The Lao People’s Democratic Republic
Health System Review

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Lao People’s Democratic Republic

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The Health Systems in Transition (HiT) profiles are country-based reports that provide a detailed description of a health system and of reform and policy initiatives in progress or under development in a specific country. Each profile is produced by country experts in collaboration with an international editor. In order to facilitate comparisons between countries, the profiles are based on a template, which is revised periodically. The template provides detailed guidelines and specific questions, definitions and examples needed to compile a HiT profile.

HiT profiles seek to provide relevant information to support policy-makers and analysts in the development of health systems. They can be used:

- to learn in detail about different approaches to the organization, financing and delivery of health services and the role of the main actors in health systems;
- to describe the institutional framework, the process, content and implementation of health-care reform programmes;
- to highlight challenges and areas that require more in-depth analysis;
- to provide a tool for the dissemination of information on health systems and the exchange of experiences between policy-makers and analysts in different countries implementing reform strategies; and
- to assist other researchers in more in-depth comparative health policy analysis.

Compiling the profiles poses a number of methodological problems. In many countries, there is relatively little information available on the health system and the impact of reforms. Due to the lack of a uniform data source, quantitative data on health services are drawn from a number of different sources, including the World Health Organization (WHO) Western Pacific Country Health Information Profiles, national statistics offices, the International Monetary Fund (IMF), the World Bank, and other relevant sources considered useful by the authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate series.
A standardized profile has certain disadvantages because the financing and delivery of health care differs across countries. However, it also offers advantages, because it raises similar issues and questions, so that these profiles can be used to inform comparative analysis of health systems. The HiT profiles can be used to inform policy-makers about experiences in other countries that may be relevant to their own national situation. This series is an ongoing initiative and material is updated at regular intervals through the APO “Living HiT” series on the APO website. Comments and suggestions for the further development and improvement of the HiT series are most welcome and can be sent to the Asia Pacific Observatory on Health Systems and Policies (email: apobservatory@wpro.who.int). HiT profiles and HiT summaries are available on the Asia Pacific Observatory’s web site.  

1 Asia Pacific Observatory on Health Systems and Policies: www.wpro.who.int/asia_pacific_observatory
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<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<tr>
<td>AFD</td>
<td>Agence Française de Développment</td>
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<tr>
<td>ALOS</td>
<td>average length of stay</td>
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<tr>
<td>ANC</td>
<td>antenatal care</td>
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<td>APSED</td>
<td>Asian Pacific Strategy for Emerging Diseases</td>
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<td>BCG</td>
<td>bacillus Calmette–Guérin</td>
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<td>CBHI</td>
<td>Community-Based Health Insurance</td>
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<td>CDC</td>
<td>Communicable Disease Control</td>
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<td>CHEIC</td>
<td>Center for Health Education, Information and Communication</td>
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<td>CT</td>
<td>computerized tomography</td>
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<tr>
<td>DALE</td>
<td>disability-adjusted life expectancy</td>
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<td>DALY</td>
<td>disability-adjusted life year</td>
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<tr>
<td>DHO</td>
<td>district health office</td>
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<td>DHS</td>
<td>Demographic and Health Survey</td>
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<td>DHS-DWHO</td>
<td>Division of Health Sector Development, WHO Regional Office for the Western Pacific</td>
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<tr>
<td>DMFT</td>
<td>decayed/missing/filled teeth</td>
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<tr>
<td>DOH</td>
<td>Department of Health</td>
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<td>DOP</td>
<td>Department of Personnel</td>
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<td>DPO</td>
<td>district planning office</td>
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<td>DRGs</td>
<td>diagnosis-related group</td>
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<tr>
<td>DTC</td>
<td>Drugs and Therapeutics Committee</td>
</tr>
<tr>
<td>DTP</td>
<td>diphtheria, tetanus and pertussis</td>
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<tr>
<td>ENT</td>
<td>ear, nose and throat</td>
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<td>EPI</td>
<td>Expanded Programme on Immunization</td>
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<td>FDD</td>
<td>Food and Drug Department</td>
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<tr>
<td>GAVI</td>
<td>Global Alliance for Vaccines and Immunisation (the GAVI Alliance)</td>
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<tr>
<td>GDP</td>
<td>gross domestic product</td>
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GGE  general government expenditure
GGHE general government health expenditure
GMP  good manufacturing practice
GNI  gross national income
HALE health-adjusted life expectancy
HBV  hepatitis B virus
HEF  health equity fund
HiB Haemophilus influenza type B
HIF  health insurance fund
HIS  health information system
HMIS health management information system
HSDP Health Sector Development Plan
HSSMP Health Sector Strategic Master Plan
IHPP International Health Policy Program
IHR  International Health Regulations
ILO  International Labour Organization
IT  information technology
K  Lao kip (currency, also commonly abbreviated as LAK)
LECS Lao Expenditure and Consumption Survey
LPRP Lao People’s Revolutionary Party
LSB  Lao Statistics Bureau
M&E  monitoring and evaluation
MCH  maternal and child health
MDGs Millennium Development Goals
MECS Ministry of Education, Culture and Science
MHA  Ministry of Home Affairs
MICS Multiple Indicator Cluster Survey
MMR maternal mortality ratio
MNCH maternal, newborn and child health
MOF  Ministry of Finance
MOH  Ministry of Health
MOLSW Ministry of Labour and Social Welfare
MPI Ministry of Planning and Investment
MPSC Medical Products Supply Centre
MRI magnetic resonance imaging
<table>
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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>NCCCD</td>
<td>National Coordination Committee on Communicable Diseases</td>
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<td>NCD</td>
<td>noncommunicable diseases</td>
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<td>NCLE</td>
<td>National Center for Laboratory and Epidemiology</td>
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<td>NGOs</td>
<td>nongovernmental organizations</td>
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<tr>
<td>NGPES</td>
<td>National Growth and Poverty Eradication Plan</td>
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<td>NHA</td>
<td>national health account</td>
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<tr>
<td>NHSR</td>
<td>National Health Statistics Report</td>
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<td>NIL</td>
<td>National Influenza Laboratory</td>
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<td>NSEDP</td>
<td>National Socio-Economic Development Plan</td>
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<td>ODA</td>
<td>official development assistance</td>
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<td>OOP</td>
<td>out-of-pocket</td>
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<td>OPV</td>
<td>oral polio vaccine</td>
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<td>OTC</td>
<td>over-the-counter</td>
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<tr>
<td>PBA</td>
<td>programme-based approaches</td>
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<tr>
<td>PET</td>
<td>positron emission tomography</td>
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<td>PHC</td>
<td>primary health care</td>
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<td>PHCEP</td>
<td>Public Health Care Expansion Project</td>
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<td>PHO</td>
<td>provincial health office</td>
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<tr>
<td>PM</td>
<td>Prime Ministerial decree</td>
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<td>PPO</td>
<td>provincial planning office</td>
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<td>PPP</td>
<td>purchasing power parity</td>
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<td>PvtHE</td>
<td>private health expenditure</td>
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<td>RDF</td>
<td>revolving drug funds</td>
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<td>SARS</td>
<td>severe acute respiratory syndrome</td>
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<td>SASS</td>
<td>State Authority for Social Security</td>
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<td>SBA</td>
<td>skilled birth attendant</td>
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<td>SSO</td>
<td>Social Security Organization</td>
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<td>SSS</td>
<td>social security scheme</td>
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<td>STI</td>
<td>sexually transmitted infections</td>
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<td>SWC</td>
<td>sector-wide coordination</td>
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<tr>
<td>TB</td>
<td>tuberculosis</td>
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<tr>
<td>THE</td>
<td>total health expenditure</td>
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<tr>
<td>TT2</td>
<td>tetanus toxoid for pregnant women, 2nd dose</td>
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<td>TWG-H.Fin</td>
<td>Health Planning and Financing Technical Working Group</td>
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<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
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<td>UNFPA</td>
<td>United Nations Population Fund</td>
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<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<td>UXO</td>
<td>unexploded ordnance</td>
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<td>VAT</td>
<td>value added tax</td>
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<td>VHI</td>
<td>voluntary health insurance</td>
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<td>VHV</td>
<td>village health volunteers</td>
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<td>WB</td>
<td>World Bank</td>
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<td>WDI</td>
<td>World Development Indicators</td>
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<td>WHO</td>
<td>World Health Organization</td>
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Executive Summary

The Lao People’s Democratic Republic is a landlocked country with a population of 6.4 million, where the majority of the workforce is engaged in agriculture. As a result of rapid economic growth, poverty reduction has been impressive. The country was classified by the World Bank in 2011 as a lower-middle-income country, with a gross national income (GNI) of US$ 1010 per capita. Between 1980 and 2010, life expectancy at birth increased by 18 years, from 49 to 67. The proportion of the population living below the national poverty line fell from 45% in 1992 to 27.6% in 2008.

However, inequalities in income distribution have become prominent. Poverty remains high, particularly in remote and highland areas where access by road or river is difficult, and rural areas continue to have poor access to sanitation and electricity. Despite data limitations, it is evident that infectious diseases still account for a significant proportion of disability-adjusted life years lost (DALYs). Both communicable and noncommunicable diseases are major causes of mortality and morbidity; the prevalence of tuberculosis, malaria and dengue, although there has been some significant success with malaria control over the last decade. The high rate of traffic accidents are of particular concern. Millennium Development Goals (MDGs) 4, 5 and 6 are on track to be achieved by 2015.

Net official development assistance to the Lao People’s Democratic Republic was 17% of GNI in 1990 and had decreased to 6.2% in 2010, challenging the country’s historical reliance on ODA. Fiscal space is favourable and the national budget deficit has declined. Government revenue (excluding grants) has increased from 12.2% of GDP in 2006 to 14.4% in 2010. While this is not high compared with international peers, it does give more room for government investment in health.

Chapter 2 describes the organization and governance of the health system of the Lao People’s Democratic Republic. The health-care delivery system is a government-owned system with three administrative levels: central (Ministry of Health, or MOH), provincial (17 provincial health
offices) and district level (district health offices in all districts). The Ministry of Finance is the account holder of the projects, while the Ministry of Home Affairs allocates the quota of health workers. Requests have been increasing for the MOH to have more decision-making space in relation to human resources for health, and more positions for the health workforce.

Health sector development is implemented according to two types of national health plan formulated by the MOH: the medium-term five-year health sector development plan (HSDP) and the annual operational plan. In alignment with the 2006 Vientiane Declaration on Aid Effectiveness, a Sector-Wide Coordination (SWC) mechanism for health furnishes a platform for the MOH, in partnership with all stakeholders. Decentralization has been implemented but there is a need to streamline this process and to improve management capacity, including budgeting and planning at the central and provincial levels. A policy aimed at improving the quality of private health services through accreditation and licensing has yet to be fully implemented. The emerging private-sector providers are currently only loosely regulated by the Government, and dual practice is common among public sector doctors.

Though the health information system (HIS) continues to improve, challenges remain in relation to further improvement of the routine information system, the move from a paper-based to a computerized system, and roll-out of the vital and civil registration system. The private sector is not covered by the national HIS. The use of health information for planning is still weak. The capacity for health technology assessment to guide cost-effective investments in health is limited.

Chapter 3 explains the health financing system. The public health sector has transitioned from a centralized system under which the Government provided free services, to a system of charging the users of government health services, followed by the slow reintroduction of user fee exemption for some target populations, such as the poor. Out-of-pocket payments are high and are increasing. Publicly financed free services are soon to be implemented for all antenatal care, delivery services and postnatal care, as well as free health services (including inpatient treatment) for children under age five, to be financed by pooled government and donor funding.

There are four health financing schemes: (1) Social Security Organization (SSO) for salaried private employees; (2) State Authority for Social Security (SASS) for civil servants; (3) Community-Based Health Insurance (CBHI)
for non-poor workers in the informal sector; and (4) a Health Equity Fund (HEF) for the poor. Population coverage by these four main prepayment schemes is limited to around 19.6% of the population (excluding coverage of fee exemption schemes, police and military personnel). Both SSO and CBHI have low coverage of their targeted populations. Donor-financed HEF covered around 40.7% of the poor in 2012. Besides competition from private health services and services obtained in neighbouring countries, the quality of the government health services is also seen as a barrier to expanding the coverage of these health insurance schemes and improving compliance with them.

Given the increased fiscal space and favourable economic prospects, the Government is looking to improve population coverage by health financing schemes, as outlined in the Health Financing Strategy 2011–2015. Recently, the Government has initiated a decentralized system, including further strengthening of district-level management, planning and budgeting.

Chapter 4 profiles the physical and human resources of the health system. Health services at the secondary and tertiary levels in the Lao People’s Democratic Republic are provided through 4 central general hospitals and 3 specialist hospitals in the capital city, in addition to 4 regional and 12 provincial hospitals. Meanwhile, there are approximately 130 district hospitals, 860 health centres, and around 5239 village drug kits for provision of primary health care. The number of hospital beds per 1000 population is low in the country, at just 0.8. Pressure from capital investment is high in private hospitals, due to a combination of factors from the donor side, a loosely regulated private health sector and increased demand for private health services. Health education institutions include the University of Health Sciences in Vientiane, and seven provincial colleges/schools. There is a large primary health care network of health workers with qualifications at a range of levels, including large numbers of village health workers and volunteers.

The human resources for health situation has remained largely unchanged in the last two decades until very recently. Due to limited post allocations by the Ministry of Home Affairs, there are a large number of qualified health graduates waiting for a sanctioned post, and retention of qualified health workers in rural areas is challenging. A number of recent initiatives are aimed at improving the situation, including: recent increased quotas within the health workforce; improving standards of
professional health training and educational institutes; enforcing the implementation of the Ministry of Health (MOH) regulation No. 103 supporting mandatory employment of all new graduates to work for three years in rural areas; providing adequate financial and non-financial incentives to retain health staff in rural and remote areas; and improving the information system.

Chapter 5 describes the system for provision of health services. There is poor access to and acceptance of the quality of services provided by public primary health care (PHC), probably due to the high level of out-of-pocket payments required, and the inadequate quality of public health facilities. The PHC system lacks a gate-keeping function; there is no effective referral system in place. Services at the PHC level have a lower rate of utilization as patients tend to go directly to a hospital for curative services, as evidenced by the relatively crowded outpatient department services in provincial and central hospitals. Inpatient services at hospitals also have relatively low utilization rates, as reflected in bed occupancy rates and length of stay data.

The public health surveillance system is gradually developing and becoming operational, in the context of renewed political commitment in response to the H5N1 (avian influenza) outbreak in 2007. Further strengthening of the health management information system, and bringing the private health sector into compliance with the national requirements, is high on the agenda. Routine coverage of the Expanded Programme on Immunization is still low. Pharmaceutical care is more developed than other programmes. The rehabilitation, long-term care and mental health-care systems are in their infancy.

Chapter 6 provides an overview of the principal health reforms in the Lao People’s Democratic Republic. Within a short timeframe and in a very challenging environment, the Government has undertaken some major health sector reforms, guided by the socioeconomic changes in the country, with a view to providing better health services for all people in the country. There is convergence towards a specific health sector reform plan. Major efforts can be categorized within four policy frameworks: governance and leadership; health financing; service delivery; and human resources for health. The MOH has made significant progress in terms of health policy formulation and decentralization of health services to the provincial, district and health centre levels since the 1990s. The primary health care policy of 2000 sets service delivery at the PHC level
as a priority area. Various laws provide a framework for better regulation and implementation of health programmes. However, the institutional capacity for regulation, enforcement, and translation of policy into effective implementation is still limited. The Government’s four health financing schemes are being merged into one National Health Insurance Scheme for efficient management and larger risk-pooling (GOLPDR, 2012). The Government has committed to achieving 50% coverage with the health financing scheme by 2015, and has introduced a national policy on free maternal and child health services in 2012. However, these targets are unlikely to be met due to weaknesses in PHC services and managerial capacities of the implementing agency, as well as low public expenditure on health, geographical, language and cultural barriers to accessing care, and the limited range and quality of services at PHC facilities in rural areas.

Recent reforms have supported progress in service delivery: drug kits, outreach services for the poor, and a voucher programme for improved maternal, neonatal and child health have improved accessibility; many health-care facilities have been renovated and upgraded; there is ongoing reassessment and consolidation of the required number of health facilities at each level; and there is accelerated implementation of the minimum requirements for strengthening the quality of district-level services. However, infrastructure, equipment and staffing at health centres and district hospitals all need to be improved to strengthen curative, preventive and health promotion services. Further efforts are also needed to improve health-care access for the poor, especially in some hard-to-reach areas. The MOH has launched the comprehensive National Strategy for Human Resources for Health 2010–2020, in response to the shortage and uneven distribution of skilled health workers across the country. The MOH is working on reintroducing the training programme for medical assistants and in-service PHC training modules, providing an incentive package for staff to work in rural areas, and negotiating for an adequate number of sanctioned posts for rural health workers. There is also a move to provide training and incentives to village health volunteers to become qualified village health workers.

The Health Sector Reform Strategy was finalized and endorsed by the National Assembly in December 2012 and most recently a Prime Minister Decree creating a National Commission to implement the health sector reform strategy. The main reform contents are in line with six health systems building blocks addressing the bottlenecks in a) service provision
at primary health care, b) health workforce, c) financing, d) health information systems, and e) governance, management and coordination.

A sign of strong political commitment for reforming the health system was shown in the fiscal year of 2013–2014 health budget allocation increase to 9% of general government expenditure. Also sanctioned posts have been significantly increased to around 4000 posts in fiscal year 2013–2014. A few challenges such as absorptive capacities and ability to translate these policy intentions into effective program implementation and expected outcomes have to be resolved through capacity building and continuous commitment/leadership to the health sector and the universal health coverage agenda.

Chapter 7 offers an assessment of the health system. There is strong political commitment to the development of the health system, and there have been some major achievements in terms of health-related strategies and policies in the Lao People’s Democratic Republic. The results, however, have been mixed. While there are strong efforts to increase public spending on health and move towards the expansion of insurance-based risk-pooling and prepayment health-financing schemes, out-of-pocket payments by households are still high. The National Assembly has approved an increase in government spending on health from 3% to 9% to support acceleration towards the Millennium Development Goals. Health sector reform has been approved and implementation is in progress since the Prime Ministerial Decree of December 2013 establishing the creation of a national health sector reform committee. Quality of care and health-care provider responsiveness has yet to improve substantially, however. There is ineffective coordination and management, particularly at the district and sub-district levels.

In conclusion, with government effectiveness in mind, the critical review of health systems in this report provides a number of insights. Despite strong government commitments to health, as reflected by a number of policy statements, decrees, national strategies and plans, and a comprehensive health reform strategy, it is evident that there are gaps between policy intentions and effective implementation. Political commitments have not yet been translated into increased health spending. Government health expenditure stagnated at 5.9% of the general government budget in 2008–2010 and is inadequate to make a significant difference, while the number of sanctioned posts was stagnant. The level of total health expenditure—US$ 46 per capita in
2010—is inadequate to purchase a decent service package to achieve the health-related MDGs. The Government has consistently invested more of the budget in education than in health. However, there are signs that this is improving with the increased quota of 4000 health worker posts and 2013–2014 budget increase.

Prepayment health financing schemes targeting different groups of the population have been initiated but only covered 19.6% of the population as of 2012, with a high level of reliance on regressive out-of-pocket (OOP) payments, discouraging the poor from accessing care when needed. The Government needs to spend more on health and significantly strengthen PHC if it is to implement the Health Financing Strategy 2011–2015 successfully. There has been a decade-long stagnation in the number of health workers: the current level of 0.6 health workers per 1000 population is inadequate to reach a desired level of service coverage. Also, the uneven distribution of the health workforce in favour of cities exacerbates the problem of shortages in rural areas. Surprisingly the incidence of catastrophic health-care expenditure was found to be low and declining, and the incidence of health impoverishment has also declined. The low incidence of catastrophic health expenditure can be misleading, since poor households may decide not to seek care when ill, but this lack of care can result in welfare losses, such as mortality or disability. As a result of insufficient investment in the public health infrastructure and workforce, the health service utilization rates are also low, indicating that patients are forgoing health services, which may result in increased levels of preventable mortality and disabilities. This assessment of the health system’s performance reflects large urban–rural and rich–poor gaps of service coverage and health status.

Government strategies and policies are often not fully implemented, implying that serious reflection is needed on the following:

- Strategies, policies and related plans should be well-defined, realistic and doable.
- Capacity and commitment are needed to translate research findings into evidence-based policy, and to translate policy into programme implementation.
- Implementation plans must be fully aligned with relevant policies and strategies.

Progress will need to be monitored and corrective actions taken promptly as the health sector reforms evolve. Improved government
accountability, including financial accountability, will also help towards achieving the goals of the health sector reform. A few successful efforts should be applauded, such as the MDG progress monitoring in 2008, which the Government and development partners worked seriously on.

The context of the health system in the Lao People’s Democratic Republic has evolved in a number of ways: (a) favourable economic performance supported greater fiscal capacity for the Government to spend more on the health of the population; (b) a portion of the government revenue generated from the NT2 Hydroelectric Project is to be spent on health and education; (c) the lower-middle-income status of the country may lead to a reduction in the amount of official development assistance for health and domestic funding should gradually replace donor resources; and (d) income distribution gaps have widened as the country become richer, creating an urgent need for redistribution through improvement of health and education programming in favour of the poor.

While there is a need to make the case for investment in health, the issue of how any additional government funding should best be allocated also needs to be addressed. Simply increasing the size of the health workforce might not resolve the key bottlenecks, given the current low health-care utilization rates, unless this is coupled with a reduced level of out-of-pocket payments and some modifications of the capitation rate system to reflect the actual cost of service provision, so that providers have a greater incentive to be responsive to patient needs, as well as investment in improved competency. Given this context, the Government will need to invest more funding in both the demand side and the supply side of the health-care system. The strategic hub should be at the district level, including health centres and district hospitals, as these are services that the poor and rural residents can better access. These recommendations are in line with the current policy and directions, but significant improvements are needed in the capacity to implement these changes.
Chapter 1: Introduction

Chapter Summary
A relatively young nation, the Lao People’s Democratic Republic is a socialist republic, in which the president, the prime minister and the ministers are the executives and the National Assembly is the main legislative body. The majority of the country’s workforce is engaged in agriculture. With recent progress on poverty reduction, the Lao People’s Democratic Republic was given a status upgrade by the World Bank in 2011, from a low-income country to a lower-middle-income country (World Bank, 2011a). However, poverty remains high, particularly in remote and highland areas where access by road or river is difficult, and rural areas continue to have poor access to sanitation and electricity. Life expectancy and other health indicators have greatly improved for the population of 6.4 million over the last three decades but further improvement is required, as evidenced by the high maternal mortality rate (MMR) and high child malnutrition status. Both communicable and noncommunicable diseases (NCDs) are major causes of mortality and morbidity in the Lao People’s Democratic Republic; the prevalence of tuberculosis (TB), malaria and dengue and the high rate of traffic accidents are of particular concern. Although the prevalence of malaria is a concern, on the positive side, malaria control has been successful over the last decade with the incidence of confirmed malaria falling from 7.7 in 2001 to 3.1 per 1000 population in 2008.

1.1 Geography and Socio-Demography
The Lao People’s Democratic Republic is a landlocked country located in the heart of the Indochina peninsula of South-East Asia. It shares a border with Cambodia, China, Myanmar, Thailand and Viet Nam. The country covers 236 800 square kilometres, and it stretches 1700 km from north to south and 500 km from east to west at its widest point (140 km at

2 Recently, the Government of the Lao People’s Democratic Republic has claimed it to be a ‘land-linked’ country, to reflect economic development and the many efforts to improve links to other countries in the region, including the building of bridges.
its narrowest point). The topography is three quarters mountainous and plateau, and forests cover 47% of the land. For their livelihoods, people in the highland areas depend on cultivation of upland rice and gathering of non-timber forest products, while those in lowland areas along the Mekong River depend predominantly on paddy rice (see map in Figure 1.1). The country has a tropical monsoon climate, with a wet season lasting from May to October and a dry season lasting from November to April.

Figure 1-1 Map of the Lao People’s Democratic Republic

Table 1-1 Population/demographic indicators, selected years

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</tr>
</thead>
<tbody>
<tr>
<td>Total population (thousands)</td>
<td>3,237</td>
<td>4,206</td>
<td>4,575</td>
<td>5,403</td>
<td>5,621</td>
<td>6,436</td>
</tr>
<tr>
<td>Population female (% of total)</td>
<td>50.1</td>
<td>49.9</td>
<td>50.6</td>
<td>49.9</td>
<td>50.2</td>
<td>50.1</td>
</tr>
<tr>
<td>Population ages 0–14 (% of total)</td>
<td>43.9</td>
<td>43.7</td>
<td>43.6</td>
<td>42.3</td>
<td>39.1</td>
<td>34.5</td>
</tr>
<tr>
<td>Population age 65+ (% of total)</td>
<td>3.5</td>
<td>3.6</td>
<td>3.6</td>
<td>3.7</td>
<td>3.8</td>
<td>3.9</td>
</tr>
<tr>
<td>Population growth (average annual %)</td>
<td>1.5</td>
<td>2.8</td>
<td>2.5</td>
<td>1.8</td>
<td>1.5</td>
<td>1.4</td>
</tr>
<tr>
<td>Population density (per square km)</td>
<td>NA</td>
<td>NA</td>
<td>19.3</td>
<td>NA</td>
<td>23.7</td>
<td>NA</td>
</tr>
<tr>
<td>Fertility rate, total (births per woman)</td>
<td>6.3</td>
<td>6.2</td>
<td>5.4</td>
<td>4.2</td>
<td>3.3</td>
<td>2.7</td>
</tr>
<tr>
<td>Birth rate, crude (per 1000 people)</td>
<td>42.2</td>
<td>41.6</td>
<td>37.1</td>
<td>30.5</td>
<td>25.5</td>
<td>22.8</td>
</tr>
</tbody>
</table>

In 2010 the population of the Lao People’s Democratic Republic was estimated at 6.4 million and, while expected to reach 7.3 million in 2020, a declining fertility rate and net emigration has seen the rate of population growth slow. Although it has a young population, trends over the last 30 years indicate a slow demographic transition, with the percentage of the population under 15 years decreasing from 44% to 34.5%, and the total fertility rate (TFR) declining significantly from 6.3 to 2.7 between 1980 and 2010 (see Table 1-1). The country has a low population density of 24 people per square kilometre. However, the largely rural nation is experiencing a gradual rural-to-urban shift; in 1980, 88% of the population lived in rural areas compared to 67% in 2010 (World Bank, 2013).

On average, about 25 000 youths (ages 15–18 years) enter the labour market each year. The limited availability of economic opportunities in the Lao People’s Democratic Republic is the strongest driving factor contributing to labour migration abroad. Only 6% of the workforce constituted paid employees (i.e. the formal sector) while the vast majority were self-employed or worked in the informal sector (Phetsiriseng, 2007). More women sought international migration than men, while 21.4% of total international migrants leaving the country were children under 18 years. According to the same data, emigration was mainly to Thailand, where 81.5% of migrants from the Lao People’s Democratic Republic reside, since Lao people speak the Thai language and often intermarry. Many Lao women see more economic opportunities and jobs in Thailand and are keen to seek work there through informal and illegal recruitment networks. However, more men than women migrated internally. Among the population of internal migrants, 42.5% migrated to the capital Vientiane, according to a preliminary data source (Phetsiriseng, 2007).

The latest census identified 47 distinct ethnic groups in the Lao People’s Democratic Republic. Ethnic Lao comprise 52.5% of the total population.

Table 1-1  Population/demographic indicators, selected years (cont.)

<table>
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</thead>
<tbody>
<tr>
<td>Death rate, crude (per 1000 people)</td>
<td>16.8</td>
<td>13.2</td>
<td>10.6</td>
<td>8.6</td>
<td>7.2</td>
<td>6.3</td>
</tr>
<tr>
<td>Rural population (% of total population)</td>
<td>87.6</td>
<td>84.6</td>
<td>82.6</td>
<td>78.0</td>
<td>72.6</td>
<td>66.9</td>
</tr>
<tr>
<td>Female literacy (% of females age 15+)</td>
<td>NA</td>
<td>NA</td>
<td>47.9</td>
<td>58.5</td>
<td>63.2</td>
<td>NA</td>
</tr>
<tr>
<td>Female youth literacy (% of females age 15–24)</td>
<td>NA</td>
<td>NA</td>
<td>64.1</td>
<td>73.6</td>
<td>78.7</td>
<td>NA</td>
</tr>
</tbody>
</table>

NA: not available.  
and predominate in the lowlands, while ethnic minorities predominate in the highlands, though mixing is common. This ethnic diversity presents a major challenge to health-care delivery and education due to cultural and linguistic barriers. Health gaps are accentuated in the rural and highland areas, where poverty is highest, resulting in worse health indicators than in the lowlands. This is due to a number of factors, including remoteness, a lower level of education, less agriculturally productive land, and limited rural health services. In particular, women have lower literacy rates than men, and girls have lower school-completion rates than boys; however, female youth literacy is improving.

