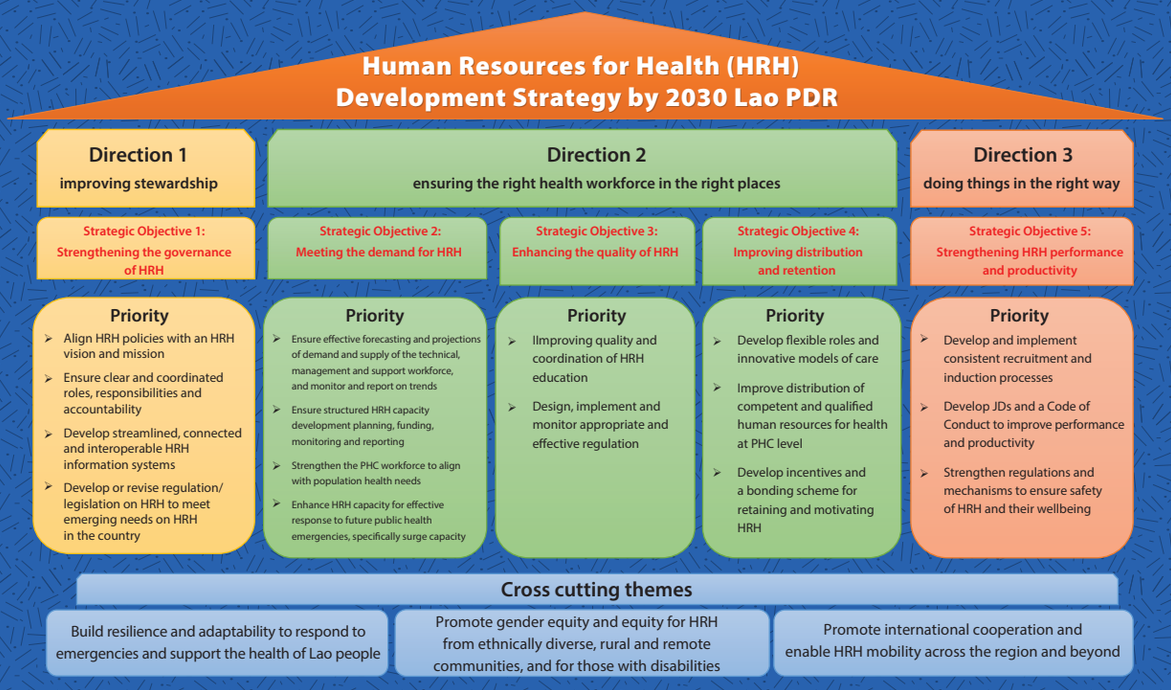
Human Resources for Health Development Strategy by 2030 Lao PDR



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World Health Organization
Lao PDR

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Abbreviations

ASEAN	Association of Southeast Asian Nations
CPD	Continuing Professional Development
DHIS2	District Health Information System version 2
DHP	Department of Health Personnel
DHR	Department of Health Care and Rehabilitation
DP	Development partner
EHSP	Essential Healthcare Services Package
ENT	Ear, Nose and Throat
GDP	Gross Domestic Product
HPC	Healthcare Professional Council
HPIMS	Health Personnel Information Management System
HRH	Human Resources for Health
HSDP	Health Sector Development Plan
HSR	Health Sector Reform
ICU	Intensive Care Unit
JD	Job description
Lao PDR	Lao People's Democratic Republic
LDC	Least Developed Country
MOES	Ministry of Education and Sports
MOH	Ministry of Health
NSEDP	National Socio-Economic Development Plan
NCDs	Non-communicable diseases
NHI	National Health Insurance
OHSWHW	Occupational Health, Safety and Wellbeing of Health Workers
OSCE	Objective Structured Clinical Exam
PHC	Primary health care
PHO	Provincial Health Office
RMNCAH	Reproductive, maternal, newborn, child and adolescent health
SDGs	Sustainable Development Goals
SP	Strategic priority
TB	Tuberculosis
UHC	Universal Health Coverage
UHS	University of Health Sciences
WHO	World Health Organization

Foreword

Human resources development is a key priority of the Lao People's Revolutionary Party (the Party) of the Lao People's Democratic Republic (Lao PDR) to graduate from Least Developed Country status by 2026 and to achieve Universal Health Coverage by 2025 and Sustainable Development Goals by 2030. At the 9th Congress in 2011, the Party adopted the 4 Break throughs Strategy. One of the breakthroughs described by that strategy is that human resources should have the skills and qualifications to respond to the needs of national socio-economic development andbe able to compete and integrate with the countries in the region and internationally. It refers to the Resolution of the Central Committee of the Party No. 04/CC date 30 Sept 2021 to increase the guidance of the Party to strongly transform, in depth, all activities related to human resources. The aim is to have enough qualified human resources with strong political ideology, faithfulness, warm character, high motivation, and high technical and managerial skills, proportioned between three types (leaders, managers and technical officers), three generations (senior, middle and young officers), genders and ethnic groups.

The objective of the national human resource development is to enhance the skills and knowledge of human resources in Lao PDR, specifically in areas such as political ideology, civil service, education, health and wellbeing, labor force and culture in order to achieve the goals of the Lao State Government as identified in the 9th National Socio-Economic Development Plan 2021–2025 (NSEDP) and the 9th Health Sector Development Plan 2021–2025 (HSDP).

Human resources for health (HRH) is one of the five pillars of the Health Sector Reform (HSR) Strategy 2021–2030, along with health services, health financing, governance, and monitoring and evaluation. The HRH Development Strategy by 2030 aims to contribute to the NSEDP and the HSDP. It reflects the governments vision and priorities in regard to strengthening primary health care and providing quality and patient-centred health care and services at all levels of the health system. The HRH Development Strategy establishes links to the major reforms of the HSR Strategy, NSEDP and HSDP.

Lao PDR has a limited number of health care workers across all levels of service delivery, and health workers are key in improving the quality and safety of all health care services. The current COVID-19 pandemic has highlighted the vulnerabilities of Lao PDR's health system. It has reinforced the need to protect and invest in all health care workers, to increase preparedness and emergency response capacity, to improve public health functions, and to enable HRH capacity for continued delivery of basic and essential health services.

A review of the previous Health Personnel Development Strategy 2010–2020 in 2021 found that progress has been made in achieving many of the targets set out in the five pillars of that strategy.

This new HRH Development Strategy by 2030 builds on that progress. It sets out five strategic objectives: 1) Strengthening the governance of HRH; 2) Meeting the demand for HRH; 3) Enhancing the quality of HRH; 4) Improving distribution and retention; and 5) Strengthening HRH performance and productivity. These objectives will help all people of Lao PDR to have equitable access to a skilled, resilient, well distributed, motivated and supported health workforce, that can promote and manage health and wellness, and detect, prevent and manage diseases and health emergencies for the people of Lao PDR.

I amon behalf of Ministry of Health leaders, committed to implementing the HRH Development Strategy to achieve health sector goals and encourage all relevant sectors' collaboration and support to implement this important strategy in the coming years.

Vientiane Capital 15 AUG 2023

Minister of Health

Bounfeng PHOUMMALAYSITH,MSc,MMA,Ph.D

I. Introduction

1. Country context

Lao People's Democratic Republic (Lao PDR) is a landlocked, mostly mountainous country bordering China, Vietnam, Cambodia, Thailand and Myanmar. The country comprises 17 provinces and one capital, which are further subdivided into 148 districts. The capital and largest city is Vientiane, which is situated on the Mekong River along the border with Thailand. The climate is tropical monsoon, with distinct wet and dry seasons. The country is particularly vulnerable to weather extremes such as drought and floods, which are expected to increase in frequency and severity due to the effects of climate change.

In 2020, the estimated population of Lao PDR was 7.2 million and is expected to reach 8.1 million by 2030. There are 49 ethnic groups in Lao PDR. The official language is Lao, though other ethnic minority languages are spoken in different parts of the country. The estimated average household size was 4.4 persons. About half of the population live in urban areas, and this number is expected to increase over the next few years as a result of urbanization.

Recently, Lao PDR has experienced increasing economic integration with regional neighbours and cross border labour migration. Over the last two decades, annual Gross Domestic Product (GDP) growth has risen to about 7%, making it one of ASEAN's (Association of Southeast Asian Nations) fastest growing economies. Economic growth is mainly concentrated in urban areas, and around 23% of the population still live in poverty. GDP growth has slowed in recent years, however, to 0.4% in 2020, the lowest in three decades. Smaller government revenues and the impact of the COVID-19 pandemic have led to the World Bank forecasting similarly low GDP growth again in 2021. Gross national income per capita, which was US$2,460 in 2018, is also expected to drop.

2. Population health context

Over the last decade or so, life expectancy has increased to 66.2 years for males and 70.9 years for females. Maternal mortality has decreased from 339 deaths per 100,000 live births in 2008 to 106 deaths per 100,000 live births in 2020. Around 72.8%of births are now attended by a skilled birth attendant, although this figure reduces to 34% in poor and rural households. Neonatal (under 1 year) mortality has decreased from 32 deaths per 1,000 live births in 2011, to 12 deaths per 1,000 live births in 2020, but is still high compared to international standards. The mortality rate for children under 5 has decreased from 15 deaths per 1,000 live births in 2016 to 13.5 deaths per 1,000 live births in 2020, but is still high in some districts.

Immunization coverage has increased, and infectious disease rates for HIV and malaria have fallen over the last 10 years. The incidence of tuberculosis (TB) has decreased to an estimated 182 per 100,000 population in 2015 to 153 per 100,000 in 2019, although the disease is more

prevalent in older populations and in remote and isolated areas due to limited primary care networks with capacity to offer TB services in those areas.

However, many health issues remain. Maternal and child mortality rates are still among the highest in the region. The adolescent birth rate for women 15–19 years is relatively high, at 83.4 per 1,000. Malnutrition is an ongoing issue, with around 33% of children stunted, 21% underweight, and 9% suffering from wasting. About a third (33%) of the population require an intervention for neglected tropical diseases. Rates of non-communicable diseases (NCDs) such as cancer, diabetes and heart disease, are increasing and expected to become one of the major causes of morbidity and mortality of the people of Lao PDR.

An increase in life expectancy also means an increase in the percentage of the population that is ageing. In 2020, around 4.3% of the population in Lao PDR was aged over 65 years. This is projected to increase to 5.6% in 2030, and 7.6% by 2050. As people age, they are more likely to experience a range of chronic health conditions such as hearing loss, cataracts and refractive errors, and NCDs including cancers, diabetes and depression.

