

# LAO PEOPLE'S DEMOCRATIC REPUBLIC

## 1. CONTEXT

### 1.1 Demographics

The Lao People's Democratic Republic has a population of 5.6 million (2005), a population growth rate of 2.1%, a sparse population density (23.7 per square kilometre) with large inter-provincial variations, and an average household size of 5.9 persons. The topography breaks into lowland areas along the Mekong River that depend predominantly on paddy rice, and highland areas that depend on upland rice and the gathering of non-timber forest products for livelihoods. The population is young, but there are signs of changes in the demographic structure; the percentage of the population under 15 years of age decreased from 43.6% to 39% between 1995 and 2005. The nation is rural, with the beginnings of a rural-to-urban shift; the percentage of the population living in rural areas decreased from 83% to 72.9% from 1995 to 2005.

The latest census identified 47 distinct ethnic groups. The ethnic Lao comprise 52.5% of the total population and predominate in the lowlands, while ethnic minorities predominate in the highlands, although mixing is common. The highlands have more poverty, worse health indicators and fewer services available for multiple reasons, including remoteness, lower education levels, land that is less agriculturally productive and increasing land pressure, and limited rural health care services. Ethnic diversity presents a major challenge in health care delivery and education due to cultural and linguistic barriers. Women have lower literacy rates than men and girls have lower school completion rates. These gaps are accentuated in the rural and highland areas, where the level of poverty is highest. There is some evidence of decreased treatment-seeking behaviour for women when ill.

Despite recent efforts, statistics are still relatively weak and major capacity strengthening is still necessary in the area of surveillance data, official statistics collection and vital registration. National health indicators have been improving steadily over the past three decades but, despite the efforts of the national authorities, they remain below international standards, being some of the lowest in the Region. The infant mortality rate declined from 137 to 70 per 1000 live births from 1990 to 2005. Over the same period, the maternal mortality ratio fell from 750 to 405 deaths per 100 000 live births. The crude death rate also declined, from 15.1 to 9.8 deaths per 1000 inhabitants, while the total fertility rate (average number of children per women) fell from 5.6 in 1995 to 4.1 in 2005 and the crude birth rate (number of births per 1000 inhabitants) from 41.3 to 34.3. At the same time, life expectancy at birth rose 10 years in a decade, from 51 years in 1995 to 61 in 2005. Female life expectancy is slightly higher than that of males. Safe water is accessible to 60% of the population and improved sanitation to 48% (2006).

### 1.2 Political situation

The Lao People's Democratic Republic was founded in 1975. The organs of government are the President, the Prime Minister and the National Assembly. The Government operates under the guidance of the Lao Peoples' Revolutionary Party (LPRP) through five-yearly Party Congresses, the Politburo and the Central Committee. The VIIIth Party Congress was held in early 2006. A National Assembly election was held in April 2006, with competition among a group of LPRP-approved candidates and outstanding participation by the population. The National Assembly, as the main legislative organ, is composed of 115 members, of which 29 are women; 113 members are LPRP members. The National Assembly elected a new President, Lt. Gen. Choummaly Sayasone, in June 2006. At the same time, a new Prime Minister, Mr Bouasone Bouphavanh, was appointed by the President for a five-year term, with the approval of the Assembly. The rule of law has continuously been strengthened by new laws, including several health

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sector laws in respect of public health, curative services, food safety, drugs and medical devices. The Government reports to the National Assembly on the implementation of its 6<sup>th</sup> National Social and Economic Development Plan 2006-10 (NSED), which includes national strategies on poverty eradication. The last report to the Assembly was made in June 2007.

Until January 2006, the country comprised 16 provinces and one special administrative zone under military administration. In early 2006, the special administration status over Xaysomboune region was released and the concerned district allocated to Xiengkhouang and Vientiane provinces. The security in the country is considered stable.

### **1.3 Socioeconomic situation**

The Lao People's Democratic Republic ranked 133<sup>rd</sup> out of 179 nations on the Human Development Index in 2006. Literacy has improved in the last decade, attaining 73% in the population above 15 years of age in 2005, compared with 60% in 1995. Schooling has improved for children from 6 to 16 years of age, but boys still have higher attendance than girls: 75% for boys and 68% for girls in 2005 compared with 66% for boys and 56% for girls in 1995.

The official poverty rate fell from 39% in 1997 to 33.5% in 2002. Poverty is higher in remote and highland areas and inversely correlates with road or river access. Compared with international standards in 2006, 71% of the population live on less than PPP US\$ 2 a day and 23% live on less than PPP US\$ 1 a day. Inequalities remain important, with the share of the national economy of the lowest and the highest quintile being 7.6% and 45%, respectively. Proxy indicators of poverty, such as access to sanitation and electricity, also point to the vulnerability of the population. The latest Lao Reproductive Health Survey found that, in 2005, 50% of households had no toilet and over 40% had no electricity. Disparities between urban and rural areas are still pronounced. For example, 96% of urban households have access to electricity, compared with only 33.3% in rural areas without road access.

