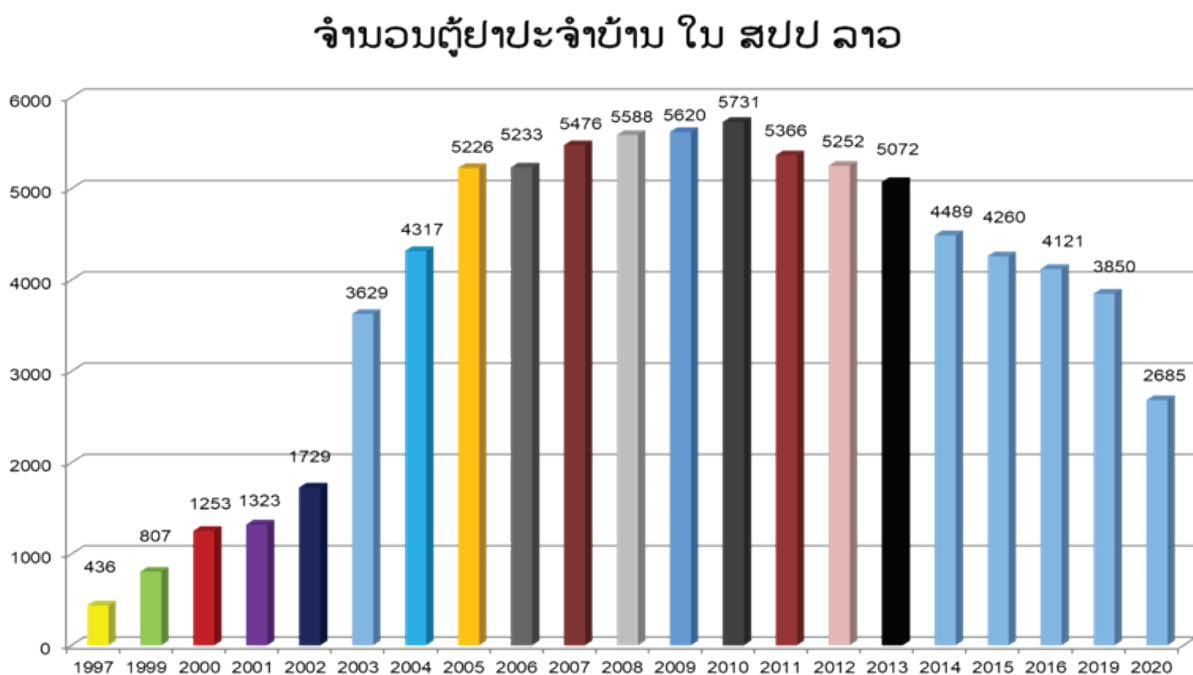


Figure 25: Average use of basic essential medicines at provincial hospitals

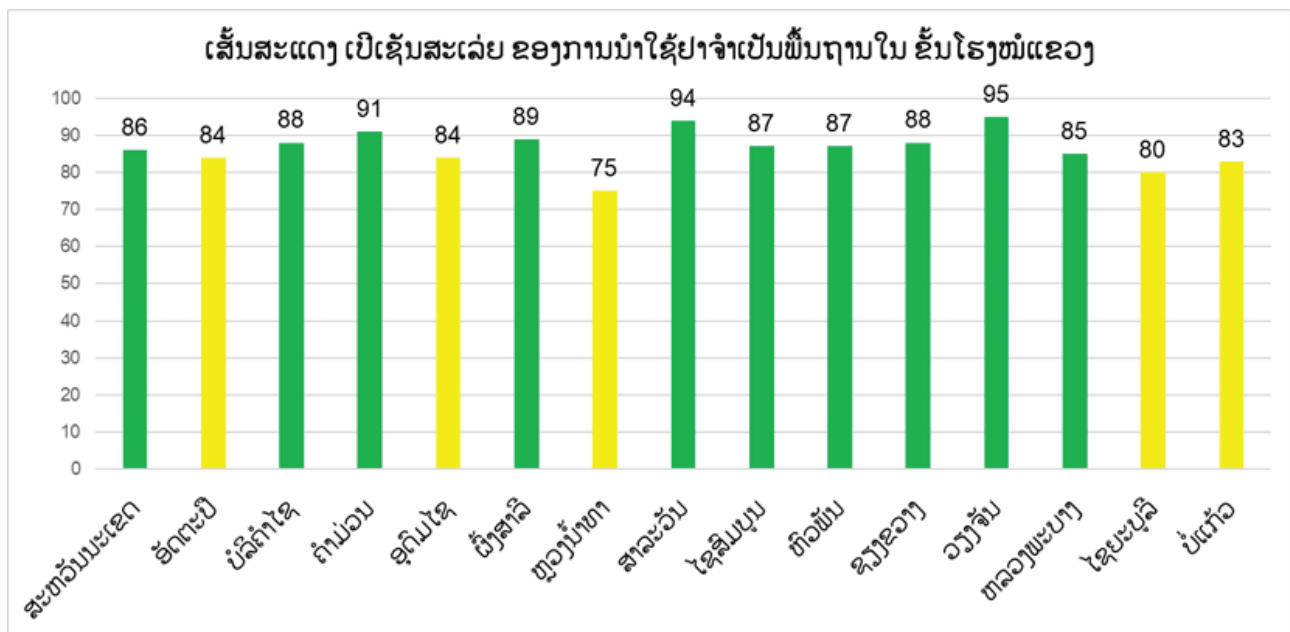




Figure 26: Average use of basic essential medicines at Health centers

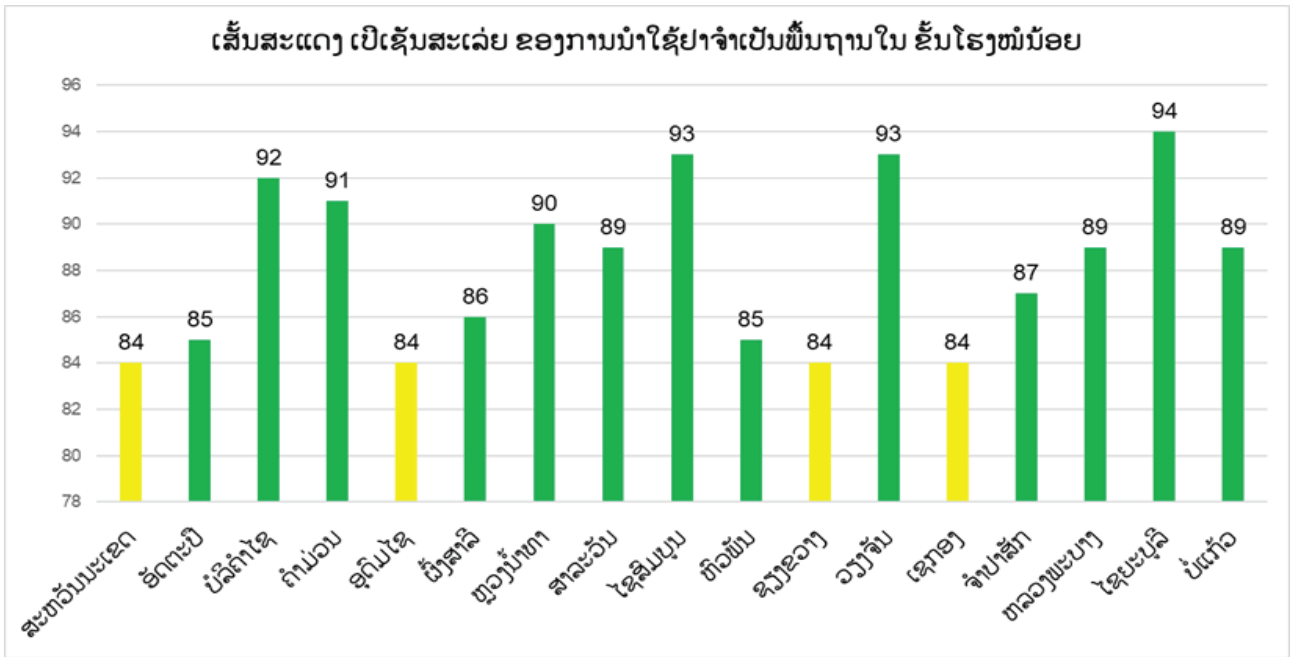


Figure 27: Pharmacies statistics

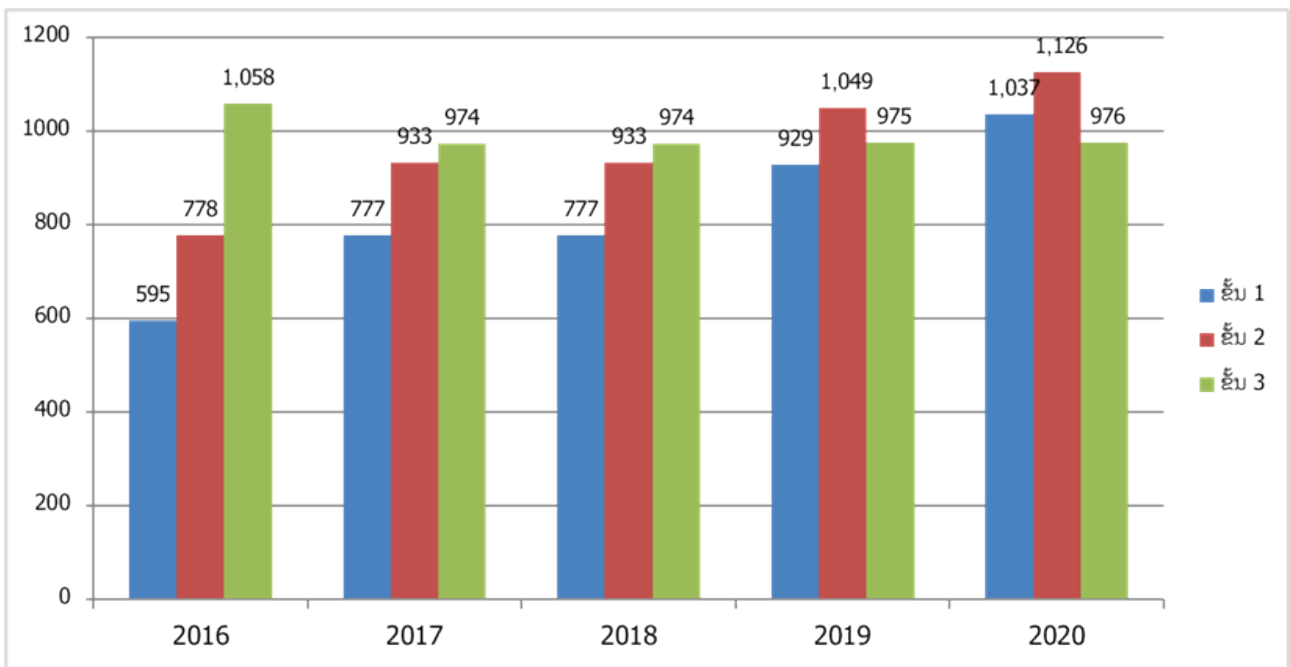
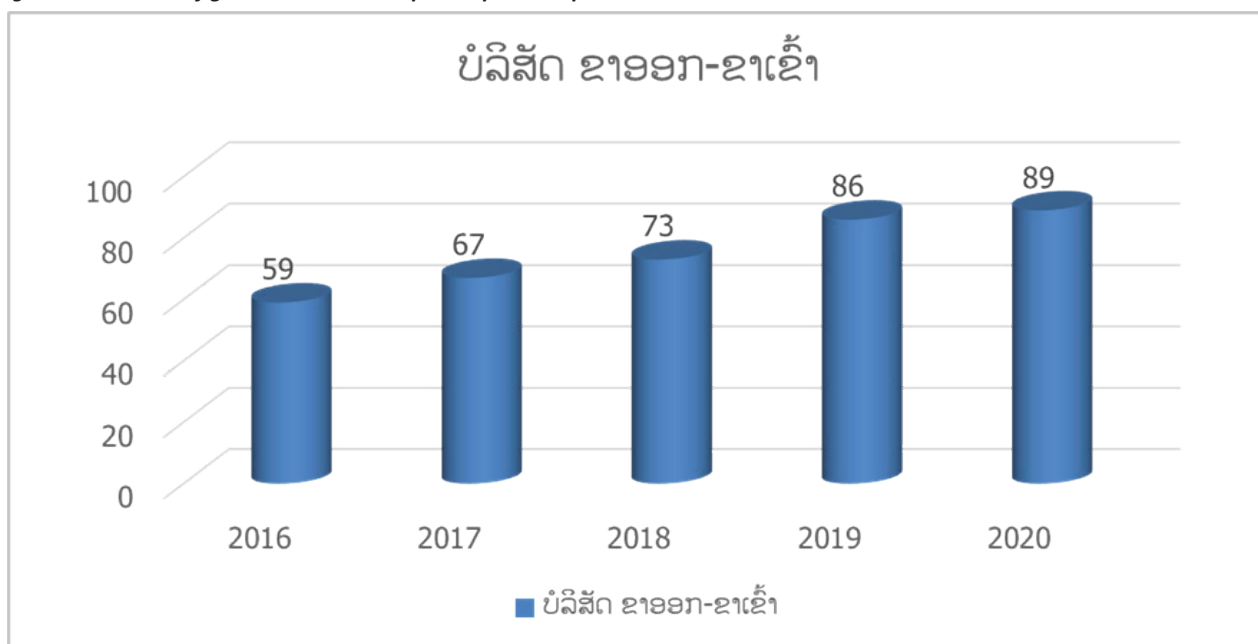


Table 25: Number of business unit of traditional medicine (2016-2020)

No	Type	2016	2017	2018	2019	2020	Total
1	Traditional medicine	1	3		3		7
2	Laboratory	6	6		4	1	17
3	Factory	2	1	1		1	5
4	Company	1			1		2

Figure 28: Number of general medicine import-export companies



#### 4.1.2 Project for document management system development and approval process by IT

Development of infrastructure, websites, and electronic databases on food and drug and medical products safety completed. These are critical tools to assist in the management, monitoring and facilitation of trade, such as completion of a database for registration of medicines and food, notification record for cosmetics and system for incoming and outgoing documents.

### 4.2 Sub-program for the management and promotion, research on, and the use of medical natural resources, traditional medicines, and health supplements in the health system

#### 4.2.1 Project for management and promotion of the use of essential natural resources and traditional medicines

The management of traditional medicines and medicinal natural resources has been continuously developed, for instance: the curriculum for traditional medicine teaching has been approved and started to be operational in the academic year 2016-2017; in cooperation with neighboring countries, the work on of traditional medicine development has been well promoted and progressed including, conducting the study and research and exploration of medicinal resources of the Lao PDR in cooperation between FDD and the Family Planning and Public Health Commission Panel, Guangxi Zhuang Autonomous Region, China.

Publication of the Lao Herbal Pharmacopoeia, Volume I completed, and 2,000 copies published.

#### 4.2.2 Project on scientific research and traditional medicine promotion

The project conducted a survey of medicinal plants in the northern, central, and southern regions, surveying 1,800 species and collecting 6,000 specimens in collaboration with the Department of Botanical and Medicinal Plants in Guangxi Zhuang Autonomous Region, China.

Biodiversity and medicinal natural conservation parks throughout the country were identified and established, in total 24 parks covering an area of 4,697 hectares.

## 4.3 Food management sub-program

### 4.3.1 Project on food safety management and promotion

Development of legislation, such as the regulation on the Import-Export and Transit Food Products (No. 1166 / MOH, dated 21 June 2018) completed, as well as the regulation on the appointment of the National Committee for the management of Food and Drugs (No. 51 / PM, dated 3 August 2018). Draft regulation on the organization structure and functions of the National Committee for the management of Food and Drugs completed.

The project supervised and supported pharmaceutical factories and accredited 10 certifying food, drinking-water, and beverage manufacturing factories with GMP certification and provided vehicles for food safety inspection such as a van for mobile analysis testing, van for inspection work, and 6 pick-up trucks to target provinces.

The project followed up to support food safety, registration of food products, drinking water regularly. In addition, training was provided to food and drug inspectors and entrepreneurs for food, drinking-water, and ice factories in the target provinces.

## 4.4 Sub-program on food and drug analysis

### 4.4.1 Food and drug quality control strengthening project

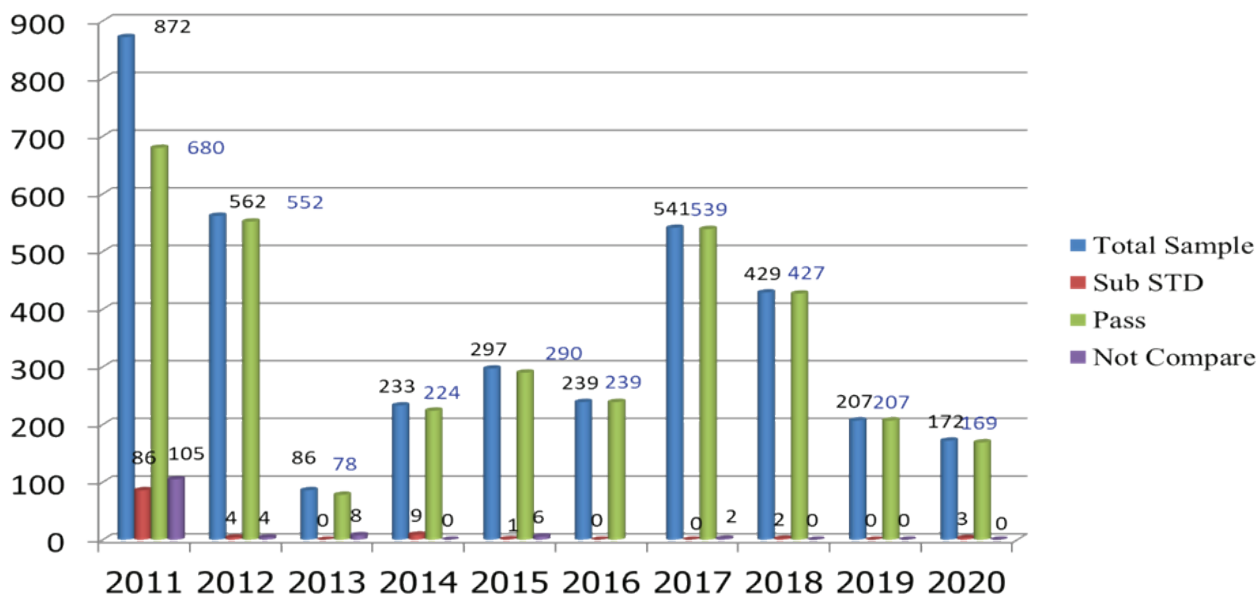
Construction of food quality analysis building completed. The sub program developed and strengthened food and drug quality control work. The Food and Drug Control Center was certified for a good management system (QMS) of quality control work in accordance with international standards (ISO / IEC17025) in 2017. In addition, the internal audit system of the food and drug control center was continued and expanded the scope of the ISO/IEC17025 system to be completed corresponding to the international standard.

Analytical work by testing various products samples such as medicines, cosmetics, food, salt, drinking-water, beverage, general water, addictive substances, urine from the past 5 years (2016-2020) was carried out with 1,712 samples taken for analysis.

Table 26: Carried out analysis to monitor the medicine quality (2011-2020)

Year	Registration Drug	Quality Drug	Traditional Drug	Global Fund project	USP project	Cosmetic samples	Medical Devices	Cleaning Chemicals	Total
2011	44	3		825	-	4			872
2012	115	16		431	-	1			562
2013	54	26		6	-	89			86
2014	72	41		82	38	161			233
2015	98	29		106	64	5			297
2016	88	58		93 (antimalarial * = 37)	-	92			239
2017	160	81		223	-	-			466
2018	120	134		129	-	-			383
2019	111	77	7	12	0	89			207
2020	43	107	10	12	0	122	21	102	417

Figure 29: **Medicine product test results (2011-2020)**



## 4.5 Sub-program on drug and medical equipment and technology

### 4.5.1 Drug and medical equipment supply development project

The drug supply system has been improved, including joint procurement at the central level incorporating 5 central hospitals (Mahosot, Setthathirat, Friendship, Pediatric, Mothers and New Born) and 4 healthcare centers (Ophthalmology, Dermatology, Medical Rehabilitation, and Maternal and Child Health Center), and at the provincial level incorporating 6 southern provinces (Khammoun, Savannakhet, Champasack, Saravan, Sekong and Attapeu provinces) and incorporating 9 northern provinces (Phongsaly, Huaphan, Xiengkhuang, Luangprabang, Xayabouly, Oudomxay, Luangnamtha, Bokeo, and Xaysomboun).

The drug inventory management system was strengthened by expanding m-Supply. By 2019, 176 warehouses were completed (6 central warehouses, 17 provincial hospital warehouses, 17 provincial food and drug division’s warehouses, 136 warehouses at districts).

Training on topics such as bio-medical equipment for technicians nationwide (40 people), safety in the use of medical equipment in Xiengkhuang (34 people), oxygen generator maintenance technicians (16 people) provided and 6 technicians trained abroad (in Korea and China)

## 4.6 Sub-program for the management of addicted substances, precursors, psychoactive substances, and cosmetics

### 4.6.1 Project on strengthening the administration of addicted substances, precursors for medical use, psychoactive substances and cosmetics

Amendment of the draft agreement on the management of cosmetics and endorsed the additional direction of the Minister of Health in terms of improving administration, supply, storage and use of addictive drugs (No. 1166 / MOH, dated 5 October 2018) completed.

The project inspected cosmetic products in 385 stores in 08 provinces in total and carried out measures against entrepreneurs that distribute and sell products at high risk affecting the health of consumers by seizing and confiscating 319 items of products such as expired cosmetics, 750 items of prohibited chemical cosmetics, and 302 items of unlabeled cosmetics.

## 4.7 Sub-program on food and drug inspection

### 4.7.1 Food inspection project

Food and drug safety management has been gradually improved, especially the development and revision of legislations under the law, and cooperation mechanisms with the relevant sectors at both central and local levels. The ASEAN Conference on International Food Code, ASEAN Cosmetics to integrate regionally and internationally was hosted. With the contribution of the food, drug, and cosmetics segments, the implementation of governmental key policies have achieved better cooperation.

Food and drug import-export inspection at international checkpoints have been gradually improved. Presently, there are food and drug inspectors on duty at 26 international borders. They have monitored and supported food and drug inspections at border-checkpoints across the country once a year and provide advice and training for food and drug inspectors at border-checkpoints.

Performing measures in compliance with regulations, food products contaminated with chemical, bacteria that are at risks for the health of consumers have been disposed of continually such as: expired food, deteriorating quality of 243 items, chemically contaminated foods prohibited in the total amount of 894 kilograms, squid contaminated NaOH with a total amount of 2.830 kilograms, animal offal contaminated NaOH, formalin with the total amount of 2.830 kilograms, destroying little-pigs illegally imported in the total amount of 136 kilograms, and seizure and destruction of food supplements - 3 items.

*Table 27: Number of monitoring results and number of unregistered food business units (Vientiane Capital and other provinces)*

No	Places	Year										Total amount	
		2016		2017		2018		2019		2020		places	Not registered
		Total	not registered	Total	not registered	Total	not registered	Total	not registered	Total	not registered		
1	Drinking water factory	41	26	440	275	169	25	189	39	75	37	914	402
2	Ice factory	21	21	49	49	31	31	113	104	27	27	241	232
3	Food factory	04	04	50	50	59	59	85	85	44	44	242	242
4	Food Import-Export Co	02	02	04	04	06	06	02	02	01	01	15	15
	<b>Total</b>	<b>68</b>	<b>53</b>	<b>543</b>	<b>378</b>	<b>265</b>	<b>121</b>	<b>389</b>	<b>230</b>	<b>147</b>	<b>109</b>	<b>1,412</b>	<b>891</b>
		2016		2017		2018		2019		2020		Total	
		place	time	place	time	place	time	place	time	place	time	place	time
5	Restaurant in hotel	27	45	32	32	2	3	1	1	-	-	62	81
6	Restaurants	36	40	18	18	-	-	2	2	-	-	56	60
7	Restaurant in school	29	47	16	16	18	18	37	37	16	16	116	134
8	Mini-market- - Retail	46	48	16	16	98	98	144	144	38	38	342	344
9	Markets	35	49	12	12	16	16	37	37	10	10	110	116
	<b>Total</b>	<b>173</b>	<b>229</b>	<b>94</b>	<b>94</b>	<b>134</b>	<b>135</b>	<b>221</b>	<b>221</b>	<b>64</b>	<b>64</b>	<b>686</b>	<b>735</b>

Table 28: Test results for foods containing banned substances using a test kit

No	Items	Sample	2017		2018		2019		2020	
			Total	Fail the test	Total	Fail the test	Total	Fail the test	Total	Fail the test
1	Borax	Meat ball, mincemeat, sausage, noodle, rice noddle,	79	03	67	01	251	09	82	05
2	Formalin	Sea food, animal intestine, dumpling, sea crab, heart, buffalo skin, live	44	02	68	07	96	03	45	03
3	NaOH	Frozen squid, dried squid, mushroom, animal intestine	-	-	11	04	15	07	04	03
4	ສານຟອກຂາວ	Bean sprout, fermented bamboo shot	04	-	42	-	05	-	03	-
5	Polar	Used fried oil	06	06	15	14	24	06	-	-
6	Temperature	Freezer (bellow 5 degree) and (bellow -18 degree)	-	-	14	06	134	31	71	11
7	pH	Drinking water, ice, liquid for soak animal intestine	215	34	319	196	504	236	101	27
8	Coliform	Drinking water, ice	378	152	295	173	283	117	125	41
9	ATP	Drinking water, ice	-	-	11	02	111	31	42	01
10	ATP	Hand hygiene of person touching the food	-	-	30	30	27	02	03	02
Grand total			726	197	872	433	1,450	442	476	93

#### 4.7.2 Project on drug inspection

The project monitored and inspected the quality of pharmaceutical and medical products after they are authorized in the market, and performed in compliance with measures against violators such as seizure of prohibited drugs, expired drugs, pseudo-drugs, counterfeit drugs in the total amount of 136 items and seizures of unregistered drugs with a total amount of 1,666 items; drugs in public and private areas such as pharmaceutical manufacturing factories, pharmaceutical companies, provincial hospital pharmacy division, pharmacy unit of district hospitals, therapy clinics, and 1,755 pharmacy stores inspected.

The project destroyed expired and deteriorated pharmaceutical products, cosmetics and food supplements expired and of degraded quality. The project provided training for food and drug inspectors on the inspection for Good Manufacturing Practices (GMP), Good Wholesales Practices (GWP) and Good Retailing Practices across the country.

Table 29: Information on the inspection of drugs and medical products from 2016-2020

No	Description	Unit	2016	2017	2018	2019	2020	Total
1	Factory	Place	8	8	8	8	9	41
2	Company	Place	26	44	54	38	64	226
3	Central Hospital	Place	8	8	8	8	8	40
4	Provincial hospital	Place	17	12	11	14	14	66
5	District Hospital	Place	17	12	11	14	12	66

6	Private Hospital/ clinic	Place	85	120	111	105	70	<b>491</b>
7	Pharmacy	Place	120	120	206	182	197	<b>825</b>
	<b>Total</b>	<b>Place</b>	<b>281</b>	<b>324</b>	<b>409</b>	<b>369</b>	<b>372</b>	<b>1,755</b>

Table 30: *Implementing measures against violators of drug regulations*

No.	Description	List of items and amount of drugs each year (LAK)						Total
		Items	2017	Items	2018	Items	2019	
1	Expired drugs, prohibited	02	1,276,000	73	3,170,500	53	4,480,000	8,926,500
2	Counterfeit drug	07	23,371,800	01	200,000	0	0	23,571,800
3	Non registered drug	0	0	1,750	621,841,000	916	80,799,200	702,640,200
	<b>Total</b>	<b>09</b>	<b>24,647,800</b>	<b>1,824</b>	<b>625,211,500</b>	<b>969</b>	<b>85,279,200</b>	<b>735,138,500</b>
No.	Description	List of items and amount of drugs each year (LAK)						Total
		Items	2017	Items	2018	Items	2019	
1	Expired drugs, prohibited	02	1,276,000	73	3,170,500	53	4,480,000	8,926,500
2	Counterfeit drug	07	23,371,800	01	200,000	0	0	23,571,800
3	Non registered drug	0	0	1,750	621,841,000	916	80,799,200	702,640,200
	<b>Total</b>	<b>09</b>	<b>24,647,800</b>	<b>1,824</b>	<b>625,211,500</b>	<b>969</b>	<b>85,279,200</b>	<b>735,138,500</b>

Table 31: *Number of unregistered drugs in the public and private sectors*

No.	Description	Percentage of unregistered drug public and private sector					Total
		2016	2017	2018	2109	2020	
1	Unregistered drug for public sector	24.13	23.90	17.56	18.33	-	
2	Unregistered drug for private sector	14.61	12.80	20.84	10.54	-	
	<b>Average</b>	<b>19.37</b>	<b>18.35</b>	<b>19.24</b>	<b>14.43</b>	<b>-</b>	

#### ❖ Checkpoints:

With the approval of the Department of Food and Drug and the guidance from the Ministry of Health, the Food and Drug Inspection Team at the border in Vientiane is responsible for food and drug inspection officially, which includes staff from the Food and Drug inspection team and collaborates with the Food and Drug Division, Vientiane Health Department for 10 people to be based at Wattay International Airport, Lao-Thai Friendship Bridge no.1, and Thanalaeng and Thadeua Vientiane-Nongkhai checkpoints, summarized in the periods below.

Table 32: *Import information on medical products, chemical and cosmetic products at import ports/checkpoints.*

No.	Description	Unit	2016	2017	2018	2019	2020	Total
1	Wattay International airport							
	No. of shipment	Per time	255	531	688	1,098	372	2,944
	Description	Description	2,124	2,518	3,462	6,018	3,606	17,728
	Weight	Ton	2,427,736.50	4,325,215.29	32,896,273.58	7,255,406.11	237,481.23	46,928,112.71
	Amount	USD	5,704,561.68	79,457,347.89	16,336,433.26	28,469,754.47	536,103,804.7	666,071,602

2	Friendship bridge no. 1							
	No. of shipment	Per time	550	-	982	778	1,294	3,554
	Description	Description	3,185	4,368	4,129	2,637	525	14,844
	Weight	Ton	1,420,326.00	1,057,889.05	884,158	1, 409, 588	-	3,902,647.06
	Amount	USD	571,128.47	277,255.05	324,985	492,233	334,352.89	1,999,954,41
3	Thanaleing port							
	No. of shipment	Per time	456	902	1,318	2,114	1,684	6,474
	Description	Description	5,223	6,806	10,178	20,499	3,606	46,309
	Weight	Ton	34,201,292.70	268,091,941.27	253, 422, 582.57	861,29, 904.59	237,481,23	642,083,202.36
	Amount	USD	64,928,840.44	108,572,098.23	78,403, 164.12	467,328,471.48	36,043,040.33	755,275,614.6
4	Thadeaur point							
	No. of shipment	Per time	-	-	-	440	105	545
	Description	Description	-	-	2,635	2,010	525	5,170
	Weight	Ton	-	-	84,669	25,819	-	110,488
	Amount	USD	-	-	126,751	65,716	17,696.59	210,163.59

## 5. Program 5: Health personnel management, development and health sciences research

### 5.1 Sub-program to enhance knowledge and competence of health manager staff

#### 5.1.1 Project on strengthening of “the build-up of the Party civil servants”

The Ministry’s Party Committee Unit provided advisory guidance to each level in improving the structure of the Party, state and mass organization consistent with their political mandate, and emphasised the leadership role of the Party, promoting transparency, and the strong and solid foundation of the Party. In the past 5 years, the sector Party has promoted democracy, adhered to strong discipline, improved and uplifted the quality of the political process, and had regular monthly feedback meetings. priorities in the strengthening of the Party unit in knowing how to take leadership role in all aspects, and inspecting and evaluating the leadership quality of Party units and members were covered. The inspection outcomes confirmed that 68% of the Party units is strong and know how to take a lead in all aspects, and 67.1% of members is rated strong in all areas. Attention was also placed on expansion of the Party by emphasising quality as a primary element, strictly adhering to the principles and process of the Party expansion approach. To date there are 1,072 ministerial level Party committee members (483 female members), 859 permanent members, 213 substitutes; compared to 2011, members have increased by 269. Currently, the Ministry of Health has 17 party members (VIII Party Member), 3 female members, and 5 standing committee members with one female member. Compared to the VII Party Member, there is an increase of 2 members; there are 4 grass-root party members, 53 Party units, and if compared to 2011, an increase of 11 party units. Amongst these, there are 24 grass-root Party committees with training(s) on development of party-personnel to 50 grass-root Party committees and Party units.