The COVID-19 pandemic has highlighted the vulnerability of the Lao PDR population to health risks from global pandemics, and other infectious diseases and NCDs. Immunization rates for some diseases, such as measles, fell during the early period of COVID-19 pandemic, though it started to gradually catch up since 2022. Health and life risks from climate change are increasing, including from heat waves, storms and floods, outbreaks of climate-sensitive diseases such as water-borne, food-borne and vector-borne infections, and food insecurity. The nutrition status and survival of children under 5 will be affected, with rates of malnutrition and stunting likely to increase.

More people are likely to experience mental health challenges due to the current COVID-19 pandemic and environmental hazards arising from climate change. Women are more likely to be affected due to their disadvantaged economic status relative to men, their critical role in managing household food shortages, the heavier burden in daily chores, and their care and responsibility for children and the elderly. Poor mental health can lead to worsening socio-economic outcomes, as a result of fragmented sleep and impaired cognition, increased rates of depression and other mental health conditions. Lack of mental health support can leave people vulnerable to pervasive and serious psychological distress and illness, particularly those who are vulnerable or live in poverty.

3. Health service delivery context

The policy and legislative environment for health service delivery is governed by three key documents: the Healthcare Law (2005, updated 2016); the Primary Health Care (PHC) Policy (2000, updated 2019); and the updated Health Sector Reform (HSR) Strategy and Framework

2021–2030. Under the strategic direction of the HSR Strategy, strengthening PHC to achieve Universal Health Coverage (UHC), one of the key priorities is implementation of the Essential Healthcare Services Package (EHSP) 2018–2020. The goal of the EHSP is to ensure universal coverage of quality, essential health services in an equitable, effective, efficient and sustainable manner throughout Lao PDR. The EHSP lists the minimum services and equipment to be provided at each level of the Lao PDR public health system, and also outlines the key roles for all human resources for health (HRH) in the health sector.

Lao PDR has developed an extensive network of health services, from village health volunteers to tertiary (central level) referral hospitals. This network is made up of 1,072 health centers, 135 district hospitals, 17 provincial hospitals, and five central hospitals providing secondary and tertiary level care. A new University Hospital is being planned, aimed at improving the quality of medical education and care within the current quota. There are also three central-level specialized centers for ophthalmology, rehabilitation and dermatology. The private sector consists of 29 hospitals, including 18 in Vientiane Capital. There are 1,050 private clinics reserved for Lao-only citizens, including after hours, family doctor, dental, traditional medicine and physiotherapy clinics.

During the period 2014–2020, multiple reforms were introduced and services scaled up, resulting in some improved services, especially for reproductive, maternal, newborn, child and adolescent health (RMNCAH). Projects such as Health and Nutrition Services Access, supported by the World Bank, Global Fund, and Department of Foreign Affairs and Trade, Australia, have adopted an innovative financing mechanism to improve the quality of health services and enhance the effectiveness and sustainability of service delivery across programmes, specifically TB and HIV prevention, at the health center level. The National Health Insurance (NHI) scheme has been rolled out to all 17 provinces and resulted in over 94.5% (NHIB's annual report, 2022) of the population being granted financial coverage for health services. Under the NHI Strategy 2017–2020 and updated strategy for 2021–2025, ongoing work with the support of development partners (DPs) is underway to ensure all people know about the scheme and how to access it. An increase in health services utilization is expected as coverage and knowledge about the NHI scheme increases.

Guidelines and policies for service quality have been developed, however, capacity to measure quality is still lacking. The Ministry of Health (MOH) tends to focus on structural elements of care, such as staffing levels and infrastructure, rather than process measures, which are linked to better outcomes. In particular, work on clinical quality of care is just beginning. The Five Good One Satisfaction Policy aims to strengthen quality among providers, with a focus on better diagnosis and treatment to improve patient outcomes. Quality indicators for health services have been developed and are due to be rolled out over the coming year.

According to the 6th Lao Expenditure and Consumption Survey in 2019, about 75% of people seeking health services do so at public health facilities, and utilization of public health services has increased steadily over the past decade. The remaining 25% of people seek care in private sector facilities, and an increasing number of people seek care abroad. With border closures due to the COVID-19 pandemic, demand for secondary and tertiary level services within Lao PDR has increased.

Progress towards reaching Sustainable Development Goals Target 3.8 on universal health coverage is tracked using essential health service coverage index (SDG indicator 3.8.1). Estimated at 50/100 in 2019 in Lao PDR, the essential health service coverage index remains low, however, compared to other countries in the region, especially for poor and vulnerable communities. Out of pocket expenses, including for those for whom services are supposed to be free under the NHI, like the poor, pregnant women, and children under 5, are creating further inequities in access to health care. Access to quality private hospital care has also been low due to commercialization, lack of regulations and monitoring, and high prices.

The health care system is relatively document-dense and administration heavy. Paper-and-pen-based patient records cause wide variation in the quality of record keeping, especially at health Centre and district levels. This in turn limits the accuracy, quality and timeliness of data, information and reporting. An eHealth Strategy was developed in 2017; however it has not been fully implemented. An electronic patient management system has been piloted in some provinces but has not been rolled out nationwide yet.

Strengthening PHC is a key pathway to achieving the Sustainable Development Goals, UHC and graduation from Least Developed Country status. A stronger PHC system is particularly important in the context of health emergencies, increased rates of NCDs, and the gradual transition of DPs from Lao PDR in the future. The Party's 3 Builds (Sam Sang) Policy for decentralization can contribute to strengthening service delivery uptake at the primary care and provincial level, and to reducing the burden of service at the central hospital level.

However, service utilization and equitable access to PHC remains a challenge, due to multiple factors. These factors include poor quality equipment, limited and inefficient use of budgets, delays in receiving budgets from central level, and limited competent healthcare workers at lower levels of healthcare services which leads to lack of trust in the quality and safety of healthcare services at PHC level. There are also challenges around PHC outreach due to poor quality roads and limited staff time. As a result, many people seeking health care bypass PHC at the health center level.

While there is a strong focus on PHC, hospital autonomy is part of a government-wide effort to meet service demand, improve public sector efficiency, and mobilize private sector resources.

It will involve reducing government control, shifting day-to-day decision-making to the hospital management team and increasing decision rights at the hospital level. The governance function, including coordinating at the system level and providing system-wide integration and regulation, will remain with the government. The model will be piloted at the central level with oversight by a committee led by the Hon. Sustainability of the model and its impact on achieving UHC will be analyzed as part of the pilot.

Recent disasters such as the Attapeu dam collapse in 2018 and the COVID-19 pandemic have affected many thousands of people through death and injury, job insecurity, housing loss, loss of income and food insecurity. These events are having a significant impact on both physical and mental health for Lao people. Services to diagnose and treat mental health issues are extremely limited, with one ward in Mahosot Hospital and no specialized services at provincial levels. Community-level mental health services are lacking, and there is a high rate of stigma and discrimination, further reducing access to diagnosis, treatment and ongoing support. In response to the need to prioritize mental health and strengthen services for people experiencing mental health challenges, three mental health and psychosocial support guidelines have been developed by MOH with support from the World Health Organization (WHO), to train health care workers and organizations such as the Lao Women's Union in mental health support.

The COVID-19 pandemic has also magnified service-level issues. Resources have been prioritized on intensive care, and service capacity has been focused on the pandemic response. Other vertical, disease-specific programmes, such as for malaria, TB, and HIV/AIDS, often function in relative silos, with separate strategies and service-level plans. This can make it challenging to identify service level capacity to deal with emergencies and sustain essential health services.

4. HRH situation

4.1. Quantity

Lao PDR has achieved a significant increase in the number of civil service health care workers over the last 10years, from 13,096 in 2010 to 20,351 in 2020. Most of this increase occurred in the 2014-2015 financial year, however the quota for new civil servants has steadily reduced since then, with only 300 new civil servant personnel recruited in 2020.This reduction is consistent with the government's plan to reduce the number and increase the efficiency of civil servants over time.

All health facilities at all levels of the health system in Lao PDR are dependent on volunteers and contractors awaiting a civil service quota. In 2022 there were 6,945 volunteers and

contractors working in public health facilities, bringing the total number of health personnel in the public health sector is 20,048. Education institutes also rely on volunteers for teaching positions, however regulations currently prohibit them from contracting staff. There are also health personnel in the military 2,010 and security (the police) 860, bringing the total number of all health personnel in the government sector to 29,863. Number of staff from in the private hospitals is 952.

In 2022, the density of HRH to population is 1.23 health care personnel per 1,000 population (specialists, medical doctors and medical assistants, nurses and midwives). When including health care personnel from security forces and private sector, the density is 1.48 personnel per 1,000 population. This is well below the WHO indicative aggregate density of 4.45 doctors, nurses and midwives per 1,000 population to meet population health care needs. It is also well below the Lao PDR national benchmark of 1.7 health care professionals per 1,000 population.

The COVID-19 pandemic highlighted the impact of HRH shortages on the provision of basic and essential health care, and long-term care for chronic conditions. An expected increase in the number of people affected by NCDs due to demographic and lifestyle changes, and trends towards urbanization, are placing further pressure on an already depleted workforce and health service network.

Government health education institutions currently produce 1,500–2,000 graduates per year. There are currently no private education institutes in Lao PDR. Many students study abroad, either funded by scholarships or self-funded. Not all qualifications gained abroad are recognized in Lao PDR. Low quota means that a significant number of graduates are working as volunteers awaiting a civil service post. Those recruited by government must complete a 6–12months probationary apprenticeship period, as outlined in the Law on Civil Servants.

Understanding the impact of inflows (graduates and new recruits) and outflows (attrition through retirement, leaving the health sector or emigration) requires timely access to quality data and relevant information. Service-level data is compiled through the District Health Information System (DHIS2). HRH data is compiled through the Health Personnel Information Management System (HPIMS), maintained by the Department of Health Personnel (DHP), MOH. The HPIMS uses basic data fields identified by the Ministry of Home Affairs, and data from a range of sources, to project the workforce needed to meet essential health services, aligned to staffing standards and norms, for the medium and longer term. The limited data fields do not enable considerations such as workload to be factored into the projections.