The World Bank estimated that per capita gross national income was US\$ 500 in 2006, with 7.6% economic growth. Agriculture makes up 42% of the gross domestic product (GDP), industry (mainly hydropower, mining and textiles) 32.5%, and services 26%. Revenue collection has been above national targets for the last two years but remains very low, estimated at 14.3% of GDP in 2006. The budget deficit has therefore declined and fiscal space has widened. Major public management reforms are ongoing, but implementation is still below desirable targets. One persisting major issue is the management of customs and taxes. In 2007, tax and revenue collection was recentralized by Prime Ministerial decree. New budget and state audit laws still need to be fully implemented.

In its official will to provide better services to the rural population and eradicate slash-and-burn agriculture and opium cultivation, the Government has strengthened its policy on resettlement of villagers from the highlands to lowland areas closer to roads and essential public facilities. The resettlement policy has brought with it tremendous challenges in delivering social services to the resettled communities. International NGOs and, more recently, the World Food Programme have pointed out that the vulnerability of the resettled populations is a major source of concern. The traditional cultivation techniques of highland populations are inadequate to enable them to access subsistence crops and their traditional reliance on non-timber products, combined with increased environmental pressure, has contributed to deterioration in their nutritional and health status. The situation may have been accelerated by the need to resettle villages and populations in areas affected by the building of new hydropower projects and other programmes exploiting natural resources.

### **1.4 Risks, vulnerabilities and hazards**

Locked between China, Myanmar, Thailand and Viet Nam, the Lao People's Democratic Republic is facing major challenges as the country opens up to external influences. Despite its current low prevalence, the HIV/AIDS epidemic is gaining attention in the country. The latest round of surveillance (2004) showed an accelerated rate of transmission among sex workers in two of the 17 provinces. With the recent trend in opening of offshore trade zones with China and Viet Nam, the important investment in casinos throughout the country and the easing of migration formalities, the country faces important

challenges with regards to the spread of HIV/AIDS and other communicable diseases, including emerging diseases, such as avian influenza.

The economy continues to rely heavily on natural resources (hydropower, timber and minerals) and concern has been raised by international environmental agencies that biodiversity and resources are being overexploited, particularly timber.

In 1998, the Lao People's Democratic Republic ranked as the third largest illicit opium producer in the world, after Afghanistan and Myanmar, and had one of the highest opium addiction rates. Through its high-level commitment to fighting drug production and abuse, the Government managed, in less than a decade, from 1998 to 2005, to reduce opium cultivation by 93% and opium addiction by 68%. These changes, however, have brought new challenges for the authorities as there is a need for sustainable economic alternatives for highland former opium farmers. New synthetic drugs have emerged, however, raising concern for public health, with amphetamine-type stimulants posing the most serious and fastest-growing drug threat in the country.

The country ranks among the least-developed in the world and, despite a steadily increasing GDP, growth is still slow and inequalities serious. The country is also facing major challenges in addressing transparency and corruption issues; in 2008, it was classified by Transparency International as 151<sup>st</sup> on the Corruption Perception Index of 180 countries. As a comparison, in 2005, it ranked 77<sup>th</sup> of 158 countries.

## **2. HEALTH SITUATION AND TREND**

### **2.1 Communicable and noncommunicable diseases, health risk factors and transition**

Health indicators from the routine health information system are neither robust nor universal. Many of the most reliable indicators are, therefore, from national surveys, most of which were conducted in 2000 and reported in 2001. A national census was conducted in 2005 and the official results, published in 2006, showed important improvements in the maternal mortality ratio, the crude death rate, the total fertility rate, the crude birth rate and other macro-indicators. The methodologies used in the calculation of these indicators have, however, been criticized by international development partners, particularly those concerning maternal mortality; the actual numbers may be underestimated. A multiple-indicator cluster survey was conducted in early 2006 and its results published in 2008.

The Lao People's Democratic Republic is a low-HIV-prevalence country, with an estimated adult seroprevalence rate of 0.2%. At the end of 2007, the official cumulative number of people identified with HIV since 1993 was 2630, of whom 1675 were known to be living with AIDS. Of the reported HIV cases, 55% were male. Based on cumulative HIV case reports, the majority of those infected are between the ages of 20 and 39 years. Of those whose mode of transmission was known, 85% had been infected through heterosexual sexual contact, 3.5% from mother to child, 0.7% through homosexual sexual contact, 0.3% through blood products and 0.2% through use of unsterilized needles (the remainder unknown). Preliminary results from a second round of second generation surveillance have shown the HIV-positive seroprevalence rate in female sex workers increasing from 0.9% in 2001 to 2% in 2005. Chlamydial infection and gonorrhoea are common in sex workers, with an estimated combined infection rate of 37.6%. A total of 375 individuals are currently receiving antiretroviral treatment at a single treatment site.