1.2 Economic context

The Lao People’s Democratic Republic has experienced significant economic growth over the last two decades. This has been less pronounced, however, in skills-based sectors and increased employment has had little impact on the overall structure of the workforce. The percentage of the population engaged in employment increased only marginally from 47% in 1995 to 49% in the 2005. To date, around 80% of the workforce remains engaged in subsistence agriculture and related activities (see Table 1-2). Lao people are highly dependent upon extractive processes for their livelihoods, such as foraging for non-timber forest products, fishing and traditional agriculture. Most rural people have skills that support agrarian livelihoods but do not meet the requirements of a modern economy. The quality of employment, labour productivity and earnings is low, resulting in poor standards of living. Thus, while it is not a labour-surplus country, the Lao People’s Democratic Republic faces the challenge of integrating its workers into the modern economy.

<table>
<thead>
<tr>
<th></th>
<th>1995</th>
<th>2005</th>
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<tbody>
<tr>
<td>Agriculture</td>
<td>81.3</td>
<td>77.8</td>
</tr>
<tr>
<td>Non-agriculture, of which:</td>
<td>18.7</td>
<td>22.2</td>
</tr>
<tr>
<td>-- Government</td>
<td>9.1</td>
<td>8.5</td>
</tr>
<tr>
<td>-- Private</td>
<td>9.6</td>
<td>13.7</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>


When assessed using the national poverty line, poverty reduction has been significant; official figures for the percentage of the population in poverty fell from 45.0% in 1992 to 33.5% in 2002, and to 27.6% in
2008. However, poverty incidence is much higher when the international standards of $1.25 and $2 a day purchasing power parity (PPP) were applied, showing that in 2008 33.9% of the population were living below $1.25 (PPP) and 66% were living below $2 (PPP). Despite good performance in reducing poverty, improvements in income distribution have stagnated and the Gini coefficient increased slightly from 30.4 in 1992 to 36.7 in 2008, indicating that the gap between the income share held by the richest 20% and the poorest 20% was widening. The richest quintile’s share increased from 40.1% in 1992 to 44.8% in 2008, while the lowest quintile’s share reduced from 9.27% to 7.64% in the same period (see Table 1-3).

Urban–rural disparities are pronounced. Poverty is higher in remote and highland areas and inversely correlates with road or river access; only 33.3% of rural areas have road access. Data on access to sanitation and electricity also underline the vulnerability of the rural population. For instance, the Lao Reproductive Health Survey 2005 (the latest available) found that while only 4% of urban households lacked access to electricity, over 40% of rural households had no electricity and 50% had no toilets (NSC, 2007). Use of improved drinking water sources is only 69.9%, according to the recent Lao Social Indicator Survey (LSIS/MICS/DHS 2011–2012; MOH & Lao Statistics Bureau, 2012).

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<tbody>
<tr>
<td><strong>Gini index</strong></td>
<td>30.4</td>
<td>34.9</td>
<td>32.6</td>
<td>36.7</td>
</tr>
<tr>
<td><strong>Income share held by highest 10%</strong></td>
<td>25.8</td>
<td>29.0</td>
<td>27.2</td>
<td>30.3</td>
</tr>
<tr>
<td><strong>Income share held by highest 20%</strong></td>
<td>40.1</td>
<td>43.3</td>
<td>41.6</td>
<td>44.8</td>
</tr>
<tr>
<td><strong>Income share held by lowest 10%</strong></td>
<td>4.16</td>
<td>3.39</td>
<td>3.78</td>
<td>3.34</td>
</tr>
<tr>
<td><strong>Income share held by lowest 20%</strong></td>
<td>9.27</td>
<td>8.02</td>
<td>8.57</td>
<td>7.64</td>
</tr>
<tr>
<td><strong>Poverty – % of population living below $1.25 a day (PPP)</strong></td>
<td>55.7</td>
<td>49.3</td>
<td>44.0</td>
<td>33.9</td>
</tr>
<tr>
<td><strong>Poverty – % of population living below $2 a day (PPP)</strong></td>
<td>84.8</td>
<td>79.9</td>
<td>76.9</td>
<td>66.0</td>
</tr>
<tr>
<td><strong>Poverty – % of population living below the national poverty line</strong></td>
<td>45.0</td>
<td>38.6</td>
<td>33.5</td>
<td>27.6</td>
</tr>
</tbody>
</table>


Annual gross national income growth (per capita) in the Lao People’s Democratic Republic has been impressive in recent years, reaching 8% in 2009. Annual gross national income (GNI) per capita increased consistently, growing from US$ 200 in 1990 (low-income status) to US$ 1010 in 2010 (lower-middle-income status) (see Table 1-4).
Net official development assistance (ODA) received peaked in the 1990s, reaching 17% of GNI in 1990 before gradually levelling off to 6.2% of GNI in 2010 (see Table 1-4). ODA further reduced as the country’s status was upgraded by the World Bank in 2011 to lower-middle-income country (World Bank, 2011a), challenging the Government to reduce reliance on ODA. Debt-servicing as a percentage of GNI gradually increased from 1% in 1990 to 4.5% in 2010, and is expected to continue to increase in the future.

The national budget deficit has declined as the fiscal space has improved. For example, government revenue excluding grants as a percentage of GDP increased slightly from 12.2% in 2006 to 14.4% in 2010, giving more room for government investment in health and education. It should be noted that tax revenue as a percentage of GDP also increased. Major public management reforms are in process, including improved efficiency in customs, duties and tax collection. Though tax revenue has not increased significantly with exports of hydropower, a major source of revenue, revenues from Nam Theun 2 (NT2) Hydroelectric Project and other investments are expected to increase substantially. However, new budget mechanisms, including State Audit Laws, have yet to be fully enforced and monitored.

Table 1-4  Key macroeconomic indicators, 1990–2010

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<tr>
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</thead>
<tbody>
<tr>
<td>GNI per capita, Atlas method (current US$)</td>
<td>200</td>
<td>360</td>
<td>280</td>
<td>460</td>
<td>510</td>
<td>620</td>
<td>760</td>
<td>900</td>
<td>1010</td>
</tr>
<tr>
<td>GNI per capita, PPP (current international $)</td>
<td>680</td>
<td>900</td>
<td>1150</td>
<td>1650</td>
<td>1770</td>
<td>1970</td>
<td>2110</td>
<td>2300</td>
<td>2400</td>
</tr>
<tr>
<td>GNI per capita growth (annual %)</td>
<td>NA</td>
<td>NA</td>
<td>1.2</td>
<td>7.4</td>
<td>3.6</td>
<td>8.2</td>
<td>4.9</td>
<td>8.0</td>
<td>2.9</td>
</tr>
<tr>
<td>Net ODA received (% of GNI)</td>
<td>17.1</td>
<td>17.5</td>
<td>16.9</td>
<td>11.3</td>
<td>11.1</td>
<td>9.7</td>
<td>9.6</td>
<td>7.4</td>
<td>6.2</td>
</tr>
<tr>
<td>Present value of external debt (% of GNI)</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>65.4</td>
</tr>
<tr>
<td>Total debt service (% of GNI)</td>
<td>1.0</td>
<td>1.4</td>
<td>2.4</td>
<td>5.0</td>
<td>5.6</td>
<td>4.7</td>
<td>4.0</td>
<td>3.9</td>
<td>4.5</td>
</tr>
<tr>
<td>Revenue, excluding grants (% of GDP)</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>12.2</td>
<td>13.2</td>
<td>13.5</td>
<td>14.2</td>
<td>14.4</td>
</tr>
<tr>
<td>Tax revenue (% of GDP)</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>10.5</td>
<td>11.6</td>
<td>12.1</td>
<td>12.8</td>
<td>12.9</td>
</tr>
</tbody>
</table>

NA: not available.
The Lao People’s Democratic Republic was ranked 133rd out of 182 nations on the Human Development Index in 2007. Literacy has improved in the last decade, attaining 73% adult literacy in 2005, compared with 60% in 1995. Schooling has also improved for children aged 6 to 16 years. While school attendance is improving, gender disparity remains an issue, with boys having a higher attendance rate than girls.

In response to rural poverty, the Government has extended additional services to the rural population. For example, to eliminate ‘slash-and-burn’ agriculture and opium cultivation in some areas, the Government has offered cash crop replacements and market opportunities, and encourages resettlement of villagers from remote highlands to lowland areas closer to roads and other essential public facilities. The resettlement policy has brought tremendous social and economic challenges to the newly 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 settlers’ reliance on traditional cultivation methods and non-timber forest products represents a major and persistent challenge; combined with increased environmental pressure, this has contributed to deterioration in their nutritional and health status.

1.3 Political context

The Lao People’s Democratic Republic was established in 1975. The National Assembly is the legislative body, while the executives are the president, the prime minister and the ministers. The Government operates under the guidance of the Lao People’s Revolutionary Party (LPRP) through the Party Congress, the Politburo and the Central Committee. Both the Party Congress and National Assembly operate on five-year terms; the ninth Party Congress took place in March 2011 and the most recent National Assembly election was held in April 2011, with competition among a group of LPRP-approved candidates and good participation by the population.

The National Assembly, as the main legislative organ, comprises 190 members, of which 113 are LPRP members (60%) and 47 are women (25%). The National Assembly re-elected Lieutenant General Choummaly Sayasone as president in June 2011, and at the same time a new prime minister, Mr Thongsing Thammavong, was appointed by the president for a five-year term, with the approval of the Assembly. The government structure comprises 18 ministries and 3 new ministry-level organizations.
1.4 Health status

Over the last three decades, health outcomes have improved significantly: life expectancy at birth increased by 18 years, from 49 to 67 years (see Table 1-5); child mortality reduced significantly; the total fertility rate reduced from 6.3 to 2.7; and the maternal mortality ratio (MMR) decreased from 530 (in 2000) to 357 per 100 000 live births (LSIS/MICS/DHS 2011–2012; MOH & Lao Statistics Bureau, 2012). However, there is still room for further improvement. For instance, under-nutrition is still high in children, with 44.2% of children under the age of five having low height for their age (stunting) and 26.6% having low weight for their age (underweight).

Table 1-5  Key health outcome indicators, 1980–2010

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<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy at birth, total (years)</td>
<td>48.8</td>
<td>54.3</td>
<td>58.2</td>
<td>61.4</td>
<td>64.5</td>
<td>67.1</td>
</tr>
<tr>
<td>Life expectancy at birth, female (years)</td>
<td>50.0</td>
<td>55.6</td>
<td>59.5</td>
<td>62.7</td>
<td>65.7</td>
<td>68.5</td>
</tr>
<tr>
<td>Life expectancy at birth, male (years)</td>
<td>47.6</td>
<td>53.1</td>
<td>57.0</td>
<td>60.2</td>
<td>63.3</td>
<td>65.7</td>
</tr>
<tr>
<td>Mortality rate, adult, female (per 1000 female adults)</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>226.0</td>
<td>194.0</td>
<td>166.9</td>
</tr>
<tr>
<td>Mortality rate, adult, male (per 1000 male adults)</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>268.2</td>
<td>233.5</td>
<td>207.2</td>
</tr>
</tbody>
</table>

NA: not available.

Figure 1.2 uses a spider web diagram to compare priority maternal and child health (MCH) indicators from the National Health Statistics Reports (NHSR) for fiscal years 2008–2009 and 2011–2012. Compared to child health services, the coverage of maternal health services is still low, especially delivery by skilled birth attendants (38% coverage) and delivery of the second dose of tetanus toxoid for pregnant women (less than 28%). The antenatal care (ANC) coverage (i.e. at least one visit) appears to have improved substantially (MOH, 2009; MOH, 2012a). However, data from the recent population survey (LSIS/MICS/DHS 2011–2012) show that only 36.9% of pregnancies have adequate ANC coverage (i.e. at least four visits), 41.5% are delivered by a skilled birth attendant, and 37.5% have an institution-based delivery. The rate of caesarean section is only 3.7%. This indicates that overall there is still room for improvement in maternal health services.
In general, coverage of children’s health services, such as the Expanded Programme on Immunization (EPI), has improved over time as seen both from the Ministry of Health (MOH) administrative data (i.e. from the NHSR) and from population survey data (i.e. the LSIS/MICS/DHS 2011–2012 and the Multiple Indicator Cluster Survey [MICS] 2006) [see Figure 1.3].

Compared to other countries in the WHO Western Pacific Region, routine vaccination coverage is still low. The Lao People’s Democratic Republic’s measles coverage is somewhat lower than other countries. Recently, the MOH launched a national measles campaign, exceeding the target when more than 2 million children aged 9 months to 15 years were immunized during the campaign period. It is notable that in recent years immunization activities have shifted to the Government, which has struggled to purchase vaccines due to the financial shortfall (vaccines are not produced domestically).

Figure 1-4 Measles vaccine coverage, Lao People’s Democratic Republic and countries in the region, 2012


Burden of disease

Representative population-based data on causes of mortality are not available in the Lao People’s Democratic Republic due to the limitations of the civil registration system, both in terms of the number of deaths and the accurate diagnosis of the cause of death. The only available mortality data are from hospital records (see Table 1-6).

The main cause of hospital mortality as reported in fiscal year 2010–2011 was acute respiratory infection (ARI). ARI was responsible for the highest number of deaths (113 cases), among which 49% (55 cases) occurred in children under the age of five. The next most common cause of mortality in hospitals was diarrhoea (50% of these cases were also in children under five), followed by malaria and dengue fever. These data, however, are limited due to incompleteness of reporting and coverage, as well as uncertain accuracy of recording the cause of death based on the ICD-10.
[International Classification of Diseases]. Furthermore, it should be kept in mind that these data do not represent the huge proportion of non-hospital-based mortality, where the causes of death were unknown.

**Table 1-6  Causes of mortality in hospitals, fiscal year 2010–2011**

<table>
<thead>
<tr>
<th>Main causes of mortality</th>
<th>Total</th>
<th></th>
<th>Under 5 years old</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Rate per 100 000</td>
<td>Number</td>
<td>Rate per 100 000</td>
</tr>
<tr>
<td>Acute respiratory infection</td>
<td>113</td>
<td>1.8</td>
<td>55</td>
<td>6.9</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>32</td>
<td>0.5</td>
<td>16</td>
<td>2.0</td>
</tr>
<tr>
<td>Dengue fever</td>
<td>7</td>
<td>0.1</td>
<td>2</td>
<td>0.3</td>
</tr>
<tr>
<td>Malaria</td>
<td>21</td>
<td>0.3</td>
<td>3</td>
<td>0.7</td>
</tr>
<tr>
<td>Other</td>
<td>1065</td>
<td>16.7</td>
<td>267</td>
<td>33.4</td>
</tr>
</tbody>
</table>

Source: MOH, 2012b.

Malaria is still considered an important contributor to morbidity and mortality, with 70% of the population at risk. However, recent efforts to combat the disease with support from The Global Fund to Fight AIDS, Tuberculosis and Malaria (‘the Global Fund’) have had a positive impact. Programme data showed that a total of 2.7 million people out of the 3.6 million who were deemed to be at risk were protected by bednets in 2005. The number of probable and confirmed malaria deaths in hospitals decreased from 187 in 2001 to 24 in 2010–2011 (including three deaths among children under five), while the annual incidence of confirmed malaria cases per 1000 population decreased to around 3, according to recent data. It should be noted that artemisinin combination therapy was introduced in 2004, following a local increase in resistance to antimalarial drugs.

Increased incidence of NCDs and traffic injuries are policy concerns; about 45% of mortality in people of all ages was attributable to NCDs. With the application of verbal autopsy, the Lao Health Survey in 2002–2003 (WHO, 2005) reported the top five causes of death among adults: (1) road traffic accidents and other types of injury, 9.6%; (2) ischemic heart disease, 7.5%; (3) stroke, 5.2%; (4) diarrhoea, 4.4%; and (5) tuberculosis, 2.5%. The population exposure to health risks such as tobacco and alcohol consumption, poor nutrition, physical inactivity and environmental hazards varied from 19.3% to 40.3%, with higher risks among elderly people and males. In terms of hospital admissions and outpatient visits, in addition to communicable diseases such as malaria and dengue fever, road traffic injuries also rank in the top 10 (see Table 1-7).
Table 1-7  Top 10 reasons for outpatient visits, fiscal year 2010–2011

<table>
<thead>
<tr>
<th>No</th>
<th>Code</th>
<th>Causes</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>J00</td>
<td>Common cold</td>
<td>261383</td>
<td>14.6%</td>
</tr>
<tr>
<td>2</td>
<td>J03.9</td>
<td>Tonsillitis, pharyngitis</td>
<td>187481</td>
<td>10.5%</td>
</tr>
<tr>
<td>3</td>
<td>K92.9</td>
<td>Digestive system</td>
<td>137414</td>
<td>7.7%</td>
</tr>
<tr>
<td>4</td>
<td>M79.2</td>
<td>Nervous system, non-psychiatric</td>
<td>107830</td>
<td>6.0%</td>
</tr>
<tr>
<td>5</td>
<td>J18.9</td>
<td>Pneumo-bronchitis</td>
<td>96204</td>
<td>5.4%</td>
</tr>
<tr>
<td>6</td>
<td>A09A</td>
<td>Diarrhoea, no blood, no severe dehydration</td>
<td>82265</td>
<td>4.6%</td>
</tr>
<tr>
<td>7</td>
<td>Z48.0</td>
<td>Minor surgery</td>
<td>62483</td>
<td>3.5%</td>
</tr>
<tr>
<td>8</td>
<td>V89.2</td>
<td>Road traffic injury</td>
<td>48684</td>
<td>2.7%</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>Gynaecological, obstetric</td>
<td>48627</td>
<td>2.7%</td>
</tr>
<tr>
<td>10</td>
<td>T14.9C</td>
<td>Trauma</td>
<td>47002</td>
<td>2.6%</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>Others</td>
<td>709734</td>
<td>39.7%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>1789107</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: MOH, 2012b.

Table 1-8 shows where the Lao People’s Democratic Republic stands compared with two other countries in the WHO Western Pacific Region: Cambodia and Viet Nam. The table synthesizes data from the World Bank’s World Development Indicators (WDI), including several key economic, poverty and inequity indicators in relation to health care. These three countries share a similar history of struggle due to prolonged periods of war. In 2008, most of the economic indicators are quite close across the three countries, with high GDP growth, a Gini index of between 35 and 38, and a similar level of concentration of income in the richest quintile as compared with the poorest quintile. Despite these similarities, the Lao People’s Democratic Republic has the highest level of poverty, with 33.9% of the population living on a daily income of less than US$ 1.25 (PPP) per capita, which is double the level in Viet Nam (16.9%). Viet Nam has the highest education performance, with a 92.8% adult literacy rate, while in the Lao People’s Democratic Republic this stands at 72.7%.

Viet Nam shows outstanding levels of health performance as measured by life expectancy at birth and measles immunization coverage, as well as per capita health expenditure, which was approximately double that of the Lao People’s Democratic Republic and Cambodia.
Table 1-8  Key health and development indicators, selected countries, 2008

<table>
<thead>
<tr>
<th></th>
<th>Cambodia</th>
<th>Lao People’s Democratic Republic</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economy, poverty and education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GNI per capita, PPP (current international $)</td>
<td>1960</td>
<td>2110</td>
<td>2740</td>
</tr>
<tr>
<td>GDP growth (annual %)</td>
<td>6.7</td>
<td>7.8</td>
<td>6.3</td>
</tr>
<tr>
<td>Poverty headcount ratio at $1.25 a day (PPP) (% of population)</td>
<td>22.8</td>
<td>33.9</td>
<td>16.9</td>
</tr>
<tr>
<td>Literacy rate, adult total (% of people age 15+)</td>
<td>77.6</td>
<td>72.7a</td>
<td>92.8b</td>
</tr>
<tr>
<td><strong>Inequity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gini index</td>
<td>37.9</td>
<td>36.7</td>
<td>35.6</td>
</tr>
<tr>
<td>Income share held by highest 20%</td>
<td>45.9</td>
<td>44.8</td>
<td>43.4</td>
</tr>
<tr>
<td>Income share held by lowest 20%</td>
<td>7.5</td>
<td>7.6</td>
<td>7.4</td>
</tr>
<tr>
<td><strong>Health</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life expectancy at birth, total (years)</td>
<td>61.6</td>
<td>66.2</td>
<td>74.4</td>
</tr>
<tr>
<td>Health expenditure per capita, PPP (constant 2005 international $)</td>
<td>107.0</td>
<td>93.6</td>
<td>185.7</td>
</tr>
<tr>
<td>Health expenditure, public (% of government expenditure)</td>
<td>10.6</td>
<td>5.9</td>
<td>7.8</td>
</tr>
<tr>
<td>Immunization, measles (% of children ages 12–23 months)</td>
<td>89.0</td>
<td>52.0</td>
<td>92.0</td>
</tr>
</tbody>
</table>


The status of the Lao People’s Democratic Republic in terms of the health-related Millennium Development Goals (MDGs) is shown in Tables 1-9a and 1-9b, demonstrating that the MDG 4, 5 and MDG 6 targets were on track to be achieved by 2015.
Table 1-9a MDG progress: baseline, 2005 and current status against the 2015 targets

<table>
<thead>
<tr>
<th>MDG 4, 5 indicators</th>
<th>Baseline</th>
<th>Census 2005&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Current status 2011&lt;sup&gt;c&lt;/sup&gt;</th>
<th>2015 target</th>
</tr>
</thead>
<tbody>
<tr>
<td>4: Reduce child mortality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1. Under-5 mortality rate (per 1000 live births)</td>
<td>170 (1995)</td>
<td>98</td>
<td>79</td>
<td>70</td>
</tr>
<tr>
<td>4.2. Infant mortality rate (per 1000 live births)</td>
<td>104 (1995)</td>
<td>70</td>
<td>68</td>
<td>45</td>
</tr>
<tr>
<td>4.3. Proportion of 1-year-old children immunized against measles [%]</td>
<td>41.8 (2000)</td>
<td>40.4</td>
<td>55.3</td>
<td>90.0</td>
</tr>
<tr>
<td>5: Improve maternal health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1. Maternal mortality ratio (per 100 000 live births)</td>
<td>530 (2000)</td>
<td>405</td>
<td>357</td>
<td>260</td>
</tr>
<tr>
<td>5.2. Proportion of births attended by skilled birth personnel</td>
<td>14 (1994)</td>
<td>21.1&lt;sup&gt;b&lt;/sup&gt;</td>
<td>42.0</td>
<td>50.0</td>
</tr>
<tr>
<td>5.3. Contraceptive prevalence rate</td>
<td></td>
<td></td>
<td>49.8</td>
<td>55.0</td>
</tr>
<tr>
<td>5.4 Antenatal care coverage rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- at least 1 visit</td>
<td>-</td>
<td>-28.5&lt;sup&gt;b&lt;/sup&gt;</td>
<td>54.2</td>
<td>60.0&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>- at least 4 visits</td>
<td>-</td>
<td>-</td>
<td>36.9</td>
<td>40.0</td>
</tr>
</tbody>
</table>

Sources:
<sup>a</sup> National Statistics Centre, 2005.
<sup>b</sup> MNCH Strategy 2009–2015.
<sup>c</sup> MOH & Lao Statistics Bureau, 2012.
### Table 1-9b Assessment of MDG progress

<table>
<thead>
<tr>
<th>MDG</th>
<th>Targets</th>
<th>Seriously off track</th>
<th>Off track</th>
<th>On track</th>
<th>No target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 4: Child mortality</td>
<td>Reduce mortality in children under 5 years of age by two thirds</td>
<td></td>
<td></td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>Goal 5: Maternal health</td>
<td>Reduce maternal mortality by three quarters</td>
<td></td>
<td></td>
<td>•</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Universal access to reproductive health</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goal 6: HIV/AIDS, malaria and other diseases</td>
<td>Halt and reverse the spread of HIV/AIDS</td>
<td></td>
<td></td>
<td>•</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Achieve universal access to HIV/AIDS treatment</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Halt and reverse the spread of malaria</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Halt and reverse the spread of TB</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chapter 2: Organization and governance

Chapter summary
The health-care delivery system in the Lao People’s Democratic Republic is a government-owned system with three administrative levels: central (Ministry of Health, or MOH), provincial (provincial health offices, or PHOs) and district level (district health offices, or DHOs). There is a large primary health care (PHC) network of health workers, with providers ranging from staff in district hospitals or health centres to large numbers of village health workers (VHWs) or ‘volunteers’. The structure of the health sector is organized among the MOH, 17 PHOs, the University of Health Sciences and 7 provincial colleges/schools, in addition to 4 central hospitals, 4 regional and 12 provincial hospitals, and many DHOs and district hospitals, with health centres and village drug kits providing the primary level of services.

Health sector development is implemented according to two types of national health plan: the medium-term five-year health sector development plan and the annual operational plan. The MOH is responsible for formulating national health plans. In alignment with the 2006 Vientiane Declaration on Aid Effectiveness, a Sector-Wide Coordination (SWC) mechanism for health furnishes a platform for the MOH, in partnership with all stakeholders, under the single-sector policy for the improvement of the health status of the people. Decentralization has been implemented but there is a need to streamline this process and to improve management capacity, including budgeting and planning at the central and provincial levels. In the last 10 years positive efforts have been made with regard to health-care regulations and legislation, though implementation of these initiatives is in its early stages or not yet started. A policy aimed at improving the quality of private health services through accreditation and licensing has yet to be fully implemented. The emerging private-sector providers are currently only loosely regulated by the Government, and there is dual practice.
Though the health information system (HIS) continues to improve, challenges remain in relation to further improvement of the routine information system, the move from a paper-based to a computerized system, and roll-out of the vital and civil registration system. The private sector is not covered by the national HIS. The use of health information for planning is still weak. The capacity for health technology assessment to guide cost-effective investments in health is limited.

The Ministry of Finance is the account holder of the projects, while the Ministry of Home Affairs allocates the quota of health workers. Requests have been increasing for the MOH to have more governance and decision-making space in relation to increasing the quota of health workers and improving the retention of health workers serving in rural areas.

2.1 Overview of the health system

The health-care delivery system in the Lao People’s Democratic Republic is historically a predominantly public system, with government-owned and -operated health centres and district and provincial hospitals. The private health sector has emerged recently along with increasing demand for better services; public facilities are perceived as substandard.

Administratively, the health system is divided into three levels: central (Ministry of Health, or MOH), provincial (provincial health offices, or PHOs) and district level (district health offices, or DHOs). With respect to service delivery, there are officially four levels of organization in terms of service providers: (1) central-level providers (hospitals) managed directly by the MOH; (2) provincial-level providers, managed by the PHOs; (3) district-level providers, managed by the DHOs; and (4) community-level providers (health centres), also managed by the DHOs. At the village level, there are a large number of village health volunteers (VHVs), members of community health committees, and traditional birth attendants.

The most common problems facing the service delivery system are the excessive patient load at the central and provincial levels, and the under-use of district- and community-level facilities. Patients prefer to use central and provincial hospitals.

Central level

The MOH, a national health authority, manages and organizes services, including health prevention and promotion, curative care,
and rehabilitation. It also has regulatory functions over food and drug safety, traditional medicine, and supplies of pharmaceutical and medical equipment. The MOH also manages health information, human resources for health, health financing, and international health cooperation. The administrative apparatus of the MOH includes the Ministry’s Cabinet and nine departments. In addition, the MOH has 40 institutions in three major areas: (1) hospitals, (2) preventive and curative medicine national centres, and (3) medical colleges and universities.

**Provincial level**

A PHO is an agency under the jurisdiction of the provincial government, headed by the governor. The PHO advises the governor on health affairs in the province, provides budget for provision of health services, and performs tasks as authorized by the governor. The PHO works under the control of the governor in terms of direction, organizational management, payroll and operations, but is also under the control of the MOH in terms of technical direction, guidance, monitoring and inspection.

The PHO administrative structure includes a cabinet, professional and technical divisions, and health-care facilities. It is also responsible for health audits to district hospitals and health centres. Currently, there is one Capital Health Office (responsible for the capital city, Vientiane) and 16 PHOs with 16 provincial hospitals.

**District level**

The DHOs supervise the services of the district hospitals and health centres. Each DHO works under the control of the district mayor in terms of direction, organizational management, payroll and operations (in cases where budget has been allocated from the MOH, including external donor assistance for several vertical programmes). However, DHOs are also under the control of the PHOs for technical direction, guidance, monitoring and inspection. At the district level there are district hospitals (including outreach activities) and district units for preventive medicine, such as mother and child health (MCH), immunization, and hygiene and prevention units.

In 2005, the Government designated the DHO as the public health unit responsible for both preventive and curative services at the district level. Each district with a population ranging from 30 000 to 80 000 has one district hospital. The district hospitals admit patients for basic treatment
services, including for common diseases, as well as for emergency

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Do not hallucinate.

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services, including for common diseases, as well as for emergency
treatment. District hospitals have been divided into two categories: type
A, with capacity to provide surgery requiring anaesthesia (though lack
of staff limits the capacity to provide surgical services at this level); and
type B, with more limited capacity to provide minor surgery. By the end
of 2010, there were 18 type A district hospitals and 109 type B district
hospitals [MOH Decree No. 2312, 30 December 2009]. These figures may
change after reassessment of capacity for surgery.

