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Prepared by AGEG Consultants eG, Germany

For Ministry of Health, Vientiane, Lao PDR

Asian Development Bank

LAO PEOPLE'S DEMOCRATIC REPUBLIC

HEALTH SECTOR DEVELOPMENT PROGRAM

supported by ADB

FINAL REPORT

Vientiane, Lao PDR
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submitted by AGEG Consultants eG

CURRENCY EQUIVALENTS

(as of May 2006)

Currency Unit	–	kip (K)
K 1.00	=	$0.000095
$1.00	=	K 10,500

ABBREVIATIONS

ADB	Asian Development Bank
AFD	Agence Francaise du Développement
AFTA	ASEAN Free Trade Area
ARI	Acute Respiratory Infections
ASEAN	Association of South East Asian Nations
BCC	Behavior Change Communication
BTC	Belgian Technical Cooperation
CDD	Control of Diarrheal Diseases
CHT	College of Health Technology
CIEH	Centre for Information, Education and Health
CMR	Child Mortality Rate
CPI	Committee for Planning and Investment
CPR	Contraceptive Prevalence Rate
CSR	Corporate Social Responsibility
CTST	Central Technical Support Team
CV	Curriculum Vitae
DDC	Diarrheal Disease Control
DH	District Hospital
DHC	District Hospital Chief
DHO	District Health Office
DHO	District Health Officer
DOP	Department of Organization and Personnel
EIRR	Economic Internal Rate of Return
EMOC	Emergency Obstetric Care
EPI	Expanded Program on Immunization
FAO	Food and Agricultural Organization of the United Nations
FMS	Faculty of Medical Science
GDP	Gross Domestic Product
GIS	Geographical Information System
GOL	Government of Lao PDR
HC	Health Center
HCF	Health Care Financing
HEF	Health Equity Funds
HFS	Health Facilities Survey
HHS	Household Health Survey

HIS	Health Information System
HIV/AIDS	Human Immunodeficiency Virus
HLF	Health Loan Funds
HR	Human Resources
HRD	Human Resource development
HRM	Human Resource Management
HRMIS	Human Resource Management Information System
ICDDR,B	International Center for Diarrheal Diseases Research, Bangladesh
IFMT	Francophone Institute of Tropical Medicine
IMCI	Integrated Management of Childhood Illnesses
IMR	Infant Mortality Rate
IPAU	Integrated Project Administration Unit
JICA	Japanese International Cooperation Agency
Lao PDR	Lao People's Democratic Republic
LNFR	Lao National Front for Reconstruction
LNR	Lao National Radio
LPRP	Lao People's Revolutionary Party
Lux Dev	Luxembourg Development
LWU	Lao Women's Union
LYU	Lao Youth Union
MCH	Maternal and Child Health
MDGs	Millennium Development Goals
MICS	Multi-indicator Cluster Survey
MMR	Maternal Mortality Ratio
MOE	Ministry of Education
MOH	Ministry of Health
MSM	Men having sex with men
NAC	**National Committee for the Control of AIDS**
NGO	Non-government organization
NGPES	National Growth and Poverty Eradication Strategy
NIOPH	National Institute of Public Health
NUOL	National University of Laos
ODA	Overseas Development Assistance
ORS	Oral Rehydration Solution
ORT	Oral Rehydration Therapy
PACSA	Public Administration and Civil Service Authority
PAM	Project Administrative Memorandum
PH	Provincial Hospital
PH School	Public Health School
PHC	Primary Health Care
PHC Worker	Primary Health Care Worker
PHCEP	Primary Health Care Expansion Project
PHO	Provincial Health Office

PIO	Project Implementation Office
PIP	Public Investment Program
PMO	Project Management Office
PPMS	Project Performance Monitoring System
PPTA	Project Preparatory Technical Assistance
PSC	Project Steering Committee
RHS	Reproductive Health Survey
SM	Safe Motherhood
SOE	Statement of Expenditure
SRC	Swiss Red Cross
STI	Sexually Transmitted Infections
TBA	Traditional Birth Attendant
TOT	Training of Trainers
TWG	Technical Working Group
UFC	Under Five Children
UFMR	Under Five Mortality Rate
UNAIDS	United Nations AIDS
UNICEF	United Nations Children's Fund
VDK	Village Drug Kit
VHC	Village Health Committee
VHP	Village Health Provider
VHV	Village Health Volunteer
WHO	World Health Organization
WTO	World Trade Organization

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1. In terms of health indicators, Lao lags behind most other countries in the region. Starting from a very high level, Lao's maternal and child mortality have reduced in the past decade, although not enough to achieve the Millennium Development Goals (MDGs). Progress in reducing child malnutrition is less certain, and the HIV/AIDS prevalence is increasing rapidly, as summarized in the following table.

Lao PDR MDG Indicators Trend and Targets

	1995*	2000*	2005**	2015 MDG
Maternal Mortality Ratio	656	530	405	185
Under 5 Mortality Rate	170	107	98	55
Child Malnutrition Rate (weight for age)	40	40	30	20
HIV Prevalence % in population	0.00	0.03	0.08	0.1

*= Achievements; **= 2005 Census and Projections

2. Communicable diseases, malnutrition and reproductive health still form the major burden of diseases in Lao PDR, especially for rural people. At the same time, non-communicable diseases and traffic accidents are gaining importance in urban areas, and are increasing demand for more long-term and high-tech medical services. Emerging diseases like HIV/AIDS, Avian Influenza, and Dengue put further pressure on limited resources. Lao's disaggregated health indicators show large urban-rural, income, gender, and ethnicity gaps.

3. As stated in the Sixth National Socio Economic Development Plan (2006-2010), the Government of Lao PDR wants to accelerate health sector improvement to provide equitable health care for Laos' citizen and achieve the MDGs. Doing so will require substantial reform and reorientation of the public health system, along with private sector development. While a fairly extensive network of hospitals, health centers and village health workers has been built up over the years, primary health care (PHC) lack resources to operate effectively, and cost recovery is limited due to high levels of poverty. Quality and affordability of care are now the two major determinants of the use of health services. Access is still a problem for remote communities, services for women, and emergency referral services.

4. Given current low use of services and capacity and fiscal constraints of the Government, the main purpose of the proposed grant assistance will be to improve the functionality of the PHC system built up with earlier investments by combining health sector reforms with capacity building for results-based provincial program support. It will build on the achievements made by the ADB assisted Primary Health Care Expansion Project (PHCEP) in eight Northern provinces, along with World Bank assistance in the south, and by nation-wide initiatives for communicable diseases control and institutional strengthening.

5. The overall objective of the HSDP is to contribute to improve the health status of the population in the program area, in particular of the poor, women and children and ethnic minorities in rural and underserved areas. The expected outcomes are (i) improved health service quality, (ii) improved financial access, and (iii) increased PHC service utilization.

6. The HSDP will focus on improving PHC in the eight Northern provinces, and support policy development and health system development nation-wide. It will be implemented through four components in two phases, funded in part in the form of a program modality and in part of a project modality. While detailed HSDP planning is focused on phase I, the consultant also gives a tentative presentation of phase II in order to provide a complete pic-

ture of the envisaged HSDP. Given the substantive challenges to reform the public health system in Lao PDR, a three year time frame is not suitable to plan assistance.

7. Two grants from ADB's Special Fund resources are proposed to support the Health Sector Development Program (HSDP) for a period of 6 years: (i) a sector development program (SDP) grant of US$ 10.29 million for 2007-2009; and (ii) a sector development program (SDP) of US$ 12.24 million for 2010-2012 to contribute to improving the health of the poor to achieve the MDGs of reducing maternal and child mortality, and malnutrition. This is considered a modest investment given Lao's health sector program and financing constraints, and could be increased to scale up equity funds and human resource development if more funds could be identified. The total proposed cost of the HSDP will be $25.00 million financed as follows:

HSDP Financing Plan (US$ 1,000,000)

	ADB Program Grant	ADB Project Grant	ADB Total	GOL Counterpart	Total
Phase I (2007-2009)	$ 5.72	$ 4.57	$ 10.29	$ 1.15	$ 11.44
Phase II (2010-2012)	$ 6.98	$ 5.26	$ 12.24	$ 1.32	$ 13.56
Total (2007-2012)	$12.70	$ 9.83	$ 22.53	$ 2.47	$ 25.00

8. The base cost estimates for the components including both policy and program costs, over the two phases is as follows:

Cost estimates of components for the HSDP by phase (in US$ 1,000)

Components	Phase I	Phase II	Total
Human Resource Development	1,812	2,618	4,430
Health Care Financing	914	2,558	3,472
Strengthen PHC Systems	4,447	6,537	10,984
Strengthen MOH Planning and Budgeting	1,975	1,989	3,964
Total Base Cost*	**9,148**	**13,702**	**22,850**

* excluding contingencies, and possible Co-Financing

9. Important features include ethnic minority and gender issues, result-based and decentralized planning and budgeting and health management, health care financing for the poor through health equity funds and health loan funds, coordination of donor supported projects and lean project management through the establishment of an Integrated Project Administration Unit (IPAU), and innovative HRD concepts.

10. The Ministry of Health is proposed as the executing agency, and chairs the MOH steering committee including members from other ministries to review and guide the Program from time to time. A Project Management Office is already in place. MOH has been successful in implementing the PHCEP.

I. SECTOR PERFORMANCE, PROBLEMS, AND OPPORTUNITIES

A. Introduction

1. The Lao People's Democratic Republic (PDR) is the only landlocked country in South-East Asia. It shares borders with Vietnam in the East, Cambodia in the South, Thailand in the West, Myanmar in the North-West and China in the North. Due to major road construction projects, new and better links have been established to China, Thailand, and Vietnam. The Mekong River provides an easy link with countries. With more infrastructure projects ongoing and planned, Laos becomes more connected and involved in regional trade.

2. The larger part of the country's surface of 236,800 km^2 is hilly or mountainous. A relatively small low-land area stretches mainly along the Mekong River, which forms the border with Thailand. Infrastructure, particularly with respect to roads, power and telecommunications has improved significantly over the past 15 years, but is still underdeveloped.

3. More than 80% of the country's population of 5.6 million (2005 Census) lives in rural, remote areas and in small scattered villages. The average population density is 24 persons per km^2. Administratively the country is divided into 17 provinces, 141 Districts, and 10,552 villages. The average number of households per village is 91. The average household size is 5.9. The eight Northern provinces have a population of 1,976,816 comprising 35% of the country's total population, with an average population density of 17.9/km^2. There are 61 districts (42% of the nation) and 4,596 villages (43% of the nation). The average number of villages per district is 75.

4. Laos is a multiethnic country with 49 officially recognized ethnic groups. Most of the small ethnic groups (minority) that represent about 30% of the total population live in the Northern areas. The four major language families are: Tai-Kadai, Austro Asiatic [Mon Khmer], Sino-Tibet [Tibeto Birman] and Hmong Mien [Miao-Yao]. Many of them live in remote, mountainous areas, making physical access to any services difficult for them. The proportions of the four major groups in the eight Northern Provinces are Tai-Kadai 46.4%, Austro Asiatic [Mon Khmer] 30.8%, Sino-Tibet [Tibeto Birman] 7.4%, and Hmong Mien [Miao-Yao] 15.4%.

5. Remoteness and poverty constitute major physical and economic barriers in access to social services (education, health). They are compounded by socio-cultural barriers that are created by the multitude of small ethnic groups with many different languages and often ancient cultures. Access to general education is compromised by the fact that the language of instruction from pre-school onward is Lao. Children from ethnic background often have to spend time and effort to learn the Lao language first; enrollment rates are low and drop-out rates high.

6. Levels of education are generally low in rural areas, particularly among girls from small ethnic groups. Literacy and education data reports 23% of the population aged over six years have never been to school (2002/03); 31% female compared to 15% male; rural areas, 42.6% versus urban 8.5%. An estimated 135,000 primary school-aged children do not currently have access to education. Adult illiteracy remains widespread. Reported literacy rate aged 15 and above rose from 60.2% in 1995 to 68.7% in 2001 (urban 82.8%, rural 65%; women 60.9%, men 77%).

7. The country has a low level UNDP rating of human development index (HDI, rank 131 out of 177 in 2005). Lao PDR development policies put a high priority on improving the general status of the poor and disadvantaged groups, and on equitable access to quality social services, including health.

8. Laos has recently experienced relatively good economic gains. The GDP per capita in 2000 was $335 and increased to $402 in 2004 and $491 in 2005.[1] Under the New Economic Mechanism (NEM), introduced in 1986, Lao PDR is in transition from a centrally planned to a market economy. The annual real gross domestic product (GDP) growth increased from 5.8% to 6.5% from 2000 to 2004.[2] This is slightly above the average rate over the preceding decade.[3] The IMF projects 6-7% annual growth from 2006 to 2010.

9. Overall poverty has declined from 46% in 1992 to 32% in 2003.[4] Development, however, has been concentrated in the urban and advanced sectors of society. As a result, urban-rural disparities are increasing and poverty remains very high in the rural and remote areas. Income gaps between the rich and the poor are increasing. Poverty remains highest among the 80% of the population living in rural areas, relying on subsistence agriculture and natural resources for income and food. Among other factors they lack modern tools and technologies for effective land cultivation, and access to markets, where they could sell any excess production. A large fraction of them are small ethnic groups.

10. Due to the predominantly mountainous terrain, only 4% of the nation's land area is considered arable and permanent cropland. Unexploded ordnance (UXO) further limits the areas that can be used safely for agriculture. It is estimated that 87,000 km^2 (37%) of the territory are still contaminated, compromising physical safety, livelihoods and food security of the people. About 400 people are still injured or killed every year.[5] Currently only 18 to 20 km^2 are cleared every year. Agriculture accounts for more than 50% of the GDP, services for 26% and industry for 24%. In terms of employment and livelihood, agriculture is even more important than these figures suggest, as 80 to 85% of the population depend on it.[6]

11. Poverty reduction remains an overarching aim of the Lao PDR Government. To accelerate poverty reduction, the government puts emphasis on agricultural commercialization, hydropower and mining sector development, HRD, and regional integration. Export-oriented, private sector investment is increasingly emphasized in Government's plans and strategies, in recognition of constraints to public investment, Government's limited capacity to absorb new entrants to the labor market, and the need to refocus public spending to accord greater priority to recurrent outlays.

12. Reliance on external support to the budget remains high. Donor-funded programs account for nearly two-thirds of all public investment. Challenges to macroeconomic management include the low ratio of government revenue to GDP and the high external debt burden. The four fundamental challenges for Lao PDR include i) maintaining macroeconomic stability, ii) improving competitiveness, iii) advancing trade reforms, and iv) enhancing good governance. Although economic growth in recent years has been effective in reducing overall income poverty, more attention is needed to ensure that the growth process generates productive employment for the growing labor force.

B. Sector Description and Performance

1. Health Status

a. General

13. In the absence of a well established HIS, the accuracy of any description of health indicators in Lao PDR is constrained by the unavailability of reliable data. Conflicting figures

[1] 2004 estimate; ADB Country Strategy Program Update for Lao PDR: 2006-2008.
[2] ADB Report: "Country Strategy Program, Lao PDR" 2006
[3] Knowles, James C. 2006, "Public Expenditure in the Lao PDR Health Sector"
[4] Laos Expenditure and Consumption Survey (LECS) 2003
[5] Vientiane Times, 21 July 2006, and UNFPA, CCA, Draft Report, January 2006
[6] ADB 2004: Report and Recommendation of the President to the Board of Directors on a Proposed Loan to Lao PDR for Northern Community-Managed Irrigation Sector Project.

on the same subject are found in a multitude of different documents from various sources. Data disaggregation by sex, location and ethnicity is slowly improving but does not yet support adequate analysis. Constraints include poor coordination between line ministries and agencies and between donors and development partners on data collection and analysis efforts. In addition, the Government lacks human resources and financial capacity to undertake data collection, analysis and reporting. The National Statistics Centre currently holds primary responsibility for data collection and analysis, and has recently acquired a software package to better manage national data.

14. Communicable diseases, such as malaria, diarrhea, cholera, dengue hemorrhagic fever, intestinal parasites, tuberculosis, acute respiratory infection (ARI) and measles, remain common and serious threats. At the same time in countries in economic transition like Laos, non-communicable diseases increase rapidly, such as drug addiction, cancer, diabetes, hypertension, cardiovascular diseases, neurological and mental illness, as well as traffic accidents.[7] [8]

15. Malaria is among the leading causes of morbidity and mortality for all ages. Nearly 90% of villages claim malaria as a major health problem. Remote rural populations living alongside rivers and streams are at particular risk. While 92% of households surveyed in the eight Northern Provinces used mosquito nets, only 22% of nets were impregnated (PHCEP, Household survey, 2004). Another relevant mosquito-borne disease is dengue fever, which is prevalent in urban setting, but increasingly also in rural areas.

16. Some aggregate indicators have clearly improved in Laos over the past decade. It has to be noted though that they have started from a very low level. In regional comparisons, Laos lags still behind most other countries in the region. The following table summarizes achievements and projections for selected indicators.

Table 1: Lao PDR Health Sector Achievements, Projections and MDG Targets for 2015

	1995*	2000*	2005**	2015 MDG
Maternal Mortality Ratio	656	530	405	185
Infant Mortality Rate	104	82	70	40
Under 5 Mortality Rate	170	107	98	55
Child Malnutrition Rate (weight for age)	40	40	30	20
Contraceptive Prevalence	13	32	40	55

***= Achievements; **= 2005 Census and Projections**
(Source: Millennium Development Goals Progress Report, Lao PDR, United Nations, January, 2004)

b. Safe Motherhood

17. Limited access to and low utilization of reproductive health services are the background for poor health outcomes for mothers and children. In 2000, maternal mortality ratio was 530 per 100,000 live births. It has since declined to 405/100,000 in 2005[9]. This is still far above the MFG target of 185/100,000. Apart from this, decreasing average rates at the national level obviously mask much higher levels in remote rural areas. According to the Lao Reproductive Health Survey 2000 (LRHS 2000), 76% of women who gave birth over the preceding five years had not received antenatal care (ANC). Only 23% of deliveries were attended by trained health personnel (13% by doctors, 10% by nurse, midwife or other health workers). In the Northern Region the corresponding figures are 85% of mothers who did not

[7] **ADB, Lao Health Sector Roadmap, 21 Feb 2006**
[8] **UNFPA, CCA, Draft Report, January 2006**
[9] **National Population Census, 2005**

receive ANC. Only 14.4% of deliveries were attended by health staff (7.1% by doctors, 7.3% by nurse, midwife or other health workers).

18. According to the same source, countrywide on average 86.1% of deliveries occurred at home (92.4% in the Northern Region). Nine out of 10 deaths occur at home. One-fourth of maternal deaths occur during pregnancy and 75% occur within six weeks after delivery. Deaths are mainly due to infection, complications arising from induced or spontaneous abortion and postpartum hemorrhage. In many districts, there is no access to emergency obstetrical care (EmOC). If there is access, costs of transport and operation are often prohibitive for the poor.[10] Prevalence of anemia among women is 31.3%. 20% of births are of low birth weight. Only 7% of women receive iron tablets during pregnancy. The MDGs of improving maternal health and lowering of the maternal mortality ratio will not be achieved unless investment in safe motherhood is increased.

19. Contraceptive prevalence rate among married women was 31.6% (28% modern, 3.6% traditional methods). Unmet need for family planning (FP) was 39.5% (38.8% in the North)[11]. The LRHS furthermore showed an extremely high percentage of adolescent or teenage pregnancies (age 15-19). 18.4% of young women in this age group were either mothers (14.7%) or pregnant (3.7%) at the time of the survey (Philippines [7%], Indonesia [11%] and Mongolia [9%]). Early child bearing is more than twice as frequent in rural than in urban areas (20.5% vs. 8.8%). The MDGs of improving maternal health and lowering maternal mortality ratios will not be achieved unless investment in safe motherhood is increased.

20. In line with government policies[12,13], there is a need to focus on improving access to FP services, antenatal, obstetric and neonatal care for women and infants. The network of facilities that offer safe normal delivery and emergency obstetric care services, adequate to each service level, needs expansion. For selected ethnic remote villages the National Reproductive Health Policy suggests to pilot village maternity facilities, operated by trained heath professionals and birth attendants.[14]

21. The high unmet need for FP should be addressed by ensuring availability of oral contraceptives down to the village drug kit level. High ratios of teenage pregnancies in Laos should be specifically targeted. Health Center staff needs to be increased in quantity (especially female and ethnic group staff) and their skills upgraded by refresher training. At the grassroots level, training and retraining of VHVs, VHPs and other providers will be required.

22. On the demand side, this will have to include awareness creation among women and adolescent girls through continued and intensified peer education. Families and communities need to be involved, regarding issues around pregnancy and childbirth to address, for example, maternal malnutrition, food taboos, the importance of antenatal care, preparedness for the management of risk pregnancies etc.[15]

23. Community awareness and mobilization can also be achieved by forming women's groups who meet to improve knowledge and health behavior in areas such as antenatal and newborn care, food practice and nutrition. Such meetings could be facilitated by the existing village institutions and providers. For selected remote and ethnic areas, groups could also

[10] Anecdotal information indicates that the cost of transport and operation ranges from US$100-1,000.
[11] Lao Reproductive Health Survey 2000
[12] MOH. The National Reproductive Health Policy. October 2005. Vientiane
[13] MOH. 1997. Policies on Maternal and Child Health Particularly Safe Motherhood in Lao PDR. Vientiane.
[14] Such facilities risk being underutilized and qualified staff may not be able to maintain their skills. Alternatively, maternity waiting homes near facilities that can provide advanced obstetric care might be considered.
[15] Such approach has been introduced successfully within the Indonesian DESA SIAGA (alert village) program, where in due time before the expected date of delivery of a risk pregnancy, arrangements are made within the community, as to who will look after the family while the pregnant woman is at hospital, how her referral to the hospital will be arranged, and in some cases even potential donors with matching blood groups are identified.

be formed to build basic functional knowledge and literacy in the Lao language. Topics for teaching can relate to health issues.

c. Child Health

24. The major causes of morbidity and deaths in children are malaria, acute respiratory infection, diarrhea and measles. Although access to an improved water source increased from 28% in 1990 to 52% in 2001 and to improved sanitation from 11% in 1990 to 37.3% in 2000, diarrhea still accounts for 26% of health facility consultations among under-five children (UFC). Only 20% of children receive ORT, increased fluids and continued feeding. Most of these diseases can be prevented through appropriate, highly cost-effective interventions such as promotion of hygienic practices, protection (impregnated bed nets for malaria) and vaccination. Fatality rates can be reduced by timely and adequate treatment. Awareness and knowledge in this regard need to be improved.

25. The major avenue to control vaccine preventable diseases is the Expanded Program on Immunization (EPI).[16] Immunization coverage initially did improve with the introduction of the EPI program in the early 80ies. One of the most tangible achievements has been the elimination of polio and the declaration of 'Polio Free Status' in 2000. However, immunization coverage seems to have peaked and then falling until recently, which would put many women and children at risk and even jeopardize the polio-free status. According to MoH, immunization coverage is now improving again.

26. The percentage of fully immunized children (FIC) is now estimated at only 40% on national average. The MDG document quotes coverage for measles vaccination of 62% (1996). Tetanus toxoid immunization rates have declined from 62% in 1996 to 42% in 2000. The PHCEP Household survey 2004, found that in the eight Northern provinces only 15% of children between aged 12 and 23 months had received all six recommended vaccinations (FIC). Coverage with measles vaccine was 56%. The results of the PHCEP 2004 HHS also show that coverage of villages that had received the four planned immunization sessions during the preceding year had dropped from 27% in 1999 (PPTA survey) to 16% in 2004.

27. Immunization services suffer from logistical and managerial difficulties, such as lack of integration of immunization with other health services at the implementation level, and from lack of demand and remoteness of the population. EPI funding appears close to adequate, vaccines are sufficient for national demands and staff for service delivery is sufficient. The provision of services through mobile outreach is the main strategy to reach most villages. It is, however, not implemented as planned in the national and provincial work plans. Managerial and logistic problems in the implementation of the immunization program need to be addressed to reverse the apparent downward trend in coverage.

28. Not all health centers are equipped with cold chain equipment. According to a recent analysis of the EPI system, availability of the full range of vaccines for immunization preventable diseases at the HCs is recommended to make this level the backbone of the program, as they are the closest to the villages in their catchment area. [17]

29. Awareness and demand creation should target at prevention (e.g. bed net impregnation, clean water, food and environment; and on danger signs in the course of common childhood illnesses [malaria, ARI, diarrhea, measles]). Impregnation of mosquito nets can become an income generating activity.

[16] The Expanded Program on Immunization (EPI) includes vaccination against tuberculosis, measles, diphtheria, pertussis, poliomyelitis, tetanus and hepatitis B vaccination for children and two tetanus vaccinations for pregnant women.

[17] A Review of the Expanded Programme on Immunization, Lao PDR, Draft 2006

d. Nutrition

30. Data on current malnutrition rates and trends in Lao PDR are conflicting. According to existing reports (2005), 40% of UFC are underweight (weight for age), 40.7% show signs of chronic malnutrition (height for age, stunting), and 15.4% have acute malnutrition (weight for height, wasting).[18] According to the MDG Progress Report the percentage of children underweight has remained unchanged over the past decade.[19] The actual trend in the prevalence of underweight children is uncertain, but is currently estimated to be at least 30%, which is high[20] (the MDG 2015 target for this indicator is 20%). The percentage of the population below the minimum level of dietary consumption has changed only marginally from 31% in 1990 to 29% in 1998.

31. Almost 80% of Lao women practice food taboos during pregnancy and after delivery, especially in the rural areas. Poor breast-feeding and weaning practices are widespread. 96% to 99% of mothers give food supplements to infants within a few weeks of birth (such as chewed glutinous rice). Harmful practices (e.g. the discarding of colostrum) and other food taboos for pregnant women reduce disease resistance for mothers and newborns and increase the risk of continued malnutrition. This affects both the health status of mothers and infants.

32. Deficiencies are also reported for micronutrients such as Vitamin A, iron and iodine. The multi-indicator cluster survey (MICS, 2000) revealed that some 45% of children under five and 30.9% of the whole population had low Vitamin A blood levels. Only 28.8% of children received Vitamin A supplementation. By 2003 this percentage had increased to 46.4%[21]. Iron deficiency and anemia are common with levels of 27.4% overall in 2000, and a rate of 48.2% for UFC and 31.3% in adult females. Causes include poor dietary intake, chronic infections and high parasite loads (e.g. malaria and hookworm). For the almost 50% of UFC, particularly those under two years of age, chronic anemia can result in serious consequences for their mental development, achievements in education and productivity in later life. A survey on prevalence of iodine deficiency, conducted in 1993, showed that 95% of the population was affected, 65% of them severely. Universal salt iodization was introduced in 1995. By 2000, 75% of households consumed iodized salt and over 70% of children had satisfactory urinary iodine excretion levels.

33. A major avenue to address poor nutrition practices will be through targeted peer education. This will include promotion of breastfeeding, advice on balanced weaning diets, and supplementary feeding and micronutrients for those already malnourished with a particular focus on the very young children. The Village Health Committee (VHC) can take the lead in establishing community based health and nutrition programs. Support to province, district and HC level management through capacity building, and budget support to cover recurrent operational costs will improve the performance of government health service provision at all levels.

34. Further options would include the dissemination of knowledge on healthy food and how to grow it (e.g. home gardening), for example, in cooperation with agricultural sector extension workers. School health programs are another option to disseminate nutrition information to children, their siblings (child-to-child approach) and their parents (child-to parent approach).

e. HIV/AIDS/STI

35. The first case of HIV infection was detected in 1990, and the first person with AIDS in 1992. At the end of 2004, the official cumulative number of people identified with HIV was

[18] **National Actions on Nutrition and World Summit Follow up, Dr Bounthom Phengdy, November 2005**
[19] **Millennium Development Goals Progress Report, Lao PDR, United Nations, January 2004**
[20] **ADB, Lao Health Sector Roadmap, February 2006**
[21] **World Health Survey, MOH, MIOPH, WHO 2006**

1,470, with 279 living with AIDS (191 under ARV treatment). 60% of HIV cases were male, 40% female. More than 50% of them were between 20 and 39 years of age. Where the mode of transmission was known, in 83% it was heterosexual intercourse.[22]

36. Current estimates for HIV/AIDS prevalence are still low at 0.08%. With Laos' continued opening to the surrounding countries, an increasing number of truck drivers and construction workers will come across the borders, and are likely to consume commercial sex. Growing international tourism also adds to the risks. Drinking habits and drug abuse are increasing, especially among Lao youth. Unsafe and risky sex behavior is more likely under the influence of alcohol or drugs. Moreover, with increasing drug consumption a shift to intravenous drugs is likely, with the additional risk of transmission through unsterile needles.

37. Interventions for vulnerable groups are mostly localized and reach only a small portion of target populations. With support of ADB and other partners, the National AIDS Bureau, has been implementing a nation-wide program focusing on hotspots to boost HIV prevention.[23] However, funding of these programs was inadequate and irregular. With the increase of infrastructure and economic growth, the number of hotspots is increasing.

38. Clinical HIV/AIDS services, including testing and counseling, are currently mainly available at central, provincial and some district hospitals. ARV treatment is available only in Savannakhet. Expansion of services in the near future is part of a national action plan. The Lao Red Cross supports a network of HIV positive people in currently five provinces. Other initiatives are sex workers running their own drop-in centers and providing peer support; men having sex with men (MSM) and transgender groups are emerging; and there is involvement of young Lao people in peer education and prevention programs.

39. The government recognizes that HIV/AIDS prevention programs need to be scaled up, if prevalence should be contained at its current low level under 1% (MDG target). An action plan has been drawn up till the year 2010.[24] It specifically emphasizes on prevention of HIV/AIDS/STI in peer education to adolescents, i.e. through health education at secondary schools. Programs addressing vulnerable groups should be supported. There should be advocacy for support to programs for the already infected and for existing self-help groups.

40. Innovative approaches that have been successfully applied in other countries include street theatre performances to increase awareness. So-called "condom cafés" that have been established in other countries (e.g. Vietnam) have proven successful in reaching young people as well as phone-in radio programs. Mainstreaming HIV/AIDS prevention and control measures in all sectors is government policy. This should also include information dissemination for government staff and at workplaces in the private sector.

2. Poverty and Health

41. The poor, and those living in more remote rural areas with poor access to roads, safe water and sanitation, have lower health status because of equally poor access to health services. The PHCEP Household Survey of 2004 showed the following pattern of health-seeking behavior for the people in the North: 46% either take self medication or no treatment at all; 12% go to a Village Health Volunteer, Village Health Provider or traditional healer; 18% would consult government fixed facility; 13% would go to a private pharmacy or clinic.

42. Other national studies show higher mortality and morbidity risks for those who are poor and avail less of basic health services, those that have no latrines and no access to safe water (in the North only 43% of the population has access to safe water, as compared

[22] **NAC, Country Report, January 2003 until December 2005**
[23] **Joint UNFPA/WHO meeting on 100% condom use programme, Manila, 3 October 2006**
[24] **NAC, July 2005, National Strategic and Action Plan on HIV/AIDS/STI, 2006-2010**

to 52% nationwide).[25] The same applies to those living more than one hour away from a fixed health facility (41% for health centers and 45% for hospitals in the North), and those with no electricity (67% of villages nationwide and 78% in the North).[26]

43. LECS 3 data (2002/03) indicate an annual average number of inpatient admissions of 28 per 1,000 persons. They also show that households in the highest consumption quintile use hospitals more than those in the lowest quintile. The utilization rate of hospital admissions increases with the level of per capita household consumption; the highest quintile has more than twice the rate of hospital admissions than the lowest quintile. This inequity is most pronounced in rural areas, where households in the highest quintile have an inpatient admission rate of 42.4, compared with 15.9 for households in the lowest quintile.[27]

44. Equity and affordability of health services, particularly for the poor, is mainly determined by the availability of cash, not just for payment for health services fees, but also for costs of transport, food for those left at home and for those accompanying the patient, for care of children, work animals and the farm. These costs are often not captured in studies, but are an important impediment to accessing services.

3. Gender and Ethnicity

45. The Government is currently developing a National Strategic Plan for the Advancement of Women (2006-2010), which will be in accordance with the Lao Government's international commitments (Convention on the Eliminations of All Forms of Discrimination against Women, the Beijing Platform for Action and the Cairo International Conference on Population and Development).

46. Until now, the representation of women in non-agriculture wage earning employment with 38% is low and gender representation across the public sector remains inequitable. They continue to occupy low positions in management and comparatively few senior government positions. It should be noted, however, that the proportion of seats of women in the National Parliament increased from 6.3% in 1990 to 23% in 2003. Women have limited access to micro credits as they require guarantees to qualify (generally land). Despite the fact that among many ethnic groups the traditional inheritance system is matrilineal, there is a tendency to provide land use certificates and land allocations to men rather than women.[28]

47. The Lao Women's Union (LWU) promotes women's rights and development and has members in all villages. The political representation is assured by LWU chapters in all ministries and government agencies in order to assure the integration of gender issues in policy papers and strategic plans. The LWU works for the empowerment and capacity building of women, and for the elimination of discrimination and violence against women.

48. Both gender and ethnicity have a bearing on demand for and utilization of health services. The least utilized health services are those specifically targeted at women. This applies particularly to poor women living in rural areas with little or no education and with low literacy. Lao women prefer female health care providers. Those are on the increase, but a substantial number of health facilities still have no female health professionals.

49. Similar barriers exist regarding small ethnic groups. They prefer to consult health professionals who speak their language and understand their specific cultural nuances and beliefs on health and illness. However, there is a paucity of health professionals from small ethnic groups at all levels. In large part, small ethnic groups have remained disadvantaged

[25] **Report on the National Health Survey, January 2001**
[26] **Lao Expenditure and Consumption Survey 2002/03, LECS 3**
[27] **Lao PDR Public Expenditure Review, 2006 (draft)**
[28] **"How do Society's Perceptions of Gender Affect Women?", GRID Centre (Vientiane), 2000**

due to their lack of access to basic education. Thus they are unable to meet the educational requirements to enter courses in medicine, nursing, pharmacy and dentistry.

50. Socio-cultural barriers need to be addressed at different fronts and by different strategies. Peer education, as introduced and supported by the PHCEP, will be a major avenue to increase awareness and changes in behavior. Lack of health awareness will require extensive health promotion and behavior change communication from both health staff and village based health providers and promoters, including mass organizations.

51. To overcome ethnic barriers, existing sector policies to increase the ratio of local health staff in minority regions need to be further pursued. Bridging courses have been developed by the PHCEP to bring general education standards up to required levels. Regarding gender barriers, the same applies to increasing female staff in health facilities, particularly in poor and remote areas. The network of village institutions and health workers established or supported under the PHCP and the PHCEP can be further strengthened, and more women need to be trained to improve coverage of female VHVs.

4. The Health System

a. Central Institutions

52. Institutions concerned with the development of health sector development programs include the Ministry of Foreign Affairs (MFA), the Ministry of Finance (MOF), the Committee for Planning and Investment (CPI) and the Public Administration and Civil Service Authority (PACSA), the Ministry of Education (MoE) and the Ministry of Health (MOH). Within the MOH, the Cabinet Office is in charge of international cooperation (external relations), and also includes the PHC and Rural Development Division. The Steering Committee for International Relations and Cooperation within the MOH provides oversight for all health projects under the Minister of Health.

53. The MFA is responsible for managing the relationship between Lao PDR and all foreign countries and also for research and recommendations about programs and projects proposed by different Ministries. The MFA reviews proposals from the MOH and handles negotiations and agreements with donor organizations, bilateral and multilateral agencies. The MOF is responsible for State budgetary issues and is the official liaison between Lao PDR and the international development banks, including ADB.

54. The Committee for Planning and Investment (CPI) ensures that all proposed projects are in conformity with national development plans, especially with the National Growth and Poverty Eradication Strategy (NGPES) and for monitoring the achievement of activities in relation to national plans, especially the Sixth National Socio Economic Development Plan (2006-2010). The Public Administration and Civil Service Authority (PACSA) under the Prime Minister's Office is responsible for the Governance and Public Administration Reform (GPAR) that focuses on decentralization, government service performance and accountability and the institutional and legal framework for these reforms.

55. The PHC and Rural Development Division under the Cabinet Office of the MOH is under the direction of the MOH Steering Committee for the Supervision of International Cooperation. The responsibilities of the PHC and Rural Development Division are (1) coordination of all technical departments and divisions involved with PHC components, (2) implementation of the national PHC program, including planning, supervising implementation, monitoring and evaluating the PHC program both quantitatively and qualitatively at each step; (3) coordination, support, supervision and sourcing resources from the diverse range of international organizations that support PHC programs in Lao PDR. The PHC and Rural Development Division is responsible to ensure that all the vertical programs relevant to PHC become integrated and comprehensive.

56. MOH is facing several problems in its central organization. The MOH Departments are operating their programs and services separately. For example, each program may employ its own field workers and have its own incentives. While MOH policies and programs are generally appropriate, the Departments lack the managerial, technical, and logistic capacity to implement them properly. The very limited availability of data (cf. Para 13) is a major constraint also in the processes of planning and monitoring of health services.

57. A major challenge to the MOH is the integration of support from various donors into the government's plans and policies. Multiple donors create complex project administration that absorbs essential technical capacity of MOH. MOH plans to move towards a national health program approach, so as to integrate programs, services, and project administration.

b. Province and District Level Institutions

58. **At the Provincial level**, the provincial oversight body for all provincial development plans (including the provincial health plan) is reviewed by the designated Pathet Lao Party Officer for the province to ensure its harmony and consonance with the over-all thrust of the National Directives of the Party. This body usually consists of the Provincial Governor, the Vice Governor, the Provincial Planning Development Officer and the designated Provincial Pathet Lao Party Officer. The Provincial Oversight Body is headed by the Provincial Governor.

59. The Provincial Health Officer (PHO) and the Assistant Provincial Health Officer (APHO) are the main managers of the health planning processes in the province. In provinces assisted by the PHCEP, the PHCEP Provincial Coordinator also plays a major role in providing technical and secretariat support services to the PHO and APHO in the planning processes. They also provide support for monitoring and evaluation of the district and provincial health plans that has direct effects on PHCEP objectives. Together with the Provincial Hospital Director, the PHO and APHO compose the Provincial Management Team. They are assisted by provincial managers of the various programs (EPI, MCH, FP and Reproductive Health, Malaria, Tuberculosis, STI/HIV/AIDS, Water and Sanitation, Food and Drug Inspection and Traditional Medicine).

60. Financial management is the responsibility of the Provincial Health Administration and Finance Officer and staff. Oversight function is assumed by the Provincial Finance Officer under the Office of the Provincial Governor. Except in foreign funded projects that have external audit system built into the projects, there is little transparency, accountability and financial audit of provincial health accounts. Flow of funds is under tight management by the Central Ministry of Health for capital investment funds while the Central Ministry of Finance for recurrent funds.

61. The standard procedure for formulating of the annual Provincial Health Plans starts with the various districts preparing their annual health plans every March. The District Health Officer calls on the health centers under the district to submit their health plans. By May, these health center plans are consolidated to the District Health Plan. By June the PHO consolidates all district health plans for submission to the Central MOH by July. By August the MOH consolidates all Provincial Plans in a National Plan.

62. Each province has as Provincial Hospital (PH) that serves as second referral level. PHs cover treatment of more severe and complicated illnesses. They perform major surgery (appendectomy, hysterectomy, laparotomy), as well as general and emergency obstetric care and intensive care of newborns. Pediatrics and some orthopedic services are available at this level. Blood banks and transfusion is available. Laboratory and diagnostics services include: biochemistry, hematology, urinalysis, parasitology, bacteriology, serology, immunology, and HIV/AIDS/STI testing. ECG and advanced imaging technology (x-ray, ultrasound) are available. However, due to lack of health specialists, technicians, equipment and supplies, some provincial hospitals do not offer the full range of services.

63. **At the District level,** the District Health Officer (DHO) is responsible for the district health plan and supervision, monitoring and evaluation of its implementation. In Type A districts, the DHO is assisted by the district hospital chief (DHC). Type A districts would also have some section heads and managers of the vertical programs. The DHO and the DHC report directly to the PHO. In Type B districts, the DHO is also the chief of the district hospital and has also very few other technical staff to assist him. Financial management is the responsibility of the District Administration and Finance Officer and staff, supervised by the Office of the District Governor.

64. The District Hospital is the first level of the referral system. It is also the local training site on PHC activities. There are two types of district hospitals, Type A (26 hospitals) and Type B (100 hospitals), distinguished by the number and type of staff, health services capabilities, equipment and infrastructure. Type A district hospitals provide general and obstetric surgery, emergency obstetrical care (EmOC) and pediatrics. Type B DH do not provide general surgery. Again, all district hospitals do not fulfill these standard requirements, particularly those in remoter areas. Most Type B District Hospitals are unable to provide the more sophisticated clinical functions due to lack of technical skills, personnel, equipment and supplies. Many of the referrals from health centers are therefore relegated to the Type A District Hospitals and Provincial Hospitals. This results in low utilization rates of Type B facilities.

65. **Health Centers (HC)** are facilities at the sub-district level with one health center for approximately every 8-14 villages. There are approximately 565 health centers in Laos (275 in the North [HFS 2004]).[29] They serve catchment populations of 1,000-5,000 people. HCs are also categorized in Type A and Type B. By 2010, all Type A HCs should have a medical doctor in charge, while Type B HCs are managed by medical assistants. Other trained medical staffs at this level are midwives, nurses and PHC workers. HCs are expected to provide health education, antenatal care, and safe normal delivery for women without complications, and referral of complicated cases. In many cases, however, they lack competent staff and equipment, particularly also in the area of safe delivery. HCs provide PHC services including diagnosis and treatment of simple diseases, prevention and health promotion. Health center staff provides outreach monitoring and supervision of village level health workers (VHV, VHP etc., see below) and traditional birth attendants (TBAs).

c. Community Based Health Services

66. **The Village Health Committee (VHC):** The VHC is responsible for monitoring all village health providers in its catchment area. It is chaired by the village chief and comprises members from mass organizations (Lao Front for National Construction, Lao Women's Union, Lao Youth Union etc.) and other local influentials. They join the VHC in its responsibility for the management and guidance of health activities in the village and the surrounding catchment area. Their mandate is to ensure equity and access to quality health services by the most remote populations and small ethnic groups.

67. A **Village Health Provider (VHP)** may be a retired public servant and health professional or a former village health volunteer, who has received some formal, basic health care training and who can treat common diseases in the local population and provide basic health care in villages at the grassroots level. The VHP guides the local community in the practice of health and hygiene.

68. The **Village Health Volunteer (VHV)** is a volunteer working in the village where she/he lives, and who has had some basic health care training of two weeks duration[30]. The VHVs are responsible for disease prevention, health promotion, and treatment of simple common diseases for the population living within their village catchment areas.