In-depth sessions to understand the critical important documents of the country with total 3,216 participants (1,398 female participants) were completed. In-depth sessions to understand the important documents that will support the political process with total 1,221 participants (509 female participants) were completed. Certificates were issued to 34 strong party units – knowing how to take a lead in all aspects; 227 advanced



officials studied political theory, 168 advanced officials studied party rules (70 female staff); 208 substitutes promoted to become permanent Party members (102 female members); 38 Party members moved to the health sector (04 female members), and 22 Party members moved to other sectors (3 female members), and 2 Party members who moved within the Ministry. In addition, 3 leaders upgraded in security and national defense work (2 females); 6 staff upgraded their political theory in PR China for 4 months; 5 officials took administrative and political training at the Party's Tha Ngou Administration School; 260 staff completed the 45-day political theory course (37 females).

Permanent Party member cards were issued to 334 staff, covering 93.6% of all permanent Party members. The national defense committee for the Ministry and the Party units was established to monitor and address social issues in the most appropriate and timely manner.

### **5.1.2 Project on the strengthening of the organizational arrangement of the health sector**

The project implemented Order No. 08/PCCP, Instruction Order No. 198/PCCOB and the Notice of the Party Central Committee Organization Board No. 140/PCCOB on revised personnel plan for management and leaders' roles. Planning and evaluation of revised personnel plan for management and leader roles at the ministerial level was completed, and collaboration with departments and provincial health sectors to develop their revised personnel plan for management and leader roles in 14 provinces continues. This will be a reference for reshuffling organizations and deployment of staff, and staff improvement consistent with the define roles and positions. The actual implementation showed that the officials appointed at management level in line with the defined plan achieved 75.1%, inconsistency with the plan was 5.5%, and no defined plan was 19.4%.

The project improved the Decree on organization and functioning of Ministry of Health No. 178/PM, replaced by the Decree 96/PM, consisting of 9 departments and 1 cabinet, 13 technical centers, 2 institutes, 5 central hospitals, 11 health education institutes (University of Health Sciences, Lao Tropical and Public Health Institute (Lao TPHI), College of Health Sciences (Luang Prabang, Savannakhet and Champasack), Public Health Schools (Oudomxay, Xiengkhouang and Khammouan), the Nurse Technical School in Vientiane Province, Health Development and Training Centers (Saravan and Attapeu) with their mandate to develop, upgrade and train health workers, including health sciences research, and focus on developing and upgrading health workers. There is also one kindergarten school that provides childcare for health staff from MoH. There are 18 provincial health departments, 148 district health offices and more than one thousand health centers that operate under the supervision of the Ministry of Health. In the past 5 years, roles and responsibilities of 28 departments and organizations under Ministry of Health have been revised including: Department of Hygiene and Health Promotion, Department of Health Personnel, Department of Inspection, Department of Finance, Department of Planning and International Cooperation, Department of Communicable Disease Control, Department of Health Professional Education, Department of Health Care and Rehabilitation, Department of Food and Drug, Department of Health at the provincial levels and Vientiane Capital, rehabilitation center, Cardio-vascular center (Mahosot hospital), nutrition center, HIV/AIDS and Sexually Transmitted Infections (STI) Centre, kindergarten school, Public Health Institute and National Health Insurance Bureau, food and drug inspection unit, Tuberculosis Centre, Dermatology Centre, Ophthalmology Centre, Centre Infectiology Christophe Mérieux of Laos (CICML), Champasack College of Health Sciences, Luang Prabang College of Health Sciences, Savannakhet College of Health Sciences, district hospitals, village health workers, health workers based in each national checkpoint and 5 central hospitals.

549 management positions were appointed in various areas, with 402 positions for central level, and 147 positions for local level. There are 6,115 civil servants holding administrative management positions in 1-8 rank (30.7%), amongst these 2,998 are females ( 49% of the administrative management positions).

The differentiation of roles and responsibilities between district health offices and district hospitals was finalized, with clearly defined scope of rights and responsibilities. After redefining roles and responsibilities, it is clear the performance is improving in many ways, particularly in administration management, hygiene and health promotion and health services.

## **5.2 Sub-program on management, development, engagement and good governance of health staff**

### **5.2.1 Project on staff management, development, employment and policy on staff's welfare**

Under guidance from the Ministry of Home Affairs, currently the Ministry of health is developing a health personnel data information system which will help to define the numbers of staff, define salary rank-level, specialization, gender, ethnicity, ages and other information. This will help to improve understanding of increasing-decreasing staff numbers for various reasons; it will be also be used as a basis for a staff projection plan, deployment, and staff re-allocation.

In the past 5 years, the number of civil servants in the Ministry of Health has increased. As priority is given to the mobilization of staff in local areas, it has contributed to the higher number in low-level specialization staff whilst decreasing the non-specialist staff step by step. To date, there are 20,510 civil servants in the health sector (increase from 2015 by 462 staff or equivalent to 2.25%). 13,274 are female staff (increase from 2015 by 650 staff or equivalent to 4.89%). There are 3,751 staff at the central level (increase from 2015 by 105 staff or equivalent to 2.79%). There are 4,421 staff at the provincial level (number remains unchanged). There are 7,474 staff at the district level (increase from 2015 by 146 staff or equivalent to 1.95%). There are 4,375 staff at health centers level (increase from 2015 by 120 staff or equivalent to 2.74%), and 106 staff at the village level (decrease from 2015 by 3 staff or equivalent to 2.83%).

The quota for new civil servants from 2016-2019 was 1,750 positions. Specialization of staff includes: post-doctoral degree 3 staff (1 female), 49 staff with doctoral degree (14 females), 16 staff with post-graduate degree (7 females), 457 staff with master's degree (175 females), 37 staff with specialization level 2 (14 females), 304 staff with specialization level 1 (131 females), 4,213 staff with post-graduate degree (2,340 females), 2,482 staff with higher diploma or equivalent (1,463 females), 9,582 staff with mid-level education (6,923 females), 3,124 staff with low-level education (2,056 females), and 83 staff with non-specialized skill (62 females).

From 2016 onward, the management of Ministry of Health encouraged 2,756 new graduates in all fields of health sector to work at the local level, especially in government focus areas, 3-built strategy districts and health centers in remote areas to address the shortage of human resources in health facilities at each level and sending staff back to their hometown and the nearby areas that experience staff shortage. This will help access to health services for the community in the remote areas and will also improve the quality of health services at grassroots step by step. There is some support on travel costs and allowances while waiting to be recruited as civil servants and also some support policies to facilitate performance of their duties in accordance with each province conditions. After implementation, 65% of staff placement still perform in the same stations.

There was some adjustment of salary rank-level in accordance with education level for 4,189 persons, and 1,738 substitutes were promoted to be permanent civil servants. 2,024 graduates in country and abroad were allocated, 465 staff reallocated within the Ministry, 43 staff moved to other ministries, and 62 staff moved to Ministry of Health. 44 staff pursued higher education, 21 staff received trainings, 40 staff adjusted year-in-service, and 2 staff recruited after their project ended.

## 5.2.2 Project on application of performance incentives for health staff

The project implemented annual salary rank-level adjustment for 11,436 staff, and reviewed staff who reach retirement age for 561 staff. 80 staff applied for resignation due to family matters, 37 staff were removed from their civil servant status; 306 staff received child allowances; 37 staff were removed from the eligible list for child allowance as their children are above 18 years of age; 31 staff received spouse allowances; 341 staff received hardship and teaching allowances; 17 retirees had funeral allowances; spouse deceased allowances were provided for 5 staff. The project reviewed and proposed for appreciation in each level including: appreciation at the government level for 17 staff; appreciation at Ministerial level for 2,740 individuals; appreciation at Ministerial level for 138 departments; appreciation letters issued to 51 foreign specialists; and 60 visits to unwell staff. Documents for converting state land to become individual's property for 59 retirees were endorsed. The policy on selling cars to 5 staff was implemented and long-leave requests for 4 staff who needed to accompany their spouse for re-location abroad was approved. 10 visits to other provinces for retirees was organized; 13 staff for long-term sick leave approved and some budget for 6 retirees (180.000.000 Kip contributed). Retiree annual meetings once a year were organized.

## 5.2.3 Project on strengthening the management of organization and health personnel

Evaluation and planning to define staff in the leading roles for 5 central hospitals and provincial health departments in 8 provinces completed; human resource development strategy for health sector 2030 (road map) improved; human resource development plan for 9 provinces (Bokeo, Luang Namtha, Oudomxay, Phongsaly, Saravan, Sekong, Attapeu, Houaphanh and Xiengkhouang) Developed. Recruitment of 550 new civil servants (1 staff with PhD degree, 15 staff with specialization level 1, 21 staff with Master's Degree, 252 staff with Bachelor's Degree, 197 staff with higher diploma certificate, 60 staff with mid-level education and 4 staff with lower-level education) completed. Health centers with at least one midwife comprised 76%.

## 5.2.4 Project on development skills for public health workers

From 2016-2019, development of specialized staff, staff with master's degree and PhD level only achieved 51.29% of the set targets (2020 target is 1,700 staff). Staff with higher diploma and Bachelor's Degree achieved above target by 154,48% (2020 target is 4,500 staff). However mid-level education reached only 6.01% (2020 target is 13,000 staff). It can be seen that the target for development of public health staff could not be fully met.

## 5.3 Sub-program on the reform of education in health sector

### 5.3.1 Project on upgrading education below university level

Table 33: Development of nurse-midwife divided by level in the past 5 years

No	Field	2016	2017	2018	2019	2020	2016-2020
I	Nurse	780	837	817	903	761	3.831
II	Midwife	309	209	239	253	268	1.196

Beside the above, there is also achievement in the development and dissemination of the higher diploma curriculum for the bridging course of nursing, midwifery, and higher diploma course for medical health. 108 ethnic health students from the poor districts graduated for placement in rural, remote areas.

### 5.3.2 Project on upgrading undergraduate and postgraduate

Upgrading undergraduate and postgraduate: Teaching quality by upgrading skills for teachers in country and abroad improved. The teaching method integrated theory and internship practices in hospitals with an improved textbook on quality of the education system. Agreement to endorse and apply the curriculum on

radiology techniques, bachelor's degree on bridging medical diagnostics, bachelor's degree on bridging nursing course, and traditional medicine curriculum finalized.

**Table 34: Health personnel development based on civil servant step-rank in health sector 2016-2020**

No	Education level	2016	2017	2018	2019	2020	2016-2020
1	Doctoral degrees (PhD)	7	9	9	3	2	30
2	Specialist Level 2	3	0	4	5	0	12
3	Specialist Level 1	90	91	125	97	161	564
4	Specialized degree	-	0	12	-	0	12
5	Master's degree	76	53	17	65	33	244
6	Bachelor's degree	421	401	348	341	541	2.052
7	High-level certificate	1.249	794	1.026	302	1.052	4.423
8	Mid-level certificate	169	206	30	60	31	496
9	Low-level certificate	45	59	0	-	0	104
	Total	2.060	1.613	1.571	873	1.820	7.937

**Table 35: Health staff development in compare to human resources development strategy 2016-2020**

No	Education level	2020	Workplan 2020 (person)	Equivalent to %
1	Specialized degree, master's degree, doctoral degrees	862	850	101
2	High-level certificate, bachelor's degree	6.475	2.250	288
3	Mid-level certificate + Low-level certificate	600	6.500	9

It is noteworthy that the development of specialized skills, Master's Degree and PhD realized 101%, while the bachelor's degree reached over the target at 288%, but mid-level education only reached 9%. This is due to the fact that there is a reduction in the mid-level diploma and increase in the course to higher diploma. Development of public health workers does not fully meet the set targets.

### 5.3.3 Project on curriculum improvement and development for education in health

#### ❖ Courses delivered at the public health institutes to date

- Specialization level 2 comprises 12 courses:** new-born, endocrine system, metabolic system, tropical infection diseases, pediatric infection diseases, hematology disease and cancer, cardiovascular diseases, rheumatology, hematology, nephrology, cardio disease system, cardiovascular disease system, infant cardiovascular disease.
- Specialization level 1 comprises 10 courses:** Pediatrician, Surgery, Internal Medicine, Obstetrics and Gynecology, Anesthesiology and resuscitate, Radiology and Medical Imaging, Medical Biological Sciences, Ophthalmology, Ear, Nose, Throat surgery/front teeth jaw, Medical Emergency Care.
- Master's Degree comprises 9 courses:** public health management, epidemiology and nutrition, sciences clinical dentistry, prevention of oral therapy infection, dental public health, family tele-medicine, pharmacy, and tropical medicine.
- Specialization comprises 5 courses:** anesthesiology and resuscitation, nurse resuscitation for adult, pediatric, medical emergency, obstetrics and gynecology.
- Bachelor's degree comprises 12 courses:** general medicine, dentistry, pharmacology, traditional medicine, medical laboratory, nurse, midwife, radiology, physiotherapy, laboratory continuing course nurse, and midwife continuing courses.
- Higher diploma comprises 12 courses:** continuing nursing education, direct course on nursing, continuing

midwifery education, direct course on midwife, continuing general medicine, direct course on general medicine, orthopedic, dentistry, physiotherapy, direct course on physiotherapy, radiology and medical imaging, public health.

#### 7. **Mid-level education comprises 12 courses:** Nursing

#### ❖ **Development of curriculum 2016-2020**

- Attained endorsement on improvement and development of curriculum for 27 courses: 7 courses for specialization level 2; 2 courses for specialization level 1; 3 courses for master's degree; 5 courses for specialization; 4 courses of continuing bachelor's degree and bridging courses; 4 courses for continuing higher diploma and bridging courses; and 2 courses for mid-level education;
- Development of textbook on theory and practice in 28 subjects completed.

#### **5.3.4 Project on capacity develop for lecturers**

##### • **In country training:**

- Attained endorsement of agreements for 437 technical trainings of various departments, with total participants of 3,924 (1,719 female participants);
- 74 technical trainings with total participants of 1,618 (903 female participants) completed;
- Trainings for 288 teachers and lecturers (158 female participants) of public health education institutes completed.

##### • **Abroad training:**

- Attained agreements for each department to conduct 286 technical trainings with total participants 1,661 (810 female participants);
- 76 teachers from public health institutes and hospitals sent to Khon Kaen University to train on teaching-learning of midwifery for 6 months.

#### **5.3.5 Project on strengthening the management of student**

##### 1) **Legislation:**

- The project completed and improved various legislations such as: handbook on quality of public health professional education, vocational education on public health and higher diploma, capacity building for midwifery in Lao PDR, instruction on administration and implementation of public health institutes, undergraduate, regulation on management of teaching-learning of public health institutes, handbook for quality assurance of vocational training for public health, handbook on the implementation of quality assurance for higher diploma, capacity building on primary skills for medical doctors in Lao PDR, primary skills for dentists in Lao PDR, and primary skills for nursing-midwife in Lao PDR;
- Collaborated with relevant sectors in the entrance examination in public health sector.

##### 2) **Implementation of assurance for quality of education system:**

- Dissemination of handbook on quality assurance for 10 public health education institutes completed;
- Training on self-assessment and report on annual self-assessment reports (SAR) in 10 public health education institutes completed;
- Training on quality assurance for 3 College of Health Sciences (Champasack, Savannakhet and Luang Prabang) completed;
- Requirement plan of the public health education institutes across the country completed;
- 2 study tours for exchange learning oversea on education quality assurance (Cambodia and Thailand) organized;

- Workshop to review the agreement on continuing professional development organised;
- Field visit to support and provide on the job training on the implementation of education quality assurance in public health organised.
- Workshop to report on the outcomes of the implementation of education quality assurance in public health in 10 education institutes completed;
- Workshop for lessons learnt on the teaching-learning methods in health education institutes for undergraduates organized;
- Annual meeting for management of public medical education across the country organized.

### **5.3.6 Project on development of education infrastructure**

New university for Dongphosy campus constructed; student dormitories (Xiengkhouang, Khammouan, Savannakhet, Champasack and Saravan) constructed; Club of nursing technical school in Vientiane province, Champasack and the 3-storey building for Health Sciences Oudomxay Health school for Xiengkhuang and Health Sciences school in Savannakhet constructed.

## **5.4 Sub-program on scientific research management**

### **5.4.1 Project of research management and research standard**

Regular meetings of council of medical sciences completed. 2 national scientific research outcomes disseminated. Endorsement Sought for ethics of medical research, and proposals for scientific research for 75 projects endorsed by the national committee for ethical scientific research. Source: [www.laohrp.com](http://www.laohrp.com);

Development of strategy on promotion and management of scientific research 2020 completed; handbook on information searching and accessing to scientific researches completed; handbook on proposal and guidelines on requesting for scientific research funding completed.

Development of a draft strategy for scientific research work of the University of Health Science (UHS) initiated and priorities set for research areas within the UHS.

MOUs signed with partners from international institutions including Thailand, Japan, Australia, Sweden and Switzerland ( six agreements in total). Establishment of a knowledge transfer strategy completed and knowledge transfer focal points around the Ministry of Health set up as a team of 33 units.

### **5.4.2 Project on the capacity development of agencies and researchers**

The project disseminated and provided instruction on how to use the Lao space website to disseminate outcomes of scientific research to health workers at the central and provincial level. Dissemination and instruction on how to use the website of Lao Health Research Portal to the central health workers and international organizations completed The project provided guidance to the researchers on budget planning for their scientific research in accordance to the financial regulation No. 2066/MOF.

The Institute for Research and Development of Education was established within the UHS by combining three parts: (1) Center for Scientific Research of the Faculty of Postgraduate Studies, (2) Educational Development Center (EDC) and (3) the Central Library of the UHS.

The Committee for the Promotion and Management of Scientific Research and the Research Ethics Committee of the UHS was revised, as well as completing the writing of the roles and procedures of the two committees.

### **Short-term scientific research training**

5 trainings on scientific research methods for provincial and district health workers (120 times/person) completed; 5 trainings (145 times/person) on how to create a database, use appropriate software to enter and analyze data for provincial and district health workers completed; 5 trainings on the development of daily work, turned into research on health science methods (120 times/person) completed.

Medical ethics training provided to health workers from the Ministry and hospitals once a year.

Research ethics for young researchers in ministries and international organizations conducted 10 times (twice a year).

The Lao Tropical and Public Health Institute (Lao TPHI) and UHS cooperated with educational institutions or international organizations to establish researchers and conduct scientific research, such as the LEARN program, funded by the EU through MCNV. 20 Master's degrees in English in Public Health, 1 PhD, and 3 Preparatory Doctors, 4 postdoctoral students, 10 more scientific young researchers were supported.

### **5.4.3 Project on prioritizing scientific research subjects and their implementation**

Survey on status of public medical education institutes which include the Public Health Schools in Vientiane Province, Oudomxay, Khammouan, Xiengkhouang, and College of Health Sciences in Luang Prabang, Champasack and Savannakhet completed. Completed the Collect of research data, and assessment of health services by village health workers in Huaphan, Xiengkhouang, and Khammouan completed. Research conducted on health professionals for 430 topics.

Scientific research priorities set: development of programs and set priorities for health sciences research in 2018 and re-evaluate in 2020 completed.

Conducting scientific research: Professors-researchers conducted research and published in international journals (indexed 125 articles in PubMed). One Professor was recognized as an International Outstanding Researcher and was awarded a Special Professor from the University of Oxford, England, and one young researcher received the Dedin Researcher Award from Switzerland (\$20 thousand); a national survey by the staff of the Institute in collaboration with the UHS, hospitals and health departments across the country with 20 international articles, such as health surveys and non-communicable disease risk factors for adults aged above 18 nationwide (2020) completed; health survey and risk factors for people aged above 60 in three regions (2020) conducted; and bile duct cancer study and a preliminary study on the use of antibiotics in case of normal birth in Vientiane province conducted.

Disseminated scientific research results: hosted health sciences conferences and transfer of knowledge from scientific research at regional level, at division level including Young Research Conference, Annual Research Forum, and Institutional level in UHS and cooperated with international agencies 20 times. Lao medical journal is published regularly once a year.

Improve the Medical Science and Technology Council: In order to comply with the proposal of the National Science Council, the Ministry of Science and Technology, secretariat of Lao TPHI is in consideration for a higher level.

### **5.4.4 Project on the implementation of scientific medical techniques association (SMA)**

Evaluation form to monitor the implementation of strategy to promote and manage scientific research up to 2020 completed.

Re-evaluation of plans and re-prioritized scientific research completed; legislation established as a strategy on disseminating and knowledge transfer with Lao TPHI as the core and 33 units around the Ministry joining as a team or committee to transfer knowledge from scientific research results to policy and actual practice/implementation.

## **6 Program 6: Health financing**

### **6.1 Sub-program on health financing management**

#### **6.1.1 State accounting development project (double entry accounting) in health sector**

This sub program trained and implemented the basic state accounting system through Excel recording and paper-based recording of the state accounting for all provinces and districts nationwide. It also developed the state accounting program of health sector and completed the training on the use of this program for central and 16 provinces with 120 districts across the country. The assessment is being processed with Ministry of Finance (accounting department) for approval and officially authorized to use the program.

#### **6.1.2 Project on strengthening the public financial management, revised according to the plan and budget allocation mechanism**

The sub program improved the system and budget planning mechanism, budget allocation, management, implementation and reporting, as well as starting implementing mechanisms to manage the vertical line. Ministerial instructions on the management and implementation of annual budget in the health sector; drafted guidelines on the public financial management at each level, including health center level were issued. The sub program implemented the existing legislations and regulations on budget management, and provided training on annual budget planning, guided on providing supporting documents and budget request mechanism for each step and procedure of financial process to finance officers of 37 budget unit at central and 18 provinces across the country. Budget according to priority activities to achieve the approved indicators was allocated.

The local community was involved through coordination with the Department of Planning and Cooperation and allowed the program line to have more ownership and higher responsibility in monitoring the achievement and effectiveness of implementation. The sub program developed a regular financial reporting system, including improved reporting through the accounting program and DHIS2.

The sub program continued to implement the pre-payment inspection system and implement post payment inspection strictly and continuously and reviewed the implementation of the government decree No 349/Gov on management and use of services fee at public health facilities as well as decree No 003/President on fees and service charges. Guidelines were developed for the Ministry of Health on the use of 15% of technical revenue based on decree 349/Gov.

#### **6.1.3 Project on the development of tools and management mechanism for ODA/loan**

The project developed software to collect and compile loan data and issued a guideline on the implementation of the centralized loan management mechanism-through the one door system and continued to develop and provide training on the use of ODA management guideline to staff within the Department of Finance, budget units of the Ministry of Health and at provincial and capital levels, and clarified and requested the participation of donors to facilitate the implementation of such mechanisms.



## **6.2 Sub-program on health facilities management**

### **6.1. Project on service fee determination and expenditure category**

The project completed the study/research to determine the composition of drug prices, medical products, laboratory, radiology, and other services at public health facilities according to the decree No 349/Gov and revised and determined fees and service charges in decree No. 003/President.

### **6.1. Project on finance management in public health facilities**

Monitoring continued on the use of tax bills for technical revenues and developing a mechanism to collect fees through the IT system, including an IT accounting system to be used basically at central hospitals. It is currently piloted at Mahosot hospital, Mother and Newborn hospital, Ophthalmology Center, Rehabilitation Center and developing at Mittaphab and Setthathirath hospitals. It will be developed soon at Children hospital. The project promoted and encouraged the use of management mechanisms and usage at public facilities at regional and provincial hospitals.

### **6.1. Project on the study of payment mechanism for health facilities**

The payment mechanism to health facilities with unified system was agreed and applied along with a simple accounting system to be used at health center level.

## **6.3 Sub-program on social health policy**

### **6.1. Project on expanding free services for mothers and children under five years old and for the poor**

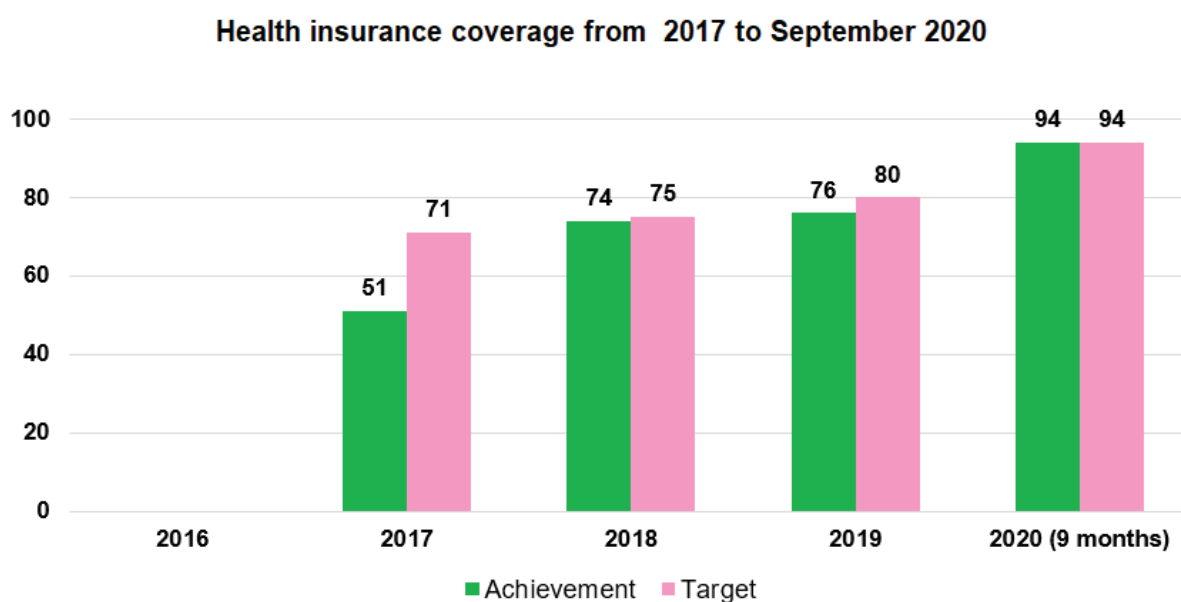
Families and the poor people are being helped to access more health care services. Pregnant women received support to access ANC, delivery and PNC services and for children under five were supported for healthcare. All these target groups received free services nationwide.

### **6.1. Project on the expansion of National Health Insurance**

The National Health Insurance (NHI) has been established and expanded to provinces and districts, which has led the coverage of social health protection at 94% of population (the NHI has not covered Vientiane Capital). The NHI is the scheme that integrates all existing schemes into one such as: scheme for the poor (HEF), free MNCH, scheme for civil servants and private enterprise (SSAA and SSO) and a police scheme. According to the government direction and policy up to 2020 the scheme should cover 100% of total population. An important mission is to focus on strengthening the national health insurance, including improving legislation as a basis for developing and expanding the system, aimed that the population can access quality health services equitably as well as to protect them from catastrophic health spending. The aim is to be able to provide sufficient budget for health insurance each year through a unified health insurance scheme across the country. Currently, the National Health Insurance law has been endorsed and officially promulgated.

Figure 30 below summarizes the comparison of the implementation versus target set for the national health insurance coverage from 2017 to September 2020. It demonstrates that from 2017 to 2019 the target was not been fully achieved. All existing health insurance schemes in Lao PDR are not yet integrated into one scheme. In September 2020, the Ministry of Health considered that all health insurance schemes should be integrated into one scheme both for formal and informal schemes. Therefore, as at September 2020, we have reached the target set (see Figure 30 for details).

Figure 30: Comparison of the implementation vs. target health insurance coverage from 2017 to September 2020



Comparing at the provincial level in September 2020, it shows that there are only 6 provinces that have not reached the targets, namely: Vientiane Capital: Luang Namtha, Bolikhamxay, Salavanh, Sekong, and Champasack. However, it is expected that at the end of 2020 the only province that cannot be achieved will be Vientiane Capital because the national health insurance has not been fully expanded/implemented (see Table 36 for details).

Table 36: The National Health Insurance Coverage from 2017 to 2020

**National Health Insurance Coverage (%)**

No.	Province	2016		2017		2018		2019		2020 (9 months)	
		Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target
1	Vientiane Capital	NA	NA	0.0	0.0	42.0	0.0	43.1	50.0	53.3	66.7
2	Phongsaly	NA	NA	51.9	72.2	78.4	76.2	80.6	76.0	99.5	81.3
3	Luangnamtha	NA	NA	50.8	70.7	78.5	74.7	80.7	100.0	99.7	100.0
4	Oudomxay	NA	NA	49.9	69.5	78.8	73.4	80.9	80.3	100.0	100.0
5	Bokeo	NA	NA	51.2	71.3	78.8	75.3	80.9	85.5	100.0	100.0
6	Luangphabang	NA	NA	50.4	70.1	78.8	74	80.9	100.0	100.0	100.0
7	Huaphan	NA	NA	50.7	70.6	78.8	74.6	80.9	77.5	100.0	100.0
8	Xayabuly	NA	NA	51.5	71.7	78.8	75.7	80.9	77.8	100.0	100.0
9	Xeingkhuang	NA	NA	71.8	100.0	78.8	100	80.9	100.0	100.0	100.0
10	Vientiane	NA	NA	49.9	69.5	78.8	73.4	80.9	100.0	99.9	92.5
11	Bolikhamxay	NA	NA	52.1	72.5	78.6	76.6	80.7	100.0	99.7	100.0
12	Khammuan	NA	NA	50.9	70.9	78.8	74.9	81.0	100.0	100.0	100.0
13	Savannakhet	NA	NA	52.7	73.4	78.8	77.5	80.9	100.0	100.0	100.0
14	Salavan	NA	NA	52.7	73.3	76.8	77.4	78.9	100.0	97.5	100.0
15	Sekong	NA	NA	49.0	68.2	78.4	72.1	80.5	100.0	99.5	100.0
16	Champasack	NA	NA	51.6	71.9	78.6	76	80.7	100.0	99.7	100.0
17	Attapeu	NA	NA	51.6	71.9	78.8	75.9	80.9	100.0	100.0	100.0
18	Xaysomboun	NA	NA	49.1	68.3	78.8	72.1	80.9	100.0	100.0	100.0
	Total	NA	NA	51.0	71.0	74.0	75.0	76.0	80.0	94	94.0

## **6.4 Sub-program on the development of the national health accounts**

### **6.4.1 Project on improving health financial information development**

Training was provided on data collection of health expenditure and data analysis according to the international principles and methods. A systematic study of the national health accounts was conducted with the availability of annual reports and reports to the international reporting system. The result of the national health accounts study 2018 will be disseminated soon; finalized in the draft of Health Financing Strategy 2021-2025, as revised based on the previous version.

Training was provided to upgrade capacity on using the Health Accounts Production Tool (HAPT) to technical staff from the Department of Finance and the National Health Insurance Bureau funded by World Health Organization to support a health financing professional to understand and know how to use the program to analyse health expenditure in the future.

### **6.4.2 Project on developing capacity on financial analysis and health economics**

Technical support on developing capacity comes from the Asian Development Bank, World Health Organization and World Bank and in collaboration with the Ministry of Finance, Ministry of Planning and Investment. With the above mentioned technical support from development partners, the health expenditure data was collected and analyzed (2013 to 2016) from all funding sources, including household expenditures data, for central level, 17 provinces and Vientiane Capital in order to analyse and report on the results of such expenditures.

The results of the national health accounts study from 2015-2016 up to 2017 have been published and disseminated and distributed to all relevant stakeholders within the health sector and other sectors, including central and local levels, to be used as a reference for formulating policy and providing guidance for the development of the health sector in each period.