Health centres and other village-based health services

Health centres are the first level of government health facilities and they
provide primary health care (PHC) services. The functions of the health
centres include prevention, health promotion, and the diagnosis and
treatment of diseases within their capacity. Like hospitals, health centres
manage revolving drug funds (RDFs) to sustain services. Under the
supervision of the DHO, health centres supervise and monitor VHVs and
coordinate between the village and district levels.

The village health committee selects and supervises the VHVs, usually
two or three people per village, who receive three months of training.
The VHVs mainly provide basic curative care and, in some villages that
are far from health centres, run an RDF. Other village-based health-care
providers include private-sector providers with limited experience or
qualifications in health care. Peer educators are volunteers who provide
health and nutrition education. Trained birth attendants, present in a few
villages, assist with deliveries and give advice on safe delivery practices.
Traditional healers, according to the health policy, provide services that
complement modern medicine. All are expected to promote good hygiene
and sanitation.

The network of PHC facilities is considered a grassroots-level network
and covers all districts and communities. By the end of 2010, the
Lao People’s Democratic Republic had 143 districts and 860 health
centres serving more than 6.2 million people. The number of health
centres continues to increase annually due to the need to provide PHC
facilities for newly established groups of villages that are near to each
other. Currently, nearly all village groups have a health centre. Apart
from public health facilities, the private health sector is also involved
in delivering PHC, such as by providing curative treatments through
private clinics and pharmacies. The availability of traditional healers and

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traditional birth attendants, has also limited the acceptance and usage of public sector health-care facilities.

**Figure 2-1 Organization of the health system in the Lao People’s Democratic Republic, 2013**

![Organization of the health system in the Lao People’s Democratic Republic, 2013](image)


### 2.2 Historical background

The Lao People’s Democratic Republic gained independence in 1975, after a long period of war, which had adversely affected the health and well-being of the people. In the post-war environment, health policy was designed to ensure universal access to health services, especially...
for women, children, and ethnic populations in remote areas. The Government focused on disease prevention, attempting to avert epidemics and improve the public health network from the central level to the grass-roots level. Though health services were fully funded by the Government and provided free of charge, there were serious fiscal constraints. In 1988, less than 5% of the total government budget was allocated to health. Salaries of health workers were low, there were shortages of essential drugs and medical supplies, and infrastructure had deteriorated. There was a lack of confidence and trust in public health services and it was not uncommon for vacant health worker posts to remain unfilled. Health workers established informal private medical practices to supplement their meagre incomes.

Starting in 1987, the Government designed a strategy for renewal to address the economic crisis. The ‘New Economic Mechanism’ was based on market mechanisms to achieve sustainable growth and development (Phommasack et al., 2005). Key features included liberalization of the agricultural sector, protection of private property rights, and export-led production. These major economic reforms provided the impetus for reforms in the health sector. Three main components of the health reforms included: (1) legalization of private medical practice; (2) liberalization of the pharmaceutical industry; and (3) introduction of user fees and revolving drug funds (RDFs) at public health facilities. These changes transformed a free but inadequate health delivery system into a decentralized and market-oriented system.

User fees were introduced at government health-care facilities in 1996 through Prime Ministerial Decree No. 52/PM (1995). These fees include charges for all services, such as lab tests, diagnostics, medicines and inpatient charges. Hospitals were to keep 80% of the revenue and send 20% to the provincial or district finance department as general revenue. Decree No. 230 in 1997 further expanded the RDFs by charging patients for drugs at cost plus 25%, in order to ensure that the stock of medicines could be replenished. At the same time, the Government awarded licences to private pharmacies to improve the availability of medicines. Over 2000 private pharmacies are now operating in the country.

User fees had an impact on the utilization of health services by the population, particularly the poor; people delayed seeking services or resorted to self-medication. Some have argued that these reforms have had adverse consequences for access, efficiency and equity. According
to Prime Ministerial Decree No. 52/PM (1995), the poor and other groups were supposed to be exempt from paying these user fees at public health facilities. In practice, however, there appeared to be few exemptions provided at these facilities due to the financial constraints they were working under. There is no budget line to subsidize services for those who are exempt from the user fees and so hospitals have no incentive to uphold the exemption criteria.

Despite the Government’s commitment to equitable and inclusive growth, the benefits of economic reform have not been distributed evenly across the population; economic and social disparities have widened. There is a threat that the country’s health gains could be reversed if the health system is not redirected to prioritize the provision of health services that are cost-effective, high quality and accessible to all who need them.

The Government has recognized the problems with the current situation and has begun to create a social safety net through a range of social protection schemes. There are four prepayment schemes that were gradually launched in the 2000s: (1) Social Security Organization (SSO) for private employees as part of a comprehensive social security scheme that is mandatory by law; (2) State Authority for Social Security (SASS) for civil servants; (3) Community-Based Health Insurance (CBHI) for non-poor workers in the informal sector; and (4) a Health Equity Fund (HEF) for the poor (see Chapter 3).

However, the public health system is seriously under-financed and requires more government resources, as reliance on donor resources is not sustainable. Furthermore, since the Lao People’s Democratic Republic has recently had its status upgraded from a low-income country to a lower-middle-income country, grants from donors are expected to end. More funding for health should be accompanied by the establishment of a system that provides increased value for money (WHO, 2010a).

2.3 Organization

Ministry of Health

The MOH, as the national health authority, is responsible for the governance and overall guidance of the health sector. In line with government policies, the MOH drafts and approves sectoral policies and implements programmes that aim to improve the health of the population.
There are nine departments (not including the Cabinet): Hygiene and Prevention; Curative; Organization and Personnel; Planning and Finance; Food and Drugs; and Inspection. Recently, three new departments were also established: Communicable Disease Control (CDC), Finance, and Training and Research (under Prime Ministerial Decree No. 178/PM, 5 May 2012, on Organization and Activities of the MOH). The MOH has a national steering committee for health that oversees all MOH activities. The PHOs and DHOs are based at the local government offices. Most of the country’s hospitals are public hospitals. Professional guidance as well as the budget for these provincial and district health offices and public hospitals is provided by the MOH.

Other key functions of the MOH include setting norms and standards, regulatory functions, and law enforcement under its jurisdiction, licensing private health facilities, management and distribution of human resources for health, and monitoring and evaluation of health policies. It should be noted that the MOH also plays a significant role in training the health workforce; health professionals at the University of Health Sciences in Vientiane and the seven provincial health colleges are under the jurisdiction of the MOH, since this responsibility was transferred from the Ministry of Education in 2007.

**National Assembly**

Under the constitution, the National Assembly is the highest national body empowered to draw up and adopt new laws, to amend the constitution and laws, and to legislate and implement state plans and budgets. Through its constitution-making powers, it defines its own role and the roles of the Government and the People’s Supreme Court. The Assembly elects and removes the prime minister, the ministers, the chief judge of the People’s Supreme Court, and the prosecutor general of the Offices of Public Prosecution. Finally, it has the power to initiate or conclude wars and to assume other duties and powers it deems necessary. Each session of the National Assembly has a term of five years, at the end of which a general election of members is held. The Assembly usually convenes two meetings a year; additional meetings can be called by the president.

**Government of the Lao People’s Democratic Republic**

The Government of the Lao People’s Democratic Republic is entrusted by the constitution with managing and implementing the governmental activities of the State. The constitution charges “the Government ...
[as] the highest executive and administrative state body of the highest body of state authority”. It is accountable to the National Assembly, and, more directly, to the president. The Government’s duties include: submitting draft laws, decrees, and other bills to the National Assembly and president; drafting state plans and budgets and implementing them, following approval of the National Assembly; managing the development of the national economy; and organizing and managing the Government’s foreign relations. Its membership includes a prime minister, deputy prime ministers, and cabinet ministers. The secretariat of the Government Council includes government ministers. Each ministry is headed by a minister, who is assisted by two to four vice ministers. The number and functions of the ministries are prescribed in the Prime Ministerial Decrees.

**Ministry of Finance**

The Ministry of Finance (MOF) is responsible for the overall fiscal policy and sectoral allocations of the annual recurrent budget, while the Ministry of Planning and Investment (MPI) is responsible for capital budget allocation. Prior to decentralization in 2000, the MOH’s central and provincial health budgets were prepared at the central level. Since decentralization, the extent to which the devolved formal assignment of local government responsibilities is adhered to in practice depends on the province, on the type of expenditure, on the capacity of district planning units, and on the preferences of provincial authorities. Although the PHOs play a major indirect role in developing the annual budget in each province, the MOF, rather than MOH, is the central-level account holder of projects.

**Ministry of Planning and Investment**

The MPI is responsible for the overall public investment framework and for sectoral allocations of the capital budget. Public investment in the health sector is carried out within the framework established by the MPI, and under the responsibility of MOH Department of Planning and Finance. Budgeting is carried out within the framework of directives from the MOF. In the preparation of socioeconomic development plans, the Government determines the priority development areas for local administrations (villages, districts and provinces), which guide the respective sectoral development plans.
Other ministries
The Ministry of Home Affairs (MHA) is responsible for the overall number of civil servants and sectoral allocations of quotas, including the annual number of posts for recruitment of health personnel. The size of the health workforce is in line with the framework established by the MHA, and under the responsibility of the MOH Department of Organization and Personnel. Long-term plans and strategies relating to the health workforce are developed by the MOH under the direction of the Government and the MHA.

The Ministry of Labour and Social Welfare (MOLSW) is responsible for the social securities schemes for the formal sector, i.e. SASS for civil servants and SSO for private-sector employees. The main mission of the MOLSW is to create conditions for efficient and fair job opportunities, to ensure the well-being of workers, and to improve the social protection schemes available to them.

The Ministry of Defence and the Ministry of Public Security manage and supervise the organization and administration of the military hospitals and the police hospitals, respectively. The budget and administration of these hospitals are provided by the respective ministries.

Private health sector
The private health sector is expanding. Favourable economic growth in the 2000s has seen the number of private facilities rise in urban areas, with over 2132 private pharmacies, 600 traditional medicine practitioners and about 222 private clinics. These are mostly owned by public health staff and offer services after office hours and on weekends. Additional private clinics are under construction; some are named ‘hospital’ for marketing purposes. Implementation and enforcement of regulations is challenging; most senior health workers in public settings are also directly or indirectly involved in private health practices after their official working hours, creating conflicts of interest.

Nongovernmental organizations and civil society organizations
Mass organizations, like the Lao Women’s Union, the Lao Red Cross and faith-based organizations, are involved in specific health activities, especially health promotion and prevention at the grass-roots level. There are many international nongovernmental organizations (NGOs) working in the health sector. Recently the Government approved a law allowing the
establishment of local NGOs. International NGOs need to register with the Ministry of Foreign Affairs, while civil society organizations (CSOs) need to register with the Ministry of Home Affairs. In general, the work of these international NGOs is less prominent than in the 1990s, after a major shift towards loan and grant programmes and an expansion of multilateral and bilateral cooperation. Professional associations, such as the Lao Medical Association and the Lao Dental Association, are still in their infancy and their contribution to strengthening the capacity of health workers remains limited. There is one patient group known as ‘People living with HIV’, which actively carries out awareness-raising and supportive activities, financed mainly by the Global Fund.

**International partners**

The Lao People’s Democratic Republic is substantially dependent on official development assistance (ODA) for financing public investment. International partners through ODA also provide necessary technical inputs for development activities, including in the health sector. In the immediate term, it is essential that external aid is effectively coordinated and managed, and that its use is optimized. In the medium to long term, it is essential to ensure sustainable economic growth, develop an enabling environment for the private sector, and undertake financial reforms to support those efforts. It is also important that revenue collection issues are addressed in order to reduce aid dependency, regain national control of budgetary processes and ensure national ownership of development activities. There is fragmentation among donor-supported health programmes and, more importantly, among departments.

**2.4 Decentralization and centralization**

Since the Lao People’s Democratic Republic was established in 1975, the country has gone through various periods of transition between centralized and decentralized governance.

In 1975, all administration was centralized. Central ministries allocated their annual resources, formulated national plans, developed and managed budgets for their respective sectors. Provinces were required to remit local tax revenues to the central government, which in return allocated an annual budget to the provinces according to their needs. Provincial and district authorities merely implemented plans and administered budgets received from central ministries.
In 1985, the Government implemented a series of integrated reforms intended to improve productivity in all public sectors, including health. Lack of skilled manpower and financial resources in the central government, plus a policy urging local authorities to be self-sufficient and self-reliant, put serious pressure on the central government to decentralize all sectors to the provincial level.

After 1987, the central government delegated to provincial government responsibility for tax collection, public administration and provision of all public services. The provinces took over planning, financing and provision of health services, only informing the MOH about their activities. Because of economic differences across the country’s 17 provinces, health resources were unequally distributed between the richer and poorer provinces. Some provinces generated high revenues and were able to spend more while the poorer provinces generated low revenues and spent less. Several market mechanisms were introduced, some drug factories and pharmacies were privatized, and physicians received permission to operate private practices after working hours. However, this unregulated market raised policy concerns, including poor coordination among stakeholders and a high proportion of out-of-pocket (OOP) expenditure.

In the 2000s, the government established regulations and a coordination mechanism to rectify the issues that arose from the earlier reforms. Provinces and districts are now responsible for the delivery of most services including education, health, transport infrastructure and rural development. Provincial governors play a very important role in public financial management, and budget resource flows are horizontal instead of vertical. District and provincial offices collect and retain all revenues within the areas assigned to them and these offices use the revenues to fund their budget expenditures. Provinces that collect tax revenues have the ability to negotiate how much tax revenue they will remit to the central government and how much they will retain for local use.

Budget allocations depend mainly on negotiations between provincial and central governors, with each provincial annual operational plan (AOP) being approved by the MOH. The budget also depends on provincial fiscal capacities, ability to collect tax, imports and exports, and the economic environment. Although the National Assembly determines the indicative benchmark of budget allocation for the education and health sectors, the allocation of resources to different sectors at the provincial and district levels is up to the provincial governors rather than the central ministries.
Therefore, the amounts spent on each sector vary substantially across rich and poor provinces. With regard to the sub-national administration, the provinces essentially mimic the centre. District or provincial administrations with deficits (districts or provinces) can receive a transfer of funds from the Ministry of Finance.

Essentially, the MOH and the provincial governors prepare their budget proposals for the health sector, which are submitted to the MOF and the MPI during February and March each year. In the case of provincial capital budgets, the MOH is usually well-informed about donor-financed investments but it typically receives little advance information about locally funded health investments proposed by provinces. The MOH plays a role in allocating central-level budget for central hospitals, national programmes, and for each MOH department.

Local governments have little flexibility in preparing their recurrent budgets for the health sector. Provincial recurrent health budgets are closely linked to the number of personnel assigned by the MOH to both province- and district-level administrative offices and to various health facilities. The allocation of non-personnel components of the recurrent health budget is driven mainly by previous allocations as well as by MOF budgeting norms. Since non-personnel recurrent costs are limited, there is little scope for bottom-up planning of recurrent health budgets. Most health facilities finance some of their recurrent expenses from user fees and revolving drug funds. The income earned from RDFs, which differs substantially among districts, is extra-budgetary and is not taken into account in annual budget plans. Additionally, all provincial, district and sub-district health facilities receive direct support for recurrent expenditures through donor assistance, which is not considered as a resource during budget preparation.

2.5 Planning

Work in the health sector is implemented according to two types of national health plan: a five-year health sector development plan and annual operational plan. There are three cycles of planning in the health sector: short-term (annual plan), medium-term (five-year plan; the current one is 2011–2015) and long-term (‘master plan’ to 2020), which are synchronized with the annual National Socio-Economic Development Plan (NSEDP), the five-year NSEDP, and the long-term National Growth and Poverty Eradication Strategy (NGPES) respectively. Plans are also developed at the subsector level.
During the period of early economic reforms in 1987, provinces set up their own rules and regulations, although policies were not clearly stated. PHOs followed the directions from provincial governors, who were not trained in health matters. Policies for districts were established by the provinces. PHO officials perceived that health-related rules, regulations and decision-making depended on the provincial governors. Provincial health budgets did not distinguish between curative and preventive services, or between provincial hospitals and community health centres. Under decentralization, the MOH had no mechanism for monitoring provincial activities. Insufficient budgets led to a reduction of work hours for physicians.

The MOH is responsible for formulating national health plans. Currently, each year the MOH convenes a national health conference, with all provincial health directors, to summarize achievements of the previous year and to make plans for the next year and for the next five years.

The Department of Planning and International Coordination at the MOH is responsible for coordinating development of the MOH’s Health Sector Development Plan (HSDP). Development of the HSDP must be synchronized with the planning process for the Government’s National Socio-Economic Development Plan (NSEDP), in order to provide health-sector inputs. The Department of Planning and International Coordination has a team of technical experts who prepare an initial draft overview of the HSDP, and this document is then used for the strategic planning process.

The HSDP must be based on the Government’s and the MOH’s existing long-terms goals, policies, directions, targets and strategies, and must take into consideration any current challenges and constraints facing the health sector. Consequently, the Planning Division under Department of Planning and Internal Coordination bases the initial draft overview of the HSDP on a thorough review of current policies and strategic planning documents at the national and sectoral levels.

The planning process is very similar to the process of preparing a budget request. Preparation of the HSDP starts at the district level, where health centres make informal requests for resources but are not actively involved in the formal procedures for developing the HSDP. Most health centres do not prepare or submit plan proposals to DHOs or discuss the annual plan with DHOs. The links between health centres and DHOs in the planning process are weak.
DHOS in each province receive guidance and instructions from the PHO on health planning as well as estimated targets for the current year, and details of actual and proposed activities during the previous fiscal year as a basis for future planning. However, DHOS understand that the proposed plan is likely to differ from the approved budget. Each DHO prepares an annual plan and submits proposals to the PHO for approval and to the District Planning Office (DPO) for official acknowledgement.

Each PHO consolidates the plans received from the DHOS in their province and submits a budget proposals to the MOH and the Provincial Planning Office (PPO).

The PP0s receive health plan proposals from PHOs and DPOs and then submit provincial plan proposals, which include health plan proposals, to the Ministry of Planning and Investment (MPI). The MPI then consolidates provincial and central plans into the NSEDP to be submitted to the Government and the National Assembly for final approval.

The MOH receives information from PHOs and consolidates this with the initial draft overview of the HSDP prepared at the central level to develop the final HSDP to be submitted to the Government and the National Assembly for final approval.

Figure 2-2 Steps of the national health planning process

Source: Asia Pacific Observatory on Health Systems and Policies
A Health Planning and Financing Technical Working Group (TWG-H. Fin.) was created at the end of 2007 as a government–donor platform to facilitate coordination and dialogue. The purpose of the TWG-H.Fin. is to “ensure sustainability in health financing and social protection in order to maintain the basis for equitable and fair access to health services through universal coverage”. The participating actors include international partners, civil society and the MOH. Some of the tasks of the TWG-H.Fin. include: supporting the Government to prepare, debate and draft strategic documents related to health financing and planning, including costing studies, guidelines and regulations; exchanging information between partners active in health financing and planning; and improving sector-wide coordination.

2.6 Intersectorality

Sector-wide coordination (SWC) mechanisms in the health sector have been developed in alignment with the 2006 Vientiane Declaration on Aid Effectiveness. The SWC mechanism in health aims to enable stronger leadership by the MOH, in partnership with all stakeholders in health, under a single sector-wide policy for the improvement of health overall. SWC will support the strengthening of the country’s health system by moving the health sector towards programme-based approaches (PBAs) for achieving the goals of the seventh five-year HSDP.

In the past, the results of development efforts have often been disappointing due to the fragmentation of projects implemented without harmonization across donor programmes. The MOH’s SWC mechanism aims to overcome this issue by engaging in development cooperation based on the principle of coordinated support for a locally owned programme of development. The SWC mechanism prioritizes: (1) leadership by the host country; (2) a single comprehensive programme and budget framework; (3) a formalized process for donor coordination and harmonization of donor procedures; and (4) efforts to increase the use of local systems.

In 2006 the MOH, in collaboration with donor programmes, began to establish and operationalize an SWC mechanism. The initial structure of the SWC and terms of reference (TOR) for all components was developed in 2007 and revised in 2011. Building on the established mechanism, the MOH focuses on strengthening its capacity to take leadership in enhancing and implementing the SWC mechanism. In addition, the MOH
has introduced the SWC mechanism at the provincial and district levels and has further improved communications and information-sharing with donor programmes. A common monitoring tool is being developed to better monitor the progress of the implementation of the seventh five-year HSDP.

### 2.7 Health information management

#### 2.7.1 Health Information systems

The MOH’s Division of Statistics was established in 2001. Implementation of a facility-based national health management information system (HMIS) was adopted in 2004; the national Health Information Systems Strategy Plan (HISSP) [2009–2015] was launched in 2009. The MOH’s Department of Planning and International Cooperation consolidates the HMIS data, which is collected monthly through health facilities, at the DHOs and PHOs on a quarterly basis. The data collected includes key indicators related to maternal and child health (MCH), morbidity and mortality, and inpatient and outpatient service utilization. Facility-level HMIS data are still paper-based. A Microsoft Excel-based consolidation is used at the district and provincial levels. Fiscal year 2009–2010 saw the first annual National Health Statistics Report publication using consolidated national data that had been collected through the HMIS (MOH, 2010a). This was a significant achievement for the HISSP.

The MOH is committed to further strengthening the national HMIS. The health sector requires a system that can provide timely and accurate data for evidence-based policy- and decision-making. The strategic goals of the government HMIS system are to: rationalize and integrate district and provincial data where appropriate into one national health information system; develop the collection of vital data; improve the quality and management of data; and effectively use the data for monitoring and evaluation of the progress of health sector reforms.

Although vital registration has been legally required by the Family Registration Law since 1991, this has not been implemented. The Government passed Prime Ministerial Decree No. 140/PM on Structure and Activity of the National Statistics System in 2002. One of the health sector reform areas is concerned with the establishment of an effective health information system, and civil registration and collection of vital statistics is an important component of this, in addition to the standardization and computerization of the health information. By piloting
procedures for birth, death and cause-of-death registration in selected areas and health facilities, it is hoped that in cooperation with other departments (such as the Ministry of Home Affairs) a nationwide, unified system will eventually be rolled out.

2.7.2 Health technology assessment

The MOH has launched the health technology policy, under which health technologies are to be regulated by the Medical Product Supply Centre. This national body produces technical specifications and provides training for users of these medical products (WHO, 2010b). However, allocation of medical technologies to different health facilities is the responsibility of the Department of Health Care.

A medical device procurement guideline is available, and national lists of recommended medical devices for specific procedures have been developed.

2.8 Regulation

The MOH plays a stewardship role in the regulation of the health sector at the national level.

2.8.1 Regulation and governance of third-party payers

Third-party payers exist only in formal social security schemes, such as the SASS and SSO, operated under the governance of the Minister of Labour and Social Welfare. The relevant regulatory framework is described under Prime Ministerial Decree No. 207/PM (1999) on Social Security System for Workers in Enterprises, and in the Law on Labour (1994).

The SSO is governed by the Board of Directors, which oversees its operations.

2.8.2 Regulation and governance of providers

The Law on Health Care, which regulates both health professionals and health facilities, was adopted by the National Assembly in 2005 (MOJ & National Assembly, 2005). This Law recognizes that all citizens have the right to health care. It describes the structure of health-care administration under the MOH at the central level, as well as the PHOs
and DHOs. The Medical Profession Council acts as the secretariat for the MOH in regulating the activities of health-care professionals. There is still room to strengthen the implementation of health services as well as consumer protection.

2.8.3 Registration and planning of human resources

The 2005 Law on Health Care determines the required qualifications, responsibilities, rights and ethical conduct of health-care professionals. The Medical Profession Council and the MOH’s Department of Health Care are responsible for regulating and governing health-care professionals. Health-care professionals are licensed by the MOH to practise after verification and approval by the Medical Profession Council.

For the planning, training, allocation and management of health-care professionals, the MOH Department of Organization and Personnel follows the strategy on human resources for health (MOH, 2010b). Human resources are an important component in the current health-sector reform, with the aim of increasing quotas for health personnel, addressing deployment in rural and remote areas, as well as introducing a licensing system.

2.8.4 Regulation and governance of pharmaceuticals

The Law on Drugs and Medical Products was adopted in 2000 (MOH & National Assembly, 2000). It determines the principles, rules and measures relating to the manufacture, import, export, distribution, sales, possession and utilization of drugs and medical products. It ensures the quality, safety and affordability of drugs and medical products. The Law requires the MOH to develop the list of drugs approved for sale within the country and a list of controlled and restricted drugs. The drugs are further categorized into those that require prescription, those controlled by pharmacists, over-the-counter drugs, and toxic or illicit drugs. In addition, the Law regulates the pharmaceutical industry, pharmacists, drug advertisements, pricing and clinical drug trials.

According to the Law, the National Committee for Food and Drugs Management and the MOH’s Food and Drug Department are responsible for regulating and governing all drugs, the pharmaceutical industry, and pharmacists.
2.8.5 Regulation of medical devices and aids

The Law on Drugs and Medical Products also covers the regulation of medical products including medical devices and aids. The MOH’s Food and Drug Department and the Medical Products Supply Centre (MPSC) are responsible for regulating and governing medical devices and aids. The Department has developed a National Policy on Medical Equipment Management, which was disseminated in 2003. The policy provides directions for cost-effective use of medical equipment through efficient selection, procurement, supply and maintenance of medical equipment at different levels of health facilities.

2.8.6 Regulation of capital investment

Capital investment is regulated under the Law on Investment and related regulations determined by the Ministry of Planning and Investment (MPI). The MOH and the district and provincial health offices need to develop the capital investment proposals to be submitted to the respective planning and investment offices. All proposals for the health sector are reviewed and consolidated by the MPI and then submitted to the Government and the National Assembly for approval. There is political and donor pressure to accept capital investment for high-end facilities, although the recurrent budgets lack the funds to operate them. Better infrastructure planning may help to balance this situation.

2.9 Patient empowerment

2.9.1 Patient information, choices and rights

According to the Law on Health Care, all citizens are entitled to health care when they are ill and patients have a range of rights related to this care (MOJ & National Assembly, 2005). However, there are problems with realizing these rights.

The Law clearly states that health-care professionals have an obligation to inform patients of results, risks and consequences of examinations and treatments. Health-care professionals are to immediately refer the patient to other health-care providers that can offer appropriate treatment should they require further medical attention. Patient information must be kept confidential.
Similarly, under the Law on Health Care, patients are free to choose or change their health-care providers. If they change their health-care providers, the health-care professional should inform the patients of the risks of their conditions and transmit all clinical documents concerning treatment to the patients or their families.

However, in practice these policies have not been fully observed and implemented. Besides long waiting times, the attitudes and communication skills of health workers are generally poor. Patients’ dignity has not always been fully respected during physical examinations and treatment, patient health assessment is often inadequate, and staff do not maintain patient confidentiality. Weak consumer groups lack the ability to advocate on behalf of patients’ rights.

One initiative aimed at combatting these issues is the training of PHC workers from ethnic minorities in the local areas.

2.9.2 Complaints procedures

By law, all citizens are required to observe the internal regulations of health-care establishments and to strictly comply with the advice of health-care professionals. But all citizens are equally entitled to make a complaint if they find that the health care provided is not in conformity with professional standards or is not equitable (MOJ & National Assembly, 2005).

There are several channels by which to file complaints. Patients or their family members are encouraged to first discuss their complaints with the health-care providers. If unresolved, the complaint may be filed directly with the MOH, where the Department of Inspection together with the Department of Health Care will review it and examine the case carefully. If unresolved, patients may submit their complaints to the local Prosecution Office through their attorney and the case will be investigated. If there is sound evidence, the Prosecution Office will submit to the court for ruling. A patient may also address a formal complaint directly to the National Assembly, which delivers feedback to the MOH and hospitals. There is a need to strengthen this process in order to empower patients.

2.9.3 Patients and cross-border health care

Since the health-care services cannot meet the demands and expectations of the entire population, affluent patients may decide to seek
health care in neighbouring countries. People living along the border sometimes travel to Thailand or Viet Nam to acquire public and private health services that are not available in the Lao People’s Democratic Republic, often financed by out-of-pocket payments. There is a need to estimate the magnitude of cross-border health care.
Chapter 3: Financing

Chapter summary

The public health sector has transitioned from a centralized system under which the Government provided free services, to a government fee-for-service system (due to a lack of government investment), followed by the slow reintroduction of selected free services, including health care for the poor. Out-of-pocket (OOP) payments are high and are increasing. Free services are soon to be implemented for all antenatal care (ANC), postnatal care (PNC) and delivery services, as well as free health services (including inpatient treatment) for children under age five, to be financed by pooled government and donor funding.

There are four health financing schemes: (1) Social Security Organization (SSO) for salaried private employees; (2) State Authority for Social Security (SASS) for civil servants; (3) Community-Based Health Insurance (CBHI) for non-poor workers in the informal sector; and (4) a Health Equity Fund (HEF) for the poor. In 2012, population coverage by these four main prepayment schemes is limited to around 19.6% of the population (excluding fee exemption schemes, police and military personnel). Both SSO and CBHI have low coverage of their targeted populations. HEF, with additional funding sources, covered around 40.7% of the poor in 2012. Besides competition from private health services and services obtained in neighbouring countries, the quality of the government health services is also seen as a barrier to expanding the coverage of these health insurance schemes and improving compliance with them.