[29] MoH – JICA,, 2002, Lao Health Master Planning Study Final Report, Volume 4: Sector Review

[30] **Training modules of different comprehensiveness for VHV and VHP were developed in cooperation with UNICEF under the PHCEP.**

69. **Peer Educators**: Peer educators provide education and promotion on health and nutrition. They use a variety of behavior change communication strategies and techniques. The aim is to challenge existing health and nutrition beliefs with new information, and to facilitate the adoption of new beliefs and the acquisition of new skills in order to initiate and maintain new healthy behaviors. They are mainly VHVs and members of the national unions (women, youth, small ethnic groups, workers and monks). Initially piloted in 2000 for HIV/AIDS prevention, peer education has been formally adopted by the MOH for other health programs in 2003. Since then, various manuals have been produced by the Ministry of Health and the Lao Red Cross with funding support from ADB, UNFPA, UNICEF and WHO.

70. The **Village Drug Kit** (VDK) is a package of basic and essential drugs that is provided to the village level. The standard drug kit for VHVs includes 27 items. The content of the kit is based upon guidelines and regulations established by the MOH to respond to the need for health care services in remote areas where no health center is available. There is a more comprehensive VDK for VHPs (33 Items). Newly trained VHVs start off with a reduced VDK of 11 items. Drug kits are part of a program of drug revolving funds (DRF). Revenue from drug sales is used to replenish drug supplies and to cover some administrative costs.

d. Utilization

71. PHC facilities are being constructed, renovated and upgraded at health center, district and provincial levels throughout the country. The number of health centers nation-wide increased between 2000 and 2004 by 17% and several provincial and district hospitals have been built, significantly expanding the PHC network.[31] In 2000, the average distance to the nearest health center in the Northern region was 13 km, and about 33% of villages were located 5-16 km from the nearest health center (NHS, 2000). 53% of villagers in the North now live within one hour of a hospital or health center and only 16% are more than four hours traveling time away.[32] A study on health facility utilization carried out during the PPTA for the PHCEP in 2000 found that expansion of the health facility network through construction of health centers in two provinces had increased the outpatient utilization rate in the respective administrative areas from 16% to 33% in Xieng Khouang and from 8% to 27% in Oudomxay.

72. VHVs and village drug kits have significantly improved access to health care especially for poor rural villagers. In the five provinces surveyed both in 1999 by the PHCP and in 2004 under the PHCEP, the coverage of villages with drug kits had increased from 10% to 48%. In villages with village health volunteers and drug kits, utilization of their services increased by 67% over the previous level and is second in preference only to home-made medicine (PHCEP HHS, 2004).

73. Despite all progress made in providing physical structures, the overall utilization of health centers is still quite low. People who seek treatment prefer hospitals or pharmacies and only 5% visit health centers. Most of them, however, use self treatment, traditional medicine, or no treatment at all. Reasons for the low levels of utilization on the provider side include poor quality of services, social acceptability, and unaffordabilty, and the difficulty of geographical access for some villagers. The infrastructure already in place provides an opportunity to build on. Quality will be further improved through training of health staff and equipment where required. The village health institutions and village health workers will complement these measures with increased awareness and demand creation.

e. Health Management under Decentralization

74. The Prime Minister Instruction No. 01/PM of March 2000 established the principle of decentralization for all sectors. Under this policy the province becomes the strategic unit, the

[31] **Ernst and Young, Evaluation of Luxembourg Cooperation Projects in the Health Sector, April 2005**
[32] **PHCEP 2004 Household Survey, July, 2005**

district the budget-planning unit and the village the implementing unit. The intention is to increase ownership at the local level and to improve responsiveness to local needs.

75. Decentralization guidelines encourage the MOH to focus on results-based approaches to health management and to support provincial and district results-based planning. The MOH has responded to this challenge by creating a Division of Health Policy within the Cabinet Office in 2004. However, limited staff (only 3 persons), inadequacy in capacities for health policy analysis and development and conversion of national decrees into implementing guidelines and lack of budget support remain its major constraints.

76. Both provincial and district health offices also need major capacity building in governance, leadership and management to be able to fulfill the functions allocated to them. There is a lack of staff qualified in data and finance analysis, planning and budgeting. There also are inadequate linkages and information exchange between the different levels of management (MOH, vertical health programs, PHO, DHO). Relevant management tools, systems and procedures, standards and regulations are missing or incompletely implemented. The quality and comprehensiveness of data reported from hospitals and HCs is insufficient. Moreover, inadequate recurrent budgets and operational funds are serious constraints.

77. Provincial health offices will need to improve their own financial management capacity to receive and account for funds. Further, they will need to increase their ability to provide guidance and supportive supervision to the districts for improved planning, budgeting and financial management.

78. Financial management and bookkeeping are one of the major reforms being introduced through the GPAR (Governance and Public Administration Reform) project, supported by UNDP. Reports show that provincial offices have varying degrees in their skills and knowledge on financial management while almost all district offices are deficient in financial planning and management capacities. District offices are most vulnerable since very few qualified personnel are willing to work in far flung districts with very little urban amenities.[33]

79. The districts need to prepare results-based annual plans based on district population, health data and on district needs identified in close cooperation with the HCs and communities themselves. Monthly work plans to deliver integrated PHC services need to be developed and implemented. Those plans should provide targets, activities and costs and HCs should be given assistance and support in implementing them.

80. Health Center staffs are often little motivated. They are overburdened with a multitude of projects and programs, each of which requires separate management and reporting. Hence, the quality of bottom-up consultations is as varied as the quality, capacity and dedication of cadres in each level of the management process.[34] A major impediment, however, is also the shortage of operating funds to move and communicate within and between the different levels of the system.

f. The Private Sector

81. The **private sector** has been expanding through clinics and private pharmacies. As of 2001, there were 309 private clinics and 2,132 private pharmacies registered all over Laos. Private health services are currently, however, restricted mainly to urban settings. They are usually run by public health staff after office hours. There is no information yet, regarding the scope and costs of services by village heath providers.

[33] So far, the GPAR has only been implemented in four provinces (Luang Prabang, Xieng Khouang, and two Southern provinces). The MoH would also need a GPAR type of project to strengthen the financial management capacities of their PHOs and DHOs:

[34] So far, good practice of bottom up planning has been observed in Provinces of Xayaboury and Xieng Khouang. Other provinces can be classified from fair to mediocre to not satisfactory

82. The availability of private clinics in the eight Northern provinces is very limited, as is shown in the following table. The majority of clinics fall under the lowest Grade 3.[35] Phongsaly and Huaphan have no private clinics at all.[36]

Table 2: Private Clinics in eight Northern Provinces by Grade of Services

Province	Grade 1	Grade 2	Grade 3	Total
Phongsaly	0	0	0	0
Luangnamtha	0	1	1	2
Oudomxay	1	0	6	7
Bokeo	0	1	1	2
Luang Prabang	0	0	2	2
Huaphan	0	0	0	0
Xaignabouri	0	0	4	4
Xieng Khouang	1	1	26	28
Total	**2**	**3**	**40**	**45**

83. Apart from private clinics, there is a large number of private pharmacies (licensed and not licensed) and a host of illicit private drug vendors. Good Pharmacy Practice guidelines are in place to regulate standards. Their enforcement, however, is incomplete.

84. Opportunities to build on resources of the private medical sector are limited due to its small size and thin coverage. Because of the low level of service provision, there are no reasonable possibilities for contracting out to health clinics or hospitals at this time. However, licensed pharmacies could be considered as partners for social marketing of commodities and services in the fields of reproductive health and tuberculosis control in the future. It would take a more in depth feasibility study to find out whether more private clinics can be developed as has been the case in Xieng Khouang. There is a danger that support to the private sector may drain more health practitioners from the public sector and widen the gap in human resources availability.

85. More resources for the health system might be mobilized through public-private partnership on the basis of Corporate Social Responsibility (CSR) approaches. Private enterprises and organizations might be interested in improving the health status of their workforce, their families and their environment through a set of health interventions reaching from preventive activities in HIV/AIDS/STI to the establishment of corporate health care services and facilities which might be supported publicly (or by donor funds) to the extent they serve a public health purpose. Better public-private partnership could also involve the private sector in health care financing, managed care and other reforms.

5. Human Resources

86. The Ministry of Health has shifted its HRD focus from increasing the *quantity* of health services to improving their *quality*. Strengthening health human resource planning, management and training are the priorities for achieving this goal. The 6th National Socio Economic Development Plan (2006-2010) puts high priority on increasing the number of

[35] Grade 3 is the lowest, providing basic clinical services (blood pressure, auscultation etc), Grade 2 would have e.g. ECG facilities, whereas Grade 1 would provide a wider range of modern technology (e.g. also Ultrasound).

[36] The high number of private clinics in Xieng Khouang Province is due to a government program that supports their establishment.

health personnel working at the village and district levels, and increasing capacity, attitude and motivation of health personnel.

87. Until now, there is no comprehensive, health sector specific, HRD policy or long-term plan with a strategic focus. The MOH is currently working on the development of a national five year HR plan for the health sector. The MOH Department of Organization and Personnel (DOP) recognizes the need for such documents, to provide direction for HRD action nationally, facilitate the development of provincial level HRD Plans, and enable coordination of donors and other agencies. Workforce planning is also constrained by difficulties in collecting reliable personnel data. The GOL is developing a Human Resource Management Information System (HRMIS), and is currently pilot testing and expanding its use.

a. Training

88. The health workforce is trained in three types of institutions that use permanent and visiting teaching staff. High level staff is educated in Vientiane at the Faculty of Medical Science in the National University of Laos. Since 1996, this institution has been under the authority of the Ministry of Education. Clinical practice is at Mahosot, Friendship and Sethanthirath Hospitals. The latter has recently become a University Teaching Hospital. In addition, there are institutions such as the National Institute of Public Health (NIOPH) and the *Institut Francophone pour la Médecine Tropicale* (IFMT) providing post-basic short courses and some post-graduate training for health staff.

89. The College of Health Technology in Vientiane provides pre-service training for mid-level health workers, post-basic bachelor degree for nurses, and English language training for MOH staff. Training for medical assistants, once reintroduced, will also be delivered at the College. Students attend Mahosot, Sethanthirath, Friendship, MCH, and various specialized centers for clinical practice.

90. Mid-level Technical Nurses, and the new PHC Worker cadre, are trained in regional training schools – Public Health Schools - in Oudomxay, Luang Prabang, Savannakhet, Champasak and Khamouane. New PHC Worker training schools (including one in Xieng Khouang) are being opened based on demand for this cadre of health worker.

91. Official student intakes into undergraduate training programs are based on a government “quota” system. Health services needs and provincial equity are considerations in the selection of quota students. A set number of students are subsidized to receive the training. In addition, the Faculty of Medical Science, the College of Health Technology, and some of the regional public health schools accept fee paying “special” students. The intake is based largely on demand. Limited consideration is given to the institution’s capacity to provide quality training (classrooms, laboratory, teachers and clinical practice availability).[37]

92. Training quality is also impacted by unfavorable teacher to student ratios. The MOH DOP is addressing this problem in the schools under their control. Maximum limits have been set for enrolments at all schools in 2006, based on quality criteria. These included number of teachers, classrooms, and teaching equipment and materials available. In recognition of the risk for loss of training quality due to over-enrollment of students, the Ministry of Education has reduced the student intake into medical doctor training for 2005/6.

93. In-service training of government health workers is generally funded by donor agencies. Hence, it tends to be ad hoc and program focused. The MOH Organization and Personnel Department does provide oversight, and prior approval is required for all training courses. Due to lack of resources, HRD plans prepared at provincial and district level based on informal training needs assessments are rarely fully implemented.

[37] **Fee-paying students account for more than half the student body in some institutions. They compete with official quota students for shared student facilities such as libraries and clinical practice opportunities in hospitals.**

94. There have been, however, concerted efforts to upgrade the skills of health workers associated with technical support at provincial, district or regional levels. These efforts have had mixed results, with many constraints encountered. There is lack of well qualified and experienced teachers who have received ToT in modern teaching methodology. They often lack practical experience in service provision. Hence, their courses are rather theoretical and do not prepare trainees adequately for their actual work. Follow-up of trainees to support them in applying their new skills at their workplaces and to assess training outcomes and impact is limited.[38] There is limited availability also of teaching and learning materials such as textbooks in Lao language or in the languages of small ethnic groups.

b. Staff Categories

95. Health professionals are categorized by level and duration of their training. *High level professionals* have a University degree, e.g. medical doctors (7 years), pharmacists (5 years) and dentists (6 years), or who have completed postgraduate academic or professional training. *Mid level* staffs have completed 3 years of study after high school graduation. They include nurses, nurse midwives, assistant pharmacists or laboratory technicians, physical therapists and hygiene inspectors. Medical assistants (trained for 3–5 years in courses that have been discontinued in 1994) are also categorized as mid-level staff. *Low level staffs* have completed mid secondary school, and have studied for 2 years or less in a vocational training program, such as auxiliary nurses, or the new PHC Worker. Almost 18% of MOH employees are high level staff, 34% are mid level staff, and 45% are low level staff.[39] As could be expected, there is a higher proportion of low level staff at district and health center level, and a greater proportion of high level staff at central and provincial level.

c. Key Issues in HRD

96. Key human resource problems in Lao PDR are: i) lack of a HR policy and long-term HR plans as well as management and planning capacities to provide direction for MOH and stakeholder efforts; ii) understaffing of rural health facilities, in regard to mid and high-level staff and particularly also in the areas of midwifery and EmOC; iii) inefficiency and lack of clarity regarding the appropriate mix of staff; iv) low staff salaries and lack of additional incentives for service in remote rural areas; and v) weak staff performance.

97. **HR policy, strategy and long-term planning.** The lack of a comprehensive, health sector specific HR Policy and a long-term Strategic HR Plan, is a barrier to effective workforce planning, management and training. Many relevant GOL and MOH policies and plans provide an appropriate framework for the development of HR Policy and Plans. At all levels of the MOH, including the Minister, Vice Minister and the DOP, it is recognized that HR Policy and Plans are urgently needed, and that capacity needs to be built within the DOP to provide leadership in their development and implementation.

98. A major challenge remains adequate deployment, retention, continuing development and career plans. HR policies and guidelines are needed in the areas of staff development and training, recruitment, performance appraisal, benefits and allowances, particularly also in view of filling serious staffing gaps in the remote and poor areas. Provincial level HR Plans need to be developed, reflecting national priorities while responding to specific local needs.

99. **Understaffing of Health Facilities.** Health Centers and District Hospitals are generally understaffed, particularly with mid-level and high-level staff, limiting their capacity to deliver priority health services. Success in filling staff gaps has been achieved through educational strategies targeting local high school graduates to train as health workers and local MOH staff to upgrade qualifications or skills. Opportunities exist to build on and expand strategies such as PHC worker training introduced under PHCEP to other categories of staff.

[38] **PHCEP/John Storey. 2004. Final Report of the Consultancy in Education & Training**
[39] **MOH. 2005. Statistics of Health Staff in Lao PDR, 2005**

100. The unavailability of female staff and health workers from small ethnic groups has been mentioned earlier. The PHCEP has introduced bridging training for potential health staff from remote areas that do not fulfill the basic educational requirements. Training of PHC Workers has produced a workforce of some additional 150 staff at health centers in the eight Northern provinces. The planned revitalization of medical assistant training will augment the availability of mid-level staff at hospitals and HCs (a detailed description of staff gaps in HCs and hospitals can be found in Appendix 11).

101. **Efficiency of Staff Mix**. There has been no comprehensive functional analysis in recent years regarding staff categories and mix required in each facility. There is a significant imbalance between doctors and nurses if only mid-level nurses and midwives are included. If medical assistants are included in this category, a more balanced picture emerges, with 1 doctor:1.7 nurses, midwives or medical assistants, but this ratio is still relatively high by international standards. A staff mix with few nurses per doctor has been associated with health system inefficiency, as relatively expensive doctors may be doing work that could be done by less expensive mid-level staff.[40]

102. A particularly serious gap in staff mix has arisen from MOH's decision to discontinue midwifery training several years ago. The strategy to produce multi-skilled nurses, who could provide both general and midwifery services has proven unsuccessful. Mid-level nurse graduates do not have the necessary level of midwifery skills to provide safe and effective care during pregnancy, birth and postpartum period. The MOH recognizes this deficit, and is working on strategies to improve the quality of midwifery care by skilled health professionals.[41] A post-basic midwifery training course for mid-level nurses and PHC workers would provide the most cost-effective method of increasing the skills of providers at health center level, where first-level maternal and newborn services are ideally delivered (for a detailed discussion of issues regarding human resources for safe motherhood cf. Appendix 23).

103. **Staff remuneration and incentives**. Low salaries and lack of incentives (financial and non-financial) for rural and remote postings are barriers to effective distribution of staff. The GOL has passed legislation to introduce financial incentives for rural civil servants (Decree No: 381/PM). Whether such incentives can bring health staffs' income anywhere near their needs is doubtful. Non-financial incentives (e.g. additional in-service training, accelerated promotion) need to be supported to increase retention and performance of rural staff. Advocacy to local governments needs to remind them of their responsibilities in ensuring quality health care for their population. As already practiced in some places, local governments could issue performance based certificates and cash awards for health workers. The private sector could also be involved through sponsoring awards.

104. **Staff performance**. Due to lack of appropriate skills and motivation, and poor human resource management, many MOH staffs are not performing at their highest potential. The in-service training system is not sufficiently decentralized and lacks resources and capacity to provide quality, relevant and cost-effective training. Many managers lack skills and resources to properly manage, supervise and support their staff in achieving high levels of performance. The MOH's focus on improving quality of health services seeks to increase quality of health personnel education by building up educational and technical skills of teachers, strengthening selection of trainees, and increasing the links between training contents and service delivery needs. Strategies of the MOH include the introduction of job-descriptions, performance appraisal tools, improved supervision, and training of managers.

[40] JLI. 2004. Human Resources for Health, overcoming the crisis, Harvard University Press

[41] This includes training of traditional birth attendants (TBA). Global evidence, however, suggests that TBAs or other "lay" providers do not reduce maternal mortality (The World Health Report 2005: Make every mother and child count. Geneva).

6. Health Sector Financing

a. General

105. The overall growth of the Lao economy is encouraging. However, there is a growing disparity of economic growth between urban and rural areas, and between income of the rich and the poor. The non-poor capture most of the health sector services. Accordingly, efforts need to be made to adjust this balance towards a more equitable distribution of services, as reflected in the policy statements of the Government. Amongst others, this will require a greater emphasis on health benefits for rural communities.

106. The Government's fiscal situation will remain very tight in the coming 5-10 years. Foreign financial aid accounts for nearly two-thirds of all public investment. Government's spending in the health sector in general, and on recurrent costs in particular, is low, creating substantial inefficiencies in terms of returns on investments. MOH needs to find a better balance between capital and recurrent expenditures and further optimize the effectiveness of investments by better donor coordination. In view of the lean management structure and capacity in MOH, in particular transaction costs of donor assistance need to be reduced.

107. Given the high levels of poverty, particularly amongst the poor and near-poor as well as small ethnic groups, financial barriers need to be addressed urgently. Fees for services (e.g. drug revolving funds) contribute to cover recurrent costs and potentially also to finance staff incentives. However, to secure financial accessibility by the poor and near-poor to quality health care, effective exemption mechanism (e.g. Public Assistance Funds) need to be in place. This needs to include opportunity costs, such as e.g. transportation, and food and accommodation for accompanying family members.

108. Almost half (46%) of the population in the eight Northern provinces resort to self medication or take no treatment at all. 13% go to private clinics or pharmacies[42] where quality standards are insufficiently assured. The best option for the MOH would therefore be to increase the percentages of utilization of fixed facilities (18%) and village based services (12%). Their quality is also still far from optimal, but the potential influence on improving them is more direct. Opportunities in this context are health equity and health loan funds as well as support to expansion and quality improvement of the health services network.

b. Total Health Expenditure

109. Total health expenditures and their breakdown in Lao PDR in US dollars (US$) for selected years as well as more detailed expenditure figures are given in Appendix 12. The share of total health expenditure accounted for by domestically financed government health spending has varied considerably over the last 12 years. This share was 22 percent in 1992-1993, increasing to 32 percent in 1994-1995 before falling to 12 and 9 percent in 1997-1998 and 1999. Since then, according to most recent estimate, domestically financed government health spending has returned to 18 percent of total health expenditure in 2002-2003.

110. Generous foreign financing has maintained the share of government health spending in total health expenditure within a range of 42 to 51 percent, while the share of household out-of-pocket expenditures in total health spending has ranged from 49 to 58 percent. This last indicator is lower than the average among other East Asia & Pacific countries (62%) or among other Low Income countries (72%) and is about the same as the average among other Low & Middle Income countries (55%).[43]

111. Government data show a sharp decrease in 2002/03 in total health expenditure expressed in US$. Some of the observed decrease is due to a decrease in the level of foreign-financed health expenditure, from an estimated level of US$21.7 million in 1999 to US$13.1

[42] **PHCEP Household Survey, 2004**
[43] **Knowles, 2006.**

million in 2002/03. In addition, data indicate a sharp drop in reported out-of-pocket spending by households in US$ between the periods 1997-1999 and 2002-2003. This drop may be due to a decline in total consumption per capita in US$ between 1997/98 and 2002/03 as a result of a sharp decline in the value of the Lao Kip during this period. Per capita health expenditure declined from $11.81 to $7.38 during the period 1999 to 2003.[44]

112. The JICA-sponsored 2002 Lao Health Master Planning Study estimates that in 1999 by economic category drugs accounted for 55 percent of total health spending. Corresponding estimates for 2002/03 indicate that the share of capital spending in total health expenditure has increased sharply since 1999 (from 20% to 39%), while the share of drugs in total health spending has decreased by about the same amount (from 55% to 34%). The share of personnel expenditure has also declined (from 18% to 12%), while that of other supplies has increased from 7 to 14 percent.

113. Domestically financed government health spending was less than 1 percent of GDP during the period FY95 to FY97 before decreasing to 0.3 percent of GDP in FY99, where it has remained except for a modest increase to 0.4 - 0.5 percent of GDP during FY01-FY02. Similarly, domestically financed government health spending was about 4 percent of total government expenditure in FY97 before decreasing to below 2 percent in FY99 where it has remained, except in FY02, when it increased to 2.7 percent of total government expenditure. These data indicate that the level of government health spending has not fully recovered from the sharp decreases experienced during the 1999-2000 economic and financial crises.

114. Total government health expenditure as a percentage of total government expenditure (6%) is also low compared with many low and middle-income countries, except Vietnam, where it is also about 6 percent. There has been little change during the period FY02 to FY05 in total government health expenditure either as a percentage of GDP or as a percentage of total government expenditure. Total government health expenditure is equal to about one percent of GDP, which is low compared with other East Asia & Pacific countries (1.9%), other low & middle income countries (2.7%), and other low income countries (1.5%).

115. Moreover, there has been a dramatic decrease during this short period in the share of domestically financed government health spending in total government health spending. This large shift reflects rapid growth in foreign-financed government health expenditure in relation to GDP as well as an almost equally sharp decrease in domestically financed government health expenditure in relation to GDP.

c. Cost Recovery and Pricing

116. Currently, cost recovery in the public health care system is limited to the operation of a drug revolving fund (DRF). Patients are charged for medicines and supplies they consume on an individual basis. The fees collected typically include a 25 percent markup over the purchase cost of the drugs and supplies to cover exemptions, DRF administration, transportation, inflation, damage, spoilage, etc. Some patients are granted exemptions or discounts, financed largely by the markups and partly by government and donor contributions of drugs and supplies. Charging fees for services other than drugs and medical supplies is not allowed within the public health system (except some nominal inpatient room charges). Very few facilities pay any staff bonus or incentive from cost recovery revenue.

117. Under the current DRF-based system, the level of cost recovery in Lao public hospitals is relatively high compared with other countries in the region.[45] This may be a reflection of low salaries paid to hospital personnel, however, and the relatively low level of govern-

[44] 2002/03 estimate for Lao PDR is very low compared to other East Asia & Pacific countries (US$63), Low & Middle Income countries (US$73), Low Income countries (US$29), and to levels in neighboring countries.

[45] Schwartz, 1999.

ment funding of hospitals which largely consists of the compensation paid to hospital staff. It also may be due in part to the absence of good accounting systems that would capture the full cost of the services provided, particularly also donor-funded inputs.

118. The recent Decree of Fees and Charges (PM 381, 12/2005), may significantly change the way health facilities charge fees to patients and how staff salaries are financed.[46] Under PM 381, all government agencies are now allowed to charge for all services and products they provide, and may use the revenue for salaries and other recurrent costs. For the public health sector, fees for all services and supplies, including consultations and other services provided by medical personnel, drugs, supplies, other medical consumables, use of machines etc. are allowed to be charged to patients. To date, charges for services provided by staff have not been officially implemented by MOH, but have the potential to provide significant increases in operating budgets. Increased prices, however, run the risk of further reducing affordability of public health care, especially for the rural poor.

d. Health Insurance

119. There are three formal health insurance schemes in Laos: i) Civil Servant Health Insurance; ii) Social Security Organization; and iii) Community Based Health Insurance. The Social Security Organization and Community Based Health Insurance are small programs that serve workers in the private sector, covering a total of only about 64,000 people nationwide, well less than one percent of the total population.[47]

120. The compulsory public social security system for **government officers** was started under decree 178/PM managed by the Ministry of Labor and Social Welfare. Benefits include retirement pensions, survivors' benefits, employment injury and sickness benefits, maternity benefits, etc. Medical expenses of government staff and their families are covered through a reimbursement system. Contribution deducted from staff salaries (6%) has been insufficient for annual outlays and government's treasury contributes as an additional source. Claim procedures and reimbursement rate has not been satisfactory. This compulsory system covers about 125,000 civil servants and their families or a total of about 500,000 people.[48]

121. The social security system for **employees in private formal sector** was established under the Labor Act of 1994 and social security decree 207/PM issued in 1999, and covers the workers of private enterprises. This health insurance system currently is operated only in Vientiane Capital City, Vientiane province and Savannakhet province, where the main hospitals, Mahosot, Mittaphab, Sethanthirath, Vientiane provincial Hospital and Savannakhet provincial Hospital are under contract with the Social Security organization. The system is on a capitation basis and limited to a defined set of services. The users do not have to pay for the care received under this prepayment insurance scheme. The number of workers from formal private sector covered by this scheme, however, is still a very small percentage of the total. It is estimated that 20 percent of all workers are in the formal sector.[49] The social security organization consists of about 49,000 insured as of November 2005.[50]

122. Pilot testing of **voluntary community-based** health insurance schemes were started in three districts located in Luang Prabang Province, Champasak Province and Vientiane Municipality with assistance from WHO and JICA.[51] As of December 2005, community-based health insurance covered about 2,800 families, or about 15,000 people.[52] The CBHI schemes are supposed to cover workers in the informal private sector and their families, and

[46] An English translation of PM 381 is included as an annex to the Health Care Financing Sub-sector Analysis.
[47] MOH and JICA, 2002.
[48] MOH, Department of Planning and Budgeting, CSHI reports.
[49] Ron, 2004.
[50] MOH, Department of Planning and Budgeting, SSO Reports.
[51] Ron, 2004.
[52] MOH, Department of Planning and Budgeting, CBHI Reports.

cover only a pre-defined set of hospitals and health centers. MOH has established Health Insurance Division in the Department of Planning and Budgeting to coordinate this initiative.

123. It will take a very long time for CBHI to cover the informal private sector. With the planned expansion in 2006, an optimistic estimate for CBHI by the end of this year would be to double its current enrolment to a total of 30,000 people. However, even if it were possible for CBHI to phase-up and enroll an additional 100,000 people a year, it would take more than 40 years to cover the informal sector (80% of the population, or over 4.4 million people).

e. Health Equity Funds

124. Health equity funds (HEF) are a relatively new approach in developing countries to provide access to health services for the poor. There are few reports in the international literature which evaluate equity funds, but one equity fund which has been carefully examined is in Sotnikum Operational District, Siem Reap province, Cambodia.[53] In September 2000, an NGO was contracted by MOH to manage an equity fund that identifies the poor and pays user fees on their behalf. Health care staff was entirely removed from the process of identifying and financing the poor patients. The results of the pilot test show that the fund effectively improved the access to hospital services for the poor. Many new HEFs have been started in Cambodia, and plans are underway for a national system.

125. In the first year of the project, the HEF mainly reduced the cost of care for those who had already chosen to access care. In the second year of the project, however, a steep increase in the utilization rates of the poor suggests that a considerable number of new patients accessed care who likely would not have sought care without financial support. There was minimal leakage of the fund to non-poor patients, and almost 100 percent coverage for those with very low ability to pay, including transport, food and basic items.

126. There are three health equity funds (HEF) currently being pilot tested in Laos. Swiss Red Cross (SRC) operated a health equity fund in Nambak District, Luang Prabang Province from 2001 until 2005 when they transferred responsibility for the fund to Lao Red Cross (LRC). LRC is continuing to support the operation of the fund. In Vientiane Province, Belgian Technical Cooperation (BTC) is supporting health equity funds in two districts, and Luxembourg Development (LuxDev) is supporting nine districts. In addition, the World Bank has plans to start equity funds in five districts in the south. Each of the current HEFs pre-identifies the poorest people in the district and provides them health cards to obtain free services. All three of these HEFs are relatively small efforts to establish systems to support free health care for the very poor. MOH has not established a separate coordinating unit within the Department of Planning and Budgeting for health equity funds.

127. In FY 2004-2005, SRC had 6,535 people (1,293 families), or about 11 percent of the Nambak District population, enrolled in the HEF. Each enrolled family was issued a health card which entitles them to free services. Direct payments were made to health centers and hospitals for the cost of curative treatments, family planning, and ante-natal care. In addition: i) transport in the district and province, food, and soap were provided to patients; ii) vitamin A/mebendazol were given to P1-P3 school students; and iii) water supply and latrines were provided to the neediest 149 families in seven villages. The total expenditure for health care services plus transport, food, soap benefits and administration amounted to about US$13,000, or about US$2 per person enrolled in the HEF in 2005.[54] The average benefit received at health centers was US$0.50 per patient. The average benefit at the district hospital was US$5.50 per inpatient and US$1 per outpatient. At the provincial hospital the average benefit was US$28 per inpatient and US$5.50 per outpatient.

[53] Hardeman, et al. 2004. A complete description of the history of equity funds in Cambodia is given in Bitran and Associates, 2005.
[54] Excludes school program, latrines, other project support

128. BTC began phasing-in an HEF in Vangvieng, Hom, and Phoun Districts in 2005 for 8 health centers and three district hospitals in Vientiane Province. The total population of the three districts is about 115,000 people, of which about 1,700 or 1.5 percent have been provided cards for free health care, transport, food, soap, and cover if needed. During the phase-in period of 2005, about US$800 was provided, or about US$0.50 per person enrolled.

129. LuxDev also started an HEF in Vientiane Province in 2005 covering the remaining nine districts and the effort is closely coordinated with BTC. Initially, post-identification was the method used to identify the poor on a case by case basis at hospitals. Pre-identification of the poor with individual health cards to obtain free services at hospitals and health centers took six months, was recently completed, and cost US$13,000 or about US$1.50 per person enrolled. The program has not been fully implemented long enough to have reliable statistics on the level of benefits received by the covered population. The nine Vientiane Province districts have a total of about 306,000 people, of which 9,096 people or about 3 percent are covered by the HEF.

f. Options to Improve Recurrent Cost Financing

130. General under-funding of the health sector is a key problem in the Lao health system. This affects both health administration at all levels and health services. Funds are insufficient to pay for recurrent costs of operation, consumables and maintenance of infrastructure and equipment, including regular replacement as required. Almost all available money is spent on capital and salary costs. There are three possible sources of additional funding for unmet recurrent costs of the public health care system: by i) increasing the government central and provincial budgets; ii) increasing the amount of cost recovery revenue collected out-of-pocket from households; or iii) increasing the amount of donor financing.

(i) Increasing Government Budgets

131. Increasing the government central budget for the public health system is not likely to be a realistic option in the near term for Laos. The government has committed additional funding for health from the central budget when the Nam Theun II project is completed, but this is not likely until 2010. The total revenue from Nam Theun II is not expected to generate more than one percent of GDP, and MOH is likely to receive only a fraction of this amount. Improved revenue collection (60% target in 2006) could help generate additional funding for the public health system, but the target is likely to be overly optimistic given past performance. The central government could impose special taxes (e.g. a tax on alcohol and on cigarettes) and earmark the revenue for funding of the public health care system. Such taxes have an additional benefit which, to the extent that alcohol or cigarette consumption is decreased, there are health care cost savings. At the provincial level, it may be possible to increase funding for health care through matching block grants, i.e. additional funding may be offered from the central level under the condition that a certain percentage of that funding is also committed by the province from local revenue sources.

(ii) Increasing Cost Recovery Revenue

132. Cost recovery currently is obtained from user fees for consumables, services and a few limited special fees (e.g. bed fees in hospitals). The usual margin of 20 to 25 percent on top of direct costs of commodities could be increased. In addition, charges for other services (e.g. surgical procedures) could be imposed to increase cost recovery revenue under the new Decree (PM 381). Significantly increasing prices for services, however, would seriously undermine efforts to increase the affordability of health care, especially for the poor.

(iii). Increasing Donor Financing

133. Donors have been committed to assisting the health sector in Laos for a long time, and this assistance could be increased and directed toward increasing the funding available for recurrent costs which at present are not adequately covered by other sources of funding.

This is an obvious option for HSDP and other donor financing. All donor funding should be directed away from new construction, and toward increasing the funding for recurrent costs to improve the efficiency of the public health system.

g. Options to Improve Efficiency

(i). Cost Savings from Technical Efficiency Gains

134. An alternative to *increasing* revenue or funding is to *decrease* inefficient use of resources in the public health system. Linking investment decisions to recurrent costs, for example, would limit new construction and contain recurrent costs. MOH appears willing to limit new construction and this will help to slow the growth of recurrent costs. Funding for recurrent costs, however, must be dramatically increased to reach a level where the system is able to meet increased demand due to better quality and affordability of services.

135. A second technical efficiency option would be to shut down non-functioning health facilities to reduce recurrent costs. The essential problem of non-functioning facilities in Laos, however, is not a waste of recurrent costs, but a lack of funds to sufficiently cover recurrent costs to make them functional. Closing these facilities would limit access to health care and run counter to the goal of increasing utilization to serve the needs of the population.

(ii). Cost Savings from Allocative Efficiency Gains

136. A shift of resources in the public sector from curative care to preventive care might result in curative cost savings, but such a shift at this time would seriously limit the availability of curative care in much of the country. Moreover, there are few resources used in curative care units which could easily be transformed to uses in preventive care. The major recurrent costs in all of the hospitals, for example, are the salaries of the health care staff. It is unlikely that these hospital personnel would be willing to move to a facility which has more of a preventive care orientation (e.g., surgeons would not likely accept a transfer to a PHC center). The other major resource category in curative care is fixed capital, and the cost of transforming hospital buildings and equipment, for example, to small preventive care facilities is not cost-effective. In short, both curative and preventive care are seriously under-funded in the country and decreasing the funding for either category would make the situation worse, not better.

137. Another option to improve allocative efficiency is to encourage the government to form public-private partnerships (PPP) to increase funds available to all levels of health care. In other countries, however, PPPs have been found to be a more costly solution for the public sector than simply funding the public system at a higher level to make it operate more effectively and efficiently. Encouragement and growth of the private sector, however, would shift much of the burden for services now provided by the public sector to those with the highest ability to pay, especially for costly curative care, and thereby increase the capacity of the public health system to better serve those most in need. The government can encourage the growth of the private sector by establishing a better system to grant licenses to qualified practitioners and facilities at no cost, and giving tax breaks to private medical practices.

h. Options for Improved Affordability

138. The options to improve the affordability of health care services for the poor include cross-subsidization from households who pay for services through user fees or health insurance, and direct subsidization through the establishment of public assistance funds with government and donor contributions. As already noted, however, increasing user fees would run counter to the objective of increasing the affordability of health care.

(i). Cross-subsidization from Health Insurance

139. Increasing health insurance premiums to cross-subsidize health care costs of the poor also is unlikely to be a practical solution. It is unrealistic to expect that increased health

insurance premiums would generate a sufficient amount of funds to cover the health care costs of the poor simply because there are not enough people with health insurance in Laos.

140. Health insurance often is viewed as a way to increase utilization rates of public health facilities, increase their revenues, and decrease household out-of-pocket spending for health care. But health insurance is still very new to Laos, and it is likely to be a long time before it covers a significant portion of the population. The two private sector health insurance schemes (SSO and CBHI), for example, are very small programs which cover a combined total of only about 65,000 people, or only about 1 percent of the eligible population.

141. More importantly, CBHI does not cover poor people. The price of membership in CBHI is too high for poor families to afford, but not high enough for CBHI to cross-subsidize the health care costs of the poor even if it's membership was significantly larger. Table 3 gives data from the CBHI in Nambak District and shows that: i) the overwhelming majority of CBHI members are from the two highest wealth quintiles (91%); ii) very few CBHI members are from the lower income quintiles; and iii) the overall percent of people choosing to become CBHI member is very low (5%).

142. In addition, several major problems with CBHI in Laos have been identified which further limit the ability of the system to expand rapidly, including: i) over-prescription of drugs and provision of unnecessary diagnostic tests to the membership; ii) health worker reluctance to provide more services without additional compensation; iii) high membership drop-out rates; iv) late membership payments; and high administrative costs.[55]

Table 3: CBHI Membership in Nambak District by Wealth Quintile, 2005

Wealth Quintile	Total Population	CBHI Members	CBHI Population Coverage (%)
Highest	11,875	2,112	17.8
Next Highest	11,875	643	5.4
Middle	11,875	154	1.3
Next Lowest	11,875	92	0.8
Lowest	11,875	31	0.3
All	**59,375**	**3,032**	**5.1**

Source: Swiss Red Cross

143. Clearly, health insurance is a long-run strategy in Laos for health care financing which is in its infancy with serious problems to solve. It is not likely to provide high coverage rates or increase utilization and funding of public facilities for a very long time, and it will not cover the large portion of the population who are poor.

(ii). Public Assistance Funds

144. Because CBHI will take a long time to mature as a viable health financing system in Laos (if ever), there is a need for a near term solution to under-utilization, under-funding and equity problems. The first challenge is how to increase the utilization and, thereby, the revenue of public facilities and, at the same time, ensure that very poor households receive services free-of-charge and near-poor households have the ability to pay for services without having to sell assets. Secondly, the remedy must be able to be implemented more quickly with a larger start-up scale than CBHI tests.

145. Public assistance funds would effectively subsidize health services for those with limited ability to pay. Health equity funds (HEF) would target the very poorest of households and pay all health care costs plus transport, food, etc, associated with obtaining health care.

[55] **Ron, 2004.**

Near-poor households would have access to public assistance health loan funds (HLF) for catastrophic health care at hospitals.

i. Recommendations: An HCF Road Map

(i). Increasing the Funding for Recurrent Costs

146. The following are realistic options which the government should pursue to increase resources to pay recurrent costs of the public health system in the next five years.

147. In the near term (0 to 3 years), the government should:

1. Impose a national moratorium on new construction of health facilities by all levels of government and all donors, NGOs, etc. This will slow growth of recurrent costs and allow government and donors to increase funding for the levels of recurrent costs required for efficient and effective operation of the public health system. Donors should not be allowed to saddle the public health system with larger obligations for recurrent costs by building more hospitals and other health facilities.

2. Direct all donor funding to recurrent costs. All donors should be required to make commitments to bring the funding of recurrent costs up to the levels required for a well-functioning public health care system.

3. Increase provincial budgets for health by requiring provinces to provide additional funding through matching grants for any new recurrent cost funding provided by the central government or donors. Provincial governments have the authority to collect revenue from local sources, and should shoulder more of the burden of the funding for public health care for their provincial populations.

4. Encourage growth of the private sector. The government should take a more active role to encourage the private health sector through granting of licenses and tax incentives while ensuring quality of services. This will ease the burden of providing health care to patients who can afford the costs of private health care.

148. In the medium term (3 to 5 years), the government should:

1. Increase the central government budget for health from Nam Theun II revenue. The government already is committed to doing this, but needs to ensure that sufficient revenue is direct to health care.

2. Increase the central government budget for health by imposing a special tax on cigarettes and liquor, and dedicate the revenue raised by these taxes to the public health system. This is a very common method used by many countries to increase revenues to fund recurrent costs, and should be pursued by the government. These taxes have the added cost savings of reducing the burden of providing health care by discouraging unhealthy behaviors.

(ii). Improving the Affordability of Health Care Services

149. As part of the near term strategy to increase the funding for recurrent costs, the government should encourage donors to establish public assistance health equity funds (HEF) for the very poor, and public assistance health loan funds (HLF) for the near poor, including those with limited ability to pay for health care for catastrophic illnesses.

150. As illustrated in Table 4, this strategy essentially is a demand-side initiative which increases the affordability of public health care services by removing the barrier of low ability to pay. The strategy will protect the poor, ensure more equitable access to public health care services, and increase utilization of the public health care system. Both the health equity fund and the health loan fund will increase the ability to pay for hospital services by the poor and near poor and, thereby, increase the demand for hospital services, occupancy rates,

hospital revenue, and provide a more equitable distribution of these services as well as of outpatient services provided through health centers and village health volunteers.

Table 4: Recommended Affordability Strategy

Wealth Quintile	Targeted Source of Funds
Highest	Own Funds, Health Insurance
Next Highest	Own Funds, Health Insurance
Middle	Own Funds, Health Loan Fund
Next Lowest	Health Loan Fund
Lowest	Health Equity Fund

151. HEF payments to public health care providers should not be linked or pooled with the Community Based Health Insurance (CBHI) system. Linking the CBHI capitation funds with the HEFs has been found to inequitably redistribute HEF funding for poor patients to the members of CBHI who purchased health insurance cards. CBHI members had a much higher rate of utilization of health care services than poor patients, and thereby received a disproportionate share of the benefits when the Nambak HEF made CBHI capitation payments to hospitals and issued CBHI health insurance cards to poor patients. Thus, the HEF funds intended for the poor effectively subsidized the health care costs of those who could afford to purchase health insurance from CBHI.

152. HLFs for hospital inpatients with catastrophic illnesses health care costs would build on a practice already in place at hospitals in Laos. Currently, hospitals routinely allow patients who cannot pay for services, and who are not eligible for exemption, to be discharged from the hospital, return home and pay the costs of health care at some later time. Hospitals effectively are granting interest free soft loans to these patients and may have substantial amounts of money owed to the hospital. Some provincial hospitals report significant outstanding accounts receivable.[56] A public assistance HLF would build on this current practice by granting soft loans to patients and establishing a low-cost revolving fund for such loans. Hospitals would be relieved of the cash-flow burden of outstanding payments.