## **7 Program 7: Planning, health information and cooperation**

### **7.1 Sub-program on planning and state investment**

#### **7.1.1 Project on strengthen planning and state investment administration**

The 8<sup>th</sup> Five-Year Health Development Plan and Sustainable Development Goals (SDGs) associated with the health sector was disseminated to the departments embedded in the Ministry of Health and provincial health departments across the country. The project introduced and made the annual plan for the year 2017 incorporating the departments under the Ministry of Health and 18 provinces and prioritized annual state investment projects and submitted them to the Ministry of Planning and Investment to complete the vision of the Ministry of Health by 2030. In addition, the targets for 10 indicators of the health sector in 2017 and targets to start at the provincial level in 2018 started implementation. The mid-term summary of the implementation of the 8th Five-Year Health Development Plan (2016-2020) was completed and 700 copies of the summary book published for distribution to the departments under the Ministry of Health and provincial health departments across the country. The revised macro-operational plan and the four-year health development plan (2017-2020) was completed and published.

In 2018, the implementation of inspection-evaluation of the health development plan, and the research on the budget summary associated with the technical promotion budget (Chapter 63) of the programs' alignment for approval from the Ministry of Health commenced.

Implementation of projects on the planning, information and cooperation include: preparation for the closure of the Health and Nutrition Governance Program with the funding support of ADB TAL 3280 by the end of

2019; working with the World Bank on the preparation of the HANSA project, a request letter was sent to the Ministry of Planning and Investment for approval of project implementation in turn, received a list of names proposed for the project coordination and preparation team from the relevant departments; implementing the Health Security program grant and loan from the Asian Development Bank which focuses on 12 provinces, especially focusing on communicable disease control, surveillance and responses, improved laboratories and international border cooperation with the GMS regional countries; The Project Management Unit (PMU) of the Global Fund to fight AIDS, Tuberculosis and Malaria moved its office to the Department of Planning and Cooperation in 2018.

## **7.2 Health information sub-program**

### **7.2.1 Health information improvement project**

The District Health Information System 2 has been upgraded to be more accurate, timely, and clear, and is being used across the country, and was able to provide information for the health development plan. The 3 reporting systems of communicable diseases: tuberculosis, HIV and malaria, including 18 surveillance and m-supply systems have been integrated into the DHIS2 system. The Systematic Health Information Strategy will be complete from 2018-2025; A team has been designated and assigned to work on the district health information system in 18 provinces. The installation of the internet for the provincial health departments as well as distributed computers to the provinces throughout the country was completed. Strengthening health information by providing training to the provinces and on the International Code of Diseases (ICD10) to the programs' under of the Ministry of Health continues. In 2019, supportive supervision on the data entry for births registration and deaths was followed up and entered into the DHIS2 system and the implementation of Family Folder was completed in 2019.

### **7.2.2 Lao social demographic index survey project**

The Second Lao Social indicator Survey in collaboration with the National Statistics Bureau was completed and showed positive progress and has been approved for official dissemination and use. In particular, it could be used to monitor the indicators endorsed by the government and the National Assembly including usage to monitor the implementation of SDGs.

## **7.3 International cooperation and public-private partnership sub-program**

### **7.3.1 Capacity building project for coordination in the health sector**

International Cooperation: training completed to enhance the effectiveness of assistance to the health sector across the country to upgrade and strengthen staff in coordination with development partners in integrating international assistance plans into the 8<sup>th</sup> Five-Year Health Development Plan. Coordination is through an intersectoral cooperation mechanism of consultation meetings, and planning, implementation and systematic monitoring of the supportive supervision report from the technical level to policy levels. The group chaired by the Minister of Health, (co-chair by the ambassador of Japan and the representative of the World Health Organization) decided to issue and report during the Round Table meeting that guidance was received from the Ministry of Planning and Investment to report on action, progress and public health sectors. Coordination with China proceeded via grant assistance for the construction of 118 health centers and 110 clean water facilities by drafting plans and setting targets for construction, as well as conducting preliminary surveys with the China Assistance Team. The budget expenditures and annual budget plans of the Official Development Assistance Program (ODA) of the health sector for each year were summarized; The 16<sup>th</sup> meeting of the Coordination Committee of the Health Department was conducted in which, the annual cooperation work for the year 2018 and preparation of the annual roundtable process for the year 2019 were disseminated; Training on the use of the Official Development Assistance Management Information System (ODA-MIS.GOV.

LA) for the Departments, Offices, Centers, Institutions, Schools, Hospitals and Sectors under the Ministry of Health was completed, as well as the Ministerial Notification from the Minister of Health to use the system. The implementation of the Lao-LUX Cooperation Project to guide proposal writing in terms of joint funds with 20% contribution from the government (monitored quarterly, semi-annually, and annually with the relevant departments, centers and institutions of UNFPA) was monitored.

### **7.3.2 Public-private health sector investment improvement project**

Currently, there are many private sector agencies participating and investing in the health sector, especially the Xaymangkone Company which supports on health insurance in Oudomxay province; Bio and Pharma Indochina Company Limited which incorporates with No.2 Pharmaceutical Manufacturing Factory; and Louisienhong Company Incorporated which works with the National Center for Cancer Therapy. Xaymangkone Company partnered with Mittaphab hospitals on an expansion project of 308 beds and assists the hospital administration and management. AP Medical Company will collaborate on the medical products and equipment. This is aimed at reducing imports of medical products and equipment from other countries, creating jobs for the Lao people, and generating revenue for the health budget and promote domestic production, especially Lao investors. The legislation on cooperation between public and private sectors is being drafted with a specific law for the Lao PDR.

## **8 Program 8: Governance and inspection**

### **8.1 Sub-program on health sector reform (HSR)**

#### **8.1.1 Project on health sector reform**

The publication and dissemination of the Health Sector Reform document were completed and distributed to relevant parties. The national meeting to summarize the implementation of health sector reform phase 1 and disseminate the implementation instruction for phase 2 with focus on achievement of indicators was conducted. This will help Lao to graduate from Least Developed Country (LDC) status by 2020 especially in malnutrition and reduction of children under-5 mortality rate and other indicators outlined in the 8<sup>th</sup> five year plan (2016-20). The focus is on integration and in line with mechanisms and the reform framework with an emphasis on implementing 8 programs, 42 sub-programs, 97 projects in order to realise the 7 indicators as per the annual plan 2017. Focus on 10 indicators as per the annual plan 2018 and 2019 and 11 indicators in 2020 plan endorsed by the national assembly continues.

The Ministry of Health has issued an agreement on integration between the HSR Committee and the HSR secretariat, to collaborate and coordinate the three builds concept to strengthen the implementation of the work program. The reform work program will be piloted in the community, particularly in 4 target provinces (Oudomxay, Luang Prabang, Savannakhet and Champasack) to make them models with a provincial committee set up and supported by the leaders from the Ministry, with support from WHO specialists to evaluate the progress on the work program integration.

### **8.2 Sub-program on single-window system and improvement of working style**

#### **8.2.1 Project on single-window system and document archive**

The project focused on the management and circulation of documents in the past 5 years on a regular basis, with accuracy, and a modern document flow system such as: 48,562 documents having a bar code; 13,644 internal ministerial agreements; 2,984 agreements for travelling to overseas; 10,579 outgoing documents from the ministry, and 3,198 outgoing documents to abroad, and 6,194 outgoing documents in country. Currently the document flow system has been expanded to line departments supported by the IT system. The monthly

summaries of health programs implementation have been sent to Cabinet of Party Central Committee, Prime Minister's Office, Presidential Office, Committee for Social and Culture and other relevant parties. State property stickers will be placed on office assets. The structure of the Cabinet of Ministry of Health has been improved by merging administration and finance divisions into one division, and also redefining the roles of the Cabinet of the Ministry of Health. There was also improvement in the working approach, improved coordination mechanism and steps in document flow for better efficiency and faster processing, as well as improved official documents particularly the forms (proposal letter, letter to seek guidance, agreement, summary report and notices) for consistency and facilitating implementation. The project took a leading role and acted as a secretariat to edit documents for the leaders of Ministry of Health. In the current plan period, 18,464 documents were reviewed; documents received through the Cabinet office such as proposals, notices, reports and 1,714 requests from inside and outside of Ministry of Health were reviewed and guidance sought from the leaders of Ministry of Health (amongst those 515 documents are many from the Prime Minister's Office). Various areas of the secretariat were improved such as: health sector reform program, three builds concept, and coordination of the health sector with the secretariat to streamline the work process, making it more precise, smooth and effective.

### **8.3 Sub-program on international relations**

#### **8.3.1 Project on coordination with ASEAN**

Coordination with ASEAN has not been done as well as it should be and this can be seen through ineffective coordination, limited focus, and often, delay in responses and comments provided to the ASEAN Secretariat, particularly feedback to various declarations and other official documents of ASEAN. The reporting system and follow up is not fully effective. Therefore, in 2019 there were some improvement and new appointments to the coordination focal point including: the appointment of a senior official from the health sector for ASEAN, appointment of a national coordinator for each health group under the socio-cultural pillar of ASEAN and a senior coordinator to coordinate, follow up, and facilitate ASEAN related work. Some of the major achievements include the dissemination meeting and lessons learnt sessions on international relations for health sectors to 18 provincial health departments; dissemination to the management of INGOs, UNDP and ASEAN to officials in 17 provinces; and training completed on drafting of international agreements for health officials at the central level.

#### **8.3.2 Project on improvement NGOs and INGOs' management**

Management of bilateral and multilateral work programs, cooperation with INGOs, including foundations and associations are well coordinated, however the approval of project documents is quite slow given that some contents cannot be agreed in accordance with the government regulations. The projects supported by INGOs in 8 northern provinces were evaluated; 40 project documents for approval were reviewed as well as 36 MOUs; 360 documents of staff attending meetings overseas were reviewed as well as requests for approval to bring foreign experts to work in Laos and 230 extension requests. 420 requests for visa, ID and multiple visa for international experts were reviewed and guests (75) and visitors (100) participating in meetings reviewed.

#### **8.3.3 Project on improving coordination with World Trade Organization (WTO) on health**

Implemented the agreement of the Ministry of Health on improving coordination for health sector by coordinating with departments, institutes, schools, hospitals, centers and other development partners and creating forum for coordinating at the policy level, the implementation level and at the secretary level in order to integrate coordination mechanism into health sector reform process, planning and follow up the 5-year plan for health sector reform.

## **8.4 Sub-program on technology and communication**

### **8.4.1 Project to strengthen the technology and communications**

During 2016-2019, there was maintenance and repair of computers, printers, WIFI, UTP, and telephones - 672 in total (for the cabinet office 384, and other 9 departments 288). A new server with mass data storage that can support email, website, firewall, proxy server and video conferencing of the Ministry of Health was installed to communicate in-country and overseas in the most effective, smooth, swift and safe manner. It also helps to get access to health information. The server is an improved server room for security as per required standards.

A video conference system was installed in the EOC room and Web Conferencing to support effective communications, up to date and timely response to emergency situations in the event of outbreaks or disasters was developed. The system allows conducting emergency meetings when required, and makes communication with relevant sectors, particularly the provincial health departments, possible. In 2017, there was improvement of the Ministry of Health's website to ensure storage and distribution of health information such as: notices, orders, agreements, decrees, presidential decrees, policies, strategies, summary reports, reports, legislation and laws (in total 49 documents).

MOH continued to promote technical skills and upgrade of capacity of technical staff in other line departments in the development of information and technology such as: IT training conducted in 2016 which included topics on Libre Office, Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Microsoft with a total of 30 participants. In 2017, training was conducted on Virtualization (Cloud Computing), WordPress and other basic computer knowledge, with a total of 40 participants. In 2018, an IT training was conducted on Firewall and Sharing Internet, Advance WordPress, Basic Configure WIFI, Configure Cisco Router and uploading information and news to the Ministry's website for the Centre of Information and Education for Health, with a total of 45 participants.

## **8.5 Sub-program on the women advancement**

### **8.5.1 Project on strengthening of women advancement**

The project conducted a capacity building workshop for women in the health sector with total 59 participants (35 female participants) and organized workshop to review processes in then health service for human trafficking victims. The project followed up on the scaling up of gender and mother-child tasks in 8 northern provinces (Vientiane province, Phongsaly, Luang Namtha, Sayaboury, Oudomxay, Luang Prabang, Houaphan and Xiengkhouang), and training of trainers for health workers who provide health services for victims of human trafficking and violence. A capacity building workshop on gender mainstreaming in the health sector was conducted, creating an enabling environment to facilitate women's participation and the number of women in management and decision-making and assigning responsibilities was increased which will allow women to develop competence side by side with male colleagues. Children's Day was celebrated and a brief report and outcomes disseminated from the survey on violence against children to officials in line ministries. The project provided knowledge, information and understanding on the eradication of all forms of discrimination against women, and gender equality.

A workshop was organized for the coordinators of promotion of women's advancement and mothers and children in 8 northern provinces to disseminate the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) and the Convention on Child Right and other relevant legislation. The project organized an inaugural meeting of the National Commission for the Advancement of Women (NCAW) and mothers and children; completed a meeting to disseminate the decree on child adoption; and organized a meeting on the implementation of the obligations of party and state for women's advancement, protection of rights and benefits for mother and children. The project implemented the national plan for protection and eradication of

all forms of violence against women and children, and the law on preventing and combating violence against women and children. A meeting was organized for coordinators of women's advancement and mothers and children on women's and children rights to access to services, harmful impacts on violence against women and children, and sexually transmitted diseases (STDs) with a total of 39 participants (36 female participants).

## **8.6 Sub-program for health legislation**

### **8.6.1 Project for health legislation development and improvement**

The project completed a meeting on health sector legislation for; collated relevant legislations; published legislation of the sector in 2016, and distributes this to all relevant parties. In addition, the project: collated all relevant legislations from 2016 to May 2017, with total of 167 legislations such as 10 resolutions, 39 decrees, 12 orders, 39 agreements, 1 declaration, 74 notices, and 1 instruction; defined roles, organization and functions of line departments; finalized planning and improvement of relevant laws such as, development of 3 new laws, law on prevention and control of communicable disease (endorsed), law on vaccination, and law on health insurance; and improved the law on hygiene, disease prevention and health promotion. The project summarized the implementation of laws and issues under legislation under Ministry of Health responsibilities in accordance with the National Assembly Resolution No. 018/NA, dated 28 November 2016 and the delivery note no. 022/S. NA, dated 20 January 2017. Five laws have separate regulations, specifically on article 11, which have been further developed under law legislation for 6 articles. There are plans to improve and further develop under legislation of 5 articles. In 2019, the law on public health was developed and all relevant legislation of health sectors volume III in 2019 was collated.

## **8.7 Sub-program on the Three Builds concept**

### **8.7.1 Project on the Three Builds in health sector**

A meeting to review 3 builds concept was completed and scaling up of the resolution of the Central Party Committee Politburo No. 25/CPCP, Prime Minister's order No. 34/PM, (instruction of the Ministry of Home Affairs no. 02/HA) continued. Priority areas for the health program in 71 districts of 18 provinces were defined and promotion of model health villages to cover 78.9% of total villages, decentralization of budget allocation for central and locals by a proportion of 40/60, allocated in line with the 8 programs of the health sector continued.

## **8.8 Sub-program for disaster preparedness and response**

### **8.8.1 Project on disaster preparedness and response**

In 2016, the project implemented various activities to respond to disasters together with hygiene and health promotion works, disease control, food and drugs, and emergency physicians (treatment).

In 2017, the project participated in army practice sessions on prevention and control of natural disasters in Tonhene village, Sayboury district of Savannakhet province with a total of 31 participants, (22 from central - 5 female participants, and 9 from Savannakhet Provincial Health Department - 1 female participant. Awards given included: a third class medal of courageous services in disaster prevention and response given to the Ministry of Health; one letter of appreciation from the General Political Department of Ministry of National Defense for the contribution of drugs and medical equipment; 21 third class medals for courageous service; and 10 appreciation certificates from Ministry of National Defense.

In 2018, high risk areas for natural disasters in health sectors were monitored and assessed and the law drafting committee drafted the law on prevention and control of natural disasters, in response to the natural disaster event in Sanamxay, Attapeu from 24 July to 7 September 2018. There was an agreement to appoint



a committee to response to flooding disaster in Sanamxay, Attapeu (No. 1488/CO (Cabinet Office), dated 36 July 2018) and a secretariat at EOC office set up to serve as a centre to respond to health disasters (housed in the Cabinet Office of the Ministry and functioning 24 hours a day as needed to serve and monitor flooding disasters (like in Sanamsay district of Attapeu province across the country. Health workers were sent to serve affected communities and deliver drugs for treatment, clothes, mosquito nets, 2 engine boats and to conduct rapid assessment of the flooding disaster in Attapeu and report on the to the Chairman of the National Disaster Ad-hoc Committee, and the President of the National Disaster Management Committee. Reports on the implementation of the response to flooding in Attapeu were sent to the leaders of Ministry of Health and relevant departments. finalize Agreement on appointment of the committee for Post Disaster Need Assessment (PDNA) in 6 provinces, 14 districts, (No. 2078/MOH, dated 02 October 2018) was finalized.

In 2019, the need for a disaster preparedness and response plan 2019 was summarized and submitted to the National Disaster Management Committee. The response plan and emergency relief from flooding disaster in 6 central provinces was implemented and emergency notices issued to all provincial health departments across the country to handle and address impacts from flooding by asking health workers in provincial hospitals, district hospitals and health centers to closely monitor water-borne diseases during and post flooding. 2 medical teams with basic drugs and clean water mobile trucks were sent to be bases at Khongsedon district and Vapi district of Saravan province.

## **8.9 Sub-program on state audit/inspection**

### **8.9.1 Party inspection project**

The party inspection project monitored and inspected the strength and leadership of Party units in 2016, and covered 50% of all units. In 2017, in collaboration with Department of Organization and Personnel political sessions were launched in order to improve the party performance related to the inspection campaign of the party units in building the party to take a lead in all aspects for all 54 party units. The results of rating the party units were: 19 party units rated as strong/know how, 24 party units as strong, 10 party units rated as average, and 1 party unit rated as poor. 2018 was the first year that implemented the order No. 01/CPCP on enhancing the building of transparent, strong, solid party units. The ministerial party members disseminated in-depth learning in preparing for the implementation of work in 2019. The monthly party operation monitoring of 1-3 party units/month in 2019-2020 achieved 28 party units. The Party's contributions from its members (each party member has to pay their obligation to support the Party) as well as the use of the Party's contribution budget up to 2020 were monitored. The discipline of party members was monitored 2 times at the Central Hospital and annual reports and the information of Party members to the Party Inspection Committee were compiled; contributed in Selection processes of progressive members were conducted 3-4 times a year on average.

### **8.9.2 State inspection project**

State inspection conducted regular inspections of 30 units of departments and 17 provincial health departments, and inspected state investment from an early stage in accordance with the decree no. 01/gov for the projects endorsed by the national assembly. Other inspections and activities included: inspection of the utilization of the state budget in the implementation of finance through a single window policy and double-entry accounting system; monitoring of the provision of medical supplies to hospitals across the country during 2013-2014; proceeding with the declaration of asset properties and income of civil servants for 2 cycles; follow up of the audit result on the implementation of the state budget for 2014-2015 and the results of implementation the of the recommendations from the previous year audit of the Ministry of Health; conducting a series of trainings on state-party inspection and audit; developing inspection units in line departments in accordance

with the Instruction No. 527/CPCP (thus able to set up 35 units and improve the inspection roles in health departments in accordance with the provisions of No. 2700/MOH and completed in many provinces)

Implementation of state inspections in each year include: in 2015-2016, regular state inspections conducted in 16 provincial health departments, 16 district health offices, 16 district hospitals, and 16 health centers; and inspections of the state investment project from its early stage in 1 province and 1 central hospital. In 2017, regular state inspections were conducted in 26 departments, 17 provincial health departments, 17 district hospitals, 17 health centers and the state investment project were monitored from its early stage in 4 provinces and 3 units of line departments. Inspections were conducted in response to proposals and requests from 1 central hospital, 1 center and 1 provincial health department. In 2018, regular inspections for the health sector were carried out in 10 provinces, 10 district health offices, 12 health centers and 20 early stage state investment projects.

State inspections took part in the procurement, recruitment and maintenance committee and participated in “zero-hour rule” inspections together with the Department of Finance, and served as a coordinator with the annual inspection committee. Grievances were reviewed and in combat against corruption in 2015-2016, data collected and address in 1 case of a forgery document in enrolment at university of medical sciences. In 2017, 12 grievances and requests to collect information and address 4 the grievances/requests, with remaining 8 grievances to be addressed were received. In 2018, 8 grievances/requests plus 8 outstanding from 2017, totaling of 16 grievances/requests were received. Five of these were settled, 4 are being reviewed and 7 are outstanding. Overall, 45 cases were received in 2015-2020, and 38 cases were resolved. 4 cases are in the process of requesting guidance from a higher level, and in 3 cases information is being collected.

In 2017, an in-depth study of the decree no. 159/PDR and handover asset, property and revenue declaration documentation was conducted with a total of 3,474 participants. An inspection training for inspection officials with 56 participants (20 females) on strengthening capacity was conducted in 2017. In 2018, inspection training for various departments and provincial health departments in central and southern provinces was conducted with total 51 participants.

### **III. Overall summary on health sector indicators**

In the past four years, indicators have shown good progress each year and many achievements can be summarised against the priorities and targets of the 8th National Socio-Economic Development Plan (2016-2020), the 4th Lao Population and Housing Census (2015) and Lao Social Indicator Survey II (LSIS II) (2017) and other information sources on the health sector and can be described as follows.

With reference to data and information from previous surveys, the status of mothers and children and nutrition has made good progress. At present, according to the latest survey in the early 9 months of 2020 it was found that the mortality rate of children under 5 achieved the annual targets in most provinces, however, some districts have not attained the targets and have to work further on achieving the set targets by 2020. The mortality rate of children under 1 at the national level achieved the targets for 2016-2019, however it tends to be relatively high when compared to international standards. Thus, it requires more attention in high risk districts. Maternal mortality needs to continue implementing prevention measures to stop maternal deaths in pregnancy and childbirth delivery, focusing on activities that can be addressed at the early stage, and allocating budget to the districts and provinces with high risks. Since 2017 onwards, the maternal mortality rate has dropped constantly. Goals for prevalence levels of stunting and underweightness among children under-five years of age are almost achieved, however close collaboration between relevant stakeholders, the budget and aligned workplan, especially on achieving a model village in one district and one province is required. This remains a challenge for 2020 as the ability to reduce the number requires extra effort and more time. Health insurance coverage has made some progress to achieve the target, particularly the 2020 target

if the number of SSO, SASS and other social security insurance schemes are combined. Access to improved water and sanitation has also increased if compared to cumulative data and survey findings. However it is necessary to review and collect data again as these the cumulative data and these two areas are related to the declaration and endorsement of model health village. The birth delivery rate with skilled birth attendants and the vaccination rate remain challenges and improvement requires special attention and good collaboration between central and local levels as well as donors among others. A critical factor is all concerned authorities at all levels prioritising this work under their roles and responsibilities, within their provinces and districts, as well as health centres and villages with high risks.

## **IV. Overall summary of strength, areas for improvement, causes and lesson-learned**

### **1. Strengths and causes**

#### **A. Strengths**

- 1) The Party Committee and management at all levels constantly pay attention to training on political morals; promote ethical thinking related to technical performance and improvement of the party foundation, organisation, roles and responsibilities; placement of personnel, Party members in good order; provide advisory guidance to develop priority projects aiming to accelerate the realisation of the Sustainable Development Goals and scaling up of the '3-builds' concept and health sector reform in 5 aspects;
- 2) Leadership principles and working methods of the Party and the Ministry leaders are highly cohesive and in strict compliance with the law and regulations. Leadership follows the democratic centralism approach, collective leadership processes, clearly defined roles and responsibilities among the Party committee, and the Ministerial committee, and has a strong cohesion and continued improvement;
- 3) The 8th Five-Year Health Sector Development Plan (2016-2020) and National Health Sector Reform Strategy 2025 are used as references for annual planning, developed on the basis of engagement, participation and consensus among relevant departments of ministry of health and other provinces across the country;
- 4) The Government and National Assembly have approved and endorsed additional budget, including public investment to the Ministry of Health to implement their workplans;
- 5) Health service networks continue to be improved and expanded. Health workers and nurses from both central and local levels have been enhanced and their skills and knowledges upgraded both in ethical-moral and technical aspects. Medical equipment and basic infrastructure have also been upgraded step by step and maintained to a more modern standard which leads to a better quality service. Health security system have been expanded with higher coverage for ethnic people, the community, civil servants and workers to ensure access to services as needed.

#### **B. Causes [attributed factors]**

- 1) With close guidance from the central Party committee, central Party organisation, Ministerial Party committee and line Ministries and with a coherent leadership approach, close collaboration between the Party and the government, the democratic centralism approach and people's participation and local authorities engagement ensure consistency in planning and management.
- 2) Party members and civil servants continue to trust and promote the new policy changes in all aspects and follow the Party approach which is relevant to the country's unique and actual context as well as the general development trends and regional and international integration.

- 3) Strategic alliances with countries and international organisation as well as with neighboring countries have provided ongoing support, collaboration and valuable assistance.

## **2. Areas for improvement and causes**

### **A. Areas for improvement**

- 1) Although services have been expanded with more coverage, the quality of services cannot be assured, particularly in the remote, rural, hard to reach areas with no access roads and where the referral system is not effective. Many village health centres lack mid-wife staff, and medical equipment and have inadequate budgets.
- 2) Although maternal and infant mortality rates have dropped, it remains relatively high among the GMS region. Vaccination rates, the childbirth delivery rate with skilled birth attendants have not attained targets in many districts and provinces. Although health education has received priority in many forms, service outreach to rural remote areas remains limited. People awareness and knowledge on healthcare is still limited and therefore behaviour and accustomed practices remain unchanged with often, inappropriate nutrition and hygiene.
- 3) Technical knowledge remains limited, coupled with low ownership and accountability of some staff in performing their roles and providing services in an ethical manner. As a result, work performed often has low quality.
- 4) Other sectors' engagement from central and local level in planning and development remains limited, and the actual plan implementation is relatively slow. Therefore several projects and activities take a long time to proceed, particularly on fulfilling the required documentation and inspection with complete details prior to seeking approval.
- 5) Health expenditure per capital in Laos remains low when compared to neighboring countries. Health insurance is still at an early stage: people and households' out of pocket expenses (OOP) are relatively high; provision of budget is quite slow, therefore implementation is delayed and not according to the plan and timeframe; the financial management system, including budget and aid assistance is not precise and strong; defining service charges is not clear and accurate, and the service payment mechanism at the public facilities are not well developed; some facilities have just started to use IT systems; and state accounting systems are still using Excel and manual records.
- 6) The health information system is quite modern with good coverage across the country, however, it can only report the recorded data from public facilities, and information from non-state and private facilities are not yet available. Registration of births and death systems have just started in collaboration with Ministry of Home Affairs, in which some of the population have not had their family books, identification cards. Therefore, it makes this more difficult to define eligible people for health services.
- 7) Access to improved water and sanitation in many provinces is presented in cumulative data, and some of these systems may already have been damaged from natural disasters (like flooding) and the issues on maintenance need to be reviewed. Communities in many areas lack ownership in maintaining the systems as well as lack of coordination between sectors.

### **B. Causes [attributed factors]**

- 1) Understanding of the policy of some Party members and authorities is not yet in-depth, not cohesive nor aligned; scaling up of the plan is not via a systematic approach and not centrally aligned, with no detailed plans. Therefore the implementation is not fully or actively performed. Innovation, new thinking and taking full accountability and initiatives in each level need to be strengthened.
- 2) Advisory-leadership to translate into workplans, programs and projects is not clear and not yet timely. Coordination between sectors among central levels, and between central and local levels in macro

economic management is not fully cohesive. Economic and financial management is not effective and compliance to the law, regulations is not strong, with little disciplinary action in planning-finance;

- 3) Development of Party personnel, particularly on staff succession planning in each level on moving towards the policy of young, modern, professional and high performance leaders has not yet been embedded in the health services in a new era, and regional and international integration have not yet had an impact.
- 4) Impacts from the global financial crisis, natural disasters, pandemic outbreaks, and widespread misinformation can negatively affect societal cohesion.

### **3. Lessons learned**

- 1) Continue to increase trainings on political thinking, ethical and moral planning and management to health workers at all level nationwide to ensure they are actively performing their political mandates, take accountability and are happy to serve the people.
- 2) Improve work procedures with a more active and scientific approach whilst having an in-depth knowledge of information, research, analysis, full understanding of issues in their sectors and local areas in an accurate, cohesive and objective manner in order to decide and define plans which will then translate into work programs by enhancing the correspondence between workplan, staffing and budgeting.
- 3) Clearly define work programs in each period, which should be relevant and appropriate to the actual context by defining focus areas, clear interventions with details in order to address the issues in scaling up the political directions as well as the national socio-economic development plan in each stage and move toward effective implementation.
- 4) Work performed based on clear, focused and realistic plans, with high ownership and accountability to the scaling up and implementation of the party directive strategy and the government plan which are under the roles and responsibilities of the Ministry, departments and local areas to ensure the alignment and attainment of the set goals.
- 5) Once tasks assigned by management are performed, there should be field visits to encourage implementation, promote potential strengths, and provide guidance on gaps, issues on implementation that need to be adapted appropriately and in a timely manner. After the field visit to support the implementation, several critical areas on main causes, what happened, and what shall be a focus areas should be identified. Therefore, focus areas to completely address the primary causes in full will be identified.

## **Part II**

# **Direction of the 9th Five-Year Health Sector Development Plan (2021-2025)**

### **1. Importance of the plan**

The Health Sector Development Plan 2021-2025 is the 9th Health Sector Development Plan with its aim to help implement the 11th Lao People's Revolutionary Congress Resolution and the 9th five-year plan of the national socio-economic development plan (2021-2025) to achieve the requirements for LDC graduation by 2024, and to prepare the country for the high-medium income country status and to achieve Universal Health Coverage (UHC) by 2025 and to achieve SDGs goals by 2030. The Plan will contribute to social-economic growth, stability, quality and will balance and transform development by promoting potential strengths, moving towards industrialization and modernization, sustainability and environmentally friendly approaches in order to mark the celebration of the 50th National Day Anniversary on 2 December 2025 (1975-2025).

### **2. References**

- The Prime Minister's Order (No. 05, dated 21 May 2019), on the development of the 9th Five-Year National Socio-Economic Development Plan (2021-25) and Instruction Notice from the Ministry of Planning and Investment (No. 1610/MPI, dated 26 July 2019), Instruction Guideline on the development of 9th Five-Year National Socio-Economic Development Plan (2021-25);
- The Ministerial Agreement (No. 1079/MOH, dated 7 May 2019), on appointing the technical working group committee to draft the 9th five-year plan (2021-2025) to realize Universal Health Coverage objective;
- The summary of the mid-term review and end-term plan of the implementation of the 8th five-year health sector development plan (2016-2020);
- Advisory guidance from the seminars' results between the technical working groups and the provincial level and donors in 2019.
- As per the IX Party Congress members conference of the Ministry of Health, 3-4 December 2020.

### **3. Overall directions**

The aim is to continue to develop and implement the human resource development strategy in accordance with universal health coverage by placing hygiene-prevention and promotion of primary healthcare as the main focus; provide treatment and universal health services with quality, fairness and equity as an essential part; comprehensively reform the health sector, and apply people-centered health service delivery in an ethnical manner to serve the population both physically and mentally; to develop national health insurance to support a strong social community, helping each other through the universal health service security both in term of disease prevention, health promotion and healthcare; to ensure people, - child, adult and elderly - have good health with the focus on primary healthcare; to promote new healthy living styles with less health risks, and raise awareness on self, family and community healthcare.