Given the increased fiscal space and favourable economic prospects, the Government of the Lao People’s Democratic Republic is looking to improve its health financing. Hence, a Health Financing Strategy has been developed for 2011–2015. Recently, the Government has initiated a decentralized system, including further strengthening of district-level management and planning. Instead of a top-down system of budgeting and allocations, as seen previously, more room is given for comprehensive planning and budgeting at the district level for their own
activities. Around 64 districts have been assigned to the management initiative in 2013.

### 3.1 Health expenditure

Table 3-1 shows the 1995–2011 trends of key health expenditure indicators for the Lao People’s Democratic Republic, based on estimated data from the World Health Organization (WHO). The share of general government health expenditure (GGHE) as a percentage of total health expenditure (THE) declined from almost 60% in 1995 to 25% in 2007, then rose again since 2009. The most recent national health account (NHA) figure for this indicator is 40.7% in fiscal year 2009–2010 (MOH & WHO, 2013). THE as a percentage of GDP is low; it has fluctuated around 4% since 1995, according to the WHO estimates. Recent NHA data from the Ministry of Health (MOH), however, indicated an even lower percentage, at just 2.5% in fiscal year 2009–2010. This rate is low compared to the average ratio for the group of low-income countries. THE per capita increased more than two fold from US$ 38 (PPP) in 1995 to US$ 78 (PPP) in 2011. The proportion of THE that is paid as out-of-pocket (OOP) payments increased from 35.8% in 1995 to 57.1% in 2008, decreasing again to around 40%. The most recent MOH NHA data for the proportion of THE that is paid as OOP payments in fiscal year 2009–2010 is 46.4% (MOH & WHO, 2013).

**Table 3-1** Trends in health expenditure indicators, 1995–2011

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<td>Total health expenditure (THE) per capita, at exchange rate</td>
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<td>71</td>
<td>71</td>
<td>73</td>
<td>80</td>
<td>85</td>
<td>90</td>
<td>86</td>
<td>67</td>
<td>78</td>
</tr>
<tr>
<td>THE as % of GDP</td>
<td>4.1</td>
<td>3.3</td>
<td>4.1</td>
<td>4.0</td>
<td>4.9</td>
<td>4.6</td>
<td>4.3</td>
<td>4.3</td>
<td>4.1</td>
<td>4.1</td>
<td>3.6</td>
<td>2.6</td>
<td>2.8</td>
</tr>
<tr>
<td>General government health expenditure (GGHE) as % of THE</td>
<td>59.7</td>
<td>35.1</td>
<td>27.3</td>
<td>26.8</td>
<td>25.9</td>
<td>17.6</td>
<td>17.1</td>
<td>27.7</td>
<td>24.9</td>
<td>24.1</td>
<td>49.3</td>
<td>46.5</td>
<td>49.3</td>
</tr>
<tr>
<td>Private health expenditure [PvtHE] as % of THE</td>
<td>40.3</td>
<td>64.9</td>
<td>72.7</td>
<td>73.2</td>
<td>74.1</td>
<td>82.4</td>
<td>82.9</td>
<td>72.3</td>
<td>75.1</td>
<td>75.9</td>
<td>50.7</td>
<td>53.5</td>
<td>50.7</td>
</tr>
</tbody>
</table>
Figure 3.1 compares the proportion of government and private health expenditure as a percentage of GDP among countries in Asia and the Pacific. Government health spending in the Lao People’s Democratic Republic was very low before 2008, at less than 1% of GDP – substantially lower than neighbouring countries such as Cambodia and Viet Nam. According to the latest figures (WHO, 2011a), government health spending has been increased to around 1.4 of GDP (Figure 3.1).

Figure 3-1 Comparison of government health expenditure and private health spending as a percentage of GDP, selected countries in Asia and the Pacific, 2011

Source: WHO, 2013
As shown in Figure 3.2, in recent 10 years, while GGHE was below 1% of GDP between 2004 and 2008, private sources have played an increasing role in financing health care. This situation clearly reflects the lack of financial commitment to health on the part of the Government, despite a good level of fiscal space. In the Lao People’s Democratic Republic, fiscal space, measured as tax to GDP, increased from 10.4% in 2006 to 12.2% in 2009, which is comparable to the global average of 13.7% (World Bank, 2013). More recent improvements in government spending on health have been observed. The Official Gazette of the Ministry of Finance (MOF) reported government spending on health in fiscal year 2010–2011 at central and local levels (including provincial health offices, provincial hospitals, district health offices, district hospitals and health centres) as accounting for 1.8% of GDP (MOF, 2013). This includes both recurrent and capital investments, excluding health spending by other ministries and social security organizations.

**Figure 3-2 Public and private sources of health financing, % of GDP 1995–2011**

GGHE: general government health expenditure; PvtHE: private health expenditure; THE: total health expenditure.

Total health expenditure per capita increased from US$ 15 in 1995 to US$ 35 in 2009, largely due to increased private health expenditure, while GGHE has been stagnant at between US$ 6 and US$ 9 per capita during the same period (see Figure 3.3).
While private health expenditure has been increasing, public expenditure as a proportion of THE is generally decreasing. However, in the most recent three years the situation has improved somewhat.

Parliament approved a government increase in health expenditure to 9% of general government expenditure (GGE) in fiscal year 2013–2014. The initial budget plan for health expenditure in fiscal year 2012–2013 (approved in October 2012) was 5.4% of GGE, including technical revenues from OOP payments collected by public health facilities and donor funds channelled through the Government.

Government health spending as a share of GDP has been erratic over time, mainly due to fluctuation of external financing for health (which forms part of the investment budget), resulting in a gap between planned and actual spending. However, a further examination of the trends for GGHE as a percentage of GGE between 1995 and 2009 also indicates links to specific laws and policies approved during the period, as seen in Figure 3.4.
Detailed comparisons of actual and planned expenditure across six MOH health programmes in 2010 revealed that the high level of planned expenditure for the hygiene and prevention programme was off-set by the extremely low level of actual spending (5%), and vice versa for the curative programme (49%). Low spending is the result of poor programme management and limited absorptive capacity, especially at the sub-district, district and provincial levels. In the last three fiscal years for which data are available, 2008–2009, 2009–2010 and 2010–2011, capital investment formed the highest share of the total budget (60–77%) followed by salaries and allowances (10% to 19%) (MOF, 2013). In the fiscal year 2012–2013, there was a significant increase in the salaries of civil servants, including health professionals, and also in non-wage recurrent expenditure compared to the previous year.

### 3.2 Sources of revenue and financial flows

The health sector is financed from three main sources. The main source is households, including OOP payments, contributing 48% of total health funds in 2009–2010. A further 20% comes from the government budget through supply-side budget allocation from the MOF [this figure would rise to 36% if donor funds that are administered by the Government were included]. Finally NGO or donor resources contribute 32% (this figure
would fall to 10% if donor funds that are channelled through the MOH are excluded).

The Lao People’s Democratic Republic applies a targeted approach to health financing through the establishment of four insurance schemes for different population groups: (1) Social Security Organization (SSO) for salaried private-sector employees (a contributory, payroll-financed scheme); (2) State Authority for Social Security (SASS) for civil servants (also a contributory, payroll-financed scheme); (3) Community-Based Health Insurance (CBHI) for non-poor workers in the informal sector (a full contributory scheme, targeting the vast majority of households); and (4) a Health Equity Fund (HEF) for the poor (mostly financed by donor resources). Population coverage by these four insurance schemes is very low at just 19.6% in 2012. Use of private voluntary health insurance schemes is negligible.

**Figure 3-5 Sources of health funds (national health accounts), 2009–2010**

![Source: MOH & WHO, 2013.](image)

The benefit packages provided by these four insurance schemes are inadequate, although the schemes cover both outpatient and inpatient services. Benefit packages are limited by the low capitation fees per member registered with the contracted health-care provider. SASS and SSO are two mandatory schemes, financed by monthly contributions from employers and employees, and both are single-payer systems where
the schemes pay on behalf of their members. Services are purchased based on a contractual model; an inclusive capitation is applied to cover outpatient and inpatient services.

Although it is a mandatory scheme, enrolment in the SSO is weakly enforced. Several employers have withdrawn from the SSO scheme and a number of employers and state enterprises that should have enrolled in the scheme failed to do so. The SSO scheme is being scaled up to cover the whole country.

The HEF for the poor is largely financed by donor resources, and is jointly managed by the MOH and donors. This system is not sustainable and has low coverage and low capacity for expansion. Despite the policy that exempts the poor from paying user fees, the implementation of the policy is weak; exemption is at the discretion of health-care providers and since there is no budget line to subsidize these exemptions, the costs must be covered by the hospital’s own revenue, which discourages hospitals from providing exemptions (Patcharanarumol et al., 2009).

The voluntary nature of the CBHI (for workers in the informal sector) is the major barrier to scaling up coverage of this programme. Since healthy people refuse to join, a high proportion of members are chronically ill, meaning that the scheme is not financially sustainable in the long term. The MOH has limited institutional capacity to scale up CBHI coverage.

Figure 3.6 depicts the flow of funds from central government to national, provincial and district government bodies, as well as to insurance funds and to service providers. Public providers owned by the MOH are the major service providers in the country, including central, provincial and district hospitals and health centres. In general, the flow of funds from government to health facilities goes through the MOF and then to provincial and district governors before reaching health workers at the provincial, district and health centre level. Mechanisms and guidelines for management and monitoring are being developed to make sure that funding is spent efficiently and effectively.

Funding in the form of loans or grants goes through the MOF and the MOH and subsequently to these service providers. Part of the revenue generated from the NT2 Hydroelectric Project was spent on health, especially on the HEF and on free maternal and child health (MCH) services.
Figure 3-6 Flow of funds to health-care providers through various channels


3.3 Overview of the statutory financing system

3.3.1 Coverage

Table 3-2 provides a comprehensive overview of health insurance coverage under the Government’s four prepayment schemes, and Table 3-3 compares in more detail the characteristics of the two statutory schemes: SASS and SSO. There is high potential for SSO to expand coverage, since it is a mandatory scheme, although enforcement is a major challenge. Based on the 10-year experience of implementing CBHI, there is very limited potential for expanding coverage within the target population.
### Table 3-2  Overview of the four government health insurance schemes, 2012

<table>
<thead>
<tr>
<th>Scheme</th>
<th>Responsible body</th>
<th>Launch</th>
<th>Type</th>
<th>Source of finance</th>
<th>Benefit package</th>
<th>Payment method</th>
<th>Estimated number of target population</th>
</tr>
</thead>
<tbody>
<tr>
<td>SASS</td>
<td>Ministry of Labour and Social Welfare (MOLSW)</td>
<td>2006 [revised schemes]</td>
<td>Mandatory</td>
<td>Employee 8% of payroll, employer 8.5% (note: 2% from each is earmarked for health; the remainder is for other purposes)</td>
<td>Cover outpatient and inpatient services</td>
<td>Capitation [KHR 85 000 per registered member per annum]</td>
<td>399 672c</td>
</tr>
<tr>
<td>SSO</td>
<td>MOLSW</td>
<td>2002</td>
<td>Voluntary</td>
<td>Employer 5% of payroll, employee 4.5% of payroll, (note: 2.2% of payroll combined is earmarked for health)</td>
<td>Outpatient and inpatient + travel and food subsidies</td>
<td>Cost-sharing for high cost Risk-adjusted capitation for 6 conditions</td>
<td>386 988</td>
</tr>
<tr>
<td>CBHI</td>
<td>Ministry of Health (MOH)</td>
<td>2002</td>
<td>Public welfare scheme</td>
<td>Household payment for premium [flat amount by family size, and urban or rural residence]</td>
<td></td>
<td>Capitation (KHR 45 000 per registered member per annum)</td>
<td>3.21 million</td>
</tr>
<tr>
<td>HEF</td>
<td>MOH</td>
<td>2004</td>
<td></td>
<td>Donor and government</td>
<td></td>
<td>Capitation, fixed fee and fee for service</td>
<td>1.6 million</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>SASS</th>
<th>SSO</th>
<th>CBHI</th>
<th>HEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible body</td>
<td>Ministry of Labour and Social Welfare (MOLSW)</td>
<td>MOLSW</td>
<td>Ministry of Health (MOH)</td>
<td>MOH</td>
</tr>
<tr>
<td>Launch</td>
<td>2006 (revised schemes)</td>
<td>2002</td>
<td>2002</td>
<td>2004</td>
</tr>
<tr>
<td>Type</td>
<td>Mandatory</td>
<td>Voluntary</td>
<td>Public welfare scheme</td>
<td></td>
</tr>
<tr>
<td>Legal status</td>
<td>Prime Ministerial decree</td>
<td>Ministerial regulation</td>
<td>Ministerial regulation [but project-based]</td>
<td></td>
</tr>
<tr>
<td>Target population</td>
<td>Civil servants and dependents</td>
<td>Salaried employees in the private sector and dependents</td>
<td>Non-poor self-employed/ informal-sector workers and dependents</td>
<td>Individuals in households identified as living below the poverty line</td>
</tr>
<tr>
<td>Source of finance</td>
<td>Employee 8% of payroll, employer 8.5% (note: 2% from each is earmarked for health; the remainder is for other purposes)</td>
<td>Employer 5% of payroll, employee 4.5% of payroll, (note: 2.2% of payroll combined is earmarked for health)</td>
<td>Household payment for premium [flat amount by family size, and urban or rural residence]</td>
<td>Donor and government</td>
</tr>
<tr>
<td>Benefit package</td>
<td>Cover outpatient and inpatient services</td>
<td>Outpatient and inpatient + travel and food subsidies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payment method</td>
<td>Capitation [KHR 85 000 per registered member per annum]</td>
<td>Cost-sharing for high cost Risk-adjusted capitation for 6 conditions</td>
<td>Capitation (KHR 45 000 per registered member per annum)</td>
<td>Capitation, fixed fee and fee for service</td>
</tr>
</tbody>
</table>

**Note:** The total population coverage was 19.6% in 2012.

- For example, in Vientiane (urban) for a family with a single individual, the premium is KHR 14 000/family per month, for a family of 2–4 people KHR 24 000/family per month, for a family of 5–7 people KHR 30 000/family per month, and for a family of 8+ people KHR 33 000/family per month.
- ‘Fixed fee’ in the Lao context is defined as a simplified payment for outpatient and inpatient services calculated on the basis of average costs of cases in selected categories over a 3-year period per facility.
- Excluding about 590 000 military and police personnel and their dependents.
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>State Authority for Social Security (SASS)</th>
<th>Social Security Organization (SSO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breadth: Who is covered?</td>
<td>Prime Ministerial Decree No. 70/PM, 20 June 2006, on the Social Security Scheme for Civil Servants</td>
<td>Prime Ministerial Decree No. 207/PM, 23 December 1999 on Social Security Scheme for Workers in Enterprises; National Labour Law; ILO codes: 102, 128, 159</td>
</tr>
<tr>
<td>Target population</td>
<td>Civil servants</td>
<td>All employees who work for the state, private sector and partnership enterprises, in the areas of industry, agriculture and services</td>
</tr>
<tr>
<td>Membership is compulsory</td>
<td>Compulsory</td>
<td>Compulsory</td>
</tr>
<tr>
<td>Covered groups</td>
<td>Insured individual, spouses and children under 18</td>
<td>Insured individual, spouses and children under 18</td>
</tr>
<tr>
<td>Excluded groups</td>
<td>No (military and police personnel and their dependents are covered by other resources)</td>
<td>Employees of embassies, international organizations, companies that have a multinational network located in the country for a period of up to 12 months, and companies that have affiliates in other countries and send their employees to work abroad for ≥12 months, and students are also excluded.</td>
</tr>
<tr>
<td>Enforcement</td>
<td>Automatic enforcement for all government staff</td>
<td>SSO lacks capacity for enforcement; there are no penalties for non-compliance (some employers withdrew from the scheme, which set a precedent for others to withdraw).</td>
</tr>
<tr>
<td>Opting in or out</td>
<td>Not allowed</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Scope: What is covered? (i.e. benefit package; BP)</td>
<td>Application of exclusion list to a comprehensive package covering outpatient and inpatient services</td>
<td>Cosmetic surgery, transgender surgery, eye glasses, preventive and curative care programme that is already included under the responsibility of the MOH (e.g. TB, leprosy, EPI, etc.), permanent sterilization, haemodialysis, thalassaemia, heart surgery, traffic accidents, anti-HIV/AIDS drugs, hospital stays over 3 months, chemotherapy, radiation therapy</td>
</tr>
<tr>
<td>Excluded BP</td>
<td>Traffic accident injuries and cosmetic surgery</td>
<td></td>
</tr>
<tr>
<td>Characteristic</td>
<td>State Authority for Social Security (SASS)</td>
<td>Social Security Organization (SSO)</td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Cash benefit</td>
<td>Invalidity benefit, survivor benefit, sickness benefit, maternity benefit, medical care and work injury benefits</td>
<td>Old-age pension, invalidity benefit, survivor benefit, sickness benefit, maternity benefit, medical care and work injury benefits</td>
</tr>
<tr>
<td>Additional BP</td>
<td>No data</td>
<td>(i) 50% of total cost for: CTs transport across provinces (ii) Major surgery (iii) 6 chronic diseases (cardiopathy, chronic hepatitis, diabetes, hypertension, renal insufficiency, toxic goiter) (iv) High-cost treatment (e.g. US$ 200/case neurosurgery)</td>
</tr>
</tbody>
</table>

**Depth: How much of the benefit cost is covered?**

| Formal user charges as % of THE | No data | No data |

The main problem with the SSO scheme is low compliance by employers despite mandatory participation. Several private employers provide other options for their employees (e.g. private health insurance, direct contracts with private providers, or direct disbursement of health-care expenses for their employees), in some cases even in addition to participation in the SSO scheme. For SSO, there are currently no mechanisms in place to enforce employer compliance. The Social Security Act, which underpins the scheme, does not include any provision for penalizing non-compliant employers, such that in practice the scheme is more voluntary than mandatory in nature. The common perception among private employers and employees, that government health services are generally of poor quality compared with private health services and those obtained from neighbouring Thailand or Viet Nam, is also a major obstacle to improving compliance with the SSO scheme.

The main problems in the SASS scheme are the high level of complaints and dissatisfaction from members about the poor quality of health services, as well as complaints from providers regarding the low level of capitation and frequent delays in receiving employer contributions from the MOF (due to recurring cash shortages). There is also fragmentation within the SASS scheme. For instance, the military and police have access to their own health-care facilities and would prefer to administer their own health insurance schemes.
There is a lack of capacity in health technology assessment in the Lao People’s Democratic Republic, which is needed to guide decision-making on which new interventions should be included or excluded from the benefit packages. There have been no changes to the benefit packages for the SASS and SSO schemes in recent years.

### 3.3.2 Collection

**Government and civil servant contributions: State Authority for Social Security**

SASS, an autonomous agency established under Prime Ministerial Decree No. 70/PM (2006), currently allocates a capitation payment to a specific health-care provider for each person covered (civil servants, their spouses and children) to provide the same health-care benefits as the population covered by the SSO. The government contribution for SASS is through the MOF’s annual budget, but at times there are delays to payments, interruptions to the implementation of SASS, and delays to disbursal of capitation fees to the health-care providers. The new contribution rates for all social security benefits by government and the civil servants are summarized in Table 3-4.

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Government</th>
<th>Civil servant</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Health benefit</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>2. Short-term benefits</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>3. Long-term benefits</td>
<td>4%</td>
<td>4%</td>
<td>8%</td>
</tr>
<tr>
<td>4. Occupational and accident</td>
<td>0.5%</td>
<td>0%</td>
<td>0.5%</td>
</tr>
<tr>
<td>5. Administrative</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8.5%</strong></td>
<td><strong>8%</strong></td>
<td><strong>16.5%</strong></td>
</tr>
</tbody>
</table>

Source: Prime Ministerial Decree No. 70/PM, 2006.

**Private employer and employee contributions: Social Security Organization**

The SSO was launched in the city of Vientiane and gradually expanded to cover the provinces of Vientiane, Savannakhet, Khammouan, Champasack and Xayabury. At the end of 2010, around 107,737 people were covered, representing 260 companies (approximately 10–15% of targeted companies, depending on the method of calculating the targeted companies and the registration). This figure includes the insured workers, their spouses and their children under the age of 18. The scheme is
financed by payroll contributions from employees (4.5%) and employers (5%), with an income ceiling of ₵1 500 000 for assessed contributions (in 2008, US$ 1 = ₵8500; ILO, 2007). Of the combined total payroll contributions (9.5%), 2.2% is earmarked for health-care benefits, 1.3% for short-term benefits (i.e. sickness, maternity and funeral benefits), 5.5% for long-term benefits (i.e. retirement, invalidity and survivor pensions), and 0.5% for occupational and accident benefits. Health-care benefits include outpatient and inpatient care (excluding traffic accident injuries and cosmetic services). There are no co-payments and no limits on the number of contacts or services provided. The public providers of health-care services are paid according to the capitation method, an annual fixed rate of ₵65 000 per insured person, regardless of the number of outpatient and inpatient services provided. In this system, the financial risk is transferred from the SSO to the contracted service providers.

Despite low coverage, revenues and expenditures of the SSO and SASS schemes have been increasing over time, although both spent less than the premiums collected. In 2010, 35% of SASS revenues came from civil servant contributions, 44% from government contributions and 21% from last year’s balance carried over. As expected, SSO revenues rely more heavily on employee and employer contributions (74%) with the remainder coming from interest earned on savings. Overall, health insurance expenditure from SASS and SSO represent a very small share of GDP: about 0.01% for SSO and about 0.03% for SASS (World Bank, 2011b).

### 3.3.3 Pooling of funds

Both the SASS and the SSO are linked to a single fund. The SASS contributions from the government employees are pooled nationally and kept by the MOF Department of Budget, and the MOF is obligated by law to add their contribution to the SASS fund. However, there are irregularities and delays in these contributions, causing operational interruptions for SASS, which is managed by the Ministry of Labour and Social Welfare (MOLSW) Social Security Department. It is responsible for purchasing health services on behalf of all SASS members as well as disbursing other non-health benefits. At the provincial and district levels, the reimbursement of non-health benefits is the responsibility of the social security division of the provincial labour and social welfare offices and the district labour and social welfare offices.

The SSO is an autonomous body that administers the social security scheme referred to as the SSO scheme, and the MOLSW chairs the
tripartite Board of Directors. In addition to collecting and pooling premiums as a single fund, the SSO is also responsible for purchasing health services and disbursing non-health benefits for its members. It negotiates with health-care providers on the conditions and annual capitation rates, manages complaints, oversees information systems and monitors utilization for the next annual capitation adjustment.

**3.3.4 Purchasing and purchaser–provider relations**

SSO and SASS apply a contract model in purchasing health services from individual hospitals, based on a single capitation rate, covering outpatient and inpatient services. The contract and capitation rates are negotiated on an annual basis, such that the capitation rates reflect the actual cost and utilization for outpatient and inpatient services in the previous year. However, contracted health-care providers have complained of low and unattractive capitation rates, at times refusing to sign the contract. There are no private health-care providers in the Lao People’s Democratic Republic with the capacity to provide a comprehensive range of services to SSO and SASS members, resulting in MOH hospitals possessing a monopoly on service provision.

The CBHI applies an integrated model, whereby the MOH district hospitals collect the CBHI voluntary premiums, pool these at the district level, and then allocate a portion to the provincial hospital for certain outpatient and inpatient services and keep the remainder for services provided by district hospitals and local health centres.

HEF either reimburses providers for the fees for services delivered to their poor beneficiaries or uses a combination of capitation and fixed-fee reimbursement (i.e. a simplified case-based modality).

**3.4 Out-of-pocket payments**

The negative impacts of the high level of OOP payments in financing health care include a high prevalence of catastrophic (and high-cost) health events, impoverishment due to health costs, and increasing inequity across socioeconomic groups. This is assessed and discussed in depth in Chapter 7 (Assessment of the health system). Efforts to reduce OOP payments have not been successful due to slow progress in implementation of financial protection schemes as well as lack of government financial commitment. More recently the Government has formed a policy to provide free maternal and child health (MCH) services
using a portion of the hydropower revenue, although efforts to scale this up nationwide face the challenge of a bottle-neck at the PHC level, which needs to be addressed.

In the 1990s, the Government introduced a policy on user charges to ensure replenishment of medicines through the establishment of a revolving drug fund (RDF), which has gradually become the major source of funding for curative services. When the RDF came to be seen as a source of revenue for hospitals, adverse behaviour was observed whereby providers over-prescribed medicines and were too willing to fulfil patients’ requests for drugs that may have been unnecessary. Mark-ups and price-setting were not adequately regulated by the MOH and expenditure on medicines became a major burden to households, with a 40% mark-up often found in MOH facilities. Unregulated purchasing of the same drugs at widely varying prices and conflicts of interest involving pharmaceutical companies and prescribers have exacerbated these problems.

Almost half of all OOP payments are for the purchase of medicines (48.3%), while 25.2% are spent on inpatient care and 9.8% on outpatient services (see Table 3-5). The richest quintile of the population spent more on inpatient services than the poorest quintile, who spent more on outpatient services, although both groups spent the most on buying medicines. The NHA 2009–2010 data also confirmed that households spent more on inpatient services than on outpatient care at public health facilities, 12% compared to 7% of total health expenditure, respectively.

**Table 3-5 The profile of out-of-pocket (OOP) payments by income quintiles, 2005**

<table>
<thead>
<tr>
<th>Income quintile</th>
<th>Inpatient services</th>
<th>Outpatient services</th>
<th>Traditional medicines</th>
<th>Medicines</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st (poorest)</td>
<td>5.0</td>
<td>19.8</td>
<td>10.5</td>
<td>61.5</td>
<td>3.2</td>
</tr>
<tr>
<td>2nd</td>
<td>7.9</td>
<td>12.0</td>
<td>12.7</td>
<td>63.1</td>
<td>4.4</td>
</tr>
<tr>
<td>3rd</td>
<td>8.8</td>
<td>10.6</td>
<td>13.3</td>
<td>65.1</td>
<td>2.2</td>
</tr>
<tr>
<td>4th</td>
<td>9.0</td>
<td>18.0</td>
<td>9.6</td>
<td>58.8</td>
<td>4.6</td>
</tr>
<tr>
<td>5th (richest)</td>
<td>32.0</td>
<td>7.8</td>
<td>10.0</td>
<td>42.9</td>
<td>7.3</td>
</tr>
<tr>
<td>Total</td>
<td>25.2</td>
<td>9.8</td>
<td>10.1</td>
<td>48.3</td>
<td>6.3</td>
</tr>
</tbody>
</table>

3.4.1 Cost-sharing (user charges)
Members of the four government health insurance schemes are not required to provide co-payments or pay deductibles for benefits covered by the schemes. Three schemes – SSS, SASS and CBHI – apply a simple capitation model where providers are paid upfront and bear all financial risks, but there is a maximum ceiling of benefits. Members who bypass the contracted health-care providers must pay in full for services received elsewhere. Although no co-payments are required for services covered by the benefit packages, members have to pay if the services are not covered.

3.4.2 Direct payments
Uninsured persons, who form the majority of the population, must pay directly and in full for services provided at both public and private health-care facilities. A standard national fee schedule in the public sector was approved by the MOF under Prime Ministerial Decree No. 381/PM on Health Service Technical Revenues (2006) and by the MOF under Decree No. 1646/MOF (2006). Two years later, in 2008, the fee schedule was revised and renamed ‘Presidential Decree No. 03’.

However, due to the high prices and the perceived poor quality of public health services, the uninsured frequently resort to alternatives such as traditional medicine and self-medication. Use of health-care services often results in financial hardship for patients and their relatives. For example, in 2004 a household health survey found that 34% of the poorest quintile had sold assets while 29% had borrowed cash from relatives to pay for hospital bills. Health-care costs also affect the richest quintile, with 5% having sold assets and 7% having borrowed cash in order to pay (Schwartz & Viravong, 2006). This situation is unacceptable and a solution is needed.

Prime Ministerial Decree No. 52/PM (1995) introduced user fees at government health services along with exemptions for the poor and other groups including civil servants and their families, monks and students attending government schools. In practice, however, few exemptions seem to be granted. In Oudomxay Province, for example, less than 1% of the people who received services from the provincial or district hospitals reported being exempted from user fees (Schwartz & Viravong, 2006). A 2003 study by the MOH and WHO indicated that exemptions at district hospitals ranged from 0.3% to 11.9% of total fees for services provided
The level of exemption in Luang Prabang Hospital was 14% of total user fees (8% for poor patients), while the level of exemption at Sayabouri Hospital was reportedly 5% (1% for poor patients) in 2004–2005 (MOH, 2005). In most cases, it is left to the discretion of each health facility to decide whether or not to grant a fee exemption, such that there is wide variation among health facilities in the rate of exemptions granted.

A profile of OOP payments shows that, in 2009–2010, 36% were spent on pharmaceuticals, 28% on traditional healers and 14% on private outpatient services. These three items account for 78% of total household direct payment for health (see Table 3-6).