7. Planning and Budgeting

153. Existing planning and budgeting mechanisms are not sufficiently developed as to assure rational planning and resource allocation as needed for an effective health care system. Processes and decisions are still generally centralized, lack sufficient technical support and capacity for planning, budgeting, implementing, and auditing activities. The implementation of policies is often undertaken in an ad-hoc manner, with limited transparency. Monitoring and support mechanisms to follow up on activities in provinces and in districts are weak.

154. At provincial and district levels, no adequate mechanisms are in place for effective planning and budgeting. Decentralization has devolved a large share of management, planning and budgeting responsibilities to lower levels of public administration. To carry out most of these functions their capacity still needs considerable strengthening. Vertical programs, inadequate hospital management, and lack of information exchange between different actors contribute to a fragmented health care system particularly at provincial and district level.

155. Local accountability and transparency are limited with no effective involvement of civil society. The abolition of the formal tier of sub-districts at a level between village and district makes planning and management of service provision more difficult.

[56] For example, Oudomxay Provincial Hospital reported about 15 million Kip (US$1,500) in inpatient accounts receivable in February 2006.

156. The MOH plays a relatively indecisive role in the budget planning process. The MOF is responsible for the overall fiscal framework and for sector allocations of recurrent budgets, while CPI is responsible for developing the capital budget. According to PM Decree 01/PM, the province is designated as the "strategic unit" for budget preparation purposes, the district is the "planning unit," and the village is the "implementing unit." The extent to which this formal assignment of 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 PHO indirectly plays a major role in developing annual budgets in all provinces, central control over provincial budgets remains quite strong.

157. Under their overall guidelines, MOH and provincial health authorities independently prepare their budget proposals for the health sector. MOH plays a role in allocating central level budget for central hospitals, national programs, and their departments. MOH, CPI and provinces have to negotiate budgets at several levels over up to 6 months which creates delays in budget implementation. Since proposed budgets are usually much larger than approved budgets, it is necessary for both MOH and the provinces to prepare new detailed budgets that reflect the substantially lower approved funding levels.

158. There is little flexibility for local governments in preparing their recurrent budget for the health sector. Provincial recurrent health budgets are closely linked to the number of personnel assigned (by central 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 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 the Revolving Drug Funds (RDFs).[57] The income earned from RDFs, which differs substantially among districts, is extra-budgetary and not considered during planning and budgeting. Additionally, districts and district-level health facilities receive support for recurrent expenditures through donor assistance, which resources are also not considered during budget preparation.

159. Initial district-level proposals may be based at least in part on the stated needs of villages (bottom-up planning). However, the district-level proposals are subsequently reviewed and adjusted at the province level by the PHO and, subsequently, by the provincial planning office. For province-level capital budgets, the highest priority is given to providing counterpart funds for donor projects that are implemented at the province level. Increasingly, donor projects also provide substantial support for recurrent costs.

160. Central MOH budget execution follows closely the procedures mandated by MOF. Since health capital budgets are primarily donor-financed, delays occur due to varying financial management and procurement procedures. To support this, donor projects have project management units that assist MOH in working with mandated procedures. Harmonization in such procedures among large donors is necessary due to the limited available local expertise. At the provincial level, budget execution is problematic. Cash is frequently unavailable, due to incorrect revenue projections and/or problems in transferring revenue from surplus to deficit provinces. This leads to frequent delays in payment of salaries of health personnel and suppliers. Another problem is that recurrent budgets often fail to include realistic inflation factors resulting in funds being unable to fully cover annual budgetary requirements.

161. The HIS does not provide adequate and timely data and analysis which could serve as basis for rational planning and monitoring. It is lacking adequate IT equipment and up-to-date software as well as skills for effective data management and analysis.

162. The multitude of donor supported programs, often vertical and not integrated, present a major challenge to the MoH. Data collection and analysis is little coordinated between the

[57] RDFs are off-budget and are therefore outside the scope of the formal budget preparation process.

line ministries and development partners leading to planning and monitoring constraints, to duplications in activities and to poor efficiency in the use of resources. The weak donor co-ordination at the MOH level severely constrains the performance of the health system and absorbs large capacities of health professionals.

163. The previous section has shown serious under-funding of the public health system as a major problem. In addition, the limited funds available are used inefficiently. Existing treasury management causes late payment of salaries and delays in procurement. This indicates an urgent need to improve planning and governance as well as to establish sound planning and budgeting mechanisms that are based on needs and results.

164. Opportunities include (i) strengthening of planning and budgeting capacities at central, provincial and district level, (ii) redesigning, simplifying and tightening planning and budgeting procedures at all levels, (iii) streamlining donor coordination at the central level, (iv) strengthening donor coordination and decentralized authority at provincial level, (v) strengthening the HMIS for better data availability and analysis, (vi) strengthening monitoring and support supervision systems and capacities for better guidance of provincial and district planning and budgeting, (vii) strengthening auditing, bookkeeping and accounting skills at provincial and district level, (viii) introduction of consistent crosschecking of budgets and plans for equity regarding gender, ethnic groups, and for pro-poor orientation.

8. Health Policy

165. The *National Growth and Poverty Eradication Strategy* (NGPES), which resulted from the 6th Party Congress in 1996, is the overall strategic framework for all growth and poverty eradication programs. It defines the long-term development objective to raise Laos from the status of a least-developed country (LDC) by 2020. This national goal is to be achieved through sustained equitable economic growth and social development. In the health sector, NGPES priorities include strengthening and improving the quality of health care at grassroots level, particularly in under-served areas and especially for vulnerable groups, including mothers and children and small ethnic groups.

166. The 6th National Socio Economic Development Plan, 2006-2010[58] (NSEDP) is the Government's primary instrument for realizing the NGPES. For the health sector during the next five years, the Plan's objectives The NSEDP identifies health as a priority for development, with the main objectives of reducing urban-rural health differentials, lowering mother and child mortality rates, raising life expectancy and reducing the spread of communicable diseases. Increased Prevention and improved treatment are the key methods in the health sector to achieve these objectives.

167. In the area of health HRD, the 6th NSEDP (the Plan) stresses the need for a general improvement of medical and nursing education, management training for district health officers and a wide distribution of national treatment standards and manuals, information of health laws, guidelines, rules and regulations etc. The Faculty of Medicine should be improved, especially for postgraduate studies. Immediate priorities are on: (i) increasing the number of health personnel working at village and district level; increasing the number of health workers from under-served small ethnic groups and ensuring that 50% of VHV trainees are women, (ii) increasing attitudes, morale and capacity of health personnel at district and village levels, in parallel with (iii) provision of essential drugs and necessary medical equipment to district hospitals, health centers, and of drug revolving funds at village level.

168. In the area of health financing, the Plan provides the Government's overall strategy for increased and more efficient funding of the health sector, along with improving donor co-ordination. The relative amounts of recurrent and investment expenditures need to be re-

[58] **Committee for Planning and Investment, Vientiane, January, 2006**

vised by selecting priorities and focusing on resource mobilization. This suggests two major avenues for improved funding: i) the three primary sources of funds in the health sector (government, donors, and households), and ii) efficiency gains in the overall system. The Plan, under *Strategic Program 12*, clearly delineates the Government's policy for improving affordability of services for the poor, including the introduction of health insurance and equity funds, both of which have considerable impact on financing health services for the poor.[59]

169. The Plan further foresees to expand PHC services to reach more than 80% of remote and poor villagers with access to basic health care and appropriate referral services. Objectives are (i) to reduce the incidence of disease, including communicable diseases; (ii) to reduce maternal and child mortality rates; and (iii) to provide access to high quality medical services. Incentives will be provided to attract and retain health staff at posts in remote areas. Particular efforts will be made to recruit female and small ethnic groups' health workers. Remote villages should have health providers, drug kits and a village health committee. Essential equipment and staff will be provided to district hospitals and health centers.

170. The Government's four basic concepts for health development, as laid down in the Health Strategy up to the year 2020 (May 2000) are: (i) full health care service coverage and health care service quality, (ii) development of integrated health care services, (iii) demand-based health care services, and (iv) self-reliant health care services.

171. The Lao Health Master Planning Study (November 2002, funded by Japanese International Cooperation Agency [JICA]) supported the MOH in developing a National Health Master Plan, action plans and priority programs for the improvement of health services through comprehensive, regional, local government and community approaches. The plan's overarching goal is to improve the overall health status in Lao PDR through strengthened health care systems and empowered people, thereby contributing to poverty alleviation.

172. Basic strategies proposed by the study include: (i) promotion of sector-wide coordination at all levels; (ii) reform of the health financial system and financial management capacity at all levels; (iii) improvement of the quality of health worker training; (iv) building health management systems and capacity in a decentralized context; (v) implementing efficient and effective infectious disease control; (vi) implementing the PHC approach to strengthen district health systems; (vii) operating central and provincial hospitals efficiently; and (viii) increasing availability and affordability of essential drugs and to promote rational drug use.

173. The overall Government PHC policy is to generate equitable access to health care services for all, emphasizing both prevention and curative care. PHC should reinforce the concept of self sufficiency, where people voluntarily join in a social movement for health care and take responsibility for their own and their community's health, and the health sector as the responsible agency under the direction of local authorities and the Party.[60]

174. The basic components of PHC include improvements in quality and expansion of the health facilities network; treatment and prevention of common diseases, mother and child health (i.e. safe motherhood, reproductive health, birth spacing, integrated management of childhood illness, nutrition, immunization, health education, clean water and sanitation, and essential drugs and revolving drug funds). All these components are interrelated and need to be integrated at every level of the health care system to respond to real needs and address existing problems.[61]

175. The PHC Policy expresses the Government's vision and directions for the health sector. However, it does not provide concrete strategies, models or systems for promoting PHC activities. The formulation of such models and systems should evolve by learning from the

[59] **GOL. 2006. Lao PDR: Sixth National Socio Economic Development Plan (2006-2010), Draft.**
[60] **Ministry of Health Lao PDR. 2002. Policy on PHC. Ministry of Health, Vientiane. 2000.**
[61] **MOH. 2000. Policy on PHC**

experiences of various projects. In addition, it is not certain how well health officials serving at provincial and district levels understand the basic concepts and principles of PHC, especially the importance of self-reliance and community participation.

176. Other policy gaps include defining sustainable strategies to increase investments in health financing; the integration of planning, implementation, supervision, monitoring and evaluation systems of all PHC services, using a standard health management information system; health human resources development especially in achieving equity in gender and small ethnic groups distribution; and effectiveness and efficiency in donor coordination. Gaps also remain in defining health standards for different levels of health care, in the context of PHC and health rights. A new Curative Law on health care is currently before parliament that addresses medical ethics and health rights of clients and health workers.

177. Laos has adopted the Millennium Declaration of September 2000 and is committed to strive towards achievement of the eight Millennium Development Goals. The progress report of January 2004 provides available indicators and the defined targets for the goals. It stresses that their achievement will require significant investments, which have not yet been quantified. As the NGPES is the comprehensive framework for sustainable growth and poverty eradication, implementation of the NGPES will coincide with the achievement of the goals. The report does not comment on the likelihood for the individual goals to be achieved.

C. Lessons learned

178. The two previous ADB supported projects (PHCP, PHCEP) have significantly increased physical infrastructure in eight Northern Provinces. However, while additional PHC facilities with better qualified and trained staff are in place, the systematic delivery of quality services is still a challenge. Physical access has improved, in general, but important barriers to utilization of services that remain are quality of health care delivery and affordability, and demand for health services, in particular by vulnerable groups including women, the very poor and small ethnic groups. Major lessons learned are as follows:

179. **Human Resource Development:**

1. The MOH DOP Leadership lacks capacity to develop an HR policy and long-term HR planning and to improve the quality of training.
2. The existing HRMIS does not provide timely, reliable collection and analysis of personnel data to support effective workforce planning and management.
3. Ethnic minorities and women are under-represented in the MOH workforce.
4. Presently, MOH is unable to distribute/deploy sufficient staff with appropriate skills to rural and remote areas. Resulting staff gaps in HCs, many DHs and some provincial hospitals negatively impact on service delivery, including provision of emergency obstetric care.
5. The discontinuation of midwifery training and integration of midwifery into technical nurses training has resulted in deterioration of urgently needed midwifery skills, particularly also at HC level.
6. MOH staffing standards for rural health facilities are relatively ambitious, given the medium term availability of qualified staff for the different levels. There is a lack of clarity regarding the scope of work of the different categories of staff.
7. Low salaries and lack of specific financial incentives for rural and remote postings contribute to difficulties in effective staff distribution. Salaries are not linked to staff performance, creating a disincentive to perform well.

180. **Health Care Financing:**

1. There is not enough money in the public health system to operate effectively and efficiently.
2. Ways of increasing public health budgets would include e.g. special taxes (alcohol, cigarettes), matching grants, and cost recovery.
3. Limited funds are spent inefficiently (e.g. lack of integration, coordination and alignment).
4. Investment is in favor of new constructions that tie up government and donor funds. This limits the availability of funds for non-salary recurrent costs, which are urgently required to make existing facilities function well.
5. There are no sufficient funds to ensure and improve affordability of health care for the poor and near-poor (e.g. public assistance funds).
6. Health financing has to strengthen the demand for health services as well as the supply side, in order to increase service utilization.

181. **PHC Management and Services:**

1. Sound policies and health management tools are available. However, the application of these tools varies due to a number of factors. As a result the decentralized district health system does not function well.
2. A comprehensive organizational and operational analysis is needed to identify why there are still shortfalls in management and processes at all levels (e.g. management tools, implementing guidelines).
3. A change of mindset is required at all levels to overcome fragmentation into vertical program thinking, planning and implementation; including teambuilding activities and continuous exchange of relevant information.
4. Clear definitions of responsibilities and lines of authority are required to create confidence in assuming leadership roles, coupled with supportive supervision and enforceable sanctions, if required.
5. Exchange of information to improve transparency and aid coordination between MOH and donor agencies are insufficient. While ample meetings and workshops take place, exchange of project information is limited.
6. Rational expansion of the health services network through new infrastructure, rehabilitation and equipment requires concrete needs assessments with a particular focus on service coverage for the poor and small ethnic groups as well as on ensuring emergency obstetric care, adequate to the different levels of the system. Improving service quality through training of staff and village health workers should be guided by the same principles.
7. Accessibility to basic health services can be significantly increased by the expansion of the public health system through training of village health volunteers (VHVs), peer educators, village health committees, private sector, and village health providers (VHPs).
8. Simple and cost-effective interventions to prevent and treat common diseases are not sufficiently made use of. The performance of the EPI program is deteriorating.
9. There is no national policy to address malnutrition, poor weaning practices and food habits, and that would include a strong focus on village based nutrition promotion and feeding programs.
10. HIV/AIDS control measures at their current scale will not be able to contain the epidemic. The Government has formulated a National Action Plan 2006 – 2010.

182. **Planning and Budgeting:**

1. Planning capacity at provincial level is currently being supported by the PHCEP within the frame of preparing the Provincial Strategic Plans 2006 -2010.
2. The ADB supported Project Management Office (PMO) of the PHC Expansion Project has built up considerable administrative capacity with provincial linkages which is unique in MOH, and could be mainstreamed and converted into an integrated Project Administrative Unit (IPAU) in MOH and used by various projects. IPAU could provide central administrative capacity to handle project administration, including civil works, procurement of equipment, financial management, and project monitoring. IPAU would take on the role of executing agency, with concerned departments being the implementing agencies.
3. MOH has appointed several committees and task forces for various priority areas that will develop strategic plans for sub-sector development. These are very useful to bring the donors together in support of one sub-sector and could be institutionalized also at provincial level.
4. Similar types of project procurement and financial management functions for foreign assisted projects are spread over several departments, involving large transaction costs of MOH, duplication, lack of institutionalized administrative capacity, project delays, competition for limited staff time and consultants, etc.

D. External Assistance

1. Assistance for Health Systems Development

183. ADB's PHC project, implemented from 1995 to 2000, helped develop PHC in two provinces (Xieng Khouang and Oudomxay). ADB's Loan 1749, PHCEP supported PHC development in eight Northern provinces and strengthening PHC management and coordination, nationwide. The World Bank is starting a PHCE type of project in the south. JICA, BTC. Luxembourg and the Swiss Red Cross are working with several districts to make these operational. Support for larger hospitals is mainly provided by China, India, and Korea.

2. Assistance for National Programs

184. The Global Fund provides major support for malaria, tuberculosis, and HIV/AIDS control. UNAIDS has a technical advisory role for HIV/AIDS control. The Bill Gates Foundation, JICA and UNICEF support immunization. UNFPA and UNICEF support reproductive health. Donor assistance outside infectious diseases control and reproductive health, e.g., for food safety and medicines, is limited. ADB also supports a regional project for CDC, including for surveillance and response for Avian Influenza (AI) Prevention and Control, support for neglected infectious diseases, and regional cooperation. The World Bank will provide major support for AI prevention and control.

3. Assistance in Human Resource Development

185. Capacity building and HRD is being supported by ADB (village level to paramedics and specialists), the World Bank (similar as ADB, plus medical education), JICA (nurses), and other donors on a smaller scale or for specific programs (e.g., AFD for laboratory services).

186. The WB Health Service Improvement Project was approved in 09/2005, closing date is 06/2011. Total project costs are US$ 15 million. It is implemented in 60 districts in Southern and Central Regions. Objectives are similar to those of PHCEP: (i) expanding coverage and improving quality of health service delivery; (ii) strengthening institutional capacity to

plan, deliver, and evaluate health services at central, provincial, and district levels; and (iii) strengthening health financing to improve access to affordable health care for the poor. Strengthening institutional capacity will target at central, province, and district levels. In supporting the government's decentralization policy, the project will strengthen the capacity of provinces and districts to plan and manage health sector interventions and resources.

187. The BTC Project “Support to Health Sector Reform in the Provinces of Vientiane and Savannakhet” with capacity building for provincial and district health management teams started in 05/2004 for a period of four years with a budget of almost four million EUR. The LuxDevelopment project “Medical Equipment Management“ with a volume 923,000 EUR from 2004 to 2006 aims at capacity building in physical assets management.

4. Assistance in Policy Development

188. The WB Health Service Improvement Project will also support further development of health financing policies in Laos with respect to focusing on revising the current Government policies concerning user fees. The aforementioned LuxDevelopment project “Medical Equipment Management” supports the development of a medical equipment management policy, resulting from piloting systems in Vientiane and Bolikhamxay provincial hospitals.

5. Assistance for Health Sector Reform

189. JICA has been supporting the master plan and is preparing further support for health sector reform, including donor coordination. JICA and ADB are the lead donors in health sector reform, along with BTC. Apart from this HSDP, ADB is planning further reform assistance for strengthening MOH capacity for sector planning and administration. A listing of external assistance is presented in Appendix 6.

II. THE PROPOSED SECTOR DEVELOPMENT PROGRAM

A. Rationale

190. Access to Primary Health Care (PHC) in the Northern provinces has improved substantially with support of ADB and other donors, along with nation-wide support for communicable diseases control and institutional strengthening. Major achievements were made in HRD, upgrading equipment, and the management of services. However, further improving the demand for PHC requires addressing two fundamental issues: the quality and affordability of PHC. Quality of care depends on staff performance, competent management of the provincial health system, and the provision of adequate recurrent budget. Affordability of health care requires increased Government subsidies for the poor. Given Laos' extreme prevalence of poverty, fiscal constraints and limited capacity, these are major challenges.

191. The urgency of continued investments in health in Lao PDR is underpinned by the following compelling facts: (i) the shortfall in health indicators compared to the millennium development goals (MDGs) of maternal and infant mortality and child nutrition, (ii) underutilization of the network of Primary Health Care (PHC) facilities due to low demand; and (iii) high household spending on medical care due to limited public funding.

192. The proposed Health Sector Development Program (HSDP) will build on the achievements made under previous projects. The major objective will be to increase the quality and the utilization of health services especially by the poor. The HSDP will address these issues through four program components: (i) health human resources development, (ii) health care financing, (iii) PHC system management and implementation, and (iv) strengthening planning and budgeting at all levels. These interventions are expected to foster the supply as well as the demand side of the health system.

193. In order to ensure smooth and cost efficient program implementation, a combined project and program funding modality, the SDP (Sector Development Program) model, has been selected. It combines the advantages of both approaches and minimizes their disadvantages. The quicker and easier program disbursement will be used mainly for activities under Provincial responsibility, whereas the traditional project modality refers to mainly centrally managed activities. This setting will allow for a gradual transition towards a results-based public health system and towards more self-reliant management and better donor coordination, eventually under the umbrella of a SWAp.

B. Objectives and Scope

194. The expected **impact** of the HSDP will be: "Improved health status in the program area, in particular of the poor, women and children, and ethnic minorities in rural and underserved areas." Thus the HSDP will contribute to reaching the MDGs of reducing infant, child and maternal mortality, and contribute to poverty reduction in Lao PDR. While focus will be on the eight Northern provinces, impact is expected on all provinces.

195. The expected **outcomes** of the HSDP are

1. Improved health service quality
2. Improved financial access
3. Increased PHC service utilization

These objectives will be achieved through the interaction of the program and the project component as described below.

196. The HSDP will be implemented through four components in two phases, funded in part in the form of a program component and in part of a project component. The four components of the HSDP are presented in detail in Appendix 5. The proposed ADB funding by phases is presented in Table 5, the distribution of activities between program and project components in Appendix 1, and the proposed implementation phasing in Table 6. While detailed HSDP planning is focused on phase I, the consultant also gives a tentative presentation of phase II in order to provide a complete picture of the envisaged HSDP.

Table 5: Scope and Phasing of Proposed ADB funding for the HSDP

Component	Phase I	Phase II	Total
Human Resource Development	1,812	2,618	4,430
Health Care Financing	914	2,558	3,472
Strengthen PHC Systems	4,447	6,537	10,984
Strengthen MOH Planning and Budgeting	1,975	1,989	3,964
Total Base Cost*	**9,148**	**13,702**	**22,850**

* excluding contingencies, and possible Co-Financing

Table 6: Implementation Phasing of the HSDP

Component	Phase I			Phase II		
	2007	2008	2009	2010	2011	2012
Human Resource Development						
Health Care Financing						
2 provinces						
+ 6 provinces						
Preparation + Implementation						
Strengthen PHC Systems						
Decentralization, Management						
Training						
Civil works HC						
Civil works Hospitals						
Promotion, Funding Support						
Strengthen MOH Planning and Budgeting						

197. The HSDP strategy is based on the MOH's intention to move towards a results-based public health system so as to improve the performance of the PHC network, based on ten years of investment in PHC, and further contribute to strengthening capacity of the health system nation-wide. Based on the national health strategy, the 2006–2010 Strategic Investment and Recurrent Expenditure Plan for the Health Sector, and the PHC policy, the program assistance supporting the health sector will help address structural, system, and capacity issues in the health sector in order to primarily improve the quality and affordability of PHC. Notably, it emphasizes the importance of improving quality of care through HRD, improved financing for recurrent costs, and strengthened provincial health management; and improving affordability through a health equity fund for the poor. Access will be further improved through improvement of village-based health care, and upgrading referral services, in particular for maternal and emergency care.

198. Support for the health sector should follow Government policy to decentralize strategy to the provinces, planning and budgeting to the districts, and implementation to the villages. It should strengthen and improve the quality of health care at the grass-roots level,

particularly in underserved areas and for ethnic minorities, women and children. This will build on the PHC network of services from village to provincial level that have been developed through the PHCP and the PHCEP. These projects have built a system of proven project management capacity in the MOH that can devolve responsibility to the provinces. Consistent with the 6th NSEDP and health sector strategies, program and project grants will complement each other to enable progress towards achieving these key sectoral objectives.

199. The *program component* of the HSDP would support several provincial health system development policies for provincial health system development, including adjustment costs of moving towards a results-based provincial health management system, strengthened planning and monitoring, decentralization and integration of PHC, related increase in recurrent costs, and an equity fund for the poor. Provinces would be provided with supplementary funding for improving PHC based on comprehensive annual plans showing all sources and uses of funds. The program will aim to improve PHC coverage and quality of care through quality improvements, staff performance (retrenchment, and incentive), and performance-based management. The program component will entail planning, accountability, flow and conditionality of funds, and the provincial interest and capacity for such an approach.

200. The *project component* of the HSDP would support related capacity building of MOH and the provinces to support a results-based approach, setting up an Integrated Project Administration Unit (IPAU) to improve donor coordination, strengthening policy and financial analysis capacity, capacity building for HRD, and specific investments in HRD, health services, and village-based health and nutrition promotion.

201. A *Sector Development Program* (SDP) would combine both project and program support approaches in one assistance package. Appendix 4 presents this relationship. The support modality depends on the type of assistance. Project assistance will follow the usual route, through a central unit in MOH. Program assistance will partly support the Ministry of Finance in terms of adjustment costs relating to decentralization, improved PHC performance, and the equity fund. Given limited experience in this field, part of this fund may be channeled through MOH.

C. Important Features

1. Poverty Impact

202. The proposed HSDP targets poor populations living in rural areas. Special features include targeting diseases affecting the poor most, which can be treated at PHC level. Support for an equity fund to make health care more affordable for the poor, and support for recurrent funds will also improve access to services for the poor, as outreach will increase. In provincial targets and activities priority will be given to the poor (Appendix 21).

2. Ethnic Minority and Gender Issues

203. The proposed HSDP targets ethnic minorities by a major focus on improving village based health care and peer education, training of ethnic minority persons to become PHC workers, and giving priority to ethnic minority groups in provincial targets and activities. The program also gives priority to reproductive health and other interventions benefiting women most, training of female village health workers including birth attendants, and career and education opportunities for female professional staff, and giving priority to women in provincial targets and activities. Following ADB's *Public Communication Policy,* the Gender and Ethnic Groups Action Plan (GEGAP) will be translated for disclosure to the Government and the Public, including ethnic minority groups in the targeted provinces. The draft GEGAP will also be posted on ADB's website and the final GEGAP will be similarly publicly disclosed upon Board approval of the Program Grant.

3. Reform towards a Results-based Provincial Health Management System

204. The proposed HSDP is specifically designed to address shortcomings in PHC delivery that hamper full use, and thereby equity, efficiency and effectiveness of PHC. Two major reasons are lack of both government and public funds to pay for services, and managerial and technical capacity constraints. Quality and affordability of PHC should first be improved before MOH plans to further invest in expanding the PHC network. The best way to do so is moving towards a results-based management system, whereby staff will have authority, but also responsibility, to improve PHC delivery based on locally identified shortfalls and solutions.

205. The prerequisite for its introduction are Provincial Health Sector Development Plans 2006-2010 that are in the process of development with support from the PHCEP. They will mirror the contents of the National Health Sector Development Plan 2006-2010, prepared by the MOH in October 2005. The next step is to develop a results-based Annual Provincial Plan and Budget. Rather than resource-based, these plans must establish annual program performance targets, including estimates of investments and recurrent costs that will be required to achieve those targets. Based on an estimate of the resources that are available to each province, from donors, from government, and from fees for services, the gap between available and required resources needs to be identified.

206. Support to result-based management under the HSDP should aim at filling the non-salary funding gaps in a given province that are required to achieve the targets set in the Annual Plan and Budget. This financing is independent from funding modalities and can be done using project or program assistance approach; or a mix of both.

D. The Program Grant

1. Objectives

207. The Government wants to provide universal access to health care for all its citizens. Based on its long term development strategy, it aims to strengthen the performance of the PHC network using a results-based program approach that can eventually bring donors together under one national program and thereby improve efficiency. In consultation with the development partners, the Government has decided to adopt a phased approach, in part because there is limited experience and capacity in this field.

208. The policy objectives of the program grant are to (i) strengthen provincial health management, (ii) develop results-based PHC management, and (iii) improve affordability of care, all contributing to improving equitable access to better quality and more efficient PHC (the policy matrix of HSDP is provided in Appendix 2). This will entail adjustments costs for e.g. provision of outreach and integrated service packages for the poor, quality improvement and non-salary recurrent funding for provincial and district hospitals, for preparation and funding of HEF/HLF, and HRD Masterplan and staff incentives. Adjustment costs are estimated at a total of US$ 13 million over a six years period (cf. Appendix 17).

209. The development policy letter will be prepared by the Government. Proposed policy actions are phased and sequenced to reflect the progressive and graduated nature of the policy development, approval and implementation process. Recognizing that there will be potential constraints and risks, the program provides for technical assistance to assist the government in achieving the benchmarks necessary for policy formulation and approval. The policy actions will be guided by consultations with all stakeholders and the financial implications will be addressed through the financing framework for the health sector.

2. Components and Outputs

210. **Outcomes** of the HSDP Program Grant are

1. decentralized provincial program management,
2. results-based PHC management, and
3. Health Care Financing system for the poor.

The Program grant would basically operationalize and improve the current PHC system including effective decentralization, responsiveness of the health workforce, and a significant decrease in the gaps and barriers for the poorest to afford health care.

211. **Outputs** of the HSDP Program Grant are expected to be as follows:

1. Provincial and district health system management including planning, monitoring and budgeting is strengthened and result-based
2. MOH is contracting with provinces to deliver PHC results
3. Decentralization policies are executed
4. Donor support is coordinated at province level
5. Vertical programs are integrated in PHC services
6. HEF and HLF are in place

a. Decentralized Provincial Program Management

212. **Activities** in the decentralized program management component will include

1. Development of provincial and district decentralized governance systems in PHC in the following areas: planning and budgeting, financing and accounting, supervision, monitoring and evaluation, leadership and coordination, and guidance, mentoring and support systems.
2. Enabling provincial and district health offices to operationalize a decentralized, performance driven and results based PHC planning and budgeting.
3. Development of provincial and district health resource management to respond to gaps in non-salary recurrent costs of PHC services delivery.
4. Integration of PHC service packages from vertical health programs into PHC at provincial, district, health center and village levels.
5. Policy development, installation and financing of HEF and HLF at all levels.
6. Cover costs for decentralization policy implementation (gaps in non-salary recurrent costs and HR)

213. **Selection of program provinces.** Two provinces will be selected for the initial first phase (2007-2009) of the HSDP. The selection is based on the following technical criteria: a) PHCEP achievement against plan, both physical progress and financial progress against plan; b) regularity and accuracy of reporting system; c) established accounting systems; d) senior staff experience and capacity; and strong management team in place. The two provinces that fit these criteria are Xaignabouri and Xieng Khouang. The next possible candidates are the provinces of Oudomxay and Huaphan (a detailed description of criteria, steps and procedures for results-based provincial health programs, is given in Appendix 22).

214. **Initial Capacity Building in the two pilot provinces.** Xaignabouri and Xieng Khouang will be provided capacity building before the official program commences. The PMO of the PHCEP will be the responsible organization for this activity. The capacity building will center on knowledge, skills and practice in provincial planning and budgeting with a performance driven and results-based PHC; basic accounting and internal auditing mechanisms; coordination and integration of PHC; and orientation on the health equity fund for the poorest and health loan fund for the near poor.

215. There will also be a **Health Systems Assessment** in the two provinces and in the priority poorest districts in each province; and a rapid appraisal of the planning, budgeting and financial systems of the two provinces. The two provinces will also be assisted to develop their Manual of Operations for funds flow, accounting and disbursement management systems and in the provision of provincial program management guidelines for the districts, health centers and villages.

216. **Baseline survey.** The end-of-project household survey of PHCEP will be utilized as the baseline survey for Xaignabouri and Xieng Khouang. There will be additional survey questions in the design to measure the baseline in results-based planning and budgeting in the two provinces.

217. **Project inputs.** The Central Ministry of Health will share the planned assistance in terms of project financing of the HSDP for Xaignabouri and Xieng Khouang. This will be in the areas of Health HRD, Strengthening of PHC at Central, Provincial, District, and Health Center levels, institutional strengthening of the Central Ministry of Health and civil works. The two provinces will take these project inputs into consideration when they finalize their Provincial Health Sector Development Plans 2006-2010.

218. **Provincial program steering committee.** The Governors of Xaignabouri and Xieng Khouang will create a Provincial Program Steering Committee to manage the Program. Potential members of this steering committee are the Provincial Health Officer, the Provincial Hospital Chief, the Director of Provincial Planning and Investment, the Director of the Provincial Finance Division, the Head of the Cabinet of the Governor and the Director of the Provincial Personnel Division. The provinces will define the Terms of Reference of this steering committee in consultation with the Central Ministry of Health. The Governor will appoint the Provincial Health Officer as the Chief Executive Officer of the Program.

b. Results-Based Provincial Management

219. **Results-based program development process.** All Provincial Health Plans for 2006-2010 will emanate from the strategic directions provided by the Health Sector Development Plan 2006-2010 which is based on the Sixth National Socio-Economic Development Plan of Lao PDR 2006-2010. Provincial Health Plans also include as inputs the various District Health Plans from every District Health Office in the province. The two pilot provinces for program type support will extract the Results-Based Annual Provincial Health Plan and Budget for 2007-2008. Provincial and district health officers will then identify all the gaps in non-salary recurrent costs for PHC. These non-salary recurrent costs will be the basis for formulating the Results-Based Annual Provincial PHC Plan and Budget for 2007-2008.

220. **Results based memorandum of understanding.** The Results-Based Annual Provincial PHC Plan and Budget for 2007-2008 becomes the foundation for drafting the Results-Based Memorandum of Understanding between the Central Ministry of Health and the two provinces. The Governor will sign on behalf of the province and the Minister of Health will sign on behalf of the Central Ministry of Health. Ownership of and commitment to the program by the provinces will be clearly established with this Memorandum of Understanding.

221. **Introduction of the health equity fund and health loan fund.** Substantial policy and design work will be done first by the MOH together with the MOF on the mechanisms of the Health Equity Fund and Health Loan Fund. Once Ministerial instructions are ready and manuals of operations prepared, the two health funds will then be introduced in the two provinces in a phased manner. Corresponding organization and management structures will be installed as oversight for the two funds.

222. **Mutual agreement on results indicators.** The provinces and the MOH will agree, as part of the Memorandum of Understanding and Results-Based Contract, on the set of

minimum indicators to measure performance and results. These will be output and process indicators, and the end of the program outcome and impact indicators. Examples of output indicators are: proportion of pregnant women who receive at least one ANC check; proportion of deliveries attended by trained professionals; proportion of women who breastfeed immediately and exclusively (from birth to 4 months of age); proportion of married couples using modern birth spacing methods; doubling of first visits in all health facilities among the poor and small ethnic groups; proportion of the poorest using the health equity funds. Examples of process indicators are: progress in deployment of female health care providers in every HC and small ethnic groups health care providers in all health facilities; installation of an integrated planning, supervision and monitoring of vertical programs into PHC; level of performance of the HLF for the near poor; level of coordination between provinces and districts and between districts and HCs; and level of synergy of provincial development inputs to PHC (for a list of proposed health care service indicators cf. Appendix 13, it will be finalized and completed during the preparation of actual project implementation plans).

223. **Validation of results and performance.** The MOH will be responsible for annual validation of results and performance annually, at mid-term and at end of the program. A cluster survey will be used annually and a household survey will be the measurement tool at mid-term and end of the program evaluation. The National Statistics Center (NSC) of the Committee of Planning and Investment (CPI) can be tapped to do these surveys.

Program Administrative and Management Implementation

224. Country HSDP preparation in the form of program implementation readiness criteria (i.e. concurred by the Lao PDR and donors) are listed as follows:

1. Statements from two provincial governments expressing their commitments for participation, provision of counterpart funds (memorandum of understanding prepared between provincial government and MOF/ MOH); counterpart contributions for the first year of implementation have been exercised and committed;
2. Three-year provincial plans prepared and detailed annual plans prepared for two provinces; and
3. Budget approval documents for the proposed program grant funds for the first year of program implementation have been issued.

225. Program implementation arrangements including national and provincial level offices will be established.

1. MOH/MOF approves program management structure;
2. Program steering committee at central and provincial levels established;
3. Program Management Units are established, staffed and equipped;
4. Provincial advisers (consultants) terms of reference prepared, candidates identified and recruited

226. Provincial staff development plans prepared for program approach; program staff at all levels will be trained and familiarized with the technical approach and project administration during the first three months of the project. MOH/MOF will prepare and disseminate necessary administrative and technical guidelines for provinces, districts, and communities, which will form the basis of program administrative memorandum (Final draft of the Program Administration Memorandum (PAM) covering scope, organization and its terms of reference, procurement, budgeting, disbursement, reporting and auditing arrangements). Funds flow mechanism for the program funds developed and approved by MOH/MOF provides for a special account for the provincial program funds. Detailed procurement plans prepared and bidding documents (for goods and civil works) for the project implementation; and program monitoring and evaluation performance indicators including baseline data are ready.

c. Health Care Financing

227. The government's strategy for improving affordability of health care is given in the Sixth NSEDP (2006-2010), which includes the introduction of health care financing. This component will support this policy by increasing the affordability of health care by providing subsidies for health care costs for the poor and near poor. Public assistance funds in the form of health equity funds (HEFs) and (micro-credit) health loan funds (HLFs) initially will be implemented as pilot tests in one of the two program provinces (Xaignabouri). Following an evaluation of the operation and effectiveness, they will be implemented in the second program province (Xieng Khouang) in the third year of the first phase. Depending on results of ongoing evaluations, funds will be implemented in further provinces in the second phase.

228. HEFs will target the poorest 20% of households and pay all public health care costs, including the costs of provincial and district hospitalization and health care services provided by health centers and village health providers. In addition, HEFs will pay the associated indirect costs of obtaining health care services, including transportation, food, and other related expenses. Provision of these indirect expenses will enable the poor to access the referral system from villages to health centers, to district hospitals, and to provincial hospitals.

229. HLFs are a new, innovative approach for health care services, based on experience with micro-credit programs in other sectors. The primary objective of HLFs is to provide money for large inpatient expenses to people who do not have cash immediately available. Many people, especially the near poor and even those in middle-income groups, are forced to sell household possessions, borrow money from friends, relatives, or money lenders who charge high interest rates. HLFs will prevent these families from becoming impoverished due to costs of hospital care for catastrophic illnesses. HLFs will be established for inpatient loans at provincial hospitals, i.e. where the largest expenditures for hospital patients occur.

230. HLFs will build on a practice already in place at hospitals in Laos. Currently, hospitals routinely allow patients who cannot pay for services, but are not eligible for exemption, to be discharged, return home and pay at some later time. Hospitals effectively are granting interest free soft loans to these patients and the practice sometimes results in substantial amounts of money owed to hospitals. HLFs will build on this current practice by granting (micro-credit) soft loans to patients and establishing a low-cost revolving fund for such loans. Hospitals will be relieved of the cash-flow burden of outstanding payments.

231. Eligibility for an HLF loan will be restricted to inpatients with hospital fees plus indirect costs (transportation, food, etc) in excess of some minimum amount (e.g. US$100) to be established by the detailed design of the HLF prior to HSDP effectiveness. The repayment period will be generous (e.g. one year), that is, long enough for people to earn sufficient income from their usual income generating activities (agriculture, fishing etc.). Similar to the current practice at provincial hospitals, loans will be waived, if not paid within a reasonable amount of time, and funds will be transferred from the HEF to sustain the revolving HLF.

232. The program will provide annual funding for the provincial, district, health centers, and village HEFs in the program provinces. Annual funding of the HEFs will include the cost of locally contracted staff, such as provincial and district account managers, and administrative expenses for management committees. Office equipment, including computers, and running expenses will be provided to account managers.

233. The program will provide start-up costs for the provincial HLFs, in the two program provinces, Xaignabouri and Xieng Khouang. Administrative expenses for provincial account managers and management committees will be supported by annual funding for the HEFs.

234. **Time frame:** Implementation foresees preparatory field visits, workshops and accountants' training during the first year. The actual piloting will start in Xaignabouri Province in year two. Based on first experiences, monitoring and evaluations, implementation in the

second pilot province (Xieng Khouang) will start in year three of the first program phase. Expansion to the other provinces will follow in a phased manner during the second implementation phase (2010- 2012).

3. Special Features

235. A special feature of the program grant is its innovative approach to support the government's plan to introduce a results-based planning at province level that will strengthen the performance of the PHC care network in line with the National Health Development Plan 2006-2010. It will support the government's objective to provide universal access to quality health services, with a particular focus on the poor and on small ethnic groups. Consultation between development partners in the process of plan development can eventually bring donors together under one national program and improve donor coordination and efficiency in external support to the government health development efforts.

236. The policy objectives of the program grant are to (i) strengthen provincial health management, (ii) develop a results-based PHC management and (ii) improve affordability of health care. Funding of gaps in non-salary recurrent budgets will help to operationalize the PHC system. Affordability of care for the poor and near-poor will be improved by the innovative instruments of public assistance funds (HEF and HLF).

237. The program will support the MOH in contracting with provinces to deliver PHC results according to an agreed plan and budget formalized through a memorandum of understanding (MOU). The MOU will be based on the Provincial Annual Plan and Budget and will specify expected results and targets as well as sources and uses of funds.

4. Financing Plan

238. The total cost of the 6-year HSDP is estimated at $25.00 million, equivalent, comprising $12.7 million for the program component and $12.3 million for the project component. The total cost of the 3-year HSDP (Phase I) is estimated to be $11.44 million equivalent, comprising a programs component of $5.72 million and a project component of $ 5.72 million.

239. ADB will support the Government's health sector policy reform program (phase l) by providing a program grant of $5.72 million equivalent from its Special Fund resources. The program will be implemented over a period of 3 years, and will be disbursed in three equal tranches, subject to satisfactory performance. It is expected that completion will be in March 2010 and the closing date will be September 2010.

5. Implementation Arrangements

240. MOH will be the executing agency responsible for the implementation of policy measures. The MOH steering committee, with representation of the Prime Minister's Office, Ministry of Finance, Committee for Planning and Investment (CPI), Ministry of Foreign Affairs (MOFA) will act as the steering committee for the program grant. Other stakeholder representatives may be invited to attend as appropriate. A combined MOH task force, or separate task forces for health financing, HRD and PHC will monitor the progress towards policy development as set out in the policy matrix. MOF will maintain projected allocations to MOH as agreed in the policy matrix, to support health sector reforms. The implementation schedule is presented in Appendix 10.

6. Procurement and Disbursement

241. The program grant may be used to finance the foreign exchange costs of items produced and procured in ADB member countries, excluding those in a list of ineligible items,

and imports financed by other bilateral and multilateral sources. The beneficiary will certify that the volume of eligible imports exceeds the amount of ADB's projected disbursements under the program grant in a given period. ADB reserves the right to audit the use of the grant proceeds and to verify the accuracy of the beneficiary's certification.

7. Monitoring and Tranching

242. The Government, through the steering committee, will monitor the implementation of policy, legal and institutional reforms envisaged under the program, and every year the Government, ADB, and other development partners supporting the program will review implementation and assess the impact of reforms under the program grant.