### **4. Directions and primary functions**

- Align hygiene and prevention by promoting vaccine and health promotion and treatment-rehabilitation, applying modern health practices and traditional health practices for healthcare work, aiming at upgrading quality of services, and focusing on the priority indicators related to the realization of graduation from LDC status, achieving UHC and SDG goals;
- Review the implementation of the Phase II Reform Strategy (2016-2020) and prepare for the focus areas of Phase III Reform Strategy (2021-2025); integrating the mechanisms to realize UHC through upgrading quality and modernizing services; ensure access to healthcare for all without financial constraint, whilst

enabling conditions for hospital self-sufficiency step by step in accordance with sustainable directions and leaving no one behind. At the same time, striving for success to mark the celebration of the 50th National Day Anniversary on 2 December (1975-2025);

- Advise and guide the implementation of the 9th five-year plan (2021-2025) in accordance with 8 programs, 49 sub-program and 133 projects and striving to achieve national health indicators in coming years.

## 5. Objectives

- Develop health official staffs’ quantity and quality, and provide sufficient quotas at district and village healthcare centers; upgrade skills and technical knowledge, ethical and moral manners and code of conduct for healthcare workers to serve the people with quality services to customer’s satisfaction;
- Implement universal health coverage in line with hygiene, prevention, health measures and health promotion as a primary focus, placing attention on mother and child healthcare; increase hygiene advocacy and awareness on nutrition and self-care for good health. Improve child nutrition for their healthy growth, and ample nutrition for good height and weight according to his/her age; provide treatment and universal health services with quality, fairness and equity as an essential part while at the same time promoting the modernization of health services and enabling conditions for hospital self-sufficiency step by step. This can be done through improving and expanding services of hospitals at all levels and equipping them with necessary medical equipment, through upgrading Lao healthcare services of equivalent to regional quality, through responding to the demand for health service, aiming to reduce the use of non-essential health services in other neighboring countries;
- Strengthen and sustain health sector financing systems, widen the health security system, and continue to implement policy on free health service for the poor, pregnant women and children under-5; improve the social security system by incorporating the health security fund into one system; and strengthen management capability, moving toward self-sufficiency and achieving universal service coverage by 2025;
- Improve structure and effective and efficient working procedures through scaling up of the reform strategy towards the 4 breakthrough strategy and 3-builds direction in the actual works; implement management administration mechanisms and the healthcare system with quality, equity and fairness and apply a people-center approach, with a focus on the physical and mental and environment;
- Improve the health information system to ensure accuracy, completeness and timeliness to apply more broadly. Information should be provided from the grassroots level using the family folder to monitor and evaluate indicators, and this information can be used in planning at each level, together with health education work to ensure people’s awareness, engagement and understanding.

## 6. Targets by 2025

No.	Indicators	Target 2020 - 2025 & 2030						
		2020	2021	2022	2023	2024	2025	2030
1	Prevalence of underweightedness in children under five years of age (%)	20	19	18	17	16	15	10
2	Prevalence of stunting among children under-five years of age (height-for-age) (%)	32	31	30	29	28	27	23
3	Infant mortality rate (per 1,000 live births)	30	28	26	24	22	20	<12
4	Under-5 mortality rate (per 1,000 live births)	40	38	46	34	32	30	<25
5	Maternal mortality ratio (per 100.000 live births)	160	150	140	130	120	110	<70
6	Percentage of births attended by skilled health professionals (%)	80	81	82	83	84	85	>90
7	Percentage of pentavalent 3 vaccine (%)	95	95	95	95	95	95	100
8	Percentage of households with access to rural water supply (%)	90	91	92	93	94	95	>95
9	Percentage of households using latrines (%)	80	81	82	83	84	85	>90
10	Universal Health Coverage (%)	94	94	94,5	95	95,5	96	>96
11	Percentage of model health village certification (%)	80	81	82	83	84	85	>85

## Part III

# The 9<sup>th</sup> Five-Year Health Sector Development Plan (2021-2025)

Comprises 8 programs 49 sub-programs 133 projects as follows:

## Program 1: Hygiene and health promotion

### ❖ Priority tasks:

- Continued implementation of the national strategy and action plan for integrated reproductive, maternal and new-born, and child health services and the nutrition strategy (to achieve mother and child and nutrition targets). Focused attention on provincial, district and health centers that are still in difficulty by improving technical capacity and supplying necessary equipment-medicine while conducting campaigns to encourage and promote ownership of communities and administration/ authorities;
- Continued improvement and expansion of better mother and child healthcare services in the implementation of free delivery and child healthcare policy for higher quality and countrywide coverage, focusing on sector-related indicators such as the use of vaccines for prevention of diseases (including Covid-19), ANC visits/delivery with skill birth attendance, family planning, nutrition, and the use of water and toilets;
- Carrying out encompassing projects and supporting mother and child health and nutrition through reviews and evaluation as well as addressing the causes of the death of mothers and children in collaboration with localities and donors;
- Improving the unity and quality of the District Health Information System 2 of to collect and use data for monitoring and evaluation of the progress of the services of each level countrywide;
- Continued encouragement of community involvement in primary health care (PHC) led by village volunteers and village health committees in the creation of the healthy village model, making it become a mission of the community, by the community, and for the community, and directly contributing to the 3-build policy related-works according to the sustainable direction of the sector in order to fulfill the expectation of the translation of the instruction No 34/PM;
- Continued provision of education on health through campaigns, dissemination, training and provision of guidance, communication, awareness raising and providing information to the public so they recognize, understand, change their behaviors, have good lifestyles and be conscious of their own healthcare (a new normal).

### ❖ Sub-program and projects: the hygiene and health promotion program comprises 6 sub-programs and 24 projects as follows:

## 1.1 Mother and child health sub-program

### 1.1.1 Immunization project

- Carry out immunization activities in all 18 provinces;
- Procure national-wide vaccines and distribute vaccines (including COVID-19 vaccines) to all provinces 4 times/year. In particular, the COVID-19 vaccine provision should focus on the 2021 target for to cover 22%, in 2022 to cover 50% and 2023 to cover 70% of the target population.
- Install, maintain and monitor the cold chain system at central level and all 18 provinces;
- Strengthen the capacity for routine immunization in the 18 provinces;
- Improve vaccine supply and cold-chain management;
- Review the dissemination and the implementation of the vaccination law



- Improve and maintain walk-in cold rooms;
- Conduct quarterly meetings at provincial, district and health center levels with responsible committees and personnel, especially in high-risk areas;
- Monitor and follow-up on the implementation of micro-plan training;
- provide immunization training for health workers at the health center level;
- Print immunization forms/EPI tools;
- Print the vaccination law and vaccine monitoring book;
- Conduct annual EPI review meetings;
- Improve health facilities and build waiting areas/rooms for healthcare workers to provide counseling on immunization while parents are waiting for service;
- Conduct a study on community engagement and involvement on immunization;
- Install autoclaves for 10 districts;
- Procure tools for cold-chain maintenance;
- Conduct training for cold-chain maintenance teams;
- Procure refrigerators and cold boxes.

### **1.1.2 Project on reproductive health and family planning**

- Strengthen, monitor and advise on-site on reproductive health/family planning and estimation of the need for medicine of central, provincial, district and health centers, and provincial hospitals for monitoring visit to district and health centers;
- Collaborate in the procurement of contraceptive pills for distribution to 18 provinces;
- Train trainers on the standard manual for ANC care for districts;
- Expand and improve youth friendly facilities;
- Check for early diagnosis of cervical cancer, safe abortion, readiness before pregnancy, and technical encouragement;
- Collect and analyse data on the maternal death;
- Maintain surveillance and response to maternal death for central hospitals;
- Publish the mother and child health monitoring books (Pink book) for 18 provinces,
- Organize meeting for unification of data on family planning;
- Strengthen capacity on-site on reproductive health and family planning for staff of provincial, district and health centers countrywide;
- Review the implementation and application of the reproductive, mother, newborn, and child health strategy countrywide;
- Strengthen capacity to promote maternal health and services for pregnant women;
- Refresh training on knowledge transfer on reproductive health, family planning and sexual health to youth of the provinces;
- Train on knowledge transfer on reproductive health, family planning and sexual health to youth of the provinces;
- Monitor and encourage provincial hospitals, district hospitals and health centers on reproductive health and family planning;
- Strengthen capacity on-site of staff of provincial hospitals, district hospitals and health centers.

### **1.1.3 Project on quality improvement on MCH promotion**

- Improve data on maternal and child health;
- Organize committee and sub-committee on RMNCAH strategy at central level;
- Conduct dissemination workshop on the focus actions of maternal health (400% project) for district level and health worker at health center level for 18 provinces, 60 districts (to strengthen health care quality improvement system at district level);
- Ensure central obstetrics and gynecology specialists provide technical support to the provincial and district level;
- Conduct seminar on monitoring and follow up on the integrated RMNCAH strategy for 6 provinces (at provincial and district level);
- Organise technical team to provide monitoring and support to MCH team after the pilot implementation of the Vientiane capital module;
- Conduct annual review meeting for 2021 and way forward 2022 for MCH activities in Xiengkhouang and Huanphan province;
- Provide monitoring and support for integrated RMNCAH in Xiengkhouang and Huanphan province;
- Evaluate the RMNCAH strategy implementation in 16 provincial hospitals;
- Review the manual for the monitoring and support MCH work;
- Conduct refresher training for trainers for monitoring and support for MCH work in three regions;
- Conduct reflection meeting on the implementation of the integrated RMNCAH strategy;
- Conduct national annual technical workshop on MCH work;
- Publish revised MCH form and distribute nationwide.

### **1.1.4 Project on maternal health promotion (pregnancy & postpartum care)**

- Strengthen counseling capacity for pregnant women on HIV transmission in 18 provinces;
- Integrate STD screening rapid test and materials in ANC;
- Conduct refresher training counseling on prevention of mother to child transmission for provincial and districts level;
- Conduct consultation meeting to development manual on counseling for prevention of mother to child transmission (PMCT).

### **1.1.5 Project on under 5 years child health promotion**

- Print early childhood development guideline and developmental delay in childhood;
- Print manual for essential newborn care and sick child at community level (Job aids) C-IMNCI;
- Monitor and supervise child health care (under 5) at five central hospitals, and Khammoun, Savannakhet, Champasack, Attapeu, Bokeo provincial hospital and Xaisetha hospital;
- Strengthen preparedness, surveillance system and respond infant death review-under one month;
- Conduct training on child development for 7 new provincial hospitals (Borikhamxay, Vientiane province, Laungnamtha, Xaiyabury, Xiengkhouang, Huaphan and Saravan);
- Follow up and monitor child growth in 7 provincial hospitals (Borikhamxay, Vientiane province, Laungnamtha, Xaiyabury, Xeingkhong, Hauphan and Saravan);
- Improve infrastructure of facilities for well child and growth monitoring of children in 7 provincial hospitals (Borikhamxay, Vientiane province, Laungnamtha, Xaiyabury, Xeingkhong, Hauphan and Saravan);

- Train VHWs about CIMNCI (Integrated Management of Neonatal and Childhood Illness) at the provincial and district levels where there are high infant mortality rate;
- Follow up and evaluate provinces that received training on C-IMNCI, train and provide support on site to VHW about C-IMNCI;
- Provide lifesaving skill training for Saysomboune provincial hospital (the training will be carried out at central hospitals for 3 months resuscitation and life saving skills);
- Conduct training and follow up for provincial hospitals (Borikhamxay, Vientiane province, Laungnamtha, Xaiyabury, Xeingkhong, Huaphan and Saravan) with schools and patients.

## **1.2 Sub-program for health promotion**

### **1.2.1 Project on health communications and education**

- Publish monthly magazine;
- Print posters on communicable and non-communicable diseases;
- Conduct discussion and planning workshops on advocacy plan for preventive outbreak control;
- Organize workshop to disseminate the agreement on management of media production;
- Support 18 provinces for seasonal disease prevention campaign;
- Conduct workshop to instruct on how to use report form on health communications;
- Strengthen capacity for staff at national and provincial level on how to provide counseling services and health communications;
- Conduct training on how to provide counseling and friendly services to health workers at central, provincial and district levels;
- Conduct training on how to produce TV programs, radio programs and other media products (at neighboring countries);
- Organize annual lessons learned media sessions;
- Produce TV program in Vientiane Capital and provincial level (at least 650 episodes);
- Produce radio program in Vientiane Capital and provincial level (at least 750 spots);
- Collate relevant news related to MOH and provinces (at least 1,500 news clip);
- Advertise during traditional and national events in Vientiane capital and provincial level (at least 48,000 times);
- Advertise health matters on Facebook (at least 500 titles with 20,000 likes and 23,000 followers);
- Produce TV communications (safe food, vaccination, 3-cleans, dengue fever);
- Develop radio advertising spots (flu, diarrhea, waterborne diseases);
- Design print media (flu, diarrhea, waterborne diseases);
- Develop and design health magazine;
- Develop health information and database;
- Conduct media meeting on health with relevant parties at Vientiane Capital;
- Improve library;
- Follow-up on media products at the provincial and district level (1 year/1 province).

### **1.2.2 Tobacco and alcohol control project**

- Improve tobacco control law;
- Disseminate decree on fines and other measures against violators and other relevant regulations

- on alcohol and tobacco controls;
- Celebrate 'Alcohol Free' Day;
- Organize events for alcohol free day, drink don't drive campaign during any important traditional and seasonal events.

### **1.2.3 Health promotion for elderly project**

- Organize meeting to appoint the health promotion committee for the elderly group in Ministry of Health;
- Conduct National Committee for Elderly Group annual meeting;
- Develop Health Leader and elderly communities at the village level;
- Organize short-term training on elderly health promotion (Home Health Care) for health workers at district level and health center and Health Leader for elderly group at the village level (1 person per district, 1 person per health center, 2 persons per village);
- Conduct follow up session to support health promotion for elderly group at district, health center and village twice a year;
- Organize study tour for exchange learning on health promotion for the elderly in elderly care centers in Khon Kaen, Thailand.

### **1.2.4 Healthy city project**

- Develop policy on healthy district;
- Develop strategy and workplan on healthy district;
- Disseminate information on negative impacts from consuming alcohol, cigarette and prevention of non-communicable disease to the government officials;
- Disseminate information on negative impacts from consuming alcohol, cigarette and prevention of non-communicable disease to teachers and students;
- Develop exercise video clips;
- Follow up on the establishment of hygiene markets across the country.

## **1.3 Sub-program on hygiene and rural water supply**

### **1.3.1 Project on Rural Water Supply Management - Water Safety Plan**

- Support implementation of water and sanitation in 8 provinces (Sayaboury, Luang Prabang, Oudomxay, Luang Namtha, Khammouan, Saravan, Sekong, Champasack, Attapeu);
- Continue to repair and protect the clean water system nationwide where it is damaged and unusable;
- Evaluate the implementation of safe water project and Community Lead Total Sanitation (CLTS) in 8 provinces (Xiengkhouang, Houaphan, Phongsaly, Luang Prabang, Borikhamxay, Xaysomboun, Khammouan, Saravan);
- Conduct training on survey, design and costing on gravity-fed system for Vientiane Province;
- Conduct training on survey, design and costing on gravity-fed system for Borikhamxay and Khammouan;
- Undertake surveillance on rural water and water supply in 18 provinces across the country;
- Conduct training on management and maintenance of clean water supply in 2 provinces (Saravan and Sekong);
- Conduct training on safe water in 3 provinces: Vientiane Province, Saysaboury and Savannakhet;

- Monitor the implementation on integration of safe water plan and schistosomiasis (human blood parasite) in 8 new villages of Kong district, Champasack province;
- Monitor and inspect quality of drinking water, household water in 4 provinces: Borikhamxay, Champasack, Saravan and Attapeu;
- Monitor and inspect quality of drinking water, household water in 4 provinces Bokeo, Oudomxay, Luang Namtha;
- Conduct training on how to use water quality checking tools for 5 provinces: Champasack, Sayaboury, Phongsaly, Bokeo, Luang Namtha;
- Conduct training on drinking and household water treatment and safe storage in 5 provinces: Oudomxay, Houaphan, Sayaboury, Borikhamxay and Sekong;
- Conduct field inspections of the school water supply in 3 provinces: Saravan, Sekong and Attapeu. Inspect and survey school water system in 109 villages (schools). Monitor the construction of school water supply in 109 villages (schools);
- Monitor and inspection and provide guidance on construction which related to the output 2;
- Provide clean water supply appropriate to the local weather conditions of the target communities (strengthening capacity for province/district on mechanism for cost recovery from the water system construction);
- Expand water supply, sanitation and hygiene in 4 target provinces in Lao PDR: Oudomxay, Phongsaly, Xiengkhouang and Houaphan;
- Develop and implement strategy, standards and guidelines to support sustainability for communities;
- Implement promotion policy, awareness raising and create demand for behavior change for water and sanitation.

### **1.3.2 Environmental health and sanitation project**

- Conduct training on water and sanitation data entering into DHIS2 for 18 provinces;
- Procure equipment and tools for air quality checking for National Centre for Environmental Health and Water Supply in 3 regions (Luang Prabang, Savannakhet, Champasack);
- Conduct Training of Trainer workshops at the provincial level on how to use the Water and Sanitation for Health Facility Improvement Tool (WASH FIT) in health facilities;
- Organize meeting to continue develop strategy and five-year plan on food sanitation;
- Procure equipment and quality checking tools for 4 provinces (Bokeo, Oudomxay, Luang Namtha, Vientiane Province);
- Monitor the Community Lead Total Sanitation (CLTS) work after announcement as ODF village ('Open defecation free') and collect data for the implementation of CLTS in all 18 provinces;
- Provide training on before and after stimulation of CLTS in 2 provinces: Xiengkhouang and Luang Prabang;
- Conduct Training of Trainer at for CLTS in 2 regions: Luang Prabang and Champasack;
- Dissemination workshop on CLTS in Sayaboury;
- Provide training on promotion of CLTS in Luang Prabang and Xiengkhouang;
- Provide training on environmental health standards in health facilities in 2 provinces: Luang Prabang and Xiengkhouang.

### **1.3.3 Occupational Health Management project**

- Collect health and safety information for workers and laborer's working in factories in 5 provinces:

Khammouan, Savannakhet, Saravanh and Champasack.

- Monitor water, sanitation and hygiene in factories in 3 provinces (Champasack, Sekong and Attapeu)
- Monitor and evaluate the implementation of health promotion for workers and communities in 18 provinces.

#### **1.3.4 Climate change project**

- Undertake preparedness for emergency response in 4 southern provinces (Khammouan, Saravan, Sekong, Attapeu);
- Conduct training on preparedness for emergency response and health resilience to climate change to Oudomxay, Phongsaly, Bokeo and Vientiane Province;
- Provide health equipment for field support, consumables to support on clean water and mobile sanitation during emergency events;
- Provide vehicle(s) for field surveillance work, follow up, inspect and response to natural disaster emergency events

#### **1.3.5 Health impact assessment project**

- Develop policy on healthy district;
- Develop strategy and workplan on healthy district;
- Disseminate information on negative impacts from consuming alcohol, cigarette and prevention of non-communicable disease to the government officials;
- Disseminate information on negative impacts from consuming alcohol, cigarette and prevention of non-communicable disease to teachers and students;
- Follow up on the establishment of hygiene markets across the country.
- Organize meeting to continue drafting Decree on health impact assessment.

### **1.4 Sub-program on nutrition**

#### **1.4.1 Project on promotion of Micronutrients and deworming (Iron, Acid folic, Zinc, B1, A, Iodine, food fortification)**

- Conduct study about insufficient micronutrient for pregnant women and children;
- Supply medicine for nutrition activities; deworming, vitamin A, B1, iron, zinc for all 18 provinces;
- Allocate budget as per the priority actions, to facilitate nutrition activities with focus on distribution of micronutrient and deworming;
- Conduct training on how to use national guidelines for the distribution of micronutrient, vitamin A, B, iron, zinc etc., also to conduct training on demand estimation at central, provincial, district and health center levels;
- Conduct annual meeting on iodized salt consumption and the elimination of non-iodized salt.

#### **1.4.2 Project on promotion of maternal and child nutrition and infant and young child feeding (IYCF)**

- Focus on health promotion and community based health care including model healthy village (rise awareness on food preparation, health screening health education, WASH, promote animal raising, clean agriculture);
- Disseminate manual on the standards of model village for nutrition;

- Share knowledge on food preparation based on available local materials;
- Monitor and follow up on the implementation of the decree on food products and feeding equipment for infants and young children;
- Implement integrated services on nutrition at community level twice a year at village level area 2 and 3;
- Celebrate national nutrition day and national breastfeeding week.

#### **1.4.3 Project on promotion of safe food consumption and nutrition in health facility, school, factory, manufacture and community**

- Promote and raise awareness on hygiene practices at the family level, so all households have latrine and access to clean water;
- Strengthen service capacity on nutrition services and growth monitoring of child in kindergartens;
- Strengthen nutrition service capacity to be able to promote healthy food consumption and also to be able to assess nutrition situation at working places such as factories;
- Develop and revise all tools regarding health education and behavior change in the Lao language and local languages to support the implementation and sector wide coordination in nutrition activities with a clear focus;
- Provide nutrition information to help with behavior change through all forms of mass media and promotion with clear focus and targets;
- Mass organization such as Lao Women's Union, National Front for Development and other agencies to help distribute and share information about nutrition through print and electronic means;
- Establish model kindergarten school for nutrition at central level,
- Promote nutrition therapy at health care facility at central level;
- Provide counseling for nutrition therapy at health care facilities at central level and central hospitals;
- Monitor and follow-up with clients that received nutrition counseling health care facility at central level;
- Develop communication tools to help communicate prevention of NCD (reduce sweet oily and salty food) - this will reduce risk of high blood pressure, kidney problem and heart disease and create video to promote healthy life by regular exercise;
- Conduct review meeting on communication tools to help communicate prevention of NCD (reduce sweet oily and salty food) to reduce risk of high blood pressure, kidney problem and heart disease and create video to promote healthy life by regular exercise;
- Design and produce communication tools for to help communicate prevention of NCD (reduce sweet oily and salty food) to reduce risk of high blood pressure, kidney problem and heart disease and create video to promote healthy life by regular exercise;
- Share and distribute communication tools to help communicate prevention of NCD (reduce sweet oily and salty food) this will reduce risk of high blood pressure, kidney problem and heart disease and create video to promote healthy life by regular exercise;
- Continue to develop policy on safe restaurants for good health and nutrition;
- Share and disseminate manual about safety standard restaurant for good health and nutrition;
- Follow up on the implementation of the standard of health and good nutrition restaurant;
- Develop manual for safe food and water for nutrition;
- Conduct consultation meeting to develop manual for safe food consumption and clean water for cook;

- Design and test the manual for safe food consumption and clean water for cook;
- Print and distribute manual for safe food consumption and clean water for cook;
- Undertake study visit of school meal programs or nutrition in school, work place and community at Khon Kaen province, Thailand.

#### **1.4.4 Project on administration and management on nutrition**

- Develop manual for good nutrient food;
- Conduct training and how to use the manual for good nutrition for community;
- Monitor the progress on nutrition indicators;
- Strengthen staff capacity for nutrition research by upgrading technical training program from short term long term (master and bachelor level);
- Develop human resource development plan for nutrition staff,
- Review and update manual for training to strengthen the nutrition project with concerned agencies;
- Strengthen institutional capacity for health education and nutrition with the focus on behavior change;
- Conduct short training for nutrition manager at all levels from central to district level;
- Conduct short training for nutrition therapy and curative care of malnutrition;
- Conduct short term training to help promote nutrition activities for health workers at community hospital, health center levels and other related staff;
- Integrate nutrition practices into health training program;
- Conduct long term upgrading program for staff (diploma, bachelor, and master level-domestic training) training topic to include food security and nutrition;
- Conduct long term training program on food security and nutrition-overseas,
- Conduct short term training program oversea (study tour, exchange program, seminar and participate in meetings);
- Develop training curriculum for higher level education (bachelor and master level), and also the training program at food security institute and nutrition center;
- Support the production of supplement for the prevention and curative care of malnutrition for pregnant women, mothers breastfeeding and children under five (develop training modules, train and disseminate);
- Conduct refresher training on nutrition for mother and child, and supplement for pregnant women, breastfeeding mother, by providing counseling during ANC and PNC visit with provision to increase immunization in the risk area;
- Review and develop policy and legislation on food safety;
- Disseminate develop policy and legislation on food safety;
- Raise awareness and knowledge about food safety and clean water;
- Develop and disseminate manual to facilitate the implementation of nutrition program in workplaces and factories;
- Monitor and follow up on food safety at school;
- Monitor and follow up on food safety and hygiene;
- Review and update manual on case management of acute mild malnutrition;
- Conduct IMAM OPD/IPD training;
- Develop manual and conduct IPD training (SAM);
- Training on data collection on nutrition and counseling;



- Monitor and support institutional capacity and to strengthen nutrition network services at all levels from central to community level.

#### **1.4.5 Project on research, surveillance and information on nutrition**

- Establish nutrition surveillance system in all 18 provinces;
- Develop nutrition mapping for central, province and district levels;
- Evaluate nutrition assessment for mother and child 6 months to 2 years by using isotope technique;
- Conduct study about anemia for women in their reproductive age,
- Conduct study about food consumption and nutrient at school level;
- Conduct study about food consumption and nutrient in each meal at factory and hospital;
- Conduct training on how to use manual for good food consumption that are available locally;
- Develop database on nutrition assessment for children under 5,
- Develop website, and information about nutrition, including nutrition magazine;
- Monitor and follow up on the implementation progress of nutrition activities in all 18 provinces;
- Inspect street food as well as food served in restaurants;
- Conduct training on how to use national manual on micronutrient, deworming, vitamin A, B1, iron, zinc, and another mineral, including annual planning activity;
- Develop manual and forms to record and report the progress of national indicators that are related to nutrition;
- Review meeting on the progress of nutrition indicators at provincial level, for all 18 provinces;
- Strengthen capacity for food analysis and inspection, including drinking products and laboratory work;
- Collect urine samples of school student annually for testing PH level of iodize salt, and to procure and supply medical equipment and other testing kits and conduct training for the team;
- Conduct training and follow up on the implementation of GHP and GMP/HACCP in the food processing to inspect food safety, safe food preventing foodborne diseases for both local and import food products.

### **1.5 Sub-program primary health care**

#### **1.5.1 Project on model health village (MHV)**

- Disseminate and scale up policy on primary health care into programs and projects within sector plan at all levels;
- Develop strategy and operation work plan for primary health care with the focus on UHC and inform all concerned agencies on implementation;
- Develop manual for model district health;
- Review and update primary health care manual for towns and capital city;
- Evaluate the implementation of module healthy village to concerned sectors nationwide;
- Revisit and conduct survey on the declared module healthy village according to the new 10 standard requirements, to help villages that already declared to achieve the new requirements and ensure sustainability;
- Plan and continue to implement the new module healthy village;
- Expand the primary health care implementation focus at district, town capital levels nationwide, focusing on development and to have family file integrated into DHIS2 to harmonize data and

reporting,

- Revisit and establish village health committee-nationwide;
- Disseminate the roles and responsibility of VHW and VHC with regards to primary health care;
- Support village with family file, to record and report data into DHIS2 for the harmonize information and sharing;
- Conduct a study visit to VHW and VHC with regards to the implementation of healthy village and primary health care to district team;
- Inspect and revisit the declaration of module healthy villages for all 18 provinces as per the new requirement.

### **1.5.2 Community health care service project**

- Strengthen the capacity of health care committees and health management teams at province and district levels;
- Strengthen the capacity of district teams and health centers regarding primary health care;
- Revise and establish a local team and integrated out outreach teams to carry out services in areas outside the catchment areas of health center, with the aim of recruiting more staff to help with the health center team;
- Improve the referral system from village to health facility;
- Improve and expand monitoring mechanism, M&E and use of ICT and DHIS2;
- Increase health care service as public services to initiate community ownership and participation in promoting primary health care;
- Encourage local involvement and ownership into community health services (based on the manual for VHV to promote primary health care);
- Provide monitoring and technical support in implementing community primary health care from central, province, district, health center and target villages;
- Conduct monthly meetings with health centers and villages to share and update on progress and report to the district level;
- Conduct assessment on the effectiveness and efficiency of community primary health care services;
- Implement the integrated primary health care in all 18 provinces;
- Develop budget plan and training for VHVs, village primary health care targeting focus villages in 71 districts 18 provinces;
- Collect data on VHV, village health workers, community midwife and village drug revolving fund-national wide;
- Collect information, register and issue ID card for VHVs yearly (since often there are changes regarding human resources example: retirement, moving to other sectors etc);
- Establish baseline information on VHVs and mapping exercise;
- Develop training course and standard manual for VHVs with regards to community primary health care that are link to all other programs;
- Update and revise the VHV manual into primary health care focus;
- Develop training plan to upgrade the existing staff and train new staff including the community midwife, traditional medicine, village health worker, member of village primary health care;
- Implement supporting policy and incentives for VHVs under government budget and with other partners;
- Support VHVs to regularly implement primary health care, coordinate with families and to update

family file;

- Coordinate and implement other cross cutting issues relating to primary health care in remote areas with the help of VHVs and health center health workers;
- Promote and provide training opportunities to 10 VHV as appropriate and especially those that are actively involved with and support community primary health care;
- Celebrate village health volunteer day and awards to outstanding performance staff;
- Conduct annual review meeting and coordination with concern sector, local authority, and other partners;
- Monitor and follow up on the progress of community health care and VHV in all 18 provinces.

## 1.6 Sub-program strategy and policy

### 1.6.1 Project on legislation, policy, strategy, planning, monitoring of indicators, evaluation and information

- Disseminate legislation on hygiene and disinfection practices to stop COVID-19
- Evaluate projects related to hygiene and health promotion
- Establish subordinate legislation on hygiene and disinfection;

### 1.6.2 Project on administration, meetings and cooperation

- Conduct annual planning meeting for 2022-2025 and responds plan for Covid-19
- Measure the progress of the national indicators for health sector within 18 provinces.
- Participate in ASEAN Regional Cooperation Conference on COVID-19 Prevention
- Conduct Tele-conference for lessons learned on hygiene and disinfection;

### 1.6.3 Project on capacity building for personnel

- Conduct annual meeting and develop the plan for 2022-2025 and COVID-19 prevention plan
- Upgrade staff specifically on administration and planning and medical 2 persons.
- Strengthen the staff from hygiene and health promotion in preventing COVID-19 and provide short-term training in foreign languages.

## Program 2: Prevention and Control of Communicable disease

### ❖ Priority actions:

- Disseminate and guide the implementation of DCDC law and related legislations, focusing on the International Health Regulation indicators (IHR) to be able to meet requirements. This will directly contribute to 5 goods and 1 satisfaction (IPC) by conducting re-assessment;
- Enhance capacity on monitoring and early detection of diseases as well as health emergencies, disasters, risk assessment, early warning and response with an effective and efficient surveillance system, especially on COVID-19, focusing on disease control along the border (GMS) and to have full time staff and report regularly;
- Prepare for the elimination of some diseases that are remaining health issues, such as malaria, tuberculosis, HIV/AIDS, lymphatic filariasis and schistosomiasis;
- Strengthen laboratory and epidemiology at each level, focusing on upgrading technical knowledge to enable the early and accurate diagnostic of communicable disease, especially at provinces and districts along the border (POE) to contribute to implementing five good one satisfaction;

- Improve access to quality assured malaria diagnosis and treatment at all levels, particularly the hard to reach and vulnerable populations, to ensure that people can access appropriate Tuberculosis treatment through health education and community mobilization, together with early counseling on HIV/AIDS testing and treatment, by implementing the strategy to eliminate these diseases by 2025 and 2030.