### **2.2 Outbreaks of communicable diseases**

Dengue fever incidence has increased in recent years, with 96.9 cases per 100 000 inhabitants in 2006. In the same year, outbreaks of dengue accounted for a total 6356 cases (5556 cases of dengue fever and 800 cases of dengue hemorrhagic fever/shock syndrome), and six resultant deaths were reported. This represents an increase to an incidence rate of 110.6 cases per 100 000 inhabitants, using the Census 2005 population projections at mid-year. Dengue appears to be moving peripherally, with cases recorded in smaller population centres in recent years. In 2008, 4149 cases were estimated.

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Until early 2007, there were only limited reported outbreaks of avian influenza in poultry and no human cases of infection with the H5N1 virus in the country. However, in February 2007, the Ministry of Agriculture confirmed an outbreak of avian influenza, H5N1, in commercial poultry farms and backyard poultry in the capital city, Vientiane. Since then, other outbreaks in poultry have been reported and confirmed from four other provinces in the north, centre and south of the country. Control activities targeted at poultry have been conducted successfully and passive surveillance has been reinforced. In early 2008, several new outbreaks in poultry were reported in the northern region bordering China and Myanmar. The first two human cases were confirmed in early 2007, both resulting in death. The first reported case was a 15-year-old girl from Vientiane city. She developed symptoms and died after a long period of hospitalization. The second case was a 42-year-old woman from Vientiane province. Both cases had recent histories of poultry exposure. Public health activities targeting avian influenza have intensified since the first case was confirmed. There is now a health-care-facility-based avian-influenza-surveillance system in place. At the national level, as well as in several provinces, there are alert telephone numbers for reporting of suspected human avian influenza cases. The National Influenza Laboratory (NIL), based at the National Centre for Laboratory and Epidemiology (NCLE), has been operational since the beginning of January 2007.

In December 2007, a cholera outbreak was reported in the south of the country, in Sekong province, with more than 350 cases and three fatalities.

There were a substantial number of measles outbreaks in 2007, accounting for 1678 cases, mostly in the north of the country. A national measles immunization campaign was conducted in November 2007 for children aged nine months to 15 years and this activity vaccinated more than 2 million children, achieving 96% coverage. The campaign was carried out with the support of WHO and other international partners. Although it is expected that the campaign will lower the incidence of measles for the next two to three years, large outbreaks will occur again unless routine immunization coverage improves or a follow-up campaign is conducted.

In May 2009, when WHO Headquarters declared Pandemic Alertness Level Phase 5 due to an international ("swine") influenza A (H1N1) outbreak that started in Mexico in April 2009, the country prepared itself, with a focus on enhanced surveillance systems and risk communication. Effective chains of communication have been established between the Government and development partners.

### **2.3 Leading causes of mortality and morbidity**

Malaria is still considered an important contributor to morbidity and mortality, with 70% of the population at risk, although recent efforts to combat the disease (with Global Fund support) have had a positive impact. In 2008, the total number of reported malaria cases fell to 17 503, corresponding to an incidence rate of 292 cases per 100 000 population.

Programme data showed 75.5% of those at risk using preventive measures in 2006. A total of 2 702 339 people (population at risk 3.6 million) were being protected with bednets as of the end of 2005. The number of probable and confirmed malaria deaths in hospitals decreased from 187 in 2001 to 14 in 2007, while the annual incidence of confirmed malaria cases per 1000 population decreased from 5.5 in 2003 to 3.25 in 2007. Artemisinin-based combination treatment was introduced in 2004 following increasing malaria-drug resistance.

### **2.4 Maternal, child and infant diseases**

The maternal mortality ratio (MMR) fell from 656 to 405 deaths per 100 000 live births from 1995 to 2005, the infant mortality rate (IMR) from 104 to 70 deaths per 1000 live births, and the under-five mortality rate (U5MR) from 170 to 98 deaths per 1000 live births. However, these numbers are probably underestimates. The IMR varies a great deal between provinces, with the lowest rate in Vientiane Capital (18) and the highest in Sekong (122). While the mortality rate in Vientiane Capital is only 26% of the national rate, Sekong has a mortality rate that is 183% higher than the average for the country. The latest National Health Survey shows that children have a two-week fever incidence rate of 2.9%, an ARI incidence rate of 3%, and a diarrhoea incidence rate of 6.2%.