### Table 3-6 Profiles of direct household payments for health, 2009–2010

<table>
<thead>
<tr>
<th>Item</th>
<th>Expenditure in Lao kip (k)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmaceuticals</td>
<td>437,954,260,000</td>
<td>36%</td>
</tr>
<tr>
<td>Cash and in-kind payment for traditional healers</td>
<td>337,505,729,048</td>
<td>28%</td>
</tr>
<tr>
<td>Private outpatient</td>
<td>173,936,585,940</td>
<td>14%</td>
</tr>
<tr>
<td>Inpatient</td>
<td>142,805,156,798</td>
<td>12%</td>
</tr>
<tr>
<td>Public outpatient</td>
<td>85,805,747,154</td>
<td>7%</td>
</tr>
<tr>
<td>Patient transport</td>
<td>31,417,134,495</td>
<td>3%</td>
</tr>
<tr>
<td>Total</td>
<td>1,209,424,613,435</td>
<td>100%</td>
</tr>
</tbody>
</table>


### 3.4.3 Informal payments

Informal payments made by patients directly to health-care providers are not uncommon as a way of showing their gratitude for the services received. This practice is considered acceptable if the payment is non-coercive, voluntary and non-conditional. Culturally, Lao people are willing to provide informal payments to those who aid them in their recovery.

There have been no studies on the prevalence and nature of informal payments in the Lao People’s Democratic Republic, but it is generally accepted that such practices exist and are not uncommon in public hospitals. However, in addition to payments to show gratitude, informal payments are often also offered to gain access to public hospitals and to receive better quality services. Despite the availability of government health insurance schemes, informal payments are widespread and this is a major source of inequity since the poor cannot offer such payments and therefore have reduced access to care. Further research to assess the
prevalence, methods and implications of informal payments is needed, as well as research on policy interventions to address the issue.

### 3.5 Voluntary health insurance

Voluntary health insurance (VHI) is roughly equivalent to the Lao People’s Democratic Republic’s Community-Based Health Insurance (CBHI) programme and encompasses private health insurance. In the Lao People’s Democratic Republic, private insurance makes a relatively small contribution to total health expenditure, though data are scarce and it is difficult to assess the size of the population with private health insurance.

The CBHI scheme was established at the end of 2002. It was piloted among workers in the informal sector (who could afford to pay a premium) in three districts: rural, semi-urban and urban. The goal of the CBHI is to promote risk-pooling and cost-sharing among the insured by paying a small contribution in advance. The extension phase started in 2005 after evaluating and reviewing the pilots in 2004. With financial and technical support from WHO and the Luxembourg Development Agency (LuxDev), the programme was expanded to 18 more districts. The expansion of CBHI is currently being assisted by the French development assistance agency (AFD).

Although CBHI is technically voluntary, all members of a participating household must join to avoid adverse selection. Four flat rates are applied to four different categories of family size: single person, 2–4 members, 5–7 members, and 8+ members. Should a family fall behind in the monthly payments a warning is issued followed by a grace period, allowing the family to catch up on payments. Members may choose to pay their contributions for several months in advance, depending on their means.

In return for their payments, members have free access to health services available at health centres and district hospitals, with referral to provincial and central hospitals if needed. Capitation is used as the main payment method, while some high-cost and specialized services are paid by fee schedules. Since the overall utilization rate is very low, no system of co-payments has been added thus far.

By 2010, CBHI was operating in 9 out of 17 provinces, covering 23 districts and 140 000 members. This covers around 10% of the target population (ranging from 2–10% within districts, depending on local ownership and
the capacity of the team to enrol members), amounting to just 2.4% of the national population. The growth of CBHI varies. Major problems include late payments and difficulties in premium collection, resulting in a lower amount of capitation payments to the providers (World Bank, 2010a). The contracted health-care providers reported financial deficits linked to late payments of CBHI contributions; the capitation payments do not cover the cost of services.

The current utilization rates are 1.1 outpatient visits per member per year for outpatients and 0.05 hospital admissions per member per year. These rates are four times higher than the national utilization rate, reflecting improved access to care.

Recently, the Government has put a lot of effort into developing the CBHI. To ensure a strong and sustainable system, the National Health Insurance Decree has been approved to allow the merging of the four health financing schemes into one institution with the ultimate goal of achieving universal coverage by 2020, as planned in the health-care financing strategy for the country (GOLPDR, 2012). However, the system may not be feasible without financial support from the Government to improve health services and subsidize health insurance membership for the poor. Scaling up these schemes to reach universal coverage would also require huge inputs to improve technical and management capacity.

3.6 Other financing

There are parallel health systems providing services for military and police personnel, which, under the Ministry of Defence and the Ministry of the Interior, provide services at their own hospitals at the central and provincial levels. Information on revenue and expenditure is scarce.

3.7 Payment mechanisms

3.7.1 Paying for health services

Table 3-7 summarizes how health services are paid for by different insurance schemes. The prepayment schemes mostly use a closed-end provider payment system, though with a very limited capitation rate. However, closed-end payment has a limited impact on overall health system efficiency and cost-containment, as the population coverage by these schemes is still low. The vast majority of people are uninsured and they pay on a fee-for-service basis.
Table 3-5 Paying for health services

<table>
<thead>
<tr>
<th>Service</th>
<th>SASS</th>
<th>SSO</th>
<th>CBHI</th>
<th>HEF</th>
<th>Private insurance</th>
<th>Uninsured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outpatient care</td>
<td>Capitation</td>
<td>Capitation</td>
<td>Capitation</td>
<td>Mixed methods</td>
<td>FFS if covered</td>
<td>FFS</td>
</tr>
<tr>
<td>Inpatient care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FFS</td>
</tr>
<tr>
<td>Health promotion and preventive care</td>
<td>Fee for service (FFS) if not covered in benefit package</td>
<td>FFS if not covered in benefit package</td>
<td>Not covered</td>
<td>Mixed methods</td>
<td>Not covered</td>
<td>FFS</td>
</tr>
<tr>
<td>Accident and emergency care</td>
<td>Capitation</td>
<td>Capitation</td>
<td>Capitation</td>
<td>No data</td>
<td>No data</td>
<td>FFS</td>
</tr>
<tr>
<td>Dental care</td>
<td>Not covered</td>
<td>Not covered</td>
<td>Not covered</td>
<td>Not covered</td>
<td>Not covered</td>
<td>FFS</td>
</tr>
<tr>
<td>Pharmacies</td>
<td>Capitation if covered in outpatient and inpatient benefit package, FFS for medicines not covered</td>
<td>Capitation if covered in outpatient and inpatient benefit package, FFS for medicines not covered</td>
<td>Capitation</td>
<td>Mixed methods</td>
<td>No data</td>
<td>FFS</td>
</tr>
</tbody>
</table>

* Using mixed methods of paying for the HEF is very common in the Lao People’s Democratic Republic because it depends on the source of funding, level of health facility and the services package, which includes cases based on fixed fees for the World Bank project, outpatient department capitation for the ADB project, and reimbursement of actual bills.
Source: Asia Pacific Observatory on Health Systems and Policies

3.7.2 Paying health workers

The MOH and other public health workers receive a salary and benefits such as per diem payments for evening and night shifts. The HEF and other health financing schemes provide revenue generated from user fees, which can be used to offer staff incentives. Incentives that help improve health worker retention in remote and rural areas are currently under discussion.
As in some other Asian countries, dual practice exists in the Lao People’s Democratic Republic. Doctors and nurses who work at provincial and district hospitals are allowed to practice privately as long as they are licensed to do so by the MOH’s medical committee. Usually patients pay a consultation fee at private practices, as well as paying for medicines dispensed by these private clinics. Private practices can undermine the quality of services at public health facilities as doctors may refer patients to their own private clinics after regular office hours. As described in section 3.4.3, informal payments from patients to doctors and nurses are also common, although this practice is expected to change as the country’s economy evolves and strengthens.
Chapter 4: Physical and human resources

Chapter summary
Health services at the secondary and tertiary levels in the Lao People’s Democratic Republic are provided through 4 central general hospitals and 3 specialist hospitals in the capital city, in addition to 16 regional and provincial hospitals. There are approximately 130 district hospitals, 860 health centres, and around 5239 village drug kits for provision of primary health care (PHC). The number of hospital beds per 1000 population is low in the country, at just 0.8. Capital investment pressure is high in private hospitals, due to a combination of factors from the donor side and a loosely regulated private health sector. Services at the PHC level have a lower rate of utilization (see Chapter 5) as patients tend to go directly to a hospital for curative services, as evidenced by the relatively crowded outpatient department (OPD) services. Inpatient services at hospitals also have relatively low utilization rates, as reflected in bed occupancy rates and length of stay data.

The human resources for health (HRH) situation has remained largely unchanged in the last two decades until very recently. There are a large number of qualified health graduates waiting for a sanctioned post, and retention of qualified health workers in rural areas is challenging. A number of recent initiatives are aimed at improving the situation, including: recently approved increased quotas within the health workforce; improving standards of professional health training and education; enforcing the implementation of the Ministry of Health (MOH) regulation No. 103 supporting mandatory employment of all new graduates to work for three years in rural areas; providing adequate financial and non-financial incentives to retain health staff in rural and remote areas; and improving the HRH information system.
4.1 Physical resources

4.1.1 Capital stock and investments

Health services in the Lao People’s Democratic Republic are provided through 4 central general hospitals and 3 specialist hospitals in the capital, 16 regional and provincial hospitals and approximately 130 district hospitals, 860 health centres, and around 5239 village drug kits (see Table 4-1). The number of hospital beds per 1000 population is low, at just 0.8 in 2010–2011. Data on beds at private hospitals and clinics are not available.

According to data from 2010, there are 222 authorized private outpatient clinics in the country. Among them, 96 are in Vientiane, 34 in Savannakhet and 23 in Xiengkhuang. Another 647 have applied for authorization. The actual number of private outpatient clinics is likely to be larger than the reported figures, since doctors who work in the public sector are allowed to open private clinics after regular working hours and at weekends. A very limited number of public–private partnerships have been reported, such as international clinics serving Lao and foreign patients at Mahosoth Hospital and Setthathirath Hospital. There has been very little investment in mental health facilities to meet the increasing demand for mental health care. Capital investment funding from across the border has been observed, such as one private hospital under Chinese ownership that recently open at Oudomxay Province, and an international clinic close to Wattay Airport, which is a branch of a private hospital in Nongkhai Province, Thailand.

Table 4-1 Health facility profiles, 2010–2011

<table>
<thead>
<tr>
<th>Level of care</th>
<th>Type of health facilities</th>
<th>Quantity</th>
<th>No. of beds</th>
<th>Range of number of beds per facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tertiary</td>
<td>Central and specialist hospitals</td>
<td>7</td>
<td>1588</td>
<td>60–450</td>
</tr>
<tr>
<td>Secondary</td>
<td>Provincial/regional hospitals</td>
<td>16</td>
<td>2138</td>
<td>40–250</td>
</tr>
<tr>
<td>Primary</td>
<td>District hospitals</td>
<td>130</td>
<td>1859</td>
<td>10–20</td>
</tr>
<tr>
<td></td>
<td>Health centres</td>
<td>860</td>
<td>2281</td>
<td>1–2</td>
</tr>
<tr>
<td></td>
<td>Drug kits</td>
<td>5239</td>
<td>–</td>
<td>NA</td>
</tr>
</tbody>
</table>

Source: MOH, 2012b.

There is excessive pressure on services at tertiary hospitals, although service utilization at the lower levels, such as at district and provincial hospitals, is very low. The average bed occupancy rate (BOR) varies
among provinces from 15.1% to 79.9%, with an average of 44.4%. The average length of stay (ALOS) is very low at 2.0 days, ranging from 0.2 to 7.1 days (see Figure 4.1; MOH, 2012b).

**Figure 4-1 Average length of stay (ALOS) and bed occupancy rate (BOR) by province, 2010–2011**

4.1.2 Infrastructure

The number of beds per 1000 population in the Lao People’s Democratic Republic has been on a declining trend, falling from 1.8 beds in 1996 to 1.1 in 2003, and then to 0.8 in 2010. This was in contrast to neighbouring countries such as China and Thailand, which both have an increasing trend, but similar to Cambodia where the ratio has stagnated and is now also on a downward trend. This is because the number of additional hospital beds has not kept pace with population growth.

Almost all hospital beds in the Lao People’s Democratic Republic are designed for acute care. There are no designated psychiatric hospitals and no long-term care institutions in the country. The chronically ill and the elderly are cared for at home. There have been some changes within the hospital system: some tertiary care hospitals were transformed to specialist hospitals, such as obstetric, orthopaedic or ophthalmology hospitals.
The Primary Health Care Expansion Project (PHCEP) health facility survey in 2006 assessed the status of health facilities in terms of structure, equipment, supplies, staff and service delivery [MOH, 2006]. A large proportion of primary health care (PHC) facilities, such as district hospitals and health centres, have relatively poor infrastructure and working conditions. The survey revealed an urgent need for investment in infrastructure, in particular at the district health level (i.e. district hospitals and health centres). The situation has improved in recent years.

Funding for investment in public health facilities comes from loans and grants from the Asian Development Bank (ADB), the World Bank and the Luxembourg Development Agency (LuxDev), rather than from the national health insurance schemes. There is an urgent need for the Ministry of Health (MOH) to strengthen PHC services and as well as the referral services between the district and provincial levels.

4.1.3 Medical equipment

There are CT scanners at seven hospitals throughout the country: four in central hospitals (Mahosoth, Mittaphab, Setthathrath and the Military Hospital) and three in provincial hospitals (Luang Prabang, Savannakheth and Champassack covering the north, central and south regions). There are 1.12 CT scanners per million population. The combined annual case load of the CT scanners at the four central hospitals in 2010 was 2513 patients [MOH, 2010a]. CT scanners were under-utilized at Luang Prabang Provincial Hospital. All major medical devices are purchased through the MOH budget, loans or grants. However there are no MRI or PET scanners in the country.

The 2006 PHCEP survey in eight northern provinces showed that 94% of provincial and 91% of type A district hospitals have all 20 items considered as basic medical equipment, while only 71% of type B district hospitals have these 20 items of basic medical equipment, and 58% of health centres have 12 items of basic medical equipment [MOH, 2006] (see Chapter 2, section 2.1 for a definition of type A and B hospitals). Lack of basic medical equipment for simple diagnoses and treatment was more acute in smaller district hospitals and health centres (see Table 4-2).
Table 4-2  Availability of basic medical equipment by level of public health facility, 2006

<table>
<thead>
<tr>
<th>Health facility</th>
<th>% of facilities that have the basic equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provincial hospital (20 items)</td>
<td>94</td>
</tr>
<tr>
<td>• District hospital type A (20 items)</td>
<td>91</td>
</tr>
<tr>
<td>• District hospital type B (20 items)</td>
<td>71</td>
</tr>
<tr>
<td>• Health centre (12 items)</td>
<td>58</td>
</tr>
<tr>
<td>• Drug kits</td>
<td>5239</td>
</tr>
</tbody>
</table>


Due to the lack of routine administrative data on infrastructure and medical equipment, surveys of health facilities are useful to identify deficiencies and to guide health investment policies. In future, such surveys should cover all provinces. Although the eight northern provinces surveyed in 2006 do not represent the whole country, it is plausible that the shortages of health infrastructure and basic medical equipment are generally more acute at the PHC and district level.

4.1.4 Information technology

The overall percentage of the national population using landlines and mobile phones is 2.14% and 26.35%, respectively, while radio and television coverage were higher at 80% and 60%, respectively. Current internet coverage is 0.12% (Phissamay, 2010).

Figure 4-2 Expansion of mobile phone and internet access, 2000–2007

CDMA: code division multiple access (a channel-access method used in communication technology); ADSL: asymmetric digital subscriber line (a data communications technology that enables faster data transmission than a conventional modem).

Figure 4.2 shows the sudden burst of mobile phone ownership starting around 2004 (left), along with the rapid increase in dial-up internet access (right), while expansion of landline use stagnated (left). Wireless access began to catch up in 2006 and 2007 (right).

IT infrastructure in the Lao People’s Democratic Republic has been developing since 1995. But not until 2005 did the rapid pace of development and active government support begin. There are five operators and 12 internet service providers (ISPs) currently investing in upgrading and adding high-speed networks, such as fibre-optic lines and third generation (3G) mobile systems.

It is important to acknowledge that customers from rural areas are enjoying the benefits of the new IT developments. IT systems in the Lao People’s Democratic Republic are becoming a necessity and the country is gaining access to the ‘information age’. The Government also encourages and supports various sectors in promoting the use of IT and use of the Lao language on a range of IT platforms. The e-government centre (National Agency for Sciences and Technology) links government offices with research and academic networks (Phissamay, 2010).

The application of IT in the health sector in the Lao People’s Democratic Republic has been slow. Computers are not available in most rural and remote health facilities. Use of IT for the health sector has mainly been within the projects funded by NGOs and international organizations, such as WHO and the Global Fund. The MOH’s IT roadmap was developed in 2007 but it needs modification to be compatible (and able to share data) with other important information platforms.

The maternal and child health financing system has been established, including functions for financial management and for warehousing and dispensing drugs. The Food and Drug Department (FDD) of the MOH has developed a drugs dispensing database using an open source system called iDART, which is to be installed at various hospitals and clinics across the country. The FDD received WHO funding in 2005 to develop a drug registration system. The Medical Product and Supply Centre (MPSC)\(^3\) has developed the warehouse database system, but it lacks the capacity to maintain and support the system.

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\(^3\) The MPSC is an agency of the MOH under the supervision of the Food and Drug Department. It is responsible for organizing procurement and maintenance of medicines and medical equipment, including the cold chain and warehousing systems. Regional branches are under construction in the country’s major provinces.
Mahosoth Hospital has developed a small-scale information system that helps to manage billing as well as warehousing and dispensing drugs. Some other hospitals, MOH departments and NGO projects have also developed small-scale IT systems, which are being applied in a patchy manner within the health sector. The development of IT and mobile phone applications for disease surveillance and reporting is under active discussion.

There is an overall need to develop and harmonize the various health-related monitoring and evaluation efforts, within a framework that reflects the recent health sector reforms. There is also a need to improve the routine health reporting system, in terms of fine-tuning the indicators so that they conform with international standards, developing financial and drug management information, and improving data management. The application of IT will help improve the health management information system (HMIS) by moving from paper-based to computer-based records; creating a better interface for consolidation; further streamlining the management of drug supplies and the flow of funds; and improving disease surveillance and reporting.

4.2 Human resources

4.2.1 Health workforce trends

The number of health workers remained essentially unchanged in the two decades between 1988 and 2009. The total health workforce stagnated at 12,481 in 1998, dropping slightly to 12,422 in 2009–2010 despite a 23% growth in population during the same period. This lack of growth in the health workforce can be attributed to inadequate quota of posts allocated to the MOH by the Ministry of Home Affairs (MHA). Until recently, the quota has barely allowed for the replacement of retired health workers. In 2009–2010, of the total health workforce 2986 (24%) were administrative staff and 9436 (76%) were technical staff (responsible for non-administrative functions including immunization/health promotion, curative/rehabilitation services, teaching and research). However, at the close of 2013 the quota for the health workforce was increased to 4000 [MOH, 2013].

The number of qualified HCPs (i.e. medical doctors, nurses and midwives with high- and mid-level professional qualifications) was 3873 (MOH, 2010b), equivalent to 0.69 per 1000 this is significantly lower than the WHO recommended standard of 2.5 HCPs per 1000 population which
has been estimated as the minimum necessary to provide coverage for at least 80% of all births with skilled birth attendance. Moreover, 75% of HCPs at the PHC level, in particular at health centres, have a lower level of training, and most qualified HSPs worked at central and provincial level facilities. Health centres are expected to have at least 3 type A HCPs and at least 5–7 type B HCPs; however, they were found to have an average of only 2.3 HCPs (MOH, 2010b). The current human resources for health (HRH) strategy aims to recruit staff at the PHC level and in rural and remote areas.

The Lao People’s Democratic Republic has 0.24 doctors, 0.82 nurses, and 0.09 midwives per 1000 population (Table 4-3), including some with only low-level qualifications; these levels are very low in each category. The trend in numbers of medical doctors has increased steadily over the last 5 years while the number of nursing personnel stagnated before increasing somewhat in the last 2 years (Table 4-3). The MOH cannot employ all new nursing graduates (some 500–600 per year) or all graduates in other health professions due to the limited number of sanctioned posts. The MOH recruitment system only allows replacement of staff who are either retiring or leaving. Graduating health professionals, whose studies are heavily subsidized by the government, typically find jobs in fields unrelated to health if they cannot attain employment with the MOH. Employment in the private health sector is limited. Contracts for staff at MOH hospitals/health centres are limited by the financial capacities of these facilities. Roughly 2500 qualified health professionals are currently volunteers or subcontractors, waiting to be hired formally.

Compared to the number of available health posts under the MOH, the Ministry of Education has five times as many teacher posts. However, the education sector also faces challenges in retaining teachers in rural locations, resulting in some unused posts that were reallocated to the health sector in 2011. A Government Decree on financial incentives for attracting and retaining staff in rural and remote settings was recently endorsed, although it has not yet been fully implemented.

The data in Table 4-3 paint a distressing picture of HRH between 2006 and 2012. Not only is there a low level of health workers per 1000 population, but the gap between the ratio in the capital city and in rural areas is significant – especially for doctors – and has not improved very much in recent years. The strategy for improving HRH not only needs to increase the number of sanctioned posts but also to address rural retention
through effective interventions, such as education (rural recruitment and hometown placement) and financial and non-financial incentives. It is worth noting that nurses are the backbone of the health system; as document in other countries, nurses have a higher capacity to deliver public health interventions and basic curative services, increasing the availability of immunization services (Anand & Bärnighausen, 2007), and they are more willing to stay in rural areas than doctors.

Table 4-3 Human resources for health, 2006–2012

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total medical doctors</td>
<td>1318</td>
<td>1341</td>
<td>1375</td>
<td>1410</td>
<td>1448</td>
<td>1511</td>
<td>1588</td>
</tr>
<tr>
<td>New medical graduates</td>
<td>82</td>
<td>65</td>
<td>100</td>
<td>171</td>
<td>202</td>
<td>160</td>
<td>236</td>
</tr>
<tr>
<td>% graduated from private medical schools</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total nurse personnel</td>
<td>4845</td>
<td>4942</td>
<td>4797</td>
<td>4873</td>
<td>4962</td>
<td>5017</td>
<td>5435</td>
</tr>
<tr>
<td>New nurse graduates</td>
<td>627</td>
<td>541</td>
<td>535</td>
<td>629</td>
<td>622</td>
<td>518</td>
<td>881</td>
</tr>
<tr>
<td>% graduated from private nursing schools</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Doctors per 1000 population: total</td>
<td>0.23</td>
<td>0.23</td>
<td>0.23</td>
<td>0.23</td>
<td>0.23</td>
<td>0.24</td>
<td>0.24</td>
</tr>
<tr>
<td>Doctors per 1000 population: capital city</td>
<td>0.75</td>
<td>-</td>
<td>0.74</td>
<td>0.74</td>
<td>0.75</td>
<td>0.84</td>
<td>0.77</td>
</tr>
<tr>
<td>Doctors per 1000 population: outside capital city</td>
<td>0.07</td>
<td>-</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.06</td>
<td>0.07</td>
</tr>
<tr>
<td>Nurses per 1000 population: total</td>
<td>0.84</td>
<td>0.84</td>
<td>0.80</td>
<td>0.80</td>
<td>0.79</td>
<td>0.78</td>
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</tr>
<tr>
<td>Nurses per 1000 population: capital city</td>
<td>1.22</td>
<td>-</td>
<td>1.22</td>
<td>1.13</td>
<td>1.13</td>
<td>1.37</td>
<td>1.50</td>
</tr>
<tr>
<td>Nurses per 1000 population: outside capital city</td>
<td>0.73</td>
<td>-</td>
<td>0.67</td>
<td>0.69</td>
<td>0.69</td>
<td>0.62</td>
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<tr>
<td>Midwives per 1000 population: total</td>
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<td>0.04</td>
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<td>0.09</td>
</tr>
<tr>
<td>Midwives per 1000 population: capital city</td>
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<td>-</td>
<td>0.09</td>
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<td>0.16</td>
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</tr>
<tr>
<td>Midwives per 1000 population: outside capital city</td>
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<td>0.06</td>
<td>0.07</td>
<td>0.07</td>
<td>0.08</td>
</tr>
</tbody>
</table>

Source: Data provided by the Department of Personnel and Organization, MOH, 2013.
Compared to its neighbouring countries, the Lao People’s Democratic Republic has a relatively low ratio of qualified health workers per 1000 population. However, in addition to the government health workforce, it is worth mentioning that in 2009–2010 there were 53,676 village health workers, of which 14,812 were village health volunteers (VHVs), 6,128 were traditional birth attendants, 1,222 were traditional healers, and 31,514 were members of village health committees (MOH, 2010b).

4.2.2 Professional mobility of health workers

There is little international recruitment of health workers apart from certain specialists from Cuba and Mongolia who have been recruited to work in Mahosoth International Clinic and Xieng Khouang Provincial Hospital. Domestic migration of the health workforce is a policy concern, from public to private sector employment, and from rural areas to cities. Newly graduated health professionals prefer to work in well-equipped central hospitals in the city of Vientiane and other large cities where there are part-time job opportunities to complement the low salaries from their government employment.

It is common for public sector doctors to offer private services outside their regular work hours (i.e. dual practice). Highly experienced physicians and dentists commonly run their own private clinics while also working at public hospitals. Pharmacists are allowed to run full-time private pharmacies when licensed by the MOH. There is evidence of an increasing ‘brain drain’ of qualified health professionals from the public to the private health sector, as well as to international development partner institutions, which can offer a much higher salary. IT staff, once experienced, are likely to leave their government posts and join private companies or establish their own computer shops. No large international emigration has been observed, although data are lacking.

4.2.3 Training of health workers

Education for health professionals is managed by the MOH and fully funded through taxes. There are 10 institutions that provide this training. The University of Health Sciences, the School of Public Health and Institut de Francophony pour la Medecine Tropicale (IFMT) are the major training institutions in Vientiane. At the provincial level there are three colleges of health sciences (Luang Prabang, Savannakhet and Champassack) and four public health schools (Oudomxay, Xiengkhuang, Vientiane and Khammuane).
The University of Health Sciences offers bachelor’s level and post-graduate training, such as master’s programmes and specialization qualifications, while the colleges of health sciences offer mid- to high-level diploma courses required to qualify as a technical nurse, community midwife, medical assistant or medical associate PHC worker.

The four central hospitals (Mahosoth, Setthathirath, Mittaphab and the Mother and Child Hospital) are all actively engaged in clinical training. An integrated programme has been established to combine theory and practice as well as coordination of partnership efforts; this concept is called the ‘Complexe Hospitalo–Instituto–Projecto–Universitaire’, or CHIPU, and clinical training has been decentralized to the large provincial hospitals, including those in Luang Prabang, Vientiane, Savannakhet, Champasack and Khammuane.

Medical training

To earn a bachelor’s level medical doctor degree (MD), upper-secondary-school students have to undertake a 6-year training programme with a ‘foundation’ first year followed by 2 years of pre-clinical sciences, 2 years of clinical studies and a final year of clinical practice. Medical associate is a high-level diploma course requiring 4 years of training for upper-secondary-school students or 1 year for those who wish to upgrade their medical assistant qualifications. To qualify as a medical assistant or a mid-level PHC worker, upper-secondary-school students require 3 years of training, while low-level PHC workers can upgrade to these positions with a 1-year programme. Low-level PHC workers are those who were recruited as secondary school students and who completed a 2.5-year programme at public health schools between 2003 and 2006. The programme focused on preventive care. Upgrading these low-level PHC qualifications to mid-level (medical assistant) and high-level (medical associate) qualifications is required, based on the 2005 Law on Health Care.

Nurse training

There are four levels of nursing qualifications in the Lao People’s Democratic Republic: a technical nurse (mid-level) requires 2.5 years of studies after upper secondary school; a registered nurse (high-level diploma) requires 3 years of studies; a graduate nurse requires 4 years of studies (bachelor level); and a specialized nurse requires first achieving the bachelor level and then completing an additional 2 years
of training. One main focus of the country’s HRH strategy is to upgrade the qualifications of existing auxiliary nurses (there are currently more than 3000) to mid-level nursing qualifications such as technical nurse or community midwife; this requires a 1-year course. Mid-level nursing training is offered by four provincial public health schools while the high-level diploma programme is offered by three colleges of health sciences.

**Village health workers training**

Current health-sector reforms include providing a 6-month curriculum of upgrade training for VHVs. They will receive official regular incentives, based on the proposal to the Government.

**Midwife training**

The HRH strategy recommends post-basic training to upgrade the qualifications of nurse to the level of midwife, except in some remote areas where it is difficult to retain nurses; in those areas, new recruits can enter a midwifery training course directly. Those with auxiliary nurse, low-level midwife, low-level medical staff and low-level PHC worker qualifications can upgrade to the level of community midwife (mid-level qualification) with a 1-year training programme. There is only one midwifery bachelor’s degree 4-year programme (so far only one batch has graduated), but there are also training programmes (1.5 years) that technical nurses or community midwives can complete to achieve a high-level midwifery diploma. The community midwife training course is offered at seven schools, while the high-level diploma and bachelor-level midwife programmes are run by the Faculty of Nursing and Midwifery at the University of Health Sciences.