4.2. Quality

Improving HRH quality requires intervention at all levels, including for infrastructure. A new campus at the University of Health Sciences (UHS), and construction and renovation in some provincial public health colleges, have improved infrastructure. However, overall, it is still well

below regional and international standards. Resources, equipment and buildings are old or insufficient. Classrooms are overcrowded and there is limited virtual teaching and learning capacity, which is a significant issue in the pandemic that has halted study for most students.

Teaching quality remains a significant barrier to meeting regional and international standards and is known to be impacting learning outcomes and pass rates for the exit exam from the University and colleges and the national licensing exam. Most teachers in health education institutes hold bachelor level qualifications or lower, with only a handful having masters or PhD qualifications. The Ministry of Education and Sports (MOES) is proposing to develop regulations for the licensing and registration of teachers. This regulation would include standards, core competencies, ethics, and requirements for continuing professional development (CPD). Currently, under Decree 413/MOES approved in 2015, teachers only need to complete a pedagogy programme in order to receive certification as a teacher. Virtual (online) teaching and learning capacity is urgently needed to alleviate overcrowded classrooms, ensure that students can continue their education during health events such as the current COVID-19 pandemic, and provide more timely and affordable access to in-service training.

Student selection criteria for medical students includes passing an entrance exam, and English language skills. Around 20% of quota is now earmarked for the best students from ethnic minority and rural backgrounds, however many of these students cannot pass the medical entrance exam. Entry requirements for nursing and midwifery are much lower, requiring only completion of upper-secondary school. This also creates inequities for students from ethnic minority or rural backgrounds, many of whom do not complete upper-secondary school. Language barriers, curriculum content and study requirements can present even further challenges for many of these students.

Improvement of several curricula are underway with support from various DPs, which means that there can be differences between curriculum at UHS and provincial health colleges for some disciplines. Efforts are being made to align newly revised curriculum with regional (ASEAN) and international (e.g., International Council of Midwives) standards. However, curriculum upgrades need to be much better coordinated, ensuring that content is based on current and future health needs of the Lao PDR population.

Improving the quality of existing human resources through qualification upgrades is a core policy of the government, which is responsible for civil service policy, training and capacity development. Despite an increase in the number of qualifications upgraded over the last 10years, HRH quality is still low compared with regional and international standards. This could be due to some limitations with the upgrade policy, including that upgrades have tended to be oriented towards hospital rather than PHC, or are in non-clinical areas such as English or business administration. Many upgraded HRH move or are promoted into administrative

or management roles, creating further shortages in the clinical/technical workforce. Opportunities for provincial level staff to take study leave to upgrade qualifications can be limited by family or economic circumstances, or the inability to meet upgrade criteria.

In-service education and training are provided through multiple short-term courses, programmes and projects, for issues such as communicable diseases, RMNCAH, nutrition, and health emergencies, and provided by multiple health departments and DPs. The military also conduct in-service training for military medical doctors. There is no overall coordination of in-service training at provincial or central levels, leading to both duplication and gaps. There is no routine monitoring and evaluation of the quality of in-service courses and programmes, and no mechanisms to measure quality improvements in skills or expertise as a result of upgrades or in-service training,

Clinical supervision of staff, particularly at PHC level in health centers, is inconsistent or absent. Although there are formal processes for supervision, these are focused on administration and structural processes rather than on the quality of clinical practice. Job descriptions (JDs) have been developed for many HRH categories and facility levels, but these have not been implemented. The Law on Civil Servants (Article 37, Chapter II) outlines expectations for behaviour and performance, however, formal processes for monitoring and managing HRH performance are not in place.

An overarching mechanism to improve HRH quality is the regulation for health professional registration and licensing approved in 2017. It defines a clear framework within which health professionals acquire and maintain the competence needed to provide health services that are of high quality, i.e., that are safe, effective and patient-centered. Standards, including ethics, and core competencies have been developed for doctors, dentists, nurses and midwives. The first national licensing exams for medical doctors, dentist, nurses and midwives that graduated in 2020 have been conducted in 2021/2022.

The process to license existing health professionals who graduated before 2020 has also commenced, with doctors, dentists, nurses and midwives at Children's Hospital in Vientiane Capital receiving their full license in 2020. Licensing is gradually being rolled out to existing eligible health professionals (pre 2020 graduates, including contractors and volunteers) in all central and provincial health facilities, and private hospitals. However, the pace of roll out has been very slow, with many essential components still in development, such as finalizing an intern curriculum, developing CPD requirements, and the criteria for licensing foreign health professionals to work in Lao PDR. Further delays in implementation will risk Lao PDR falling further behind regional and international quality standards and prevent mutual recognition of qualifications and the mobility of the workforce across the region and beyond.

Volunteers of 6,945 staff are working as contractors in the public health system. Standards and processes for recruiting and managing contract staff are, however, ad hoc and

inconsistent, especially at provincial level. Contractors need to complete either a 6 or12 months' probationary apprenticeship period as volunteers before being eligible for a contract or permanent role; however, this voluntary period can often last for several years. Central hospitals appear to have developed similar approaches to managing the transition from volunteer to contractor, yet are still heavily reliant on a large volunteer workforce to meet their service delivery needs.

There is also wide variation in remuneration and employment conditions for both volunteers and contractors across the health system. A new regulation for contract staff is being developed by the Ministry of Home Affairs and MOH, focusing on three target groups: new graduates, retirees over 60 years, and foreigners (e.g., from the ASEAN community). The aim of this regulation will be to recruit, appropriately remunerate, train, retain and develop competent contract staff, provide more job security, and meet quality staffing standards. The volunteer workforce is not included in this regulation.

Regulation is also being considered for the private health sector, aimed at improving the quality of services. Currently there are no mechanisms in place to monitor HRH quality and standards, and no data on the extent of dual public/private practice and potential conflicts of interest. There is a concern that higher salaries in the private sector are creating a "brain drain" from public to private facilities, with loss of key health personnel. Long periods as volunteers in the public sector also act as an incentive to move to the private sector.

4.3. Distribution

The percentage of HRH working in PHC at health center level has increased from 15% in 2010 to 21.2% in 2020; however, many health centers do not meet the Lao PDR staffing standard of one doctor, one nurse and one midwife per health center. Under or misaligned staffing forces some staff to work outside their knowledge and skills (e.g., midwives doing dentistry). Some health centers are not well utilized or have an oversupply of staff. Low workload means that clinical knowledge and skills are not utilized and can reduce over time. This can create safety issues for patients.

The misalignment between population health and service delivery needs and the distribution of staffing has been identified in Provincial Health Personnel Development Plans developed in 2017. These plans outline staffing and distribution targets for district and health center levels, aligned to the EHSP, and the government's policy to strengthen the PHC workforce. However, the plans have not been monitored. Feedback from provincial health departments indicates that there are challenges in meeting targets set out in the plans due to a reduction in quota, and that many staff are not able to undertake qualification upgrades for reasons already mentioned.

4.4. Governance, leadership and management

The government's focus on improving management capacity has resulted in an increase in the number of qualification upgrades in administration and management; however, data on the type of qualifications received is not available. Management skills in human resources, budgeting, finance, implementing policy, and reporting are still lacking, especially at provincial, district and health center levels. A lack of management skills is further limiting HRH development planning and monitoring.

The eHealth Strategy 2017–2021 identified that by 2021, all HRH would have acquired appropriate eHealth skills as part of CPD. Training in IT specific to DHIS2 has occurred, but IT training for the HPIMS, and guidance from management, are still lacking. Health and other data systems are not connected, and data exists in silos, making it difficult for managers and central level staff to analyze information to inform planning decisions.

5. HRH priorities

Lao PDR needs to develop a big picture, long term HRH vision to meet population health needs into the future. The country will need a much more resilient, flexible and competent health workforce that has the right technical and clinical skills, can monitor and assess the health situation, make decisions, take a leadership role, and communicate and coordinate their actions within a team in order to achieve high levels of patient safety, quality and efficiency. Studies show that strengthening the PHC workforce (which includes health promotion, disease prevention, treatment, rehabilitation and palliative services) and increasing workforce supply (both quantity and quality) to meet population health care needs will improve overall health and lifespan, and boost equity. It will also help to reduce demand on secondary care services.

5.1. Quantity – meeting HRH demand

The projections of health workers in the next ten yearsare based on population estimates, facility-level standards and norms, the EHSP, and anticipated attrition through retirement. The projections have also been informed by consultation with specialist medical associations and hospitals, and a review of HRH development trends over the past 10years. Increases are needed across almost all HRH disciplines/categories and facilities, as listed in Annex 2.

Projections can also be grouped according to population health care and service delivery needs. Grouping HRH requirements in this way can help to map out which workforces should be prioritized for recruitment and development to meet government priorities. The eight proposed population health care and service delivery areas or groupings are as follows:

- Primary Health Care
- Emergency preparedness, response and recovery
- Communicable diseases
- Reproductive Maternal Newborn Child Adolescent Health
- Non-Communicable Diseases
- Management of chronic and long-term conditions
- Mental health conditions
- Surgery and general medical, emergency/trauma care, and rehabilitation.

Looking at the workforce categories/disciplines that provide health care in each of the groupings, it is apparent that increases are needed for a core setofHRH, as well as increases in specialists, as outlined in Table 1. This table also illustrates which workforce categories/disciplines provide health care across multiple groupings.

Table 1. Priority HRH to meet population health needs and service delivery priorities

Health care & service delivery need	Increases needed in HRH	Increases in specialists
Primary Health Care Medical	Nurses, midwives, medical doctors, dentists, pharmacists, public health	Family docto
Emergency preparedness, response and recovery	Nurses (all levels including ICU), midwives, medical doctors, pharmacists, laboratory technicians, social workers, physiotherapists, radiology technician, public health	Intensive care anaesthetist, emergency physician, tropical medicine and infectious diseases specialist, radiologist, epidemiologist, mental health specialist (psychologist, psychiatrist)
Communicable diseases	Nurses (all levels), medical doctors, laboratory technicians, pharmacists, field epidemiologists, public health	Public health specialist, epidemiologist, tropical medicine
Reproductive Maternal Child Adolescent Health	Midwives, nurses	Obstetrician-gynecologist, paediatrician, surgeon, anaesthetist
Non-Communicable Diseases	Nurses (all levels), medical doctors, pharmacists, laboratory technicians, public health, radiology technicians	Surgeon, anaesthetist, oncologist, internal medicine/ENT (plus sub specialists, e.g., gastroenterologist, endocrinologist, cardiologist, radiologist, ophthalmologist)
Chronic and long-term conditions	Nurses (all levels including oncology), medical doctors, pharmacists, laboratory technicians, physiotherapists, social workers	Internal medicine/ENT (plus sub specialists including oncologist, palliative care specialist, cardiologist, radiologist)
Mental health conditions, illness and addictions	Nurses (all levels including mental health), midwives, medical doctors, social workers, counsellors	Mental health specialist , family doctors (psychologists, psychiatrists)
Surgery, general medical, emergency/ trauma care, and rehabilitation	Nurses (all levels including operating theatre), medical doctors, radiology technicians, physiotherapists, pharmacists, laboratory technicians	Anesthetists, surgeon, internal medicine/ENT, (plus sub specialists e.g., emergency physician, physical medicine and rehabilitation doctor, anesthetist, resuscitation physician)

Note: ICU = intensive care unit; ENT = ear, nose and throat.