243. The program grant in phase I will be released in three equal tranches. The first tranche of $1,906 million will be released upon Government's fulfillment of agreed conditions and will coincide with grant effectiveness. The second and third tranches of $1.907 million each will be released upon compliance with actions agreed in the policy matrix as well as satisfactory progress in implementation of the program. It is expected that the second tranche will be released after 12 months, and the third tranche after 24 months of the first release.

E. The Project Grant

1. Objectives

244. The Project Grant supplements the policy initiatives being supported under the Program Grant to enhance quality and affordability of PHC. The Project also aims to improve access to PHC, in particular for poor women and ethnic minorities. The **outcomes** are:

1. Capacity for HRD enhanced
2. Health care financing improved
3. PHC systems in the eight Northern provinces strengthened
4. Planning and budgeting improved

These objectives, though targeted towards the eight Northern provinces, will have nation- and sector-wide impact.

245. **Outputs/Results** of the HSDP Project Grant are expected to be as follows:

1. HRD policies, planning, management strengthened
2. Staff availability and performance improved
3. HEF and HLF are functional
4. PHC management improved at provincial and district level
5. Physical access to PHC improved (civil works, equipment)
6. MOH planning and budgeting improved
7. IPAU coordinates and supports projects at all levels

2. Components and Outputs

246. The following four components of the project grant relate entirely to the components of the program grant. The sequence of the components is not related to any priority scaling or to any essential logical and contextual succession.

a. Human Resource Development

247. **Strengthening institutional capacity for HR policy, planning and management.** The Project seeks to increase the capacity of the MOH, and the health system at all levels in the targeted provinces, to deliver accessible and affordable quality health services. This sub-

component will contribute to the achievement of this outcome at national and provincial levels. Human resource policy, planning and management are key elements in improving access to and quality of public health services, and subsequent increase in their utilization.

248. The Project will support development of MOH capacity for human resource policy, planning and management through several interventions. At the national level, the MOH Department of Organization and Personnel (DOP) will be the focus of training and introduction to international workforce policy, planning and management practices. The MOH has established an HRD Taskforce, chaired by DOP, and including representatives of other relevant MOH Departments. Expansion of this Taskforce to include other GOL stakeholders such as Ministry of Education, and key partner or donor organizations will enable it to function as a coordinating body for HRD in the health sector. Regular taskforce meetings will be supported, to assist the DOP in development and implementation of policy and plans.

249. The MOH intends to develop an HR Policy and a long-term strategic HR Plan in 2007. The Project will provide technical assistance and financial support for this activity and subsequent review of the implementation of the plan. The Project will support a national survey of health staff to ensure the accuracy of data for the HR Plan, and will assist the MOH in strengthening their Human Resource Management Information System (HRMIS) to improve future workforce planning and management capacity.

250. To complement GOL's civil service reform agenda, the MOH will be supported in finalizing job descriptions at provincial level and below, development and implementation of performance appraisal tools, and revision of the MOH Manual on Organization and Management of Health Personnel. At provincial and district levels, the Project will support training of managers in HR management, including new procedures, tools and regulations.

251. **Improving staffing of rural health facilities in target provinces.** The Project will address staff and skill shortages in rural and remote HCs and DHs through a number of complementary activities. An MOH working group to develop guidelines on non-financial incentives for rural health workers, and for implementation in target provinces will be supported. Another working group will be established to identify staffing gaps in HCs and DHs in target provinces. Based on priority staff or skill gaps identified, scholarships will be provided for local MOH staff to upgrade their qualifications or skills, or for local high school graduates to participate in training as health workers, with contract bonds to return to work in their home village or district after graduation.

252. In an effort to increase the quality of staff in rural HCs, and their social and cultural compatibility with the community served, the MOH introduced PHC Worker training in 2002, with support from ADB PHCEP. The success of this approach in staffing HCs is well demonstrated, and the Project will provide continued support. The active recruitment of students from remote and ethnic areas to PHC Worker training will be promoted through scholarships for bridging courses for students who do not already meet the education pre-requisites for entry into the course. Scholarships will be provided to PHC Worker trainees to enable the MOH to reach its target of 1 – 2 PHC Workers per Type B HCs, and 2 -3 per Type A HC.

253. The MOH intends to implement a mid-level training course similar in scope to a medical assistant, with a focus on improving the quality of health services in HCs and DHs. PHCEP provided initial support for planning and development of a training facility in Luang Prabang. The Project will support MOH in furnishing and equipping the facility, finalizing the concept and job description for this category of staff, curriculum development, training of trainers and implementation of the pilot course.

254. **Improving staff performance.** This sub-component will contribute to the Project outcome of building capacity to deliver higher quality health services, with a specific focus on services in rural areas. This will be achieved through improved performance of village, HC and DH staff. VHVs, peer educators, HC and DH staff require further training to acquire spe-

cific skills needed to improve their performance in the delivery of preventive and curative health services, particularly also safe delivery and EmOC. The Project will build up capacity of provincial and district trainers, training needs assessments based on job descriptions, the development of annual provincial training plans, and the delivery of in-service training.

255. In addition, the Project will support the strengthening of leadership, management, coordination and implementation capacity within the health worker training system at province, school, and national levels, impacting on pre-service, post-basic and in-service training nation-wide. Technical assistance will be provided to develop standards for training, review selected curriculum, conduct tracer studies of graduates, strengthen the in-service training system and develop standard in-service training modules on key topics.

256. Cost-effectiveness and relevance of in-service training will be increased through support for more effective decentralization of training. Capacity building is required to ensure the quality of a decentralized system. The Project will build training capacity of district and provincial training teams with a focus on increasing skills in participatory, in clinical teaching methodology, training needs assessment, educational planning, management and evaluation. The introduction of a continuing education coordinator role within the technical section of each PHO, and training of the staff assigned this role, will further strengthen the system.

257. Supportive supervision, assisting in problem solving, on-the-job training, and staff motivation are key HR management tools to improve quality of staff performance and health service delivery. The Project will provide financial support for ongoing supervision between province, district, HC and village levels, and provide training of supervisors as required.

258. **Time Frame:** Capacity building at the central level and the development of an HR policy and plan will be carried out in year one along with the development and pilot testing of the HRMIS. Workshops for disseminating HR policy and plan to the provincial level and to develop provincial HR plans will follow in year two. The development of job-descriptions and curricula for the new medical assistant courses will start in year one, followed by ToT in year two, and implementation of a pilot course in year three.

259. During year one, actual staff gaps will be identified, PHC worker curricula reviewed and health workers' skills and performance evaluated. The latter will be repeated biannually. First scholarships for selected district staff in skills training will start in year one for district, and in year two for provincial levels. Village, HC and DH staff will receive training courses as per need assessment throughout the project life. Strengthening of in-service training systems will start in year two and provincial and district training teams oriented in workshops in year three. Supervision from province to district and from district to villages as well training of supervisors as per need will be a continuous activity (cf. Appendix 10).

b. Health Care Financing

260. The Health Care Financing (HCF) project and program components will increase the affordability of health care by providing subsidies for the poor and near-poor for health care costs. HEFs and HLFs will be implemented in the project provinces in a phased manner. After pilot testing and evaluation in Xaignabouri Province, they will be extended to Xieng Khouang Province. The HCF project component for the eight Northern provinces will also: i) hire provincial and district account managers to administer funds; ii) establish oversight management committees; iii) provide TA for training account managers and management committees to familiarize them with regulations and functioning of HEFs and HLFs at the different levels; iv) provide office equipment and administrative expenses to account managers and management committees; v) conduct annual health care financing studies for the evaluation of the HEF and HLF pilot tests in the program provinces, and for monitoring the performance of the funds in all provinces; and vi) conduct health care financing studies to evaluate key health service indicators in all provinces, the sustainability of village drug kits implemented under PHCEP, and the effects of alternative pricing policies in hospitals.

261. MOH will recruit a team of HCF consultants consisting of international and local experts in financing of health care services for the poor. These consultants initially will be tasked with implementation of pilot tests of HEFs and HLFs in the program provinces, including conducting training workshops for the provincial and district account managers and management committees, assisting with problem resolution, and monitoring the performance of the HEFs and HLFs in each pilot test province. Following the evaluation of the pilot tests, the HCF consultants will assist implementation of HEFs and HLFs in the six project provinces.

262. **Health Care Financing Studies**. Under this sub-component, the Project will support the development of a results-based monitoring and evaluation system for HEF and HLF, as well as other program and project components designed to increase the overall utilization of PHC health services through improvements in quality and accessibility. The Project will support international and local HCF consultants to develop the monitoring and evaluation system; HCF surveys and studies will be conducted to examine the effectiveness of increased funding for recurrent costs on utilization and key indicators of results-based provincial project and program funding. In addition, the Project will support HCF consultants to conduct evaluations of the effectiveness of the pilot tests of HEFs and HLFs in improving access and utilization of public health care services by the poor and near poor. The HCF consultants will assist MOH in the preparation of monographs and papers to be presented at international conferences and published in scholarly journals to widely disseminate the results.

263. Two additional health care financing studies will focus on closely related health care affordability and access issues: i) testing the effects of alternative pricing schemes at hospitals for health care services, recently allowed under the Decree No. 381/PM (year 1 of the first phase) and ii) the long term sustainability of drug revolving funds at HC and village levels, their impact on access to services by the poor (year 4 of the project, cf. Appendix 10).

c. Strengthening PHC systems

264. The PHC component of the HSDP is designed along the PHC policy of the MOH. It builds on the outputs already achieved by the predecessor projects supported by ADB (PHCP and PHCEP) as well as on other PHC projects of the MOH supported by other donors. PHCP and PHCEP have significantly increased the coverage with PHC services in the eight Northern provinces, both in terms of physical health infrastructure, equipment and supplies as well as in terms of village based services including the provision of village drug kits to virtually 100% of all target villages. These services are now available to the population. However, their utilization in many cases still remains low for various reasons.

265. The objective of the HSDP PHC component is to increase utilization of PHC services and along with this health benefits to the target population. This will be achieved by improving the quality and availability of services on the supply side, and by increasing access and demand on the clients' side. These objectives are unanimously shared by the MOH and by ADB and are in line with the MOH overall policy to shift emphasis from quantity to quality.

266. However, the Consultant notes conflicting views on the sides of MOH and of ADB regarding the scope of civil works to be provided under the HSDP. MOH would like to further expand the network of PHC facilities physically by constructing 40 more HCs and upgrading existing 50. ADB, on the other hand, would like to first see previous investments in construction of HCs fully set in value (adequate staffing, improved service quality, increased utilization etc.), before investing in new constructions and civil works on any larger scale. The Consultant shares the view, that pay-off of previous investment should be ensured before endeavoring on new ones. To address issues of deficient service quality of facilities newly built under PHCEP, HSDP allocates funds to HRD and will support recurrent costs.

267. Rather than allocating funds for a fixed number of facilities to be constructed or renovated, it would appear a reasonable basis for mutual agreement to base allocations for civil works on a concrete assessment of those facilities that definitely need renovation (based

e.g. on evidence through photographs of dilapidated facilities available at the MOH) and on strategically required construction of new facilities (based on the zoning and mapping exercises conducted under the PHCEP). In the absence of such data, the following component description is based on extensive discussions with the MOH, and does not reflect ADB's concerns. This will need to be agreed upon during further steps of project design.

268. On the supply side, interventions to improve quality, availability and access will include (i) continued training of PHC workers at HCs (specifically also female staff and from small ethnic groups [mainly under the HRD component]); (ii) support to training of mid-level staff for DHs and HCs (e.g. medical assistants, PHC workers); (iii) upgrading technical skills of existing staff; (iv) strengthening PHOs and DHOs in their capacity to plan, budget for, implement, monitor and evaluate integrated PHC delivery packages; (v) support to non-salary recurrent budgets for operational costs; (vi) expanding coverage of PHC facilities network by new construction and renovation of HCs based on needs assessments and one provincial hospital; and (vii) replenishing VDKs and enhance their scope to include oral contraceptives.

269. On the clients' side, interventions to increase the demand will include (i) provision of HEF and HLF (cf. Component 2, Health Financing); (ii) expand peer education to the population at large as well as on selected topics to the respective population segments (DDC, SM, IMCI, nutrition promotion etc.); (iii) awareness campaigns through appropriate channels and media; (iv) strengthen village health institutions that support PHC; and (v) continue to support the training of VHVs (refresher training and compensating for attrition).

270. **Strengthening Provincial and District PHC management**. The project will support (i) master's courses in Public Health in Thailand and in-country at the National University of Laos for province and district level management staff; (ii) TOT for training teams at province level; (iii) TOT for training teams at district level; (iv) training of the mid-level health workers (e.g. medical assistants) for DHs and HCs; and (v) and integrated planning and budgeting at province and district levels (under Planning and budgeting). To improve infrastructure, communication and functioning at province and district levels the program will provide (i) renovation and standard equipment for one provincial hospital; (ii) upgrading for two district hospitals from Type B to A along with standard equipment; (iii) outreach vehicles with medical and audiovisual equipment for six (6) provinces; (iv) one (1) motorcycle per DHO, and (iv) recurrent costs for provincial and district health offices and hospitals.[62]

271. **Health Center Based Integrated PHC Services Management**. To support this subcomponent, the project will support training of health center managers and leaders; annual project implementation reviews at each HC (recurrent costs); Health Center infrastructure, communication and functioning. According to the MOH, the project will provide new construction for 40 (ADB: 10) HC, renovation for 50 (ADB: 25) HC, one motorcycle per HC, and recurrent costs for health centers.

272. **Village-based integrated PHC Services**. To strengthen village level management, the project will support (i) training for VHC (5 persons each, 3 days for 4,597 villages over six years; (ii) training for peer educators (3 days, all villages in 54 districts); and (iii) training of VHVs (2 weeks, all villages in 54 districts). To strengthen infrastructure, communication and functioning, the program will provide 1,800 Village drug kits (27 items), and one (1) bicycle for each poorest village with access to roads.

273. These interventions are aimed at supporting and standardizing a set of village based programs for replication in each and every village. Such village health programs would include (i) clear definitions of roles and functions of VHCs and other sectors (e.g. education, agriculture) for financial and technical support and supervision of thematic groups (e.g. pregnant women, mothers, school children); (ii) packages of village based MCH/FP/Nutrition

[62] **Recurrent costs will cover inter alia: meetings, workshops, transport, staff incentives, supplies, consumable items etc.**

services. Nutrition interventions included in village based programs will feed into comprehensive strategies and plans resulting in a National Nutrition Policy and Plan that defines nutrition as an essential element of PHC packages. Commitment of the MOH to develop such a plan in coordination with other relevant sectors as well as to support village based programs (including approval of required consulting services) would be a condition for release of the first Tranche of the ADB Grant (cf. Appendix 2).

274. **Time frame**: Training for provincial, district and HC managers will start in the first year of the project as well as training and retraining for village based health service providers and master degree courses in public health. Implementation of peer education and refresher training as per needs assessment will be conducted throughout the project life. Funding for recurrent costs will start for the provincial level in year one, and for district and health center levels in year two. From year two also civil works and equipment will be provided.

d. Strengthening Health Sector Planning and Budgeting

275. This component aims to strengthen the MOH Planning and Budgeting Department. This includes supporting MOH units for strategic and annual planning and budgeting including preparing a medium-term expenditure framework, health economics and financing, and health information and statistics; and establishing an Integrated Project Administration Unit (IPAU) within the Planning and Budgeting Department that will support the implementation of international projects assisting MOH. MOH's commitment to conduct a feasibility study on IPAU and its institutional set-up would be a condition for release of the first Tranche of the ADB Program Grant.

276. **MOH Policy, Planning and Monitoring Units**. Support to the national level strategic and annual planning will involve consulting services, including an international and national health planning and budgeting specialist; and workshops, studies, field visits, training, equipment and software. Support for the health economics and financing unit will include overseas training in master in health economics (2), health policy (1), and short courses/study tours. In-country training will be provided for a Finance Management Master Degree and short courses/study tours.

277. **The Integrated Project Administration Unit (IPAU)** within the Planning and Budgeting Department will support the implementation of international projects assisting the Ministry of Health. IPAU support will include management allowances; office equipment and 4 vehicles; per diem; operations and maintenance; minor civil works; consulting services for accounting, procurement, and civil works, and training and workshops in project management, monitoring and evaluation, financial management, project accounting, planning and budgeting, and HSDP management.

278. **The Project Management Office** is to strengthen the implementation of the HSDP and to build the project planning and budgeting and also management and administrative functions of the MOH Planning and Budgeting Department to enable that Department to support the implementation of international and national health projects and programs. The purpose is to provide support for the implementation of the HSDP and build the capabilities of the Planning and Budgeting Department for a broader role within the ministry of Health.

279. The following support is anticipated: (i) management support at central, provincial and district levels for all elements of the HSDP; (ii) development of economic and financial analysis and planning capability in the Department of Planning and Budgeting; (iii) support for coordination of international donors by the Ministry of Health to enable MOH to establish IPAU; (iv) major procurement and civil works; (v) independent project and program performance monitoring; (vi) quality assurance and supervision of program and project implementation; (vii) studies and surveys to assess impact and program progress; and (viii) training of provincial and district health and related personnel in provinces implementing the HSDP

Program to enable them to plan, organize, and manage the implementation of health delivery.

280. Provinces and Districts will use existing offices and staff for implementation of all elements of the HSDP, both program and project portions. Where capacity does not exist or requires strengthening, project funds will be used to finance the services of contractual project management staff at central, provincial and district levels for a limited period of time. As capacity increases due to Project support, provincial and district governments will progressively replace contracted staff with permanent civil servants.

281. **Time Frame:** Workshops and studies on strategic and annual planning and budgeting as well as on health information systems (HIS) at national and provincial levels will start from year one and be a continuous activity. Training courses will be conducted from year two to five at national level, and during year two and four at provincial and district levels. Software development for planning and HIS will take place in year two and be reviewed in year four.

282. Support to the health financing unit and to IPAU will start from year one with workshops, study tours and training courses and continues as per need. Monitoring to provinces and districts will also be a continuous process. Procurement of equipment and planning of civil works will start from year one.

3. Special features

283. The objectives of the project grant are to (i) strengthen the PHC systems in eight Northern provinces, (ii) build capacity for human resource development (HRD), (iii) improve health care financing and (iv) strengthen planning and budgeting.

284. The overall objective of this component is to increase utilization of PHC services through quality improvement on the supply side, complemented by increasing accessibility and demand on the clients' side. Strengthening PHC systems will further develop and apply the zoning approach to coverage planning with fixed and village based health services. At village level, strengthening of village institutions (VHC) and training for VHVs will continue to provide peer education, with a focus on remote villages and small ethnic groups.

285. In the area of HRD, at the level of training institutions a focus will be on improving HRD planning and quality of teaching. Innovative training courses and arrangements for PHC workers, medical assistant including bridging courses for upgrading levels of general education for students from small ethic groups will be continued based on identified needs.

286. The HCF component will provide TA for financial capacity building of provincial and district managers in project and in program provinces to prepare for expansion of HEF and HLF to other provinces after piloting and evaluation in two provinces during the first phase.

287. Under the planning and budgeting component, special features include the support to capacity building at the national level which will aim at increasing policy and financial analysis capacity at MOH units for strategic and annual planning and budgeting. The Integrated Project Administration Unit (IPAU) that will be established within the MOH Department of Planning and Budgeting, will support the implementation of international donor assistance projects and improve donor coordination.

4. Financing Plan

288. The total Project component cost for the first 3 years is $5.72 million, including counterpart funds, physical and price contingencies, duties, and taxes. The foreign exchange cost is $1.67 million and the local currency cost $4.05 million. The cost estimates include the provision of 5% of base costs for physical contingencies, 4.4% for price contingencies.

289. It is proposed that for the Project component, covering a three years period, ADB provides a grant of $4.57 million from its Special Funds resources. The balance of $1.15 million will be financed by the Government. The counterpart contribution for the project cost is 20% in view of Lao's fiscal situation. Detailed project cost estimates and financing plan are in Appendix 7.

5. Implementation Arrangements

a. Project Management

(i) Central Level

290. At the central level, HSDP organization will comprise of a Steering Committee (SC), the Program Management Office (PMO), Task Forces, and Central Technical Support Team (consultants). The SC will be chaired by the Minister of MOH, include high rank representatives from MOF, Committee of Planning and Investments (CPI), Ministry of Education, and MOH Vice Ministers, MOH directors, the State Planning Committee, and the CPI. A Program Management Office (PMO) will be established at MOH. The Director of the Planning and Budgeting Department of MOH will be the HSDP Director (PD), and the Director of the PHC and Rural Development Division will be a Deputy Program Director (DPD).

291. The SC will advise the PMO on general policy and guidance for HSDP implementation based on the overall strategic framework for PHC development and intersectoral coordination. The SC will institutionalize the use of five-year plan and annual rolling plans, conduct annual review, and approve annual project implementation plans and budgets. The three Task Forces on HRD, HCF, and PHC will provide technical guidance.

292. The PMO will be responsible for (i) Program/Project management, monitoring, and supervision, and liaison with other ministries and ADB; (ii) preparing and managing the annual program/project budget; (iii) competitive procurement of goods and selection of consultant services; (iv) overseeing the effective functioning of provincial Program Implementation Offices (PIO); (v) establishing detailed guidelines for administration, technical support, and institutional capacity strengthening; (vi) disseminating information to local government agencies, public and private institutions, and beneficiaries of the Project; (vii) establishing an independent BME unit and conducting evaluation of results-based implementation; (viii) submitting quarterly progress and financial reports, as agreed upon by the Government and ADB; and (ix) conducting impact surveys, health policy and management studies and operational research, technical audits, and midterm and Project completion evaluations.

293. A Project secretariat will be established to support the PMO in executing project including administration, finance, procurement, and training and staff development. Experienced and professional staff be hired as "executive secretary" to support the PMO. The PMO will establish a Technical Working Group (TWG) consisting of representatives of the three task forces (HRD, HCF, and PHC). The TWG will work closely with the Central Technical Support Team (CTST) and report to the task forces on project progress.

294. The CTST includes international and national experts, which will be hired by the PMO project manager, and will provide technical support to the PMO in the overall management of the Program/Project. In brief, the CTST will (i) assist the Project Manager in budgeting, procurement, contracting and administration; (ii) supervise, coordinate, monitor, and technically support the regional consultants; (iii) design and implement project training curriculum, syllabus, and modules; (iv) troubleshoot and resolve any issues in the field as needed; (v) review and verify data and reports from the PIO; and (vi) write periodic reports on overall project progress, as well as on technical issues as required from time to time.

(ii) Provincial Levels

295. At provincial level, HSDP organization will comprise of the Provincial Steering Committee (PSC), the provincial Program Implementation Office (PIO), and provincial technical team (consultants). The PIO will be established to manage and implement the Program/Project at each respective province. The PSC chaired by the Vice Governor, with a representative of the provincial health office (PHO) as deputy chairman, provincial CPIs, the provincial planning and budgeting department, representatives from each of the district health offices (DHOs), and provincial Lao Women Organization (LWU). The PSC will provide overall guidance to the PIO and resolve policy and implementation issues.

296. The Provincial Project Manager will head the PIO. Main tasks of the PIO include: (i) program/project management, monitoring, supervision, and liaison with the PMO and other stakeholders; (ii) preparing the result-based program to be proposed to the PMO; (iii) preparing five-year plans and annual rolling plans for the program/project; (iv) supervising competitive local procurement of goods; (v) establishing local-specific guidelines for project administration, technical support, and institutional capacity strengthening; (vi) conducting staff development for district core trainers; and (vii) preparing and integrating quarterly progress and financial reports of the districts for the PMO. Similar to the PMO, a provincial project secretariat will be established to support the PIO in executing the program/project including administration, finance, procurement, and training and staff development.

297. The PIO will assign a provincial Technical Working Group (TWG) to support the PIO in implementing the program/project. The Working Group will work closely with the provincial advisors consisting of two consultants (technical and financial). The provincial advisors (local consultants) will be hired by the PMO, and will provide support to the PIO in the technical (health) and financial/health management aspects of program/project implementation.

b. Implementation Period

298. The proposed HSDP is envisaged for a first phase from 2007-2009, and a second phase in 2010-2012. Given the above scope, a six to eight year time frame appears more realistic to improve the performance of the health system. However, program support of ADB is usually limited to a maximum of three years and 1–3 tranches that are tied to the adjustment costs of the MOF for the policy reform agenda. It is not usually earmarked as supplementary funding in the health sector. The Program activities will be undertaken at central level and in selected provinces in a phased manner considering the institutional capacity and readiness for program implementation. In the first phase, the project activities will initially be undertaken at central level to prepare detailed project and financial planning (targeting, facilities mapping, staff development plans, etc.), recruitment of consultants, procurement, development of systems, preparation of training materials and conduct of initial training. In this phase, parallel program activities will commence in two selected provinces. In the second phase, the program funding approach will gradually be expanded to the remaining provinces.

6. Procurement

299. All procurement of goods and services financed under the Project will be carried out in accordance with ADB's *Procurement Guidelines* and the Government's procurement procedures acceptable to ADB. There is no procurement of goods $1million and above requiring international competitive bidding. Equipment and material packages valued at $500,000 equivalent or less will be procured following international shopping procedures. Certain items costing the equivalent of less than $200,000 may be procured under local competitive bidding procedures acceptable to ADB. Packages valued at $50,000 equivalent or less will be procured under direct purchasing procedures. The PMO and provinces shall maintain specified documents for review by ADB. The indicative procurement plan is in Appendix 14.

7. Counterpart Funds

300. The counterpart funds for the project grant are set at 20% of the project component cost, equivalent to 10% of total HSDP costs over 6 years and will for the most part be provided in services and in kind.

8. Consulting Services

301. The project will be supported by 486 person months of consulting services (126 person-months international and 360 person-months national). All consultants to be financed under the grant will be recruited as firms or individuals in accordance with ADB's *Guidelines on the Use of Consultants*, using the quality and cost–based selection method or other arrangements satisfactory to ADB for engaging consultants. The areas covered are health economics and financing, planning and budgeting, monitoring and statistics, administration and financial management, and HRD. Detailed terms of reference are in Appendix 8. The consulting services are designed to provide technical support to the project as well as build MOH and provincial capacity for planning, management, services delivery and policy analysis in the sector. Capacity building of counterparts will be a substantial assignment of each international consultant.

9. Disbursement Arrangements

302. The Project grant proceeds will be disbursed in accordance with ADB's Loan Disbursement Handbook (2001). The Project will use direct payments, and an imprest account. The direct payment procedure will be used for payments over $50,000. All other payments will be channeled through the imprest account to increase flexibility in project disbursement. The initial advance to the imprest account will be based on approved contracts and planned expenditures for the first 6 months of the project. The statement of expenditure (SOE) procedure may be used to reimburse eligible project expenditures and to liquidate or replenish imprest account advances. The SOE procedure is applicable to individual payments not exceeding $100,000 equivalent per payment and to liquidate advances made into the imprest account in accordance with the grants' financial covenants. MOH and MOF will ensure timely release of funds. This is considered essential because project activities will take place at different locations and simple mechanisms are required to disburse small funds quickly through decentralized decision-making while maintaining acceptable levels of financial control. Detailed arrangements to establish the imprest account and SOE procedure will be made in accordance with ADB's *Loan Disbursement Handbook* (2001) as amended. Sufficient supporting documentation, as defined in that document, must be kept at each level of project management to substantiate all expenditures incurred from the grant proceeds. MOH and provincial government staff will be trained in ADB's disbursement procedures. Funds will be released based on project accomplishment reports of the selected districts and cities.

10. Accounting, Auditing, and Reporting

303. MOH and provincial governments will maintain separate records and accounts for the project to identify goods and services financed from grant proceeds. The EA has implemented several similar projects financed by ADB and others during the last 10 years, and its financial management capacity is considered adequate. The EA will have adequate number of suitably qualified accounting staff, including a financial manager in the PMO who will establish project accounting and recording systems and train staff to maintain the systems.

304. Certified auditors will annually audit all accounts and financial statements, statement of expenditures and revenues, and imprest account related to the Project, in accordance with auditing standards acceptable to ADB and using international accounting and auditing standards as a benchmark. Audited financial statements and project accounts, together with

the report of the auditor, including the auditor's opinion on the use of grant proceeds, compliance with grant covenants, and the use of the imprest account under ADB's statement of expenditures procedure, will be submitted within 9 months of the close of the financial year.

305. The EA will provide ADB with quarterly progress reports within 30 days of each calendar quarter period. The progress reports will be in English and in a format acceptable to ADB and will indicate, among other things, progress made against established targets, problems encountered during the previous quarter, steps taken to resolve problems, compliance with grant covenants, and proposed program of activities for the succeeding quarter. Within three months after physical completion of the project, the MOH will submit to ADB a project completion report providing details of implementation and accomplishments.

11. Anticorruption Policy

306. ADB's *Anticorruption Policy* (1998) was explained to and discussed with the Government and the Executing Agency. Consistent with its commitment to good governance, accountability and transparency, ADB reserves the right to investigate, directly or through its agents, any alleged corrupt, fraudulent, collusive, or coercive practices relating to the project. To support these efforts, relevant provisions of ADB's *Anticorruption Policy* are included in the grant regulations and the bidding documents for the project. In particular, all contracts financed by ADB in connection with the project shall include provisions specifying the right of ADB to audit and examine the records and accounts of the Executing Agency and all contractors, suppliers, consultants, and other service providers as they relate to the project.

12. Involuntary Resettlement

307. Upgrading of health facilities under the Project will not require any new land. Construction of new health centers mainly will be carried out only on vacant and idle land owned by the Government that is free from all encumbrances, habitation, dispute or controversy. Only subprojects categorized as C in accordance with ADB's policy on involuntary resettlement and its policies and meeting agreed selection criteria for school sites will be selected.

13. Environment

308. The project's environmental impacts were reviewed and no significant adverse impacts were identified. Small-scale civil works covering water and toilet facilities will be constructed in accordance with Lao PDR regulations. Activities resulting from the project will not cause pollution, health hazards, or soil erosion. Medical wastes will be considered in the design and upgrading of new health centers. The project is categorized as Category C. The site selection, design, construction, replacement work and operation of health centers will be implemented in accordance with the relevant regulations and standards of the ADB's Environment Policy.

14. Project Performance Monitoring and Evaluation

309. A Project Performance Monitoring Systems (PPMS) will be established at all levels to ensure proper implementation of project and program objectives. Particular attention will be given to ensuring benefits of the poor, in particular women, children and ethnic minorities. The PPMS will encompass the following elements: (i) monitoring of physical and financial progress as well as the efficacy and efficiency in health centers, (ii) monitoring of the level and adequacy of community participation of various stakeholders in planning and implementing project activities, (iii) monitoring the social, environmental, and economic impacts including the establishment of benchmark information and data, and (iv) assessing the impact and utilization of the works. The staff of the project will be trained for undertaking baseline and completion surveys and surveillance for the target areas. PPMS findings will be incorporated

in quarterly project progress reports to be prepared by PMO within four weeks of the end of the reporting period and submitted to ADB. The PMO will also prepare and submit a consolidated project completion report to ADB within 6 months of project completion. Reporting should review progress of annual milestones vis-à-vis achievement of project indicators.

15. Project Review

310. ADB will carry out regular reviews including midterm and project completion reviews. The reviews will focus on project impacts, particularly relating to institutional, administrative, organizational, technical, environmental, and social aspects. They will also examine compliance with covenants specified in the grant agreement. MOH and provincial governments will ensure that their staff visit the field frequently and joins ADB for all review missions.

16. Project Readiness

311. The project implementation arrangements including national, provincial and district level offices, will be established upon grant effectiveness. The staff at all levels will be trained and familiarized with the technical approach and project administration during the first three months of the HSDP. MOH will prepare and disseminate necessary administrative memorandum. The terms of reference for the consulting services have also been prepared, which will allow for fast tract recruitment of consultants. The HSDP does not entail any land acquisition or resettlement. Overall, the Project will be ready for implementation by 2007.

312. Items to be complied with before grant negotiations could include (i) monitoring and evaluation performance indicators, including baseline data are ready; (ii) counterpart funds for the first year of implementation have been exercised and committed; (iii) land acquisition and resettlement plans are in place; (iv) Project Management Units are established and staffed; (v) final draft of the Project Administration Memorandum (PAM) covering scope, organization and its terms of reference, procurement, budgeting, disbursement, reporting and auditing arrangements); (vi) procurement plan, (vii) Request For Proposals (for consulting services), and (viii) bidding documents (for goods and civil works) for the project implementation are in place; (ix) Statements from Original Governments (if applicable) expressing their commitments for participation, provision of counterpart funds**.** Advance action is particularly considered given the relatively short project period of 3 years for the first phase.

III. PROGRAM BENEFITS, IMPACTS, ASSUMPTIONS AND RISKS

A. Project Benefits

1. Health Benefits

313. The strongest rationale for GOL's involvement in health sector is that it could contribute to a more effective and efficient functioning of the health system and/or that it could contribute to poverty alleviation and redistribution of income. There is a justification for Government involvement in the provision of health services which have "public goods" nature, such as malaria control, surveillance and control of communicable diseases (HIV/AIDS and avian flu), sanitation, mass education, etc. Similarly, many health services can create large spillover effects (such as vaccination for preventive health services), produce greater social benefit than private benefit (such as FP). There is also a rationale for Government involvement in the provision of health information and research, both of which have the same characteristics as public goods. The population's knowledge of the benefits of preventive health services is quite inadequate, which has lead to low level of utilization of preventive services.

314. In spite of progress made in recent years, health status indicators demonstrate that the population remains affected by significant health problems. Disparities exist among urban and rural social indicators. Infant mortality and maternal mortality continue to be among the highest in the region. Notwithstanding the impact of poverty and of the situation in other sectors, public health issues can be mitigated with adequate financing and improved performance of the health delivery system. Weaknesses in the health system will continue to hamper improvements in health indicators, unless the low and inefficient use of resources, adequate incentives for service delivery, low capacity of service providers, and core issues of physical and financial access are addressed.

2. Social and Poverty Benefits.

315. It is well documented that improved health status will contribute to improving social and poverty indicators. In education, children in good health and nutrition status learn faster and miss school less frequently due to illness.

316. Training activities in the project raise skills and professional qualification of health workers and support their social career. The financial input by itself will create local labor opportunities and local purchasing power. In general, better preventive and curative health care and better access to it will improve the health status of the workforce averting leaves due to illness and reduction of productivity. In an environment of high subsistence economy, the health status of the rural population is closely related to production of cash crops. This refers in particular to preventable illnesses (e.g. AIDS, Malaria and TB). Therefore, the HSDP is expected to have a bearing on the nutritional status of the poor and the near poor.

317. HSDP will focus on promotion of women and members of ethnic minorities to be trained and to become health professionals. This will contribute to more gender and ethnic equity and to improving the social status of the groups concerned (Appendixes 19 and 20).

318. There is ample literature about the mutual effects of ill health and poverty. This project aims, especially through establishment of HEF and HLF, at health care for the poor and the near poor in particular and prevents them from drifting into even deeper levels of poverty by the introduction of adequate social health funds. Further social benefits can be expected from the effect of Family Planning.

3. Economic Costs and Benefits

319. The economic analysis aims to provide justification for government intervention since the government is using scarce public resources. The main factors considered are the health sector reforms correction for market failure and meeting society's equity objective. Government intervention is justified, and an assessment is made to determine whether the social benefits outweigh the social costs. The use of quantitative analysis is based on estimates of the likely net present value of the Program's benefits in relations to its costs, as well as the rationale for why the discounted benefits are expected to exceed its discounted costs.

320. To assess the economic viability and efficiency of the investment under the Project, economic benefits and costs were identified and an economic internal rate of return (EIRR) over 20 years was estimated. The EIRR for the project was estimated as part of project preparation. It was assumed that the key economic gain from the project would be the added future value of labor from a decrease in the under-five mortality rate.[63] The analysis assumes a 10% reduction in the under-five mortality rate would yield an EIRR of 20.6%. Since this analysis, the Bank[64] has developed procedures for valuing economic benefits from increased labor productivity as a result of decreased incidence of ill-health and also from any cost savings from decreased health service expenditure. The valuation procedure adopted in these guidelines is used in this retrospective economic evaluation of the project. Key assumptions used in the analysis are subsequently described.

321. A least cost analysis was undertaken using the various alternative options, and the most important were (i) Integrated PHC service coverage and health care service quality; and (ii) demand-based, outreach PHC service. The analyses aims to identify the least-cost options, which are alternative ways of producing the same benefits, discounted by varying opportunity cost of capital. The resulting calculation shows that the PHC strategy that is most cost-effective is the demand based PHC (outreach) service delivery alternative.

a. Economic Rationale

322. Public intervention in the health sector typically has a number of justifications: public goods, positive externalities, and merit goods. Spending public resources, whether from current budget or through grant funding, is supported most strongly where: (i) resources are targeted to services that have substantial positive externalities – this requires strengthening the ability of primary care to deliver basic health services; (ii) providing an insurance or social safety net function for the most uncertain health services; (iii) increasing appropriate use of PHC services amongst the poorest groups; and (iv) reducing funding and not promoting inappropriate and ineffective services.

323. In such a scenario, investing in health is likely to generate substantial economic returns. HSDP has been designed to have a systemic effect, supporting both activities that generate direct health benefits for the target population and activities that will affect the planning, financing and management of health in Laos. The project aims at creating the practical conditions for actual implementation of an integrated PHC package at village level while developing the critical capacity for efficient management of the health system at all levels. The project will focus on the needs of the poor and vulnerable, by building capacity in the health workforce; improving the equity, efficiency and sustainability of health care financing, and improving the delivery and quality of PHC services. An equitable and efficient allocation of scarce resources can play an important role in improving the health status of the poor.

[63] ADB. 1994. Report and Recommendation of the President to the Board of Directors on a Proposed Loan to Lao PDR for PHC Project. Manila, 24.

[64] Bloom, E. and Choynowski, P. (2003) Economic Analysis of Health Projects: A Case Study in Cambodia, ERD Technical Note No. 6, ADB, Manila and P. A. Musgrove (2003) Health Economics in Development, November 2003 by World Bank.

324. In Laos, it is important that services known to have a significant effect on the key outcomes (IMR and MMR) are made available in a way that increases consumption quickly, particularly amongst the poorest groups. In general there is a choice to be made, in addressing these market imperfections, between providing services directly or by giving purchasing power to target groups and allowing them to obtain services. Internationally there is some evidence that demand side subsidies, such as vouchers for services, can be effective in raising use but the evidence base remains weak and un-robust (Ensor, 2003). The lack of a well-organized and regulated private sector limits the scope for public-private competition and choice. This means that improving quality and accessibility through the regulation and funding of the public sector is likely to remain the most used option for targeting services. However, the scope for some demand side subsidies should not be ignored particularly as there is evidence, that some of the barriers to use of services among poor rural populations are related to demand side issues rather than a lack of supply. Scope for providing demand side interventions must be explored in pilot areas during the project.

b. Cost-Benefit Analysis

325. The quantitative cost-benefit analysis for the Project follows the methodologies outlined in *ADB's Guidelines for the Economic Analysis of Health Projects*. Key assumptions include (i) the economic opportunity cost of capital was assumed to be 12%. Most health project analyses tend to use 3% as a discount factor; therefore, future benefits are likely to be given greater value. To harmonize this analysis with other project appraisal in non-health sectors, a higher discount rate is utilized; (ii) the period of analysis covers 20 years and benefits and costs are calculated in constant 2007 dollar prices. Key benefits incorporated in the economic evaluation framework involve cost savings from reduced out-of-pocket health expenditure and productivity benefits from increased labor supply; and (iii) the opportunity cost of labor or the shadow wage rate (SWR) for both urban and rural adults was calculated at US$0.5 per day. This estimate is derived from basic statistics from Lao, PDR.[65]

c. Economic Costs

326. Base investment costs are in constant 2007 dollar prices. Costs are derived from projected disbursements over the implementation period and are adjusted for inflation into 2007 dollar terms. Incremental recurrent costs are calculated for the 15 years following the six-year project implementation period.

d. Economic Benefits

327. The project is expected to yield several benefits. These include improved health status in the project provinces and districts through increased spending, better prioritization and targeting of health service delivery, improved resource allocation and mobilization, enhanced quality care, and better access to vulnerable groups. Local governments informed by local concerns will devise cost-efficient delivery systems to expand the outreach of public health services. The project will increase the economic benefits of decentralization at the provincial and district levels through capacity building, physical investment, and reforms.

328. HSDP's support to PHC will play a key role in the decrease of MMR, IMR and general morbidity. It relies on the strengths of PHC, which bring essential support to cost-effective treatment and preventive activities. Health staff will be trained on clinical and non-clinical approaches. HSDP is expected to increase the number of persons receiving quality health care; and will contribute directly to improve the productivity of target beneficiaries.

329. These measurable economic benefits are directly linked to final health outcomes of HSDP. Intermediate benefits likewise relate to the capacity development and rationalization

[65] Government of Laos, (2000) Basic Statistics of the Lao, PDR 1975-2000, State Planning Committee, Vientiane

of staffing and facilities under HSDP. An effective health system, capable of delivering equitable and quality healthcare will improve health outcomes. Human capital development is an economic benefit itself and it creates the potential for yielding sustainable synergies through the proposed project. For estimation purposes, the economic analyses assume that human capital in the health sector will generate increasing returns in terms of economic gains.

330. Key project benefits are to be estimated in the following ways: (i) cost savings due to increased health awareness and reduced disease prevalence; and (ii) enhanced income of both rural and urban income earners who care for the sick. In summary, key benefits include:

331. **Cost savings due to increased health service coverage**. Resource or out-of-pocket savings may flow from: (i) increased access to health services to reduce transport costs; and (ii) more efficient and rational diagnosis and treatment to reduce cost of treatment. Improvements in health status as a result of health awareness activities lead to significant decreases in out-of-pocket health expenditures. In 2001, it was estimated that out-of-pocket health expenditure in Laos was in the order of $7 per person.[66]

332. A range of other studies support this level of health expenditure. For example, A recent costing analysis by WHO (2005) suggested average out-of-pocket expenditure was in the order of $6.6 per person. Bloom and Choynowski (2003) calculated that out-of-pocket health expenditure would decrease with the availability of improved health services in Cambodia In their study, it was assumed that expenditure would decrease by $6 per person in areas targeted by an ADB-supported health project in that country. This decrease is equivalent to a reduction of about 23%. If a similar decrease in out-of-pocket expenditure is assumed for Laos, then a cost saving of $1.5 per person would be realized. This assumption is included in the economic evaluation, as project beneficiaries are expected to have increased access to the improved health centers and district hospitals.