**Dentist training**

It takes 6 years of studies for an upper-secondary-school student to qualify as a dentist. After the first ‘foundation’ year, the students pursue preclinical studies at the Faculty of Basic Sciences during years 2–4, and the last 2 years are spent in clinical training. To become a dental assistant, 3 years of training are required, including a first year of foundation studies for upper-secondary-school students.

**Pharmacist training**

A bachelor’s degree in pharmacology takes 5 years to complete. The first year of foundation studies is followed by 2 years of general
pharmaceutical sciences. The fourth year provides students with a choice of two professional tracks: pharmaceutical care or pharmaceutical sciences. The last year offers clerkship opportunities for students in both tracks. Training to be a pharmacist assistant requires 3 years of studies, including the first ‘foundation’ year for upper-secondary-school students.

Specialization and further training
According to MOH regulation No. 1945, health workers need to work at least 2 years at a public health facility or institution before they may request permission to pursue training towards a higher degree (starting in 2012, with the new MOH regulation No. 103, this has been lengthened to 3 years). Such requests will be initially considered by the relevant authority according to certain selection criteria set by the Department of Personnel (DOP) in collaboration with the training institution. The final decision on recruitment is made by the selection committee led by the director of the DOP, and this is submitted to the Minister of Health for official approval.

Specialist training is available at the University of Health Sciences under the Faculty of Post-graduate Training. Many specialities are offered, including: obstetrics, gynaecology, paediatrics, internal medicine, anaesthesia, surgery, radiology and family medicine, among others. Most require 3 years of training and candidates are called ‘first-level specialists’ during the first 2 years, after which they can apply for the second level if there is a relevant course. Some doctors also have the opportunity to receive training for additional specialities in other countries, such as Viet Nam and Thailand, depending on scholarship opportunities.

Continuing professional development
Unlike in some developed countries where physicians are required to maintain their licence through engaging in regular professional development, there is no such mandatory requirement for continuing professional development in the Lao People’s Democratic Republic, since the professional licensing system is not yet in place. Participation in continuing professional development opportunities depends mainly on the service needs of the health facility or institution, the willingness of the health staff, and the availability of scholarships to fund further training.
Educational standards
The body responsible for setting educational standards is the Educational Development Centre, which was established in 2011 and is part of the University of Health Sciences. Its main role is to improve the quality of health professional development through improvements to training curricula, teaching skills, educational resources, materials and the educational facilities.

Revalidation of qualifications to ensure medical competency (registration/licensing)
The Health Professional Council has a supervisory function with respect to all health-care personnel. The Council is also the licensing authority for physicians, dentists and other health professionals, including private doctors and pharmacies. Licences must be renewed annually. In cases of malpractice, licences can be revoked. The criteria for licensing are stipulated by the Law on Health Care, which delegates to the Health Professional Council the ability to grant licences to medical staff after 3 years of practice in provincial or district hospitals or health centres. Until recently, health staff at public health facilities have simply been recruited as civil servants and have been practising without licences. However, in 2010, the first graduating batch of 139 community midwives were subsequently required to pass a national exam organized by the MOH, thus earning their certificates of community midwifery competency; similar to a professional licence. Introducing a national exam for nurses is also on the agenda.

4.2.4 Health worker career paths
The promotion of civil servants, including health workers of any category (i.e. medical doctors, nurses, pharmacists, dentists or others), is regulated by Prime Ministerial Decree No. 82/PM. The starting salaries of new staff are set according to their educational and professional qualifications. An initial proposal for the starting salary and for subsequent salary steps is made by the selection board at the level of recruitment (i.e. central-, provincial- or district-level recruitment), and this proposal must be approved by the DOP. There is a probation period for all new staff based on level of professional education – 3 months for low-level, 6 months for mid-level, and 12 months for high-level health professionals. A final evaluation is made after the fulfilment of probation. Based on this evaluation, a proposal for nomination is made to the
Minister of Health by the recruitment committee of the corresponding professional level.

Classification of civil servants is based on a five-level system \(1, 2, 3, 4\) and \(5\), and each level comprises 15 salary steps. Initial classifications are:

- No education – level 1
- Low-level education (e.g. secondary school graduation) – level 2
- Mid-level certificate (minimum 3-year course) – level 3 step 3 \(3/3\)
- High-level certificate (minimum 3-year course) – level 4 step 1 \(4/1\)
- Bachelor’s degree – level 4 step 2 \(4/2\)
- Intermediate graduate diploma or specialized degree – level 4 step 3 \(4/3\)
- Master’s degree or equivalent (first-level specialist, family doctor) – level 4 step 5 \(4/5\)
- Higher-level graduate diploma (higher than master’s but not PhD) – level 4 step 6 \(4/6\)
- Doctorate (PhD) and second-level specialist – level 4 step 7 \(4/7\)
- Senior high-ranking staff (e.g. director general of an MOH department, dean of faculty, university rector) – level 5

Due to the special characteristics of education for medical doctors, especially general skills for health promotion and treatment, doctors’ career paths differ from other health-care personnel. Doctors can more easily achieve promotion to important administrative positions, such as director of a hospital or director of a national or local health institution. Although there has not yet been a survey on this, it is common for clinicians, especially surgeons, to fill most of the top administrative posts at the national (MOH) and local levels (provincial and district health offices). Other health professionals have less influence and are more likely to stay in technical posts.
Chapter 5: Provision of services

Chapter summary

The provision of public health services is primarily implemented through a network of health centres and district, provincial and central hospitals. There is poor access to and acceptance of public primary health care (PHC), probably due to the high level of out-of-pocket (OOP) payments required, and the inadequate quality of public health facilities. The emerging private health sector further complicates the challenges faced by the PHC system. The PHC system lacks a gate-keeping function; there is no effective referral system in place. Although outpatient services at hospitals are crowded, inpatient services are still under-utilized, reflected in the low bed occupancy rates and average length of stay.

The public health surveillance system is gradually developing and becoming operational, in the context of renewed political commitment in response to the H5N1 (avian influenza) outbreak in 2007. Further strengthening of the health management information system (HMIS), including the vital registration system, is high on the agenda. There is a need for the private health sector to comply with national health information requirements, particularly the national diseases surveillance system. Routine coverage of the Expanded Programme on Immunization (EPI) is still low. Pharmaceutical care is more developed than other programmes. The rehabilitation, long-term care and mental health-care systems are in their infancy.

The current health system reform has set service delivery at the PHC level as a priority area. It is expected that a national standard basic integrated service package, with a focus on maternal and child health (MCH), will be provided at this level, and that quality assurance measures will be gradually adopted, along with an expanded ‘healthy village’ model. Recently, a new division has been established under the MOH’s Health Care Department to promote and integrate traditional health care into mainstream health services.
5.1 Public health

The provision of public health services in the Lao People’s Democratic Republic is primarily implemented through a network of health centres and district, provincial and central hospitals. Communicable diseases that are of particular concern to public health in the country are mainly vector-, water- and food-borne diseases. More recently the emergence of epidemics, particularly avian (H5N1) and swine (H1N1) influenza, have also caused concern. In response, the Government established the National Coordination Committee on Communicable Diseases (NCCCD) in 2004. The committee was chaired by the prime minister, ex-officials from 14 line ministries and the Communicable Disease Control (CDC) Task Force, of which technical staff from the Ministry of Health (MOH) and the Ministry of Agriculture and Forestry are key committee members.

Compared with the 2003 response to SARS (severe acute respiratory syndrome), the response to avian influenza was more active and effective as a result of strong political commitment and effective intersectoral action. Active surveillance for avian influenza was intensified further after the first two human cases were confirmed in 2007 following outbreaks in poultry. This involved facility-based surveillance efforts at health centres, district health offices (DHOs), provincial health offices (PHOs) and the National Centre for Laboratory and Epidemiology (NCLE), which is staffed by 29 permanent officers (10 who are trained in epidemiology and public health), as well as the MOH. A telephone hotline for reporting suspected cases of avian influenza in humans was also established. The National Influenza Laboratory (NIL) at the NCLE is also now fully operational.

The improvements in communicable disease surveillance and response to outbreaks are due to the establishment of three frameworks: the 2005 International Health Regulations (IHR); the Asia Pacific Strategy for Emerging Diseases (APSED); and the National Work Plan for Emerging Infectious Diseases (2007–2010). Activities such as cross-border disease surveillance and prevention among six countries in the Mekong Basin (including Cambodia, China [Yunnan], the Lao People’s Democratic Republic, Myanmar, Thailand and Viet Nam) have received support and funding. The flow of reporting in the national surveillance system is shown in Figure 5.1.
However, the disease surveillance and response systems for emerging and re-emerging diseases need significant strengthening to become more effective, in particular at the provincial and district levels, in the areas of human resources, capacity to use information technologies and laboratory techniques, as well as adequacy of laboratory equipment.

In the centrally planned economy of the 1980s, state agencies were responsible for providing on-site occupational health services. Since the transition to a market economy in 1986, a private sector has gradually emerged and private enterprises are obligated to arrange and finance occupational health services for their employees, in conjunction with the Lao Trade Union, the Ministry of Labour and Social Welfare and the MOH. The major occupational health risks are dust, noise and chemical exposure. Chronic bronchitis and pneumococcosis account for the majority of occupational diseases. Recently, in 2013, the Department of Hygiene and Health Promotion has been given a mandate to manage occupational health, although the relevant policy and strategy have not yet been developed, and support in this area is relatively weak.

The national Expanded Programme on Immunization (EPI) adopted a standard schedule of eight antigens including BCG (against tuberculosis),
diphtheria, tetanus and pertussis (DTP), poliomyelitis, Haemophilus influenzae type B (HiB), measles and hepatitis B. In 2008, the pentavalent vaccine (DTP-HepB-HiB) was introduced with support from the GAVI Alliance. The EPI aims to reach the target of 85% full immunization coverage of infants (under one year old). The latest data from the Lao Social Indicator Survey (LSIS/MICS/DHS 2011–2012; MOH & Lao Statistics Bureau, 2012; WHO, 2012a) indicate that the following coverage levels have been achieved: Average full vaccination 39%, measles 72% (first dose), DPT3 78%, BCG 80% and OPV3 76%. The 2013 administrative data (unpublished) suggest coverage of first dose measles vaccine has increased to 82%.

According to a 2013 UNICEF report, 10% of routine EPI vaccines were financed by government funding (UNICEF, 2013), which reflects strong governmental commitment. The recent LSIS also indicated that only 32% of children under the age of five with suspected pneumonia were taken to an appropriate health-care provider and only 52% received antibiotics. In October 2013, the MOH introduced pneumococcal vaccine into the routine set of EPI vaccines.

Health promotion is a national public health priority. The Lao People’s Democratic Republic launched a tobacco-control initiative in 2001, well before ratification of the WHO Framework Convention on Tobacco Control in 2004. Later, in 2010, the Tobacco Act was promulgated, enforcing advertising bans and smoke-free public spaces, among other initiatives. The smoking rate has decreased since then, though the prevalence of smoking is still quite high among males. The recent National Adult Tobacco Survey (2012) found that the rate of smoking among all adults is 24%, but the rate among men is 41%. The Government recently approved the establishment of a ‘tobacco control fund’, sourced from the revenue of tobacco taxes (tobacco products are taxed at the rate of 2%). Approximately one third (32%) of the funds will be used on health insurance, 25% on medical equipment for hospitals, 37% for tobacco control measures and the remainder will be spent on the operation of the National Committee for Tobacco Control. The experience from this initiative, as well as similar experiences from Thailand and other countries, will be used later as a reference for alcohol-control initiatives.

Financing for health promotion is limited and, lacking sustainable resources, activities are implemented in an ad hoc fashion. A recommendation to establish a ‘sin tax’ as a source of revenue for
a ‘health promotion fund’ is in early stages of discussion. This has the potential to generate substantial resources and to curb consumption of harmful substances, such as tobacco and alcohol.

**Box 5.1 Health promotion for healthier lifestyles**

The Centre for Health Education, Information and Communication (CHEIC) of the MOH is responsible for implementing health promotion. CHEIC focuses on a broad range of health education activities, from production of informational materials to educating the general population on health issues. Annual health promotion campaigns create public awareness on the health impact of unhealthy lifestyles and encourage healthy practices and lifestyles. Campaign themes change every year, ranging from a focus on specific diseases to personal behaviour change. The goal of these campaigns is to help people “be healthy for life”, with an emphasis on three healthy behaviours: healthy eating, healthy drinking and healthy living, which includes promotion of healthy practices such as regular exercise, refraining from smoking, and stress management.

**5.2 Patient pathways**

Box 5.2 describes the typical care pathways in the Lao People’s Democratic Republic for individuals with and without health insurance coverage.

**Box 5.2 Care pathways: the insured and uninsured**

Nang is a private employee in Vientiane who is a member of the health insurance scheme of the Social Security Organization (SSO). When she suffered from severe menstrual pain she went to see a doctor at a private clinic at a convenient time in the evening. There was no waiting time, but she paid US$ 20 as the SSO scheme does not cover services at private clinics. Nang’s symptoms persisted and a week later she visited an outpatient department of a public hospital covered by SSO. She received an ultrasound scan and two medications, all covered by SSO. Her symptoms continued and became acute so she returned to the emergency department of the same hospital. A ruptured cyst was suspected and after some diagnostic tests she underwent surgery. Five days post-operative Nang had fully recovered and was discharged. All expenses were fully covered by the SSO scheme.
Box 5.2 Care pathways: the insured and uninsured (cont.)

In contrast, Saa is uninsured and lives in a rural village in Saravanh province in the south of the country. Saa faced the same symptoms as Nang. She travelled one hour by local truck from her village to a district hospital, bypassing a nearby health centre as she felt the health workers there would be unable to effectively treat her condition. At the district hospital, she was examined and received medication. She paid US$ 10 for these treatments. The second visit was to the emergency department with acute abdominal pain; she arrived at the district hospital late in the evening and was referred to the provincial hospital. Her father paid more than US$ 100 for the transportation. After midnight, she had emergency surgery and stayed in hospital for seven days until she had fully recovered. Upon discharge, her father paid more than US$ 300 for the inpatient care, which he was forced to borrow from relatives.

Source: Discussion with key informants (i.e. village heads, district hospital staff, heads of households). The names used are not the real names of the patients.

5.3 Primary/ambulatory care

In urban settings, PHC services – including prevention, health promotion and curative services – are provided by a range of public and private health-care facilities, including health centres (often staffed by one to three non-physician staff with low- to mid-level qualifications, such as a medical assistant, a nurse and/or a midwife), outpatient or emergency departments of district or provincial hospitals, private clinics and pharmacies.

Each health centre offers PHC services including treatment of common diseases, vaccinations, antenatal care, birth assistance, postnatal care and home visits to patients suffering from chronic conditions or with poor mobility. Each health centre serves between 1000 and 5000 people in a catchment area. There are few sanctioned posts for health professionals with high-level qualifications. A number of qualified health professionals provide voluntary health services at health centres or district hospitals and are not paid by the Government. They may work on a volunteer basis for a few years until a post becomes vacant or quota availability, at which point they can be appointed and fully paid as civil servants.

The country has 860 health centres and 130 district hospitals across all 143 districts (MOH, 2010a). There are two categories of district hospital. Type A district hospitals, of which in 2013 there were 25, only 18 have
better clinical capacity to manage referrals for inpatient services, including paediatric care, internal medicine and general surgery (MDGs Progress Report in Lao People’s Democratic Republic, MOH, 2013 p16). Type A district hospitals, therefore, play a secondary care role, for cases referred from the primary level. Type B district hospitals, of which there are 105, are considered to offer PHC-level services, including the four basic medical fields: paediatrics, internal medicine, obstetrics and gynaecology, and minor surgery.

Privately owned health-care facilities emerged after the 1986 transition to a market-oriented economy. To date, there are 222 private clinics/hospitals and 2132 private pharmacies. There is no clear definition to distinguish between private ‘clinics’ and private ‘hospitals’, although for marketing purposes they may prefer to use the name ‘hospital’. These private facilities are mostly located in the capital city, Vientiane, and other provincial cities, and a few more are currently under construction. The private sector emerged as a result of the poor capacity in the public sector and the perception that the public system provides sub-standard care. A two-tier system has emerged in which wealthy and middle-class patients access high-quality private providers while the public sector services provide a basic safety net for the poor. As discussed in Chapter 3, the four prepayment health-financing schemes cover only 19.6% of the population and none of the four schemes cover services provided by the private sector – these services must be fully financed by household out-of-pocket (OOP) payments or by private health insurance reimbursement.

The health information system does not yet cover the private sector, such as services provided and reports of infectious diseases, for which notification is required as part of national surveillance. Though private health facilities and medical practitioners are subject to licensing against a set of competencies and requirements since 2012, this has not yet been fully implemented. Regulations relating to price, quality and other public health requirements, such as disease notification are required. The MOH is setting up a unit to manage private sector regulation and licensing.

In addition, village drug kits are available. These are managed by village health volunteers (VHVs), who receive 1–2 weeks of training on dispensing basic drugs and treating common diseases. These volunteers offer primary care services in hard-to-reach areas where there is no health centre. This system provides front-line health services for the most disadvantaged people. Village drug kits cover the majority of hard-to-
reach villages in the 72 targeted poor districts. At the village level, the VHV is responsible for providing health education and certain community health promotion services, and for using the revolving drug fund (RFD) mechanism, both in the village and at the sub-district-level health centre, to recover costs and ensure sustainability. There are approximately 14,812 VHVs in the country (MOH, 2010a). They have played a critical role and are even more indispensable now, with the model ‘healthy village’ package being rolled out.

The current level of PHC service provision does not match the increasing demands and expectations from the growing population. Prepayment health-care schemes cover a small proportion of the population and they have no PHC gatekeeping mechanism, so there is nothing to prevent the use of higher-level hospital care for primary care cases. Patients often bypass PHC services and go directly to tertiary hospital care because of the poor quality of services provided by health centres.

The limited PHC response to the increasing demands from the population leaves room for an increased role for traditional healers, traditional birth attendants and village health volunteers. However, the MOH lacks regulatory capacity to ensure safe practices by these groups of health workers.

5.4 Specialized ambulatory care/inpatient care

Tertiary care is provided mainly by facilities at the central level with specialists on staff; these include four central hospitals and three specialized hospitals. In addition, four regional hospitals (located in Champasack, Savannakhet, Luang Prabang and Oudomxay provinces) have been used as referral centres for specialized care in those regions.

Central, regional and provincial hospitals are generally well equipped with advanced diagnostic and treatment facilities, as well as specialists. Patients perceive the treatment at this level to be of high quality, with the result that they commonly bypass PHC services in favour of these higher-level facilities, as previously mentioned. This practice results in overcrowded outpatient services at this level, despite district hospitals being better able to provide continuity of care for patients who live locally.

Health services for the uninsured majority of the population are financed by households, so cost is the main barrier to accessing more expensive tertiary care, especially among the poor. See also Box 5.2: Care pathways.
The application of management and performance standards for health facilities has put pressure on hospitals to improve the quality of their services. Accreditation of health facilities has yet to be developed. The expectation that provincial hospitals will take the role of tertiary referral centres has not been realized due to insufficient public investment in modernizing old infrastructure in some cases, and in replenishing medical equipment in most cases.

Day care for patients is at an early stage of development. Haemodialysis, physiotherapy and cataract operations are currently provided as day care. Haemodialysis, however, is limited to the Friendship Hospital and the Military Hospital in the city of Vientiane; no such service exists at the regional and provincial levels.

5.5 Emergency care

There was no systematic organized pre-hospital emergency service in the 1990s and it wasn’t until the 2010s that emergency transportation improved due to better road networks and infrastructure. One ambulance centre emerged in 2011 for the whole country, under the responsibility of the Vientiane Health Department. There are four fully equipped ambulance vehicles, each supported by two physicians, a nurse and a driver. The ambulance service is available 24 hours a day and can be reached by phone. This initiative has yet to be expanded nationally and sustainable financing is one of the major challenges. Ambulance services are also available at three central and several provincial hospitals, at most type A and some type B district hospitals, although at this level the ambulance services are very limited. The private sector does not yet operate ambulance services. Furthermore, the capacity of ambulance personnel to provide pre-hospital care needs to be developed.

Patients normally travel to hospital emergency departments either by public or private transportation. Patients may receive transport assistance from police officers or, more commonly, from passers-by. Emergency services are mostly paid out-of-pocket unless patients are insured under a prepayment schemes. The cost of emergency transportation can be very high so that the uninsured poor generally cannot afford it. The Government’s Health Equity Fund (HEF) for the covered poor includes food and transportation costs. Box 5.3 describes emergency care pathways for the uninsured and those covered by prepayment schemes.
Box 5.3 Emergency care pathways: the insured and uninsured

A woman covered by the SSO insurance scheme suffered from acute appendicitis on a Saturday morning. Her husband hailed a passing tricycle cab and she was transported to the emergency department of the hospital designated by the SSO scheme, where the physician on duty provided a physical examination, ordered several laboratory tests, checked the results and consulted the on-call surgeon about further management of the patient. The patient was then admitted to a surgical ward and prepared for the operation. An appendectomy was performed under general anaesthesia and post-operative care was provided. Once the patient had fully recovered (within a few days) she was discharged without complications. All expenses were covered by the SSO scheme because the patient chose to go to a covered hospital. Food and lodging for accompanying relatives were covered by the patient.

In contrast, a young man who was uninsured was hit by a motorbike on a Sunday morning, likely fracturing his lower leg. A helpful passer-by called the ambulance centre on 195, but the service was not available, so he hailed a passing tricycle cab, which transported the man to the emergency department of the nearest provincial hospital. A physical exam and X-rays were conducted by the physician on duty, after which a blood transfusion was given to prevent shock and emergency surgery was arranged. The patient was admitted to a surgical ward and prepared for the operation, which was performed successfully, with internal fixation and two units of blood transfused. The post-operative outcome was good; the patient fully recovered and was discharged. The young man borrowed money from relatives to pay all his medical bills.

Source: Discussion with key informants (i.e. village heads, district hospital staff, heads of households).

5.6 Pharmaceutical care

The Food and Drug Department (FDD) of the MOH is the national regulatory authority mandated to administer and enforce the Food and Drug Act. The FDD has designated staff at PHOs and DHOs. The Bureau of Food and Drug Inspection, which has replaced the Quality Control Division of the FDD, was established in 2010 for law enforcement. The Medical Products Supply Centre (MPSC) is responsible for supply chain management of health products. A national supply chain management policy is under review, in consultation with the MOH and other relevant stakeholders. Current staffing levels at the MPSC are adequate; however,
with the expansion of the MPSC’s role in implementing a national supply chain management policy, increased capacity is required.

Of the six local manufacturers of medicines, two have a GMP (good manufacturing practice) licence from the FDD, although the GMP standards applied by the FDD are not as stringent as the current WHO guidelines, *Good manufacturing practices for pharmaceutical products* (WHO, 2011b). Compliance with GMP standards is required by the Food and Drug Act, and the FDD ensures sustainable supplies of essential medicines.

The FDD ensures the quality of medicines through the function of its Food and Drug Quality Control Centre and the Bureau of Food and Drug Inspection. Monitoring the compliance of wholesalers with regard to the requirements for drug storage conditions include random quality checks. The capacity of the FDD staff has been strengthened, including both laboratory and regulatory functions. In the context of a free market, the price of medicines is not controlled but is based on cost plus profit margins for imported or locally produced items. The MOH applies a national essential drug list with the support of the WHO since 1979; the seventh revision in 2012 covered 350 pharmaceutical items in 28 groups. Guidelines on rational drug use and clinical practice have been developed and circulated throughout the country.

Pharmaceutical distribution involves a complex process. When domestic manufacturers and importers obtain market authorization, the wholesalers distribute medicines to retailers and end users at health centres and public hospitals as well as private pharmacies and clinics. Inpatients receive medicines (mostly generic medicines) through the hospital dispensaries, covered by their respective prepayment schemes, or by out-of-pocket payments if they are uninsured. Unlike in Western countries, the pharmaceutical departments of public hospitals are responsible for managing the drug supply and for dispensing drugs to both outpatient and inpatients.

The PHOs are responsible for licensing private pharmacies in each province, although they have a limited number of inspectors. Grants from the sixth and eighth rounds of the Global Fund have supported the strengthening of pharmacy inspections in all provinces. A computerized drug registration system has been set up at central and provincial levels, including licensing details of the approved private pharmacies and
drug vendors. This contributes to effective inspection and monitoring compliance with the Law on Pharmaceutical and Medical Products and the related regulations. The establishment of three regional laboratories at Food and Drug Units is designed to detect and contain any counterfeit or sub-standard medicines. However, the FDD’s regulatory and enforcement capacity is limited and this is a major area where capacity strengthening is needed.

Revolving drug funds (RDFs) were established in the 1990s (MOH, 1997) to support the mobilization of local resources to ensure availability and routine replenishment of essential medicines at the PHC level. Government and donor funding covers the initial operational costs as well as the care for the poor who are exempt from paying. In the operation of these RDFs, the mark-up on the price of the drugs is used to cover overhead costs, price increases, and sometimes to cross-subsidize commodities for poor patients. Health centres manage the RDFs to ensure sustained service at the local level. The RDF reporting system involves reports from the VHVs to health centres, and from the health centres to the DHO. In general there is good acceptance for the RDF system. The downside is that irrational and excessive use of medicines has been reported in connection with the RDF system. This is a challenge for financing reform efforts. In addition, drug procurement, management and record-keeping for the RDFs at the VHV, health centre and district levels need improvement, with a focus on achieving the main goal of guaranteeing availability of essential medicines in remote areas.

5.7 Rehabilitation/intermediate care, long-term care, palliative care and services for informal carers

Rehabilitation services are not well established; there is only one rehabilitation centre for the whole country, located in Vientiane, resulting in limited access. There are a few private clinics providing rehabilitation and physiotherapy services, mostly financed by OOP payments.

There are no public services for community care, long-term care or day care for patients with chronic illnesses, older people and other groups with special needs, such as those with mental and physical disabilities. Traditionally, family members have been the carers for these groups, both in urban and rural areas.
In most cases, patients in need of palliative care are also cared for by their families at home. There is no dedicated hospice. Some patients needing long-term palliative care are admitted to acute-care hospitals (if they can afford to pay) but mostly they are discharged as ‘incurable’ cases to continue care with traditional medicine at home. Pain management for terminally ill cancer patients is provided through public hospitals or private clinics, but is very limited.

Rapid demographic changes, including an increased proportion of elderly people, increased female participation in the labour market, and a trend away from the traditional nuclear family, are some of the challenges to the provision of traditional long-term care within the family by informal carers. Thus, the Government is required to step in to provide appropriate long-term care as well as a clear policy on providing counselling and support services to these informal home carers.

5.8 Mental health care

Mental health needs remain largely unaddressed both in terms of service provision and appropriate training for health professionals. A WHO situational analysis on mental health in 2002 placed mental health on the agenda for the country (WHO, 2002). There is no specific budget for hospital-based mental health services, but it is covered by the overall MOH budget. Government expenditure on mental health is unknown.

There are only two public clinics, based in Mahosot and at the Military Hospital in Vientiane, that provide mental health services. There are 29 designated beds for mental illness patients, equivalent to 0.03 beds per 10,000 population. Just 2 professionally trained psychiatrists, 1 neurologist, 8 general practitioners, 5 medical assistants and 21 nurses together form the country’s entire mental health workforce. Provincial and district hospitals can only provide a limited range of routine treatments for certain common mental conditions and epilepsy, such as sedatives. There is no national community-based mental health programme.

The first nongovernmental community mental health project, ‘Basic Needs’, was established in 2007. This project is staffed by one psychiatrist, one general practitioner and a few community-based health workers. They provide community mental health outreach, training and treatment in nine districts around Vientiane and the project has recently expanded
its services to Bolikamxay. The project works closely with WHO, the MOH, other government sectors and civil society organizations.

Several mental health training programmes have been provided for general practitioners throughout the country, one of them supported by WHO. The subject of mental health has been taught at medical, dental and nursing schools, with a limited number of hours.

The National Mental Health Policy was endorsed by the Minister of Health in October 2007, but it was not implemented due to a lack of funding and expertise. In-service mental health training for existing health personnel is the key to further expansion of mental health services in the country. A mental health strategy is under development and will be available for publication in 2012.

5.9 Dental care

Dental healthcare is offered by public and private facilities. Those who can afford it use private dental clinics. Fees charged by private clinics are relatively high and are not regulated by the MOH. Private dental clinics have burgeoned in Vientiane and other provincial cities. Private dental clinics are often equipped with high-quality modern equipment.