The projected quantity required for each of the workforce categories/disciplines is outlined in Annex 2. These projections will be reviewed and adjusted to align with ongoing improvements in HRH quantity, quality and distribution, and population health care and health system priorities.

With a limited quota for new civil service positions, HRH increases will need to be met though a range of mechanisms including utilizing the existing workforce more efficiently through, for example, task shifting/sharing, re-training, and up skilling. A focus on multi-disciplinary or team-based education and working, as well as improvements in HRH productivity and performance, are also needed. Strengthening the PHC workforce will not only help to improve health outcomes, but it will also help to manage demand on hospital, and secondary and tertiary (central) level services, and more efficient utilization of health care workers.

The WHO guidelines to support mental health during emergencies includes using low-cost digital options such as teleconsulting, text messaging and telecounselling. These guidelines should be rolled out to all provinces through workshops as a matter of urgency. Developing a mental health care workforce to support Lao people beyond emergencies is also needed. This requires development of a specialist mental health care workforce and ensuring that all HRH have the basic skills to support the mental health of patients and know how to support their own mental health and wellness.

HRH projections and planning require a streamlined and interoperable HRH data and information system that captures and reports essential HRH data from a range of sources for decision-makers. This new system should include standardized data fields using international references, such as the WHO data field standards, as well as standardized classifications for HRH such as the International Labour Organization International Classification of Occupations. It should take account of demographic, economic and epidemiological factors, as well as advances in technology and health care delivery that will affect the demand for different types of health workers. A refreshed HRH data management system will enable longer term, big-picture HRH planning, as well as short term HRH projections, grouped around health needs and service-level demand, and supporting facility level planning.

5.2. Improving HRH quality

Providing affordable, safe, effective, quality health care when and where it is needed is dependent on a competent (i.e., well-educated, trained, skilled and knowledgeable) health workforce, with the right personal characteristics, attitude and motivation. This in turn is linked to the potential for improved population health outcomes. Improving structural elements of care such as staffing norms and standards and upgrading qualifications are important mechanisms to improve quality but need to be part of a continuum of quality mechanisms.

Improving the quality of HRH pre-service education is a critical part of improving the overall quality of HRH and health services. Improvements are needed in education infrastructure (buildings, resources and equipment) and ensuring the quality assurance of education institutions through accreditation processes. Teachers/lecturers should have adequate and appropriate clinical expertise in their subject areas, as well experience in teaching methodology and delivery. This includes for teaching in the classroom as well as for supervising hospital, community and industry-based placements. They also need to participate in ongoing professional development to ensure their teaching expertise remains relevant and of high quality.

A review of student entry criteria is needed to ensure fair, equitable and consistent entry standards. An entrance exam should be introduced for all disciplines to ensure consistency. Bridging and other enabling or transition-to-university programmes are urgently needed to enable better access to higher education for students from under-served populations. Evidence shows that these types of programmes can prepare students to succeed and complete their undergraduate studies, and to achieve government priorities to increase national participation in higher education.

All curriculum needs to reflect the Lao PDR situation and government priorities for improving health care to reach UHC. Strengthening PHC components of the curriculum for all categories/disciplines is needed, including prevention and management of mental health and NCDs. All students and those completing their intern year as part of licensing regulation should have clinical placements in community-based primary care. A specialist general practitioner (family doctor) registrar training programme and curriculum should also be developed, as proposed by the medical board in 2018, supported by funded rotations in PHC facilities.

In-service training enables existing HRH to further expand their expertise and effectiveness. The qualification upgrade policy is an essential part of the HRH quality continuum. It should be reviewed to ensure that it complements and strengthens pre-service education, is better aligned with health service priorities, and is linked to JDs. Bridging programmes are also needed to enable existing low and mid-level staff to meet upgrade eligibility criteria. Given the number of courses, programmes, projects and providers, in-service training also needs to be much better coordinated, monitored and evaluated to ensure it is equitable, of good quality, meets future HRH development needs, and is linked to CPD requirements.

Much more momentum is needed to fully implement the regulations for registration and licensing of health professionals according to the Strategy on Healthcare Professional Licensing and Registration System in Lao PDR 2026–2025. This includes ensuring that licensing exams include both written and observable, structured, clinical exams (Objective Structured Clinical Exam), that test clinical skill performance and competence in a range of skills. This will help to ensure that exam standards, qualifications and licenses are able to be recognized and

accepted by countries in the region and beyond. Intern curriculum for each discipline need to be finalized with a clear plan on how to enhance the current internship programme in a systematic and sustainable way, along with developing a nationally coordinated system for managing clinical placements, internships and registrar training. An interoperable registration and licensing data system is needed, aligned to the recommended new HPIMS. It should include data on registration status, CPD points, and any disciplinary actions. All of these components require a cohesive and effective governance structure, including greater autonomy and authority for budgets and decision making, and sustainable financing.

The hospital autonomy pilot provides an opportunity to design an HRH system that ensures the right HRH capacity and standards to deliver quality services efficiently and safely. It provides an opportunity to design a different employment model, with contractors who are employees of a hospital, rather than a temporary workforce awaiting quota. The model should emphasize the requirement for JDs, CPD, performance management systems, and fair remuneration based on qualifications and expertise. It should stipulate the competencies and qualifications required for managers. Importantly, this employment model and the regulations for contractors (in development) must align to address the heavy reliance on volunteers in the Lao PDR health system overall. Together, these improvements should support the government's goals for a more efficient workforce and reducing the size of the civil service in the longer term.

Proposed regulations for the private sector to include the potential for growth in the number of private sector education institutes. Private institutes can help to reduce pressure on limited capacity and resources in public education institutes. With the right regulation and oversight, they can produce graduates that are eligible to work in either private or public health sectors so long as they meet the standards required by either sector. Growth in the private health sector means that private education institutes could eventually produce a significant proportion of private sector HRH capacity and help to meet gaps in public sector service delivery capacity. It is important to note that private sector education and employment will be increasingly attractive to students and graduates who no longer consider the possibility of many years of voluntary service to be fair or feasible.

5.3. Distribution

Distributing, re-allocating, re-training and retaining staff where they are most needed is an urgent priority. Provincial Health Personnel Development Plans should be more closely monitored to ensure they are fully implemented. They also need to be regularly evaluated and revised to ensure they are relevant, align with government priorities and are effective in meeting provincial, district and health center HRH requirements. Plans and targets need to be adapted to support innovative models of care, and the up skilling of the existing workforce to meet changing health and service level demands, including from emergencies.

Incentives can have a key role in improving HRH distribution and retention, as well as motivation and quality. A revised incentive scheme is urgently needed that includes financial and non-financial incentives, to attract and retain staff where they are most needed. Incentives are also needed at management level to provide good work environments, and to keep staff safe from health risks arising from pandemics and chemicals and other environmental hazards, especially at PHC level. The revised incentive scheme needs to encourage staff to remain in the public health sector, whilst also enabling dual public/private practice as permitted under the Medical Civil Servants Law.

5.4. Leadership and management

Improving the supply, quality, distribution and retention of an effective and productive HRH requires a range of aligned policies that identify and translate long and medium-term policy goals, as well as designing appropriate and concrete actions for short term problems and challenges. It requires alignment and consistencies between health, education, employment, gender, regional cooperation and fiscal policies. It also requires a competent and trained leadership and management workforce that can develop and use the tools of governance (e.g., regulation, policy, management and information) to support timely decision making, action and monitoring and evaluation.

These requirements are embedded in the vision, goals, principles and strategic objectives of the HRH Development Strategy by 2030 as outlined in the following section.

II. Vision, Mission, Goals, and Principles

1. Vision

Ensure the health system has qualified and competent health personnel with political ideology, revolutionary attitude, skills, resilience, ethics, morals, active and dedicated to providing quality health care service coverage to all people in the country.

2. Mission

In order to ensure equitable access to quality health services for the people, the mission of human resources for health development strategy by 2030 consists of:

- Improving quality of training and upgrading of HRH
- Improving recruitment and distribution of HRH strategically
- Improving the governance mechanism, including integration of the data information system for HRH
- Providing appropriate incentives to retain HRH
- Providing a safe and supportive work environment for HRH

3. Goals

- To support the Ministry of Health to achieve the HSR Strategy 2021–2030 and the Health Sector Development Plan.
- To develop, promote, and retain the right number of qualified, ethical, competent and resilient health care workers to ensure quality, acceptable, equitable and patient-centred health care services. This will be achieved through adequate investment in HRH and the implementation of effective policies at national, provincial and community levels to ensure healthier lives for all the people of Lao PDR.

4. Guiding principles

The guiding principles underpinning the HRH Development Strategy are the following.

4.1. Improve the **quality and safety** of health care and services through the following:

- Strengthening capacity and quality of health education institutions through enhancing the quality of teaching; accreditation of programmes and curriculum to meet regional and international standards; and ensuring up-to-date teaching facilities and adequate resources.

- Improving the skills and quality of health workers with a clear set of student selection criteria; quality education programmes that meet regional and international quality standards; relevant and up-to-date curriculum; mandatory CPD; and a balance of workforce categories/disciplines, functions and qualifications based on the Lao health situation and projected health system demands.
- Increasing performance and accountability of HRH with robust recruitment processes; clear roles, responsibilities and expectations outlined in JDs; key performance indicators; a transparent performance management system, with consequences for poor or substandard performance; fair remuneration and performance-based incentive and career progression.
- Increasing the pace of rollout of health professionals' registration and licensing by strengthening the structure and authority of the Healthcare Professional Council (HPC); ensuring sustainable financial and human resources capacity; and licensing of all eligible health professionals by 2025.