❖ **Sub-program and projects: Program on prevention and control of communicable disease comprise of 8 sub-programs and 16 projects as follows:**

## **2.1 Sub-program strengthening for achievement of international Health Regulation (IHR)**

### **2.1.1 Project on strengthening of preparedness and response for diseases outbreak and emergencies including regular meetings of Emergency Operational Centre (EOC)**

- Strengthen capacity on illness and outbreak surveillance at all levels;
- Support provincial and district levels to investigate outbreaks as needed;
- Provide supervision visits on surveillance at community level;
- Support epidemiology in FET;
- Train staff on outbreaks surveillance and response at central, provincial and district levels.
- Conduct surveillance supervision visits at the community level;
- Help province and district to investigate and respond to outbreaks as needed;
- Organize annual meeting to review implementation of the national workplan for emerging infectious disease (EID), public health emergency and health security; and complete the annual reporting tool called State Party Annual Reporting (eSPAR) with all identified stakeholders.
- Organize meeting to disseminate and provide training on IMS of EOC for the provincial level in order to be unified throughout the country;
- Conduct supervision visits and hands-on training for staff who are responsible for EOC and outbreaks response in 18 provinces throughout the country;
- Organize tabletop exercises, simulation exercises on emerging infectious disease response for all relevant stakeholders and rapid response teams within the health sector and conduct after action review for major health events.
- Rollout and train on 166 for provincial level including reporting on surveillance and investigation in the community.

## **2.2 Sub-program Epidemiology, preparedness and response**

### **2.2.1 Project on increased capacity building for surveillance and risk assessment of disease outbreak and public health event**

- Strengthen capacity on risk assessment throughout training and on the job training;
- Supervise surveillance at community level;
- Support communication and surveillance the diseases;
- Conduct training facilitators on assessment and response to national outbreaks FET;
- Conduct training on DHIS2 for provincial level;
- Conduct training to strengthen the capacity on communicable disease surveillance and response;
- Review the SOP guideline;
- Conduct surveillance assessment ILI&SARI;
- Conduct supportive supervision and follow-up surveillance system and responses;

- Organise meeting with network of field epidemiologists throughout the country;
- Strengthen prevention and response to outbreaks across the country;
- Organise meeting to develop legislation under the law on prevention and control of communicable diseases;
- Organise meeting to disseminate SOP on risk assessment for health situations throughout the country;
- Organize a meeting to review the communicable diseases; surveillance and response operational center at provincial level;
- Assess the implementing of provincial committees for communicable diseases prevention and control;
- Organize a review meeting for field epidemiologist to review the investigation of communicable disease outbreaks.

### **2.2.2 Increased capacity building for response to disease outbreak and public health emergency project**

- Undertake capacity strengthening on communicable disease control at provincial level in 18 provinces across the country;
- Conduct annual meeting on communicable diseases;
- Conduct rehearsal simulation to prepare for the response of communicable diseases after disasters and outbreaks for health workers from high-risk areas;
- Review the implementation of the Global Health Security Agenda by focusing on emerging communicable diseases at provincial level throughout the country;
- Strengthen capacity on 166 hotlines;
- Conduct advocacy meeting and sharing information on chemical, radiation, and nuclear to achieve the international health regulations (IHR);
- Conduct planning meeting on communicable diseases for provincial and district level in 2021-2025;
- Conduct technical meeting on capacity strengthening on prevention, treatment, and follow up patients with Hepatitis B/C in Vientiane Capital City (Merieux Center).

### **2.2.3 Project on field epidemiology training and epidemiology short courses**

- Support epidemiology in the field (FET);
- Conduct training of facilitators on national outbreaks assessment and response (FET);
- Undertake field epidemiology training ;
- Organize training on field epidemiology;
- Assess the usage of graduate students in the field in 18 provinces throughout the country;
- Organize review meeting for field epidemiologist on communicable disease investigation.

## **2.3 Sub-program laboratory**

### **2.3.1 Project to increase laboratory capacity at all levels**

- Conduct training to strengthen the capacity on laboratory to provide diagnosis and surveillance, response to outbreaks for provincial and district level (clinical laboratory, virology, sero-virology);
- Review guidelines on biomolecular labs for the diagnosis of dengue fever and COVID-19;
- Supply equipment, laboratory reagents for diagnosis and disease detection;

- Develop and publish a journal on laboratory and epidemiology work performance;
- Improve the laboratory and epidemiology information system;
- Improve laboratory materials and equipment maintenance (PCR, BSC, Autoclave);
- Monitor and evaluate laboratory working performance at targeted provincial and district levels.

### **2.3.2 Project on improvement of the standard management system and the quality of laboratory systems at all levels**

- Organise review meeting on the implementation of quality assurance;
- Undertake supervision visits on laboratory quality assurance operation for COVID-19;
- Organise a review meeting on quality assurance implementation (EQA) in COVID-19 testing nationwide;
- Conduct training on the sample packaging and transportation (EQA) of COVID-19, biology, virology, serology;
- Conduct training on the implementation of COVID-19 testing quality assurance;
- Organise laboratory network meeting (Bi-Annual Lab Networking meeting);
- Enhance the knowledge of laboratory and monitoring patients with Hepatitis B, C and HIV by conducting supervision visits and onsite training on sample collection and transportation to Vientiane Capital from Northern, Central and southern parts (Merieux Center).

### **2.3.3 Increase capacity for biosafety project**

- Conduct training on sample collection and transportation guideline;
- Organise EQA annual meeting;
- Conduct annual laboratory network meeting;
- Organise meeting to disseminate National guidelines for domestic specimen packaging and Transportation
- Monitor and evaluate laboratory working performance at targeted provinces and districts;
- Organise training on the development of laboratory quality manual;
- Organise laboratory biosafety practice training at district level in 3 provinces;
- Organise biosafety cabinet certify safety practice training;
- Organise meeting on the improvement of dangerous pathogens inventory;
- Organise laboratory quality and biosafety officer meeting at Provincial and district
- Conduct Lao Association for Medical Laboratory Science launching meeting
- Prepare NEQA programme;
- Organise laboratory quality management system meeting with targeted provinces and districts laboratory;
- On-site monitoring of biosafety and LQMS in 5 provinces and districts;
- Conduct training on LQMS for 5 central hospitals, 3 provincial hospitals and 6 district hospitals;
- Conduct meeting on laboratory biosafety practices;
- Organise meeting on national laboratory quality standards at for target laboratories;
- Undertake supervision visits for COVID-19 testing in every provincial hospital nationwide;
- Conduct training on COVID-19 testing by PCR;
- Monitor laboratory surveillance on dengue fever and health threatening pathogens in targeted provinces;

- Install PCR with onsite training on COVID-19 testing at Oudomxay and Savannakhet provincial hospitals;
- Provide training on COVID-19 testing by PCR to provincial hospitals nationwide.

## **2.4 Sub-program Prevention and Control of HIV/AIDS and Sexually Transmitted Infection (STI)**

### **2.4.1 Project to Increase the coverage and quality of preventing services for HIV virus infection, care, support and treatment to HIV/AIDS and STI infected patients**

- Conduct advocacy meetings on HIV prevention, health seeking behavior for Female Sex Workers (FSW) in 13 priority provinces;
- Conduct update mapping of locations and size estimation of MSM, transgenders in 12 priority provinces;
- Produce BCC, IEC materials;
- Conduct staff development training and health awareness campaign for target teachers and PWID in 18 priority provinces;
- Establish annual World AIDS Day celebration activity;
- Organize meetings for consultation, raise awareness among youth in 5 private sectors (colleges, companies and relevant stakeholders);
- Conduct HIV prevention and awareness training for high school teachers in 18 priority provinces;
- Conduct regular meetings of lessons learned with 3 relevant organizations in 18 priority provinces;
- Conduct regular meetings to exchange lessons learned with mass organizations in 18 priority provinces;
- Continue radio program on “awareness of AIDS” CHAS (Army Radio wave); Continue the radio programs on HIV/AIDS, STI prevent (military radio channel);
- Develop 5 television commercial spots for creating awareness in view of the impact of HIV/AIDS (new version);
- Conduct 1 year TV broadcasting on HIV/AIDS prevention (police channel);
- Conduct onsite training workshops on HIV adherence counseling and testing for 17 ARV sites healthcare workers and 9 central hospitals and network of people living with HIV;
- Conduct a review and meetings to develop SOPs and dissemination of guidelines and provision of HIV counseling and testing materials;
- Conduct a review workshop on guidelines, legal and policy to suggested improvement;
- Conduct annual meeting on HIV care quality improvement for national ARV sites;
- Conduct a review and meetings to develop and suggested improvement of HIV diagnosis, ARV, OI guidelines and essential SOPs;
- Edit and publish new developed HIV guidelines and dissemination;
- Conduct training workshops of new developed SOPs of point of care for national ARV and new point of care site healthcare workers;
- Procure ARV drugs;
- Procure OI drugs and other commodities;
- Conduct site assessment and consultative meetings of possibility expansion of new point of care (POC) in Attapeu and Sekong province;
- Organise onsite training of POC team in Attapeu and Sekong at ARV centre; Conduct onsite visits

- and training workshops for new ARV/Point of Care sites staff;
- Conduct joint supportive supervision by central CHAS and Champasack to new points of care in Attapeu and Sekong provinces;
- Provide desktop computers and IT equipment for new points of care in Attapeu and Sekong province.

## **2.4.2 Project on management of HIV and STI program**

- Build and strengthen human development at all levels for 18 priority provinces;
- Support onsite monitoring visits for 18 provinces;
- Conduct HIV/AIDS, STI collective learning and planning workshops for 18 provinces;
- Conduct budget planning workshops for 18 provinces;
- Organise annual review implementation meetings with National Committee Control of AIDS (2 times/year);
- Develop key activity and actions plan 2021-2025 for 13 provinces;
- Conduct consultation and review implementing workshops with central CHAS and key partners;
- Conduct legal and policy review meetings with central CHAS and relevant organizations in Vientiane Capital (3 days meeting);
- Conduct legal and policy review meetings with provincial and relevant organizations;
- Organise meeting to present the result from legal amendment meeting to central stakeholders; Consensus meetings on new developed policies with central and relevant organizations;
- Organise training and support the functioning of HIV/AIDS DHIS2 data reporting for provincial level
- Undertake supportive and onsite monitoring visits of HIV DHIS2 data reporting for 18 provinces
- Organise consultation meetings to develop national HIV/AIDS, STI indicators and tools
- Support collective learning and exchange meetings on DHIS2 routine data quality assurance with CSO partners in 5 provinces
- Organise seminar and strengthen the capacity of size estimation of key population and research by using AEM/Spectrum

## **2.5 Sub-program on Malariology, parasitology and entomological surveillance**

### **2.5.1 National malaria control project**

- Continue training and capacity building in malaria case management at all levels of the health system and in targeted communities, including a focus on integration of services and quality improvement;
- Implementation of aggressive interventions targeting high risk and hard to reach populations in high burden areas, such as seasonal chemoprophylaxis and targeted drug administration, with the aim of eliminating *P. falciparum*;
- Capacity strengthening and expansion of malaria elimination strategies into areas where transmission levels are low enough to sustain case-based surveillance and response activities;
- Undertake supervision visit and onsite training on health education for village health volunteers in the areas with malaria high incident in Phongsaly, Luangprabang, Khammouane, Savannakhet, Salavanh, Champasack, Sekong, and Attapeu provinces;
- Continue capacity strengthening for health center staff on health education and on using EIC materials in malaria control and eliminating at region 3 and 4 health center nationwide;
- Conduct training and quality assessment on malaria diagnosis by microscopy at provincial and



- district level in all provinces;
- Conduct refreshing training for provincial and district staff on DHIS2 on surveillance, logistic, and supervision visit in 13 provinces;
  - Undertake supervision visit on use of epidemiological data for operational decision making, use of the integrated stock management system, DHIS2 reporting after refreshing training for district and provincial staff in all provinces;
  - Conduct meeting on lessons learned about malaria outbreaks and materials reporting in DHIS2 in 18 provinces nationwide;
  - Continue vector surveillance in targeted areas with high malaria transmission;
  - Distribution of core vector control interventions through appropriate channels, such as mass distribution to long lasting insecticide impregnated bed nets (LLINs) to high risk populations every 3 years, annual distribution of LLINs to protect new-born and mobile and migrant populations;
  - Continue supplementary vector control interventions targeting populations with ongoing and sustained transmission, such as distribution of long-lasting impregnated hammock nets for forest goers and interior residual spraying of high burden villages;
  - Provide training to PPM on diagnosis, treatment, data management and materials supply including monitoring the quality of diagnosis (co-funding from government);
  - Increase PPM's role in the area of elimination where infection is found and referrals (co-funding from government);
  - Conduct PPM annual planning meeting (co-funding from government);
  - Continue education in health management (2-year curriculum Master Degree);
  - Produce IEC materials, advertising spots for radio program at central, provincial and district levels, and advertising through loudspeakers at village level in 3 languages (Laoloum, Hmong, Khummu);
  - Improve finance management system, project management, governance and planning tasks;
  - Celebrate World Malaria Day.

### **2.5.2 Dengue control project**

- Procure medicines and equipment such as larvacide, Aedes mosquitoes insecticide fogging, Bti larvacide, PPE for using during insecticide fogging;
- Continue Aedes mosquitoes insecticide fogging at the important places of party and government;
- Monitor and lead the work related to vector of dengue infection control during an outbreak;
- Conduct investigations when the infection of dengue is increased;
- Conduct training on dengue fever surveillance and control guideline for provincial and district staff;
- Organise annual meeting and lessons learned sharing nationwide on dengue fever prevention and control;
- Mobilize province, district and villages into dengue fever prevention and control with the participation of authorities at each level;
- Support provinces in controlling of all communicable diseases including dengue fever in 15 provinces;
- Undertake surveillance and survey the larvae and destroy breeding grounds at the provincial and district levels;
- Monitor surveillance and survey the larvae, destroy breeding grounds of dengue and health education;
- Organize meeting for journalists to provide the news on dengue fever prevention and control at

- provincial and district level;
- Conduct assessment on the usage of villager manual in dengue vector prevention and control in households.
- Revise Dengue clinical management guideline
- Provide refresher or on job training on Dengue clinical management guideline
- Conduct monitoring visits after training on using management guideline

### **2.5.3 Neglected tropical disease control project**

- Conduct program review for school deworming;
- Conduct stool examination for soil-transmitted helminthiasis (STH) in remaining 6 provinces in order to reduce number of rounds for MDA;
- Conduct stool examination for schistosomiasis (SCH) in sentinel sites and spot check sites in Khong and Mounlapamok districts of Champasack province
- Develop IEC materials for school deworming and the schistosomiasis programme in endemic provinces;
- Conduct comprehensive interventions for controlling of liver fluke and taeniasis 14 villages as pilot villages, Champhone district, Savannakhet province;
- Conduct training to strengthen the capacity on diagnosis of parasites by microscopy for provincial and district levels in 18 provinces;
- Conduct school health taskforce training on deworming in selected schools;
- Continue to conduct Mass Drug administration against Schistosomiasis;
- Monitor after MDA against SCH and STH in selected school or villages;

## **2.6 Sub-program on tuberculosis control (TB)**

### **2.6.1 Tuberculosis control project**

- Summarize the TB control, integrate with provincial and district sectors, stakeholders and civil society organization throughout the country and plan for next steps 1 time/year (the north, central, and the south);
- Conduct TB investigation in the areas with high TB incidents nationwide;
- Provide refresher training on TB database quarterly and individually (DHIS2 and TB Tracker);
- Undertake supervision visits on project management, technical, laboratory, finance and stock management from central to province, district and health center (02 times/province/year);
- Summarize the TB related tasks throughout the country and develop plan for the next steps for provincial and district laboratory staff. The target is 01 time/year (the north, central and the south);
- Organize a workshop to disseminate basic works to integrate TB into other sectors for district and village authorities 4 times/year;
- Provide training on TB and MDR TB case management, co-infection and TB in children to TB focal points at district level 03 times/year (1 time = around 25 participants) (DTM Training);
- Provide training on TB control in the prison across the country 03 times/year (1 time = around 25 participants);
- Provide training on laboratory technical, biosafety, and equipment management 2 times/year (1 time = around 25 participants);
- Organize a meeting to obtain an agreement on the draft multi sectoral approaches to End TB for

- leaders at Ministry, province and district levels, and other relevant sectors in order to make the strategy to End TB and eliminate TB an effective, efficient and practical implementation;
- Disseminate national strategy plan for TB to leaders at ministry, province and district levels and other relevant sectors in order to disseminate the End TB strategy and eliminate TB throughout the country;
  - Support strategy design, translation fee and publish for distribution;
  - Publish and organize a workshop on the legislation under the law of TB control and drug resistance;
  - Integrate TB health education into center of information education for health to the relevant sectors all levels from central to locality 8 times per year;
  - Celebrate World Tuberculosis Day nationwide;
  - Publish integrated IEC materials in the form of a short clip VDO in local languages (Hmong and Khmu) and advertise through various medias;
  - On air spot advertising for TB, billboard at central and provincial levels;
  - Coordinate with CHAS on the collaboration between TB and HIV/AIDS units at provincial and district levels, and especially supporting the focal points at provincial and district levels 2 times per year;
  - Conduct joint supervision visits of the implementation of TB/HIV to strengthen the linkage between the 2 programs;
  - Conduct training on procurement and stock management for TB control 02 times/year (around 25 participants for 1 time);
  - Train laboratory staff at provincial and district levels on management, using and maintenance the GeneXpert 2 times per year (01 time for 25 participants);
  - Renovate and extend the room for TB inpatients at district level; especially for poor districts or districts located in remote area in order to facilitate the care services;
  - Procure GeneXpert for district level especially where there is high incidence of TB and to use in diagnosis for other diseases such as: HIV/AIDS, Hepatitis and COVID;
  - Procure power supply for GeneXpert;
  - Purchase light protective clothes for TB investigation activities in community;
  - Purchase electric generator for TB investigation activities in community;
  - Upgrade human resources in each area as needed in the country and abroad such as in China, Vietnam, Thailand, Japan, Korea, or other countries as appropriate;
  - Support investigation, TB and MDR TB case management, capacity strengthening on laboratory technical and other areas (funded by Global Fund).

## **2.7 Sub-program on prevention and control of communicable disease transmitted from animal to human and communicable disease at borders**

### **2.7.1 Project on prevention and control of communicable diseases from animal to human (including bird flu, rabies, and other infectious diseases)**

- Conduct multisectoral meeting to review list of priority zoonotic diseases as a prioritization workshop.
- Review the guidelines on Anthrax,
- Conduct annual One Health Symposium;
- Conduct meeting to review national action plan on preparedness and response for influenza;
- Finalize and disseminate the national workplan on pandemic influenza preparedness

- Conduct training on national plan for prevention and control of zoonotic Influenza;
- Conduct refreshing training on zoonotic diseases for provincial and district staffs;
- Celebrate world rabies day in Vientiane Capital;
- Conduct training on basic knowledge about rabies prevention and control for health staff;
- Survey and collect data on rabies nationwide;
- Organise a workshop to share information on zoonotic diseases between health and agriculture-forestry sectors at central, provincial, and district levels;
- Improve the guidelines on surveillance, prevention and control, investigation and response to rabies;
- Review and revise sub-committee for rabies prevention and control under the rabies prevention and control committee.
- Improve knowledge on “one health” concept through South East Asia One Health University Network collaboration.

### **2.7.2 Project on prevention and control of communicable diseases and response to public health emergency at point of entry**

- Provide equipment and supplies for POEs;
- Develop criteria or list of requirements that each type of POE needs to meet according to the decree number 558/PMO
- Conduct onsite training for health staff at the border checkpoints including the staff responsible for preparedness to the outbreaks of emerging and reemerging communicable diseases prevention and control at border checkpoints throughout the country;
- Conduct simulation exercise on the coordination for health emergencies prevention and control;
- Develop SOPs for each international POEs on health screening and Develop ill traveler management procedure for POE including referrals when there is a case related to the public health emergency of international concern (PHEIC) found at the border checkpoints;
- Update the health declaration forms at the international checkpoints as required;
- Undertake study visit for sharing lessons learned on tasks at checkpoints between the international and domestic checkpoints;
- Provide uniforms for health staff at the international checkpoints.

## **2.8 Sub-program Control on anti-microbial resistance**

### **2.8.1 Implementation of anti-microbial resistance strategy project**

- Antimicrobial resistance surveillance strategy dissemination;
- Provide training and supervision visit to antimicrobial resistance network;
- Conduct annual AMR meeting;
- Conduct quarterly meeting for antimicrobial resistance committee;
- Review employer’s regulations defined by the committee that cover the details: the duration of assignment, responsibilities, duties, obligations and etc.;
- Organize advocacy workshop for policy makers and policy implementers in every sector to develop and improve existing policy direct or indirect way on the antimicrobial resistance control.

## Program 3: Healthcare and rehabilitation

### ❖ Priority actions:

- Continue to improve and upgrade hospitals at each level to meet standard according to services system and proper technical arrangements. Be ready to provide services with medical equipment and staff recruitment as defined; focus on addressing the causes of death both maternal and child mortality (health center 30%; community hospital 50%; regional hospital, central hospitals and treatment center to meet the ASEAN standard).
- Reform care services system to modern, improving quality, providing services with ethical standards, equality and justice by continuing assess quality of care according to 5 good 1 satisfaction; emphasized clinical and management issues at grass root level with quality assurance committee at each level. The committee consists of representative from multiple sectors in order to be able to evaluate and build a model of standardized services at each level, consider the technical division and referral services as a standard in 3-build of the sector that aim to build the strong services at grassroots level.
- Define the scope of rights and responsibilities in the division/assignment in hospital management with a management board and concise legislation according to the sustainable mechanism; to enable the hospital to be self-autonomous step by step. Ensure that both service providers and patients are satisfied by using technical revenue to improve and support services provision and contribute to reduce the burden of the government. Start at central level and then expanding;
- Improve central hospitals to be modern and comprehensive and establish university hospital; improve provincial hospitals to be able perform major surgery, orthopedic surgery, laparoscopic surgery, and other emergencies through integration of technical areas in learning-teaching-internship-research related to health care services of the faculties. Focusing on theoretical and practical sections between school and hospitals consistently and harmoniously; improve ability of district hospital to be able to perform caesarean section, every health center to be able to assist normal delivery, assign hospitals at each level to supervise/support its subordinate hospitals;
- Develop action plan for non-communicable diseases prevention and control with participation from within and outside the sector as well as community, and also promote regional and international investment, as well as public private partnerships (PPP) in health care to improve quality in line with the ASEAN standard, and also strengthens the management of private sector. Focus on integrated development “one belt one road” and “Lao-China railway and expressway”.

### ❖ Sub-program and projects: the health care and rehabilitation program comprise of 5 sub-programs and 19 projects as follow:

#### 3.1 Sub-program on Development of health care and rehabilitation network

##### 3.1.1 Project on improvement-construction of infrastructure for health facilities

- Continue Mahosot hospital construction project;
- Undertake infectious disease building construction at Setthathirath hospital, size 30 beds;
- Undertake provincial hospitals construction in Xiengkhouang, Houaphan, Luangprabang, Saiyabouly, Khammouane, Savannakhet and Salavan provinces;
- Undertake community hospitals construction at Ngot Ou district in Phongsaly province, Khong district in Champasack province, community hospital at Sanamxay district in Attapeu province, and community hospital at Nonghad district in Xiengkhouang province;
- Construct mother and child building at Kwuan community hospital;
- Improve surgery room at Longxan community hospital;

- Undertake construction project for Darkcheung community hospital;
- Undertake 20 beds isolation building construction in Attapeu and Sekong provinces;
- Undertake isolation building construction in Luangprabang, Oudomxay, Savannakhet, Champasack provinces; consists of 30 beds;
- Undertake community construction project in Mai, Boun-tai district, Samphan (Phongsaly province), Hun, Being district (Oudomxay Province), Long district (Luangnamtha province), Nam-bak and Phukhun district (Luangprabang province), Paktha district (Bokeo province), Nghun, Paklai and Botein district (Xaiyabuoly province), Haumoung district (Huaphan province) Mok and Phaxai district (Xiengkhang province), Thathum and Hom district (Saisomboune province) and Saisomboune provincial hospital, Nong, Uthomphone and Sephone district (Savannakhet province), Khongsedone and Laognam district (Saravan province), Paksong, Mounlapamok and Pathomphone (Champasack Province) Kalurm district (Sekong province), Sanxai district (Attapeu Province);
- Monitor the progress of hospitals construction at each level.

### **3.1.2 Project to supply of the medical equipment and ambulance for hospitals at different levels**

- Monitor and inspect installation and usage of medical equipment in hospitals at each level;
- Provide medical equipment and materials for central, provincial, district and health centers;
- Provide medical equipment and ambulances.

### **3.1.3 Project on development and strengthening of the hospital management at different levels**

- Improve quality of management, health care service at central, provincial, district and health centers by using IT system;
- Conduct meeting on technical lessons sharing between central, provincial and district hospitals;
- Conduct meeting on technical lessons on hospital management between district hospital type A , type A hospital that meets the requirement to share their learning with those hospital that still need to fulfill the requirement;
- Conduct training for hospital managers for all level with the focus on district hospital managers;
- Strengthen the capacity for hospital managers on work ethic, financial management, personnel, and other areas including hospital prevention and infection control, hygiene and health care, rehabilitation and health promotion;
- Continue to implement decree no 349/PM on the financial management and collection of services at health facility and other incentives for health care worker for better service quality;
- Undertake study tours both local and international to exchange lesson learn and practices.

## **3.2 Sub-program on development of health care profession and rehabilitation**

### **3.2.1 Strengthening on health care services for mother and child project**

- Continue capacity strengthening on newborn care at provincial, district and health center;
- Supervision visit on integrated care IMCI for newborn and child health at central, provincial, district hospital and health center;
- Conduct technical training on integrated IMCI at all levels of facility;
- Undertake supervision visits on newborn care at provincial, district hospital and health center; Train staff on emergency obstetric care, primary care, secondary care, and advance care services. CEmONC in province;

- Strengthen treatment capacity on nutrition at all levels of hospitals;
- Strengthen family planning and reproductive health at provincial and district hospitals.

### **3.2.2 Project on strengthening health expertise (internal medicine, traditional medicine, external medicine, emergency, resuscitation, infection, ophthalmology, ENT, dental care, dermatology, medical technician)**

- Continue to produce medical specialists level 1 focus on Obstetric, Pediatric, Gynecology, Anesthesia, OPD for all level of facility
- Continue to produce medical specialists level 2 focus on Obstetric, pediatric, gynecology, anesthesia, IPD and OPD for all level of facility;
- Develop and improve traditional health care services at central hospitals, provincial and community hospitals;
- Continue to produce medical specialists level 1 for dermatological diseases, medical legislation and rehabilitation in foreign country;
- Revise the rehabilitation committee;
- Develop manual on rehabilitation services;
- Conduct technical training on rehabilitation;
- Conduct workshop to exchanges lesson learn from different faculty to provide an avenue share experiences for better service quality;
- Screen and identify TB patients nation wide;
- Regular M&E and sharing of lessons learned to help improve clinical experiences for provincial district hospitals and health centers;
- Cataract operations for poor families within Vientiane capital and at the provincial level;
- Develop communication tools and health education to promote good health at the individual and community level;
- Celebrate World Cancer Day, TB Day, Eye Day, Diabetic Day and others.

### **3.2.3 Project on enhancement and promotion on the Implementation of EHSP**

- Improve essential health services package manual;
- Disseminate essential health services package manual to central and provincial hospitals;
- Undertake supervision visits on implementing essential services package for central and provincial levels;
- Conduct discussion meeting for review of the essential service package.
- Establish national committee for hospital standard and quality service (HA);
- Develop manual for quality service for all level of facility,
- Share and disseminate the manual for quality service for all level of facility
- Improve the manual, disseminate the manual on the essential service package to central, provincial district hospitals and health centers;
- Carry out M&E visits to central and provincial levels;
- Conduct meeting to review the implementation of the essential services package;
- Continue to develop monitoring tools (indicators) to measure progress (QPS);
- Share and disseminate indicators to measure progress (QPS);
- Conduct training for master trainer at central level to monitor the progress on the identification of indicators and QPS at provincial, community and health center levels and scale up to the next level;
- Share and disseminate QHC manual nationwide;

- Train central, provincial and district hospitals;
- Carry out M&E to improve quality;
- Conduct review meeting to share lessons learned;
- Continue rehabilitation activities;
- Continue to coordinate with the Lao National Front for Development to build the rehabilitation center service and training center, to update rehabilitation services;
- Update medical services center to be able to provide rehabilitation services and training moving toward quality and modernization;
- Continue to produce experts and specialists in the area of rehabilitation services at central and provincial hospitals;
- Conduct training on rehabilitation for doctor, nurses, health workers, physical therapists, prosthetic and orthotic practitioners to provide supportive devices at central and provincial hospitals and rehabilitation centers in all 17 provincial hospitals;
- Provide modern medical equipment to the rehabilitation center and all the four branches by supply basic equipment for rehabilitation services to 17 provincial hospitals to ensure quality services;
- Develop training curriculum for community rehabilitation integrated into the primary health care system, to be able to carry out services at district hospital and health center level;
- Continue with outreach services on screening and rehabilitation, especially with the focus on providing assistive devices to people living with disability throughout the country;
- Continue to mobilize resources for the construction of the rehabilitation center in Oudomxay province as the service center for the northern region to increase access to services for people living with disability.

### **3.2.4 Technical strengthening of Nursing and Midwifery areas project**

- Organize workshop on communication skills with patients and families;
- Provide training on team working between professional unions in providing services to patients in hospital (IPE);
- Organize dissemination meeting, supervision visit and assess the working conditions of nurses and midwives;
- Improve the patient medical records management system in hospitals at each level.

### **3.2.5 Project on strengthening of Nursing and Midwifery management for hospital at different levels**

- Update regulations for nurses;
- Develop manual for nurses;
- Revise and update the role and scope for nurses;
- Update the standard operation for nurses;
- Identify indicators for effective services for nurses;
- Train nurses and midwifery, upgrade program for licensing requirements;
- Develop training course on nurse management for head nurses;
- Conduct training on nurse management for nurses;
- Organize technical meeting on nurse and midwifery nationwide and celebrate the international nurse day;
- Undertake supervision visits and assess nurse/midwifery tasks in hospitals at each level;
- Undertake study tour to neighbouring country.



### **3.2.6 Project on infection control in hospitals at different levels**

- Revise infections prevention and control strategy;
- Upgrade technical knowledge on infection prevention and control within hospital;
- Monitor with supportive supervision and onsite training on hospital infection control at all levels;
- Develop short term training program for infection and prevention control;
- Upgrade manual on infection prevention control;
- Update manual on infection prevention control for medical equipment.

### **3.2.7 Project on strengthening on case management of disease outbreak**

- Continue capacity strengthening on infectious disease case management: acute respiratory system infection, COVID-19, dengue fever, Measles, Pertussis, Japanese Encephalitis (JE) and Hepatitis at central and provincial hospitals.

## **3.3 Sub-program on prevention and control of Non-Communicable Diseases (NCD)**

### **3.3.1 Management of NCDs based on Lao/PEN project**

- Conduct training on diabetes management, cancer, respiratory system in hospitals at each level.

### **3.3.2 Prevention and control of NCDs based on Lao/PEN project**

- Revise committee for non-communicable diseases with the participation of multiple partners;
- Review and revise strategy on non-communicable diseases prevention and control and disseminate the revised strategy.

### **3.3.3 Project on technical strengthening on (NCDs, mental health management, drug addiction, emergency medicine and disaster response, care for ageing and rehabilitation medicine)**

- Develop guidelines on cancer and respiratory system management; develop guideline on elderly care management, and rehabilitation tasks management;
- Organise training on cancer management, respiratory and thalassemia management;
- Revise the committee for mental health management, drug users, and those affected by tobacco smoke, disseminate the revised regulation;
- Training on elderly care and rehabilitation;
- Revise the committee for the responsible on rehabilitation Review and revise strategy on mental health management, drug users, and those affected by tobacco smoke and disseminate the revised strategy;
- Develop legislation, medical emergency strategy, drowning and disasters response;
- Develop manual on elderly care;
- Develop manual on rehabilitation services;
- Conduct training on rehabilitation.

