Introduction

The population growth in Lao PDR, along with its changing structure and regional distribution, will have decisive impacts on health services to 2030. As the population grows, the demand for medical services and for hospital beds increases. With the overall projected population increase, proportions in the total population vary. Changes in age composition are leading to a larger elderly population and growth in the share of females of reproductive ages from 15–49 years, with consequent change in demand for health services for each group population group. During this same timeframe, based on the total fertility rate the population of the youngest ages (0–9 years) are projected to decrease.

The availability of health services has a direct impact on mortality. Better health services, including family planning and higher levels of education for future parents who will marry later and have fewer children, lead to a decrease in the fertility rate and improve survival rates for infants and children, as well as for mothers and the elderly.

Population growth 2015–2030

The total population of Lao PDR is projected to reach 8.1 million in 2030, representing a gain of almost 1 million people from 2020. Within this overall increase, the population and proportions of different age groups have wide variation.

For infants and children below age 5 years, the population is projected to decrease from 798,600 in 2015 to 612,800 in 2030, which is a decrease of about 23 per cent and a drop in the group’s share of total population from 12 per cent to 7.6 per cent. The population of children in the age group of 0 to 15 years (which includes these youngest years) is projected to decrease from 2,240,900 in 2015 to 2,028,000 in 2030, which is almost a 10 per cent decrease, with the share of total population going from 33.6 per cent in 2015 to 25.1 per cent in 2030.

The age group from age 15 to younger than 65 years is projected to grow from 4,147,400 in 2015 to 5,556,100 in 2030, a 34 per cent increase. This increase represents a shift in their percentage of the total population from 62.2 per cent in 2015 to in 68.9 per cent 2030.

The population in the age group over age 65 years is also projected to rise, growing from 283,400 in 2015 to 483,000 in 2030, a 71 per cent increase in 15 years, increasing in the share of the total population from 4.2 per cent in 2015 to 6.0 per cent in 2030 (Figures 1 and 2).

Figure 1: Population by large age groups, 2015–2030

![Figure 1](image1.png)


Figure 2: Proportion of total population by large age groups, 2015 and 2030

![Figure 2](image2.png)

An increase in specific health care demands can be seen in the rapid increase of the population of females in the reproductive age group, 15–49 years, which is projected to rise from 1,762,000 in 2015 to 2,280,000 in 2030, increasing from 26.4 per cent of the total population in 2015 to 28.3 per cent of the total population in 2030. However, during this same timeframe, the total fertility rate is expected to decrease from in 3.0 in 2015 to 2.1 in 2030 (looking at the medium variant), meaning that while there will be more females, who will need comprehensive sexual education (CSE) including family planning and health care, fewer babies will be born (Figure 3). The overall decrease in the fertility rate is a result of higher survival rates due to expected improved health care services and increased levels of education (Figure 4).

The population over age 65 years is growing and this population is also living longer, which will also increase demand and type of health care services. In this age group, females have a longer life expectancy than males. Data disaggregated by sex shows the population of females older than 65 years is projected to increase from 151,200 in 2015 to 263,400 in 2030, with life expectancy increasing from age 66.4 years in 2015 to age 72.2 years in 2030. For males the projected increase in population is from 132,200 in 2015 to 219,600 in 2030, with life expectancy increasing from age 63.0 years in 2015 to age 67.9 years in 2030 (Figures 5 and 6). In 2015, the ratio of the total population over 65 years of age was 47 per cent male to 53 per cent female, and in 2030 this is projected to be 45 per cent male and 55 per cent female.