4.2. Improve **equitable access** to quality health care and services for all through the following:

- Increasing the number of skilled health professionals based on up-to-date HRH projections aligned to population health care needs and health service delivery demand.
- Improving the distribution of skilled health workers to where they are most needed, prioritizing PHC, and aligning with essential services packages and other relevant standards and norms for health facilities, taking into account recommended global density thresholds.
- Improving financial and non-financial incentives for deployment and retention of health workers in the public sector, especially for rural and remote areas and PHC, and for disabled and ethnic minority health workers.

4.3. Improve **efficiency and resilience** of the health sector to respond to population health care needs through the following:

- Improving data and information systems for policy and decision making, including through a new streamlined and interoperable HRH data system using international standardized data fields and classifications, enabling connectivity with licensing and registration data, and aggregate data reporting into other data systems such as the DHIS2.

- Improving utilization of HRH through efficiency and productivity initiatives; expanded roles and task shifting/sharing; increased use of digital and telehealth technology; online tools for administration; and, improved administration and management capability, especially for human resource management, monitoring and evaluation, reporting on finance, human resources and quality of care.
- Improving coordination of, and access to, in-service training programmes, including those provided by DPs, with a focus on horizontal programming to make best use of common skill sets and to maximize HRH capacity across the health system.
- Enhancing the capacity of HRH to respond to health emergencies such as disasters and pandemics, including surge capacity, and at the same time ensure HRH capacity to provide basic and essential health care, and care for chronic conditions, NCDs, and mental health, and ensuring support for HRH to maintain their own mental health, safety and wellness.
- Reducing inefficiencies in decision making processes though well-defined roles and responsibilities, improved management and leadership skills, better integration of HRH responsibilities within MOH, and improved processes and accountability for monitoring and evaluation of HRH policies.

III. Direction of the strategy

The HRH Development Strategy by 20230 is to provide overall strategic direction and guidance to MOH to strengthen HRH to havethe right number of people, with the right skills, in the right place, at the right time, with the right motivation and attitude, doing the right work, for the right expenditure, with the right work output. The strategic direction is to address all aspects of health workforce development, such as governance, regulation, planning, education, management, and retention, adopting a multi-sectoral approach. The HRH Development Strategy has three directions:

Direction 1–improving stewardship

It responds to the following issues: lack of clear governance and accountability for decision making; lack of coordination in pre- and in-service education and training in health facilities and other training settings, such as for pharmacy factories and traditional medicine institutes; lack of clarity around roles and responsibilities; and disconnected data and information systems. This direction is aligned to strategic objective 1, strengthening the governance of HRH.

Direction 2–ensuring the right health workforce in the right places

It responds to the following issues: quality of care impacted by low utilization and misaligned distribution relative to health care need, especially at primary care (health centre) level; disconnected HRH planning across levels of the health system; inadequate quantity and quality relative to health care need; inefficiencies in models of care and service delivery; lack of investment in HRH for PHC; limited access of the poor and vulnerable to services; growth in the private sector; and, public/private sector capacity development. This direction is aligned to strategic objective 2, meeting demand for HRH (quantity), strategic objective 3, enhancing the quality of HRH, and strategic objective 4, improving distribution of HRH.

Direction 3– doing things in the right way

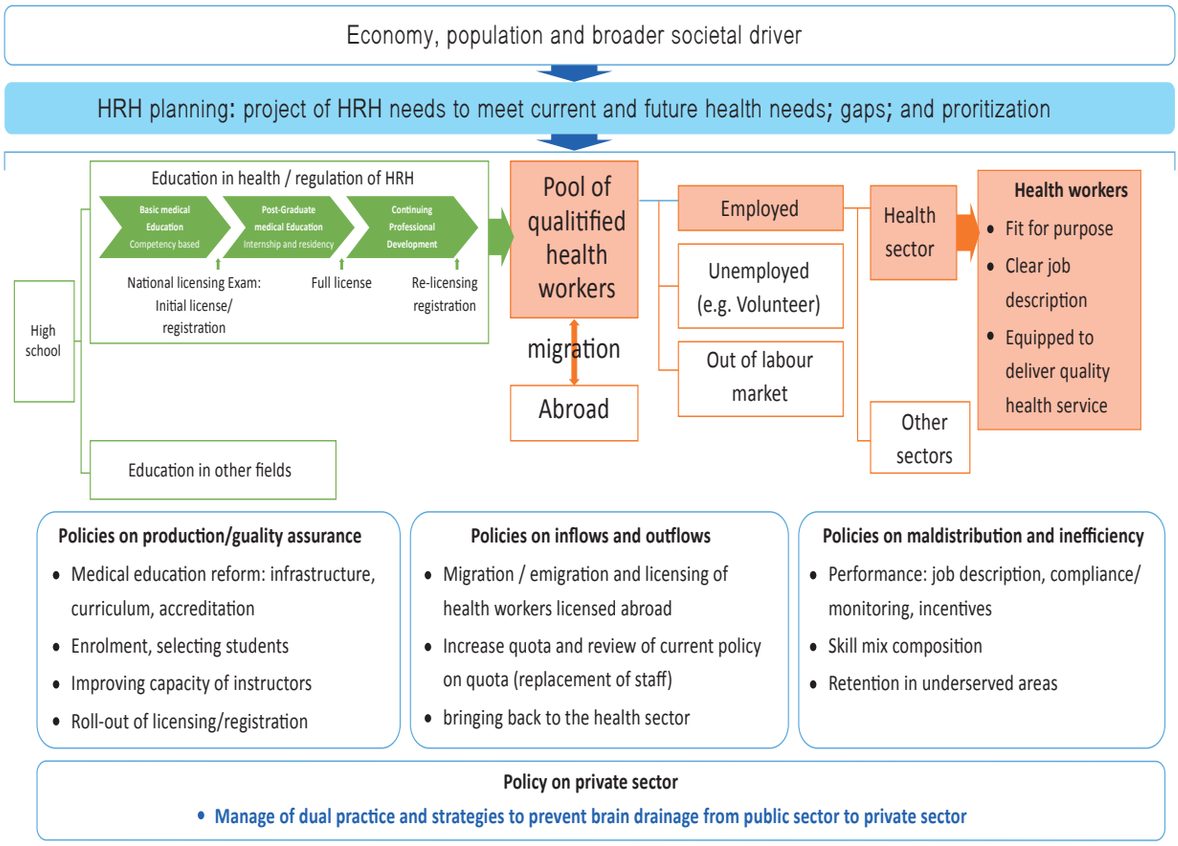
It responds to the following issues: lack of incentive to develop the right skills/ expertise and retain HRH for quality care where it is most needed; lack of guidelines on roles, responsibilities and expectations for good practice and lack of accountability for HRH performance management. This direction is aligned to strategic objective 5, strengthening HRH performance, productivity and resilience.

The strategy has three cross cutting themes that run through all strategic objectives, and that are aligned to the cross-cutting themes outlined in the National Human Resource Development Strategy:

1. Build HRH resilience and adaptability to respond to public health emergencies and health impacts from socio-economic changes and climate change.
2. Promote gender equality and opportunities for people from ethnic, rural and remote communities, and people with disabilities to study and work in the health sector.
3. Strengthen HRH quality, competence and standards to enable regional and international cooperation, including Mutual Recognition Agreements as part of the ASEAN community.

A health labour market framework (Fig 1) which adapts the policy levers to shape health labour markets in the WHO Global Strategy on Human Resources for Health: Workforce 2030 into the local context has been developed. This framework enables an understanding of the main factors that influence the availability, distribution, capacity, service delivery environment, and performance of the health workforces in delivering person-centered services to achieve UHC.

Fig 1. Health Labor Market Framework, Lao PDR



IV. Strategic objectives and priorities

The strategic objectives of the HRH Development Strategy by 2030 align with the strategic priorities of the National Human Resource Development Strategy to 2025, the HSR Strategy 2021–2030, the 9th Health Sector Development Plan, and the 9th National Socio-Economic Development Plan, and are informed by the service requirements outlined in the National EHSP, and the objectives of the National Qualifications Framework from MOES.

Each strategic objective has a number of priorities. Well-defined indicators will support implementation and enable effective monitoring and evaluation. Not all priorities can be implemented at once. A phased approach over the next one, three, five and 10 years will be used for each of the indicators. This will also enable MOH to review and report regularly on progress to achieve the objectives.

Strategic Objective 1: Strengthening the governance of HRH

Good governance is an essential part of HRH development and delivery, to ensure direction, progress and accountability. Four strategic priorities are identified: alignment of relevant policies and regulations with the HRH vision and mission; clear roles and responsibilities; streamlined information systems; coordinated management of internal and external education and training; and hospital autonomy.

Priority 1.1: Align HRH policies with an HRH vision and mission

Policy priorities for HRH Developments in Lao PDR are developed that promote good governance; improve production and quality assurance; monitor and report the impact of HRH inflows and outflows; and ensure distribution, productivity and efficiency appropriate to the Lao PDR situation. This requires policy coherence across MOH departments and other ministries, and multi-sectoral coordination to develop and review HRH policies.

Priority 1.2: Ensure clear and coordinated roles, responsibilities and accountability

1.2.1 Provide a clear mandate for the DHP to manage/oversee all aspects of HRH development, including planning, funding, regulation, education and training, distribution, monitoring and evaluation.

1.2.2 Clarify the roles and responsibilities for HRH administration and development between the provincial health departments, provincial hospitals, district offices, district hospitals and health centers, and improve coordination across the HRH administrative department of provincial hospitals, district offices and hospitals, considering merging administrative HRH at provincial and district levels.

1.2.3 Develop guidelines and build capacity of hospital managers for improving leadership and management expertise and accountability in all levels of the health system, including for human resources management, budgeting and financial management and reporting, monitoring and evaluation, and data information management and reporting and audit regularly to ensure compliance.

Priority 1.3: Develop streamlined, connected and interoperable HRH information systems

1.3.1 Design and implement a new streamlined, interconnected and interoperable HRH information management system (HPIMS) that uses internationally standardized data fields and classifications, has improved reporting capability, is linked to the HPC licensing data system and enables monitoring of clinical/technical capacity in real time.

1.3.2 Ensure all HRH are trained in HPIMS data and information requirements, in alignment with the eHealth Strategy 2017–2021, and other key strategies. District health office and provincial health department enter data on HRH into HPIMS and then the DHP review and manage the HPIMS data before export with relevant health personnel to be linked into the DHIS2.