The preliminary results of the 2005 Lao Reproductive Health Survey, disseminated in late 2007, revealed that progress in antenatal care and skilled birth attendance had not been significant in the general population, despite some improvements among younger women. The survey showed that only 71.5% of women were seeking antenatal care, compared with 75.8% in 2000; 18.5% of deliveries were taking place with the participation of a trained birth attendant, compared with 17.4% in 2000; 86% of women were still delivering at home, compared with 89% in 2000; and only 32% of children aged 12 to 23 months were fully immunized. However, the survey showed a slow but significant improvement in intermediary health outcomes related to reproductive health. Progress was observed in usage of modern contraceptive methods (28.9% in 2000 to 36.6% in 2005) among married women, and the total fertility rate showed a decline (4.88 between 1995 and 1999, to 4.07 between 2002 and 2005). This highlights the improvements in family planning observed over the period.

### 2.5 Burden of disease

Tuberculosis prevalence (all forms) was estimated at 289 per 100 000 population in 2007. A total of 3080 smear-positive cases were reported in 2007, an increase from 3041 in 2006. The directly observed treatment, short-course (DOTS) programme reaches 100% of districts. The estimated smear-positive case-detection rate was 78% in 2007 and the treatment success rate was 88% in 2006.

The most recent data show an intestinal helminth prevalence rate of 62% (2002) among schoolchildren. De-worming for children aged 12-59 months has now been established, with child-health days and a national measles campaign, reaching more than 500 000 children (>80%) in 2007. There is evidence to show that schistosomiasis has been re-emerging in southern parts of the country since control programmes have ended.

Road accidents are a growing problem as the volume of traffic and the travelling speed of vehicles due to road improvements increase. Between 2006 and 2007, for instance, fatalities due to road traffic accidents more than doubled nationwide.

Mental health issues, particularly drug abuse, are also a growing concern but are currently poorly reported. Other mental health and neurological diseases issues include management of seizure disorders and psychoses.

Nutrition is a neglected area although 41% of children are stunted and 48.2% of children and 31.3% of females have haemoglobin levels below 11 g/dl. Universal salt iodization misses at least 7% of children, and vitamin A supplementation in the past has been far from universal. A new bi-annual child-health-day approach has been used recently, however, achieving >80% of the target 600 000+ children aged six to 59 months, for both rounds, in 2007. The rate of exclusive breast-feeding at three months of age is only 28.1%.

The food insecurity situation in the country has also been pointed out as alarming by international partners like the World Food Programme (WFP). In 2006, WFP conducted a comprehensive food security and vulnerability study. The initial conclusions of the study pointed out that ...*"the chronic malnutrition in the Lao People's Democratic Republic is at an alarmingly high level. Every second child in the rural areas is chronically malnourished, affecting not only their physical development but also their cognitive capacity"...."Chronic malnutrition is as high today as it was 10 years ago. 30% of the rural households have either poor or borderline food consumption."...."Sino-Tibetan ethnic groups are the most disadvantaged and food insecure, followed by the Hmong-Mien and the Austro-Asiatic."*

There are very few official national data available on risk factors for noncommunicable diseases (NCD). The national authorities are currently conducting a STEP-wise approach survey (STEPS) for the assessment of national NCD risk factors, with WHO support.

Tobacco and alcohol consumption remains a concern, although no actual figures on consumption and effects on public health are available. However, the Government has taken note of the risks related to their abuse and has made important efforts regarding prevention and control of alcohol and tobacco consumption. In 2006, major legal steps were taken towards tobacco consumption control: the country ratified the International Framework Convention on Tobacco Control and a series of regulations was



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passed concerning health warnings on cigarette packs, importation of tobacco and smoke-free areas in the National University. In 2007, a law was drafted for national implementation of the Framework Convention.

### **3. HEALTH SYSTEM**

#### **3.1 Ministry of Health's mission, vision and objectives**

The national health priorities are articulated in three documents: (1) the 20-year Health Strategy to the Year 2020 (2000); (2) the Lao Health Master Planning Study (2002); and (3) the National Growth and Poverty Eradication Strategy (NGPES, 2001). The principles and visions of these documents have been included in the current sixth 5-year National Socio and Economical Development Plan (NSED, 2006-10) as well as the sixth National Health Sector Development Plan (2006-10), which was shared in English with development partners in November 2008.

The Health Strategy to the Year 2020 was promulgated by the VIIth Party Congress in 2001 and has four basic concepts: full health care service coverage and health care service equity; development of early integrated health care services; demand-based health care services; and self-reliant health services. This then leads to six health-development policies:

- strengthening the ability of providers;
- community-based health promotion and disease prevention;
- hospital improvement and expansion at all levels, including remote areas;
- promotion of traditional medicine, integration of modern and traditional care, rational use of quality and safe food and drugs, and national pharmaceutical product promotion;
- operational health research; and
- effective health administration and management, self-sufficient financial systems, and health insurance.