**Figure 3: Total fertility rate, three variants, 2015–2030**

![Figure 3: Total fertility rate, three variants, 2015–2030](image)


**Figure 4: Total fertility rate by women’s level of education, 2011–2012 and 2017**

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To address the increasing population and changing population structure, the numbers of health care personnel will need to increase, and all be trained to meet new demands. The projected numbers are derived from the observed current health workers density (1.6 skilled health workers per 1,000 population) and compared it to the indicative threshold of an aggregate density of 4.45 physicians, nurses and midwives per 1000 population has been identified, as it corresponds to the median score of SDG tracer indicator attainment (25%).¹

Due to the overall population growth, it is necessary to more than double the number of health personnel by 2030, from 11,438 to 35,898 in 2030 (Figure 7). This increase reflects the staffing needed to deliver the comprehensive range of health services incorporated in the ambition of the SDG goal on health and well-being. Due to the current shortages, nurses would require to triple by 2030 (from 5,714 in 2019 to 17,933 in 2030) and physicians to increase from 3,731 to 11,710. To overcome needs-based shortages, the number of midwives will also have to grow from 1,834 in 2019 to 5,756 in 2030 (Figure 8).

¹ Global strategy on human resources for health: Workforce 2030; WHO
In addition the expenditure needed to increase the number of health personnel, efforts and financing for general and equitable distribution of health care services, facilities and infrastructure are needed. Attention needs to be given to hospital capacity, which includes the number of hospitals, healthcare centres and beds, along with the required medical equipment. The number of hospital beds in the recent past has increased from about 7,500 beds in 2015 to over 10,000 beds in 2018, with the trend expected to continue (Figure 9).

Figure 9: Number of hospital beds, 2015–2018

Source: Laos Statistics Bureau, LAOSIS, Laos Statistical Information Service.

Policy Recommendations

Investing in health is critical for human and socio-economic development. Health is an essential component of human capital as people are more productive and save and invest more when they are healthier. Considering reproductive health, there is a strong relationship between declining fertility and economic growth. Increased participation of women in the labour market and accumulation of savings are associated with better-educated societies and lower fertility rates.

Thanks to investments in health, Lao PDR has made significant progress toward health-related sustainable development goals. Infant and childhood mortality rates have declined significantly; however, they still lag behind the rates in neighbouring countries, with the exception of Myanmar. The country’s maternal mortality rate remains amongst the highest in the world, adolescent pregnancy rates highest in ASEAN region, while life expectancy at birth currently remains low, at age 61.8 years for males and age 65.2 for females in 2015, though this is steadily increasing with improved health care services.

With current trends, by 2030, the total population of Lao PDR is projected to increase of almost 1 million people from 2020. One out of ten people will be older than 65 years of age, and the largest age group will be female of reproductive age from 15-49 years. Therefore, limiting the adverse health effects of ageing and ensuring good health for those entering the working-age are necessary pre-conditions for harnessing the chances for a demographic dividend. Fostering solidarity between generations will help create a more positive social environment for coping with this growing population.

Recommendations in order to improve access to and quality of healthcare:

- A focus is required on reducing inequities in distribution of healthcare, strengthen community care, especially for remote and hard to reach groups. There are many gaps due to geography and administrative distribution, along with imbalances and shortages in the availability of material and human resources for primary health care institutions. Trained midwives deployed to communities can effectively bridge the SRH gaps at the local levels.

- To address the increase and changing population structure, health system strengthening, with focus on increasing numbers of health care personnel at decentralized levels to meet shifting demands within the reality of the geographic context of the country and the low population density. Attention must continue to pre-service training and standards, evaluations and performance-based incentives.

- Adequate budgeting to meet the needs of girls boys and, women for comprehensive sexual education, for quality sexual reproductive health information and services which will help reduce the adolescent birth rate as well as infant, child and maternal mortality rates. Addressing this unmet need for girls and women must also include health insurance and social security measures.

- Introducing new and adapting existing programmes for youth friendly health services for is critical to the realization of the country’s demographic dividend and to minimizing potential health risks as behavioural patterns change. These programmes must meet the specific needs of youth and be inclusive of vulnerable and marginalized groups, including ethnic and at-risk populations.

- Readiness for Lao PDR’s ageing population to ensure the health system can attend to both communicable diseases which can be more dangerous to older people; and, in the long-term, non-communicable diseases associated with ageing that are more expensive to treat.

- To achieve universal health coverage, consider use of all domestic resources including the private sector, with adequate steps to manage the private sector through regulatory controls and reporting.

* Extracted from Lao 2030 study