333. **Increased income through reduced sick leave or time for caring**. Adults often have to care for sick children, or they may contract infectious diseases themselves and suffer reduced work productivity. The nature of these productivity losses have received limited attention in the literature, although demographic and household surveys indicate that considerable time is lost through transportation and care of sick family members. For example, surveys of the costs of caring and transporting HIV/AIDS-affected family members to health facilities within Asia and Africa are shown to be considerable.[67]

334. Bloom and Choynowski (2003) estimated that improved health services in Cambodia would result in a 2.3 days average reduction in per capita lost days of work due to illness. Health surveys in Laos indicate that health status has improved dramatically over the period of the PHC expansion project. As already cited, in 1988, IMR was recorded at 109/1,000 live births but in the recent MOPH survey in 2000, it has decreased to 82/1,000 live births. Additionally, maternal mortality was 656/10,000 live births in 1990 and has subsequently decreased to 530/10,000 in 2000. In light of these gains, it is assumed that each person of working age within project target areas has an average of four days of lost labor per year.

335. **Increased service coverage**. The grant is expected to strengthen PHC centers primarily in the eight Northern provinces, with a population of about 2 million people. Given the population in these provinces is about 0.5 million people, the PHC facilities serve around 50% of the population. All centers are still operational to date. Although there were some delays in the implementation of some project activities, overall implementation was undertaken within the planned project time frame. Correspondingly, health service coverage is assumed

[66] WHO (2004) World Health Yearbook, WHO, Geneva

[67] For example, the Impact of HIV/AIDS Mortality on Households in Thailand" in Bloom, D. and Jacobs P, Fassbender K. The measurement of indirect costs in the health economics evaluation literature. Int J Technol Assess Health Care. 1998; 14:799-808

to increase in similar incremental steps of 10% per annum until the coverage ceiling of 50% is reached.

e. Economic Internal Rate of Return (EIRR)

336. The Project is estimated to result in more than 0.5 million avoided days of lost work days due to illness and out-of-pocket health expenditure cost savings of $0.5 million within the Project target areas. The EIRR from this impact is estimated to be 20.6%, and an economic net present value (NPV) of $28.4 million is calculated. Cost savings and labor productivity account for 60% and 40% of total economic benefits, respectively.

B. Project Risks

337. The risks under the Project are identified in the Design and Monitoring Framework (Logframe) in Appendix 1. Achievement of project objectives is predicated on a number of assumptions and on effective mitigation of certain risks, for which failure could significantly impact on the Project, its achievements and its longer-term sustainability. Key assumptions envisaged during project preparation include the following:

1. Government commitment to reforms

338. The project design was developed during the PPTA in close consultation and with the support from the MOH. As its predecessor projects (PHCP, PHCEP) it supports the government's own reform policies. In particular, the government is committed to improve the quality of health services through HRD with an emphasis on deployment of female staff and health workers from small ethnic groups. Improving access to quality health services (through expansion of the network and through health insurance equity funds for the poor), particularly also in remote areas, is among the government's development priorities in the health sector. The development of strategic provincial health development plans is currently ongoing and will form the basis for results-based annual planning and budgeting.

2. Corruption

339. Projects involving procurement of goods and services, particularly for a large volume of civil works are generally prone to corruption. By adopting an approach where responsibility for the planning and implementation of the activities rests with the local governments, the Project seeks to promote transparency and good governance. Governance related risks will be further minimized by implementing an Action Plan that had been jointly developed by the Ministry of Health and ADB to improve efficiency of project implementation, enhance quality of outputs and prevent fraud and corruption.

3. Fiscal Constraints

340. Fiscal constraints have been largely described and could be a threat to project implementation. Some allocative amendments in the national and provincial budgets are proposed in this project as well as other mechanisms for improved health care financing.

4. Project Implementation

341. The Project is envisaged to be implemented over six years. Past experience in the case of health sector projects suggests significant start up delays may be anticipated with respect to establishment of project implementation offices under decentralization, finalization of funds flow mechanisms and implementation arrangements, recruitment of consultants, and approval of budgets. The Project will be implemented using existing approaches, and utilizing implementation and funds flow mechanisms that are already in place for the health

sector. The use of established mechanisms, trained staff and provision of advanced action for procurement of consulting services will minimize risk of delays in project start–up.

C. Sustainability

1. Financial

342. The sustainability of the health care system is a serious concern of the Government. Laos is still in the process of restructuring its economy and reforming its health care system and, as a result, the amount of resources available for all sectors (including health) is quite limited. Although the health needs of the country are great, any investment in the health system must be sustainable, in the long run, with domestic resources. Laos is unusual among Asian countries with its large share of health spending currently coming from household expenditures (49%). The Government's contribution to total health care is estimated to be 18% and development partners for the remaining 33% of the total. The Government's effort is severely limited by its narrow revenue base, currently accounting for around 12% of the GDP. While the private sector can be an important resource for the health sector, there are serious equity issues associated with high private costs and a weak social safety net.

343. The composition of health spending indicates that GOL currently does not have sufficient resources to sustain the health sector on its own. With a budget between $2 to $3 per capita, Government spending is well below the recommended targets for health spending.[68] Given Lao's low income and revenue base, the country will have to depend on international assistance for several more years. Laos needs to develop an "exit strategy" to ensure that the health sector will function with reduced donor support. It will also have to develop a strategy to better target private health care spending. A Medium Term Expenditure Framework analysis indicate that a funding gap exists in the health sector, which require resources mobilization and cost efficiency initiatives (see Appendix 25 on MTEF Analysis)

344. Due to the "unfunded" mandate of fee exemption for the poor, Government strategy supports the establishment of social safety net mechanisms such as HEF for the poorest and interest free HLF for the near poor. While the program supports this pro-poor mechanism, there is need to ensure its sustainability. Several approaches that ensure sustainability include: (i) linking health improvement to national program on poverty eradication, (ii) improving public private partnerships (PPP) in particular through Corporate Social Responsibility (CSR), (iii) improving local government commitment, and (iv) earmarking taxes (e.g. specific taxes for non-essential items) for health equity and loan funds. Policy reforms are essential to support the health sector reforms. Health insurance (incl. community-based health insurance) should be expanded taking into account affordability issues of the vulnerable population. It is expected that significant efficiency gains can be realized through the systemic reforms proposed under the Project. Better public-private partnership could also involve the private sector in health care financing, managed care and other reforms.

2. Institutional sustainability

345. Government institutions at all levels will receive substantial support from this project facilitating institutional development and consolidation. There will be a whole range of institutional support for the central level. Particular focus will be on strengthening central, provincial and district health institutions following political priorities of decentralization. It is expected that this approach will stabilize and strengthen managerial and professional capacities and assure sustainable and increasing institutional effectiveness. The components relating to strengthening health sector planning and budgeting, PHC systems development an HRD and HRM will contribute most to achieve institutional sustainability.

[68] **WHO recommended per capita health expenditure is $30.**

IV. PROPOSED ASSURANCES

A. Specific Assurances

346. In addition to the standard assurances, the Government has given the following assurances, which are incorporated into the legal documents for the Project:

1. The Grant and corresponding counterpart funds, necessary to finance the project activities, will be made available throughout the project implementation period by earmarking the funds;
2. Proceeds of the Grant will be disbursed to project provinces and districts throughout the project implementation period as grant by using the budgetary transfers already in place for other projects;
3. Complementarity of funds should be on top of government projections to increase
4. Results-based program sustainability
5. Financial sustainability
6. Governance
7. Ethnic Minorities and Gender action Plan
8. Resettlement
9. Medical waste

B. Conditions for Grant Effectiveness

347. For the program grant:

1. All conditions for the release of the first tranche of the Program Grant, as set out in policy matrix (Appendix X), will have been satisfied;
2. Medium-term expenditure plan for the health sector showing projected incremental allocations for the health sector and supplementary funding from the program proceeds.

348. For the project grant:

1. The PMO will have been established.
2. Confirmation of budget approval and availability of counterpart funds for the first year of the project.

APPENDICES

Table of Appendices

APPENDIX 1: Program Framework

Design Summary	Performance Targets/Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks
Impacts Improved health status in the program area, in particular of the poor, women and children and ethnic minorities in rural and underserved areas	1. Infant mortality rate reduced from 82 in 1999 to 55 per 1,000 live births in 2012 2. Child mortality reduced from 106 in 1999 to 65 per 1,000 live births in 2012 3. Maternal mortality reduced from 530 in 2000 to 230 per 100,000 live births in 2012	Multi-Indicator Cluster Surveys (MICS) of the National Statistics Center (NSC) supported by the UNICEF-UNDAF National Reproductive Health Surveys by the NSC and UNFPA Health Management Information System Village Health Volunteer Reports (vital statistics)	Assumptions Political and economic stability MOH leadership Adequate pay of staff to provide essential services in rural areas Women, poor and ethnic minorities have access to quality, affordable health care PHC coverage is increased and highly effective Risks Fiscal constraints Weak governance
Outcomes HSDP: Improved performance of the provincial health system delivering PHC which is of better quality, affordable by the poor, accessible to vulnerable groups, delivered in an efficient manner, and resulting in increased demand and thereby patient benefits, satisfaction, and poverty reduction	1. % use of public health care services for illness in the past four weeks (by gender). 2. % population with knowledge of birth spacing, HIV/AIDS, breastfeeding etc. 3. % children under five with diarrhea in past four weeks, who received ORS. 4. % pregnant women who receive at least one ANC check in the last year. 5. % Deliveries assisted by trained birth attendant in the last year. 6. % WRA who used contraceptives 7. % of women who breastfeed immediately and exclusively (from birth to 4 months of age) (A complete table of perfomance indicators is found in Annex 13)	Ministry of Health (MOH) reports Quarterly project reports Project surveys (baseline, midterm, and end–of–project impact evaluation), independent monitoring, and surveillance reports National Surveys	Assumptions MOH approves policies and plans to improve female staff plans Adequate female staff are available in health centers Project has created momentum to sustain at–risk groups use of health programs and changed health behavior Community groups (VHVs and VHCs) established Staff have skills to correctly diagnose and treat health problems Community mobilized Surveillance and HMIS system enhanced and implemented

Design Summary	Performance Targets/Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks
Outputs			
PHC Management and Service Delivery Strengthened provincial and district capacity for health management Decree and guidelines for decentralized provincial program management with integration of vertical programs Result-based pilot health program in two provinces PHC management improved at provincial and district level	Tested provincial health managers performance is satisfactory Instruction 01/Prime Minister dated March 11, 2000 on Decentralization to MOH implemented. Decrees approved, vertical programs (MCH/FP, EPI) integrated MOH commitment to results-based pilot health program, analysis and capacity building approved evaluated Organization development and change program implemented in provinces and districts by 2009		<u>Assumptions:</u> Managers willing to change, depends on conducive climate and resources Local authorities buy into health and prioritize Governor provides leadership to program approach <u>Risk</u> Few trainers to provide support
Service Delivery for Vulnerable Groups Integrated MCH/FP/Nutrition program in place Nutrition Policy and Plan approved Village Health Care Program implemented Physical access to PHC improved	MCH/FP/N plan approved and implemented Policy and Plan approved MOH approval of village health program, decree issued Number of HCs added for EMGs		<u>Assumptions</u> Adequate funds for PHC allocated Health Centers achieve minimum required staffing levels and resources Health Services are affordable Quality in-service training
Build Capacity for Human Resource Development HRD Strategy and Plan Improved female staff in	HR Policy and Plan approved		<u>Assumptions</u> Consensus between ministries reached Adequate female staff can be found

Design Summary	Performance Targets/Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks
health centers Capacity building of MOH, institutions in HRD planning and training	Female staff plan approved Increased capacity of planners, teachers		Promising candidates / talents can be found and are willing to work for public service.
Improve Health Care Financing Increase in Recurrent Expenditure Budgets Health Equity and Loan Funds Improving cost recovery	Planned health investments in the 6th Socio Economic Development Plan (2006-2010) complied with and audited Funds established and evaluated Study completed Recommendations implemented		MOF committed to improving recurrent budget , MTEF prepared Local governments have prioritized budgets for recurrent spending to improve quality health services
Strengthen Planning and Budgeting Health Program Support Capacity Strengthened Planning and Budgeting Unit Functioning Project Administration Unit (IPAU) Improved donor coordination	Provinces receive MOH support PBU conducts policy analysis and health economics studies IPAU manages at least 3 projects Donors subscribe to Paris declaration and are transparent and willing to harmonize activities(with ref. to Towards Better Governance Strategy Paper)	MOH DPB Reports	MOH and donors accept IPAU concept Donors are committed to working together

Design Summary	Performance Targets/Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks
Activities: **Strengthening PHC Management and Service Delivery** • Preparing design for decentralized, integrated PHC • Negotiating Discussing integration with vertical programs and donors • Designing results-based pilot program • Capacity building training program for health managers **Improve Service Delivery for Vulnerable Groups** • Adding health centers in locations for vulnerable groups • Replacing outdated equipment • Training PHC workers, in particular female and from ethnic minorities • Setting PHC standard • Preparing plan for integrating MCH/FP/Nutrition • Preparing nutrition policy • Preparing village health program • Orientation for VHCs, training VHV, VHP, Peer educators **Capacity Building for Human Resource Development** • Preparing HRD policy • Preparing plan for improving female staff in health center • Training of trainers for better staff performance • Provide fellowships **Health Care Financing** • Medium term expenditure plan • Recurrent allocation and expenditure tracking • Study for health equity and loan funds • HEF/HLF Implementation • Health Care Financing Studies and Surveys **Planning and Budgeting** • Health System Program capacity building, support • Policy and Economics capacity building, studies • Health Information and Donor Coordination capacity building • IPAU analysis, capacity building, decree, functioning		**Inputs in US$** **Asian Development Bank** 1. Program Grant: Phase I: $5.72 million Phase II: $6.98 million Total: $12.7 million 2. Project Grant: Phase I: $4.57 million Phase II: $5.26 million Total: $9.83 million **Government counterpart funds:** Phase I: $1.15 million Phase II: $1.32 million Total: $2.47 million **Total HSDP input:** **$25.00 million**	

APPENDIX 2: Policy Matrix[1]

Policy Areas & Medium Term Objectives	Conditions for Release of First Tranche	Conditions for Release of Second Tranche	Conditions for Release of Third Tranche
1. Decentralized and integrated Planning and Budgeting	MOH provides written commitment to strengthen decentralized and integrated planning and budgeting, including of vertical programs for MCH/FP and EPI. Necessary analysis and capacity building measures have been agreed to (planning and budgeting, financial management).	Policies, guidelines and standard procedures for decentralized and integrated planning and budgeting are formulated and adopted as mandatory system. Relevant directives are issued. Necessary capacity building measures implementation completed at provincial level and ongoing at district level. Financial autonomy is devolved as required by the policies.	Provinces are implementing decentralized and integrated planning and budgeting system. MCH/FP and EPI programs are integrated in PHC operations. Provinces are being trained for strategic planning during next phase. Necessary capacity building measures completed at district level. MOH provides written commitment and plan for integration of CDC programs.
2. Results based provincial program support	MOH provides written commitment to pilot test results-based provincial program support. Necessary analysis and capacity building measures have been agreed.	Results based provincial program support is being implemented.	Experiences are evaluated and lessons learnt translated into valid guidelines for consideration of expansion to other provinces during next phase. In case of expansion, policies, guidelines and standard procedures for results-based provincial program is adopted as mandatory system. Relevant directives are issued.

[1] The matrix covers policies for the first phase of three years. Conditions for release of further tranches will be formulated towards the end of the first Phase of three years

Policy Areas & Medium Term Objectives	Conditions for Release of First Tranche	Conditions for Release of Second Tranche	Conditions for Release of Third Tranche
3. Village Health Care	MOH commits to develop a Village Health Program including, including (i) thematic target groups (e.g. school children, women of reproductive age, pregnant women); (ji) package of interventions including health and nutrition promotion, financing; clear roles and responsibilities of VHC and others; support and supervision mechanisms (multi-sectoral); plans for recruitment and distribution of new village health workers (VHV, VHP); and peer education. ToR of Consulting services agreed.	Policies, guidelines and standard procedures for village-based health program are formulated and adopted as mandatory system. Relevant directives are issued. Necessary capacity building measures implementation completed at provincial, district and village level on a pilot basis. Selection and recruitment is carried out with involvement of women stakeholders (LWU). At least 50% of recruits in each village are female.	Village based health program established in 80% of villages, and in all small ethnic minority villages. Support and supervision system by province and district has been put in place. Programs are supported financially from MOH and local governments. VHC implementation is evaluated and definition of roles and functions amended if warranted.
4. Maternal and Child Health and Nutrition	In accordance with existing policies, MOH provides written commitment to strengthen MCH/FP/Nutrition services as part of PHC. Necessary analysis and capacity building measures have been agreed to. Major donors agree on supporting one MCHN package.	MOH approves of the plan for strengthening MCH/FP/Nutrition services as part of PHC. Necessary analysis and capacity building measures have been completed. MCH/FP/Nutrition package implemented at all levels on pilot basis.	MCH/FP/Nutrition packages at all levels are evaluated and plans are made for expansion. MOH approves MCH/FP/Nutrition package. Guidelines finalized and distributed.
5. Nutrition Policy and Plan	MOH provides written commitment to prepare a nutrition policy and plan with nutrition as an essential part of PHC and other sectors. Necessary analysis and capacity building measures have been agreed. ToR of Consulting services agreed.	Consultants have completed drafting a nutrition policy and plan.	Nutrition policy and plan has been approved. MOH has issued guidelines for the implementation of the policy.
6. Human Resource Development Plan	MOH commits to prepare a HRD strategy and Plan. MOH approves ToR for consulting services.	HRD Strategy and Plan approved by MOH.	HRD Plan is implemented as per Plan.

Policy Areas & Medium Term Objectives	Conditions for Release of First Tranche	Conditions for Release of Second Tranche	Conditions for Release of Third Tranche
7. Improve staff distribution and gender balance	MOH commits to a strategy and plan for increasing mid-level staff, in particular medical assistance, female staff, and ethnic minority staff at health centers	Strategy and plan approved by MOH and implementation arrangements initiated. MOH agrees to retrenchment of redundant staff.	Strategies are implemented and 80% of health centers have female staff and, in largely ethnic minority communities, at least one ethnic minority staff. Redundant staff are retrenched.
8. Increase in Recurrent Expenditure Budgets	MOH commits to preparing an MTEF in the first three months as the basis for policy-based program assistants to set targets for recurrent fund allocations. ADB will boost funding by financial support earmarked for the health sector.	MTEF is approved and budgetary arrangements made. Recurrent fund allocations and expenditures are as per target or above.	Recurrent fund allocations and expenditures are as per target or above.
9. Health Financing (Health Equity and Loan Funds)	MOH provides written commitment to a pilot test HEF and HLF and capacity building in 2 provinces Mechanisms for HEF/HLF allocation and disbursement are proposed.	HEF/HLF are set up and piloted in two provinces at 4 levels. Evaluation accompanies pilot implementation.	Evaluation results are considered for decision on expansion to further provinces.
10. Integrated Project Administration Unit (IPAU)	MOU provides written commitment to conduct a feasibility study on IPAU and its institutional set-up.	Based on a positive outcome of the feasibility study, the legislative framework is drawn up. Capacity building measures are started.	IPAU is in place and functional.

APPENDIX 3: Sector Analysis

A. Background

1. An analysis of the health sector in Laos has to be seen against the background of some geographic, socioeconomic and ethnic peculiarities of the country. Lao People's Democratic Republic (PDR) is the only landlocked country in South-East Asia with a large share of mountainous, non-arable terrain. 80 percent of the population lives in rural areas, often in scattered and remote villages. The average population density in Laos is 24/km^2, in the eight Northern provinces it is 17.9%. Although overall poverty has declined from 46% in 1992 to 32% in 2003, development has been largely concentrated in the urban areas and advanced sectors of society.[1] A more equal distribution of benefits from recent economic gains is a major challenge.

2. Poverty is a barrier for access to social services. It is compounded by gender and ethnic disparities. Although school enrollment rates of girls at different levels have improved between 1991 and 2000, they are still lower compared to boys. The multi-ethnic composition of Laos' society (49 recognized ethnic groups) aggravates disparities. Small ethnic groups often live in remote places and have different cultural and language background. Both factors result in an under-representation of women and members from small ethnic groups in training courses for mid-level and particularly higher level health professionals.

3. The public health system in Lao PDR is overall seriously under funded. Moreover there is an imbalance between public (~18%), donor (~33% and out-of-pocket private funding (~49%). There is not enough money in the public health system to provide the poor with free services, nor are there currently mechanisms to subsidize costs of health care for the poor. Due to under-funding, health facilities are often in a dilapidated state of infrastructure and poorly equipped. Lack of financial and other incentives are responsible for understaffing both in quantity and quality particularly in rural areas. Even where facilities are in a good or reasonable condition and staff is available, shortages of non-salary recurrent budgets often prohibit adequate provision of services. All these factors render many of the health services unattractive and unaffordable for the poor. As a result, many of them are underutilized.

4. The Government recognizes the urgent need to address this situation. Its overall strategic framework identifies health as a priority for development, with the main objectives of reducing urban-rural health differentials, lowering mother and child mortality rates, raising life expectancy and reducing the spread of communicable diseases[2]. In the area of health human resource development, priority is focused on increasing the deployment of especially female and ethnic minority health personnel to the district and village level, particularly to remote rural areas, and on improving quality and capacity of health personnel, their attitude and motivation in general.

5. Under the ADB funded *Primary Health Care Expansion Project* (PHCEP), the network of PHC facilities and village based services has been significantly expanded in the eight Northern provinces and health management systems and human resources have been further developed. There is a need to operationalise this newly expanded PHC network. The aforementioned financial and socio-economic barriers to health care, however, still hamper access to and affordability of care, as well as demand for health services, particularly by vulnerable groups including poor women, children, and small ethnic groups.

[1] Laos Expenditure and Consumption Survey (LECS) 2003
[2] GOL. 2006. Lao PDR: Sixth National Socio Economic Development Plan (2006-2010), Draft.

B. Sector Description

1. Health Status

6. Health indicators have undoubtedly improved in Laos over the past decade. Maternal, infant and child mortality rates are falling as poverty has declined more rapidly than the Government's strategy projected. However, these improvements are starting from a very low base and Laos still has among the lowest health indicators in Asia.[3] Furthermore, major urban rural disparities remain, which are masked by national average figures and are not reflected in the following statistics.

7. Major causes of death of children are malaria, acute respiratory infection (ARI), diarrhea and measles. Diarrhea accounts for 26% of health facility consultations among children under five. Immunization services have been in a crisis in the recent past, due to logistical and managerial difficulties, lack of demand, remoteness of population and lack of integration of immunization with other health services. Full immunization coverage of children who received all six recommended vaccinations during their first 12 months (FIC) was estimated at only 40%. According to recent communication by the MoH, coverage is now picking up again. Figures on malnutrition or prevalence of children underweight for age are controversial. It appears that earlier reports that claim that malnutrition has remained unchanged at 40% of children under 5 years old need to be revisited.[4] According to current estimates malnutrition is at a level of 30%.[5]

8. Life expectancy is increasing in Laos PDR, in particular due to improve child survival. The Infant mortality rate has declined from 104 to 70 deaths per 1,000 life births in the last decade. Maternal mortality was reduced from 656 to 405 per 100,000 life births in the same period as reproductive health is improving. Notwithstanding this, there is still a high unmet need for family planning of 40% and an alarmingly high percentage of adolescent or teenage pregnancies.[6]

9. HIV prevalence is still low at 0.08%, but is increasing rapidly, particularly among risk groups.[7] Current programs to contain the epidemic, however, are not yet sufficient. The government recognizes that HIV/AIDS prevention programs need to be scaled up, if prevalence should be contained at its current low level under 1% (MDG target). An action plan has been drawn up till the year 2010.[8]

10. Laos is also facing new communicable disease challenges like the threat of avian influenza. At the same time in countries in economic transition like Laos, non-communicable diseases increase rapidly, such as drug addiction, cancer, diabetes, hypertension, cardiovascular diseases, neurological and mental illness as well as road accidents that cause high mortality among adults.[9, 10]

[3] Lao PDR Country Health Information Profile, WHO and MOH, Vientiane 2004
[4] Millennium Development Goals Progress Report, Lao PDR, Government of the Lao PDR, United Nations, 2004
[5] ADB, Lao Health Sector Roadmap, February 2006
[6] Lao Reproductive Health Survey 2000
[7] Country Report Period 2003-2005, Country Response Information System (CRIS), NCCA, UNAIDS Geneva
[8] NAC, July 2005, National Strategic and Action Plan on HIV/AIDS/STI, 2006-2010
[9] ADB, Lao Health Sector Roadmap, 21 Feb 2006
[10] UNFPA, CCA, Draft Report, January 2006

Table 1: Lao PDR Health Sector Achievements, Projections and MDG Targets for 2015

	1995	2000	2005	2015 MDG
Maternal Mortality Ratio	656	530	405	185
Infant Mortality Rate	104	82	70	40
Under 5 Mortaliy Rate	170	107	98	55
Child Malnutrition Rate (weight for age)	40	40	30	20
Contraceptive Prevalence	13	32	40	55

***= Achievements; **= 2005 Census and Projections**
(Source: Millennium Development Goals Progress Report, Lao PDR, United Nations, January, 2004)

2. Institutional Structure

11. At the central level, the MOH sets standards, implements donor-funded projects, and manages national health programs in such areas as malaria, immunization, and food and drug regulation, and provides technical oversight to provincial health offices. MOH also allocates public health personnel at all levels of the public health system and operates training schools for upper-level health personnel (except medical doctors, whose training is under the Ministry of Education). MOH operates several large tertiary care facilities, including four teaching hospitals located in Vientiane. At the province level, provincial health offices (PHOs) implement national health programs and donor-funded projects within their provinces, operate provincial and regional hospitals, supervise district health offices (DHOs) and provide lower-level training and in-service training. At the district level, DHOs supervise and manage the delivery of health services at district hospitals and health centers. District health staff is expected to provide outreach and/or mobile services in villages and to supervise a network of village health volunteers (VHV) who support the activities of the public health system and provide basic primary health care.

12. At the village Level, there is a Village Health Committee (VHC), Village Health Volunteer (VHVs), a Private Health Professional and a Village Drug Kit (VDK) facility available at this level. VHVs are volunteer health workers with formal, basic health care training, responsible for disease prevention, health promotion, and treatment of common diseases for the population in their village catchment areas. Peer educators (VHVs and members of national unions) provide health promotion to villagers.

13. The number of health centers nationwide increased between 2000 and 2004 by 17% and several provincial and district hospitals have been built, significantly expanding the primary health care network[11]. PHC facilities (health centers, and district and provincial hospitals) have been constructed, renovated and upgraded at levels throughout the country. In the North, 53% of villagers now live within one hour of a hospital or health center and only 16% are more than four hours away[12]. There is a fairly good human and physical infrastructure for health, serving the 4,596 villages in the Northern provinces: (i) VHVs near universal coverage of all villages; (ii) village drug kits (VDK) in 50% of all villages nationwide, and 100% in targeted areas; (iii) VHCs physically organized in 72% of villages; and (iv) Lao National Unions (LWUs)[13], every village has an officer or representative of the three major Lao National Unions and all villages have LWU members.

3. National Development and Health Policies and Strategies

14. The *National Growth and Poverty Eradication Strategy* (NGPES), which resulted from the 6th Party Congress in 1996, is the overall strategic framework for all growth and poverty

[11] Ernst and Young, Evaluation of Luxembourg Cooperation Projects in the Health Sector, April 2005
[12] PHCEP 2004 Household Survey, July, 2005
[13] LWU are women-based and have partnerships with different ministries and private/non government organizations.

eradication programs. It defines the long-term development objective to raise Laos from the status of a least-developed country (LDC) by 2020. This national goal is to be achieved through sustained equitable economic growth and social development. This includes increased budgetary allocations for the social sectors. The operational framework comprises four main sectors: agriculture, education, health, and infrastructure. In the health sector, NGPES priorities include strengthening and improving the quality of health care at grassroots level, particularly in under-served areas and especially for vulnerable groups, including mothers and children and small ethnic groups.

15. The *6th National Socio Economic Development Plan*, 2006-2010 (NSEDP) is the Government's primary instrument for realizing the NGPES.[14] It identifies health as a priority for development, with the main objectives of reducing urban-rural health differentials, lowering mother and child mortality rates, raising life expectancy and reducing the spread of communicable diseases. The Plan provides direction for the development of the health sector during the next five years. Its objectives are (i) to reduce the incidence of diseases, including communicable diseases such as diarrhea, malaria, dengue fever, tuberculosis, leprosy, and HIV/AIDS; (ii) to reduce maternal and child mortality rates; and (iii) to provide access to high quality medical services. Increased efforts in both prevention and treatment are the key methods in the health sector to achieve these objectives.

16. In the area of health financing, the Plan provides the Government's overall strategy for increased and more efficient funding of the health sector, along with improving donor coordination. The relative amounts of recurrent and investment expenditures need to be revised, selecting priorities and focusing on resource mobilization. The Plan, under Strategic Program 12, clearly delineates the Government's policy for improving the affordability of services for the poor, including "the introduction of health insurance and health equity funds, both of which have a considerable impact on the financing of health services for the poor".[15]

17. In the area of health HRD, the NSEDP stresses the need for a general improvement of medical and nursing education, management training for district health officers and a wide distribution of national treatment standards and manuals, information on health laws, guidelines, rules and regulations etc. The Faculty of Medicine should be improved, especially for postgraduate studies. Immediate priorities are on: (i) increasing the number of health personnel working at village and district level; increasing the number of health workers from under-served small ethnic groups and ensuring that 50% of VHV trainees are women, (ii) increasing attitudes, morale and capacity of health personnel at district and village levels, in parallel with (iii) provision of essential drugs and necessary medical equipment to district hospitals, health centers, and of drug revolving funds at village level.

18. The Plan further foresees to expand PHC services to reach more than 80% of remote and poor villagers with access to basic health care and appropriate referral services. Incentives will be provided to attract and retain health staff at posts in remote areas. Particular efforts will be made to recruit female and small ethnic groups' health workers. Remote villages should have health providers, drug kits and a village health committee. Essential equipment and staff will be provided to district hospitals and health centers. The Government will draw on lessons learned from current and previous programs.

19. According to the *Health Strategy up to the Year 2020,* the Government's vision is to ensure full health care coverage to "increase the quality of life of all Laotians". The Government promotes the Primary Health Care (PHC) approach to provide *Health for All* to its citizens in its PHC Policy, which was promulgated in February 2000, and directly addresses MDGs.

[14] Committee for Planning and Investment, Vientiane, January, 2006
[15] GOL. 2006. Lao PDR: Sixth National Socio Economic Development Plan (2006-2010), Draft.

20. The *Lao Health Master Planning Study* (November 2002), funded by Japanese International Cooperation Agency [JICA]), supported the MOH in developing a National Health Master Plan, action plans and priority programs for the improvement of health and medical services through comprehensive, regional and local government and community approaches. The master plan's overarching goal is to improve the overall health status of Lao PDR through strengthened health care systems and empowered people, thereby contributing to poverty alleviation.

21. The basic strategies proposed by the Health Master Plan Study include: (i) promotion of sector-wide coordination at all levels; (ii) reform of the health financial system and financial management capacity of MOH, PHOs and DHOs; (iii) improvement of the quality of health worker training; (iv) building the health management systems and capacity in a decentralized context; (v) implementing efficient and effective infectious disease control; (vi) implementing the PHC approach to strengthen district health systems; (vii) operating central and provincial hospitals efficiently; and (viii) increasing the availability and affordability of essential drugs and to promote rational drug use. The findings and suggestions of this study are largely congruent with the countries policies, but all have not yet been translated into concrete strategies or guidelines.

22. The *PHC Policy*, launched by the Government in February 200, is based on the principles laid down in the Declaration on Primary Health Care signed in Alma Ata in 1978 and since then amended following several conferences and party resolutions. The cornerstones of the current policy in abbreviated form are: i) expand coverage of the health service network to peripheral areas, ii) emphasize health care for women of reproductive age and Under Five Children, iii) mobilize full community participation, cooperation, and involvement, iv) disseminate health information and data to people in rural areas, v) use appropriate and useful local resources that have a sound scientific basis conforming to the actual situation and real needs, vi) collaborate with other government sectors and with the private sector involved in Primary Health Care. Attract more assistance to support and improve a more effective Primary Health Care program, and vii) ensure sustainability of the health care services at every level by creating conditions that allow the community to both contribute to and take ownership for the services. The family, school, and pagoda should be the focal point for implementing Primary Health Care at the village.

23. In its general approach, the policy document emphasizes among others the importance of prevention and comprehensible information, closely associated with treatment according to needs. The importance of grass roots level services for villages without health centers is stressed. They need to be accompanied by an effective referral system. The document further underlines the need for increased participation of all levels in the implementation of policies and the development of standards. Finally, in accordance with Strategy 12 of the NSEDP, the implementation of a health insurance system should ensure equitable access to health services for the population at large and especially for the poor and small ethnic groups. Relationships and coordination with other sectors (e.g. education, agriculture etc), mass organizations as well as with multilateral and bilateral donor agencies and with NGOs should be brought to maximum effectiveness and impact.

24. Hence, there is a complex framework of overall and social development policies and strategies. The role of health in national development is fully recognized, including the importance of health care for women and children and for small ethnic groups. However, there remain gaps in health policies, particularly in defining health standards for different levels of health care, in the context of PHC and health rights. A new Curative Law on health care is currently before parliament that addresses medical ethics and health rights of clients and health workers.

25. Other major policy gaps are in increasing overall investments in health, with a particular focus on financing non-salary recurrent costs, effective implementation of the health

plan within the NSEDP and for donor coordination in health. The *Health Strategy up to the Year 2020* and the PHC Policy provide the Government's vision and directions for the health sector. The PHC Policy however, does not provide concrete methods, models or systems for promoting PHC activities. The formulation of such methods, models and systems needs to build on the experiences of various projects. Their implementation needs knowledge and capacity building of health officials at provincial and district levels.

26. The integration of vertical programs into PHC has been Government policy for several years, but has not yet been implemented at all levels. The PHC approach involves horizontal integration of all basic health services at the community, health center, district and provincial levels and involves the community in planning and management. This remains the main strategy for sustaining availability, accessibility, quality, continuity and equity in health care. Integration results in better implementation efficiency, less specific accountability, and increased cost-efficiency.

27. Technical competency needs to be improved through the application of evidence-based treatment guidelines, effective mentoring, supervision and monitoring as well as continuing medical education for health care providers. There are inadequate linkages of decentralization policy with program planning and implementation. Institutions need to be strengthened to respond to the new requirements and organizations at the provincial and district levels. Additional policies and strategies may be needed to strengthen decentralized health system performance including integrated PHC, HRD, health financing and cost recovery, and health and nutrition promotion.

28. The Government has adopted the Millennium Declaration of September 2000 and is committed to achieve the *Millennium Development Goals* MDGs. Their achievement will require significant investments, which have not yet been quantified. The progress report of January 2004 provides available indicators and the defined targets for the goals. The report does not comment on the likelihood for the individual goals to be achieved. Given current trends, several health related goals are unlikely to be achieved.

C. Key Areas and Issues

1. Human Resource Development

29. Human resource management issues are related to the number and quality of personnel in the health sector at the district and village level**.** While the NSEDP puts priority on the quality and distribution of the health workforce, issues in human resource development relate to their production, deployment, retention and continuing development. HR policies and guidelines are needed in the areas of staff development and training, recruitment, performance appraisal, benefits and allowances. There is also need to develop provincial level HR Plans, reflecting national priorities while responding to specific local needs. At this time there is no comprehensive, health sector specific HR Policy or long-term HR Plan with a strategic focus. The basis for long-term HR planning must be the achievement of MOH service standards at the different facility levels. The MOH has developed guidelines or staffing standards for some facilities, but these are relatively ambitious, and a gradual approach will need to be taken in reaching these. The capacity of the MOH Organization and Personnel Department to provide leadership in the development of national HR policy and plans and innovation in human resource management is limited and needs further development.

30. In March 2005, there were 11,037 active personnel employed in the public health sector, with another 484 employed but absent for study purposes[16]. 20% of active staff was high level, 34% were mid level, and 45% were low level. In addition to MOH personnel, there are an estimated 20,107 volunteers or traditional health care providers working in Laos. A

[16] MOH. 2005. Statistics on Health Staff in Lao PDR, 2005

total of 5,452 health personnel were employed by the Lao military and police services. There is also a small private sector workforce, employed in the estimated 254 private health clinics in the country[17].

31. Separating public and private sector employees is difficult, as many private clinics are operated by MOH staff after working hours. The ratio of MOH staff to population has remained relatively constant over the past 10 years, and is not likely to increase significantly in the near future due to Government civil service recruitment policies. Government health personnel are distributed between central (19%), provincial (33%), district (39%) and village or health center (10%) levels. There are staff gaps in Health Centers and District Hospitals, with a third of District Hospitals in some areas without a doctor on staff[18]. There are also gaps in skills in areas of health services such as laboratory, pharmacy, blood bank and some medical services in many Provincial Hospitals. The mix of staff in Laos shows a relatively high ratio of doctors to mid-level staff (1 doctor: 1.7 nurses, midwife or medical assistant). High ratios of doctors to mid-level staff have been associated with health system inefficiency[19].

32. Current salaries of MOH health workers are less than their costs of living. Most health workers need to undertake secondary occupations to generate sufficient income to survive, creating a potential for conflict of interest between their MOH and private work. Low salaries and lack of specific financial incentives for rural and remote postings contribute to the difficulties in distributing staff effectively. There is widespread recognition that many MOH staff are not working at their full capacity due to low utilization of government facilities, or are not capable of achieving a high standard of performance. Many factors influence performance, including the individuals' knowledge and skills, their motivation, the supplies and equipment they have available to do their work, and the quality of leadership and management they receive.

33. The pre-service training for high level staff takes place at the National University of Laos, Faculty of Medical Science in Vientiane. The College of Health Technology in Vientiane provides pre-service training for mid-level health workers and post-basic Bachelor degrees for nurses. Mid-level Technical Nurses, and the new Primary Health Care (PHC) Worker category, are trained in regional Public Health Schools located throughout the country. There are also institutions, such as the National Institute of Public Health, that provide post-basic short-courses and post-graduate training for health workers.

34. The Government recently allowed institutions to accept fee-paying students in addition to their quota students. There has been a rapid increase in intakes into pre-service training programs since. There is evidence of overproduction of graduates, with many graduates unable to find health sector jobs. In-service training of government health workers is generally funded by donor agencies, and so tends to be ad hoc and program focused. The MOH Organization and Personnel Department provides oversight, with prior approval required for all training courses. Efforts to upgrade staff skills have had mixed results, with many constraints encountered. There is limited training capacity, including a lack of skilled health personnel educators, which contributes to the overemphasis on theory, rather than practice, during many in-service training courses. There is little follow-up of trainees to support them in applying their new skills in the workplace, and to assess training outcomes and impact[20].

[17] MOH Department of Curative, personal communication, March 2006
[18] PHCEP. 2004. Health Facility Survey 2004
[19] JLI. 2004. Human Resources for Health, overcoming the crisis, Harvard University Press
[20] PHCEP/John Storey. 2004. Final Report of the Consultancy in Education & Training

2. Health Care Financing

35. Total health expenditure for Lao PDR from all sources (government, donors and households) is estimated at US$7.38 per capita in 2002/03, which is very low compared to other East Asia & Pacific countries (US$63), other Low and Middle Income countries (US$73), other Low Income countries (US$29), and to levels in neighboring countries. Total health spending is extremely low and donors and households play an important role in financing the health sector. Total health expenditure decreased from US$21.7 million in 1999 to US$13.1 million in 2003 as a result of the decline of both foreign-financed and out-of-pocket household health expenditure. As a percent of GDP, domestically financed government health expenditure was about 0.4%[21] during the period FY01-FY02. Similarly, domestically financed government health spending was about 2.7% during the same period. Total government health expenditure as a percentage of total government expenditure is low compared to many low and middle-income countries, with the exception of Vietnam, where it is also about 6 percent[22].

36. By economic category, 2003 estimates indicate that capital expenditure, drugs, and personnel salaries accounted for majority of total health spending, representing 39%, 34%, and 12%, respectively, of total health expenditure. There has been an inverse shift in expenditures from drugs to capital expenditure during the period 1999 to 2003. Nevertheless, this leaves government health facilities with very little resources to pay for operation and maintenance.[23]

37. As the share of recurrent expenditure is low, average salary is too low compared to other developing countries in the region even though it accounts for large share of recurrent spending. By funding source, foreign-financed and households comprised about 60% of total health expenditure, with central MOH and provinces. Private (households) spending primarily comes from user fees and drugs (through revolving drug funds/RDF[24] at hospitals and health centers). Cost recovery has been implemented in Lao PDR since about 1992, mainly through the sale drugs financed through facility-managed revolving drug funds. User fees are also collected for some services in government hospitals and health centers[25]. In fact user fee-financed expenditure accounted for a larger share of total public health spending in 2002 than domestically financed government spending. MOH estimates that more than 50% of operational costs of central and provincial hospitals and 33% in district hospitals are currently being met by cost recovery. It should be noted that household spending on drugs account for about 90%. No subsidies are provided for the poor even though there are exemption policies in cost recovery.

38. Per capita government health spending varies considerably among provinces. On average, capital expenditures account for a large part of provincial health expenditures (70% in FY 2001-04). Capital spending has increased sharply during the past few years due to substantial increases in external donor funding. Similar to aggregate health spending, the omission of provincial spending financed by user fees and external donors in the accounts actually distorts the capital-recurrent classification of provincial health spending. Provincial and district hospital currently cover more than 50% of their operation costs from user fees. If user fees are added, capital cost could account for 50% of provincial spending on health.

[21] Total government health expenditure is equal to about one percent of GDP, which is low compared to other East Asia & Pacific countries (1.9 percent), other Low & Middle Income countries (2.7 percent), other Low Income countries (1.5 percent) and even compared to neighboring low-income countries

[22] Jim Knowles, Lao PDR - Public Expenditure Review (Draft), 2006.

[23] The health system has to rely on out of pocket payment for health care to finance its operations.

[24] Under the current DRF-based system, the level of cost recovery in Lao public hospitals is relatively high compared with other countries in the region. This may be a reflection of low salaries paid to hospital personnel and low level of government funding of hospitals.

[25] Government policy on user fees, including exemptions of certain groups from having to pay user fees, is based on the Prime Minister's Decree No. 52 issued on 26 June 1995 and by Implementation Guideline No. 2635 issued by the Ministry of Health on 12 December 1995.

Provinces spend only 7.8% of total government allocations to health indicating the low government commitment to the health sector. More than two thirds (70%) of government recurrent health expenditure goes to salaries and the rates are quite similar among provinces.