## **3.4 Sub-program on management of private sector on health care service**

### **3.4.1 Management of private hospitals and clinics project**

- Develop, revise and disseminate sub-law on private hospital and clinic management to ensure that it reflects and aligns to the real situation, also to share and update information to staff at provincial, capital level on private hospital and clinic management, including sharing and disseminating information to operator of private hospitals, clinics to understand and comply with the healthcare law. Help to improve

- and upgrade private hospitals to provide quality service, also encourage more specialized hospital for respiratory system, dialysis, brain and bone surgery;
- Build capacity for health staff on hospital management at provincial and capital to be able to carry out monitoring and supportive supervision to private sector on regular basis;
  - Improve reporting system from private sector for reliable and on time report;
  - Impose a penalty on those hospitals that do not comply with the regulation, coordinating closely with central and provincial level authority;
  - Improve service quality from private hospitals and clinics with the focus on safe and effective care with equity services for patients;
  - Increase services to help with overcrowded service at public hospitals and reduce the number of patients visit to overseas;
  - Revise the Ministerial advice on the implementation of the decree on private hospitals;
  - Revise and disseminate tools and reporting forms on private hospital performance and management;
  - Train technical staff at provincial and capital levels
  - Organize a review meeting on the implementation of legislation under the law on health care services and treatment principles in private hospitals at provincial and Vientiane Capital level at least once a year;
  - Monitor and assess private hospital performance together with staff at provincial and Vientiane Capital level once a year,
  - Ensure private hospital and clinic management have annual work plan, human resource plan and budget and tools to carry out regular monitoring and assessment with central and provincial levels; Conduct supervision visits and monitoring activities of private clinics throughout the country from central to sub-national level.

### **3.5 Sub-program on development of quality and standard on health care service**

#### **3.5.1 Project on development and assurance on quality of care based on 5 good and 1 satisfaction policy**

- Disseminate 5 good and 1 satisfaction policy (revised version) to central and provincial levels;
- Provide training on 5 good and 1 satisfaction to community hospitals;
- Undertake supervision visits on 5 good and 1 satisfaction at community hospitals;
- Organise review meeting on 5 good 1 satisfaction for community hospitals;
- Organise national meeting on health care and rehabilitation.

#### **3.5.2 Project on strengthening on medicine categorization by the use of ICD10**

- Organise dissemination meeting on ICD 10;
- Provide training on ICD10 to central and provincial levels;
- Conduct supervision visits and evaluation on the usage of ICD 10 at central and provincial levels;
- Organise review meeting on ICD10

#### **3.5.3 Project on strengthening on rational use of drug**

- Strengthen capacity and the use of ITC for the monitoring and appropriate use of antibiotic (RUTD);
- Conduct consultation meeting to share and disseminate manual (RUTD);
- Organise dissemination meeting on indications for the rational use of drugs and indications for treatment at central and provincial levels;

- Monitor and support on the use of RUTD;
- Conduct meeting to share lesson learn and practices on RUTD

### 3.5.4 Project on management of medical professions and ethics

- Develop data base on exam questions for MCQ and OSCE for physician, dental, nurses-midwifery, and other professionals;
- Conduct national examination to certify the registration and licensing for health professional;
- Undertake in-service practice in hospitals (Internship Program) to certify registration and licensing for health professionals;
- Develop registration and approval of a temporary licensing during the transition period for graduate cohort 2020;
- Develop a continuous professional development system to renew the registration and licensing for medical professionals;
- Revise information system for registration and regulations on the management of medical professional by IT systems;
- Monitor, and supervise and evaluate scope of practice, standards, and ethics of medical professionals.

### 3.5.5 Project on development, improvement of legislation on health care management

- Develop law on nurses and midwifery, revise healthcare law;
- Revise policy on hospital autonomy;
- Revise medical equipment management policy;
- Revise standard for community and health centers;
- Improve policy, instruction and agreement on private hospital standard;
- Develop the Ministerial agreement on radiology machine;
- Develop technical standards for care at central, regional, and provincial hospitals;
- Develop and update policy on licensing.

## Program 4: Consumer protection for food, drug and medical products

### ❖ Priority actions:

- Increase and develop capacity on food and drug management through law and regulations to build credit and confidence from the society, and international recognition through implementation in compliance to good practices such as, Good Regulatory Practices (GRP), Quality Management System (QMS), Good Manufacturing practices (GMP), Good Wholesales Practices (GWP) and Good Pharmacy Practices (GPP);
- Improve the monitoring and surveillance on safety of food, drugs and medical products on market and distribution which include the importation of raw materials or chemicals across the country and along the borders by having emergency alert system in place to ensure quality and safety, especially the production of drinking water must be inspected and registered by conducting more inspections and quality control tests, and also encourage private sector participation and having strict measures against violators;
- Implement rational use of medicines in hospitals at all levels, improve hospital drug and therapeutic committee (DTC) to take the leading role in monitoring rational use of medicines in health care services, and Adverse Drug Reactions (ADR) as well as promoting use of traditional medicines or herbs;
- Improve medicine distribution at all level in compliance with the law in a more consistent and transparent manner by the expansion of collaborative medicine purchasing process, having a bidding or price comparison

and purchase medicines which are registered and in the essential medicines list to ensure quality and price competitive, ensure universal access to essential medicines;

- Improve logistic system at all level, be able to monitor and report on medicines provision at central, region, province and district by using the m-Supply and connecting m-Supply with the DHIS2 to ensure the availability of essential medicines, and also improve the regional warehouses and some provincial warehouses towards a more standard system;
  - Continue to develop laboratory for quality control of food and drugs to meet ISO 17025 in all areas and improve domestic drug manufactures to meet GMP standards and compliance with international practices and increase more market coverage.
- ❖ **Sub-programs and projects: consumer protection for food, drug and medical product program comprise 9 sub-programs and 20 projects as follow:**

## **4.1 Sub-program on management on medicines and medical products**

### **4.1.1 Project on assurance on quality, safety and access to medicines and medical products**

- Organize meeting on implementation of good pharmacy practice (GPP) in pharmacies;
- Conduct monitoring and supervision for pharmaceutical import-export companies across the country;
- Disseminate regulations on drugs and medical devices;
- Review the draft drug list permitted to supply at the pharmacy level 2 and 3;
- Monitor, support and promote the target pharmacies for GPP certification;
- Review banned drug list;
- Review OTC (over-the-counter) drug list;
- Conduct monitoring and supervision on hospital pharmacy management in 9 districts of Vientiane Capital;
- Develop regulation on management of drug and medical supplies procurement;
- Publish guidelines on drug usage (National Formulary) (revised version);
- Organize meeting to review the implementation of hospital pharmacy management across the country;
- Conduct training and monitoring to ensure availability of medicines and medical supplies (for central, provinces and health center) HANSA project;
- Disseminate the guideline on good hospital pharmacy management;
- Enhance capacity on ensuring the availability of essential medicine for reproductive health;
- Ensure the sufficient availability of essential medicines;
- Develop guideline for establishment of PPE manufacturing factories, with funding from China through UNDP;
- Identify the basic needs for manufacturing, including ISO certification and other requirement for products quality with funding from China through UNDP;
- Develop regulatory framework and disseminate regulations for PPE management (with funding from China through UNDP).

### **4.1.2 Project on management of traditional medicine products and health supplements**

- Develop law on medicinal natural resources (meeting to review the draft law);
- Organize meeting to review the implementation of traditional medicine practices and products across the country;
- Monitor the implementation of integrating traditional medicine in health care services (public sector);
- Disseminate to relevant sectors list of plants under MOH protection for those endangered and extinct plants 96 items, 50 items and 119 items;

- Monitor and collect information of registered traditional medicine and supplements in public and private service facilities;
- Organize meeting to review draft agreement on the establishment of pharmacy, processing facilities, factories, traditional medicine and health supplements companies;
- Organize meeting to revise national strategy on traditional medicine of MOH, Lao PDR (2021-25);
- Conduct training on guidelines on ASEAN registration of traditional medicines and health supplements (ASEANTM&HS) and other requirement on registration of traditional medicines and health supplements to business entrepreneurs;
- Organize meeting to disseminate the agreement on registration of traditional medicines and health supplements;
- Organize training on Good Manufacturing Practice (GMP) for traditional medicines and health supplements to business entrepreneurs, processing facilities, manufacturers;
- Monitor and support Good Manufacturing Practice (GMP) at the facilities: factories, processing facilities of traditional medicines and health supplements in Vientiane Capital;
- Publish regulation on registration of health supplements;
- Publish regulation on registration of traditional medicines;
- Publish guideline and other requirements of ASEAN for registration of traditional medicines and health supplements (ASEANTM&HS).

## **4.2 Sub-program on study, research, promotion and development of traditional medicine (TM) practices and products**

### **4.2.1 Project on research and human resource development for traditional medicine practices and products**

- Upgrade technical staff of the institute to pursue bachelor's degree, post-graduate degree in country;
- Organize study tour to exchange lessons on research and development on traditional medicine practices and products in Vietnam and China;
- Organize meeting on evaluation standards development of medicinal plants for the institute;
- Develop Lao standard for medicinal plants;
- Study and develop traditional medicine recipes from local wisdom knowledge;
- Develop products for some fruits based on the results of the research study;
- Train on traditional massage and acupuncture;
- Send technical officials to train technical skills on producing traditional medicines overseas;
- Train on basic production skills to traditional medicine units at district and provincial levels across the country;
- Organize annual meeting to disseminate the results from scientific researches on traditional medicine practices and products;
- Develop and improve database system on medicinal plants;
- Organize workshop to promote the use of traditional medicines in combination with modern medicines to health staff, pharmacists at district and provincial levels;
- Train to promote the use of traditional medicine in combination with primary healthcare to traditional healers and village volunteer at district level;
- Train on the use of traditional medicine to technical staff at the traditional medicine unit at provincial level;
- Develop traditional medicine products for treatment of liver disease, gastritis, hemorrhoids, diabetic,

postpartum herbal remedies for woman after childbirth in the form of original and modern products (capsule, patch, tea);

- Raise and breed the lab mouse for research and testing;
- Growth and plant propagation for research and pilots;
- Train on plantation and growing of medicinal plants (Good Agricultural Practices/GAP) in China.

#### **4.2.2 Project on conservation of wisdom on TM practices and natural resources**

- Maintain, collect information of local wisdom knowledge on traditional medicine from Leu, Hmong, Yao ethnic groups;
- Maintain and collect information of local wisdom on traditional medicine practices (high blood pressure, diabetic, gout)
- Survey and develop list of medicinal plants in provinces along Lao-Vietnam border;
- Survey and develop list of medicinal plants in medicinal National Biodiversity Conservation Area;
- Publish 1,000 copies each for Lao traditional medicine book edition 4 and handbook on plants for medicine in Somsavath National Biodiversity Conservation Area in Borikhamxay edition 1;
- Organize consultation meeting with provinces and districts on potential development of medicinal biodiversity conservation area for 2 areas per year;
- Monitor and support protection and conservation, and usage of the biodiversity conservation area.

#### **4.2.3 Project on construction and renovation of infrastructure and supply of equipment and vehicles to support TM research and development**

- Survey, design and get approval for construction of 7-story building for traditional medicine practices and products;
- Establish, develop and maintain IT system and website on Lao traditional medicine practices and products;
- Procure machines and equipment for research and testing of products;
- Procure machines, tools and equipment for clinical trial using traditional medicines;
- Improve laboratory capacity, procure tools-equipment and chemicals for quality and safety testing;
- Procure tools-equipment for survey, define plant name and store dried plants;
- Procure vehicles (15-seat van and 1 pick-up) for site visits and field works;
- Procure, improve office, meeting room, computers and furniture;
- Procure PPE for laboratory work and field work;
- Undertake Repair/Maintenance work for infrastructure and vehicles;
- Undertake Repair/Maintenance tools-equipment and conduct calibration of testing tools twice a year;
- Develop and improve tissue culture lab/room;
- Procure equipment, glassware and chemical for growing of plants species.

### **4.3 Sub-program on food safety**

#### **4.3.1 Project on quality assurance and food safety**

- Improve regulation on food registration;
- Train district, province and business entrepreneurs on good principle for food production;
- Support food safety management for food import-export companies;
- Organize meeting on food safety surveillance;

- Conduct bilateral collaboration meeting on food safety with Vietnam, China and Thailand.

#### **4.3.2 Project on surveillance and response on food safety**

- Investigate, explore and respond to food poisoning. Analysis of food poisoning matters and grievances.

### **4.4 Sub-program on strengthening quality analysis on food, medicine and medical products**

#### **4.4.1 Project on food quality control**

- Monitor the contamination of microorganism, chemical residues in food that will harm consumers' health; monitoring of heavy metals in drinking water sources;
- Train on testing of contamination in food and drinking water (Coliform, Staph, Salmonella) to the regional laboratories;
- Organize lessons learned workshop on quality control for food, drugs and illicit drugs across the country;
- Monitor lab for quality testing for iodine in 18 provinces and salt manufacturing factories;
- Monitor and support basic testing for food and drug units at the provincial level;
- Improve capacity for PPE laboratory with funding from China through UNDP
- Improve capacity on surveillance work (funding from China through UNDP).

#### **4.4.2 Project on quality control for medicines and medical products**

- Monitor and check quality of cosmetics available on markets and monitor quality of anthelmintic drugs: Albendazol, Mebendazole after supply at district hospitals, health centers and pharmacies;
- Train health workers at provincial level on basic testing of new psychoactive substances;
- Organise dissemination workshop on testing of drugs using HPLC (High-performance liquid chromatography), UV-Spectrophotometer, Dissolution tester to regional laboratories;
- Organise dissemination workshop on basic testing using Mini-Lab kits to provincial laboratory staff.

#### **4.4.3 Project on research and development of quality control capacity to meet international standards**

- Review benchmarking skills with international labs;
- Undertake annual calibration;
- Review preparedness for expansion of scope towards method-based for ISO/IEC17025 for drug quality control laboratory;
- Conduct refresher training and development of basic documentation in accordance with ISO/IEC17025 to the food-drug laboratory network in 18 provinces.

### **4.5 Sub-program on supply of medicines, medical equipment and technology**

#### **4.5.1 Project on strengthening supply chain management for medicines and medical equipment**

- Upgrade staff education to post-graduate in country for one person;
- Organize lessons learnt meeting on a collective procurement process across the country;
- Implement the collective bidding process for drugs and medical devices across the country;
- Conduct training on quantification need for drugs and medical equipment;
- Continue improving and developing capacity of drugs and medical devices supply centers;

- Construct fire-prevention warehouses for drugs and medical equipment;
- Put up fences for the MPSC warehouse;
- Put in place car park and cement floor for the MPSC warehouse;
- Construct a warehouse of standardized medicine and medical equipment.

#### **4.5.2 Project on strengthening of technology management for bio-medicine**

- Monitor and undertake on-site support for the implementation of the agreement, planning for procurement across the country;
- Continue to improve and develop capacity for maintenance of medical equipment.

### **4.6 Sub-program on management of drugs, narcotic and psychotropic substances and precursors**

#### **4.6.1 Project on strengthening on management of drugs, narcotic and psychotropic substances and precursors**

- Develop regulation for management of household chemical substances;
- Monitor and control the use and storage of illicit drugs, neuro abuse substances in provincial hospitals;
- Monitor use of chemical substances and neuro abuse substances in manufacturing factories;
- Monitor and control the use and storage of chemical substances across the country;
- Revise forms and develop guidelines and standard operation procedures for the division.

#### **4.6.2 Project on strengthening of the quality assurance and the safety of cosmetic products**

- Disseminate and publish regulations on management of cosmetics (revised version) and improve capacity on monitoring and inspection at the provincial and district levels;
- Test cosmetics which are risky and conduct quality control of those cosmetics.

### **4.7 Sub-program on food, drug and medical products inspection**

#### **4.7.1 Project on strengthening food inspection**

- Monitor and inspect food production factories, drinking water and ice factories in northern, southern and central regions;
- Monitor and inspect markets and minimarts in northern, southern and central regions.

#### **4.7.2 Project on strengthening of medicine inspection**

- Monitor and inspect quality of drugs both in public and private sectors in northern, southern and central regions;
- Monitor and inspect private clinics in northern, southern and central regions;
- Monitor and inspect import companies and distributors of cosmetics in northern, southern and central regions;
- Monitor and inspect pharmaceutical import-export companies and their branches, pharmaceutical manufacturing factories in Vientiane Capital;
- Monitor and guide officials working at the border checkpoints for inspection of food and drugs;
- Organize a lessons-learnt meeting on inspection of food, drugs and medical products and inspection work at the border checkpoints for the northern provinces;
- Organize a lessons-learnt meeting on inspection of food, drugs and medical products and inspection work



- at the border checkpoints for the southern provinces;
- Conduct training on inspection work to officials working at the border checkpoints;
- Monitor and inspect import-export companies of food, drugs and medical products in Vientiane Capital;
- Organize meeting with relevant sectors at international and local border checkpoints;
- Organize meeting with import-export companies of food, drugs and medical products;
- Destroy food, drugs and medical products seized by food-drug officials;
- Provide materials to support the inspection work at the border checkpoints, design advertisement signs, print posters, brochures, warning and handbook on inspection work for border checkpoints.

## **4.8 Sub-program on promotion of domestic manufacturing factories**

### **4.8.1 Project on promotion of Good Manufacturing Practices (GMP) for food, medicines and medical products to meet international standards**

- Improve operating guideline and checklist for inspection pharmaceutical manufacturing factories and medical equipment' factories;
- Monitor and evaluate the performance of pharmaceutical manufacturing factories to certify for Good Manufacturing Practice (GMP);
- Organize training workshop on ASEAN regulations and guideline for drugs' manufacturing to pharmaceutical and medical equipment manufacturers once a year;
- Organize study tour and exchange lessons on good manufacturing practices for pharmaceuticals at regional and international levels.

### **4.8.2 Project on construction of new modern pharmaceutical factories to meet international standards**

- Organize training for pharmaceutical manufacturers on good manufacturing practices (GMP) for modern medicines;
- Organize training for state inspectors on GMP for modern medicines;
- Organize training for traditional medicines' manufacturers on GMP for modern medicines;
- Organize training for state inspectors on GMP for traditional medicines;
- Establish PPE factory for the Pharmaceutical Manufacturing Factory No 3 (funding from China through UNDP);
- Organize training for food factories on GMP for food products;
- Organize training for state inspectors on GMP for food products.

## **4.9 Sub-program on strengthening on management of information for food, medicines and medical products**

### **4.9.1 Project on development on database for food, medicines and medical products**

- Organize annual meeting to review implementation of food and drug work;
- Organize annual Food-Drug Committee meeting;
- Monitor import of food, drugs and medical products at international border checkpoints;
- Maintain Internet network system (Land);
- Improve food-drug website ([www.fdd.gov.la](http://www.fdd.gov.la));
- Develop and maintain food database system;
- Develop and maintain information database system on western and traditional medicines;

- Develop and maintain IT software system for marketing authorization on food, drugs and medical products;
- Pay internet and system service charges;
- Develop history profile of Food-Drug Department.

#### **4.9.2 Project on dissemination of information on food, medicines and medical products**

- Organize meetings and collaborate with media advertisement agents;
- Disseminate regulation on advertisement of food, drugs and medical products;
- Develop print media: posters on rational and safe use of drugs, food and cosmetics to ensure the provision of accurate information to customers;
- Disseminate accurate and rational information to communities (students and population) on food, drugs and cosmetics;
- Develop and publish food and drug magazine twice per year;
- Develop and broadcast radio spots and television program on promotion of appropriate consumption of food, drugs, cosmetics to consumers;
- Monitor and inspect inappropriate advertisement on food, drugs and medical products;
- Develop questionnaires and collect information on consumers' awareness on food and drug via various media channels.

### **Program 5: HRH management and development and health sciences research**

#### **❖ Priority actions:**

- Increase the leadership role of the party committee and mass organizations at each level to guide the implementation of their political tasks with elevated responsibility, carry out political example, focusing on regular visit and to assist subordinate/junior staff, to carry out performance indicator and to acknowledge the performance and contribution and achievement of team/staff in each phases. Recognize, award staff according to the policy, by awarding certificate of recognition, promotion, or special incentives. On the other hand, punishment is to be imposed on those that are violating the rules and regulations strictly as according to their assessment. This is aiming at creating and selecting qualified staff to deliver quality services with good ethics and professional skills;
- Continue political ideology training, steadfastly follow the party's policy guideline by implementing the health personnel development strategy by 2025/2030; revise the organization of roles, reviewing and redetermining job descriptions, make an appropriate and realistic deployment of staff, and improve working methods as well as provide centralized technical services;
- Revise training curriculum to align the theoretical and practical parts of teaching units at each faculty in hospital (MTU). To develop staff with sound knowledge, ability, and quality, focused on building experts in various technical areas through both domestic and overseas training. The curriculum, clinical practice, and scientific research are to be related to services. Also, create conditions to use retired professors to continue teaching and provide services according to their expertise. It is a technical cooperation between medical association and educational institutions in the country, and at the region and global levels;
- Develop a plan for leaders and managers, trained next general staff, to have a rigorous and skillful staff, to build a strong and transparent Party and committed to implementing the Party's guidelines in the new era. To establish a strong root of responsibility at the grassroots level, to ensure that the system will generate many more generations of competence staff for comprehensive, quality and equitable health services.
- Mobilize young workers at grassroots level, implement the policy of enticements such as awarding and recognizing as good standing doctor, doctor for the people. Awarding technical positions, practice pension policy, depleting retired staff including those who are working in remote area. Build ethnic local staff from

grassroots level providing professional development opportunity to encourage involvement and support at local level and ensure long term sustainable human resource training.

❖ **Sub-program and projects:** the program on HRH management and development and health sciences research comprise of 4 sub-programs and 16 projects as follows:

## **5.1 Sub-program on strengthening knowledge and capacity of health managers-governance**

### **5.1.1 Project on strengthening Party and personnel development**

- Conduct training on 45-day short-term political-administration theory for local key staff within the ministry of health;
- Conduct training on the work of Party buildup of local Party committees and Party units around the Ministry of Health;
- Disseminate, integrate documents, commentary speeches on the important days of the Party, the national, annual, quarterly, monthly meetings of the Party Committee of the Ministry;
- Follow up and support the development of a plan to build transparent, strong, and proactive of the Party units around the Ministry of Health;
- Conduct meetings on research the targets of expanding into a Party member;
- Organise meetings on issuing cards, handing out cards to Party members;
- Organise workshops on lessons learnt for creation of a transparent, strong, and proactive party unit for the Party units of the Departments under the Ministry;
- Conduct training on the work of propaganda.

### **5.1.2 Project on strengthening organizational structure or organogram of MoH**

- Improve the roles and responsibility of departments within Ministry of Health and sub-national level;
- Review and improve job descriptions at central and local level;
- Organise meeting to discuss and to establish standards for health managers;
- Organise meeting to evaluate performance and to develop plan for human resource development for senior staff and health managers;
- Disseminate legislation and the roles and responsibilities of the health sector;
- Organise leadership training;
- Develop job descriptions for district hospital and health center levels.

## **5.2 Sub-program on strengthening HRH governance, development, utilization and welfare**

### **5.2.1 Project on governance, development and utilization of health personnel**

- Organise meetings to prepare for the selection and entrance examination of new civil servants;
- Improve the database of health personnel being linked to the payroll system with the Ministry of Home Affairs and connect to the province and district level;
- Establish internet connection network of information systems for health personnel - civil servants at each level;
- Conduct training on report preparation in the database system of health civil servants in 18 provinces;
- Monitor and inspect the reporting system in the database of health civil servants in 18 provinces;
- Organise workshops for lesson learnt on the management and use of the database system for health

- personnel- civil servants (HPIMS);
- Organise meeting to improve the planning for the needs of specialized staff in various fields;
- Disseminate and integrate documents on the management of staff-civil servants;
- Develop a database system of contractual staff/volunteers;
- Connect information network of the contractual staff/volunteers between the provincial and the central level;
- Organise meeting to review the needs of health personnel;
- Monitor the implementation of the development plan for health personnel in 18 provinces;
- Print the annual report on the distribution of health personnel;
- Procure computers for the HPIMS for central, provincial and district level.

### **5.2.2 Project on implementation of welfare of health personnel**

- Organise annual celebration of Lao Medical Day;
- Meeting to revise and disseminate guidelines on the award/recognized the contribution of the national doctors and Doctor for Public (award of recognition and tile);
- Organise annual meeting of retirement staff;
- Visit retired staff, monitoring health condition/conducting health check-up for retirement staff, health leader staff;
- Organise discussion meetings for award giving or certificate of recognition to domestic and international experts;
- Organise discussion meetings for award giving or certificate of recognition to outstanding district hospital and health center;
- Organise discussion meetings to recognize and implementation of policies for health personnel at each level according to Decree 272/ government;
- Arrange study visit for retired staff to important places in the provinces;
- Organise training on farewell policy and praise awards for central level and 18 provinces across the country.

### **5.2.3 Project on strengthening monitoring & evaluation and governance management of organizational structure of MoH and health personnel**

- Exchange lessons on the work of party - staff in Vietnam;
- Organise meeting to review the work of the 5th program on HRH: staff management, staff development and annual health sciences research;
- Train health organization structure and personal management for provincial level;
- Monitor health staff performance at health centers;
- Monitor performance appraisal of staff-civil servants and staff performance appraisal tools for health sector and 18 provinces;
- Disseminate Decree on Medical Civil Servants across the country;
- Review and develop health personnel development strategy;
- Upgrading staff
- Review consultancy fee on decree for medical civil servant;
- Disseminate strategy on health personnel development;
- Monitor and support the implementation of health personnel development strategy;
- Review and develop strategy for health personnel development;

- Monitor the performance of health staff at health centers;
- Monitor the implementation of the decree on medical civil servants across country.

### 5.3 Sub-program on health education reform

#### 5.3.1 Project on health professional development

- Organise activities on implementation of teaching-learning curriculums of Associate degree in pharmacy;
- Organise activities on taking Associate degree students to see the pharmaceutical factories, foods and beverages factories;
- Organise activities on taking Associate degree students to see medicinal plants;
- Organise activities on taking Associate degree students to practice health education on the use of medicines;
- Organize bachelor teaching and learning of nursing;
- Organize bachelor teaching and learning of nursing (continuing program);
- Organize bachelor teaching and learning of midwifery;
- Organize bachelor teaching and learning of midwifery (continuing program);
- Organize specialized program curriculums on adult resuscitation in nursing;
- Organize specialized program curriculums on pediatric resuscitation in nursing;
- Organize seminars for writing graduate thesis /paper for undergraduate students;
- Establish project on dissemination of basic information on continuing higher education, bachelor's degree, and postgraduate education at the University of Health Sciences;
- Organize technical seminars (Journal Club) for undergraduate students;
- Implement teaching-learning activities of the dental technician course (20-30 students);
- Undertake admission exams for students to enter colleges, schools and centers in each academic year;
- Undertake national examination of midwifery;
- Undertake national examination of nursing;
- Provide long-term upgrading of English language for 2 scholarships;
- Establish project on internship program at Xayaboury Provincial Hospital;
- Establish project on teaching and learning on national defense and security;
- Implement teaching-learning activities of the Master program of Pharmacy;
- Implement teaching-learning activities of the Bachelor program of Pharmacy, Department of Pharmaceutical Sciences;
- Implement teaching-learning activities of the Bachelor program of Pharmacy, Faculty of pharmacy;
- Implement teaching-learning activities of the Lao traditional medicine curriculum;
- Undertake survey and take Bachelor students to see medicinal plants;
- Undertake field practice of the 5th year students (final year of the bachelor's program) of the Faculty of Pharmacy;
- Undertake orientation activities and field trips to select the field of study of the third-year Bachelor students of the Faculty of Pharmacy, UHS;
- Take Bachelor students to see the production line at the food and beverage factories;
- Use Bachelor's degree students in Pharmacology to provide health education on medication;
- Conduct the exchange program with Universities in ASEAN;
- Establish project on upgrade staff by continue study on medical education;
- Establish project on upgrade staff in UHS to study ethics and bioethics sciences research

- Establish project on upgrade staff in Institution of Research Educational Development to study on librarian;
- Establish project to improve English language for staff in Institution of Research Educational Development;
- Organize workshop on thesis proposal writing for bachelor's degree students and postgraduate students in UHS and other relevant sectors.
- Conduct workshop on journal club for bachelor's degree students and postgraduate students in UHS and other relevant sectors;
- Conduct training on how to access the scientific research information online, literature reviews, how to write reference part for students in UHS and other relevant sectors;
- Conduct workshop on Reference Managers, EndNote and Mendeley Programs for bachelor's degree students and postgraduate students in UHS and other relevant sectors;
- Establish training on medical ethics for students in UHS and other relevant sectors;
- Send staff to study PhD on physiology in foreign country (Korea);
- Send staff to study master's degree on radiology in foreign country (Thailand);
- Upgrade staff by studying master's degree on anatomy in foreign country (Thailand);
- Send staff to study PhD on biology in foreign country (Thailand)
- Send staff to study master's degree on bio-physiology in foreign country (Thailand);
- Send staff to study master's degree on parasitology in foreign country (Thailand);
- Send staff to study PhD on chemical medicine in foreign country (Thailand);
- Send staff to study PhD on biostatistics in foreign country;
- Send staff to study PhD on pharmacology in foreign country (Thailand);
- Upgrading staff to specialist level 2 on obstetrics-gynecology;
- Upgrading staff to specialist level 2 on internal medicine;
- Upgrading staff to specialist level 2 on pediatric;
- Upgrading staff to specialist level 2 on surgery;
- Upgrading staff to specialist level 1 on internal medicine;
- Upgrading staff to specialist level 1 on pediatric;
- Upgrading staff to specialist level 1 on surgery;
- Upgrading staff to specialist level 1 on obstetrics-gynecology;
- Upgrading staff to specialist level 1 on ear, nose, throat;
- Upgrading staff to specialist level 1 on medical resuscitation;
- Upgrading staff to specialist level 1 on emergency and anesthesia;
- Upgrading staff to specialist level 2 on medical radiology;
- Upgrading staff to specialist level 1 on immunology;
- Upgrading staff to specialist level 2 on psychology;
- Upgrading staff to specialist level 2 on allergology;
- Upgrading staff to PhD in country on English language;
- Upgrading staff to master's degree on genealogy (lab. Chromosome) in foreign country (Thailand);
- Upgrading staff to specialist level 2 on endocrinology in foreign country;
- Upgrading staff to specialist level 1 in country on parasitology, medical biology;
- Upgrading staff to master's degree on Chemistry, math-statistic, French-English language;
- Upgrading staff to master's degree on radio-physics and medical physics in foreign country (Thailand);
- Implement the master's degree curriculum on dentist (3 curriculums for MA and 1 specialist level 1);

- Implement the bachelor's degree curriculum for dentist;
- Undertake field practice for 6th year dental student bachelor's degree;
- Undertake school dental activities for 3rd and 4th year dental student;
- Establish mobile clinic for 5th and 6th year dental student;
- Organise exchange visit with University in ASEAN;
- Upgrading staff to bachelor's degree;
- Upgrading staff to master's degree;
- Upgrading staff to PhD;
- Establish project on salary-welfare payments;
- Continue payment to build staff for specialist level 2 in each subject that is currently studying in second year of the academic year 2020-2021, third year of academic year 2021-2022 in Thailand;
- Train staff for specialist level 2 in each subject that is currently studying in first year of the academic year 2020-2021, second year of academic year 2021-2022 and third year in academic year 2022-2023;
- Build staff for specialist level 2 in each subject that is currently studying first year in the academic year 2021-2022, second year of academic year 2022-2023 and third year in academic year 2023-2024;
- Support thesis writing, in Vietnam;
- Support staff studying specialist level 1 in Vietnam, second year in academic year 2020-2021 and third year in academic year 2021-2022;
- Support staff studying specialist level 1 in Vietnam, first year of academic year 2021-2022, second year in academic year 2022-2023 and third year in academic year 2023-2024;
- Support study of Vietnamese to prepare for studying specialist in each subject in Vietnam in academic year 2020-2021;
- Send staff to study specialist on psychiatry in Khon Kaen University, Thailand;
- Send staff to study specialist on critical care nursing;
- Send staff to study master's degree in nutrition at UHS;
- Send staff to study master's degree in public health in Vietnam;
- Send staff to study specialist on adult health nursing;
- Send staff to study specialist on nutrition;
- Send staff to study specialist on children nursing;
- Send staff to study specialist on medicine;
- Send staff to study bachelor's degree on medicine;
- Send staff to study bachelor's degree on continue midwife at UHS;
- Send staff to study bachelor's degree on nursing at UHS;
- Send staff to study bachelor's degree on pharmacology at UHS;
- Send staff to study master's degree on pediatric;
- Send staff to study master's degree on obstetrics-gynecology;
- Send staff to study master's degree on internal medicine;
- Send staff to study master's degree on public health management;
- Send staff to study master's degree on adult health nursing;
- Send staff to study master's degree on children nursing;
- Send staff to study master's degree on family nursing;
- Send staff to study master's degree on psychiatric nursing;

- Send staff to study master’s degree on pharmacy;
- Send staff to study master’s degree on midwifery;
- Send staff to study PhD on education management;
- Upgrade staff to PhD on public health at faculty of public health, Ratchaphat Ubon Ratchathany University in Thailand in 2019-2023;
- Send staff to study PhD on nursing;
- Send staff to study master’s degree on public health in Thailand;
- Send staff to study specialist on medical emergency at UHS;
- Upgrade knowledge to master’s degree on financial management;
- Support technical exchange with Guangchi college, Vietnam;
- Send staff to study master’s degree on public health management 1 people per year;
- Continue building master’s degree students on international tropical medicine and public health.