Priority 1.4: Develop or revise regulation/legislation on HRH to meet emerging needs on HRH in the country

1.4.1 Develop HRH policies and regulations for effective implementation of hospital autonomy, including:

- Identify HRH governance structure, levels and areas of autonomy and training for management, including in human resources planning, management, monitoring and evaluation, budgeting and financial reporting, quality assurance and HRH requirements for hospital accreditation (see also priority 1.2.3).
- Develop and pilot a new employment model for contracting employees to the hospital that includes: JDs, guidelines on recruitment, remuneration, performance standards and monitoring, and career progression. Evaluate outcomes from the pilot and roll out.

1.4.2 Develop and implement regulation for employment of contract staff and volunteers that includes:

- Development of JDs based on role and function, aligned with the civil service JDs.
- Transparent recruitment and fair remuneration based on JD, experience and qualifications.
- Opportunity for ongoing learning, training and development.

- Protection from sickness, disease and injury arising from contracted or volunteer position.
- Guidelines for performance management, and how to address poor performance, aligned to civil service guidelines.

1.4.3 Develop regulation for health personnel in the private sector that includes:

- HRH quality and safety standards, and monitoring through quality assurance and accreditation.
- All HRH in the private sector to meet registration and licensing standards set by the relevant health professionals board and HPC.
- Policy and standards for dual public and private practice including Code of Conduct for government staff to manage potential conflicts of interest, reduce the flow of HRH from public to private sector, and support retention of staff in the public sector workforce.

Strategic Objective 2: Meeting the demand for HRH

To meet the current and future health needs of population in Lao PDR, ensuring sufficient number of HRH in priority areas is essential to achieve universal health coverage. In alignment with strategic direction and priorities of the Health Sector Reform Strategy and other key health strategies, policies and plans, the following priorities were identified: ensuring effective forecasting and projections of demand and supply of HRH; ensuring structured HRH capacity development; strengthening the PHC workforce; and enhancing HRH capacity for public health emergencies (surge capacity).

Priority 2.1: Ensure effective forecasting and projections of demand and supply of the technical, management and support workforce, and monitor and report on trends

2.1.1. Set Lao PDR HRH indicative density thresholds for number of medical doctors, nurses and midwives per 1,000 population, that integrate innovative models of care (e.g., task shifting/task sharing, eHealth), and HRH preparedness and readiness to pandemics and other health emergencies.

2.1.2 Develop projections for HRH demand/requirements, using labour market analysis, facility-level data (including service utilization and workload indicators), EHSP requirements, Lao PDR HRH density thresholds, and forecast of future population health situation and needs.

2.1.3 Review current policy on quota (for replacement of staff) based on projections of workforce demand and supply, clinical/technical versus administrative/management HRH needs, training capacity, inflows and outflows, regional and international cooperation, and dual public-private practice.

2.1.4 Define a set of clear deployment principles and develop a deployment plan in consideration of options on how to absorb the undeployed HRH and how to upgrade them as needed according to the defined deployment principles.

Priority 2.2: Ensure structured HRH capacity development planning, funding, monitoring and reporting

Redefine types of necessary professions including clarifying the differences in scope of practice among similar types of professions, including:

- Develop, implement and monitor five yearly central and provincial level HRH development plans.
- Set upgrade courses for the healthcare workers who graduated from the past pre-service courses to meet the current requirements.
- Identify HRH capacity requirements based on projections.
- Ensure realistic targets and training capacity that promotes a range of training/learning methods (e.g., in-person, online, self-directed).
- Ensure adequate funding for capacity development.
- Facilitate engagement with military and security (police) hospitals and the private sector in central, regional, and provincial levels to identify support for HRH capacity development.

Priority 2.3: Strengthen the PHC workforce to align with population health needs

2.3.1. Develop a plan on HRH to implement the EHSP effectively that includes:

- A clear vision of the PHC system and PHC workforce the country needs.
- A coordinated PHC workforce development plan, that includes multi-disciplinary teams.
- Adaptable and flexible PHC incentives (See priority 4.2).
- PHC taught in all HRH curriculum; community-based clinical placements and internships; and a general practitioner/family medicine specialist registrar training programme.

2.3.2 Ensure HRH recruitment and distribution to healthcare facilities at PHC level according to the defined minimal staffing requirements and JDs.

Priority 2.4: Enhance HRH capacity for effective response to future public health emergencies, specifically surge capacity

2.4.1. Identify and increase capacity in key priority HRH categories, in consideration of various health needs during public health emergencies which will require diverse cadres, for scaling up and responding to current and future public health emergencies (surge capacity).

2.4.2 Finalize Emergency Management Teams (EMT) structure with clear roles/responsibilities (Including potential roles of the military, security and private sectors in service delivery), training plans, and SOP to mobilize them during public health emergencies.

Strategic Objective 3: Enhancing the quality of HRH

While ensuring enough number of HRH, strengthening the quality of HRH is also core to improving the quality and safety of healthcare services and meet the health needs effectively. For this, the following priorities were identified: strengthening medical education by developing knowledge, qualifications and expertise relevant to the Lao PDR context, health system demand and needs, taking into account other issues such as management and technical/clinical workforce capacity, research sciences and competencies for emergency response (see also priority 2.4); and strengthening the implementation of the regulatory system for enhancing quality of HRH.

Priority 3.1: Improving quality and coordination of HRH education

3.1.1. Develop a Medical Education reform action plan that includes:

- Developing and implementing a plan on training and upgrading of personnel.
- Infrastructure improvements of medical education institutions and increased quality teaching resources and equipment.
- Student selection and entry criteria and process guidelines.
- Teacher recruitment criteria, teaching capacity, quality and methodology guidelines, and monitoring and evaluation.
- Develop guidelines on curriculum standards, core competencies, medical ethics/ morality, pedagogy education and learning outcomes, aligned with regional and international standards.
- Mechanisms to coordinate, register and monitor clinical placement and internship and registrar training, and improve medical teaching units (MTUs).
- CPD guidelines for ongoing clinical competence and mandatory licensure requirements.
- Accreditation of medical education institutions.

- Defined requirements/accreditation standards and processes for accreditation of programmes and curriculum by boards of HPC and health professional associations and train assessors (see also priority 3.2).

3.1.2. Improve coordination and oversight of internal and externally provided education and training, including:

- Develop, implement and monitor consistent prioritization criteria for identifying the type of qualification upgrades required for service delivery quality improvement, based on population health needs.
- Develop a register of training to coordinate and monitor facility-level in-service training and development, including training provided by government, non-governmental organizations and DPs, and monitor learning outcomes on HRH quality improvement.

3.1.3 Improve leadership and management quality through training, and ensure management qualifications for all staff in management roles, including:

- Develop and implement short courses on political ideology, human resources management, budgeting, financial reporting, policy implementation, HRH planning, data and information management, and reporting.
- Ensure all senior managers have Bachelor-level management qualifications.
- Provide opportunities for young and mid-level staff to train as managers, and to be mentored by senior managers.
- Develop cross-ministry direct-entry management degrees to support hospital autonomy and to reduce the loss of key technical/clinical staff to administration and management positions.

Priority 3.2: Design, implement and monitor appropriate and effective regulation

3.2.1. Finalize roll out of the Regulatory Framework for Health Professionals Registration and Licensing including the Strategy on Healthcare Professional Licensing and Registration System in Lao PDR 2016–2025. Ensure licensing of all eligible HRH by 2025, through the following:

- Strengthen the HPC governance structure including boards and Healthcare Professional Bureau's structure, role and authority. Plan to sustain financially with sufficient budget and register of licensed health professionals.
- Develop and implement programmes for new graduates.
- Review and clarify who is eligible to be licensed including requirements for licensing.

- Decide how to deal with healthcare workers who are not eligible to be licensed but currently practice in healthcare facilities.
- Strengthen enforcement of the regulations for licensing and registration.
- Develop and implement accreditation of education programmes and curriculum.
- Finalize and implement core competencies and scopes of practice.
- Establish national licensing exams for all eligible disciplines.
- Develop and implement intern curricula and criteria for full license.
- Develop and implement CPD guideline, criteria and credit system.
- Develop and implement formal clinical supervision requirements for all licensed HRH.
- Establish unique licensing number for all licensed HRH, linked to HPIMS.
- Establish boards and licensing processes for other health professions/disciplines (e.g., pharmacy) and establish a combined Medical Support (or allied health) professions Extend licensing to all eligible health professions/disciplines.
- Develop and maintain a register of all licensed health professionals, including any disciplinary actions against them.

Strategic Objective 4: Improving distribution and retention

Improving distribution and retention of HRH are critical to provide the quality healthcare services cross all levels of service delivery. Coordination in terms of recruitment, distribution and retention at sub national level should be strengthened to ensure skilled, flexible and resilient workforce where they are most needed, with a focus on expanding PHC workforce capacity, and ensure surge capacity for emergency response. In the process, the impact of structural changes such as hospital autonomy, expected increased service use following the roll out of the NHI, and growth in the private health sector will be considered. For this, the following priorities are identified: development of flexible roles and innovative models of care; improvement of distribution of HRH at PHC level; and provision of incentives for retaining HRH.

Priority 4.1: Develop flexible roles and innovative models of care

Develop and adopt new or revised models of care that utilize a diverse HRH skill and expertise mix, including task sharing/shifting, multi-disciplinary teams, and eHealth (digital and telehealth and telemedicine), and that enable re-deployment to areas of need.

Priority 4.2. Improve distribution of competent and qualified human resources for health at PHC level

4.2.1 Increase quota for HRH distributed to healthcare facilities at PHC level according to the minimal staffing requirements defined by the Ministry of Health.

Depending on the health needs of communities, the staffing needs will be reviewed and revised as needed during the implementation period of this Strategy.

4.2.2 Review current distribution of HRH at PHC level and identify key priority provinces/districts/HC to address maldistribution of HRH at PHC across provinces according to the minimal staffing requirements.

Priority 4.3: Develop incentives and a bonding scheme for retaining and motivating HRH

4.3.1 Develop retention interventions to attract, protect, develop and retain staff, with an emphasis on retention of competent health care workers at health centers and rural and remote facilities, and during emergencies, including:

- Guidelines on HRH health and safety that include safe work environment in consideration of gendered needs, good employment conditions, fair salary and leave entitlements, recognizing good performance, career progression opportunities, and protecting mental health.
- Financial and nonfinancial incentives for retention and good performance, including to support, protect and motivate staff working during emergencies (see SP 2.4).