39. The Lao health system is seriously under funded public health system with substandard care due to chronic resource constraints, and limited private sector participation in health sector financing, Health sector problems result also from the inefficient use of resources emanating from both domestic and increasing levels of foreign aid. Health financing also relate to affordability issues, i.e. the poor and near-poor do not have equal access to health services, do not have enough money to pay for services, and there is not enough money to provide them free services. Public health care services in Lao PDR generally are underutilized, and affordability of services, especially for the poor, may be responsible for much of this underutilization. Moreover, the utilization of health services is inequitable. Data from the PHCEP 2004 household survey, for example, indicates that only 10% of the poorest quintile of households sought health care at provincial hospitals compared with 33% of the wealthiest quintile of households.

40. Sustainability issues, where central and local governments have insufficient budget or do not appropriate resources for health, inhibits the reach of health programs and their ability to include ethnic minorities. Government resources are limited and their allocation is inefficient. Budgetary resources are overly allocated to curative rather than preventive services and to capital rather than recurrent costs. The existing cost recovery policy prevents the poor from fully utilizing health services. In planning and budgeting, resources primarily fund vertical programs and budgetary resources are not integrated, particularly at provincial and district levels. Budgetary allocations often do not reflect national and provincial plans and programs Provinces can contribute some of their resources, but there is a need to make the whole system more efficient.

41. Strong and systematic advocacy will be needed to convince local decision makers of the need to maintain, and if possible increase, resource allocations for operational costs of and investment in nutrition services. Empirical studies show that most of the previous nutrition projects fail or had low compliance due to lack of nutrition knowledge and motivation of the target beneficiaries. The need for education and advocacy among political leaders and policy makers to make them aware that poor sanitation and hygiene and food choice are equally responsible for poor nutrition outcomes in order to generate support for investment in behavioral change. The government's strategy for overall funding of the health sector given in the NSEDP is to improve the overall efficiency of the health system through donor coordination, ensuring appropriate recurrent and investment expenditures and enhancing resource mobilization, improving the health management and health financing structures of the country, introducing and sustaining health insurance and pro-poor health equity schemes.

3. Primary Health Care Systems

42. The Government's four basic concepts for health development are: full health care service coverage and health care service quality; development of early integrated health care services; demand-based health care services; and self-reliant health care services. In line with this, the Government of Lao PDR introduced the Primary Health Care (PHC) Policy 2000 to strengthen the quality of health services, and ensure that services are expanded to improve access for all people, including the poor, and those from ethnic minorities and remote regions. The PHC policy seeks to give more attention to vulnerable groups, including women and children, and generate equitable access to health care services for everyone in the society. The government health policy puts emphasis on both prevention of disease and curative care. The Government Policy is to make primary health care a social movement with the whole society participation.

43. The Government's vision for primary health care in Lao PDR[26] includes the following: (i) high quality PHC personnel are being trained to staff district, health center and village facilities; and have adequate incentives for performance when they assume positions in the PHC system; (ii) a high standard and quality of service is maintained at all facilities and programs; (iii) PHC services (VHVs and Village Health Providers) and programs (Peer Education and Community Participation) are available in all villages; (iv) vertical programs have been integrated into comprehensive PHC programs at the provincial level down to the village level to improve efficiency; (v) planning and implementation have been devolved to provinces and districts; (vi) a Provincial Strategic Investment Plan, that sets performance and investment targets for a five year period, guides program implementation and investment in each province; (vii) an integrated Operational Plan and Budget with quantifiable performance targets and budget parameters guides annual program implementation for each province, independent of donor contributions to vertical programs.

44. The basic components of PHC are integrated and interrelated. These include improvements in quality and expansion of the health facilities network. The integrated PHC package of services consists of 12 basic health services. These are safe motherhood (antenatal care, attendance at birth, postpartum care); young child nutrition (breastfeeding promotion, growth monitoring and promotion, micronutrient supplementation, deworming, child care); immunization, control of diarrheal diseases, acute respiratory infections, malaria, tuberculosis, reproductive health (family planning, birth spacing, STD/HIV/AIDS); safe drinking water and sanitary latrines, health and nutrition education and promotion; and essential drugs through VDKs and RDFs)

45. The first ADB-funded Primary Health Care Project was implemented from 1995 to 2000, helped develop PHC in two provinces (Xieng Khouang and Oudomxay) and the PHCEP Loan 1749 (2000-2006) focus on expanding the PHC network in the eight Northern Provinces. When the PHCEP will have been completed in December 2006, there will be an expanded PHC network in place in the eight Northern Provinces. However, while additional PHC facilities with some better qualified and trained staff are in place, the systematic delivery of services is still a challenge. Physical access has improved, in general, but important barriers to health care include quality and affordability of care, delivery and demand for health services, in particular for vulnerable groups including women, the very poor and ethnic minorities.

46. A substantial network of hospitals, health centers and volunteers with drug revolving funds has been established in the eight Northern provinces with the help of ADB and other agencies, and similar efforts are ongoing with the help of other donors in the central and southern provinces. However, these services remain under-utilized for many reasons, including lack of integration and sound management of services, and problems with demand, quality and affordability of care. Health-seeking behavior and utilization of services is strongly affected by issues such as poverty, gender, ethnicity and affordability.

47. Nation-wide, only 24% of people have recently visited any level of health facility. In the North, about 18% have recently visited a health facility (HHS, 2004). Reasons for the low levels of utilization include poor quality of services, user fees, socio-cultural barriers and the difficulty of access for many villagers.[27] In villages with village health volunteers and drug kits, utilization of their services increased by 67% and is second in preference only to home-made medicine (PHCEP HHS, 2004).

48. Affordability of health services, particularly for the poor, is determined by the availability of cash, for transport and food, care of children, and other out-of-pocket expenses, not just for payment for health services fees. The poor and those living in more remote rural ar-

[26] Thomas D'Agnes, Final Report of Consultancy, Primary Health Care Expansion Project , ADB Loan 1749-LAO (SF) 18 August 2004

[27] Ernst and Young, Evaluation of Luxembourg Cooperation Projects in the Health Sector, April 2005

eas with less road access and less access to safe water and sanitation have lower health status and less access to health services. The LECS III Survey of 2002/2003 showed that 33.5% or 1.8 million people, nation-wide, are living below the official poverty level. In the Northern provinces, the percentage is 37.9% consisting of about 800,000 people. Women's health services have very low levels of utilization. Women with little or no education and with low literacy, women living in rural areas, women who are poor and women who belong to ethnic minority groups receive less health care meant for women only. Less than 2 out of 10 pregnant women give birth with a skilled attendant present and nearly 9 out of 10 mothers deliver at home[28]. The majority of pregnant women living in the rural villages of Laos have no access to emergency obstetrical care. These are the main reasons for the high maternal mortality rates in Laos.

49. Early child nutrition services are not available to the majority of young children. Exclusive breastfeeding is not widely practiced, growth monitoring and promotion programs are not available in rural villages and access to acceptable complementary feeding after six months. Vitamin A capsule distribution reaches only 30% of children under 5 years old.[29] Immunization service delivery throughout the country is very low, primarily because the EPI program has been having organizational and management problems. EPI funding is close to adequate; vaccines are sufficient for national demands and staff numbers are sufficient for service delivery. However, the translation of policy into practice has been slow and fragmented, management at all levels is in need of strengthening, access to immunization services needs improvement, awareness and demand are poor and staff quality is inadequate.

50. Community participation is lacking in the health care system, although Government Policy states that primary health care should become a mass social movement. The private sector and CBOs/NGOs (e.g. LWUs) do not participate substantially and contribute little to the program activities. Community-based organizations and mass organizations have not been mobilized or given responsibilities for community participation in the health system. Focused programs need to be developed using community channels based on village volunteers and peer educators reach the rural population. This involves development of innovative and local-specific preventive and curative guidelines utilizing existing structures at the community level. These measures should include nutrition promotion and health education.

51. Decentralization has been mandated through the Prime Minister's Directive 01 of 2000, with the Provinces designated as the strategic units, districts as the planning and budgeting units, and villages as the implementation units. The PHO and the Provincial Hospitals (PH) will need to offer mentoring, monitoring and supervision and to provide the link for health referrals and resource mobilization. Identified weaknesses of the PHOs include: low input of recurrent expenditures; wasteful resource utilization; dependence on foreign assistance; inadequate planning and budgeting and health finance systems; irregular supervision, monitoring and evaluation; delay in report submissions; non-transparent decision making system in health management; poor job descriptions of health staff; low quality of health staff; and weak health services delivery in primary health care. The issues that remain to be addressed include: (i) guidance regarding programmatic priorities, budget ceilings, among others, prior to undertaking planning and budgeting; (ii) the use of performance indicators as the basis for budget requests; and (iii) stronger participation of district and village levels in the various phases of planning and budgeting.

52. The district health system in Laos remains underdeveloped, despite decentralization. Identified areas of weaknesses of the DHOs are: inadequate skills in integrated planning, investment and budgeting, data analysis, supervision, monitoring and evaluation, report writing and coordination. There is a need for health sector reforms at the district level to address the health needs of the poorest and most disadvantaged women and children. Many preven-

[28] PHCEP Household Survey, 2004
[29] PHCEP Household Survey, 2004

tive health services, such as immunization, family planning, MCH, malaria control, TB, vitamin A capsule distribution, etc. are provided through vertical programs supported by foreign donors collaborating with central MOH agencies and implemented at the provincial and district levels. This creates inefficiencies in the delivery of services, including overlap in the use of personnel, transport, equipment and supplies, and opportunities lost for collaborative multi-sector service delivery. A PHC approach integrating all basic health services at the community, health center, district and provincial levels has been mandated by the MOH and is necessary to improve accessibility, quality and sustainability of services.

53. High maternal mortality and high prevalence of malnutrition among young children call for increased effectiveness in the delivery of health services for safe motherhood and early childhood nutrition. These issues need to be addressed at the village and community level with support from health centers and district. At the health centers and community levels, support is needed for greater community participation and organization of community-managed health and nutrition promotion programs. Village health volunteers, peer educators, and village representatives of the three Lao National Unions are the prospective managers for these community-based health programs.

4. Health Planning and Budgeting

54. While the decentralization of health services in 2000 devolves management responsibilities to lower levels of public administration to expand ownership and to improve responsiveness to local needs, the capacity to carry out most functions (including health policy and regulation, sector planning and budgeting and program implementation, information collection and analysis, financial management, and monitoring and evaluation) is still weak. There are inadequate linkages between the vertical lines of management (from MOH and vertical programs to the Provincial Health Office (PHO) and District Health Office (DHO), and respective hospitals and the horizontal lines of provincial and district management. The vertical Primary Health Care (PHC) programs, as well as inadequate hospital management, all have contributed to the fragmented health system and information that hamper effective planning and budgeting. Actual budgetary allocations are thus not reflective of the strategic plans prepared by the PHOs and DHOs. Moreover, donor contribution and private (community) participation in health is not accounted for at provincial and district levels. Autonomy needs to be balanced better with national policies.

55. Investment in the health sector is carried out within the framework established by the Committee on Planning and Investment (CPI) and under the responsibility of Planning and Budgeting of MOH. Budgeting is carried out within the framework of directives from the MOF. Long-term plans and operational plans and budgets are produced with the context of the adoption of the national budget. The issues relating to public financial management and health information contribute to difficulty in planning and budgeting. Existing treasury management causes late payment of salaries and delays in procurement. There is need to improve: (i) the quality and linkages among these different plans; (ii) develop more detailed, disaggregated estimates of the types and sources of financial resources available to and expended by the sector; and (iii) increase the participation of the provinces and districts in the planning process. Recent fiscal[30] and financial management reforms are underway to unify government accounting systems, introduce performance-based financial systems, fiscal (revenue) centralization and (expenditure) decentralization and treasury consolidation, and financial accountability and auditing.

56. The politico-administrative context is challenging for improving governance. Local accountability is limited and generally operates in an upward manner. Resource allocation

[30] Intergovernmental fiscal policy on surplus and deficit province units has resulted in weak control of revenue collection. This has compounded the current fiscal situation in Laos, which has adversely impact health sector budgets.

processes and decisions are generally centralized with limited transparency. The control and auditing role of the center is weak and the implementation of policies is often undertaken in an ad-hoc manner, with no effective involvement of civil society. The abolition of the formal tier of government at a level between village and district makes planning and management of service provision more difficult. Issues relating to public financial management and health information contribute to difficulty in planning and budgeting. Existing treasury management causes late payment of salaries and delays in procurement. There is need to: (i) improve :the quality and linkages among different long term and operational plans and budgets; (ii) develop more detailed, disaggregated estimates of the types and sources of financial resources available to and expended by the sector; and (iii) increase the participation of the provinces and districts in the planning process. Recent fiscal[31] and financial management reforms are underway to unify government accounting systems, introduce performance-based financial systems, fiscal (revenue) centralization and (expenditure) decentralization and treasury consolidation, and financial accountability and auditing.

[31] Intergovernmental fiscal policy on surplus and deficit province units has resulted in weak control of revenue collection. This has compounded the current fiscal situation in Laos, which has adversely impact health sector budgets.

APPENDIX 4: Program Conceptual Framework and Strategies

1. Support for the health sector should follow Government policy to decentralize strategy to the provinces, planning and budgeting to the districts, and implementation to the villages. It should strengthen and improve the quality of health care at the grass-roots level, particularly in underserved areas and for ethnic minorities, women and children. Support should reinforce the MOH's need for a results-based approach at the provincial and district levels and contribute to reach the MDGs of reducing maternal and child mortality and child malnutrition rates.

2. The new program to be supported by ADB should build on the experience and management capability that has been developed through ten years of ADB supported programs in Lao PDR as well as on the network of health facilities and trained personnel at all levels that have been developed through the PHCP and the PHCEP. These projects have built a system of proven project management capacity that can devolve responsibility to the provinces.

3. The Health Sector Development Program's (HSDP's) conceptual design is focused on the MOH transition towards a results-based public health system. Based on the national health strategy, the 2006–2010 Strategic Investment and Recurrent Expenditure Plan for the Health Sector, and the PHC policy, the HSDP will help to address structural and system issues in the health sector. Notably, it will emphasize the importance of improving the quality of care through HRD, village-based health and nutrition promotion, maternal and child care, strengthening district management and strategic planning at provincial level.

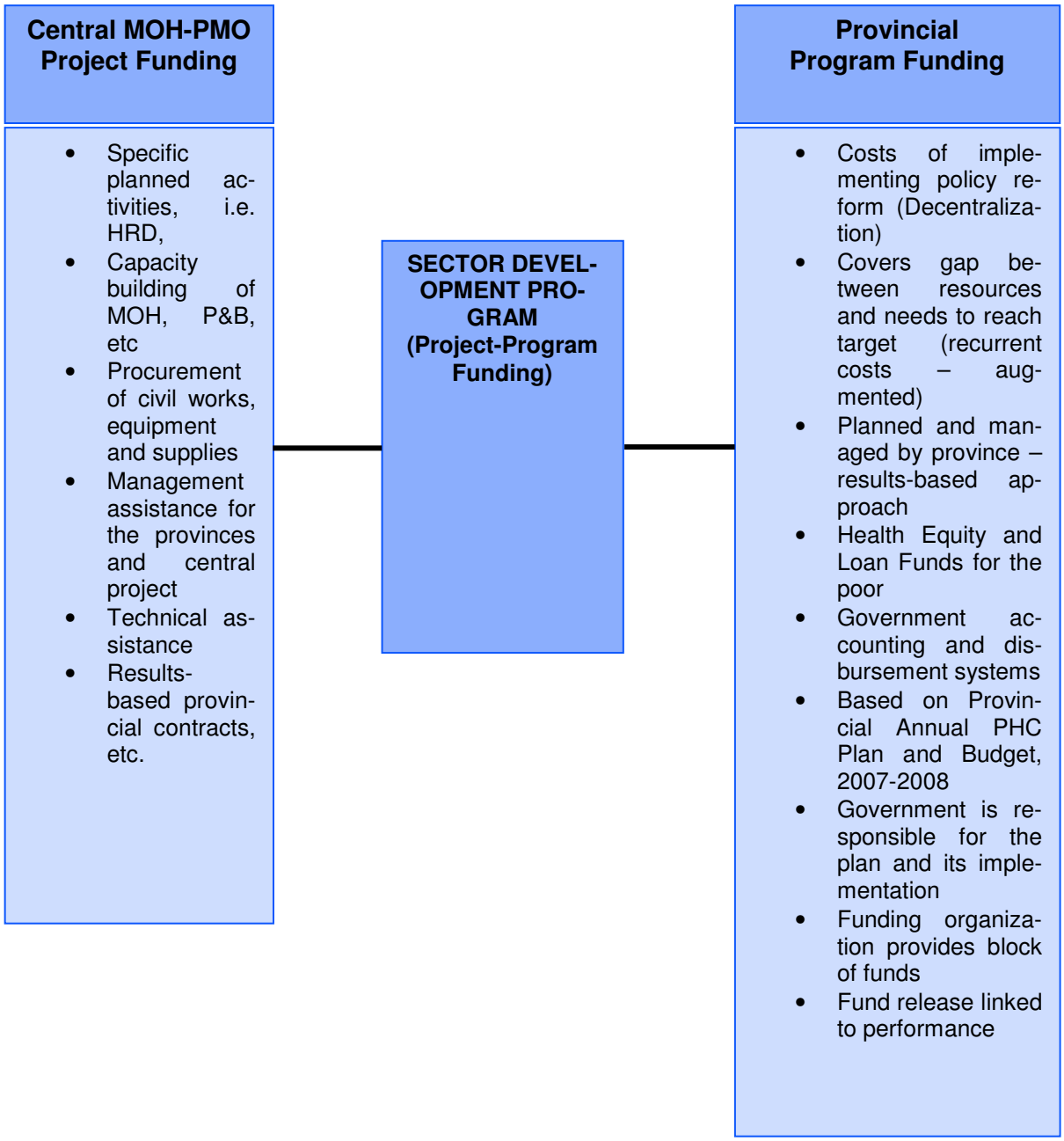
4. The *program component* of the HSDP would support several provincial health system development policies. Provinces would be provided with supplementary funding for improving PHC on the basis of comprehensive annual plans showing all sources and uses of funds. The program will aim to improve PHC coverage and quality of care through pro-poor equity funds, quality improvements, staff performance (rural staff allowances), and performance-based management. The program component will entail planning, accountability, flow and conditionality of funds, and the provincial interest and capacity for such an approach.

5. The *project component* of the HSDP would support improvement in these areas, including related policy analysis and financing studies, an Integrated Public Administration Unit (IPAU), and central activities for HRD, health systems development, and capacity building. Possible project components include: (i) Human Resource Development; (ii) Health Care Financing; (iii) Strengthening PHC Systems (iv) Planning and Budgeting. Consistent with the 6th NSEDP and health sector strategies, HSDP proposes the integration of vertical programs into PHC; health human resources development; health financing and affordability, community-based health and nutrition promotion, donor coordination, and effective and efficient performance-based integrated health budgeting and financing in a decentralized environment.

6. A *Health Sector Development Program* (HSDP) would combine both project and program support approaches in one assistance package. Provincial Program funding would support the costs of implementing policy reform by the MOH, the decentralization policy, and the policy of moving towards a results-based approach. It would cover the gap between resources and needs to reach the targets, covering the recurrent cost gap identified through the provincial strategic planning process. The Province will be responsible for planning and management of Program Funding through the development of the Provincial Annual PHC Plan and Budget and for managing the provincial health program and achieving the agreed targets.

7. MOH-PMO project funding would support specific planned activities such as HRD, skills development, quality control, etc. MOH-PMO project assistance also would support activities to build capacity in the MOH Planning and Budgeting Department and other areas.

MOH-PMO also would provide management assistance for the provinces and the central portions of the program and for the organization and implementation of the HSDP and also technical assistance to support the entire effort. MOH-PMO project funding would procure equipment and supplies and civil works. This relationship can be shown as follows:



APPENDIX 5: Detailed Description of Components

THE PROPOSED HSDP COMPONENTS:

1. Human Resource Development
2. Health Care Financing for the Poor
3. Primary Health Care Services
4. Planning and Budgeting

COMPONENT 1 – HUMAN RESOURCE DEVELOPMENT

Sub-component 1: Strengthening institutional capacity for HR policy, planning and management

1. The Project seeks to increase the capacity of the MOH, and the health system at all levels in the targeted provinces, to deliver accessible and affordable quality health services. This sub-component will contribute to the achievement of this outcome at national and provincial levels. Human resource policy, planning and management are key elements in improving access to and quality of public health services, with consequent increases in utilization of these services.

2. The Project will support development of MOH capacity for human resource policy, planning and management through several interventions. At the national level, the MOH Department of Organization and Personnel (DOP) will be the focus of training and introduction to international workforce policy, planning and management practices. The MOH has established a HRD Taskforce, chaired by DOP, and including representatives of other relevant MOH Departments. Expansion of this Taskforce to include other GOL stakeholders such as Ministry of Education, and key partner or donor organizations will enable it to function as a coordinating body for HRD in the health sector. Regular Taskforce meetings will be supported, to assist the DOP in development and implementation of policy and plans.

3. The MOH intends to develop HR Policy and a long-term strategic HR Plan in 2007. The Project will provide technical assistance and financial support for this activity and subsequent review of the implementation of the plan. The Project will support a national survey of health staff to ensure the accuracy of data for the HR Plan, and will assist the MOH in strengthening their Human Resource Management Information System to improve future workforce planning and management capacity. Based on national HR Policy and the MOH HR Plan 2007 – 2016, provincial HR Plans will be developed in target provinces with Project support. Provincial HR Plans are required to enable provincial managers to take a longer term strategic approach to recruitment, training and distribution of staff, based on an analysis of staffing needs at the facility level.

4. To complement the GOL's civil service reform agenda, support will be given to the MOH for finalizing job descriptions at provincial level and below, development and implementation of performance appraisal tools, and revision of the MOH Manual on Organization and Management of Health Personnel. At the provincial and district levels, the Project will support the training of managers in use of the new tools and procedures.

Sub-component 2: Improving staffing of rural health facilities in target provinces

5. The Project will address staff and skill shortages in rural and remote Health Centers, District Hospitals and understaffed Provincial Hospitals through targeted educational strategies with a focus on long-term sustainability. A Working Group will be established to identify staffing gaps in Health Centers, District Hospitals and Provincial Hospitals in target provinces. Based on priority staff or skill gaps identified, scholarships will be provided for local MOH staff to upgrade their qualifications or improve their skills, or for local high school graduates to participate in training as health workers, under contract to return to work in their home village or district after graduation.

6. In an effort to increase the quality of staff in rural Health Centers, and their social and cultural compatibility with the community served, the MOH introduced PHC Worker training in 2002, with support from ADB PHCEP. The success of this approach in staffing Health Centers has been well demonstrated, and continued support will be provided under the Project. The active recruitment of students from remote and ethnic areas to PHC Worker train-

ing will be promoted through the provision of scholarships for bridging courses for students who do not already meet the education pre-requisites for entry into the course. Scholarships will be provided to PHC Worker trainees to enable the MOH to reach its target of 1 – 2 PHC Workers per Type B Health Center, and 2 -3 per Type A Health Center.

7. The MOH intends to implement a mid-level training course for a category of PHC staff similar in scope to a Medical Assistant, with a focus on improving the quality of health services in Health Centers and District Hospitals. The new category of staff will have strong clinical skills along with good management capacity. The ADB PHCEP provided initial support for planning and development of the facility in Luang Prabang. The Project will support the MOH in furnishing and equipping the facility, finalizing the concept and job description for this category of staff, development of the curriculum, training of trainers and implementation of the pilot course. It is envisaged that this facility will act as a Regional Training Institution for Primary Health Care, and will facilitate the strengthening of clinical, preventive and management aspects of PHC in the North, with a focus on District and Health Center levels. It will provide short-course training in addition to pre-service training of PHC health workers.

Sub-component 3: Improving staff performance

8. This sub-component will contribute to the Project outcome of building capacity to deliver quality health services, with a specific focus on services in rural areas. Higher quality of health services will be achieved through improved performance of village, health center and district hospital staff. Village health volunteers, health center and district hospital staff requires further training to acquire specific skills needed to improve their performance in the delivery of preventive and curative health services. The Project will support this by building the capacity of provincial and district trainers, training needs assessments based on job descriptions, the development of annual provincial training plans, and the delivery of in-service training.

9. In addition, the Project will support the strengthening of leadership, management, coordination and implementation capacity within the health worker training system at province, school, and national levels, impacting on pre-service, post-basic and in-service training nation-wide. Technical assistance will be provided to develop standards for training, review selected curriculum, conduct tracer studies of graduates, strengthen the in-service training system, develop standard in-service training modules on key topics, and to support overall quality improvement of health worker education and training.

10. Cost-effectiveness and relevance of in-service training will be increased through support for more effective decentralization of training. Capacity building is required to ensure the quality of a decentralized system. The Project will build training capacity of district and provincial training teams with a focus on increasing skills in participatory teaching methodology, clinical teaching methodology, training needs assessment, educational planning, management and evaluation. The system will be further strengthened through the introduction of a continuing education coordinator role within the Technical Section of each Provincial Health Office, and training of the staff assigned this role.

11. Safe Motherhood has been identified as a priority by the MOH. The Project will support the MOH in activities to increase the quality of first-level maternal and newborn care. In particular, the Project will support training to increase the skills of nurses, midwives and PHC Workers posted to Health Centers, District and Provincial Hospitals in the target areas. The strategy first builds national capacity for midwifery training by supporting a core group of midwives to participate in an intensive training course at an international hospital to improve their clinical skills. These midwives will become leaders in the development and implementation of a post-basic midwifery course for nurses and PHC Workers. The course will be offered by the Public Health Schools, to increase access for rural health workers. In addition, a

short-course competency based midwifery skills training course will be supported to respond to the immediate need for action to improve the skills of staff currently providing services in rural areas. These Project activities will complement the training of doctors and paramedical working at District and Provincial Hospitals to increase their capacity to provide back-up maternal and newborn care, addressed under Sub-Component B.

12. It is recognized that supportive supervision is a key human resource management tool, contributing to the quality of staff performance and health service delivery by assisting in problem solving, providing on-the-job training, and improving staff motivation. The Project will provide financial support for ongoing supervision between province, district, health center and village levels within the health system, and will provide training of supervisors as required.

Implementation Plan - HRD

Component: Human Resource Development (1)

Sub-Component: Strengthening institutional capacity for HR policy, planning and management (1.A)

Output: Capacity of MOH DOP to provide leadership in HR policy, planning and management increased (1.A.1)

Strategies:
The Project seeks to increase the capacity of the MOH, and the health system at all levels, to deliver accessible and affordable quality health services. Effective human resource policy, planning and management are key elements in improving access to and quality of public health services, with consequent increases in utilization of these services.

The MOH Department of Organization and Personnel is the Department responsible for providing leadership on HR issues. The MOH has identified a number of important areas for action on HR in the immediate future. These include the development of HR Policy, a long-term national HR Plan, and Provincial HR Plans; strengthening capacity and mechanisms for effective management of human resources; and improving coordination of stakeholders.

Objective:
The objective of this output is to build the capacity of the MOH DOP to provide leadership in the development and implementation of HR Policy, HR Plans, and innovations in HR management.

Description:
The Project will achieve this objective through provision of technical assistance to the Department, international scholarships for selected DOP staff to undertake Masters Degrees in human resources, and attachments for selected staff to learn from the experiences of MOH HR Departments in neighboring countries. While 4 DOP staff have Masters Degrees in Public Health, none have HR specific qualifications. English language skills are a pre-requisite for international study, for effective communication with international partners, and for review of international HR research and literature. English language training will be supported for DOP staff. The Department is currently under-resourced, and the Project will provide equipment and resources necessary for effective operation.

Performance measures:
- Scholarship awarded and studies completed
- 15 staff with improved English language skills

Activities:

Activity 1 International technical assistance for HR policy, planning & management
An international consultant with expertise in HR policy, planning and management will be recruited for a total of 12 months, in divided inputs, over project years 1 and 2. The consultant will work with the DOP in achievement of all outputs under sub-component A: “Strengthening institutional capacity for HR policy, planning and management”, and to support them in other priority activities that arise.

Activity 2 Scholarship for Masters in HR / HRM at regional university
One DOP staff member will be selected to undertake a Masters in HR / HRM at a regional university.

Activity 3 Attachments to MOH HRD Departments in neighboring countries
Four staff from DOP will be selected to participate in a one month attachment / placement with an MOH HRD Department in a neighboring country in Project year 1. The attachment will allow them to experience the approaches, procedures and mechanisms used by other countries to plan and manage their health workforce.

Activity 4 English language training for DOP staff
All interested DOP staff will be given the opportunity to participate in part-time English language training at Vientiane College.

Activity 5 Computers for DOP
The DOP Divisions of Personnel Organization and Education and Training will each be provided with 1 laptop computer, to give them computer capacity while on supervisory visits to provinces and when outside the office. In addition, 1 desktop computer will be provided to each of these Divisions, and the Division of Staff Welfare, to support effective communication, research and other tasks.

Activity 6 Photocopiers
Two photocopiers will be provided for the DOP, to support improved HR policy, planning and management. Photocopiers will be provided during Project year 1.

Activity 7 Library / journal subscription / high speed internet connection
There are many HR resources available on the world-wide web. The DOP will be provided with a high speed internet connection for Project years 1 – 6 to allow them to access free resources, and to relevant cost-based journals if necessary.

Activity 8 Crew cab pickup
A crew cab pickup will be provided to the DOP in Project year 1. The pickup will enable them to undertake field visits / supervision to provinces.

Activity 9 Motorcycle
A motorcycle will be provided to the DOP in Project year 1. The motorcycle will be used for Department activities within Vientiane

Activities 10 – 16 Office and communication equipment and supplies

Responsibilities:
The PMO and the MOH will have responsibility for identifying and recruiting the international consultant to provide technical assistance to the DOP. The Director of the Department of Organization and Personnel will be responsible for identifying suitable staff from within the Department for Masters Scholarships and Attachments. The PMO will have responsibility for procurement of equipment.

Linkages:
Some activities, including Technical Assistance, have linkages to other Project activities in Sub-component 1.A, where national HR Policy, national and provincial HR Plans will be developed, and human resource management strengthened. Capacity built and equipment purchased will support the DOP in implementing all other Project activities.

Schedule:

Activity	2007				2008				2009				2010				2011				2012			
Technical Assistance																								
Scholarships																								
Attachments																								
English training																								
Computers																								
Photocopiers																								
Internet & library																								
Crew cab pickup																								
Motorcycle																								
Other equipment																								
Office supplies																								

Inputs (resources):

Activity	$ Per Project Year						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
Technical Assistance	132000	132000					264000
Scholarships for Masters		25000					25000
Attachments	20000						20000
English Training	12000	12000	12000	12000	12000	12000	72000
Computers	10000			10000			20000
Photocopiers	16000						16000
Internet & library	1000	1000	1000	1000	1000	1000	6000
Crew cab pickup	27000						27000
Motorcycle	1200						1200
Other equipment	9470						9470
Office supplies	4680	4680	4680	4680	4680	4680	28080
TOTAL COST	**233350**	**174680**	**17680**	**27680**	**17680**	**17680**	**488750**

Output: Development of national HR Policy and long-term HR Plan (1.A.2)

Strategies:
Existing GOL and MOH policies and identified priorities provide an appropriate foundation for the development of HR policy and directions for workforce planning, however current workforce data is not sufficiently complete, timely or accurate to provide the basis for effective workforce planning. It is essential that Policy and Plans are developed using a participatory approach with MOH leadership, to ensure ownership among stakeholders for implementation.

The strategy is to support the MOH, specifically the Department of Organization and Personnel, to develop HR Policy and a long-term national HR Plan using a participatory approach.

Objective:
The purpose of this output is to develop national MOH HR Policy and a long-term national HR Plan.

Description:
The Project will support the MOH to expand and utilize the HRD Taskforce to work with DOP and the international consultant in the development of HR Policy and the national HR Plan. In addition, a number of workshops will be conducted, to include other stakeholders in the

process, and to disseminate the final documents. Financial support will be provided for a national health workforce survey to collect data necessary for the long-term HR Plan.

Performance measures:

- MOH HR Policy developed
- National MOH HR Plan 2007 – 2016 developed

Activities:

Activity 1 HRD Taskforce meetings to develop HR Policy and Plan
The MOH HRD Taskforce is currently made up of representatives of key MOH Departments. The Project will support the expansion of this Taskforce to include additional stakeholders such as: College of Health Technology, Public Health Schools, National Institute of Public Health, Faculty of Medical Science, National University of Laos, MoE, PACSA, and major donors / partner organizations. Financial support and technical assistance will be provided for Taskforce meetings.

Activity 2 Workshops on HR Policy and Plan
Three two-day national workshops will be held to increase the participation of health service managers and providers at different levels in the health system in developing the HR Policy and Plan.

Activity 3 National survey of health workforce
To provide the current workforce data needed for development of a long-term HR Plan, a national survey of the MOH workforce will be undertaken during Project year 1. A local agency will be contracted by the PMO and DOP for the design, implementation, data entry and analysis of a facility level survey of staff.

Activity 4 Dissemination workshop for Minister and Steering Committee
A one-day workshop will be held to brief the MOH Steering Committee and the Minister of Health on the HR Policy and long-term HR Plan, and to seek formal approval.

Activity 5 Printing and distribution of HR Policy and HR Plan

Activity 6 International TA for review of HR Policy and Plan

In Project year 4, an international consultant will be recruited to assist the MOH in reviewing the HR Policy and Plan.

Activity 7 HRD Taskforce meetings to review HR Policy and Plan
Support will be provided for the HRD Taskforce to work with the international consultant on the review of implementation of the HR Policy and Plan.

Responsibilities:
The MOH Department of Organization and Personnel will have overall responsibility for this output. The MOH and PMO will identify and recruit an appropriate international consultant for the review of the HR Policy and Plan in year 4. The achievement of this output requires members of the HRD Taskforce to be willing and available to participate.

Linkages:
Development of HR Policy and Plans is linked to implementation of Sub-component B: “Improving staffing of rural health facilities” by identifying the number and type of staff needed at the different facilities in the target provinces.

Schedule:

Activity	2007				2008				2009				2010				2011				2012			
Taskforce meetings																								
National workshops																								
Survey of workforce																								
Dissemination wshop																								
Printing & distribution																								
TA for review of Plan																								
Taskforce meetings																								

Inputs (resources):

Activity	$ Per Project Year						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
HRD Taskforce meetings	7340						7340
National workshops	23781						23781
Survey of workforce	100000						100000
Dissemination workshop	340						340
Printing & distribution	2940						2940
TA for review of Plan				22000			22000
HRD Taskforce meetings				4404			4404
TOTAL COST	**134401**			**26404**			**160805**

Output: Development of provincial HR Plans (1.A.3)

Strategies:
The development of a National level HR Plan provides a framework for the development of Provincial HR Plans. Provincial HR Plans will provide the necessary detail to identify local staff needs by facility.

Objective:
The purpose of this output is to develop provincial HR Plans in the target provinces.

Description:
Based on national HR Policy and the MOH HR Plan 2007 – 2016, provincial HR Plans will be developed with Project support during Project year 2. Provincial HR Plans are required to enable provincial managers to take a longer term strategic approach to recruitment, training and distribution of staff, based on an analysis of staffing needs at the facility level. Workshops will be supported to orientate provincial managers to new HR Policy and the national MOH HR Plan, and to introduce them to the process for development of provincial HR Plans. Financial support will be given for provincial Working Groups and a visit by DOP or HRD Taskforce members to assist these Working Groups in drafting HR Plans. A regional workshop will be supported to finalize the provincial HR Plans.

Performance measures:
- 70% of target provinces have Provincial HR Plans by 2009

Activities:
Activity 1 Workshops to disseminate national HR Policy and HR Plan
The Project will provide financial support for 2 two-day workshops, one in Luang Prabang and one in Oudomxay, for managers in target provinces to be orientated to the newly developed MOH HR Policy, and the MOH HR Plan 2007 – 2016.

Activity 2 Workshops to introduce Provincial workforce planning process
The Project will provide financial support for 2 three-day workshops to follow-on directly from the Workshops in Activity 1. Five participants from each target province will participate. These participants will form the core of the provincial Working Groups established in Activity 3.

Activity 3 Provincial Working Groups
Each target province will receive financial support for the establishment of a Provincial Working Group to develop their HR Plan. The Working Group will include 5 provincial and 15 representatives from districts and health centers.

Activity 4 Provincial visits by DOP / HRD Taskforce members
In recognition of the difficulty of the task, and the limited provincial experience in workforce planning, members of the HRD Taskforce / MOH DOP will be funded to visit each province to support the Working Groups in developing Provincial HR Plans.

Activity 5 Workshop to finalize HR Plans
A 4 day workshop will be held in Luang Prabang to finalize provincial HR Plans.

Responsibilities:
The MOH Department of Organization and Personnel will have overall responsibility for this output. Provinces will implement the Working Group activity, and will be responsible for working with the DOP and HRD Taskforce to prepare and finalize their HR Plans. The PMO will monitor implementation.

Linkages:
The development of provincial HR Plans is linked to the preparation of MOH HR Policy and the national MOH HR Plan 2007 – 2016 under Output 1.A.2. Provincial HR Plans will contribute to the identification of training priorities for support under Sub-component B: Improving staffing of rural health facilities in target provinces, Output 1.B.4.

Schedule:

Activity	**2007**				**2008**				**2009**				**2010**				**2011**				**2012**			
WS on national Plan																								
WS on provincial Plan																								
Working Groups																								
Visits by DOP																								
Workshop to finalize																								

Inputs (resources):

Activity	$ Per Project Year						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
WS on national Plan		8000					8000
WS on provincial Plan		3300					3300
Working Groups		26720					26720
Visits by DOP		6400					6400
Workshop to finalize		3965					3965
TOTAL COST		**48385**					**48385**

Output: Development of provincial HR Plans (1.A.3)

Strategies:
The Project seeks to increase the capacity of the MOH, and the health system at all levels, to deliver accessible and affordable quality health services. Effective human resource policy, planning and management are key elements in improving access to and quality of public health services, with consequent increases in utilization of these services.

The MOH plans to develop HR Policy and a long-term national HR Plan. These are needed to provide appropriate direction for training, recruitment, deployment and management of MOH staff. National level planning provides a framework for the development of Provincial HR Plans. Provincial HR Plans will provide the necessary detail to identify local staff needs by facility.

Objective:
The purpose of this output is to develop provincial HR Plans in the target provinces.

Description:
Based on national HR Policy and the MOH HR Plan 2007 – 2016, provincial HR Plans will be developed with Project support during Project year 2. Provincial HR Plans are required to enable provincial managers to take a longer term strategic approach to recruitment, training and distribution of staff, based on an analysis of staffing needs at the facility level. Workshops will be supported to orientate provincial managers to new HR Policy and the national MOH HR Plan, and to introduce them to the process for development of provincial HR Plans. Financial support will be given for provincial Working Groups and a visit by DOP or HRD Taskforce members to assist these Working Groups in drafting HR Plans. A regional workshop will be supported to finalize the provincial HR Plans.

Performance measures:
- 70% of target provinces have Provincial HR Plans by 2009

Activities:
Activity 1 Workshops to disseminate national HR Policy and HR Plan

The Project will provide financial support for 2 two-day workshops, one in Luang Prabang and one in Oudomxay, for managers in target provinces to be orientated to the newly developed MOH HR Policy, and the MOH HR Plan 2007 – 2016. Three managers from each PHO and 2 from each DHO will be invited. The workshops will be facilitated by the MOH DOP and HRD Taskforce members

Activity 2 Workshops to introduce Provincial workforce planning process

The Project will provide financial support for 2 three-day workshops to follow-on directly from the Workshops in Activity 1. Five participants from each target province will participate – 3 from PHO and 2 representatives from a DHO – for a total of 20 managers in each workshop. These participants will form the core of the provincial Working Groups established in Activity 3.

Activity 3 Provincial Working Groups

Each target province will receive financial support for the establishment of a Provincial Working Group to develop their HR Plan. The Working Group will include 5 provincial and 15 representatives from districts and health centers. Four 2 day meetings in each province will be funded.

Activity 4 Provincial visits by DOP / HRD Taskforce members to support planning

In recognition of the difficulty of the task, and the limited provincial experience in workforce planning, members of the HRD Taskforce or the MOH DOP will be funded to visit each province to support the Working Groups in developing Provincial HR Plans. Each province will be visited by 3 staff, for a week, following the establishment of the provincial Working Group.

Activity 5 Workshop to finalize HR Plans

A 4 day workshop will be held in Luang Prabang to finalize provincial HR Plans. Five staff from each province who have been actively involved in the Working Group will participate in the workshop. This will provide an opportunity for provinces to learn from each other in the finalization of their HR Plans. The workshop will be facilitated by DOP.

Responsibilities:
The MOH Department of Organization and Personnel will have overall responsibility for this output. Provinces will implement the Working Group activity, and will be responsible for working with the DOP and HRD Taskforce to prepare and finalize their HR Plans. The PMO will monitor implementation.

Linkages:
The development of provincial HR Plans is linked to the preparation of MOH HR Policy and the national MOH HR Plan 2007 – 2016 under Output 1.A.2. Provincial HR Plans will contribute to the identification of training priorities for support under Sub-component B: Improving staffing of rural health facilities in target provinces, Output 1.B.4.

Schedule:

Activity	**2007**				**2008**				**2009**				**2010**				**2011**				**2012**			
WS on national Plan																								
WS on provincial Plan																								
Working Groups																								
Visits by DOP																								
Workshop to finalize																								

Inputs (resources):

Activity	$ Per Project Year						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
WS on national Plan		8000					8000
WS on provincial Plan		3300					3300
Working Groups		26720					26720
Visits by DOP		6400					6400
Workshop to finalize		3965					3965
TOTAL COST		**48385**					**48385**

Output: Strengthened HRMIS (1.A.4)

Strategies:
The strategy is to improve the MOH Human Resource Management Information System (HRMIS), as a key tool in effective HR planning and management.

Objective:
The purpose of this output is to strengthen the HRMIS at national level and in target provinces.

Description:
Timely, accurate, reliable and complete HR data will enable the MOH to identify and respond to HR issues quickly and appropriately. The Project will support specific capacity building within the DOP Division of Organization and Personnel, who have responsibility for the HRMIS. At the national level, the development of an expanded HRMIS database, compatible with PACSA requirements, will be supported, and assistance given for the design of a restricted access website to allow provinces and the central level to share workforce data. In the target provinces, computers will be provided as needed to allow the establishment of a provincial HRMIS, along with internet service to enable provinces to access the website and to email DOP staff data. Training of provincial staff in the new HRMIS and ongoing support from DOP to provinces is also funded to ensure sustainability.