### **5.3.2 Project on quality assurance in health education institution**

- Assess the teacher’s teaching performance;
- Establish internal quality assurance system;
- Establish external quality assurance system;
- Assess the graduated nurse and midwifery students;
- Develop standard tools for health education quality assessment;
- Implement the health education quality assessment within UHS and other relevant sectors;
- Improve quality of services;
- Assess the education quality assurance system of faculty of dentistry;
- Train on inspection of internal quality standards;
- Continue education quality assurance;
- Improve the education quality assurance system;
- Organise supervision visit for students during community internship;
- Expand actual training facilities for students at hospitals in 4 southern provinces;
- Conduct health education facilities monitoring, evaluation and dissemination the result in order to be a role model teaching facility;
- Assess health education by health education quality assurance committee from ministry level;
- Conduct learning-teaching supervision visit at Saravan and Attapeu public health schools;
- Conduct supportive supervision visit on educational quality assurance system in public health schools across the country, 01 time per year;
- Organise annual meeting on the result of the health education quality assurance implementation;
- Assess the learning ability of students;
- Assess the learning ability of graduated students;
- Establish education quality assurance system for faculty of dentistry;
- Continue national examination activities of faculty of dentistry;
- Develop a system for evaluating learning and teaching results;
- Develop guideline on thesis writing and textbook for faculty of public health management;
- Purchase appropriate textbooks for central library;
- Publish guideline on learning and teaching for pharmacology faculty, UHS;



- Improve use of child rearing plan for nursery;
- Continue school children health promotion;
- Continue training on self-assessment report writing for teachers in public health institutes;
- Assess knowledge of graduates from the public health college of Champasack;
- Continue second evaluation and revision of the public health management curriculum (QA);
- Establish education quality assurance system for the faculty of pharmacy;
- Develop national examination system of faculty of pharmacy.

### **5.3.3 Project on training of health personnel**

- Provide nutrition knowledge and skills to kindergarten teachers in 2 southern provinces;
- Conduct training on diagnosis and treatment on bile duct cancer in Champasack, Savannakhet, Khammouan and Bolikhamxay province;
- Conduct training on foreign relations procedure for bureau, faculties, and institutes in UHS;
- Conduct training on financial management for academic office;
- Conduct training on learning-teaching management;
- Conduct training on skills for midwives;
- Conduct training on emergency care (IMOC) for last year students of midwifery
- Conduct training on clinical teaching;
- Conduct training on pedagogy;
- Send medical students to international examination on parasitology and virology at Mahidol University;
- Send medical students to international examination on physiology in Malaysia;
- Conduct training on clinical teaching;
- Conduct training on develop and analyze examination questions;
- Conduct training on research methodology for provincial and district health personnel;
- Conduct training on database development, using propriety program to enter and analyze data for provincial and district health personnel;
- Conduct training on daily tasks development turned into health sciences research;
- Conduct training on public health management for leaders and managers at central and provincial levels;
- Monitor and evaluate staff who have been trained on pedagogy and short-term teaching cost for 120 hours from education faculty, national university; and also disseminate the result;
- Conduct training on basic medical sciences for staff and teachers from faculties and various disciplines;
- Conduct training on social sciences for staff from and teachers from faculties and various disciplines;
- Conduct training on natural sciences for staff from and teachers from faculties and various disciplines;
- Conduct training on management skills for management board, administrative and organization personnel division, financial management division, student management, foreign relations division;
- Conduct training on medical education for academic administrative board, administrative-academic division, teaching-learning management unit, academic services unit;
- Conduct training on foreign language and IT for management board, administrative division leaders, academic division leader, leaders from 9 faculties, leaders from administrative-IT division, leaders of administrative division from each faculty;
- Organize activities on administrative advocacy;
- Upgrading knowledge on foreign language for staff in educational development and research;

- Organise short term training on research methodology in foreign country;
- Organise short term training on data analysis in foreign country;
- Organise short term training on quality research methodology in foreign country;
- Organise short term training on epidemiology in foreign country;
- Organise short term training on medical statistic in foreign country;
- Organise short term training on the management of research institute and education development;
- Conduct training on accessibility of information on scientific research online, literature review and reference in different methods for health personnel and teachers;
- Conduct training on writing scientific research article to publish in various journals for health personnel and teachers;
- Conduct training on writing summary of scientific research for health educators
- Organize short term training on research methodology for health personnel who are working on administrative works for health educators in health facilities (Methodology for routine to research);
- Organize short term training on data analysis for health educators by using data from routine services (Analyze data for ROUTINE TO RESERCH);
- Conduct training on writing scientific research articles to publish in various journals for health educators;
- Sending 3 staff to training on health environment, bio health, and the assessment of environment impact on health in Thailand;
- Conduct training on Medical Education for teachers in the division and faculty;
- Conduct training on project proposal and budgeting writing for staff in public health faculty;
- Conduct training on the development of principles and design of health promotion;
- Participate in training on food consumption abroad
- Participate in training on the methods to evaluate students in each subject
- Participate in training on Spatial Analysis, Thailand
- Participate in training on epidemiological impact assessment, interpretation and communication in epidemiology, Thailand;
- Conduct training on administrative work for teachers;
- Provide short term training on library to teachers;
- Provide short term training on IT to teachers;
- Conduct training field teachers where students practice in community;
- Conduct training on IT for staff;
- Conduct monitoring and supervision visit and onsite training on the use of health information system and disseminate the result of monitoring supervision visit;
- Conduct training on comprehensive family planning methods for health center staff;
- Send staff for training in the royal princess of Thailand project;
- Follow-up and support students who have been trained under the funding of royal princess of Thailand project;
- Conduct training of community facilitators to practice mother and child health project;
- Project on clinical training for district and provincial hospitals;
- Conduct training of clinical teachers at Luang Prabang Provincial Hospital and Hospital 107
- Conduct training on clinical trainers for Luang Prabang and Saiyaboury provinces.

### 5.3.4 Project on improvement and development of health education curriculum

- Continue program on learning-teaching and curriculum development;
- Improve bachelor's degree program on preclinical medicine;
- Improve specialist level 1 curriculum on biology for year 1 medical students;
- Implement and evaluate the bachelor's degree of medical science;
- Develop and review the curriculum of family medicine specialist level 1;
- Develop and review the curriculum of all specialist level 1;
- Implement the curriculum of family medicine specialist level 1;
- Implement the curriculum of family medicine specialist level 2;
- Implement the curriculum of internship year 1;
- Implement the curriculum of internship year 2;
- Implement the curriculum of internship year 3;
- Implement the curriculum of specialist level 1 (9 areas);
- Implement the curriculum of specialist level 1 year 1 (9 areas);
- Implement the curriculum of specialist level 1 year 2 (7 areas);
- Implement the curriculum of specialist level 1 year 3 (6 areas);
- Implement the curriculum of biomedicine specialist level 1 year 2;
- Implement the curriculum of biomedicine specialist level 1 year 3;
- Implement the curriculum of biomedicine specialist level 1 year 1;
- Implement the curriculum of specialist level 1 year 2 (7 areas);
- Organise meeting to review the curriculum of master's degree on pharmacy;
- Develop and revise the curriculum of bachelor's degree on pharmacology;
- Organise annual technical meeting of pharmacology faculty;
- Organise activities to revise and develop the associate degree on pharmacology curriculum;
- Organise activities to evaluate the curriculum of pharmacology bachelor's degree all 3 majors;
- Organise activities to improve and evaluate the curriculum of community pharmacist mid-level;
- Revise curriculum of adult health nurse;
- Develop curriculum of bachelor's degree on continuous midwifery;
- Develop standard guideline for curriculum development in UHS and other relevant sectors;
- Revise and develop the curriculum on medical education in UHS and other relevant sectors;
- Implement the curriculum of Master's degree on Public health;
- Implement the PhD curriculum;
- Develop curriculum for bachelor's degree on health environment, bio health and assess the impact of environment on health;
- Develop guideline on bio health environment bachelor's degree, and assess the impact of environment on health for 15 subjects;
- Develop master's degree curriculum on nutrition and health promotion;
- Assess the development of bachelor's degree curriculum on nutrition and health promotion;
- Organise activities to improve and develop bachelor's degree curriculum on dental sciences;
- Organise activities to improve and develop associate degree curriculum (dental technician);
- Develop new curriculum;

- Develop continuous professional development curriculum;
- Develop computer-based learning-teaching curriculum.

### **5.3.5 Project on improvement of knowledge and capacity of teachers**

- Continue clinical teaching skills development;
- Participate in public college sport in Luang Prabang province;
- Participate in Mekhong sports games;
- Celebrate the 10th anniversary of the Champasack health college;
- Establish technical exchange with Champasack college;
- Organise study visits for teachers in the country;
- Organise study visits for teachers in foreign country;
- Organise annual meeting: closing and opening of the school year;
- Technical lessons sharing with international institutes that have MOU together;
- Organise technical meeting on health education at college, school, and center levels;
- Organise regular meeting on lessons learned in a quarterly, 6 months and yearly basis;
- Organise visits to review MoU between UHS and educational institutes;
- Collect opinions and attitudes of teachers and staff in UHS on the implementation of administrative issues;
- Organise meeting to summarize, share lessons learned on foreign relations and cooperation for bureau, faculties, and institutes in UHS;
- Organise dissemination meeting after participating the meeting in foreign country of staff in UHS;
- Organise technical and cultural exchange between teachers and students in foreign country;
- Arrange welcoming teachers and students from foreign country that come for technical and cultural exchanges in UHS;
- Continue to develop skills on acrobatics and arts for UHS students
- Involve in sport competition with other educational institutes (domestic)
- Participate in 2nd Lao university sports in Champasack province;
- Conduct study visit for teachers for sharing lessons learned in the country;
- Conduct study visit for teachers to participate in the dental teaching in foreign university;
- Organize a workshop on nursing capacity for nurses at district and provincial hospital in Luangprabang;
- Organise annual technical meeting of dental sciences faculty;
- Domestic study visit: schools, colleges, health educational institutes, health facilities and others;
- Organise study visit in foreign country: in ASEAN counties and countries with technical collaboration agreement (Vietnam, Cambodia...);
- Organise meeting to revise postgraduate curriculum (3 master's degree and specialist level 1);
- Upgrade teachers and staff on medical education in short term: academic management board, division of academic-administration, learning-teaching management unit, academic services unit;
- Upgrade teachers and staff on foreign languages and IT: management board, academic division leaders, leaders from 3 faculties, leaders from administration-IT, leaders from administration divisions and faculties;
- Upgrade teachers and staff on education management in short term: leaders from faculties, leaders from academic administration and sectors;
- Develop guideline on thesis writing and textbook for epidemiology departments;
- Conduct exchange visit for master's degree students on epidemiology with Khon Kaen University, Thailand;

- Upgrade teachers on basic sciences in short term course: anatomy and virology units;
- Upgrade teachers on social sciences in short term course: French language, English language, and sociology units (politic, ethics, medical law);
- Upgrade teachers on natural sciences in short term course: chemistry, medical physic units;
- Continue activities to advocate epidemiology curriculum;
- Undertake supervision Bachelor's degree students to practice primary health care in community;
- Participate in technical meeting on public health in Mekong sub region countries;
- Participate in leadership training in Mahidol university, Thailand;
- Participate in training on public health policy analysis in Khon Kaen, Thailand;
- Organise training on medical education and pedagogy for teachers in University of Health Sciences (UHS) and other relevant sectors;
- Organise training on ethics for teachers in UHS and other relevant sectors;
- Organize training on librarian for teachers in UHS and other relevant sectors;
- Organize IT training for IT staff in UHS and other relevant sectors;
- Upgrade teacher to PhD 1 person per year;
- Upgrade teacher in Pharmacology Faculty, UHS to PhD 1 person per year;
- Upgrade teacher in Pharmacology Faculty, UHS in a short-term course, 8 person/year;
- Organise staff training on logistic management and international corporation;
- Organise teacher-trainer meeting to coordinate with local hospital for student internship;
- Organise short term training on librarian;
- Organise IT short term training for teacher/lecture;
- Organise medical training for teacher/lecture;
- Organise statistician training for teacher/lecture;
- Upgrade pedagogical skill/teaching skill for teacher/lecture;
- Provide five scholarships for English language training and upgrading for teachers,
- Organise annual technical meeting to evaluate teacher and learning activity of teacher/lecturer for pharmacology;
- Organise seminar to strengthen pharmacology staff and their technical knowledge;
- Estimate budget for teacher to participate at technical workshop to present/share research paper on their specialize topics;
- Upgrade English knowledge;
- Monitor and evaluate graduates of level 1 and other specialty training including midwifery;
- Conduct annual meeting to select staff to participate at the upgrading programs in different specialty areas;
- Participate at the international health conference for health care services (for education and training accreditation);
- Strengthen budget planning for education institution that are relating to the fie training programs;
- Establish both local and international cooperation plan;
- Promote coordination and international cooperation;
- Develop human resources plan for teacher development;
- Promote foreign cooperation and collaboration;
- Continue staff development;
- Attend ASEAN dental technician meeting in each field;

- Attend Greater Mekong Sub-region (GMS) dental technician meeting;
- Attend Vietnam annual dentistry association meeting in Hanoi;
- Attend technical exchange sessions with University of Chulalongkorn University in Thailand;
- Attend nutrition meeting overseas;
- Attend health promotion meeting overseas;
- Attend the technical medical health meeting of Greater Mekong Sub-region
- Annual technical meeting of Pharmaceutical Faculty;
- Take the lead in teachers exchange learning sessions inside the country;
- Arrange teacher's observation in pharmaceutical care classes with universities in overseas;
- Organize short course to upgrade technical knowledge, with specialisation in nursing specialty in critical care, maternal-child nursing, psychiatry, occupational health;
- Upgrade technical knowledge to Ph.D degree in child nursing, Master's Degree in child nursing, Master's Degree in psychiatry;
- Organize in-country study tour program;
- Organize technical workshop for nursing faculty;
- Organize exchange sessions, lesson-learnt on teaching-learning sessions (3 faculties);
- Organize a meeting on quality assurance in education;
- Attend the technical exchange sessions in-country and amongst AEC;
- Organise study tour to learn about management and administration of science research in overseas;
- Organise study tour to learn about management and administration of ethics in overseas;
- Organise study tour to learn about management and administration of library in overseas;
- Organise study tour to learn about management and administration on magazine in overseas;
- Organise study tour to learn about management and administration on education development in overseas;
- Organize meeting to exchange information on IT;
- Organize lessons learnt on technical area;
- Upgrade education of staff to Master's Degree on health administration field;
- Upgrade education of staff to Ph.D degree in overseas;
- Upgrade education of staff to Master's degree in-country and overseas;
- Organize annual and semester technical meeting;
- Organize medical education meeting in-country and participate the meeting overseas;
- Organize meeting on pedagogical sciences;
- Organize meeting with practitioner on laboratory works;
- Organize meeting with technical staff at central hospitals;
- Organize meeting to define final exam grade for medical students for year 1-6;
- Organize meeting for orientation for medical students grade 1-6, and post-graduate students;
- Organize technical meeting to prepare for learning-teaching and evaluation of each subject for medical students grade 1-6;
- Organize meeting for pediatrician subject;
- Organize meeting for internal medicine subject;
- Organize meeting for surgery subject;
- Organize meeting for natural sciences subject;

- Organize meeting for Family Clinical Practice subject;
- Organize seminar to upgrade knowledge, English teaching-learning skills;
- Organize meeting to develop English teaching-learning text book;
- Organize meeting on specialization units;
- Organize meeting to evaluate teaching-learning at the central hospitals;
- Organize technical meeting on obstetrics and gynecology;
- Organize technical practicing session for parasitology subject;
- Organize technical practicing session for microbiology subject;
- Organize annual administration and management meeting for medical sciences team;
- Organize annual technical meeting for evaluation of teaching-learning for dentistry;
- Organise teachers' participation in the technical workshop to present scientific research findings which related to occupation on an annual basis;
- Upgrade English language skill to teacher – professor in-country;
- Upgrade education of staff to Ph.D Degree 1 staff/year;
- Upgrade skill of teacher in academic dentistry within University of Health Sciences;
- Upgrade teacher education to Ph.D level one staff/year;
- Upgrade teacher in academic dentistry of University of Health Sciences to 5 staff/year (in-country/overseas);
- Upgrade teacher in academic dentistry in various field for Dentistry Faculty of University of Health Sciences for a short-course – 8 staff/year;
- Organise technical exchange and student activities;
- Cooperate on technical exchange and student activities;
- Upgrade education level to Master's Degree for 10 staff;
- Send staff to pursue further education to Ph.D degree;
- Send staff to pursue further education to level 1 specialization;
- Send staff to pursue further education to level 2 specialization;
- Organise training on preparedness on education to officials-teachers to get ready as a member of AEC states;
- Organise exchange learning at University of Health Sciences;
- Organise exchange learning with Suphasith Thitpasong College of Ubon, Thailand;
- Organise training on financial skills;
- Organise training on patient checking skills for teachers;
- Send staff for study tour in University of Vé Province, Vietnam;
- Organise training on clinical midwife to practitioners and lead teachers;
- Promote skills and implement clinical midwife to practitioner and lead teacher;
- Promote knowledge and skill on midwife in district and health centers;
- Support on teaching-learning with university of medical health in Dong Nai province;
- Organize final academic year meeting;
- Organize seminar workshop with staff and health students at the final year;
- Organize technical seminar on lesson learning;
- Organise exchange learning on learning and evaluation at Champasack and Savannakhet public health colleges, Xiengkhouang public health school;
- Organize exchange learning between teachers inside and outside country.

### 5.3.6 Project on improvement and development of legislation on governance of health education

- Organize annual employee recognition celebrations and field trips;
- Arrange lessons learnt and improving the role of advisory teachers (year 1-6) in the Bachelor of medical sciences, experts at level 1, 2;
- Establish project to strengthening capacity building on organizational and personnel administration;
- Establish project to develop technical skills for health personnel;
- Improve the personnel administration system: faculty, program, departmental and subject levels in 9 programs – training on human resource management;
- Health promotion: establish annual health check-ups for teachers prior to opening semesters (September);
- Organise support to retirements: Visits to comfort retired on important days;
- Continue Party organization work in the faculty of pharmacy, the University of Health Sciences;
- Continue Party organization work in the Institute of Research and Education Development, the University of Health Sciences;
- Organize annual party and 3 mass organization meetings;
- Continue political administration theory (short course);
- Continue political administration theory (Upper diploma);
- Disseminate political resolution documents;
- Improve the organizational system of the faculty of medical sciences, 6 month and annual lessons learnt;
- Send officers to obtain political theory at low level;
- Send officers to obtain political theory at upper diploma level;
- Continue Party committee meetings;
- Send officers in leadership roles to study political administration theory for 45 days, low level, upper diploma, masters' degree and other qualifications;
- Create legislation and disseminate them on internal quality assurance;
- Create legislation on financial management;
- Improve and create legislation on technical education administration;
- Create legislation on welfare;
- Create legislation to manage fixed and non-fixed assets;
- Improve and create legislation on science research;
- Create legislation on technical science;
- Create legislation to manage quality of laboratories;
- Improve and create legislation on professions;
- Create and set up a national examination system;
- Upgrade political theory for 1 leading officer/year;
- Upgrade short course political theory for 2 succession officers/year;
- Organise study political administration theory by short course;
- Organise study political administration theory at low level;
- Organise study political administration theory at upper diploma level;
- Organise study political administration theory at masters' degree and other qualifications;
- Create and analyses entry examination questions for college, school and center level students;
- Review the examination application process to teach nursing;



- 1. Create exam legislation 2. Together disseminate the entry examination process in each semester 3 Review relevant legislation;
- Create a student registration program and online student registration program;
- Develop student database systems;
- Promote technical work;
- Political administration theory: board of directors, administrative management committee, technical department committee, 3 program committee, administrative unit committee;
- Manage educational institutions: teachers in technical administration units, staff and student management units, summary and external relations units, financial management unit, program administration unit;
- Community waste water treatment and discharge to rivers project (Hongsaeng village, Chanthabouly district, Vientiane Capital);
- Conduct a study tour for students studying health administration masters’ degree to Khon Kaen University, Thailand;
- Conduct study tour for students studying nutrition masters’ degree in the country and abroad;
- Conduct an internal and abroad study tour for students;
- Conduct practical experience field trip on water quality checks and water use for students;
- Conduct a practical experience field trip on school age children health check-ups and school environment inspection for students;
- Conduct a practical experience field trip on community led sanitation (CLS) for students;
- Conduct a practical experience field trip on environmental impact assessment to health in Nam Theun 2;
- Upgrade political theory for 1 leading officer/year;
- Upgrade short course political theory for 2 succession officers/year;
- Organize sport and art performance competitions on important days within the university and outside;
- Attend an exchange of sports and art performances with different institutions in the country and abroad;
- Visit history museum on important days;
- Develop and improve centrally systematic database networks for documents of the university;
- Install and upgrade the Internet and DHCP server networks of the university;
- Purchase IT equipment for the university;
- Raise awareness on Lao revolutionary ethnics and morale, traditions and culture to health science students;
- Study defense and security of the nation to health science students;
- Create database of student alumni;
- Upgrade a 5-month short course on political administration to 2 officers in leadership role from the University of Health Sciences;
- Attend a 3-month workshop on organization for 5 organization officers from the University of Health Sciences;
- Encourage and assess the implementation outcomes of the plans;
- Develop legislation on planning and assessment management;
- Develop legislation, agreements and regulations;
- Develop database;
- Develop the financial system;
- Develop the student application system;
- Promote student activities;

- Follow up student alumni;
- Create regulations for quality assurance management in health education (emphasis on quality assurance for health education);
- Develop and manage systems for student and teacher database, educational institutions and department websites;
- Develop library database systems;
- Develop database systems of staff and students at Champasack health sciences college;
- Develop database systems for college education.

### **5.3.7 Project on development of health education infrastructure**

- Develop skills in lab improvement
- Maintain office equipment, classrooms and laboratories;
- Commence land clearance, site survey, install and construct buildings;
- Construct a 7-floor building (classrooms, practical rooms);
- Construct teachers and staff dormitories;
- Construct 3-floor male student dormitories;
- 3-floor female student dormitories;
- Construct equipment warehouse for laboratories;
- Construct waste water management systems for laboratories;
- Construct indoor sport complex;
- Construct football field;
- Construct Restaurant.

## **5.4 Sub-program on health sciences research**

### **5.4.1 Project on administrative management and standards of health sciences research**

- Encourage staff, teachers and researchers of UHS to participate a technical conference on health sciences research in abroad;
- Organize an annual health sciences research forum;
- Organize an annual forum on sciences for youth;
- Train teachers on quality health sciences research;
- Train on contraceptive methods and sensitized abortion medication;
- Attend research on a longitudinal study and appropriate research in Thailand;
- Attend research on a case-control study and appropriate research;
- Organize technical workshop for new researchers;
- Support research budget (basic nursing, midwife, public health nursing);
- Create modern database systems for health sciences research to link among faculties within the University of Health Sciences;
- Create monitoring system and encourage implementation of health sciences research within the University of Health Sciences;
- Create an operations manual for the research administration and promotion committee at the University of Health Sciences;
- Create a standard manual for research proposal writing for staff, teachers, researchers and students at

- the University of Health Sciences and relevant departments;
- Consolidate sciences research on health sciences program;
- Sciences research on natural sciences program;
- Sciences research on social sciences program;
- Sciences research on education administration;
- Administrative research;
- Scientific research;
- Monitoring and evaluation.

#### **5.4.2 Project on strengthening capacity for organizations, institutes and researchers**

- Seminar on scientific research methodologies among teachers who teach at the faculty of dentistry;
- Promote health sciences research;
- Seminar on scientific research methodologies among teachers who teach at the faculty of pharmacy;
- Technical workshop to train new researchers;
- Seminar on research methodologies of teachers;
- Funding support to teachers on a health sciences research study;
- Funding support to outstanding students at the faculty of pharmacy to conduct health sciences research;
- Organize training on project proposal writing about a scientific research to staff, teachers, doctors and researchers within the University of Health Sciences and relevant departments;
- Organize training on science journal writing to publish in Lao and international journals for officers, teachers, doctors and researchers within the University of Health Sciences and relevant sectors;
- Organize training to write scientific articles for publication in Lao and international medical journals for staff, teachers, doctors and researchers within university of health sciences and relevant sectors;
- Organize training on epidemiology for staff, teachers, doctors and researchers within the University of Health Sciences and relevant sectors;
- Organize training on medical statistics and data analysis for staff, teachers, doctors and researchers within the University of Health Sciences and relevant sectors;
- Organize training on writing an abstract of sciences research results for the leadership of the Ministry of Health, staff, teachers, doctors and researchers within the University of Health Sciences and relevant sectors;
- Organize training on health ethnics to health service providers in health facilities across the country;
- Organize short term training on methodology for routine research to health staff, in health service facilities;
- Organize short term training on analyzing data for routine to research to health staff, in health service facilities;
- Funding support for teachers to conduct health sciences research;
- Organize training on health sciences research;
- Conduct health sciences research;
- Create a policy for health sciences research;
- Conduct research and study;
- Present the technical findings in the country and abroad;
- Develop a measurement and evaluation system.

### 5.4.3 Project on conducting health sciences research

- Conduct research on issues and access to reproductive health service;
- Conduct study on reproductive health issue and hygiene for women between 12-19 years for Akha tribe in Long district of Luang Namtha province;
- Conduct study on access to health service for young people for bachelor's degree for those who are from other provinces and having their additional earning from beer shops in Vientiane Capital;
- Conduct study on the change in epidemiology of communicable and non-communicable disease in Lao PDR from 2015-2020;
- Assess epidemiology post-disaster event in the local area such as the case study in local areas after flood and drought disaster;
- Epidemiology in self-inflicted (intent) and not self-inflicted (not intent) injury amongst elderly, youth and young children;
- Epidemiology in psychology amongst elderly, youth and young children;
- Epidemiology in communicable disease in married and single groups;
- Conduct study on issues which affected livings and health of people living along Hongseng stream;
- Conduct study on the use of high blood pressure medicines;
- Conduct study on the use of diabetic medicine;
- Conduct Clinical Sciences Research;
- Assess awareness, recognition, possession, and meaning of logos or signs of liquors and spirits beverage containing of alcohol and the attitude and alcohol consumption pattern amongst Lao youth;
- Conduct research on how traditional practices influence maternal mortality amongst youth such as birth delivery at home, lying by or near the fire for warmth as well as sanitation after childbirth;
- Review awareness and understanding of parents on factors contributing to non-communicable disease in 3 provinces of Lao PDR;
- Assess status of nutrition in young people age 10-19 years in Lao PDR which influence reproductive health (in 3 provinces);
- Conduct study on how to transform hospital for self-sufficiency step by step;
- Conduct study on correlated factors between attitude and consumption behavior on drinking of alcohol beverage amongst young people in Lao PDR;
- Project to define the malnutrition on vitamin B1 deficiency amongst infant;
- Conduct study on epidemiology of non-communicable disease, Thailand;
- Conduct study on incentive of teachers in health educational institutes across country, including dissemination of study findings;
- Conduct satisfaction survey of students in final year of medical health sciences during their internship program at central hospitals, district hospitals, centers and institutes across country;
- Assess attitude and feedback of teachers towards the curriculum delivery in various faculties in the university of medical sciences;
- Review whether the clinical training for final year students of medical health sciences during their internship is sufficient? This can be done through observation;
- Assess knowledge and attitude on teaching of medical ethics for students of medical health sciences for the first year and 6th year;
- Develop incentives for teachers performing their duties in various faculties in the university of medical health sciences in 2021\;

- Develop incentive for visiting lecturers who are invited to teach in various faculties in the university of medical health sciences in 2021;
- Develop incentives for administration officials in university of medical health sciences in 2021;
- Assess attitude and feedback of staff and teacher on education reform plan in university of medical health sciences;
- Assess safety performance of staff and teacher in technical areas (laboratories and dentistry clinics) of university of medical health sciences;
- Assess attitude and feedback on teaching-learning in basic sciences in year 1 and 3 of health students in university of medical health sciences;
- Assess quality of curriculum of university of medical health sciences as appropriate to the current context;
- Assess issues on mental health of staff and teacher in university of medical health sciences, using the WHO assessment form;
- Assess cigarette smoke and Acute Respiratory Infection (ARI) in young children: study on impact of cigarette smoke in household level that contribute to the ARI;
- Assess injuries from road accidents caused by alcohol consumption in Vientiane Capital: study on impact on household economy;
- Conduct study on prevalence of articulation in 3 provinces: Champasack, Savannakhet and Luang Prabang;
- Assess characteristics and survival rates of patients with breast cancer in Vientiane Capital;
- Assess quality of life for patients with breast cancer with chemotherapy;
- Assess need for IT technology in health sector;
- Assess factors influencing the student's intention to serve communities after graduation; policies to support staff advancement and diversities;
- Assess attitude towards working in rural remote areas and self-assessment of health students in final year of university of medical health sciences;
- Assess effectiveness on community-center approach amongst staff working at the central and local level;
- Review capacity, needs assessment of roles and responsibilities in accordance to the survey of graduated students from various institutes.

#### **5.4.4 Project on transfer of knowledge**

- Organize dissemination workshop;
- Organize dissemination and define scope of scientific research;
- Organize technical meeting to disseminate scientific research at UHS level;
- Organize national annual health scientific research (conduct in Lao language) of the UHS
- Socio and technical management project;
- Organize dissemination meeting to disseminate scientific research at faculty level;
- Attend technical conferences and present the research findings at the international forum;
- Design and print (produce) Lao medical journal in volumes for free distribution;
- Organize workshop to disseminate and introduce the format of writing Lao Medical Journals in Vientiane Capital and other provinces;
- Develop Lao medical journal in electronic file format;
- Attend technical conferences, present research findings in international conferences;
- Organize health sciences research ethics training twice a year;
- Organize dissemination and publishing project;

- Develop and publish scientific journals and annual reports;
- Develop project to disseminate teaching materials and technique for breastfeeding and LATCH Score for breastfeeding assessment to clinical staff.

## **Program 6: Health financing.**

### **❖ Priority actions:**

- Generate and mobilize funds to health care provision widely with good quality, establish a condition and progressively implement a mechanism for self-sufficiency in some hospitals at central and provincial levels;
- Promote cooperation with private services under the state administration and adjustment, including determination and management of appropriate service fees;
- Create conditions for the population to access essential health services equally, reducing out-of-pocket (OOP) spending on health of the population to be 35% of the total health expenditure through improvement, integration and expansion of the national health system scheme and be able to cover 96% of target population by 2025;
- Strengthen the financial management system down to health center level, implement financial management mechanisms according to the vertical level, management centralized and single door finance, increase budget and accountability to sub-national level for in managing and implementing the Sam Sang (three builds) policy;
- Use modern tools to manage income-expenditure in districts level, enable central and provincial hospitals use an information management system, including the financial system which will increase the management, monitoring on income-expenditure more accurately, transparency and accountability.
- Consider and create a condition to implement the mechanism on salary, benefits, incentives for doctors and nurses appropriately in order to contribute to improve quality of services;
- Strive to increase the investment from domestic sources in in health sector;
- Improve the fund allocation from domestic and external funding by focusing on the health system at sub-national level;
- Improve coordination on fund flow in health sector;
- Closely monitor on financial management as well as the financial data from funding sources to health sector;
- Endorse an appropriate payment mechanism of national health insurance to health facilities.