All central and provincial hospitals, several district hospitals and a few health centres offer dental health services. The University of Health Sciences in Vientiane offers a bachelor’s degree in dentistry, producing approximately 30–40 graduates annually, and it has master’s degree courses, which produce 10 post-graduates a year. Preventive oral care is irregularly taught at schools. Improved dental services, programmes to address behaviours, reinforcement of the primary and secondary prevention of dental diseases, controlling user fees, and accrediting dental care services are among some of the policy recommendations to improve dental health, and there is active discussion on the topic of salt fluoridation.

5.10 Complementary and alternative medicine

Traditional medicine has a long history in the Lao People’s Democratic Republic. These practices are deeply rooted in the Lao people’s perceptions and beliefs about health and illness. The use of traditional medicine has recently become more popular and accessible and in
response the MOH launched a policy in support of integrating traditional medicine with Western medicine. The Centre for Research on Medicinal Plants and Traditional Medicine was upgraded to a national institute in 2009. In collaboration with local pharmaceutical manufacturers, the Institute produced numerous traditional medicinal pharmaceutical products. About 24 traditional medicine items, grouped into 7 categories, are included in the national list of essential medicines (seventh revision, MOH & WHO, 2012a). However the registration of traditional medicines by the FDD is still incomplete, and guidelines for the safe use of these medicines have not yet been formulated. The first national traditional medicine policy and strategy is under active discussion.
Chapter 6: Principal health reforms

Chapter summary
Within a short timeframe and in a very challenging environment, the Government of the Lao People’s Democratic Republic has undertaken some major health sector reforms. There is convergence towards a specific health sector reform plan coupled with wider governmental reforms addressing wages for civil servants and decentralization. The development of the health sector in the Lao People’s Democratic Republic has been guided by the socioeconomic changes in the country. The Government has endeavoured to provide better health services for all people in the country. Major efforts can be categorized within the four policy frameworks described in this chapter.

Governance and leadership
The Ministry of Health (MOH) has made significant progress in terms of health policy formulation and decentralization of health services to the provincial, district and health centre levels since the 1990s. Since then, a number of national policy and strategies documents have been formulated, under which the health sector has developed a legal framework to address key health issues in the country. The Health Sector Reform Strategy (2013–2025) was finalized and endorsed by the National Assembly. The primary health care (PHC) policy (2000) and the MOH’s comprehensive National Strategy for Human Resources for Health (2010–2020) are the key policies. Various laws have also been adopted by the National Assembly to provide a framework for better regulation and implementation of health programmes. The MOH has established three new departments for a current total of 9 departments (not including the Cabinet), with clearly defined terms of reference to improve programme implementation. However, the institutional capacity for regulation, enforcement, and translation of policy into effective implementation is still limited.

Health financing
The Government’s four health financing schemes are being merged into one National Health Insurance Scheme for improved management and
larger risk-pooling, though a timeline for the merger has yet to be decided (GOLPDR, 2012). The Government has committed to achieving 50% coverage with the health financing scheme by 2015, and has introduced a national policy on free maternal and child health (MCH) services in 2012. However, it is not expected that these targets will be reached due to weaknesses in regulation, law enforcement and managerial capacities of the implementing agency. Several problems need to be rectified: (1) the level of public expenditure on health is still too low; (2) geography and limited population coverage by social protection schemes are major barriers to accessing care, resulting in a high level of out-of-pocket payments; (3) there is low utilization of services due to these barriers; (4) there are still challenges to implementing the four prepayment schemes and expanding coverage; (5) the limited range of services at PHC facilities in rural areas and the poor quality of care both need to be improved further in order to earn the trust of the population.

Service delivery

Based on the recent reforms and new policies and laws, the following progress has been made in service delivery:

• Drug kits, mobile/outreach services for the poor, and a voucher programme for improved maternal, neonatal and child health have been used to improve accessibility.
• Many facilities, including hospitals and health centres, have been renovated and upgraded.
• There is ongoing reassessment and consolidation of the required number of health facilities at each level.
• There is ongoing acceleration of the implementation of the minimum requirements for strengthening quality of the services at the district level.

However, infrastructure, medical equipment and staffing at health centres and district hospitals all need to be improved further. Further efforts are needed to improve health-care access for the poor in some geographic areas, including a referral system. In addition to curative services, preventive and health promotion services at each level need to be strengthened.

Human resources for health

In response to the shortage and uneven distribution of skilled health workers across the country, the MOH has launched the comprehensive
National Strategy for Human Resources for Health 2010–2020. Recent increases in the quota for health workforce are positive indications of progress. The MOH is working on reintroducing the training programme for medical assistants and in-service PHC training modules, providing an incentive package for staff to work in rural areas, and negotiating for an adequate quota of health workers with the Ministry of Home Affairs. There is also a move to upgrade village health volunteers (VHVs) to qualified health workers at the village level, with a six-month training course and incentives.

6.1 Analysis of recent reforms

6.1.1 Health systems challenges

Within a short timeframe and in a very challenging environment, the Government of the Lao People’s Democratic Republic has undertaken some major health sector reforms, including: health financing for the poor, less-educated and traditional populations in remote areas; improved access to health services; improved management capacity in the health sector, including regulating a highly decentralized system; improved quality of care, beyond technical skills; addressing fragmentation of services; and better regulation of the private sector.

Poverty remains a significant problem in rural areas. Women and girls still face the challenges of stereotyped gender roles, unplanned pregnancies, heavy workloads and restricted educational opportunities, especially in rural areas. Women have difficulties accessing family planning and maternal health services, resulting in increased risks during childbirth and the current high maternal mortality ratio (MMR).

Since 1989, when financial aid from the former Soviet Union and other Eastern European countries petered out, the Government has been increasingly unable to finance social services and pay the salaries of civil servants. To respond to budget constraints, the public sector was downsized through the early retirement of civil servants, freezing of budget allocations, and the introduction of user fees at health-care facilities.

The subsequent deterioration in the quality of public health services along with population growth have created barriers that limit access to health care. Low public spending, low wages, low morale and poorly motivated health personnel have in places resulted in a negative environment that creates a barrier to accessing health facilities, including
increasing pressure to provide informal payments in order to obtain satisfactory services (these payments can be viewed as ‘gift’ payments, within the local cultural context).

The country’s health sector has transitioned over the last two decades to a decentralized system. In the transition to a market economy, the MOH was unable to strengthen its regulatory capacities, which remain weak with respect to information, planning, monitoring and strategy. Financial authority has been devolved to the provincial government. The share of total public expenditure from the local governments has increased over the years to two thirds of total government spending in fiscal year 2007–2008. For the health sector, nearly 80% of the total government health budget was allocated to local government [MOF, 2009]. The MOH’s ability to regulate a highly decentralized health system is among the most critical areas requiring further strengthening.

Planning and management of service delivery is weak at the operational level; there is a lack of programme integration and coordination among health-care facilities. Insufficient quality assurance for health services, as well as inadequate staffing levels and uneven distribution of qualified staff, have led to a decline in the quality of public health facilities at the PHC level, putting more pressure on the already stretched central and regional hospitals. The referral system needs improvement.

Although the country’s network of health-care facilities covers 93% of the population within a 90-minute walking distance, there are still urban–rural and rich–poor gaps. In terms of access and range of services, the barriers for the rural population are greater. The Lao Expenditure and Consumption Survey 2007–2008 [LECS4; NSC, 2009] reported an average of 108 minutes for rural residents to reach a facility versus 19 minutes for urban residents, and 3 hours to reach a health facility in the highlands compared to an average of 48 minutes in lowland areas. There are correlations among poverty, geographic location and ethnicity. In rural areas, low motivation, conflicts of interests and a lack of training and career advancement opportunities further hinder quality of care and patient trust. The poor supply and quality of health services cannot meet the increased demand for health care from the Lao people.

The legacy of the war also remains challenging; the Lao People’s Democratic Republic is the country most affected by unexploded ordnances (UXO) left over since independence was gained, putting a significant portion of the population at risk.
6.1.2 Policy framework to address health sector challenges

In collaboration with development partners, the Government has formulated a number of national policy directions based on which the health sector has worked to address key challenges. There have been some major achievements following the implementation of these strategies and plans.

The National Growth and Poverty Eradication Strategy (NGPES), which was finalized in 2003, is the overarching document that guides and sets long-term targets for country planning and policy development up to the year 2020 (MOFA, 2003). The NGPES aims to reduce poverty by targeting the poorest districts.

In 2004, the Government set its national targets and relevant indicators within the framework of the Millennium Development Goals (MDGs) and published its first national MDG report to review progress towards 2015 targets. The sixth five-year National Socio-Economic Development Plan 2006–2010 (NSEDP VI), which incorporated the key elements of NGPES and the MDGs (MOH, 2010c), was implemented by the Government, and progress was reported to the National Assembly. The country is now under the seventh National Socio-Economic Development Plan (MPI, 2011). The seventh five-year National Health Sector Development Plan 2011–2015 (HSDP VII) drives national health targets under the overall framework of the current NSEDP VII.

The evaluation of the NSEDP VI revealed only limited progress. Health financing still relies heavily on donor funding, especially for hygiene and preventive health programmes (e.g. the Global Fund and the GAVI Alliance), and there is still a high level of out-of-pocket (OOP) payments by households.

Based on the results of the NSEDP VI evaluation, policy development in the health sector has been revised and now highlights the need for the health reform based on a combination of top-down and bottom-up approaches.

Leadership and governance

The MOH made significant progress on policy development and decentralization of health services to the provincial, district and health centre levels during the 1990s. Since then, a range of health-related
policies have been implemented and various laws have been adopted by the National Assembly to provide a framework for better regulation and implementation of health programmes.

In December 2012, the National Assembly endorsed the Health Sector Reform (HSR) strategy 2013–2025 submitted by the Ministry of Health (MOH). A framework document detailing the overall policy, the strategic plan (including targets), monitoring and evaluation framework and costs was prepared in 2013. In early 2014, the Prime Minister’s office approved a high level committee that will lead the Health Sector Reform process.

The overall goals of the reform are: the achievement of the health related Millenium Development Goals by 2015 and Universal Health Coverage by 2025. In order to reach these goals, the reform is structured in three phases. Phase 1 (2013–2015) focuses on the achievement of health related MDG and lays out a solid foundation for universal access to essential health services; Phase II (2016–2020) aims to ensure that essential health services with reasonable good quality are available and accessible to, and used by, a majority of the people; and Phase III (2021–2025) expects to achieve universal health coverage with an adequate service benefit package and appropriate financial protection to a vast majority of the population.

Health systems strengthening plays a central role in the reform strategy as evidenced by the priority areas chosen under the reform: health financing, health governance, human resources for health, health service delivery, and health information systems.

The policy on PHC in 2000 defined a clear direction, principles, strategies, components, structure, activities, roles and responsibilities, and the relationship between each level of health services (i.e. village, sub-district health centre, district, province and central). The Skilled Birth Attendance Strategic Plan (2008–2012) has been important for improved reproductive health care. The MOH has also implemented the National Nutrition Policy (2008) and the National Nutrition Strategy and Operational Plan (2009–2014).

Relevant laws that have been passed between 2000 and 2010 include: the Law on Drugs and Pharmaceutical Products (2000, and its 2012 amendments), which ensures the supply of high-quality and safe medical products at an affordable price; the Law on Hygiene, Disease Prevention and Health Promotion (2001, and its amendment in 2012); the Law on Food (2004); the Law on Health Care (2005); the Law on Tobacco Control (2009),
to contain tobacco consumption and prevent passive smoking; and
the Law on HIV/AIDS Control (2010). Figure 6.1 shows the timeline
for the adoption of different laws.

More recently, the MOH proposed an amendment of the Law on
Drugs and Pharmaceutical Products and the Law on Hygiene,
Disease Prevention and Health Promotion, which was adopted by
the National Assembly on 21 November 2011. This amendment
empowered the MOH to better regulate the health sector and to
improve quality through accreditation and licensing. However,
there is limited institutional capacity for regulation, in particular
human resources to enforce the law.

The lack of coordination among health programmes funded by
development partners has resulted in high transaction costs,
fragmentation and inefficiency. It has also created a burden for
service delivery at the local level, prompting the MOH and other
partners to develop sector-wide coordination (SWC) in 2006.
This is in line with the Vientiane Declaration on Aid Effectiveness
(GOLPDR, 2006). Phase 2 SWC, building on the success of Phase
1, strengthens the MOH capacity to manage and coordinate donor-
funded programmes.

The weak leadership and management of the MOH has been
addressed. The MOH had one cabinet and six departments, with an
uneven level of responsibility across departments. For example,
the Department of Hygiene and Prevention was responsible
for nutrition, maternal and child health (MCH), communicable
disease control (CDC), water, sanitation and environmental
health, and health promotion. All departments had an inadequate
number of competent staff. MOH reform has established three
more departments with clearly defined terms of reference.
The Department of Hygiene and Prevention was sub-divided
into the Department of Hygiene and Health Promotion and the
Department of Communicable Disease Control, and the other
additional departments are the Nutrition Centre and National
Health Insurance Bureau. The new challenge is to allocate
adequate numbers of competent staff to fill the jobs in these newly
established departments.
<table>
<thead>
<tr>
<th>Year</th>
<th>Important Landmarks</th>
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<tr>
<td>2000</td>
<td>Law on Drug and Medical product PHC Policy</td>
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<td>2002</td>
<td>Launch CBHI Scheme</td>
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<tr>
<td>2001</td>
<td>Law on Hygiene &amp;</td>
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<td>2004</td>
<td>Law on Food Safety</td>
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<td>2005</td>
<td>Law on Health Care</td>
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<tr>
<td>2006</td>
<td>6th HSDP 2006-2010 launched - Initiation of Sector Wide Coordination mechanism</td>
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<td>2007</td>
<td>Mid-term review of HSDP - National Health Congress - Decree 381 on technical revenue (replace Decree 52)</td>
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<td>2008</td>
<td>HMS strategy - Decree 617 for initiate Hospital Finance Refor - Presidential Decree 03 on technical revenue (replace Decree 381)</td>
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<tr>
<td>2009</td>
<td>Law on Tobacco Control - Policy on Nutrition - MNCH service Package - Government commitment to achieve UC by 2020</td>
</tr>
<tr>
<td>2010</td>
<td>Law on HIV - President’s commitment to achieve MDG by 2015 - Strategy for Human Resource for Health</td>
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Source: Asia Pacific Observatory on Health Systems and Policies
At the sub-national level, there is ongoing strengthening of the decentralization process in accordance with the Government’s policy on making the province a strategic unit, the district a planning and financing unit, and the village an implementing unit. In the past, the technical and planning functions were managed at the central ministerial level, separate from the management and financial decision-making at the local level. Therefore the MOH has now relinquished influence on the direction of health policy to personnel at the local level. Although planning, finance and technical support are still integrated at the MOH, implementation at the local level has been challenging due to the lack of experienced staff.

Despite a range of reforms in leadership and governance, the health sector still faces challenges. There is a lack of cohesion, not only between planning and budgeting, but between the annual budget and donor-supported programmes. The process of preparing the annual health sector budget is uncoordinated and not entirely in line with the stated policy direction. A major bottleneck is the lack of adequate capacity to implement health programmes and policies at the provincial, district and health centre levels in a decentralized context.

As shown in Figure 6.1, there have been a number of landmark reforms, mostly outlining rules, regulations and the legislative framework to support the implementation of health-related programmes. It is notable that there was stable leadership of the MOH for a decade between 2001 and 2010 under Minister Pornmek Daraloy, ensuring a high level of policy continuity. However, progress has been generally limited and uneven due to the limited capacity to translate legislative intentions into effective programme implementation and successful outcomes.

**Health financing**

Recognizing that financial barriers were preventing people from accessing health services, beginning in 2002 the Government introduced four prepayment health financing schemes targeting different population groups. These include the State Authority for Social Security (SASS) scheme for civil servants, the Social Security Organization (SSO) for private sector employees, the Community-Based Health Insurance (CBHI) for non-poor workers in the informal sector, and the Health Equity Fund (HEF) for the poor. The population coverage for all four schemes remained low at 19.6% in 2012 (for more detailed information, see Chapter 3). The four schemes are being merged into one National Health
Insurance Scheme for improved management and larger risk-pooling, though a timeline for the merger has yet to be decided (GOLPDR, 2012). The Government is expected to subsidize the premiums for the poor, for workers in the informal sector and other vulnerable groups. The Government has committed to achieving 50% coverage by 2015 and aims to reach universal coverage by 2020, which is in line with both the NSEDP VII and the HSDP VII (2011–2015).

In recent years, the Prime Ministerial Notice on National Health Insurance was adopted by the Government. To address the high level of maternal and child mortality and to improve access to MCH services, the Government introduced a national policy on free MCH services in 2012, which ensures universal access to MCH services for the population.

Although the SSO and SASS schemes are mandatory, there are problems with enforcing enrolment by private employers and they may even withdraw from the SSO. This is a result of the poor ability to enforce regulations and generally weak institutional capacity of the SSO. In addition, enrolment in the CBHI scheme is on a voluntary basis and the HEF is largely reliant on donor funding. There are barriers to extending the coverage of the CBHI scheme, especially among rural residents and ethnic groups living on subsistence agriculture in remote mountainous areas, where health services are inadequate. It is almost impossible to obtain full premium contributions from workers in the informal sector, so a tax-financed scheme is preferable. However, this is constrained by the fiscal capacity of the Government. The extension of mandatory SSO to eligible private sector employees is far from complete, mainly due to lack of enforcement.

Several problems need to be rectified. Firstly, the level of public expenditure on health, despite efforts to increase it, is still too low, and is currently insufficient to meet the health needs of the population. Second, geography and limited population coverage by social protection schemes are both major barriers to accessing care, resulting in a high level of OOP payments and impoverishment; a further government subsidy could help to ease the high burden of OOP payments. Third, there is low utilization of services due to these financial and geographical barriers. Fourthly, despite prepayment schemes for four targeted population groups, there are still challenges to implementing these and expanding coverage (the ongoing health finance reform is now addressing this issue). Lastly, the limited range of services at PHC facilities in rural areas and the poor quality of care both need to be improved further in order to earn the trust of the population.
Service delivery systems

The MOH recognizes that high-quality health services are essential to gain public trust and improved levels of service utilization. In response to the need to improve basic health services, the MOH has set up various technical institutes and hospitals. Recent reforms in the organization of PHC are establishing a more integrated approach.

In 2010, a law was adopted permitting investment in and operation of private hospitals by private individuals and enterprises. A five-year corporate tax exemption was granted as an incentive. The law also offers land lease and concession fee exemptions for investors who build a hospital, with corporate tax breaks ranging from 3 to 15 years depending on the location of the facility. However, the regulatory capacity of the MOH is limited and so far there has been no evaluation of the outcome of this policy.

There is widespread support from the MOH and development partners for an integrated package of maternal, newborn and child health services (MNCH) (2009–2015) and a Skilled Birth Attendance Strategic Plan (2008–2012). The goal of the MNCH package is to reduce the incidence of maternal, neonatal, infant and child mortality, and maternal and child malnutrition by 2015, using three strategic approaches: (1) improving leadership, governance, and capacity for programme management and implementation; (2) strengthening efficiency and quality of health services; and (3) mobilizing individuals, families and communities for improved MNCH. Some international partners provided additional resources for integrated MNCH programmes in the districts. The Health Sector Working Group is coordinating the programme at the national level. Despite policies on improving MNCH, ineffective coordination at different levels and inadequate capacity at the district and sub-district levels have hampered efforts to achieve MDGs 1 and 5. Demand-side barriers, especially geographical barriers, were not adequately addressed. The Lao Women’s Union can be instrumental in mobilizing the community, but it has also faced several barriers and lack of support.

Health services in remote and hard-to-reach areas are provided through an outreach or mobile service, but these services are limited by geographical access. The increase in village health workers (VHWs), after village health volunteers (VHVs) receive six months of training to upgrade their qualifications, is expected to improve the quality and the reach of these services.
Human resources for health

In response to the shortage and uneven distribution of skilled health workers across the country, the MOH has launched the comprehensive National Strategy for Human Resources for Health 2010–2020 (MOH, 2010b). This National Strategy provides adequate allocation of staff quotas to health centres and additional training for 1500 community midwives or skilled birth attendants to address the high levels of maternal and child mortality. According to the National Strategy, it is estimated that the MOH needs to double the size its health workforce to reach the threshold of 2.3 doctors, nurses and midwives per 1000 population, which would enable it to provide an adequate level of services.

One crucial challenge is the retention of health workers in rural areas, especially in remote and ethnic communities. The three-year diploma course for medical assistants was re-established in 2010, to fill the staffing gaps at health centres and district hospitals. With an annual capacity of 200, students have been recruited from provinces to the training programme. In addition, the in-service PHC training modules are being upgraded to create a diploma course. The MOH is also working on a decree providing an incentive package for staff working in rural areas at district and health centre levels. A three-year employment contract at a district hospital or health centre for all the newly graduated doctors, nurses and midwives is now mandatory. Moreover, the MOH is using revenue from a hydropower project to fund teaching teams from the central hospitals and from the University of Health Sciences and to support on-the-job clinical skills improvement at district hospitals and health centres. To date, at least 2600 qualified health workers are working at health centres as unsalaried volunteers. The MOH is now planning to recruit these qualified volunteers to positions as paid staff and provide incentives for their retention.

The timeliness of salary payments and staff morale have gradually improved. Physicians who are in the public sector are also permitted to run private clinics outside of their regular work hours. Many staff members from the central and sub-national level are sent overseas (mostly to Viet Nam) for post-graduate specialist training, such as surgery, obstetrics/gynaecology and paediatrics. A system for promotions, rewards and disciplinary actions has been developed by agreement between the provinces and the MOH.

The MOH is responsible for education and training of health workers and for appointing directors of the district and provincial health offices (DHOs
and PHOs). In 2007, the Faculty of Medicine of the National University was transferred from the Ministry of Education to the MOH. The University of Health Sciences was established and its main function is to train health professionals at the national level. A programme for updating the University has been prepared, and in-service training for laboratory and emergency technicians has been expanded.

However, an inadequate quota of posts allocated by the Ministry of Home Affairs is still the main problem. Despite the launch of the National Strategy in 2010, in 2011 only 1141 posts were allocated to the health sector; less than 10% of the 13 000 additional posts that were needed. If the health sector is going to be able to double the size of its workforce to the recommended level, it would require increasing the national health budget by at least 35% just to cover salary costs. This proposal would require extensive discussion and support from the Ministry of Finance and the Government.

In summary, despite several reforms in the health workforce, a number of challenges remain: (1) inadequate staffing, in terms of quantity; (2) uneven distribution of staff, with too few in remote areas; (3) substandard professional, practical and clinical skills; (4) insufficient staff motivation due to poor incentives, including the fact that staff income is not linked to performance or workload.

6.2 Future developments

In the past decade, health policy has emphasized prevention and health promotion, with the aim of achieving the health-related MDGs by 2015 through expanded coverage and improved quality of health services, strengthening the district health system by addressing issues of human resources, health financing and community mobilization (MPI, 2010). To minimize the geographic barriers and inequities in access to health services, a comprehensive multi-faceted government policy is needed.

In the past decade, several policies, strategic plans and frameworks were developed and numerous reforms were undertaken, but outcomes varied and several bottlenecks still remain. The root cause of uneven progress is the lack of institutional capacity at different levels within the MOH, preventing policy from being translated into effective programme implementation and successful outcomes.
Not only is the continued implementation of the five-year NSEDP VII important, but system bottlenecks must also be identified and removed. Two parallel strategic directions are viable for this decade (2011–2020): [1] strengthening health delivery systems at the sub-district and district levels; and [2] extending financial protection by targeting different population groups, while harmonizing the four existing prepayment schemes.

Following are the key actions required for health systems strengthening, improved governance and leadership, and demand-side interventions:

**Health systems strengthening**
- Strengthen the delivery of health services, focusing efforts at the PHC level (especially in remote poor areas where ethnic groups reside).
- Expand financial protection through prepayment schemes.
- Protect the poor through expansion of the government-funded Health Equity Fund.
- Accelerate effective implementation of universal access to MCH services.
- Implement equitable distribution of qualified health workers by providing additional training as needed and deploying more health workers to underserved areas, using financial and non-financial incentives.
- Improve the supply and management of health commodities and equipment.

**Governance and leadership**
- Strengthen leadership and governance.
- Implement intersectoral actions in support of improved health planning, budgeting and aid effectiveness.
- Improve the usage of health information for better planning, monitoring and evaluation of health services.
- Mobilize specific taxation schemes for improved health and control of noncommunicable diseases, such as taxes on cigarettes and alcohol earmarked for health programming.
- Strengthen MOH regulatory capacity for the effective enforcement of rules and regulations.

**Demand-side interventions**
- Create a supportive environment for the involvement of individuals, families and communities.
- Develop community participation mechanisms for better health.
Chapter summary

There is strong political commitment to the development of the health system, and there have been some major achievements in terms of health-related strategies and policies in the Lao People’s Democratic Republic. The results, however, have been mixed. While there are strong efforts to increase public spending on health and move towards the expansion of insurance-based risk-pooling and prepayment health-financing schemes, out-of-pocket (OOP) payments by households are still high. The National Assembly has approved an increase in government spending on health from 3% to 9% to support acceleration towards the Millennium Development Goals (MDGs), especially for the indicators that are currently ‘off track’. Health sector reform has been approved, with short-term objectives that focus on achieving the MDGs by 2015 (particularly the nutrition and maternal health indicators) (MPI, 2010), and medium-term objectives that focus on Universal Health Coverage during the period from 2015 to 2020 (MOH, 2012c). Preparation of the implementation plan and costing for health sector reform are still in progress and subject to further approval. Research institutes now enjoy better opportunities for obtaining financial support from the Government if applicants submit high-quality proposals.

Quality of care and health-care provider responsiveness has yet to improve substantially. There is ineffective coordination and management, particularly at the district and sub-district levels. Most health interventions are, to a large extent, vertical programmes with a project-based approach, leaving scope for integration into service delivery at the district level. The inequitable distribution of physical, financial and human resources and the inadequate quality of services have improved somewhat, but progress is slow.

Government strategies and policies are often not fully implemented, which implies that serious reflection is needed on the following:
• Strategies, policies and related plans should be well-defined, realistic and doable.
• Capacity and commitment are needed to meet the challenges at two levels: translation of research findings into evidence-based policy (i.e. overcoming the gaps between researchers and policy-makers), and translation of policy into programme implementation (i.e. overcoming the gaps between policy-makers and programme implementation teams).
• At the implementation stage, the implementation plan must be fully aligned with the relevant policy and strategy.

Progress will need to be monitored and corrective actions taken promptly as the health sector reforms evolve. Improved government accountability, including financial accountability, will also help towards achieving the goals of the health sector reform.

7.1 Stated objectives of the health system

The main health system objectives are to improve the health status of the people of the Lao People’s Democratic Republic and to assure access to health services for the entire population. To improve the health status of the population, in 2000 the Government committed to achieving targets for the Millennium Development Goals (MDGs), in particular MDGs 4, 5 and 6. The relevant 2015 MDG targets are not more than 70 deaths in children under age five per 1000 live births, not more than 45 infant deaths per 1000 live births, at least 90% coverage of measles immunization in children under age one-year (the proportion of children who are fully immunized is quite low), not more than 260 maternal deaths per 100 000 live births, at least 55% contraceptive prevalence and at least 50% of deliveries assisted by a skilled birth attendant (see Chapter 2).

There are other key contributors to the development of health systems; in particular, the 2003 National Growth and Poverty Eradication Strategy (NGPES) focuses on health systems capacity strengthening in the poorest districts. The NGPES is the platform for which the sixth National Socio-Economic Development Plan (NSEDP VI, 2006–2010) was developed and implemented. Based on the lessons learnt from implementation of the NSEDP VI, the current five-year plan (NSEDP VII, 2011–2015) has been developed and approved with the aim of increasing access to health services and improving nutrition to ensure better overall health status in the population.
Investment in health is considered to be an investment in the socioeconomic development of the country and, as such, is one of the Government’s top priorities. But the huge demands in terms of financial and human resources have meant that the Government has not been able to meet its goals for investment in health, due to financial limitations.

7.2 Financial protection and equity in financing

7.2.1 Financial protection

As a result of fiscal constraints beginning in 1975 and continuing into the 1990s, the health system has experienced chronic under-funding, reflected by low staff salaries, shortages of essential medical supplies, deteriorating physical infrastructure and poor-quality health services. To mobilize more resources, the Government officially introduced user fees at public health facilities in 1996. Since then, health care costs have mainly been financed by out-of-pocket (OOP) payments. Hospitals are highly dependent on the user fees for daily operations, with 48% and 83% of the revenue for provincial and central hospitals generated from user charges, respectively (NIOPH, 2006). The OOP payments account for 46.4% of total health expenditure.

Although gross national income (GNI) per capita has consistently increased over the past 10 years, tripling from US$ 280 per capita in 2000 to US$ 1000 in 2010 (World Bank, 2013), the level of government spending on health is less than 1.5% of GDP (WHO, 2009). Overall, total health expenditure per capita has continuously increased in the last decade, and the share of private funding (mostly OOP payments) has also increased while the share of public funding has decreased (see Chapter 3). General government health expenditure was 6% of general government expenditure in 2008, which is low compared to neighbouring countries such as Viet Nam (9%) and Thailand (14%) (WHO, 2013).