Performance measures:
- Expanded national HRMIS established and operational
- 70% of target provinces have new HRMIS established by end of 2009

Activities:
Activity 1 Computers for DOP HRMIS
A desktop computer with adequate capacity will be purchased for DOP for use as a dedicated HRMIS computer. In addition, a laptop computer will be purchased for the HRMIS, to be used for provincial training and data collection during provincial visits.

Activity 2 Scholarship for Masters in HRM (Database)
A scholarship will be provided for a DOP staff member with responsibility for the HRMIS to undertake a Masters degree in HRM at a regional university.

Activity 3 Workshop on health workforce HRMIS form
A 2 day workshop will be held in Vientiane during Project year 1 to develop the HRMIS form.

Activity 4 Local contract to write database for HRMIS in Access + develop website
In Project year 2, a contract will be made with a qualified local firm or individual to write an expanded HRMIS database in Access that meets the MOH requirements. The database written must be compatible with the PACSA database. The firm or individual will also develop a restricted website on which the MOH can post workforce data for use by provinces and health facilities as needed.

Activity 5 Web hosting and maintenance of HRMIS website
The local firm or individual contracted in Activity 4 will also be responsible for maintaining the website to ensure it remains operational and is not compromised. A local internet service provider will be contracted to host the web site for the duration of the Project.

Activity 6 Pilot test HRMIS form

The HRMIS form developed in activities 3 & 4 will be pilot tested in selected MOH Departments, Centers and central Hospitals. Experience gained in the pilot test will be used to finalize the form and prepare it for printing.

Activity 7 Printing of HRMIS form
The Project will support the printing of 12000 forms in Project year 1, sufficient to distribute to all staff employed. Additional forms will be printed in years 2 – 6.

Activity 8 Workshops for central and provincial staff on revised HRMIS
In Project year 1, following on from the activities above, 3 workshops in Vientiane will be supported to orientate managers of large facilities, PHOs and DHOs to the new database and the revised HRMIS form.

Activity 9 Data entry of completed forms into the HRMIS
Information from completed forms will need to be entered into the new HRMIS. Funding will be provided for the DOP to hire temporary staff needed to enter data.

Activity 10 Computers for each target province for HRMIS
A desktop computer with adequate capacity will be purchased for each PHO for use as a dedicated HRMIS computer.

Activity 11 Provincial visits by DOP to set up HRMIS and train staff in use
In Project year 2, the DOP will be supported to visit each target province for 1 week to set up the HRMIS and train Personnel Unit staff to use it.

Activity 12 Follow-up visits by DOP to provinces to support HRMIS
To assist provinces in maintaining the HRMIS, keeping data accurate and up to date, and providing it in a timely manner to DOP, the Project will support DOP to visit each target province annually to provide the necessary assistance to the Personnel Unit.

Activity 13 Internet connection for target provinces for HRMIS
The Personnel Unit in each target province will be provided with an internet connection from Project year 2 – 6. This will allow them to access the HRMIS website, provide data in a timely manner, and communicate by email with the DOP.

Responsibilities:
The MOH DOP Division of Organization and Personnel will have technical responsibility for implementation of this Output, facilitating workshops, guiding the local firm or individual contracted to write the new HRMIS database, and training provincial staff. The PMO will procure the necessary equipment, and take administrative responsibility for the contract to write the HRMIS database and develop and maintain the website. Each PHO will take responsibility for maintaining the HRMIS in their province, and for reporting regularly to the DOP.

Linkages:
These activities are linked to activities to build the capacity of DOP in HR policy, planning and management, and development of national HR Policy, a long-term national HR Plan, and provincial HR Plans (Outputs 1.A.1, 1.A.2 and 1.A.3).

Schedule:

Activity	2007				2008				2009				2010				2011				2012			
Computers for DOP																								
Masters Scholarship																								
Workshop on form																								
Contract for Database																								
Web hosting																								
Pilot test HRMIS form																								
Print HRMIS form																								
WS to introduce																								
Data entry																								
Computers for PHOs																								
Province HRMIS																								
Provincial visits																								
Internet connection																								

Inputs (resources):

Activity	$ Per Project Year						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
Computers for DOP	4000						4000
Masters Scholarship			25000				25000
Workshop on form	280						280
Contract for Database	5000						5000
Web hosting	600	600	600	600	600	600	3600
Pilot test HRMIS form	500						500
Print HRMIS form	3600	600	600	600	600	600	6600
Workshops to introduce	8748						8748
Data entry	1800	1800	600	600	600	600	6000
Computers for PHOs		12000					12000
Province HRMIS		4360					4360
Provincial support visits		3240	3240	3240	3240	3240	16200
Internet connection		4800	4800	4800	4800	4800	24000
TOTAL COST	**24528**	**27400**	**34800**	**9840**	**9840**	**9840**	**116288**

Output: Strengthened mechanisms for effective HRM (1.A.5)

Strategies:
The Project seeks to increase the capacity of the MOH, and the health system at all levels, to deliver accessible and affordable quality health services. Effective human resource policy, planning and management are key elements in improving access to and quality of health services, with consequent increases in utilization of services.

The strategy is to improve the management of human resources, through the development, strengthening and implementation of HRM mechanisms such as job descriptions, orientation program, and performance appraisal tools.

Objective:
The objective of this output is to strengthen mechanisms for effective management of human resources at the national level, and support their implementation in target provinces.

Description:
The Project will support the MOH DOP in developing or strengthening a number of human resource management mechanisms or tools. Revision of the Manual on Organization and

Management of Health Personnel will be supported. Assistance will be given for the development of an orientation program for new recruits, and its implementation in target provinces. Job descriptions have been developed at the central MOH, and for all facilities / offices in Huaphan province, based on PACSA guidelines. The Project will support the remaining target provinces to develop / finalize job descriptions. The development and application of performance appraisal tools, based on job descriptions, will also be supported. In addition, the Project will support an MOH Working Group, facilitated by DOP, to develop guidelines on non-financial incentives for rural health workers.

Performance measures:

- Revised Manual on Organization and Management of Health Personnel
- 70% of target provinces have job descriptions for all staff by the end of 2009
- Guidelines on non-financial incentives for rural health workers

Activities:

Sub-Output A.5.1 Revision of Manual on Organization & Management of Health Personnel

Activity 1 Working Group to revise contents
The Manual on Organization and Management of Health Personnel is a compilation of relevant Government, PACSA and MOH laws, decrees, policies and guidelines. The current version is urgent need of updating. Meetings of a Working Group of key MOH and PACSA staff will be supported.

Activity 2 Writing / final formatting of document for printing
Once relevant materials have been identified, the Project will support the writing / formatting of the new manual, ready for printing.

Activity 3 Printing and distribution of the revised Manual
The Project will support the printing of 420 copies of the revised Manual.

Sub-Output A.5.2 Development of orientation program for new staff

Activity 1 Working Group to develop orientation manual
There is currently no formal orientation program for new recruits to the MOH, or for staff who transfer from one location to another. The Project will support a series of Working Group meetings to develop an orientation manual and associated orientation program for new staff.

Activity 2 Printing and distributing of the orientation manual

Activity 3 Dissemination workshop in Luang Prabang

Activity 4 Implementation of orientation program in target provinces

Sub-Output A.5.3 Development / finalization of job descriptions for provinces

Activity 1 Visits by DOP to each target province to re / introduce concepts
Work on job descriptions began in the MOH under the direction of PACSA in the late 1990's. The MOH was a pilot ministry, and received training on how to develop job descriptions. MOH Departments and Huaphan province have completed this process, which included clarifying role and functions, analyzing key tasks and activities, identifying posts required, then developing job descriptions for each post. The Project will fund an introductory visit by staff from DOP to other target provinces to explain the process to be used to develop job descriptions.

Activity 2 Provincial Working Groups on job descriptions
Following the introductory visit by DOP, each province will receive Project support for the establishment of a Working Group to develop job descriptions for their province.

Activity 3 Visits by DOP to each target province to finalize job descriptions
The DOP will re-visit each target province after the province reports they have a draft prepared, to assist them in finalizing the job descriptions and submitting them to PACSA and the MOH for approval.

Sub-Output A.5.4 Development & implementation of performance appraisal tools

Activity 1 Local contract to develop performance appraisal tools
In Project year 2, a contract will be made with a qualified local firm or individual to draft performance appraisal tools that meet the requirements of the MOH. The contractor will ensure the tools will reflect any recommendations or requirements of PACSA or Decree No:82/PM.

Activity 2 Working Group for development of performance appraisal tools
A Working Group of 4 DOP staff and a PACSA representative will be established to work with the contractor on the development of performance appraisal tools.

Activity 3 Workshop to review draft performance appraisal tools
The Project will support a Workshop to enable a range of stakeholders to contribute to the development of performance appraisal tools. The Workshop will review the tools developed for their practical application within different MOH settings.

Activity 4 Working Group to finalize performance appraisal tools & guidelines
The Working Group will meet for a final 5 days, with the contractor, to finalize the performance appraisal tools and guidelines for their use.

Activity 5 Printing and distribution of tools and guidelines

Activity 6 Regional workshops to disseminate tools to target provinces
The Project will support 2 Workshops to disseminate the tools to provincial managers in target provinces. Participants will then be responsible for conducting the provincial workshops in Activity 7, to train other provincial and district managers.

Activity 7 Provincial Workshops to introduce and implement tools
Each target province will be supported to hold a provincial Workshop to introduce the tools to province and district managers who will be responsible for using them, and assisting others to use them in improving the management and performance of staff.

Activity 8 Visits by DOP to support target provinces in implementation
The Project will support the DOP in visiting target provinces to assist managers in early implementation.

Responsibilities:
Technical responsibility for the implementation of this Output lies with the MOH DOP, particularly the Division of Organization and Personnel. The DOP will provide technical oversight of the contractor developing the performance appraisal tools and guidelines, will support provinces in developing their job descriptions, and will facilitate Regional workshops on the new orientation program and performance appraisal tools. PHOs in target provinces will be responsible for the Working Groups developing job descriptions and for introducing provincial and district managers to performance appraisal tools. The PIO and PMO will monitor implementation and provide administrative oversight.

Linkages:
This Output contributes to improving the management of human resources, and thus will impact on staff performance (Sub-component C: Improving staff performance). It is also linked to Output 1.A.6: Capacity of provincial managers for HRM increased.

Schedule:

Activity	**2007**				**2008**				**2009**				**2010**				**2011**				**2012**			
WG HR manual																								
Writing manual																								
Printing & distribution																								
WG orientation																								
Printing & distribution																								
Regional WS																								
Prov. orient. Courses																								
Visits re job descript.																								
Provincial WGs																								
Visits to finalize																								
Contract for PA tools																								
WG for PA tools																								
WS for PA tools																								
WG finalize PA tools																								
Printing & distributing																								
Regional WS																								
Prov. WS																								
Prov. visits for PA																								

Inputs (resources):

Activity	$ Per Project Year						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
WG on HR Manual	666						666
Writing HR Manual	100						100
Printing and distribution	2100						2100
WG Orientation Manual		666					666
Printing and distribution		4200					4200
Regional WS		1725					1725
Prov. orientation course			8000	8000	8000	8000	32000
Visits re job descriptions		3815					3815
Prov. WGs		23380					23380
Visits to finalize		3815					3815
Contract re PA tools		5000					5000
WG re PA tools		255					255
Workshop re PA tools		2237					2237
WG to finalize PA tools		115					115
Printing and distribution		1470					1470
Regional WS on PA			3850				3850
Prov. WSs on PA			8704				8704
Prov. visits for PA			3240				3240
TOTAL COST	**2866**	**46678**	**23794**	**8000**	**8000**	**8000**	**97338**

Output: Improved coordination of HRD stakeholders and activities (1.A.6)

Strategies:
The strategy is to improve the coordination of HRD stakeholders and activities, in order to increase their effectiveness and impact. Lack of coordination can lead to gaps or overlaps in areas of work, and limits potential value adding through synergies and collaborative efforts.

Objective:
The objective of this Output is to improve the coordination of HRD stakeholders and the various activities they are supporting.

Description:
The MOH has established a HRD Taskforce, chaired by DOP, and including representatives of other relevant MOH Departments. Expansion of this Taskforce to include other GOL stakeholders such as Ministry of Education, and key partner or donor organizations will enable it to function as a coordinating body for HRD in the health sector. The Project will support quarterly HRD Taskforce meetings. These regular meetings will be additional to those meetings supported in Output 1.A.2 which are specifically for the Taskforce to develop HR policy and plans.

Performance measures:
- 70% of planned quarterly HRD Taskforce meetings are held.

Activities:

Activity 1 Quarterly meetings of HRD Taskforce
The Project will support 4 meetings per year of the expanded HRD Taskforce from Project year 2 – 6. Taskforce members will include DOP, other MOH Departments, MOE, PACSA, training institutions, key donors and international organizations.

Responsibilities:
The Chairman of the HRD Taskforce will be responsible for the implementation of this activity. DOP staff will act as the secretariat for the Taskforce, responsible for minutes of meetings etc. The PMO will monitor implementation.

Linkages:
This activity is linked to most other Outputs in the HRD Component. The HRD Taskforce will contribute indirectly to improving HRD capacity in many areas, and directly through members facilitating meetings and workshops in Outputs 1.A.3 and 1.A.5 as needed.

Schedule:

Activity	**2007**				**2008**				**2009**				**2010**				**2011**				**2012**			
HRD Taskforce Meetings																								

Inputs (resources):

Activity	$ Per Project Year						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
HRD Taskforce Meetings		2936	2936	2936	2936	2936	14680
TOTAL COST		**2936**	**2936**	**2936**	**2936**	**2936**	**14680**

Sub-Component: Improving staffing of rural health facilities in target provinces (1.B)

Output: Implementation of PHC Worker training (1.B.1)

Strategies:
The MOH has difficulty staffing rural health facilities, particularly with mid or high level staff. This is partly due to the lack of local people with mid or high-level health qualifications, and the reluctance of non-local staff to relocate from urban to rural or remote areas. The populations in many remote areas are from ethnic minorities. Staff who do not share the same cultural, linguistic or social background are reluctant to move to these areas, and are not likely to be readily accepted by the community. The strategy is to increase the quality and number of staff available in rural Health Centers, through the training of local students as PHC Workers.

Objective:
The objective of this Output is to train students from rural and remote areas, selected by their communities, to become PHC Workers with a commitment work in their local Health Center.

Description:
In an effort to increase the quality of staff in rural Health Centers, and their social and cultural compatibility with the community served, the MOH introduced PHC Worker training in 2002, with support from ADB PHCEP. The success of this approach in staffing Health Centers has been well demonstrated, and continued support will be provided under the Project. Recruitment of students from remote and ethnic areas in target provinces to PHC Worker training will be supported through the provision of scholarships for bridging courses for students who do not already meet the education pre-requisites for entry into the course. In addition, scholarships will be provided to sufficient PHC Worker trainees to enable the MOH to reach its target of 1 – 2 PHC Workers per Type B Health Center, and 2 -3 per Type A Health Center in the Project provinces. The Project will fund visits to each School by DOP to monitor and support implementation.

Performance measures:
- 70% of planned PHC Worker scholarships implemented

Activities:

Activity 1 Bridging course for ethnic minority students in target provinces
The Project will support up to one third (96) of proposed PHC Worker students to attend the Ethnic Minority School in their province, so they can achieve the necessary educational pre-requisite for acceptance into the PHC Worker course.

Activity 2 PHC Worker training at Xiengkhuang School
Xiengkhuang PHC School trains PHC Workers from Xiengkhuang and Huaphan provinces. In order to achieve 2 PHC Workers per Type B HC and 3 for each Type A HC, the training deficit for these provinces after current students enrolled in PHC Worker training are counted is 74. The Project will provide scholarships for 74 eligible students selected by their communities to work in targeted HCs to undertake PHC Worker training.

Activity 3 PHC Worker training at Luangprabang School
Luangprabang PH School trains PHC Workers from Luangprabang, Xayabury and Bokeo provinces. In order to achieve 2 PHC Workers per Type B HC and 3 for each Type A HC, the training deficit for these provinces after current students enrolled in PHC Worker training are

counted is 183. The Project will provide scholarships for 183 eligible students selected by their communities to work in the targeted HCs to undertake PHC Worker training.

Activity 4 PHC Worker training at Oudomxay School
Oudomxay PH School trains PHC Workers from Phongsaly, Luang Namtha and Oudomxay provinces. In order to achieve 2 PHC Workers per Type B HC and 3 for each Type A HC, the training deficit for these provinces after current students enrolled in PHC Worker training are counted is 25. The Project will support scholarships for 25 eligible students selected by their communities to work in the targeted HCs to undertake PHC Worker training.

Activity 5 Visits to PHC Schools to monitor and support implementation
The Project will support 5 staff from DOP and training institutions in Vientiane to visit the Schools in the North regularly to monitor and support implementation of the course.

Responsibilities:
This Output is the shared technical responsibility of the MOH DOP, the regional Schools in the North, and the relevant PHOs. Together, these agencies will ensure student selection is rigorous and based on facility level need, not just macro analysis, that the training provided is relevant and of good quality, and that graduate return to work in their local HC when their training is finished. The DOP will be responsible for implementation of support visits to the Schools from the central level. The PMO and PIO will be responsible for administrative oversight of the scholarships and contracts between the students and the PHO.

Linkages:
This Output is linked to Output 1.A.3, where Provincial HR Plans are developed and to Output 1.B.4 where scholarships for training of other categories of health worker are trained, or skill gaps are filled.

Schedule:

Activity	**2007**				**2008**				**2009**				**2010**				**2011**				**2012**			
Bridging course																								
PHC Worker XK																								
PHC Worker LP																								
PHC Worker OD																								
Support visits																								

Inputs (resources):

Activity	$ Per Project Year						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
Bridging course	9600	9600	9600				28800
PHC Worker training XK	45000	45000	43200				133200
PHC Worker training LP	82800	82800	82800	81000			329400
PHC Worker training OD	45000						45000
Support visits to Schools	11028	11028	11028	7352	7352	3676	51464
TOTAL COST	**182400**	**137400**	**135600**	**81000**	**7352**	**3676**	**587864**

(Note that full cost of training course is allocated at the start of the training course.)

Output: Development and implementation of Medical Assistant course in Luang Prabang (1.B.2)

Strategies:
The strategy is to increase the quality and number of staff available in rural Health Centers and District Hospitals, through the training of mid level Medical Assistants in a new regional training center in Luang Prabang. Previous Medical Assistant training was in Vientiane, and was discontinued in 1994. The MOH has recognized an ongoing need for this type of health worker, to provide quality diagnostic and treatment services in rural health facilities where there is no doctor or where there are insufficient doctors. Training of health workers in regional (rather than Vientiane based) training institutions is expected to increase the relevance and accessibility of training to rural and ethnic minority students, and to increase the likelihood that graduates will be willing to be placed in HCs and DHs on graduation.

Objective:
The objective of this Output is to establish a new Medical Assistant type course to improve the quality and number of staff available to work in rural HC and District Hospitals.

Description:
The need for a new category of PHC health worker, similar in scope to a Medical Assistant has been identified by the MOH. This category of staff would have strong clinical skills and good management capacity. Under PHCEP the potential for locating this training in Luang Prabang and options for building the facility were explored. It looks likely that the School can be built within available MOH funds, through a land swap and cost sharing arrangement with a developer. The Project will provide the equipment and furnishings for the new school, support the finalization of the job description for the new category of staff, development and pilot testing of the curriculum, and the implementation and review of the pilot course.

Performance measures:
- New Medical Assistant course curriculum developed
- Pilot testing in progress by end of 2008

Activities:

Activity 1 Workshop to finalize concept and job description
The Project will support a Workshop to finalize the concept and job description for the new staff category. Participants will include representatives from MOH, DOP, training institutions, provinces and districts.

Activity 2 Working Group to develop curriculum
A series of Working Group meetings will be supported to develop the curriculum for the new Medical Assistant course, based on the final job description / scope of work. The Working Group will be chaired by DOP, and will include participants from relevant training institutions and the Ministry of Education. The curriculum will be developed to allow 2 entry modes. One will be as a 2 year post-basic course for Technical Nurses or PHC Workers to upgrade their qualification and skills. The alternative will be as a 4 year direct entry course for high school graduates.

Activity 3 Equipment and furnishings for new Training Institution
The Project will support the purchase of equipment and furnishings needed for the new Training Institution. The exact furnishing requirements will be determined when the design is finalized. Equipment needs will be identified in consultation with the Working Group developing the curriculum.

Activity 4 Training of trainers in Thailand

Five trainers from the new School will be selected for training in Thailand. The Project will support a 1 month course on health personnel teaching methods for these trainers in a University in Thailand.

Activity 5 Training of trainers in Luang Prabang
On their return from training in Thailand, the 5 teachers will conduct a course for 10 other staff from the School.

Activity 6 Implementation of pilot course
The new curriculum will be pilot tested in Project years 2 – 3. The first implementation of the course will be as a 2 year post-basic course for Technical Nurses or selected PHC Workers. A total of 50 students will be included in the pilot course, with at least 50% of participants selected from Health Centers or District Hospitals in project provinces with a shortage of qualified mid-level staff. Students will receive a small allowance to assist with their living expenses during training.

Activity 7 Working Group to finalize curriculum
After the pilot implementation is complete, a Working Group including 3 trainers from the Luang Prabang School will meet for 5 days in Vientiane to finalize the curriculum.

Responsibilities:
The MOH DOP will have responsibility for the implementation of Activities 1, 2 and 7, and will provide technical oversight of the implementation of the pilot course. The new Luang Prabang School will be responsible for direct implementation of the pilot course, with support from the DOP and the existing Luang Prabang PH School as needed. Selection of trainers for training in Thailand will be the joint responsibility of DOP, the Director of the new School, and the PMO. The PMO will be responsible for procurement of the furnishings and equipment for the new School, in consultation with DOP and staff of the new School.

Linkages:
This Output is linked to Output 1.B.4, in which other categories of health workers will be trained to fill staff gaps in rural HC and DH in the North. It is also linked to previous activities under PHCEP where design and construction of the new School will be supported.

Schedule:

Activity	2007				2008				2009				2010				2011				2012			
Workshop on concept																								
WG for curriculum																								
Equip & furnishings																								
TOT in Thailand																								
TOT Luang Prabang																								
Pilot Course																								
WG review curriculum																								

Inputs (resources):

Activity	$ Per Project Year						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
Workshop on concept	2756						2756
WG for curriculum	7550						7550
Equipment & furnishings	500000						500000
TOT in Thailand	25000						25000
TOT in Luang Prabang	3000						3000
Pilot Course		30000	30000				60000
WG to review curriculum				1023			1023
TOTAL COST	**538306**	**30000**	**30000**	**1023**			**599329**

Output: Training / upgrading of staff to support achievement of rural staffing standards (1.B.3)

Strategies:
The strategy is to increase the quality and number of staff available in rural Health Centers, District Hospitals and understaffed Provincial Hospitals through the provision of scholarships for upgrading or skills training of local MOH staff, or the training of local high school graduates to become health workers.

Objective:
The objective of this Output is to fill staff and skill gaps in HC, DH and understaffed PH, in target provinces through the training of local MOH staff or high school graduates.

Description:
The Project will provide scholarships for selected HC, DH and PH staff to upgrade their qualifications or acquire additional priority skills. To improve qualifications of staff, scholarships will be provided for PH doctors to undertake a Masters degree in a clinical area that is needed at their place of work, and/or for DH or HC staff to upgrade their qualifications. Scholarships will also be provided for local high school graduates to train as health workers in categories that are urgently needed and cannot be met by training existing MOH staff. To improve the skills of staff, scholarships will be provided for PH or DH staff to undertake attachments at a tertiary hospital or for DH or HC staff to undertake attachments at their local PH. All scholarship recipients will sign contracts to return to work at their local HC, DH or PH when they have finished their training. Reflecting GOL and MOH policy, priority will be given to filling staff and skill gaps in HC and DH. Up to 20% of scholarship places can be utilized for PH staff or skills, based on a case by case review of the need.

Performance measures:
- 70% of planned scholarships implemented each year, with no more than 20% of scholarship places utilized for PH staff or skill gaps

Activities:

Activity 1 Working Groups to identify and prioritize staff and skill gaps
Working Group meetings will be supported in each target province to identify and prioritize the staff and skills gaps in HC, DH, and if necessary PH, and to prepare a plan for the implementation of scholarships. The Plan will be submitted to the DOP and the PMO for review, approval and Project support for implementation.

Activity 2 Scholarships for clinical Masters Degree for PH doctors

The Project will provide 2 scholarships for each province to cover basic living costs, books and tuition of selected PH doctors to undertake a Masters degree in a clinical specialty at the Faculty of Medical Science. Scholarship will be for 3 years, and will be offered from Project year 1 – 4, so training can be completed during the Project.

Activity 3 Scholarships for DH or HC staff
The Project will provide scholarships for local HC or DH staff to upgrade their qualifications in Vientiane. Where no suitable local staff can be identified, the scholarship could be offered to a local high school graduate to train as a health worker (eg as a mid level laboratory worker).

Activity 4 Scholarships for attachments for PH or DH staff to improve their skills
The Project will provide scholarships for selected PH or DH staff in target provinces to improve their skills in prioritized areas through 6 months attachments to tertiary hospitals in Vientiane, such as Mahosot Hospital.

Activity 5 Scholarships for attachments for DH or HC staff to improve their skills
To support the improvement of services in rural DHs or HCs, the Project will provide scholarships for local MOH staff to increase their skills in prioritized areas through attachments to their Provincial Hospital.

Responsibilities:
The PHO in each target province will be responsible for the identification of priorities, preparation of a Plan, and appropriate nomination of trainees. The DOP will provide technical oversight, and will review Plans and nominations. They will also negotiate places in pre-service and post-basic training, and for attachments. The DOP and PMO will jointly review any requests for upgrading or training of Provincial Hospital staff, to ensure that these are based on priority needs, and will not account for more than 20% of scholarship places. The PMO and PIO in each province will have responsibility for administrative oversight of scholarships.

Linkages:
This Output is complementary to the other Outputs in Sub-component 2: Improving staffing of rural health facilities in target provinces.

Schedule:

Activity	**2007**				**2008**				**2009**				**2010**				**2011**				**2012**			
WG to identify need																								
Clinical Masters																								
Upgrading Training																								
Attachments in Vient.																								
Attachments at PH																								

Inputs (resources):

Activity	$ Per Project Year						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
WG to identify need	11680						11680
Clinical Masters	22000	22000	22000	22000			88000
Upgrading Training	40000	40000	40000	40000			160000
Attachments in Vientiane	9600	9600	9600	9600	9600	9600	57600
Attachments at PH	2400	4800	4800	4800	4800	4800	26400
TOTAL COST	**85680**	**76400**	**76400**	**76400**	**14400**	**14400**	**343680**

Sub-Component: Improving staff performance (1.C)

Output: National capacity for health personnel education increased (1.C.1)

Strategies:
The quality of health services is dependant to a large extent on the performance of health workers. MOH staff needs to be well skilled, well motivated, well supplied and well managed to ensure good performance. In order to improve staff skills, the MOH and partner organizations have invested heavily in training health workers.

The strategy is to increase the capacity of the MOH to plan, implement and evaluate the training of health personnel, in order to improve the skills and performance of the health workforce, and the value of training investments.

Objective:
The objective of this Output is to increase the capacity of the MOH DOP and the MOH training institutions in target provinces to provide quality health personnel education.

Description:
The Project will support a range of activities to achieve this objective, most with a long-term focus. Technical assistance will be provided to support the DOP in implementation of several of the activities in this Sub-component. Scholarships will be provided for 2 MOH staff to undertake Masters Degree studies in health personnel education in Thailand, and for English Language training for staff of the Schools in the target provinces. The development of Standards for Training will be supported, to assist the MOH in identifying the characteristics that make up “quality” in education, and to measure and strengthen new and existing courses to meet these standards. The MOH has developed Training Course information systems, but these do not address formal pre-service and post-basic courses. The Project will support expansion of the current databases to include information on such courses. A Graduate Preparedness study of PHC Workers and Graduate Tracer studies will be undertaken to assist the MOH in identifying employment patterns of graduates from health worker training courses, and any areas in which PHC Worker courses need strengthening. Participating in these studies will build the MOH capacity for evaluating outcomes of health worker training.

Performance measures:
- 2 scholarships completed as planned
- Tracer studies and Graduate Preparedness study completed as planned
- Standards for Training established and used in evaluation of new courses

Activities:

Activity 1 International Technical Assistance
A suitably qualified and experienced expert in health personnel education will be identified and recruited to assist the MOH in Project year 2. The consultant will provide a total of 6 months of assistance, in divided inputs over the year.

Activity 2 Scholarships for Masters in Health Personnel Education
Scholarships will be provided for 2 MOH staff – 1 from DOP and 1 from the Luang Prabang PH School – to undertake Masters Degree studies in Thailand.

Activity 3 Tracer study of graduates from pre-service health worker training
The Project will provide financial support for the MOH to undertake a Tracer study of graduates from pre-service health worker training in which their employment outcomes are explored. The Tracer study proposal is attached as an annex.

Activity 4 English language training for staff from Schools in North
The Project will support 2 staff each year from each of the 3 Schools in the North to participate in part-time English language training in a local language training institution in the provincial capital where they are based.

Activity 5 Motorbike for PH Schools in Oudomxay and Xiengkhuang
The Project will support the purchase of a motorbike for the PH School in Oudomxay and Xiengkhuang to enable staff to supervise students during clinical placements.

Activity 6 Television and VCD player for PHC School in Xiengkhuang
A television and VCD player will be provided by the Project for the Xiengkhuang PHC School, to facilitate teaching and learning in the PHC Worker course.

Sub-Output C.1.1 Development of standards for training and procedures for use

Activity 1 Working Group to prepare draft with consultant
A Working Group will be established in Project year 2 to work with the Consultant (employed in Activity 1 above) to draft Standards for Training and procedures to use these to assess the quality of new and existing courses.

Activity 2 Workshop to finalize and disseminate standards
The Project will support a 4 day Workshop in Vientiane in Project year 2, to review and finalize the drafted Standards for Training, and disseminate these to training institutions.

Sub-Output C.1.2 Development of training database for Schools

Activity 1 Working Group to prepare draft with consultant
A Working Group will be established in Project year 2 to work with the Consultant to develop a training database for pre-service and post-basic training in Schools, based on the model used for the in-service Training Course Information System.

Activity 2 Workshop to finalize and disseminate database
The Project will support a 2 day Workshop in Vientiane in Project year 2, to review and finalize the new database for Schools, and disseminate it to training institutions.

Sub-Output C.1.3 Review of the PHC Worker Course

Activity 1 Graduate Preparedness Study for PHC Workers
The MOH DOP has developed a research design to undertake a Graduate Preparedness study of graduates from the PHC Worker course. The Project will support this study, and the application of findings in revising the course curriculum.

Activity 2 Working Group to review curriculum based on study findings
A Working Group will be supported to revise the PHC Worker curriculum to ensure graduates are well prepared with the necessary attitudes, knowledge and skills.

Activity 3 Workshop to disseminate the revised curriculum

Responsibilities:
The MOH DOP will have overall technical responsibility for the implementation of these activities. Selection and recruitment of a suitable international consultant will be the responsibility of the PMO, in consultation with the DOP. Selection and nomination of suitable MOH staff for scholarships in Thailand will be the responsibility of the DOP, while the PMO will arrange for placement of the students and implementation of the scholarships. Procurement will also

be undertaken by the PMO. Responsibility for selection of staff for English Language Training will be the responsibility of the Directors of the Schools. Provincial PIOs will assist with identification of suitable training institutions and will negotiate details of the training to be provided.

Linkages:
Capacity building activities in this Output will contribute to the achievement of other Outputs in Sub-component C: Improving staff performance. Equipment procured will contribute to implementation of activities in Output 1.B.2.

Schedule:

Activity	**2007**				**2008**				**2009**				**2010**				**2011**				**2012**			
Technical Assistance																								
Masters Scholarships																								
Tracer study																								
English training																								
Motorbikes																								
TV & VCD player																								
WG on Standards																								
WS on Standards																								
WG on Database																								
WS on Database																								
PHC Worker Study																								
WG on curriculum																								
WS to disseminate																								

Inputs (resources):

Activity	$ Per Project Year						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
Technical Assistance		132000					132000
Masters Scholarships		25000	25000				50000
Tracer study		7500					7500
English training	4800	4800	4800	4800	4800	4800	28800
Motorbikes	2400						2400
TV & VCD	400						400
WG on Standards		170					170
WS on Standards		4498					4498
WG on Database		85					85
WS on Database		3650					3650
PHC Worker Study	5000						5000
WG to review curriculum	5424						5424
WS to disseminate	4354						4354
TOTAL COST	**29578**	**177703**	**37000**	**12000**	**12000**	**12000**	**244281**

Output: Training for Safe Motherhood (1.C.2)

Strategies:
Safe motherhood has been identified as a priority by the MOH. The strategy is to increase the quality of first-level and back-up maternal and newborn services in rural areas through training.

This strategy will complement training of doctors and other health workers in Output 1.B.3., and Project activities in Component 3 (Strengthening PHC Systems) which support provision of essential supplies and equipment for rural health facilities.

Objective:
The objective of this Output is to increase the midwifery skills of staff working in HCs, DHs and understaffed PHs in target provinces.

Description:
The Project will support training to increase the skills of nurses, midwives and PHC Workers posted to Health Centers, District and Provincial Hospitals in the target areas. The strategy first builds national capacity for midwifery training by supporting a core group of midwives to participate in an intensive training course at an international hospital to improve their clinical skills. These midwives will become leaders in the development and implementation of a post-basic midwifery course in Laos for nurses and PHC Workers. The course will be offered by the Public Health Schools, to increase access for rural health workers. In addition, the development and implementation of a short-course competency based midwifery skills training course will be supported to respond to the immediate need for action to improve the skills of staff currently providing services in rural areas. For clinical competency to be achieved, trainees must have sufficient properly supervised clinical practice. The Project will provide additional financial support for trainees and supervisors during clinical placements at HCs, DHs, and PHs.

Performance measures:
- 70% of planned scholarships implemented each year

Activities:

Activity 1 International training for core group of trainers
A group of 15 senior midwives from Hospitals and Public Health Schools will be supported to participate in a one month intensive clinical refresher training course at a busy regional Hospital (such as Jose Fabella Hospital in Manila). The midwives must be available and committed to supporting the development and implementation of the proposed midwifery training courses, including in selected Provinces.

Activity 2 Working Group to develop midwifery courses
A Working Group, including midwives who participated in the international training course above, will be supported to develop curriculum for a 1 year post-basic midwifery course for nurses and PHC Workers, and a 2 month in-service midwifery training course for midwives, nurses and PHC Workers currently providing maternal and newborn care. The curriculum will be competency based, with an emphasis on students developing the skills necessary to provide safe and effective midwifery care. The education consultant recruited in Output 1.C.1 will assist the Working Group.

Activity 3 Implementation of post-basic midwifery course
The Project will provide scholarships for nurses, midwives or PHC Workers in HC, DH or PH in target provinces to participate in the course.

Activity 4 Implementation of short-course midwifery training
The Project will provide scholarships for nurses, midwives or PHC Workers in HC, DH or PH in target provinces to participate in the course.

Activity 5 Additional support for clinical placements
To support the development of clinical competency during training, the Project will provide additional financial support for clinical practice attachments. Funds will be used to cover living expenses for students and clinical supervisors.

Responsibilities:
The DOP and NMCHC will share responsibility for the implementation of activities under this Output. With PMO, DOP and NMCHC will select senior midwives for international training. The DOP and NMCHC will participate in the Working Group to develop training curriculum, and ensure the high standard of the courses. The PMO in each target province will work with the PHO and DHO to select appropriate candidates for the training courses when implemented, and to identify suitable clinical training sites. The provincial PMOs will have administrative responsibility for scholarships and financial support for clinical placements.

Linkages:
This Output is complementary to Outputs in Sub-component B: Improving staffing of rural health facilities in target provinces. It is linked to other Outputs in Sub-component C: Improving staff performance.

Schedule:

Activity	**2007**				**2008**				**2009**				**2010**				**2011**				**2012**			
International training																								
Course development																								
Post-basic course																								
In-service course																								
Clinical placements																								

Inputs (resources):

Activity	$ Per Project Year						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
International training	75000						75000
Course development		20000					20000
Post-basic course		9600	19200	19200	19200	19200	86400
In-service course		12000	24000	24000	24000	24000	108000
Clinical placements		8400	16800	16800	16800	16800	75600
TOTAL COST	**75000**	**50000**	**60000**	**60000**	**60000**	**60000**	**365000**

Output: In-service training system strengthened (1.C.3)

Strategies:
The MOH Department of Organization and Personnel, Division of Education and Training, is the MOH agency responsible for the health worker education. In-service training of health workers is generally dependent on donor funding, and so tends to be program focused, rather than based on health service priorities or local needs. The MOH is seeking to strengthen the in-service training system, increase decentralization and build capacity at the lower levels so training can be more responsive to local needs, more time and cost efficient, and place more emphasis on practical application on the job.

The strategy is to strengthen the in-service training system through a review of roles and functions, increasing the skills of trainers, and developing standard modules for key in-service training topics, to support improvements in quality and outcomes of training.

Objective:
The objective of this Output is to revise the MOH in-service training system, and develop tools to improve the quality of in-service training.

Description:
The Project will support a study tour to Cambodia where senior MOH staff can review the successful MOH in-service training system developed with ADB support under the Basic Skills Project and the current Health Sector Support Program. Based on this model, and other relevant ideas and approaches, a Working Group will be established to revise the system in Laos. Curricula will be prepared to build the capacity of provincial and district training teams. Financial support will be provided for the development of standard in-service training modules on key topics for staff at village, HC and DH level, based on MOH treatment protocols and guidelines, and incorporating elements of current in-service training provided by national programs. These modules will be made available to provinces and districts to assist in further decentralization of training, and to ensure in-service training delivered meets expected standards for technical content and educational methods.

Performance measures:
- Revised in-service training structure / system by end of 2008
- 6 in-service training modules developed and disseminated by end of 2009

Activities:

Sub-Output C.3.1 Strengthening in-service training structure and capacity

Activity 1 Study tour of Cambodia to review in-service training system
The Project will support 5 senior MOH officials, including staff from DOP, to undertake a 1 week study tour of Cambodia to review their decentralized in-service training system during Project year 2.

Activity 2 Working Group to revise in-service training system structure & roles
A Working Group will be established to develop a structure which can support the MOH goal to increase decentralization of in-service training, and define the roles and functions of the different levels and staff responsible. The consultant recruited to build MOH capacity for health personnel education will support this activity.

Activity 3 Working Group to develop curriculum to train continuing education coordinators, provincial and district training teams
The Project will provide financial support for a curriculum development Working Group. The Working Group will develop a curriculum that can be used to give the provincial level in-service training coordinators the necessary skills and knowledge to assess training needs, plan, manage, evaluate and support quality in-service training within the province. The Working Group will also develop a curriculum to update the educational skills of provincial and district training teams, particularly in modern participatory teaching methods and clinical or practical teaching methods.

Sub-Output C.3.2 Development of standard in-service training modules

Activity 1 Working group to identify topics, prepare format and guidelines for development of modules and training materials

A Working Group will be established to identify the topics for standard in-service training modules for use in training village, HC and DH staff in essential skills areas. The Group will prepare a standard format for the modules, including a teachers' handbook, participants' handbook, and teaching materials such as overhead projections or flip charts. These guidelines will be used when contracting local agencies to develop the modules (see Activity 2 below).

Activity 2 Development of standard modules
This activity will be contracted out to qualified and interested local agencies (possibly different agencies for different topics), with oversight provided by DOP and members of the Working Group in Activity 1. It is anticipated that national programs currently delivering in-service training on key topics may be contracted and/or non-government organizations. The contractor will be expected to develop the module (participants' handbook, teachers' handbook, teaching materials) in the required format, reflecting up to date MOH policy, treatment guidelines and protocols, pilot test the training course, then review and finalize it.

Activity 3 Review of modules
Modules will be reviewed by the Working Group, to ensure they comply with the requirements set, prior to final payment of the contractor.

Activity 4 Printing of modules for use in target provinces
The Project will support the printing of the participants' handbook, teachers' handbook and teaching materials for each module for use in in-service training in target provinces. It is important not to overproduce the handbooks, as they will require updating regularly as treatment protocols change.

Activity 5 Orientation Workshops for provincial training teams in target provinces
The Project will support Workshops to introduce provincial training teams to the new modules.

Activity 6 Orientation Workshops for district training teams in target provinces
The Project will support Workshops to introduce district training teams to the new modules.

Responsibilities:
The MOH Department of Organization and Personnel will have overall technical responsibility for the implementation of activities under this output. The MOH will be responsible for identifying participants for the study tour, with PMO responsible for organizing the tour. The DOP and PMO will jointly oversee the contractors developing the in-service training modules, to ensure they comply with requirements. The DOP will facilitate orientation workshops for provincial training teams, and the Provinces and Schools will facilitate orientation workshops for district training teams.

Linkages:
This Output is linked to Output 1.C.4 where curricula developed are used to build the capacity of continuing education coordinators and training teams. It is also linked to Output 1.C.5 where training modules will be used in training village, HC and DH staff.

Schedule:

Activity	2007				2008				2009				2010				2011				2012			
Study Tour																								
WG to revise system																								
WG for curriculum																								
WG for modules																								
Module development																								
WG review modules																								
Printing of modules																								
Orientation PTTs																								
Orientation DTTs																								

Inputs (resources):

Activity	$ Per Project Year						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
Study Tour		10000					10000
WG to revise system		8520					8520
WG for curriculum		5784					5784
WG for modules		960					960
Module development		90000					90000
WG to review modules			600				600
Printing of modules			15050				15050
Orientation PTTs			6886				6886
Orientation DTTs			29600				29600
TOTAL COST		**115264**	**52136**				**167400**

Output: Provincial and district capacity for in-service training increased (1.C.4)

Strategies:
The strategy is to increase the capacity of the in-service training system at province and district levels to support decentralization while maintaining or improving quality.

Objective:
The objective of this Output is to improve the quality of in-service training at provincial and district levels by increasing training capacity.

Description:
The Project will support training of provincial and district training teams in target provinces, and will provide teaching materials and small equipment for each province and district.

Performance measures:
- At least 6 provinces have provincial training teams trained by the end of Project year 3
- At least 50% of districts have training teams trained by end of Project year 3

Activities:

Activity 1 Training of continuing education coordinators in target provinces
The Project will support the initial training of the in-service coordinators in target provinces. The course will utilize the curriculum developed in Output 1.C.2 above.

Activity 2 Training of Provincial Training Teams
The Project will support courses to increase the educational skills of provincial trainers. The curriculum used will be that developed in Output 1.C.2 above.