4.3.2 Develop a bonding scheme for special category students from provincial areas and for government funded scholarship and fellowship students that includes:

- Contracts to bond students and graduates to ensure that they return to their home province or former place of work (in the case of scholarships and fellowships) for a prescribed timeframe.
- Penalties (e.g., financial/pay back incentives) for breach of contract.

Strategic Objective 5: Strengthening HRH performance and productivity

Improving HRH performance and productivity will contribute to strengthening overall service delivery and its quality and safety. For this, the following priorities are identified: Development and implementation of consistent recruitment processes, development of JD and a Code of Conduct for HRH and strengthening of regulations and mechanisms to ensure HRH safety and wellbeing (i.e. preventing diseases and injuries arising out of, linked with or occurring in the course of work; building healthier and safer working environment; and promoting health and well-being of health workers.).

Priority 5.1: Develop and implement consistent recruitment and induction processes

5.1.1 Transparent recruitment processes, administering incentive schemes, development and progression of staff, appropriate retention initiatives, and monitoring and evaluation.

5.1.2 Induction guidelines for all employed, contract and volunteer staff, at each facility level that covers: facility-level policies and guidelines, JDs, roles and responsibilities, expectations, expertise requirements, attitudes, key performance indicators, supervision, performance appraisals and performance management processes.

Priority 5.2: Develop JDs and a Code of Conduct to improve performance and productivity

5.2.1. JDs developed and implemented for all disciplines, including:

- Complete the development of clear JD for all healthcare workers, while allowing flexibility for task shifting and multiple tasks to adapt and respond to the evolving health needs and situations, including emergencies.
- Enhance the existing performance assessment system, including review and revision of the performance assessment indicators for different categories of HRH.
- Enable innovative use of eHealth, digital health records, and digital administration systems to expand service coverage, improve data and information collection and reporting, and to maximize effective use of existing HRH and resources.

5.2.2. Develop and implement a Code of Conduct for public health staff, including Conflict of Interest policy/regulations that separate public roles from private roles and ensure financial transparency and accountability.

Priority 5.3: Strengthen regulations and mechanisms to ensure safety of HRH and their wellbeing

5.3.1 Develop and implement a national program for Occupational Health, Safety and Wellbeing of Health Workers (OHSWHW) covering all health workers in all types of health facilities that is gender responsive, non-discriminatory and inclusive, taking into account the special needs of female health workers, vulnerable groups and workers with precarious employment conditions.

- Issue a national policy statement on OHSWHW and designate a department/division in charge of OHSWHW within the MOH.
- Develop regulations and standards for prevention and control of occupational health hazards in the health sector, including mental health, and develop policies for support services for occupational diseases and injuries, including infectious diseases.
- Develop policies for necessary vaccination of health workers and standard operating procedures for reporting and managing occupational hazards and incidents.

- Ensure that all health workers at risk receive immunization against vaccine-preventable diseases (in coordination with the National Immunization Plan)and have access to adequate provisions for water and sanitation, safe facilities for personal hygiene, clothing, rest, dining, and safe handling of health care waste.
- Develop standards for the provision of occupational health services for health workers at no cost and ensure a program for their expansion along with a system for quality assurance.
- Ensure adequate human resources, technical knowledge and skills, and supplies and commodities for OHSWHW.
- Ensure assessment and annual medical checks for all HRH
- Develop safety protocols for the use of hazardous chemicals.

5.3.2 Develop a system for management, continuous improvement and regular dialogue between employers, workers and their representatives, as well as involvement of other stakeholders.

- Establish a multistake holder steering committee for OHSWHW at the national level and develop objectives, targets, and key indicators integrated to DIHS2 for monitoring and evaluation of the OHSWHW program implementation at the national, subnational and facility levels.
- Facilitate and encourage reporting of accidental exposures to occupational hazards and incidents while maintaining confidentiality and promoting a blame-free environment.

V. Cross cutting themes

1. Build resilience and adaptability to respond to emergencies and support the health of Lao people (see priority 2.4)
2. Promote gender equity and equity for HRH from ethnically diverse, rural and remote communities, and for those with disabilities:

    2.1 Retain 20% of student quota to ensure equity of access to education programmes for students with disabilities, rural and remote and ethnic minority students, and monitor and evaluate effectiveness.

    2.2 Develop bridging programmes and summer studentships to enable and support students to reach academic standards required for entrance into education institutions and programmes, and to meet eligibility criteria for qualification upgrades.

    2.3 Ensure consistent, fair and equitable recruitment (especially for health care providers, aligned as closely as possible to the population they serve), working conditions, access to ongoing learning and development, and career progression.

    2.4 Increase leadership skills and equal opportunities for genders, professions, people from ethnically diverse, rural and remote communities, and people with disabilities.

    2.5 Develop social and health care policies to support women who work in the frontline, such as childcare support policy and setting up a mechanism to mitigate gender-based violence in the workplace.

3. Promote international cooperation and enable HRH mobility across the region and beyond

    3.1 Improve coordination across HRH training and development programmes and projects, including in-country and abroad, provided by external partners and DPs.

    3.2 Ensure curriculum, teaching standards, and licensing system are aligned to regional and international standards and benchmarks, in particular, those of the ASEAN community, enabling recognition of qualifications and prior learning, and workforce mobility including public-private partnership.

VI. Implementation, governance, and monitoring and evaluation

Priority activities, indicators and milestones

MOH is responsible for HRH in Lao PDR. DHP will be responsible for implementing, monitoring and evaluating the HRH Development Strategy. Not all priorities will be able to be implemented at once. A phased approach is proposed to ensure momentum and accountability for delivery on all priorities and objectives.

Aggregate indicators are identified for each of the strategic priorities. These indicators are intended to be realistic, measurable and meaningful, utilizing existing data sets and identifying improvements to other essential data and information sources and sets. The indicators will enable MOH to report on progress to increase HRH density, distribution and quality, and HRH contribution to improved health service delivery and access, which are key outcomes to achieve UHC by 2025 and Sustainable Development Goals by 2030.

Monitoring and evaluation

- DHP will lead monitoring and evaluation of the implementation of the HRH Development Strategy and progress in HRH through the Technical Working Group for HRH and in close collaboration with all relevant line ministries, key departments in MOH, HPC and Healthcare Professional Boards, schools, hospitals, DPs and other key stakeholders.
- hold an annual meeting to assess implementation and progress of the strategy and determine adjustments and actions to ensure targets and indicators are met.
- conduct the mid-term and final review of progress, and revise the strategy as needed.

Further, the following surveys and assessments will be conducted to monitor progress as needed:

- Survey students for feedback on their education experience.
- Survey patients for feedback on their experience of care, including HRH quality, behaviour and expertise.
- Conduct evaluations and formal audits on HRH quality, performance, governance, equity, efficiency, distribution, skill/expertise mix, financial management and accountability, and management of poor performance, at least bi-annually.
- Assess the impact of increased qualifications on the efficiency and quality of services.
- Assess incentives and the impact of incentives on quality of care and performance, distribution and retention, workforce mobility, and emergency response capacity.

Annexes

Annex 1. HRH development strategy indicators

No.	Strategic objective	Indicators	Baseline 2021	Targets to 2025	Targets to 2030	Responsible depts.
1	**Strengthening the governance of HRH**	1. Standards for the recruitment of health staff in various service facilities reviewed and improved (% completed compared to service facilities)	0	50%	100%	DHP, DHR, HPC
		2. Establishment of a responsible committee with clear roles for coordination and implementation of the HRH strategy	0	100%	100%	DHP
		3. Guideline on contractual workforce management (% completed)	50%	100%	100%	DHP
		4. Guideline on the technical position qualifications of health professions approved (% completed compared to the cadres	0	50%	100%	DHP
		5. Guideline on CPD approved (% completed)	0	100%	100%	DHP, HPC
		6. Report on the distribution of annual health workers to be completed on time, no later than October of the following year (% completed)	30%	100%	100%	DHP

No.	Strategic objective	Indicators	Baseline 2021	Targets to 2025	Targets to 2030	Responsible depts.
2	**Meeting the demand for HRH**	1. Proportion of qualified physicians (including specialist, bachelor medicine, PHC high level, medical assistant), nurses, and midwives at health facilities per 1,000 population, including contract staff/volunteers, army, police and private sector personnel	1.69	1.94	2.21	DHP, PHO
		2. Percent of health centres with 3 staff that meet the set standards (physician, nurse, midwife)	20%	50%	75%	DHP, PHO
		3. Percent of new graduates deployed as civil servants or contractual staff/volunteers within 12 months after graduation (including army, police and private sectors)	1,84%	30%	50%	DHP, PHO
		4. District hospital Type A with five key specialists, at least one staff/cadre (internal medicine, surgery, pediatric, obstetrics-gynecological, anesthesia)	3%	10%	30%	DHP, PHO

No.	Strategic objective	Indicators	Baseline 2021	Targets to 2025	Targets to 2030	Responsible depts.
3	**Enhancing the quality of HRH**	1. Health education institutions and curriculums accredited for the quality of education (No. of institutions)	0	2	5	DHP/UHS/ Health Sciences College
		2. Proportion of health staff at central level who have been trained in basic political theory under the MOH	33%	38%	42%	DHP
		3. Percent of target health workforces (physicians, dentists, nurses, midwives) registered and licensed	28%	50%	90%	HPC
		4. CPD system developed, implemented and reported in the annual reporting	No	Yes	Yes	DHP/HPC/related departments
4	**Improving distribution and retention**	1. Percent of new civil servant quotas deployed to district and health centre levels	66%	70%	80%	DHP/PHO
		2. Establishment of a monitoring system to monitor the movement of staff with reporting in the annual report of DHP	50%	70%	90%	DHP
		3. A system to provide incentives for health workforces to be approved (% completed)	0	40%	100%	DHP