With little government health spending and heavy reliance on direct payments by households, there is increasing inequality in health outcomes between the richest and poorest quintiles of the population.

Two studies have assessed the financial burden from OOP payments and health facility utilization. Both studies used data from the third and fourth Lao Expenditure and Consumption Surveys (LECS3 and LECS4), which were conducted in 2002–2003 and in 2007–2008, respectively (NSC, 2004 & 2009). One study looked at the average monthly household
OOP payments for health care and found that they increased from K18,912 in 2002–2003 to K38,163 in 2007–2008 (approximately US$ 2.3 to US$ 4.3). These payments increased across income quintiles and were particularly high among the rich quintiles (NIOPH, 2012). The other study calculated OOP payments for inpatient care and found that inpatient care has become more expensive for households, rising to 20% in real terms from K1,144,699 to K1,390,223 (World Bank, 2010b). The majority of the payments were for medicines. Discrepancies in health-care expenditure were evident among households of different socioeconomic status, with the richest households able to spend much more on health than the poorest quintile. The poor households generally spent a high proportion of their total household expenditure on food, therefore the OOP health payments form a high proportion of their household capacity to pay (proportion of non-food expenditure).

Surprisingly, the incidence of major expenditure on catastrophic health events was low and also declined over time, from 2.76% to 1.70% (see Figures 7.1 and 7.2). In terms of inpatient expenditure, the proportion of households that spent more than 10% of their annual household expenditure on health care, thereby facing catastrophic spending, also reduced from 4.2% to 3.8% in this period. Unfortunately the LECS3 and LECS4 questionnaires did not contain questions on outpatient expenditure. The incidence of catastrophic payment for inpatient care increased with general household consumption (World Bank, 2010b). The incidence of health impoverishment was 1.11% in 2002–2003, but declined to 0.65% in 2007–2008 (NIOPH, 2012).
Figure 7-1 Incidence of catastrophic health events, and out-of-pocket (OOP) payments as a percentage of monthly capacity to pay and as a percentage of total expenditure, by quintiles, 2002–2003 and 2007–2008

Source: Estimated based on data from LECS3 and LECS4 (NIOPH, 2012).

Figure 7-2 Incidence of catastrophic health events by area of residence, 2002–2003 and 2007–2008

Source: Estimated based on data from LECS3 and LECS4 (NIOPH, 2012).
Despite low incidence of catastrophic health events and payments, there are wide rich–poor and urban–rural gaps, especially in the earlier LECS3, showing a much higher incidence among the poor and rural populations, who also have very limited capacity to pay. These data should be interpreted with care, since the reduced incidence of catastrophic expenditure among the poor and rural populations documented in the later survey are likely to reflect low utilization of health services. Additional evidence on equity in health-care utilization is needed.

Although there is a policy to exempt the poor and other disadvantaged groups and civil servants from use fees, through Prime Ministerial Decree No. 52/PM, in reality few exemptions are provided by health facilities. Instead of exempting the poor, the exemptions have more often been applied to civil servants and medical staff. This policy has not been effective due to limited government budget and unclear eligibility criteria. The exemptions have largely been left up to the doctor’s discretion (Pholsena & Thomé, 2009). As reported by the fifth five-year Health Sector Development Plan (HSDP V, 2001–2005), exemptions in hospitals were negligible, accounting for only approximately 4.6% of total user fees charged.

Population coverage by the Government’s health financing schemes has gradually increased, from 10% of the total population in 2007 (Pholsena & Thomé, 2009) to 19.6% in 2012 according to the National Health Account updated in 2013. Only the State Authority for Social Security (SASS) scheme has exceeded the overall goal of covering at least half of the targeted population (a goal set in HSDP V), reaching as many as 89.1% of the targeted civil servants. However, the size of the civil servant population is small, at just 7% of the total population, and so there is limited scope for coverage expansion. Meanwhile, over 75% of the population work in the informal economy, particularly in rural areas where around 30% live below the poverty line. Only a very small proportion of this group is protected by any social health protection scheme. There are huge challenges in meeting the ambitious coverage goal of 50–60% of the population by 2015, and 100% coverage by 2020.

The insurance schemes have made good efforts to improve their coverage, but they face some major barriers including general dissatisfaction with health-care providers and the quality of care, low levels of capitation payments, and frequent delays in receiving employer contributions from the Ministry of Finance to SASS. Despite the SSO
scheme being mandatory for private employees there is a low rate of employer enrolment in the scheme. Employers often provide options for their employees such as private health insurance, direct service contracts with private providers, or direct reimbursement of health-care expenses. Despite the Social Security Law, which states that it is mandatory for employers to comply, there is no penalty for violation.

The Community-Based Health Insurance (CBHI) scheme has been established in some provinces, but expansion of coverage is slow. Problems include low demand for the scheme, low levels of enrolment and high drop-out rates among young, healthy members, leaving a high proportion of elderly members who have chronic illnesses and a high level of service utilization. Thus, CBHI is not financially viable and faces difficulties in expanding coverage.

The Health Equity Fund (HEF) for the poor was initially introduced in 2007 after the Law on Health Care (2005) had reaffirmed the user fees while emphasizing the provision of free health care for the poor. The area covered by the HEF was expanded somehow from 38 districts in 2010, but a recent review found no strong evidence on the extent to which HEFs have increased utilization of services, improved financial protection or raised quality of care (World Bank, 2010c). Where funding was mainly sourced from external donors, it was found to be financially unsustainable, although the HEF was initially designed to provide health financing for the poor while building a foundation fund for the SSO scheme until other financing could take over. In the long term, financial protection of the poor should be the responsibility of the Government and it should be integrated into the national social health protection system (Annear et al., 2008). The pilot-testing of these schemes so far should be rigorously evaluated so that policy-makers can learn from these experiences.

The Government has recently approved pilot-testing of fee exemptions for mothers and children under five years of age (with funding support from the NT2 hydroelectric dam revenue), and this is now being considered as a fifth social health protection scheme. The aim is to cover 80% of districts by 2014 through government funding and donor support (MOH & WHO, 2013). A related development is the approval of a decree on merging the existing schemes, which aims to reduce fragmentation and increase efficiency. The Ministry of Health (MOH) plans to set up an independent fund management unit to improve its capacity.
7.2.2 Equity in financing

Assessment of the equity in health financing is difficult in the Lao People’s Democratic Republic since there are limited data on taxation (used to estimate progressivity) and on the distribution of health financing assistance among different social groups. However, the results of the study on the burden of OOP payments indicate that OOP payments are regressive, as poor households pay a larger share of their expenditure than rich households (World Bank, 2010a).

Published evidence shows the regressivity of OOP payments in financing health care compared to progressive tax- and payroll-financed schemes. As financing health care in the Lao People’s Democratic Republic is dominated by OOP payments, health financing tends to be regressive overall. Future research should focus on generating and disseminating evidence on developing a regressivity index in order to increase
government spending on health and encourage enrolment in financial risk-protection schemes.

7.3 User experience and equity of access to health care

7.3.1 User experience

Over the last decade, the health delivery system has expanded its coverage at the province, district and village levels, although the extension of infrastructure has yet to be matched by improvements in quality of care and health system responsiveness. User expectations have not been met by health-care providers, despite Article 2 of the Law on Health Care, which states that health professionals must be responsive and accountable.

As a result of rapid economic development and a growing middle-class, the demand and expectation for better quality health services has rapidly increased. Service quality is widely criticized, and there is particular dissatisfaction with the attitudes and practices of public sector health-care providers, compared with public and private providers in neighbouring countries. The extension of public health insurance schemes is hampered by the low opinion that insured and uninsured citizens have of the quality of public services, especially with regard to the availability of drugs and the performance of health-care providers.

There are very few studies assessing the responsiveness and quality of the health-care system. The most significant complaint was the ‘disrespect’ shown to patients by health-care providers during physical examinations and treatment, in both outpatient and inpatient settings (NIOPH, 2006). Other common complaints included long waiting times, poor communication with patients, and breaches of confidentiality concerning information in medical records. Moreover, poor patients and those with lower socioeconomic status felt discriminated against by providers at all levels, but especially at central hospitals.

Both poor and non-poor patients were dissatisfied with the complex service procedures, long waiting times for registration and medical services, poor staff attitudes and high cost of services, which was a major barrier to accessing care for the poor (Paphassarang et al., 2002).
Both insured and uninsured patients were dissatisfied with public outpatient services, staff courtesy and long waiting times. Inpatients were dissatisfied with overall service quality, staff courtesy, long waiting times, clinical competence and adequacy of medical equipment (IHPP and NIOPH, 2007). Perceived poor responsiveness of services resulted in low utilization rates, and use of services across the border is reported in provinces along the Mekong River bordering Thailand (MOH, 2010d).

7.3.2 Equity of access to health care

Efforts to expand health infrastructure, and to improve the distribution of finances and human resources for health in urban and rural areas did not reach their goals, resulting in inequitable access across population groups. Essential diagnostic and therapeutic equipment is concentrated at provincial and central hospitals, where most patients, especially the rural poor, will not have access to it. The distribution of the health workforce has not changed over the past decade, with high and mid-level health workers mostly concentrated at central and provincial hospitals. As a result, the quality of services at the health centres and district hospitals is comparatively poor, such that patients bypass these PHC services and go directly to tertiary-level facilities, causing overcrowding there.

Government health spending favours the rich. A standard benefit incidence analysis was conducted using data from LECS3 and LECS4, and unit costs from a small-scale study conducted at some hospitals in 2002–2003 and 2007–2008 were used to estimate the distribution of net government health subsidies across rich and poor quintiles of the population. Not surprisingly, the overall subsidies to public inpatient care were concentrated at provincial and central level hospitals, favouring the rich. The poorest quintile should benefit from an equitable share (i.e. 20%) of total public subsidies, but actually received less than 5% of total government spending on health while the richest quintile benefited from almost 30% of total subsidies. This pro-rich benefit incidence was less pronounced in the later survey (LECS4), where the data showed that the subsidies most favoured the middle class as represented by the third quintile [see Figure 7.4]. Due to limitations of the data, the benefit incidence for provincial and district hospitals cannot be disaggregated (these data were lumped into one category in the LECS questionnaire). Also PHC subsidies at health centres cannot be estimated as there are no data on use of health centres in the LECS.
Overall, the utilization rate of public facilities is low, particularly among the rural poor. Based on a recent study using data from LECS3 and LECS4 (for 2002–2003 and 2007–2008, respectively), the annual utilization of public health facilities declined slightly for both outpatient and inpatient care, from approximately 0.41 to 0.38 visits per capita per year for outpatient services, and from around 0.032 to 0.026 admissions per capita per year for hospitalization. The utilization of health services is closely linked to household socioeconomic status. As shown in Figures 7.5 and 7.6, those in the wealthier quintile of the population use both outpatient and inpatient services more frequently than the poor. Moreover, the central hospitals in Vientiane are more likely to be used by the better-off socioeconomic groups, while the provincial and district hospitals are widely used by people from all expenditure quintiles (see Figures 7.5 and 7.6).

These rich–poor and urban–rural gaps in health service utilization requires urgent policy attention. A total of 62% of urban pregnant women gave birth at health-care facilities whereas 88% of women in rural areas with road facilities and 92% of women in rural areas without roads gave birth at home. About 27% of wealthy mothers delivered at health-care facilities while 97% of the poorest gave birth at home (MICS 2006; MOH & MPI, 2006).
Figure 7-5 Distribution of annual outpatient service utilization rates – visits per capita by expenditure quintiles and types of health-care facilities, 2002–2003 and 2007–2008

Source: Estimated based on data from LECS3 and LECS4 [NIOPH, 2012].

Figure 7-6 Distribution of annual inpatient care utilization rates – admissions per capita by expenditure quintiles and types of health-care facilities, 2002–2003 and 2007–2008

Source: Estimated based on data from LECS3 and LECS4 [NIOPH, 2012].
There are several barriers impeding access to care, the major ones being geography, travel costs and health-care costs. The financial barrier is crucial for the poor, who may avoid seeking care when it is needed due to the high costs, often resulting in mortality and morbidity that could have been prevented. Complex administrative procedures, long waiting times and staff attitudes are the other key barriers (Paphassarang et al., 2002).

7.4 Health outcomes, health service outcomes and quality of care

7.4.1 Population health

Although there have been major difficulties, population health outcomes have improved, as seen from the decline in the infant mortality rate and child mortality rate. However, child malnutrition has not improved much. Malnutrition is a significant public health problem and contributes to a considerable portion of child mortality. The prevalence of stunting (low height for age) has remained high, with the latest figure at 44.2% (LSIS/MICS/DHS 2011–2012; MOH & Lao Statistics Bureau, 2012). The prevalence of anaemia also remains high, with 41% of children aged 6–59 months and 37% of women of reproductive age suffering from the condition (MPI, 2009). The MOH established the National Nutrition Policy in 2008 to improve nutrition, but the challenges are substantial.

The Lao People’s Democratic Republic has a low prevalence of HIV/AIDS, with adult HIV prevalence of approximately 0.3%, according to HIV/AIDS estimation 2012 by UNAIDS. HIV prevalence in high-risk populations (such as sex workers) declined from 0.9% in 2001 to 0.4% in 2008, although rates of sexually transmitted infections (STIs) are still high, in particular chlamydia and gonorrhoea. Surrounded by neighbouring countries with higher levels of HIV/AIDS prevalence and increased risk factors, such as numbers of IDUs, sex workers and migrant workers, the challenge for the country is to control the HIV/AIDS epidemic (USAID, 2011).

Malaria control has been successful over the last decade. The incidence of confirmed malaria declined from 7.7 to 3.1 per 1000 population, while malaria mortality decreased from 4.6 to 0.2 per 100 000 population between 2001 and 2008. The number of malaria deaths decreased from 187 in 2003 to 11 in 2008. Moreover, 99% of the population at risk of malaria are protected by insecticide-treated bednets (MOH, 2010d).
Some indicators of health service outcomes have shown improvement, although coverage is still low. For example, in recent years the Expanded Programme on Immunization (EPI) coverage has improved, with the latest data showing coverage of 77.1% for BCG, 51.5% for DTP3, 49.1% for polio, and 55.3% for measles (LSIS/MICS/DHS 2011–2012; MOH and Lao Statistics Bureau, 2012).

Apart from communicable diseases, noncommunicable diseases and road traffic injuries are major health problems. The MOH has formulated a tobacco control policy since 2001, but implementation of the policy was hindered by inadequate effort and insufficient funding. Though smoking in public places is against the law, there are reports of smoking at certain restaurants and public places where enforcement is inadequate. The recent government policy on reducing the harmful use of alcohol may face similar inadequate implementation and enforcement. There is no financial safety net provided for victims of road traffic injuries.

Children who live in poor, rural households and children from ethnic minorities are more likely to experience malnutrition than those living in urban, better-off households and non-ethnic-Lao groups. Low birth weight follows a similar pattern of inequity. The trend in the prevalence of anaemia among children and pregnant women is also similar, with a significantly higher prevalence among rural populations and poor families (MPI, 2009). The urban–rural gap can also be seen in contraceptive use, which was 44.7% in urban areas, 36.0% in rural areas with road access and 25.6% in rural areas without road access (NSC, 2005). These are the results of inequitable access to health services for rural, poor and ethnic minority populations, linked to the higher prevalence of poverty among these groups.

### 7.5 Health system efficiency

#### 7.5.1 Allocative efficiency

In light of the chronic shortages within the health budget and in resource allocation, it is not possible to redirect more spending towards improving PHC and basic rural health services at the grass-roots level. Actual allocations to PHC did not exceed 10% of the public health budget (WHO, 2009). This was reflected by the 2009–2010 national health account (NHA) report, which indicated that there was limited spending on hygiene and preventive health programmes and more spent on curative services (MOH & WHO, 2013). Moreover, health research, one of the six
MOH programmes, receives a negligible allocation, relying mostly on unpredictable donor support, which hampers evidence-based policy- and decision-making.

In 2011, the MOH submitted a health budget proposal for 9% of the overall government budget but only 7% was achieved. However, the direction of the seventh Health Sector Development Plan (HSDP VII, 2011–2015) gives high priority to preventive care and health promotion, while also emphasizing the need for improved quality of treatment, and paves the way to universal health coverage by 2020 (MOH, 2011). The MOH will spend 40% of its budget at the district level on hygiene and preventive health programmes. Health research is now more likely to be approved for government funding if a high-quality proposal is submitted.

As to human resources, the situation has improved since the quota has been increased, although in some areas the quotas for specific types of health workers need to be harmonized and better planned in line with the needs of the local population and the micro-planning of local health-care facilities.

7.5.2 Technical efficiency

There are a limited number of studies assessing the technical efficiency of the health system. Certain indirect indicators are applied. Although hospital infrastructure at the district and provincial levels has improved gradually over the last decade, hospital utilization rates remains low. On average, the ratio of qualified health workers per 1000 population is far below the WHO benchmark.

The national average bed occupancy rate is 47.7%, which is lower than the standard 80%. The average length of stay is also low, at 2.8 days on average. This low utilization of government health facilities is explained by bottlenecks in supply and demand. On the supply side, the problems include low quality of services due to poor staff motivation, limited qualifications and clinical competence of the health workers, and limited funds to provide adequate services. There is also an imbalance of health worker distribution in favour of urban areas and more affluent provinces. A large number of high-level personnel work either at central or provincial administrative offices or at urban hospitals. This contributes to inequities in usage and access to good quality health services in different geographical areas. Initiatives to develop technical capacity at all levels
of the health system are needed, with a view to improved organization, administrative procedures, legal frameworks and financial management. A substantial amount of funding has been surrendered because the plans that the money was budgeted for were not implemented (World Bank, 2011b). On the demand side, there are geographical and financial barriers to access, perceptions of low quality of care, and other cultural dimensions. Both demand- and supply-side issues contribute to the low utilization of scarce health resources.

As medicine is an integral component of medical services, ensuring the availability of good quality, safe and affordable essential drugs, and ensuring their rational use according to the national standard treatment guidelines, is important. However, the performance of the drug and therapeutics committees (DTCs) at hospitals is still far from adequate. Inappropriate use of medicines and irrational prescription and dispensing practices were reported (Keohavong et al., 2006) and standard treatment guidelines were not widely adhered to by clinicians.

7.6 Transparency and accountability

Increased participation of the population in political, economic and social affairs has put pressure on the Government to become more transparent and accountable. The Government is providing increased opportunities and freedom for the public to express their views and to criticize government policies and policy implementation. For the health sector, complaints can be reported to the call centre of the Parliament Office, though this service is still confined to urban areas. Corrective actions have yet to be taken by responsible agencies.

Transparency and accountability are reflected in the standards of accounting and financial management within the health system. Problems include the poor capacity of the accounting and financial management system and poor adherence to the treasury rules and regulations. Delays in submitting financial reports from district to province and from the MOH to the MOF result in delayed disbursement of funds from the MOF, ultimately causing cash deficits and programme interruption (World Bank, 2011b). The limited capacity for effective monitoring and evaluation is one reason for poor transparency. Currently, the MOH is preparing and studying budget norms for education and health in order to strengthen its internal capacity for monitoring and to improve transparency in the health sector.
The practice of informal payments made by patients seeking better services at government hospitals has been criticized. Sometimes it is difficult to distinguish between informal payments demanded by health-care providers and those that are given gladly as a gesture of sincere appreciation. No primary research has been conducted to assess the negative impact of these informal payments, such as rejection of patients for non-payment.
8. Conclusions

8.1 Key findings

In 2011, the Lao People’s Democratic Republic’s status was upgraded by the World Bank from a low-income country to a lower-middle-income country, with a gross national income (GNI) of US$ 1010 per capita (World Bank, 2011a). As a result of rapid economic growth, poverty reduction has been impressive, but widening inequalities in income distribution threaten this progress. The proportion of the population living below the national poverty line fell from 45% in 1992 to 27.6% in 2008, but there was a higher prevalence of poverty in remote and highland areas and policy actions were taken in response. Net official development assistance (ODA) was 17% of GNI in 1990 and had decreased to 6.2% in 2010, challenging the country’s historical reliance on ODA. The value of the external debt was 65.4% of GNI in 2010, resulting in increased debt servicing from 1% of GNI in 1990 to 4.5% in 2010. Fiscal space is favourable and the national budget deficit has declined. Government revenue (excluding grants) has increased from 12.2% of GDP in 2006 to 14.4% in 2010. While this is not high compared with international peers, it does give more room for government investment in health.

Between 1980 and 2010, health indicators improved significantly: life expectancy at birth increased by 18 years, from 49 to 67. Despite data limitations, it is evident that infectious diseases still account for a significant proportion of disability-adjusted life years lost (DALYs). Millennium Development Goals (MDGs) 4 and 6 are on track to be achieved by 2015; however, the country is off track when it comes to the goals of reducing the maternal mortality ratio by three quarters and achieving universal access to reproductive health care. This has been recognized by the Government and accelerated efforts are being made by all partners.

Governance determines the nature and outcome of health systems functioning, in particular government effectiveness. With government effectiveness in mind, the critical review of health systems in the chapters
of this report provides a number of insights. Despite strong government commitments to health, as reflected by a number of policy statements, decrees, national strategies and plans, it is evident that there are gaps between policy intentions, effective implementation and good results. Political commitments have not yet been translated into increased health spending and government health expenditure stagnated at 5.9% of the general government budget in 2008–2010. Although this represented a twofold increase from 2.5% in 2007, the current level of government spending is inadequate to make a significant difference. The recent increase of 9% of the government budget allocated to health is a positive indication of change. The level of total health expenditure (THE) in the Lao People’s Democratic Republic, US$ 46 per capita in 2010, is inadequate to purchase a decent service package to achieve the health-related MDGs.

Prepayment health financing schemes targeting different groups of the population, such as the poor, workers in the informal sector, and formal public and private employees, were initiated, but as of 2012 these schemes only covered 19.6% of population. This results in a high level of reliance on regressive out-of-pocket (OOP) payments, which increased from 35.8% of THE in 1995 to 46.4% according to the latest data. The informal sector and the poor were the least protected with only 3.8% and 40% of them covered by a prepayment scheme. Borrowing money and selling assets to pay medical bills can push these vulnerable groups into financial hardship. The inadequate quality of health services, the lack of regulatory quality and the lack of law enforcement by the Social Security Organization (SSO) hamper full compliance with the mandatory enrolment policy of the SSO scheme. Although the recent Health Financing Strategy 2011–2015 lays down a national framework for developing and advancing health financing goals, achieving universal coverage and reducing direct household spending on health, the effectiveness of the country’s health system needs to improve if it is to implement this strategy. To achieve financing reform goals and increased coverage of the various prepayment schemes, there is a need for supply-side strengthening at the primary health care (PHC) level, including better access for the rural population.

Despite the existence of a three-tier health service infrastructure, a lack of government investment and inadequate allocation of sanctioned posts to the Ministry of Health (MOH) have resulted in an incomplete PHC service and a decade-long stagnation in the number of health workers. The current level of 0.6 health workers per 1000 population is far below the threshold of 2.3 per 1000 and is inadequate to reach a desired level of
service coverage. Also, the uneven distribution of the health workforce in favour of cities exacerbates the problem of shortages in rural areas.

Surprisingly the incidence of catastrophic health-care expenditure (defined as direct household payments on health of at least 40% of non-food expenditure in one month) was found to be low and declining, from 2.76% in 2002–2003 to 1.70% in 2007–2008, and the incidence of health impoverishment declined from 1.11% in 2002–2003 to 0.65% in 2007–2008. As a result of insufficient investment in the public health infrastructure and workforce, the health service utilization rate was also low, at 0.41 and 0.38 visits per capita per year in 2002–2003 and 2007–2008, respectively, and there were only 0.032 and 0.026 admissions per capita per year in the same years. In view of these low utilization rates, the low prevalence of catastrophic health spending and health impoverishment is explained by patients forgoing health services, which may result in increased levels of preventable mortality and disabilities.

This assessment of the health system’s performance reflects large urban–rural and rich–poor gaps of service coverage and health status. For example, 62% of urban pregnant women gave birth at a health facility while 88% to 92% of women in rural areas with and without road access, respectively, delivered their babies at home. A large urban–rural gap in the contraceptive prevalence rate was also reported.

### 8.2 Lessons learnt from health systems reforms

Policies and strategies are often not fully implemented, possibly indicating that they were not realistic or doable. Alternatively, there may be a lack of capacity needed to implement the plans, or there may be a lack of management capacity to translate policy statements into programme implementation, indicating that the health system has weaknesses when it comes to scaling up interventions. Progress needs to be monitored carefully and corrective actions taken. A few successful efforts should be applauded, such as the MDG progress monitoring, which the Government and development partners worked seriously on.

The Government has consistently invested more of the budget in education than in health (see Figure 8.1). In 2007, public expenditure on education was 15.8% while health received just 2.5% of government expenditure. There is a need to make the case for sustained investment in health.
Figure 8-1 Public spending on health and education as a percentage of government expenditure, 2000–2010

8.3 Remaining challenges and future prospects

The context of the health system in the Lao People’s Democratic Republic has evolved in a number of ways: (a) favourable economic performance supported greater fiscal capacity for the Government to spend more on the health of the population; (b) a portion of the government revenue generated from hydropower is to be spent on health and education; (c) the lower-middle-income status of the country may lead to a reduction in the amount of official development assistance for health and domestic funding should gradually replace donor resources; and (d) income distribution gaps have widened as the country become richer, creating an urgent need for redistribution through improvement of health and education programming in favour of the poor.

Emphasis has been placed on greater government investment in the health sector. While this does seem warranted, much less attention is given to how any additional government funding would be allocated to achieve the greatest benefit. Simply increasing the size of the health workforce might not address the key bottlenecks, given the current low health-care utilization rates, unless this is coupled with a lower level of out-of-pocket (OOP) payments and some modifications of the capitation rate system to give providers greater incentive to be responsive to patient needs and invest in improved competency. The inter-linkages among the constraints must be considered. Increasing financial investment
and human resources won’t improve the service utilization much if the performance and quality of services, dual practice (APO, 2013), informal payments, regulation of the private sector, and other barriers to access are left untouched.

Given this context, the Government will need to invest more funding in both the demand side and the supply side of the health-care system. The strategic hub should be at the district level, including health centres and district hospitals, as these are services that the poor and rural people can better access. These recommendations are in line with the current policy and directions, but significant improvements are needed in the capacity to implement these changes.
9. Appendices

9.1 References


32. Ministry of Health (MOH) [2013]. Midterm review on implementation of the 7th five year health sector development plan. Vientiane, Government of the Lao People’s Democratic Republic.


60. World Bank (2010c). A review of health equity funds in Lao PDR.


9.2 Useful websites

http://www.moh.gov.la/

http://www.who.int/nha/en

http://www.adb.org/countries/lao-pdr/main


http://www.unicef.org/infobycountry/lao_pdr.html


http://lao.unfpa.org/

9.3 HiT methodology and production process

HiTs are produced by country experts in collaboration with an external editor and the Secretariat of the Asia Pacific Observatory based in the WHO Regional Office in the Western Pacific in Manila, the Philippines.
HITS are based on a template developed by the European Observatory on Health Systems and Policies that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources and examples needed to compile reviews. While the template offers a comprehensive set of questions, it is intended to be used in a flexible way to allow authors and editors to adapt it to their particular national context. The most recent template is available online at: http://www.euro.who.int/en/home/projects/observatory/publications/health-system-profiles-hits/hit-template-2010.

Authors draw on multiple data sources for the compilation of HiTs, ranging from national statistics, national and regional policy documents to published literature. Data are drawn from information collected by national statistical bureaux and health ministries. Furthermore, international data sources may be incorporated, such as the World Development Indicators of the World Bank.

In addition to the information and data provided by the country experts, WHO supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the Western Pacific Country Health Information Profiles (CHIPs) and the WHO Statistical Information System (WHOSIS). HiT authors are encouraged to discuss the data in the text in detail, including the standard figures prepared by the Observatory staff, especially if there are concerns about discrepancies between the data available from different sources.

The quality of HiTs is of real importance since they inform policy-making and meta-analysis. HiTs are subject to wide consultation throughout the writing and editing process, which involves multiple iterations. They are then subject to the following:

- A rigorous review process consisting of three stages. Initially, the text of the HiT is checked, reviewed and approved by the Asia Pacific Observatory Secretariat. It is then sent for review to at least three independent experts, and their comments and amendments are incorporated into the text, and modifications are made accordingly. The text is then submitted to the relevant ministry of health, or appropriate authority, and policy-makers within those bodies to check for factual errors within the HiT.
- There are further efforts to ensure quality while the report is finalized that focus on copy-editing and proofreading.
HiTs are disseminated (hard copies, electronic publication, translations and launches). The editor supports the authors throughout the production process and, in close consultation with the authors, ensures that all stages of the process are taken forward as effectively as possible.

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The Asia Pacific Observatory on Health Systems and Policies is a collaborative partnership which supports and promotes evidence-based health policy making in the Asia Pacific Region. Based in WHO’s Regional Office for the Western Pacific it brings together governments, international agencies, foundations, civil society and the research community with the aim of linking systematic and scientific analysis of health systems in the Asia Pacific Region with the decision-makers who shape policy and practice.