### **❖ Sub-program and projects: health financing program comprise 5 sub-programs and 21 projects as follows:**

#### **6.1 Sub-program on health financial management**

##### **6.1.1 Project on strengthening planning and budget and allocation of health sector**

- Organize lessons learnt workshops on budget implementation and annual budget planning for each level;
- Improve, administer and maintain the IT system on budget planning and allocation.

##### **6.1.2 Project on strengthening public/state accounting of health sector**

- Improve, print out guidelines on the management of state accounting on health (central, provincial, district);
- Disseminate and provide one training on the state accounting management guideline in 3 regions;
- Provide computers (desktop) to central for 15 computers, provincial 18, district 148 and health center 1060 computers;
- Provide budget for administration and management system for health accounts/financial program.;
- Organize training on financial management to the remaining 80% of health centers;

- Monitor and supervise on how to do the assessment at health center on the financial implementation and management for provincial and district levels;
- Monitor supervise and assess the implementation of financial management in health center for provincial and district levels;
- Monitoring and supervision on financial data entry through the DHIS2 system (central, provincial, district);
- Upgrade the qualification of accounting officers from upper diploma, bachelor's, master's degrees (central and district level);
- Organize workshops on the creation of a claim application in the Government Financial Information System (GFIS) to finance staff at provincial and district health offices;
- Organize training on a claim application in the Government Financial Information System (GFIS) to finance staff at provincial and district health offices;
- Install the system of claim application in the Government Financial Information System (GFIS) to finance division at provincial and district health offices.

### **6.1.3 Strengthening on Official Development Assistance (ODA)/donor management in health sector project**

- Develop guideline and improve the ODA management system from central to health center;
- Provide training and disseminate the guideline to the budget units at central, provincial, district and grassroots levels;
- Organize lessons learnt workshops with development partners (DPs) on the use and management of ODA;
- Develop and strengthen the management of international financial system to central government officers;
- Provide equipment and installing the financial management system of ODA.

### **6.1.4 Project on strengthening the management of public assets in the health sector**

- Organize training on the management and use of IT tools to manage state assets at central and provincial levels;
- Organize training on the management and use of IT tools to manage state assets at district level.

### **6.1.5 Project on procurement in the health sector**

- Monitor and supervise, encourage, revise procurement and asset management at central and provincial levels;
- Organize lessons learnt workshops and guide on improving of the management of procurement and assets.

### **6.1.6 Project on strengthening health financing monitoring and evaluation**

- Improve mechanism to monitor, revise and assess systematic budget submission documents;
- Monitor and supervise the management and implementation of budget and ODA from central to local levels;
- Check the expenditure of regular budget, technical revenue and ODA at central to local levels;
- Provide training and advise on payments and verifying the expenditure documents for the use of state budget and ODA.

## **6.2 Sub-program on the management of health facilities**

### **6.2.1 Project on the development of health facility management and modern treatment**

- Check and monitor the accuracy and transparency in revenue collection at each level;

- Print and provide tax invoices at each level;
- Develop and strengthen the information system for health facilities.

### **6.2.2 Project on setting up price structure for service fees and treatment**

- Collect additional data on services and fees at central and provincial public health service facilities;
- Improve and endorse the fees for health services and treatment;
- Organize dissemination workshop on the use of health services fee at central and local health facilities.

### **6.2.3 Project on improvement of provider payment mechanism to health facilities**

- Organize lessons learnt workshops and improvement of payment mechanism from health insurance system to health facilities (central and provincial);
- Improve reimbursement procedure in health insurance system;
- Disseminate and supervise to use the reimbursement system and implement uniformly

### **6.2.4 Project on financial management for hospital autonomy**

- Analyze relevant data from hospitals at each level to develop a database for the design and draft of legislation;
- Implement lessons learnt from surrounding countries;
- Create legislation and guideline on implementation of a self-sufficiency mechanism of hospitals;
- Pilot implementation on hospital autonomy at selected central and provincial hospitals.

## **6.3 Sub-program on Social Policy Development on health**

### **6.3.1 Project on the expansion and development of national health insurance to achieve universal health coverage (UHC)**

- Design the development model national health insurance (NHI) to achieve UHC by 2021 by covering three benefits package of (services fee at facilities) of the costing study on health services in 2019, pilot to implement in three provinces by 2022 and do the evaluation of the piloting and expand the results from the piloting throughout the country.

### **6.3.2 Project on strengthening and sustainability of social policy on health to achieve UHC**

- Organize workshops to discuss and evaluate the implementation of national health insurance strategy 2016-2020 in order to prepare for its new strategy 2021-2025;
- Organize workshops to discuss and draft indicators and measures on the strategy for the health insurance offices with development partners;
- Collect additional data/information to incorporate in the draft national health insurance strategy 2021-2025;
- Organize workshops to review the draft national health insurance strategy 2021-2025;
- Organize workshops of the national health insurance management committee;
- Organize annual meeting to review and report the outcomes of implementing national health insurance and its future annual workplan;
- Strengthen English skills for national health insurance staff;
- Monitor and evaluate the health insurance data system “ATD”;
- Organize workshops to disseminate the national health insurance verification guideline across the country;
- Organize workshops to endorse and disseminate the national health insurance strategy 2021-2025 (3 regions: central, north and southern province);



- Organize workshops to disseminate the study results of the costing on health care services;
- Build capacity of staff on financial work;
- Organize seminars on the designing of national health insurance schemes;
- Organize Workshops on technical discussions about the designing of national health insurance system;
- Summarize and report on the outcomes of designing national health insurance system;
- Organize workshops to strengthen the national health insurance tasks in southern, central and northern provinces;
- Organize workshops to discuss and prepare the advertising promotion tools and its content;
- Organize workshops to endorse the final advertising promotion tools and its content;
- Organize workshops with media outlets;
- Financial support to hotline staff as incentive.

### **6.3.3 Project on development and improvement on registration database of health insurance scheme**

- Continue website subscription with Lao Telecommunications Enterprise owned by State to store data on ATD of the health insurance system.

### **6.3.4 Project on improvement of verifying and reimbursement of health service**

- Conduct the NHI verification and organize meeting on the implementation of NHI

### **6.3.5 Project on awareness and information sharing to society on National Health Insurance**

- Develop advertising promotion tools, develop, improve NHI database, database protection;
- Print-out the NHI annual report;
- Design the advertising promotion through television;
- Develop communications materials;
- Broadcast on national television (1 time per week).

### **6.3.6 Project on health service reimbursement budget**

- Assess contribution from government;
- Assess contribution from Social security schemes;
- Assess direct payments from the population;
- Assess co-payments from the population.

## **6.4 Sub-program on the National Health Accounts**

### **6.4.1 Project on strengthening the National Health Accounts study**

- Develop system for data collection and reporting to be used in a study on the national health account effectively;
- Provide training for central and provincial finance officers to be able to do study on health expenditure at provincial level.

### **6.4.2 Project on National Health Accounts study**

- Assess reporting and data collection system on health expenditure in all level, central, provincial and some district;

- Conduct workshops with the Lao National Statistics Bureau and Lao Tropical and Public Health Institute to discuss on household expenditure or out-of-pocket payments (OOP);
- Conduct workshops to endorse the results of health account study;
- Conduct dissemination workshop to present the results of national health account and policy recommendation;
- Provide training on data collection of health expenditures in 18 provinces;
- Provide training on data collection and management of health expenditure to district level.

### **6.4.3 Project on development and implementation of the Health Financing Strategy and legislation**

- Conduct workshops to enhance and review the implementation of strategy and legislation related to the health financing;
- Develop legislation related to health financing and public financial management.

## **6.5 Sub-program on the management of salaries and policy**

### **6.5.1 Project on salary system development for public health facilities**

- Study and collect data on income of doctors and nurses at public health facilities;
- Implement lessons learnt from implementation of salary system from surrounding countries;
- Develop legislation on implementation of salary system through workshops until endorsement.

### **6.5.2 Project on the development of policy systems for the health sector**

- Develop and improve legislation on remote areas, incentives policies, skills, etc.

## **Program 7: Planning, cooperation and health information**

### **❖ Priority actions:**

- Improve the health information system to be a single consolidated and uniform system throughout the country (DHIS2), use family folder to collect and comprehensively monitor the target indicators, including health services from the Public Security, National defense and the private sector in accordance with the health information reform strategy;
- Continue to develop the capacity of establishing a health information center to focus on research, and provide training and the use of data for planning, monitoring, and evaluating the progress of indicators in each period, including the preparation of survey plans (LSIS3);
- Implement the eHealth strategy to improve the quality of health services in line with the region and ASEAN strategies, contribute to LDC (2024), UHC (2025) and SDGs (2030) and other indicators report from local levels; this also including birth registration with the Ministry of Home Affairs (CRVS) that are related to ICD (mortality review) to help with accurate diagnosis,
- Continue to implement the coordination mechanisms with donors, health reform mechanisms, and decentralization align to the three-build policy to assist local level's planning and budgeting, as well as advocating for increased public health ownership;
- Identify health services research plans related to health policies and strategies for the implementation of HSDP in each stage.

### **❖ Sub-program and projects: the planning, cooperation and health information program comprise of 4 sub-programs and 7 projects as follows:**

## **7.1 Sub-program on planning and government investment**

### **7.1.1 Project on the strengthening of planning and government investment management**

- Organize an annual review and planning meeting with the departments, divisions, institutions, centers, schools, hospitals, and provincial health departments;
- Assist provinces and districts to formulate medium and long-term plans, as well as to conduct monitoring and supervision, inspect progress and keep track of the implementation of public health development and public investment plans;
- Organize consultation meetings periodically with departments to discuss the summary of the quarterly and annual implementation of public health and preparation of annual health development plans (4 times/year);
- Publish achievements report of the annual public health implementation and development plan of public health for the following year (annually);
- Improve the tools for formulating annual health development plans;
- Build technical capacity for planning staff at the central level;
- Discussion meeting on the integration of the Sustainable Development Goals (SDGs) and indicators approved by the National Assembly in the formulation of health development plans (annually);
- Continue DLIF activities of HANSA project.

## **7.2 Sub-program on health information**

### **7.2.1 Project on the establishment of the Health Information Center**

- Assess, evaluate and design the construction of a health information center;
- Establish health information center;
- Organise consultation meetings to establish the Health Information Committee and report on progress and present on planning at the central level;
- Develop the integration of the Healthcare Information System (HIS) architecture, including other relevant management frameworks and guidelines;
- Organise quarterly meetings on health information system with relevant departments, hospitals and other relevant ministries,
- Organise technical meetings to validate the results of the family folder and lesson learned at the central, provincial and some districts throughout the country;
- Organise TWG meeting to present and validate the draft content and information obtained from DHIS2 and other sources twice a year;
- Organise annual meeting of national health information;
- Pay internet access fees for the Information Department;
- Publish annual health information report.

### **7.2.2 Project on strengthening for health information personnel**

- Provide training on information management in hospitals and health facilities for administrators and technical staff at all level to strengthen the use of information and to provide timely reporting;
- Organise training on data interpretation and data quality management of DHIS2 system for provincial and central staff;
- Strengthen staff's capacity in research by providing the short-term research for informatician.
- Provide training on entering the personal information data for health center staffs

- Provide training on International Classification of Disease (ICD-10) to the central and provincial hospitals across the country.

### **7.2.3 Project on Quality Improvement of Health Information and Survey**

- Monitor and evaluate progress in comparison with the information Strategic plan in collaboration with 3 centers (malaria, tuberculosis and AIDS);
- Continue monitoring and supervision in 4 provinces as Oudomxay, Phongsaly, Xiengkhouang and Houaphanh provinces;
- Monitor and evaluate the progress by comparing the strategic health information plan of the provincial and district level, annually in each province.

## **7.3 Sub-program on international cooperation and public-private partnership**

### **7.3.1 Project on strengthening coordination in the health sector**

- Organize exhibition booth of the health sector activities at the roundtable implementation meeting;
- Organize annual progress meeting and planning for the following year of ODAs project with development partners;
- Organize workshop on official development assistance with the Department and development partners;
- Organize workshop on capacity building for better coordination at technical committee level;
- Follow on the cooperation and support at provincial and district levels on the implementation of guidelines on improve aids effectiveness in the health sector;
- Monitor and support cooperation at the provincial and district levels on the implementation of the UNFPA Reproductive Health Program / Program;
- Organize quarterly, mid-year and annual meetings on cooperation with UNFPA;
- Publish health sector cooperation strategies;
- Organize a meeting to dissemination the health sector cooperation strategies with all development partners;
- Organize an annual meeting on cooperation with WHO;
- Provide training on planning, summarizing and managing the Direct Financial Cooperation (DFC) -WHO support;
- Monitor and supervision at the provincial level under project support on using DFC- WHO budget.

### **7.3.2 Project on improvement and promotion for co-investment of Public and Private Partnerships in the health sector**

- Organize technical workshop on public-private partnerships in the health sector;
- Collect information on public-private partnerships;
- Organise study tours on public-private partnerships in the country and abroad.

## **7.4 Sub-program on monitoring and evaluation**

### **7.4.1 Project on strengthening of monitoring and evaluation**

- Publish a handbook on legislation implementation guideline;
- Strengthen capacity for technical staff on inspection and evaluation;
- Conduct training on monitoring and evaluating public investment under chapters 63 and 67 for central and provincial level once a year;
- Monitor, supervise and inspect the implementation of public investment under chapters 63, 67 and grants

- for health sector development at least twice a year;
- Organise quarterly review meetings of the quarterly public investment plan under the eight programs (4 times/year);
- Conduct performance evaluation of the Department of Planning and Cooperation once a year;
- Conduct regular inspections of public Investment chapter 67 in coordination with the inspection department of the Ministry of Health once a year.

## **Program 8: Governance, management and inspection**

### **❖ Priority actions:**

- Continue to implement reform strategies, improve the national single window system and operating procedures in a systematic approach, and eliminate complicate bureaucratic procedures by strengthening the advisory body's capability and speed to the ministry's steering committee board, including improving regular reporting system and in a timely manner;
- Develop and update legislation; encourage comprehensive management and deliver strict and high-quality health care services; enabling hospitals to become self-reliance; vertical financial management; set unit prices and policies for services and the recruitment of retired staff;
- Increase innovations, ideas, actions, and accountabilities by using IT in hospitals' services at different levels as well as in the management and evaluation of public health. Ensure the delivery of universal health coverage with quality, equality, fair and transparent, and inspiring trust for the people;
- Further facilitate internal and external coordination, including with development partners. Explore and prepare strategies for the transition period, the development towards the "Belt and Road Initiative," and the development of ASEAN and the Greater Mekong Subregion (GMS) cooperation framework enthusiastically and eagerly;
- Focus more on monitoring, inspection, report, and solving problems quickly and timely by enforcing the rules of law. Implement the National Assembly's and local assemblies' resolutions. Implement the health sector's "Strategies for Gender Equality and Mothers and Children (2019-2025)".

### **❖ Sub-program and projects: Governance and inspection program comprise of 8 sub-programs and 10 projects as follows:**

## **8.1 Sub-program on Health Sector Reform, 3 Builds and coordination**

### **8.1.1 Project on health sector reform, 3 Builds and coordination**

- Publish brochures on the Health Sector Reform Strategy (HSRS);
- Disseminate HSRS nationwide;
- Organize meetings on lessons learned from the implementation of HSRS with relevant sectors at the central level (quarterly);
- Continue monitoring and support of the implementation of HSRS and report on the three-builds directive implementation in the provinces;
- Organize meetings to report the progress of the implementation of HSRS to the National Committee on HSRS (annually);
- Organize mid-term review meetings on the implementation of HSRS;
- Organize evaluation meeting(s) on the implementation of HSRS phase III and develop plans for phase IV.

## **8.2 Sub-program on the development and capacity building for Cabinet**

### **8.2.1 Project on improvement of accelerating document flow (clearance process) and filling/documentation system in the MoH**

- Organise annual meeting to review the administrative operation;
- Organise annual national health sector meetings;
- Develop activities to disseminate, monitor, and support the implementation of the modern office system (E-Office);
- Organise administration operation training;
- Organise dissemination meetings on the management and filing of official and steering committee's documents;
- Develop standard operating procedures for documentation and filing of important documents;
- Exchange lessons learned on the use of official documents in 18 provinces across the country.

### **8.2.2 Project on strengthening capacity for administrative staff**

- Provide training program to upgrade to Bachelor degrees;
- Provide training program to upgrade to Master's degrees.

## **8.3 Sub-program on strengthening international cooperation**

### **8.3.1 Project on strengthening international relations, coordination with ASEAN member states and management of NGOs, and INGOs**

- Organise annual meetings on the coordination of ASEAN-related issues and six-monthly meetings two times/year;
- Provide funding support for staff to attend meetings, to monitor and upgrade skills abroad two times/year (AHMM);
- Provide funding support for staff to attend meetings, to monitor and upgrade skills abroad one time/year (SOMHDM);
- Provide funding support for staff to attend meetings, to monitor and upgrade skills abroad four times/year (Cluster);
- Support activities related to international relations and NGOs and INGOs at central and provincial levels one time/year (nationwide);
- Organise meetings to report progress on the implementation of activities on cooperation agreements signed with foreign counterparts one time/year;
- Organise dissemination meetings on international relations;
- Improve coordination through the organization of the policy-level coordination committee meeting (SWG (P)) annually, to report progress on the implementation of health sector activities to the annual government's round table meeting, one time/year;
- Improve coordination through the organization of the operational-level coordination committee meeting (SWG (O)) one time/year;
- Organize the TWG Secretariat Meeting four times/year;
- Organise meeting to approve the manual on the coordination mechanism of the health sector;
- Publish the manual on the coordination mechanism of the health sector.

## **8.4 Sub-program on technology and communication**

### **8.4.1 Project to strengthen technologies and communication**

- Improve the server system to support data loading on websites and email servers. Improve the electrical system, and upgrade server rooms to develop into the data center of the Ministry of Health;
- Improve the single-window documentation system for the provincial health department nationwide;
- Develop and disseminate Application Discuss doc for staff in the Ministry's Cabinet Office;
- Improve the internet network within the new and old buildings of the Ministry of Health;
- Survey the use of IT system at provincial health departments;
- Maintenance of the EOC Video Conference system and the remote video conference system;
- Organise training on ICT system for the health sector's employees at the central level;
- Organise Training to strengthen the capacity on ICT system and the e-office system of the Ministry of Posts and Telecommunications for technical staff of the provincial health departments;
- Create Application Health Information and disseminate the system to the health sector's staff;
- Create calendars, posters, pamphlets to promote the health information and news;
- Develop applications, cloud server(s) to store MOH's documents. Disseminate the applications to the technical staff, cabinet office members, and the minister's secretariats.

## **8.5 Sub-program on enhancing advancement of women**

### **8.5.1 Project on the strengthening and advancement of women, mothers and children**

- Disseminate ethical codes for medical staff and the Decree on the Adoption of Children to the health sector's staff at the central level and all 18 provinces throughout the country (FY 2021);
- Consult and discuss guidelines for gender roles and combating trafficking in persons;
- Organise workshops on the use of manuals on services, diagnosis, and treatments for women and children who are victims of violence, to the medical staff at the central level and 18 provinces throughout the country;
- Celebrate the International Day for the Elimination of Violence against Women and Children;
- Celebrate International Children's Day on June 1;
- Celebrate the World Day against Trafficking in Persons;
- Organise the Full Committee Meetings on the Advancement of Women, Mothers, and Children and the Full Committee Meetings for Combating Trafficking in Persons.

## **8.6 Sub-program on health legislation**

### **8.6.1 Project on the development and improvement of legislation on health**

- Publish the Law on Health Care;
- Disseminate the Law on Health Care in 17 provinces and Vientiane Capital;
- Publish the Legal Handbook of the Health Sector, Volume III, 2nd printing.

## **8.7 Sub-program on health disaster management**

### **8.7.1 Project on preparedness to response in case of disaster/health emergency**

- Update the agreement of the Disaster Prevention and Control Committee, Ministry of Health;
- Organise the Ministry of Health's Disaster Prevention and Control Committee meetings;
- Organise field surveys to evaluate areas at-risks for natural disasters in the health sector;

- Develop a GPS mapping of health information for safe and at-risk areas for disasters;
- Produce the Ministry of Health's Disaster Prevention and Control Committee's waistcoats and hats;
- Organise training on coordination system to the Disaster Coordinators at provincial level in the central, northern and southern regions;
- Organise training on disaster knowledge for the Disaster Coordinators at the provincial level in the central, northern, and southern regions;
- Organise training on disaster response with the army;
- Organise three- and six-months English training for staff at central and provincial levels;
- Immediate impact assessment during disasters;
- Organise consultation meetings between the standing committee members of the Ministry of Health's Disaster Prevention and Control Committee during disasters;
- Organise field visits to monitor and assess the impact after disasters;
- Organise Fund Raising Meetings between the Ministry of Health's Disaster Prevention and Control Committee and the private sector, business during disasters;
- Organise meetings to review and summarize the total impact of disasters on the health sector;
- Organise annual exhibition on October 13, the ASEAN Day for Disaster Management and International Day for Disaster Reduction;
- Organise the annual meeting of the Ministry of Health's Disaster Prevention and Control Committee;
- Organise overseas study visits on disaster preparedness;
- Organise study visits and exchange lessons on disaster preparedness;
- Review and summary of the impacts of disasters on the health sector meetings.

## **8.8 Sub-program on party and state inspection**

### **8.8.1 Project on party inspection**

- Inspect development of plans to establish 23 Transparent, Strong, and Robust Party Units;
- Monitor the Party members' participation at the grassroots party committee and 25 party units/year
- Collect statistics for party member according to the form of Central Party Central for 07 forms once a year; Monitor the contribution, collection from party member to support the party and the use of its moneys annually, each party unit around the Ministry once a year.

### **8.8.2 Project on state inspection**

- Organise regular state inspections at the central and local levels annually in 18 provinces nationwide/year;
  - Organise state inspection Inspect public investment projects from the early stages at the central and local levels;
  - Monitor the correction of inspection results at the central and local levels;
  - Inspect the management of social and international assistance on the prevention and control of Covid-19 pandemic;
  - Organise annual report meeting on health sector inspections;
  - Organise annual training on inspection for 18 provinces nationwide;
  - Organise training on inspection, annual inspection once / year.
- + Activity on reviewing the complaints and request
- Continue to review and consider the complaints and feedback at central and local.



+ Anti-corruption work and declaration of assets-income of employees

- Continue to implement the declaration of assets-income of employees, civil servants in accordance with the notification of the Government Inspection Agency No. 227/2020, dated 03 October 2020 (for the 3th and 4th ).

+ Administrative work

- Continue to improve the role of the Department from the old version in 2012 to complete in early 2021;
- Manage, control the work in accordance with the prescribed legislation and regulations;
- Summarize the results of the inspection, report for comments on a regular basis, and periodically lessons learn.
- Provide qualified staff to the designated positions;
- Focus on upgrading short- and long-term inspection staff, both with the country and abroad

## Part IV

### Estimation of budget demand

As per learning from the implementation of the 8th five-year health sector development plan, budget allocation to the 8th plan had increased. The National Assembly and the government realized the importance and the need to focus mother and child health care and nutrition. In general, we observed great progress in the national health indicators and SDGs targets that are relating to the health sector. According to the assessment from international agencies regarding the LDC graduation, the human asset indicator (HAI) is achieved as per the basic requirement. Therefore, looking at the lessons learnt and challenges confronting in the past five years, the government needs to continue to focus and invest to improve quality health care services. The need is to increase government expenditure into health care system and to contribute to stable socio-economic development and to be able to intergrade into the regional and international growth and requirement.

In the next five years, according the WHO study and report to achieve UHC and owing to the dissimilarities of the country income, government need to invest minimum standard US\$ 86/cap (WHO, 2014). Therefore, the next 9th five-year plan has estimated budget require averaging about US\$ 500-600 million/year. The current trend of budget increase or capacity to allocate resources is only about 50-60% of the budget demand. To increase capacity and to achieve national indicators relating to health sector there is a need to increase budget allocation and mobilize resources from both domestic and internationally. From the last plan, government allocated about 9% (domestic government budget) to the health sector. The 9th five-year health sector development plan (2021-2025) estimated total budget required US\$ 2.500 – 3.000 million for five years. Major investment is needed to improve quality health services, improve mother and child health and nutrition at community levels and move toward UHC contributing to LDC graduation.

**Government Health Expenditure Plan 2021-2025 under various scenarios.**

No	Funding 2021-2025	GHE Bill. LAK	GHE Mill. US\$	GHE US\$/Cap	% GGE	% GDP
1	Current GHE funding trend (Budget 2020)	16,572	1,694	45	7.2 %	1.4 %
	Domestic only (Excel. ODA)	12,683	1,297	43	5.5 %	1.3 %
	Domestic budget only (Excel ODA & Tech. Rev)	10,751	1,099	29	4.6 %	1.0 %
2	9% of GGE	20,724	2,119	56	9.0 %	1.8 %
3	MOH plan Covid impact	22,908	2,342	61	9.8 %	1.9 %
	MOH annual plan	26,454	2,700	71	11.4 %	2.2 %
4	Min Int standards 86\$/cap GGHE by 2025	28,977	2,963	78	12.5 %	2.5 %
5	Int standards (average 2021-25)	31,905	3,262	86	14 %	2.7 %
	MOH estimated 1.5% GDP (Presented 09/2019)	17,608	1,800	47	7.6 %	1.5 %
	MOH Essential health service package	10,241	1,037	27	4.3 %	0.8 %
	Regular domestic budget excl. Tech Rev (2019)	6,662	769	21	4.0 %	0.7 %

1. If calculated as per WHO standard of US\$ 86/cap/year, total budget need for five years US\$ 3,262 million.
2. If calculation is based on the key priority areas of health sector and intergrade with Covid-19 will average at about US\$ 65/cap/year, total budget need for five years US\$ 2,755 million.

**Estimated budget 2021-2025 under two scenarios.**

No.	Total health expenditure (Billion LAK)	Total Gov. budget into health sector (Billion LAK)	Total Gov. budget into health sector (Million US\$)	Average unit cost (US\$)	Total health expenditure as compared to total gov. budget	% GDP
1	International standard	31.926	3.262	86	15	2,8
2	Health sector plan including Covid-19 respond	24.058	2.755	65	10	1,9

**Estimated Health Expenditure 2021-2025**

Implementation budget	Unit	2020	Projected					
			2021	2022	2023	2024	2025	21-25
Domestic GGHE	Bill LAK	1,496	1,991	3,310	3,707	4,164	4,689	17,861
ODA	Bill LAK	1,101	1,080	827	1,075	1,398	1,817	6,197
Total GGHE	Bill LAK	2,597	3,071	4,137	4,782	5,562	6,506	24,058
Total GGHE	Mill US\$	291	334	438	491	555	629	2,755
% GDP	%	1.5%	1.6%	1.9%	2.0%	2.1%	2.1%	1.9%
GGHE in % GGE	%	8.0%	8.0%	10.0%	10.0%	10.0%	11.0%	10.0%
GGHE (No TR) in % GGE	%	4.6%	5.7%	8.5%	8.7%	8.9%	9.1%	8.3%
Total GGHE per capita	US\$	40	46	59	65	73	81	65
% Domestic	%	58%	65%	80%	78%	75%	72%	74%
Exchange rate	LAK	8,920	9,191	9,449	9,737	10,027	10,336	9,813
Population projected	Person	7,231,210	7,337,783	7,442,794	7,545,792	7,646,723	7,745,249	

DGHE Domestic Government Health Expenditure

GDP Gross Domestic Product

GGE General Government Expenditure

GGHE General Government Health Expenditure

GDP/Cap (US\$)

**Estimated budget by 08 programs (LAK)**  
**Estimated budget by program 2021-25**

No	Program	2021	2022	2023	2024	2025	Total	%
1	Hygiene and health promotion program	341,858,145,430	460,523,330,396	532,323,559,573	619,151,743,694	724,236,110,117	2,678,092,889,210	11.1%
2	Prevention and communicable disease control	261,719,588,469	352,567,221,588	407,536,005,229	474,009,883,121	554,460,319,954	2,050,293,018,361	8.5%
3	Health care and rehabilitation	1,493,847,484,758	2,012,389,138,536	2,326,140,889,649	2,705,561,611,926	3,164,757,973,245	11,702,697,098,114	48.6%
4	Consumer protection for food, drug and medical products.	94,145,302,428	126,824,850,584	146,598,123,155	170,509,987,660	199,449,474,958	737,527,738,785	3.1%
5	Staff management, development and health research	347,100,044,106	467,585,787,518	540,485,969,038	628,645,537,389	735,341,220,110	2,719,157,558,161	11.3%
6	Health financing	418,476,915,760	563,737,870,564	651,630,286,931	757,918,790,446	886,555,133,161	3,278,318,996,862	13.6%
7	Planning, cooperation and health information	53,995,246,615	72,737,979,565	84,078,563,761	97,792,758,603	114,390,450,822	422,994,999,367	1.8%
8	Governance and inspection	59,857,272,433	80,634,821,249	93,206,602,662	108,409,687,162	126,809,317,633	468,917,701,140	1.9%
	<b>Total:</b>	<b>3,071,000,000,000</b>	<b>4,137,000,000,000</b>	<b>4,782,000,000,000</b>	<b>5,562,000,000,000</b>	<b>6,505,000,000,000</b>	<b>24,058,000,000,000</b>	<b>100%</b>

## Part V

### Measures and approaches in implementation

- 1) Continue to implement the Party Congress resolution for the health sector by translating and integrating it into planning, programs and projects for each subsector at all levels, aligned to targets and national indicators (LDC/UHC/SDGs);
- 2) Increase ownership with clear directives and guidelines at all levels, guide activities focusing on the priority focused areas (KPA/KPI). Focus on reducing maternal and child mortality rates and malnutrition that are directly linked to poverty, customary norms and practices/knowledge, demography/transportation. Attention needs to be given to increase quality services and community participation, gender equality to achieve national indicators, increase sector coordination, coordinate with local level and donors adjusting to new normal;
- 3) Focus on enhancing staff capacity for upright transparency and accountability, with good consciousness of leadership, improved working procedures according to the centralized approach and according to tasks, roles and responsibility. Regularly monitor and evaluate staff performance, implement staff incentives or awards as per the policy and for their performance motivate staff for best staff and good performances (as well as punishment for misbehaved staff).;
- 4) Improve and utilize coordination mechanisms that are in place, apply good governance and follow the rule of law, strictly follow guidelines and directives, and financial planning and execution. Focus on decentralization and allocating responsibility to subnational levels with regular monitoring and reports in each stage and on time. Focus on health sector reform, reform on planning, implementation, and integrating the use of multiple sources of funds to support activity at local levels, and strengthen coordination with development partners for resources allocation;
- 5) Increase and enhance the national health insurance fund focusing on the implementation of the free delivery policy and child health care under 5 nationwide, to ensure access to quality health services especially for the poor or disadvantage group and to contribute to LDC, UHC by 2025 and SDGs target by 2030;
- 6) Identify clear monitoring and evaluation methods, work plans and implementation at each stage according to the project work plan and activity with clear budget estimate. All activities should be measurable with clear targets and indicators-national indicators endorsed by the national assembly that are aligned to the SDGs health related targets;
- 7) Have clear work plans alongside well-defined monitoring and evaluation schedules for every quarter, mid-year, nine months or annually. The project progress report should be prepared and shared with the Ministry of Planning and Investment, Government Cabinet, and National Assembly on a regular basis, with a summary of key achievements contributing to the celebration of the 50th National Day (1975-2025).

Signed

Minister of Health



















