No.	Strategic objective	Indicators	Baseline 2021	Targets to 2025	Targets to 2030	Responsible depts.
5	**Strengthening HRH performance and productivity**	1. JDs of staff in all departments and facilities at central and subnational levels completed (% completed)	20%	100%	100%	DHP/all related departments/ PHO
		2. Percent of health staff evaluated on a regular basis, at least once a year	70%	75%	85%	DHP/all related departments/ PHO
		3. Develop a Code of Conduct for public health civil servants	0	50%	100%	DHP/all related departments/ PHO
6	**Cross-cutting themes**	1. Percent of female leadership in health sector with increases in management levels 4, 3, and 2	27%	30%	35%	DHP/all related departments/ PHO
		2. Availability of data on the proportion of health workers, by sex, ethnicity, and rural area, in annual report of health workforce distribution book	No	Yes	Yes	DHP
		3. Proportion of newly recruited of ethnicity	21%	27%	30%	DHP, PHO
		4. Proportion of newly recruited of disability	0%	1%	1%	DHP, PHO

Annex 2. Projections for HRH demand in the next ten years

No	category certificate of staff	2022	2032	2022 to 2032			Annual recruitment
		Exiting staff	Assumption	Estimated Gap	Attrition	Recruit requirement	
1	Specialist of pediatricians	155	220	-65	36	101	10
2	Specialist of obstetrician-gynegologist (OBGY)	119	261	-142	19	161	16
3	Specialist of surgeons (abdominal surgery, bones, brain)	174	356	-182	30	212	21
4	Specialist of ophthalmologist	25	92	-67	6	73	7
5	Specialist of internal medicine	161	463	-302	29	331	33
6	Specialist of cardiologist	10	39	-29	5	34	3
7	Specialist of ear, nose, throat (ENT)	14	72	-58	1	59	6
8	Specialist of dermatologist	6	40	-34	3	37	4
9	Specialist of emergency medicine, resuscitation and, anesthetist	115	444	-329	26	355	36
10	Master of tropical medicine	78	115	-37	13	50	5
11	Specialist of family doctor	200	229	-29	11	40	4
12	Specialist of oncologist (cancer)	7	42	-35	1	36	4
13	Bachelor medicine specialized subject	2007	3,302	-1,295	349	1,644	164
14	MA/PHC high diploma	2309	2,119	190	458	268	27
15	PHC middle/low level	1258	1,026	232	147	0	0
16	Basic medical sciences (Anatomy, Physiology, Biochemistry)	62	168	-106	2	108	11
17	Bachelor of pharmacists and above	1001	1,184	-183	134	317	32

No	category certificate of staff	2022	2032	2022 to 2032			Annual recruitment
		Exiting staff	Assumption	Estimated Gap	Attrition	Recruit requirement	
18	Pharmacist middle and high diploma	869	1,003	-134	174	308	31
19	Dentist assistant and high diploma and above	588	660	-72	101	173	17
20	Nurse high diploma and above	2153	9,231	-7,078	111	7,189	719
21	Technical nurse	3757	0	3,757	396	0	0
22	Bachelor of midwife and above	66	337	-271	5	276	28
23	midwife middle and high diploma	1967	1,796	171	266	95	10
24	Nurse/midwife low level	1320	92	1,228	758	0	0
25	Bachelor of nutritionist and above	7	52	-45	1	46	5
26	Master of public health and above	338	588	-250	93	343	34
27	Bachelor/below management of hygienist/ management of public health	734	1,587	-853	185	1,038	104
28	Bachelor of laboratory technician and above	337	661	-324	36	360	36
29	Laboratory technician assistant	585	502	83	108	25	2
30	Physiotherapist/Prosthetic Technicians	431	557	-126	115	241	24
31	Radiologist and medical imaging technicians	152	397	-245	16	261	26
32	Information technologist/ IT	91	433	-342	5	347	35
33	Economics, Administration, Accounting/Finance	869	928	-59	117	176	18
34	Village health workers	133	0	133	0	0	0
35	Others	1513	1,712	-199	301	500	50
	Grand total	**23,611**	**30,706**	**-7,095**	**4,058**	**15,202**	**1,520**

Terminology

Accreditation is a review process to determine if educational programmes meet defined standards of quality. Once achieved, accreditation is not permanentit is renewed periodically to ensure that the quality of the educational programme is maintained. Accreditation, which is carried out by an independent accrediting agency, is an important mechanism for harmonization of education and qualifications across the ASEAN region and beyond. MOES could maintain a data base of the accrediting agencies it recognizes.

Apprenticeship, as outlined in the Law on Civil Servants, is the period for testing work performance abilities such as: Low level and middle level staff 6 months; high diploma and upper at least 12 months.

Competencies are the observable abilities including knowledge, skills, and behaviours of individual health workers that relate to specific work activities. Competencies are durable, trainable, and measurable. Competence is the ability of individuals to repeatedly apply their skills and knowledge to achieve outcomes that consistently satisfy predetermined standards of performance.

Cost of HRH is the expenditure required to train, employ and develop the health workforce.

Demand. An organization's forecast of required staff size and skill mix needed to carry out its strategic objectives for the designated planning period. The number of health workers that the health system (both public and private) can support in terms of funded positions or economic demand for services. Demand correlates with the economic capacity of a country, with higher levels of resource availability resulting in greater demand for health services and thus for health workers to provide them.

eHealth or digital health includes electronic medical records, digital personal health records, telemedicine/telehealth, digital/mobile health, and digital practice management and administration systems. When introduced effectively, eHealth / digital health can reduce waste and allow the use of scarce resources more efficiently while improving the quality and reach of existing services.

Gap: The amount by which workforce needs (future state) exceed current resources. These resources should be essential for the organization to carry out its mission and accomplish its strategic goals. Whether a resource is critical or not is determined by its inherent significance to the organization, not by its external availability. Gap can be a positive number indicating surplus workforce or a negative number indicating unmet projected positions.

Governance is about the rules that distribute roles and responsibilities among government, providers and beneficiaries and that shape the interactions among them. Governance

encompasses authority, power, and decision-making in the institutional arenas of civil society, politics, policy, and public administration".

Health service coverage is measured by the UHC index that is a summary measure that combines 16 tracer categories. It has four main categories, namely: (1) RMNCAH; (2) infectious diseases; (3) NCDs; and (4) service capacity and access.

Health workers. All people engaged in actions whose primary intent is to enhance health.

Human Resources for Health (HRH) are civil servants, contractors, volunteers and private sector health workers that work in leadership, management, clinical / technical and supporting roles in the Lao PDR health system, and in the military and security health system, and in policy, finance, human resources and data and information management

Intern period, as outlined on the Regulation for health professionals licensing and regulation is the period between graduation and initial license and being granted a full license. The period varies between one year for nurses and midwives, and two years for medical graduates.

Natural disasters include flood, mudslide, prolonged drought and heat waves etc, including arising from climate change. **Non-natural hazards** include chemical, biological, radiological, nuclear (CBRN) hazards, bomb blasts, airplane crash, unexploded ordinances.

Need. The number of health workers required to attain the objectives of the health system. There are various approaches to calculating this number – for example, it is sometimes estimated based on a threshold of minimum availability of health workers to address priority population health issues, or in relation to the specific service delivery profile and requirements of a health system. "Need" for health workers is defined in this analysis as the number of health workers required to meet the threshold defined within this paper.

Needs-based shortage. The situation in which the number of health workers needed to meet population health needs exceeds the available supply of health workers. Supply The number of health workers that are available in a country. Future supply can be estimated taking into account a variety of parameters, including education capacity, E and retention.

Leadership and Governance/Stewardship/Policy refers to the strategic direction set by senior policy makers to protect public health and safety, control corruption and contribute to effective leadership of the country's health sector. It includes the legislative, regulatory and policy-making processes; incentives and sanction mechanisms; adjudication systems; and coordination/harmonization with other donors or public sector actors to ensure equitable and sustained health services.

Primary health care (PHC) addresses the majority of a person's health needs throughout their lifetime. This includes physical, mental and social well-being and it is people-centered rather than disease-centered. PHC is a whole-of-society approach to health that aims at ensuring the highest possible level of health and well-being and their equitable distribution by focusing on people's needs and as early as possible along the continuum health promotion, disease prevention, treatment, rehabilitation and palliative care.

PHC workforce includes all occupations engaged in providing health promotion, disease prevention, treatment, rehabilitation and palliative care services, the public health workforce, and those engaged in addressing the social determinants of health. It also includes caregivers and volunteers, the majority of whom are women, who complement the work of salaried workers.

Private health sector includes all individuals and organizations that are neither owned nor directly controlled by governments and are involved in the provision of health related goods and services. This includes both for-profit and non-profit entities.

Projected Workforce Supply: The projected number of employees by series, title, and FPL grade available in the future based on projected retirements and attrition trend data.

Skill: An observable and measurable expertise needed to perform a task.

Succession Planning: A deliberate and systematic effort designed to ensure the continuous effective performance of an organization. The effort makes provisions for the development and replacement of key leaders and other key personnel over time — ensuring continuity in leadership positions and encouraging individual achievement. Succession planning is an essential subset of workforce planning.

Supply. The number of health workers that are available in a country. Future supply can be estimated taking into account a variety of parameters, including education capacity, attrition and retention.

Surplus: The amount by which employee supply exceeds needs or requirements.

Tools of Governance are instruments used by public authorities to influence the behaviour of individuals and organizations in the health sector. Other Tools of Governance include Regulatory Tools (such as licensing, certification and accreditation); and Information Tools (focusing on information for both suppliers and consumers). The Contracting Tool can be used in combination with all of these other instruments.

Universal Health Coverage (UHC) means that everyone receives the health services they need without suffering financial hardship. It includes the full spectrum of essential services, from health promotion to prevention, treatment, rehabilitation and palliative care.

UHC is about equity. This means increasing people's access to quality frontline health care. Monitoring progress towards UHC is based on the proportion of the population that can access essential quality services, and the proportion of the population that spends a large expenditure on health.

Levels of health facilities that make up the Lao PDR health system

- **Outreach:** health providers based in a physical facility reaching villages on a regular basis (e.g., every three months);
- **Health center:** refers to the primary level of public health care facilities that is a village clusters' hospital; based on the standards set by the Ministry of Health;
- **District hospital:** refers to the intermediate level of public health care facilities located in district municipality (for those district hospitals located in provincial municipality, it provides medical examination and health promotion services) based on standards set by the Ministry of Health, provides general health care services and receive referral patients from health centers;
- **Provincial hospital:** refers to the high level of public health care facilities located in provincial municipality, provides general health care services and receive referral patients from district hospitals;
- **Central hospital:** refers to the highest level of public health care facilities located in Vientiane capital that provides general health care services, can be specialized services and receive referral patients from provincial hospitals.

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