The health sector is project- and donor-dependent, which has often led to competing and overlapping donor demands. The Minister of Health has called for more integrated approaches, particularly for maternal and child health and immunization, decentralized service delivery methods, improved methods of health care financing, a unified and simplified health information system, and an emphasis on quality improvement in the next five years, rather than quantity improvement, which was emphasized over the past few years.

#### **3.2 Organization of health services and delivery systems**

The public health system is predominant, although a private alternative is growing. There are no private hospitals, but there are around 1865 private pharmacies and 254 private clinics, mainly in urban areas. The state system is underutilized, especially in the peripheral areas. In its efforts to increase access through village volunteers and village revolving drug funds, the Government has managed to reach 5226 villages.

There are four administrative strata in the health system: the central (the Ministry, the College of Health Technology and reference/specialized centres); provincial (provincial health offices, provincial and regional hospitals, and auxiliary nursing schools); district (district health offices and district hospitals); and village (health centres) levels.

The main network for health care service provision remains the public system. In 2005, its health facilities consisted of four central teaching and referral hospitals; five regional hospitals, including one teaching hospital; 13 provincial hospitals; 127 district hospitals; and about 746 health centres. District hospitals are further classified as category A or B, category A meaning that the facilities have surgical capacity, unlike category B. A total of 5081 hospital beds were available in 2005, 0.9 beds per 1000 inhabitants.

The Government has announced future autonomy for public health facilities. In 2007, the Lao Health Maintenance Organisation was created, which foresees the opening of the first fully private hospital in the country by 2009/2010.

### **3.3 Health policy, planning and regulatory framework**

In 2001/2002, the Ministry of Health, with support from the Japan International Cooperation Agency (JICA), conducted the Lao Health Master Planning Study. The study identified seven 'precedent programmes' to be implemented and 31 'very high priority' programmes in the fields of planning and management, human resource development, health financing, health education, infectious disease control, primary health care, maternal and child health, nutrition, hospital services, medical laboratory technology, and essential drugs. The need for sectorwide coordination is emphasized in the study report and initial steps toward such coordination have been taken since 2005 with the support of the sectorwide coordination process financed by the Japanese Government in close collaboration with other major donors, WHO and other United Nations agencies working in the health sector.

A third major policy document is the National Growth and Poverty Eradication Strategy (NGPES). The NGPES focuses on poverty and the poorest districts, of which 72 poor, 47 poorest, and 10 for initial activities have been identified. The health priorities in the NGPES are:

- information, education and communication for health;
- expansion of the service network for the health promotion of people in rural areas;
- improving and upgrading the capacity of health workers from village to post-graduate level, with an emphasis on ethnic minorities, gender balance, and incentives for retaining health workers in areas of shortage;
- maternal and child health (MCH) promotion;
- immunization;
- water supply and environmental health;
- communicable disease control;
- control of sexually transmitted infections, including HIV/AIDS;
- development of village revolving drug funds;
- food and drug safety;
- promotion of traditional medicine integrated with modern medical treatment; and
- strengthened sustainability, including financing, management, quality assurance and legal framework.

To a large extent, all documents are superseded by the Sixth National Socio-Economical Development Plan (2006-10) (NSED), which was promulgated by the VIIIth Party Congress and the National Assembly in 2006. The NGPES has been fully integrated into the draft 6<sup>th</sup> NSED and serves as its core. The NSED was presented to and discussed widely with both internal and external partners, but there remains a large funding gap for implementation in all sectors, including health. Despite the constant fall in the share of health expenditure in the public budget and as a percentage of GDP, the Government has pledged to increase health spending within the framework of its policy dialogue with the Bretton-Woods institutions (World Bank and International Monetary Fund).

A new constitutional article (2004) obligates the Government to improve and extend the health network; improve disease prevention; create conditions so all people receive health care, especially mothers, children and the poor; and legalize private investment in health services.

In August 2007, the 6<sup>th</sup> National Health Conference (NHC) reviewed the achievements and implementation of the 2001-2005 National Health Plan and provided recommendations for the 2006-2010 five-year national plan. The actual strategy of the Ministry of Health is based on a 'healthy village' model that will include the eight components of primary health care (PHC), as expressed in national PHC policy, and will provide health for all. It is aimed at enabling development from the grassroots level up. The 6<sup>th</sup> NHC calls for: (1) a general increase in funding for health; (2) establishment of the University of Health Sciences under the direct supervision of the Ministry of Health; (3) implementation of the Complex of Hospital-Instituto-Projecto-University (CHIPU); (4) creation of new posts; and (5) increased incentives for health workers in rural areas.

To accelerate progress toward achievement of Millennium Development Goals 1, 4 and 5 and in support of the 6<sup>th</sup> National Health Sector Development Plan 2006-2010, the following policy and strategy

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documents have recently been developed and endorsed by the Ministry of Health and other government authorities:

- National Nutrition Policy (2008);
- National Food Safety Policy (2009);
- Skilled Birth Attendance Development Plan 2008-2015 (2008);
- Strategy for Integrated Package of Maternal Neonatal and Child Health Services 2009-2015 (2009).

### **3.4 Health care financing**

Current estimated per capita health expenditure is US\$ 24, about 55% coming from households, 30% from donors, and 15% from the government hospitals, which are highly dependent on user fees for recurrent expenditure. There are nascent health insurances systems for both the formal and non-formal sectors and the civil service scheme is being reformed. Equity funds—third party mechanisms that pay for health services used by the poor—are being expanded.

Total health expenditure made up 3.7% of GDP in 2007, and donor spending is estimated to have made up 30% of total public sector health spending in the same year. Salaries account for the bulk of domestic public expenditure on health (75.3%).

### **3.5 Human resources for health**

The Lao People's Democratic Republic faces similar challenges to all low-income countries as regards human resources for health (HRH) issues: underfunding of salaries and wages, maldistribution of qualified staff among geographic and health system levels, limited numbers of qualified health workers, and low staff productivity.

The country faces a general shortage of qualified health workers. The total health workforce in 2005 numbered 18 017 workers, corresponding to a ratio per 1000 inhabitants of 3.21. That included regular staff (civil servants) under the Ministry of Public Health, as well as contractual staff. It also included the health workers under the two other ministries that manage non-public health facilities: the Ministry of Defence and the Ministry of Public Security. Around 70% of all health workers are under the Ministry of Health. High- and mid-level medical staff under the Ministry of Health, defined as physicians, nursing staff and midwives with more than two years of formal training, account only for 23% (4123, i.e. 0.74 workers per 1000 inhabitants).

Less than 50% of all health workers are in public health facilities managed by the Ministry of Health. The 8942 regular health workers under the Ministry work in hospitals, health centres and district health offices/hospitals, with district-level facilities accounting for the majority. However, the bulk of the staff at district level are mid- and low-level (88%) health workers, with physicians representing only 6% of district-level staff. Health centres are almost totally served by low-level (81%) and mid-level (18%) staff. There are only eight doctors working in health centres.

Maldistribution of staff, both geographically and by facility level, exacerbates the crisis. There are only 2992 regular high- and mid-level medical staff at health-facility level, corresponding to 0.53 workers per 1000 inhabitants, far below the recommended WHO target of 2.5. These workers tend to be concentrated in socioeconomically better-off regions to cope with the limitations of their salaries and wages. Rural areas, where living conditions are difficult, are not attractive to newly trained, competent workers.

Compared with international standards, the productivity of health workers could be considered low. This is mainly due to the lack of financial and material incentives available to them; in 2005, the average annual salary for health workers was estimated to be US\$ 405. This forces health workers to rely on coping strategies and secondary occupations to ensure their livelihoods. Such a situation, combined with the limited number of new posts created in recent years (the workforce has grown more slowly than the population in the last decade), is limiting the development of the health system and its response to the needs of the population.



In 2007, with WHO support, a national HRH database was designed and tested. A national conference on HRH was held and the drafting of a framework for the development of HRH in the Lao People's Democratic Republic was initiated.

### **3.6 Partnerships**

The Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) has been a major contributor in the country, with more than US\$ 45.5 million in grants allocated between 2003 and 2006. The majority of that funding was allocated towards reducing the malaria disease burden (US\$ 27.2 million). In total, at the actual approved state of proposals, the Global Fund has made available more than US\$ 62 million of the US\$ 95 million requested. In 2007, the country applied for grants as part of Round 7 of the Global Fund call for proposals, and two of its proposals were assessed positively by the Fund's Technical Review Panel. The requested funds amount to US\$ 25.6 million to fight malaria and US\$ 10.9 million to fight tuberculosis. In 2008, the country successfully applied for further support from Global Fund Round 8 for HIV/AIDS and health systems strengthening, up to a total of US\$ 24.6 million.

Since 2002, the Global Alliance for Vaccination and Immunization (GAVI) has given support to immunization services and introduction of new vaccines. The support included the rolling out of DTP-HepB tetravalent vaccine to all districts (2004) along with injection-safety improvements. GAVI's five-year estimated commitment to the country (2002-2007) currently stands at US\$ 7.1 million.

Other major health sector development partners and donors include: the Asian Development Bank, the World Bank, and the governments of Japan, Luxembourg and France. Avian influenza preparation has also benefited from the important support of the European Union and the governments of Australia and the United States of America.

Most United Nations funds and specialized agencies are represented in the country. In 2006, the United Nations Country Team, with the national authorities, finalized the 2007-2011 United Nations Development Assistance Framework (UNDAF), based on the Common Country Assessment conducted in 2005. WHO led the health working group for preparation of the documents. The UNDAF will be the leading guideline for actions carried out by the United Nations Country Team in future years.

### **3.7 Challenges to health system strengthening**

Underfinancing of the health sector is placing a major burden on the management and implementation of national policies for prevention and care. The efforts begun in recent decades to improve primary health care and respond to the demands of those populations most at need are still ongoing. In May 2009, the first national workshop on sustainable health financing was organized, with attendance of high ranking national (vice-ministers and vice-governors) and international participants and support from WHO and the World Bank.

Financial barriers to service access are important, which is not surprising in a country where around 70% of the population live on less than US\$ 0.4 a day. Risk-pooling and prepayment has been introduced through social security for the formal sector and health insurance for the public sector. Voluntary community schemes have been piloted and are now part of the national instruments for health care financing. However, all these instruments cover only a small part of the population. A road map to universal coverage still needs to be adopted and implemented, despite major efforts in recent years. For the poor, the Government has decided to pilot health equity funds to replace the former exemption policy, which has proved to be inefficient. The sustainability of such funds remains questionable, however, and their nationwide implementation will require national commitment and external resources.

The main network for health care service provision remains the public system. There were a total of 5081 hospital beds in 2005, or 0.9 beds per 1000 inhabitants. The shortage of health workers is evident when the ratio of health workers per bed is analysed. The situation is worsened by the uneven distribution of staff among different types of health facility and the shortage of non-medical staff to implement essential administrative and support tasks. Central hospitals have high ratios of high- and mid-level medical staff (see paragraph 3.5) compared with other types of facility. In central hospitals the ratio of high- and mid-level medical staff per bed is 0.9, which could be considered good if there was not a very high doctor-to-

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nurse ratio (0.63 at central hospitals), which raises concerns that inefficiency in hospitals may have structural origins.

Health worker productivity is low in most national hospitals for various reasons. At the moment only one province provides a comprehensive incentive system. Such a system at the national level might ensure health workers' best performance and attract new staff to remote and difficult regions. Moving towards such an approach would, however, require a significant increase in the health budget and a reorientation of expenditure towards recurrent costs for national and donor funding sources. This would only be possible if transparency and accountability were to be reinforced and clear mechanisms for performance and quality assessment of the provided services established. Such efforts have been initiated by the Ministry of Health, but much still remains to be done.

Coordination among sector donors and partners has improved in recent years, as shown through exercises like avian influenza pandemic and outbreak preparation and response. Following the 2005 *Paris Declaration on Aid Effectiveness*, donors and partners in the Lao People's Democratic Republic signed the local *Vientiane Declaration on Aid Effectiveness* in November 2006. A task force was created to elaborate a country action plan for implementation of that declaration and to ensure harmonization and alignment among the signatories. The country action plan (CAP) was developed and approved by the Government and its partners in early 2007 and a first local survey for the Paris Declaration Monitoring Survey (OECD DAC) was conducted in parallel. The survey was a challenging process because of the complexity of the task and the scarcity of reliable data, even at individual development-partner level. A significant number of development partners did not participate in the process, putting the collected information into question. The findings of the survey showed that much remained to be done to achieve the objectives of the *Paris Declaration*. Only 16% of capacity development interventions in the country were being carried out in a coordinated fashion, compared with the targeted 50%, and only 17% of total ODA had been disbursed following national procurement systems and procedures. On bilateral disbursement for the fiscal year 2005/2006, of US\$ 223 million, only US\$ 14 million was reported to be for the health sector. The multilateral situation was little better, with US\$ 22 million of US\$ 245 million. The health sector therefore accounted for only 7.6% of the ODA disbursements.

In order to operationalize the *Vientiane Declaration on Aid Effectiveness* (VD) in the health sector, the Ministry of Health developed a sectorwide coordination mechanism, according to the CAP. In November 2007, the structure of the new coordination mechanism for the health sector was presented by the Ministry. The new structure includes multiple layers of technical and policy dialogue between development partners and the Government. The yearly monitoring process of the VD CAP (2008) indicates that substantial progress in aid effectiveness has been made in most CAP areas.

In 2007, the former Committee on Planning and Investment was converted into the Ministry for Planning and Investment (MPI) and the Directorate of International Cooperation (DIC) was transferred from the Ministry of Foreign Affairs to this newly created structure. The DIC is now responsible for supervising ODA in all sectors and for monitoring implementation of the CAP.

Health information from surveillance and surveys still needs to be framed by national policy. WHO, and recently the Health Metrics Network (HMN), have supported the Government in developing a new health information system extending from village to district and provincial level. This system has been discussed widely with the major donors and project implementers nationwide, and has been adopted by the World Bank and the Asian Development Bank as a part of their support actions in the south and north of the country. However, nationwide implementation of the system still needs to be carried out and evaluated. Further, other aspects of the health information system still need to be reinforced, such as vital registration and information collection and analysis. Towards that goal, WHO and other development partners facilitated the formulation of the 1<sup>st</sup> Lao Health Information Strategic Plan (2009-15) using the HMN methodology in late 2008.

Hospital financial management systems are being reinforced as part of the 'good-governance' efforts of the Government and the Ministry of Health, but they also need to be integrated into a broader information system to ensure timely, evidence-based decision-making.

Prevention activities, such as vaccinations, have been the centre of a major focus by the Ministry of Health in the last year. Immunization rates had been falling and corrective actions were needed. The trend has been reversed, but this has brought up certain questions about the adequacy of the health system in providing regular basic services to the population. The traditional outreach approach has been questioned and the primary barrier to the effective delivery of services is thought to be the absence of routine vaccination services at health centres and district hospitals (fixed sites). Integrating vaccination activities and other essential primary prevention and health care services for mother and child has been advocated as a solution to improve the situation. This is now one of the priorities of the Ministry of Health. A comprehensive package of services and the cost of providing it to the population in a constant and regular way still need to be defined. Several United Nations agencies, including WHO, are working on these issues. However, implementation of the package will also need a change in the current financial-incentive approach, which relies on payment for outreach activities rather than on performance.

## 4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

<i>Title 1</i>	:	<i>Population Census 2005</i>
<i>Operator</i>	:	National Statistics Centre
<i>Specification</i>	:	Includes the latest available official demographic data for Lao PDR
<i>Web address</i>	:	<a href="http://www.nsc.gov.la/PopulationCensus2005.htm">http://www.nsc.gov.la/PopulationCensus2005.htm</a>
<i>Title 2</i>	:	<i>Lao Info 4.1</i>
<i>Operator</i>	:	National Statistics Centre
<i>Specification</i>	:	Provides a key statistical tool for monitoring the Millennium Development Goals (MDGs)
<i>Web address</i>	:	<a href="http://www.nsc.gov.la/Lao_Info.htm">http://www.nsc.gov.la/Lao_Info.htm</a>
<i>Title 3</i>	:	<i>World Bank country website</i>
<i>Specification</i>	:	Includes most recent links and documents produced by the World Bank on the Lao People's Democratic Republic
<i>Web address</i>	:	<a href="http://www.worldbank.org/lao">www.worldbank.org/lao</a>
<i>Title 4</i>	:	<i>Asian Development Bank country website</i>
<i>Features</i>	:	Includes most recent links and documents produced by the ADB on the Lao People's Democratic Republic
<i>Web address</i>	:	<a href="http://www.adb.org/LaoPDR/">http://www.adb.org/LaoPDR/</a>
<i>Title 5</i>	:	<i>Sixth National Socio Economic Development Plan (2006-2010)</i>
<i>Operator</i>	:	Committee for Planning and Investment
<i>Title 6</i>	:	<i>United Nations Common Country Assessment for the Lao People's Democratic Republic 2005</i>
<i>Operator</i>	:	Government of Lao PDR and the United Nations System
<i>Web address</i>	:	<a href="http://www.undplao.org/">http://www.undplao.org/</a>
<i>Title 7</i>	:	<i>United Nations Common Country Assessment for the Lao People's Democratic Republic 2005</i>
<i>Operator</i>	:	Government of Lao PDR and the United Nations System
<i>Web address</i>	:	<a href="http://www.undplao.org/">http://www.undplao.org/</a>
<i>Title 8</i>	:	<i>Lao Reproductive Health Survey 2005</i>
<i>Operator</i>	:	National Statistics Centre and UNFPA
<i>Features</i>	:	Includes the latest available data on reproductive health in the Lao PDR
<i>Web address</i>	:	<a href="http://www.nsc.gov.la/">http://www.nsc.gov.la/</a>
<i>Title 9</i>	:	<i>Nam Saat Central website</i>
<i>Operator</i>	:	Nam Saat Central, Ministry of Health
<i>Features</i>	:	Includes a repository of the main national regulations and legislation
<i>Specification</i>	:	Website of the National Centre for Environmental Health and Water Supply
<i>Web address</i>	:	<a href="http://www.nsc.gov.la/">http://www.nsc.gov.la/</a>
<i>Title 10</i>	:	<i>National Round Table Process website</i>
<i>Operator</i>	:	Department for International Cooperation, Ministry of Planning and Investment; UNDP
<i>Features</i>	:	Includes a repository of the main national regulations and legislation
<i>Specification</i>	:	Website of the National Centre for Environmental Health and Water Supply
<i>Web address</i>	:	<a href="http://www.nsc.gov.la/">http://www.nsc.gov.la/</a>

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## 5. ADDRESSES

### MINISTRY OF HEALTH

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# 6. ORGANIZATIONAL CHART: Ministry of Health