Activity 3 Training of District Training Teams
The Project will support courses to increase the educational skills of district trainers. The courses will be facilitated by skilled provincial trainers, plus an experienced educator from one of the Schools, using curriculum developed in Output 1.C.2 above.

Activity 4 Refresher training for CECs, PTTs and DTTs
The Project will support refresher training for continuing education coordinators, provincial and district training teams. Topics will be identified through TNA annually.

Activity 5 & 6 Teaching equipment and materials for target provinces and districts
The Project will support the procurement of small equipment and teaching materials needed in 8 target provinces and districts.

Responsibilities:
The MOH DOP will be responsible for planning and providing technical support for the training of CECs and PTTs. The provinces, with PH Schools, will be responsible for training DTTs. Procurement will be the responsibility of the PMO, with the DOP.

Linkages:
This Output is linked to Output 1.C.3 where curricula were developed. It also contributes to the successful achievement of Output 1.C.5.

Schedule:

Activity	**2007**				**2008**				**2009**				**2010**				**2011**				**2012**			
Training of CECs																								
Training of PTTs																								
Training of DTTs																								
Refresher training																								
Materials for province																								
Materials for districts																								

Inputs (resources):

Activity	$ Per Project Year						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
Training of CECs			3080				3080
Training of PTTs			2800				2800
Training of DTTs			13020				13020
Refresher training				11300	11300	11300	33900
Materials for provinces			8000		8000		16000
Materials for districts			31000		31000		62000
TOTAL COST			**57900**	**11150**	**50300**	**11150**	**130800**

Output: In-service training of health workers in target provinces (1.C.5)

Strategies:
The strategy is to provide regular, relevant and good quality in-service training to health workers based on training needs assessment, in order to increase the capacity of staff and improve their performance.

Objective:
The objective of this output is to increase the skills and performance of health workers in villages, Health Centers and Districts in target provinces.

Description:
The Project will fund training of Village Health Volunteers, HC staff and DH staff in target provinces annually from Project years 1 – 6, with the proportion of all staff receiving training each year rising as training capacity increases. In Project year 3, after sufficient capacity has been built at provincial and district level, the Project will support a comprehensive assessment of the training needs of Health Center, District and Provincial staff in target provinces, and development of a training plan for each province. In-service training provided in Project years 4 – 6 will be based on the formal training needs assessment. Until then, training will be based on priorities identified by districts and provinces through informal assessment of needs. Training will be competency based, with an emphasis on development of essential work skills, rather than on theoretical concepts. The standard in-service training modules developed in 1.C.2 will be used where appropriate. This formal training will complement on-the-job training provided during supervisor visits that are supported under Output 1.C.5.

Performance measures:
- 80% of VHVs, HC staff and DH staff targeted each Project year will receive one in-service training intervention

Activities:

Activity 1 Workshops to plan TNA and prepare materials
Following on from capacity building activities, workshops will be held for provinces to work together in planning TNAs and preparing the necessary materials.

Activity 2 Training Needs Assessment of staff in target provinces
Using the materials developed, each province will conduct a training needs assessment of their HC, District and Province staff in Project year 3.

Activity 3 Working Groups to analyze results and prepare Training Plan
The Project will provide financial support for each target province to establish a Working Group to review the TNA and prepare a Training Plan.

Activity 4 Training of Village Health Volunteers
Training of Village Health Volunteers in the target provinces will be supported by the Project. Training will be provided at local HCs, and given by HC staff supported by District staff as needed.

Activity 5 Training of Health Center staff
Health Center staff in the target provinces will receive in-service training at the district center, provided by District trainers.

Activity 6 Training of District Hospital staff
The Project will support in-service training for District Hospital staff, provided at the District Health Office or Provincial center by District or Provincial trainers.

Responsibilities:
The PHO in each target provinces will have overall responsibility for the implementation of this Output, with support from Schools and DOP as needed. The provincial PIO will monitor implementation.

Linkages:
This Output is linked to Output 1.C.3 and 1.C.4 where provincial and district capacity for in-service training was built, and standard in-service training modules developed.

Schedule:

Activity	2007				2008				2009				2010				2011				2012			
WS to prepare TNA																								
TNA																								
WG to analyze TNA																								
Training VHVs																								
Training HC staff																								
Training DH staff																								

Inputs (resources):

Activity	$ Per Project Year						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
WS to prepare TNA			3300				3300
TNA			4470				4470
WG to analyze TNA			2560				2560
Training VHVs	48976	58768	68560	78368	88160	97952	440784
Training HC staff	4980	5960	6960	7960	8940	9940	44740
Training DH staff	18100	21700	25300	28900	32550	36150	162700
TOTAL COST	**72056**	**86428**	**111150**	**115228**	**129650**	**144042**	**658554**

Output: Supportive supervision of staff in target provinces (1.C.6)

Strategies:
International literature and local experience in Laos identify supportive supervision as a key factor in improving staff performance and the quality of health service delivery by assisting in problem solving, providing on the job training and improving staff motivation. The strategy is to provide regular supportive supervision to improve staff performance and quality of health services.

Objective:
The objective of this output is to enable regular supportive supervision of village volunteers, Health Centers and Districts to improve health services.

Description:
The Project will provide financial support for quarterly integrated supervision of Districts by Provinces and of Health Centers by Districts in those provinces not receiving Program support. In addition semi-annual supervisory visits of villages by Health Centers will be supported for these provinces. The purpose of supervisory visits is to provide support and assistance to staff re technical or administrative problems, and on-the-job training on important topics. Refresher training of provincial and district supervisors in all provinces will be supported every two years.

Performance measures:
- 80% of targeted villages have at least 2 supervisory visits per year
- 80% of targeted HC and Districts have at least 3 supervisory visits per year

Activities:

Activity 1 Semi-annual supervisory visits from HC to VHVs
The Project will support 2 staff from each Health Center to visit each village in their catchment area with a VHV, 2 times per year.

Activity 2 Quarterly supervisory visits from DHO to HC
The Project will support 2 staff from each District Health Office to visit each Health Center in their District 4 times per year.

Activity 3 Quarterly supervisory visits from PHC to District
The Project will support 3 staff from each Provincial Health Office to visit each District in their Province 4 times per year.

Activity 4 Training of supervisors as needed
The Project will support annual training of supervisors to ensure they are well prepared with the skills needed to provide effective supervision to staff and facilities they have responsibility for. MOH staff will facilitate the training.

Responsibilities:
The PHO in each province will have responsibility for implementation of this Output. The provincial PIO will monitor implementation. Responsibility for training of supervisors will lie with MOH Department of Organization and Personnel, in collaboration with other key MOH Departments.

Linkages:
This Output is linked to Output 1.C.5, where an additional day of supervision will be provided for each village, HC or District to follow-up training participants.

Schedule:

Activity	**2007**				**2008**				**2009**				**2010**				**2011**				**2012**			
Supervision of VHVs																								
Supervision of HCs																								
Supervision of Dist.																								
Training supervisors																								

Inputs (resources):

Activity	$ Per Project Year						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
Supervision of VHVs	49660	99320	99320	99320	99320	99320	546260
Supervision of HCs	15040	30080	30080	30080	30080	30080	165440
Supervision of Dist.	7040	14080	14080	14080	14080	14080	77440
Training supervisors	7200	7200	7200	7200	7200	7200	43200
TOTAL COST	**78940**	**150680**	**150680**	**150680**	**150680**	**150680**	**832340**

Synopses of Implementation schedules of Component 1

Sub-Component	Output	Activity	2007				2008				2009				2010				2011				2012			
1.A Strengthening institutional capacity for HR policy, planning & management	1.A.1 Capacity of MOH DOP to provide leadership increased	Technical Assistance																								
		Scholarships																								
		Attachments																								
		English training																								
		Computers																								
		Photocopiers																								
		Internet & library																								
		Crew cab pickup																								
		Motorcycle																								
		Other equipment																								
		Office supplies																								
	1.A.2 Development of national HR Policy and long-term HR Plan	Taskforce meetings																								
		National workshops																								
		Survey of workforce																								
		Dissemination wshop																								
		Printing & distribution																								
		TA for review of Plan																								
		Taskforce meetings																								
	1.A.3 Development of provincial HR Plans	WS on national Plan																								
		WS on provincial Plan																								
		Working Groups																								
		Visits by DOP																								
		Workshop to finalize																								

Sub-Component	Output	Activity	2007				2008				2009				2010				2011				2012			
1.A Strengthening institutional capacity for HR policy, planning & management - continued	1.A.4 Strengthened HRMIS	Computers for DOP																								
		Masters Scholarship																								
		Workshop on form																								
		Contract for Database																								
		Web Hosting																								
		Pilot test HRMIS form																								
		Print HRMIS form																								
		WS to introduce																								
		Data entry																								
		Computers for PHOs																								
		Province HRMIS																								
		Provincial visits																								
		Internet connection																								
	1.A.5 Strengthened mechanisms for effective HRM	WG on HR Manual																								
		Writing Manual																								
		Printing & distribution																								
		WG on Orientation																								
		Printing & distribution																								
		Regional WS																								
		Prov. orient. Courses																								
		Visits re job description																								
		Prov. WGs on job desc.																								
		Visits to finalize																								
		Contract on PA tools																								
		WG on PA tools																								
		WS for PA tools																								
		WG to finalize PA tools																								
		Printing & distribution																								
		Regional Workshop																								
		Provincial Workshops																								
		Prov. visits for PA tools																								
Sub-Component	**Output**	**Activity**	**2007**				**2008**				**2009**				**2010**				**2011**				**2012**			
	1.A.6 Improved coordina-	HRD Taskforce Meet-																								

	tion of HRD	ings																								
1.B Improving staffing of rural health facilities in target provinces	1.B.1 Implementation of PHC Worker training	Bridging course																								
		PHC Worker XK																								
		PHC Worker LP																								
		PHC Worker OD																								
		Support visits																								
	1.B.2 Development and implementation of Medical Assistant course in Luang Prabang	Workshop on concept																								
		WG for curriculum																								
		Equip & furnishings																								
		TOT in Thailand																								
		TOT in Luang Prabang																								
		Pilot course																								
		WG review curriculum																								
	1.B.3 Training/upgrading of staff to support achievement of rural staffing standards	WG to identify needs																								
		Clinical Masters																								
		Upgrading training																								
		Attachments in Vient.																								
		Attachments in PH																								
1.C Improving staff performance	1.C.1 National capacity for health personnel education increased	Technical Assistance																								
		Masters Scholarships																								
		Tracer Study																								
		English training																								
		Motorbikes																								
		TV & VCD player																								
		WG on Standards																								
		WS on Standards																								
		WG on Database																								
		WS on Database																								
		PHC Worker study																								
		WG on curriculum																								
		WS to disseminate																								

Sub-Component	Output	Activity	2007				2008				2009				2010				2011				2012			
1.C Improving staff performance	1.C.2 Training for Safe Motherhood	International training																								
		WG for curriculum																								
		Post-basic course																								
		In-service course																								
		Clinical placements																								
	1.C.3 In-service training system strengthened	Study tour																								
		WG to revise system																								
		WG for curriculum																								
		WG for modules																								
		Module development																								
		WG to review modules																								
		Printing of modules																								
		Orientation PTTs																								
		Orientation DTTs																								
	1.C.4 Provincial and district capacity for in-service training increased	Training of CECs																								
		Training of PTTs																								
		Training of DTTs																								
		Refresher training																								
		Materials for provinces																								
		Materials for districts																								
		WS to prepare TNA																								
		TNA																								
		WG to analyze TNA																								
	1.C.5 In-service training of health workers in target provinces	Training of VHVs																								
		Training of HC staff																								
		Training of DH staff																								
	1.C.6 Supportive supervision of staff in target provinces	Supervision of VHVs																								
		Supervision of HCs																								
		Supervision of Districts																								
		Training of supervisors																								

II. HEALTH CARE FINANCING COMPONENT DESCRIPTION

I. OVERVIEW

1. The Health Care Financing (HCF) project and program components will increase the affordability of health care for those with the lowest ability to pay by providing subsidies for the poor and near poor for health care costs. Public assistance funds in the form of health equity funds (HEFs) and (micro-credit) health loan funds (HLFs) will be implemented in the project provinces following pilot testing and evaluation in the two program provinces. Also under the HCF project component for the eight northern provinces: i) provincial and district Account Managers will be hired to administer the funds; ii) oversight Management Committees will be established; iii) technical assistance will be provided for training Account Managers and Management Committees; iv) office equipment and administrative expenses will be provided to Account Managers and Management Committees; v) annual health care financing studies will be conducted for the evaluation of the HEF and HLF pilot tests in the program provinces, and for monitoring the performance of the funds in all provinces; and vi) health care financing studies will be conducted for the evaluation of key health service indicators in all provinces, the sustainability of village drug kits implemented under PHCEP, and the effects of alternative pricing policies in hospitals.

2. HEFs and HLFs will be pilot tested in the two program provinces (Xaignabouri and Xieng Khouang) in the first year of HSDP, and closely monitored. An evaluation of the results of the pilot test will be conducted in the second year, and the funds will be modified and continued for the remainder of the first phase of HSDP and throughout the second phase. Lessons learned from these province-wide pilot tests will be used to improve the HEF and HLF designs. HEFs and HLFs will be implemented under the HCF project component in three additional project provinces in the third year of the first phase of HSDP. Phongsali, Luang Namtha and Houaphan are used as examples, but the actual provinces will be chosen by MOH in the second year of the Project. HEFs in the remaining three northern project provinces will be implemented in the second phase, fourth year, of HSDP.

II. HCF PROJECT AND PROGRAM COMPONENT DESCRIPTION

A. Description of Health Equity Funds (HEFs)

3. The essential HEF design elements are given in Table 1, including health care service providers, allowed uses of funds, payment method and fund management at the provincial, district, health center, and village levels.

HEF Service Providers

4. The HEFs will pay the costs of all health care services which are obtained by the eligible poor from public health care providers, including provincial and district hospitals (inpatient and outpatient), public health centers (including outreach services), and health care obtained from village public health care providers.

5. The current HEF pilot tests in Laos do not provide services at the village level (except in the case where the health center happens to be located in the village). It is at the village level, however, where the poor have easiest access to public health care services from village health volunteers and drug kits. In addition, a major barrier to access for the poor is transportation from the village to the health center. The HEF design shown in Table 1, overcomes this limitation by establishing capitation-based HEFs at the village level to provide VHV services and drugs, transportation to the nearest health center, and a coordinating role

for the village to establish and maintain a link with the outreach activities of health center workers. In addition, the capitation-based HEF at the health center level supports outreach activities to provide services to the poor (and others) in the villages.

Table 1. Health Equity Fund and Health Loan Fund Design Elements

Health Equity Funds			
Service Providers	**Use of Funds**	**Payment Method**	**Fund Management and Accounting**
Provincial Hospital	Services, Drugs + Transport, Food, etc, for Poor Patients	Fixed fees	Provincial Management Committee Provincial Account Manager
District Hospitals	Services, Drugs + Transport, Food, etc, for Poor Patients	Fixed fees	District Management Committee District Account Manager
Health Centers	Services, Drugs + Transport, Food, etc, for Poor Patients Outreach Expenses for Village Health Care Sessions	Capitation	Village Health Committee, Village Women's Union, or Lao National Front District Account Manager
Village Health Worker	Services, Drugs + Transport, Food, etc, for Poor Patients HC Coordination Sessions in Village	Capitation	Village Health Committee, Village Women's Union, or Lao National Front District Account Manager
Health Loan Funds			
Provincial Hospital	Services, Drugs + Transport, Food, etc for Near Poor Patients	Fixed fees	Provincial Management Committee Provincial Account Manager

HEF Use of Funds

6. HEFs will pay all public health care costs of the eligible poor, including the costs of provincial and district hospital inpatient and outpatient care, health care services provided by health centers, and services of village health providers. These direct costs include the costs of services provided, preventive and curative, for consultations, drugs, lab tests, medical consumables, other consumable supplies, room fees, administrative costs of processing poor patients (e.g., cost of maintaining lists of the eligible poor, preparing invoices for reimbursement, record keeping, etc).

7. In addition, HEFs will pay the indirect costs of obtaining health care services for poor patients, including transportation, food, and other related expenses. These indirect costs oftentimes present a formidable barrier to health service access for the poor. Provision of these indirect expenses will enable the poor to access the referral system from villages to health centers, from health centers to district hospitals, and from district hospitals to provincial hospitals.

HEF Payment Methods

8. HEF payments to public health care providers will not be linked or pooled with the Community Based Health Insurance (CBHI) capitation funds currently being pilot tested in selected districts in Luang Prabang and Vientiane Province. Linking the CBHI capitation funds with the HEFs was found to inequitably redistribute HEF funding for poor patients to the members of CBHI who purchased health insurance cards. CBHI members had a much higher rate of utilization of health care services than poor patients, and thereby received a disproportionate share of the benefits when the Nambak HEF made CBHI capitation payments to hospitals and issued CBHI health insurance cards to poor patients. Thus, the HEF funds intended for the poor effectively subsidized the health care costs of those who could afford to purchase health insurance from CBHI.

9. **Provincial and District Hospital Care.** Fixed fees for a small set of health care service categories will be used as the funding method for inpatient and outpatient care at provincial and district hospitals. Fixed fees have the dual advantage of simplifying the administrative cost of reimbursement to the hospitals and providing the right incentives for good quality care. Hospitals will be reimbursed monthly from the HEF according to a fee schedule of fixed amounts for each type of patient served. A cost-based fee schedule for the principle services provided by provincial and district hospitals will be developed and implemented for the pilot-testing of HEFs in the program provinces. This fee schedule will be used to reimburse the provincial hospitals and district hospitals for services provided to eligible poor patients. The fee schedule will set a standard amount to be paid to the hospital by the HEF according the type of service received, not according to the individual consumption of drugs and supplies. For example, a fixed amount will be paid to the hospital for each eligible poor patient who receives major surgery, minor surgery, a stay in a general inpatient ward, uncomplicated birth delivery, emergency ward, outpatient consultation, or outpatient clinic with drugs, etc. Fixed fees will provide an incentive for hospitals to treat poor patients with appropriate quality care, and lengthy processing of large numbers of individual patient bills will be avoided.

10. Similarly, eligible poor patients will be reimbursed by the service provider for the indirect expenses of transportation, food, etc, to obtain health care services according to a simple fixed fee schedule which takes into account the distance traveled from the village to the health center or hospital and the length of time spent at the health center or hospital.

11. **Health Centers and Villages**. HEFs will fund health centers and villages using capitation (fixed amount per year) for the cost of health care services delivered to the poor. Capitation of health centers and villages allows for ease of administration. HEF funds for health centers and villages will be used for the direct costs of services, drugs, consumables, etc. In addition, HEF funds will be used for outreach expenses, transportation, and other expenses to assist in the delivery of health care services to the poor. Quarterly payments from the HEF will be made to the health centers. Annual payments from the HEF will be made to the village health providers.

HEF Identification of the Eligible Poor

12. The Project will support HEFs which pay the health care costs of the poorest 20 percent of households provided by public health care providers in each of the eight Northern provinces. A critical feature of any public assistance program for the poor is the method used to identify them. In many Lao districts, lists of the poor are prepared in every village by a committee (for example, a Village Health Committee or Village Development Committee) and transmitted to district health offices. The preparation of lists of poor households is increasingly common in Lao PDR, due to the frequent need for such lists in the Government's poverty reduction program. This system also is widely used in neighboring countries (e.g., Viet-

nam and Thailand) and is generally considered to be more cost-effective in identifying the poor than alternative methods.

13. In the first year of HSDP, this system for identifying the poor to receive assistance from the HEFs will be pilot tested in the two program provinces, and carefully evaluated for it's effectiveness at correctly identifying and providing free health care services to the poor. The lists of eligible poor households will be submitted by the Village Health Committee or Village Development Committee to the District Health Office (DHO). Villages which prepare and submit the list of eligible poor households will receive village-level HEFs. The HEF district Account Manager will be responsible for ensuring the lists are submitted by all villages, will maintain and ensure the lists are updated, and provide copies of the lists to the provincial Account Manager, district and provincial HEF Management Committees, provincial hospital, district hospital, health centers, and village health providers for free provision of health care for the poor. The district Account Manager will ensure the lists are updated annually.

14. Even in districts where all the villages prepare and deliver lists of the poor, cases are likely to arise when those who were not previously identified as poor will need and request free health care. For such cases, hospitals will be required to develop an established and transparent system for granting free care at the time services are provided, e.g., a special committee to decide on whether to allow free health care, with forms completed to explain the basis on which the free health care was granted or denied, and the name and village of the person requesting the free health care. A transparent exemption mechanism will require that these records be kept at the facility so that the decision can be subsequently reviewed. The project will support the administrative costs to set up and maintain this record-keeping system. More simple systems will be designed for health centers and village health care providers to handle these special cases.

HEF Costs

15. Cost estimates for HEFs are based on the Nambak District HEF pilot test cost data. Nambak is the longest-running HEF pilot test in Laos (more than five years) and, therefore, has the most reliable cost data available for these estimates. Table 2 gives the average cost of inpatients and outpatients at provincial and district hospitals and outpatients at health centers in 2005, as well as the utilization rate of the enrolled poor as inpatients and outpatients at each of these facilities. In addition to these costs at public health facilities, the Nambak HEF also provided transportation for referrals from health centers to hospitals, and food, soap, etc required to facilitate access to services and treatment of poor patients. The average total cost per poor person covered in 2005 (6,500 people, 11 percent of the district) of the Nambak HEF, including all these costs plus administration (10 percent), was US$2.10.

16. The unit costs and utilization rates in Table 2 were used to calculate total inpatient and outpatient costs at provincial and district hospitals to cover the poorest 20 percent of the population in the eight Northern provinces using US$2 per poor person, per year, as the target funding level. Lower level HEFs (health centers and villages) were estimated as lump-sum capitation amounts per health center and per village, per year. Capitation at health centers were calculated at US$50/month (US$600/year) and villages at US$50/year. The capitation level in provinces with the most remote villages (Phongsali, Luang Namtha, and Houaphan) were calculated for health centers at US$75/month, and remote villages at US$75/year to account for higher transport costs for patients and health center workers. Nambak District in Luang Prabang was excluded from the calculation of costs at all levels because of the existing HEF in this district. Administrative costs for all levels of services are estimated at 10 percent, which is the experience of the Nambak HEF. Table 3 shows the (rounded) cost estimates for each of the eight Northern provinces by level of service and administration.

Table 2. Nambak HEF Costs and Utilization Rates for Health Care Services, 2005

Public Health Facility	Average Cost of Poor Inpatient	Percent of Poor People Covered, Inpatients	Average Cost of Poor Outpatient	Percent of Poor People Covered, Outpatients
Provincial Hospital	$28.40	1.4%	$5.46	0.4%
District Hospital	$5.55	3.4%	$1.06	14.5%
Health Centers	-	-	$0.50	30.7%

Source: Swiss Red Cross

Table 3. Annual HEF Costs by Level of Service and Province (US$)[1]

Service Provider	Xaignabouri	Xieng Khouang	Phongsali	Luang Namtha	Oudomxay	Bokeo	Luang Prabang	Houaphan
Provincial Hospital	27,000	17,000	11,000	11,000	23,000	11,000	32,000	24,000
District Hospitals	23,000	15,000	9,000	9,000	19,000	9,000	23,000	21,000
Health Centers	60,000	38,000	30,000	35,000	36,000	30,000	40,000	40,000
Village/ VHV	40,000	30,000	40,000	25,000	32,000	20,000	40,000	40,000
Total	150,000	100,000	90,000	80,000	110,000	70,000	135,000	125,000

[1]Includes 10 percent administrative cost at each level.

17. The total cost of funding the HEFs in the first phase (two program provinces for three years and three project provinces for one year) is estimated at US$1.045 million. These HEFs will cover the health care costs of more than 120,000 poor people for three years in Xaignabouri and Xieng Khouang, and more than 150,000 poor people in Phongsali, Luang Namtha and Houaphan (for example) for one year.

B. Description of Health Loan Funds (HLFs)

18. The design elements of HLFs are shown in Table 1, including the funding mode, allowed uses of funds, and fund management and accounting at the provincial level. HLFs are a new and innovative approach for health care services based on experience with micro-credit programs in other sectors. HLFs will build on a practice which is commonplace at hospitals in Laos. Hospitals routinely allow patients who cannot pay for services, and who are not eligible for exemption, to be discharged from the hospital, return home and pay the costs of health care at some later time. Hospitals effectively are granting interest-free loans to these patients and the practice results in substantial amounts of money owed to hospitals. HLFs will build on this current practice by granting small soft loans to patients and establishing a low-cost revolving fund for such loans. Hospitals will be relieved of the cash-flow burden of accounts receivable from former patients.

19. The primary objective of HLFs is to provide money for large hospital inpatient expenses to people who do not have cash available at the time of discharge. Many people, especially the near poor and even those in middle-income groups, often are forced to sell household possessions to pay for hospital fees or borrow money from friends, relatives, or money lenders. The HLF is intended to help prevent these families from becoming impoverished because of the costs of catastrophic hospital care.

20. HLFs will be implemented in the two program provinces (Xaignabouri and Xieng Khouang) in the first year of HSDP at the provincial hospitals, and closely monitored and evaluated. Based on the experience in these two provinces, HLFs will be implemented in an additional three provincial hospitals (for example, Phongsali, Luang Namtha and Houaphan, but the actual provinces will be chosen by MOH in the first year of the project) under the HCF project component in the third year of HSDP. The remaining HLFs in three provinces will be implemented in the second phase of HSDP. Successful implementation of the HLFs at the pilot test provincial hospitals may lead to a recommendation to expand the HLFs to Type A District Hospitals for catastrophic health care.

Eligibility for Loans, Service Providers, Use of Funds, Funding Method

21. Eligibility for an HLF loan will be restricted to inpatients at provincial hospitals with hospital expenses (based on fixed fees) plus indirect costs (transportation, food, etc) in excess of US$100 who do not have money available to pay at the time of discharge. The repayment period will be generous (one year), long enough for people to earn sufficient income from agricultural production, fishing, and other income generating activities common in rural areas. Similar to the current practice at provincial hospitals, loans will be forgiven if not paid within a reasonable amount of time, and funds will transferred from the provincial HEF for these patients to sustain the revolving HLF.

HLF Costs

22. Initially, the HLFs will pay off all accounts receivable from patients at each hospital, that is, assume the current debt burden, and these patients will then be required to pay off their bills to the HLF. The HLF will then begin paying the fees of current and future hospital inpatients that cannot pay when their treatment is finished. This will remove the hospital's financial burden of having money owed, and will ensure that all patient fees are paid to the hospitals at the time of discharge. Patients will repay the HLF instead of the hospital. As is the current practice in Laos, no interest will be charged to patients who take a loan. The HLF will operate as sustainable revolving fund for patients who cannot pay when they are ready to be discharged from the hospital. Patients will simply be required to sign a note promising to pay the loan amount back to the HLF. Indirect costs of hospitalization, including transportation, food, soap, etc, will be allowed to be included in the amount of the loan.

23. The start-up cost for the HLF are estimated based on the size of the population in each province, which serves as a proxy for the potential demand for these loans by the near poor at the provincial hospital for inpatients with large catastrophic expenses (Table 4). An amount of US$20,000 for an HLF, for example, would accommodate 200 loans of $100 each which, given data collected at three provincial hospitals for the PPTA, should be sufficient to assume all existing loans at the provincial hospital and extend new loans for more than one year. During the first year, loans will be re-paid and the fund should be sustainable with minimum subsidy from the provincial HEF for those who do not repay the loan. The total cost of the HLFs for the first phase of HSDP is US$75,000.

Table 4. HLF Cost Estimates by Province (US$)

Province	HLF
Xaignabouri	20,000
Xieng Khouang	15,000
Phongsali	10,000
Luang Namtha	15,000
Oudomxay	15,000
Bokeo	15,000
Luang Prabang	20,000
Houaphan	15,000

C. HEF/HLF Account Management and Management Committees

24. The funds provided by the HEFs and HLFs will be managed and distributed by a third-party, not the health care facilities or providers. The system proposed for HEF/HLF account management and oversight by management committees is the same as the management scheme envisioned by the national plan for Community Based Health Insurance (CBHI). The Project will support HEF/HLF Account Managers and the administrative costs of provincial and district HEF/HLF Management Committees in all HSDP provinces. If, and when, CBHI is established in any of the HSDP provinces or districts, the HEF/HLF Management Committee could also serve as the CBHI Management Committee. A ministerial Management Committee for CBHI currently is in place and will also serve as the ministerial HEF/HLF Management Committee.

HEF/HLF Account Managers

25. The Project will support the hiring and administrative running costs of HEF/HLF Account Managers. The Account Managers will be local contractuals hired and trained by the Project, and also will serve as HEF/HLF Secretary of the provincial Management Committee and HEF Secretaries to the district Management Committees. One local contractual will be hired as provincial Account Manager to administer the provincial HEF and HLF. One local contractual will be hired as district Account Manager in each district to administer the HEF for the district hospital, district health centers and villages. The Project will support the administrative running costs of the Account Managers from funds provided to the HEF at the provincial and district levels, not to exceed 10 percent each year.

26. The function of the HEF/HLF Secretary of the Management Committees is to present the agenda of meetings for HEF/HLF and record the minutes, as well as function as Account Manager to ensure the lists of the eligible poor are up-to-date and distributed to all concerned health care providers (provincial and district hospitals, health centers, village health care providers), report on the levels expenditures of the last month, propose the payments of the following month (including hospital reimbursement, health center and village capitation, and administrative costs), and make monthly payments to the provincial and district hospitals, quarterly payments to health centers and annual payments to village health providers in a timely fashion. The provincial and district Management Committees have to endorse the requests for payments. The HEF/HLF Account Manager/Secretary of the Management Committee has to ensure that the payments are made and a report is prepared and submitted to MOH.

HEF/HLF Management Committees

27. Provincial HEF/HLF Management Committees and district HEF Management Committees will be established in all Project provinces and districts. The HEF/HLF Management Committees in the two program provinces will be established by MOH in the first year of the project prior to HEF/HLF implementation. HEF/HLF Management Committees will be established for the six project provinces in the second and third years of the Project. At the health center and village levels, the Village Health Committee, Village Women's Union, or Lao National Front will serve as the HEF management committee. The Project will support the administrative costs of all Management Committees.

28. The current ministerial Management Committee consists of the following:

- the vice minister of health, as chairman,
- the deputy director of budget and planning, as vice-chair,
- the deputy director of budget in the Ministry of Finance,
- the deputy director of Department of Welfare in the Ministry of Labor and Social Welfare, as member,
- the deputy director of the Social Security Organization, as member,
- the deputy director of Curative Department who is responsible for hospitals, as member,
- the deputy director of Personnel Department, who is responsible for social care, as member,
- the deputy director of Food and Drug Department, who is responsible for the Revolving Drug Fund, as member,
- the deputy director of the Centre for Health Education and Medical Information, as member,
- the deputy director of the National Front at central level, as member,
- the deputy director of the Cabinet of the Ministry of Education, as member,
- the deputy director of the Lao Women Union, as member,

- the deputy director of the Lao Youth Union, as member,
- the deputy director of the Lao Trade Union, as member,
- the Head of the Law Unit in the Ministry of Health.

29. The Management Committee at the provincial level provinces will consist of the following:

- the deputy director of the Provincial Health Office, as chair,
- the deputy director of the Finance Department of the province, as vice-chair,
- the deputy director of Department of Social Welfare of the province, as member,
- the deputy director of the Department of Justice of the province, as member,
- the deputy director of the National Front at provincial level, as member,
- the deputy director of the provincial hospital, as member,
- the deputy director of the Department of Education at provincial level, as member,
- the deputy director of the Lao Women Union at provincial level,, as member,
- the deputy director of the Lao Youth Union at provincial level, as member,
- the deputy director of the Lao Trade Union at provincial level, as member,

30. The Management Committee at the district level will consist of the following:

- the district governor, as chair
- the director of the District Health Office, as vice-chair
- the director of the District Finance Department, as vice-chair
- the director of District Department of Social Welfare, as member
- the director of the district hospital, as member
- the director of the Department of Education at district level, as member
- the director of the Department of Justice at district level, as member
- the director of the National Front at district level, as member
- the director of the Lao Women Union at district level, as member
- the director of the Lao Youth Union at district level, as member
- the director of the Lao Trade Union at district level, as member
- the head of the Health Centre (one representative per meeting)
- village representatives, one for each village in the district

Functions of the HEF/HLF Management Committees

31. The ministerial Management Committee will be tasked with the following:

- Lead, promote, supervise, monitor and control the implementation of HEFs and HLFs
- Study and analyze issues proposed by the Management Committees at the province and district levels
- Monitor, lead, promote, stimulate, inspect and control the running of HEFs and HLFs.
- Address and solve the problems proposed by the Management Committee at province and district levels
- Report on the progress of the HEF and HLF to the Steering Committee in the Ministry of Health on a regular basis.
- Organize a review meeting not less than every six months, or more frequent if necessary.

32. The provincial Management Committee will be tasked with the following:

- Listen, reflect and help to solve problems at provincial and district levels
- Monitor, lead, promote, stimulate, inspect and control the running of HEF and HLF at the provincial level.

- Administer the HEF and HLF and monitor the utilization rate and quality of services to the poor at the provincial hospital
- Endorse monthly HEF and HLF payments to the provincial hospital.
- The Management Committee has the right to withhold payment of the HEF and HLF fund to the provincial hospital, in case the provincial hospital did not provide appropriate health care services to the poor, or in case required reports on utilization, treatment, and discharge are not provided by the hospital
- Report quarterly to central level about the progress of HEFs and HLFs in their area.
- Hold a meeting at least every 3 months, or more frequently if necessary.

33. The district Management Committee will be tasked with the following:

- Administer the HEF and monitor the utilization rate and quality of services to the poor in the district hospital, health centers and villages.
- Endorse the monthly payments to the district hospital, quarterly capitation payments to the health centers, and annual payments to villages in the district.
- Disseminate and implement the HEF. The district Management Committee will play the role of community organizer and make awareness campaigns when necessary. Promote the HEF and stimulate the poor to avail of the services.
- Organize a meeting once a month to discuss the important issues and the progress of the HEF.
- Receives complaints from the population and contact the hospitals, health centers and village health providers to mediate in different conflicts occurring in the HEF.
- The Management Committee should liaise with local authorities and other relevant local bodies to improve and develop the HEF.
- Produce a transparent accounting report, reports on the number of poor patients on village lists, and utilization of the eligible poor of the health services. The Management Committee keeps its own accounts, transparent and conforming to the format provided by the Ministry of Health.
- The Management Committee has the right to withhold payment of the HEF fund to the district hospital, health centers and villages in case the health care providers did not provide appropriate health care services to the poor, or in case the required reports on utilization, treatment, and discharge are not provided.
- The Management Committee must provide information and data by reporting to the Ministry of Health, to the Management Committee at ministerial level and to the District Health Office in the area.

D. Description of HCF Project and Program Sub-Components

Project Sub-Components

Project Sub-component 1: Technical Assistance for HEF/HLF Implementation and Monitoring

34. The Project will support the implementation of HEF and HLF in the program and project provinces with technical assistance for the training of provincial and district Account Managers, the establishment of provincial and district Management Committees, training workshops for the Management Committees, hospital management and staff, health center workers, and village health providers to familiarize them with the regulations and functioning of the HEFs and HLFs at the provincial, distinct, health center and village levels.

35. MOH will recruit a team of health care financing consultants consisting of international and local experts in financing of health care services for the poor. These consultants initially will be tasked with the implementation of the pilot tests of HEFs and HLFs in the two program provinces, including conducting training workshops for the provincial and district Account Managers and Management Committees, assisting with problem resolution, and monitoring the performance of the HEFs and HLFs in each pilot test province. Following the evaluation of the pilot tests, the HCF consultants will implement HEFs and HLFs in the six project provinces.

Project Sub-component 2: HEFs and HLFs for Project Provinces

36. The project will provide annual funding for the HEFs in the six project provinces. Following the pilot tests in the program provinces, HEFs will be implemented in three project provinces in the third year of the first phase, and three project provinces in the first year of the second phase of HSDP. Annual funding of the HEFs will include the cost of local contractuals to serve as provincial and district Account Managers. Office equipment, including computers, and running expenses will be provided to Account Managers.

37. The project will provide start-up funding for the HLFs in the six project provinces. Following the pilot tests in the program provinces, HLFs will be implemented in three project provinces in the third year of the first phase, and three project provinces in the first year of the second phase of HSDP. Administrative expenses for the provincial Account Manager and Management Committee will be supported with annual funding for the HEFs.

Project Sub-component 3: Health Care Financing Studies

38. Under this project sub-component, the Project will support the development of a results-based monitoring and evaluation system for HEF and HLF, as well as other program and project components designed to increase the overall utilization by the general population through improvements in the quality and accessibility of the PHC system services. The Project will support international and local HCF consultants to develop the monitoring and evaluation system, and HCF surveys and studies will be conducted to examine the effectiveness of increased funding for recurrent costs on utilization and key indicators of results-based provincial project and program funding. In addition, the Project will support HCF consultants to conduct health care financing evaluation studies of the effectiveness of the pilot tests of HEFs and HLFs in the program provinces to improve the access and utilization of public health care services by the poor and near poor. The HCF consultants will assist MOH in the preparation of monographs and papers to be presented at international conferences and published in scholarly journals to widely disseminate the results of the HEFs and HLFs.

39. Two additional health care financing studies will be conducted by HCF consultants that will focus on closely related health care affordability and access issues, namely: i) testing the effects of alternative pricing schemes at hospitals for health care services recently allowed under the Decree of Fees and Charges (No. 381/PM); and ii) the long term sustainability of drug revolving funds at the health center and village levels implemented under PHCEP, and which are important for access to services by the poor.

Program Sub-Components

Program Sub-component: Pilot Test of HEFs and HLFs

40. The program will provide annual funding for the provincial, district, health centers, and village HEFs in the two program provinces, Xaignabouri and Xieng Khouang, for all six years of the Project. Annual funding of the HEFs will include the cost of local contractuals to serve as provincial and district Account Managers and administrative expenses for the Management Committees. Office equipment, including computers, and running expenses will be provided to Account Managers.

41. The program will provide the start-up costs for the provincial HLFs, in the two program provinces, Xaignabouri and Xieng Khouang. Administrative expenses for the provincial Account Manager and Management Committee will be supported with annual funding for the HEFs.

HEALTH CARE FINANCING

IMPLEMENTATION PLAN

Project Component: Health Care Financing

Project Sub-Component 1: Technical Assistance for HEF/HLF Implementation and Monitoring

Output: Trained Management Committees and Account Managers, HEF/HLF Monitoring and Problem Resolution

Strategies:

The project and program seeks to establish health equity funds and health loan funds in each of the eight Northern provinces. Trained third-party management committees and account managers, problem resolution and monitoring of the operation of the HEFs and HLFs is critical for the success of these public assistance funds to increase the utilization of health care services by the poor and near-poor.

Objective:

The objective of this subcomponent is to have a well-functioning system in place to administer the HEFs and HLFs, including well trained Account Managers for accurate accounting of HEF and HLF funding for the health care costs of the eligible poor and near poor, trained oversight Management Committee members, provincial and district hospital staff, health center staff and village health providers, and provide technical assistance for problem resolution and continual monitoring of the HEFs and HLFs.

Description:

The Project will achieve this objective through provision of technical assistance from HCF consultants to conduct training workshops for the Account Managers, Management Committees, and health care providers, and for problem resolution and monitoring of the operation of HEFs and HLFs in each project and program province. A results-based monitoring and evaluation system will be developed for project and program components designed to improve the access and utilization of public health care services by the poor and near poor, as well as overall utilization by the general population through improvements in the quality and accessibility of the PHC system. Computers will be procured for Account Managers.

Performance measures:

- Training workshops for Account Managers, Management Committees and health care providers completed
- Monitoring and evaluation system developed
- Computers purchased and delivered to Account Managers

Activities:

Activity 1 International and local HCF technical assistance for implementation and monitoring of HEFs and HLFs

An international HCF consultant with expertise in HEFs for the poor and micro-credit HLFs will be recruited for a total of 11 person-months, in divided inputs, over project years 1 through 6. A local HCF consultant with expertise in HEFs and HLFs will be recruited for a total of 22 person-months, in divided inputs, over project years 1 through 6. The HCF consultants will conduct the training workshops for the Account Managers, Management Committees and health care providers, will assist the Management Committees and Account Managers to identify and resolve problems, develop the monitoring and evaluation systems, and will monitor the implementation and operation of the HEFs and HLFs in each province with frequent field visits. The HCF consultants will work with MOH in the achievement of all outputs under this sub-component, and will give support to MOH in other priority activities that arise.

Activity 2 Training Workshops for Management Committee and Account Managers

Training workshops for the provincial Management Committees and Account Managers will be held in Vientiane. Two workshops will be held for each province, including an initial training workshop prior to implementation of HEFs and HLFs in the province, and a follow-up workshop in the middle of the first year of implementation to refresh the training and address problems encountered. Each of these training workshops will be for 5 days, will have 20 participants for each province, and be conducted during Project years 1, 2, and 3.

Training workshops for the district Management Committees and Account Managers will be held in the provincial capital. Two workshops will be held in each province, including an initial training prior to the implementation of the HEFs in the province and a follow-up workshop in the middle of the first year of implementation to refresh the training and address problems encountered. Each of these district level training workshops will be for 5 days, will have 40 participants for each province, and be conducted during Project years 1, 2, and 3.

Activity 3 Computers

The Account Managers (local contractuals) will each be provided with 1 laptop computer, to give them computer capacity for HEF and HLF accounting, report writing and monitoring. Computers will be provided during Project years 1, 2 and 3.

Responsibilities:

The PMO and the MOH will have responsibility for identifying and recruiting the international and local HCF consultants to provide technical assistance for this sub-component. The PMO will have responsibility for procurement of computers.

Schedule:

Activity	2007				2008				2009				2010				2011				2012			
Technical Assistance																								
Training Workshops																								
Computers																								

Inputs (resources):

Activity	US$						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
Technical Assistance	66,400	99,600	99,600	36,400	36,400	36,400	374,800
Training Workshops	60,000	90,000	90,000	0	0	0	240,000
Computers	34,000	34,000	38,000	0	0	0	106,000
TOTAL COST	**165,200**	**230,800**	**234,800**	**12,000**	**12,000**	**12,000**	**719,800**

Project Component: Health Care Financing

Project Sub-Component 2: Health Equity Funds and Health Loan Funds in Project Provinces

Output: HEFs and HLFs implemented in six project provinces

Strategies:

The project and program seeks to establish HEFs and HLFs in each of the eight Northern provinces. This project sub-component will provide funding for the HEFs in the six project provinces. The funding of the HEFs is critical to ensure an increased utilization of public health care services by the poor. The funding of HLFs is critical to ensure the near poor are not impoverished by large hospital expenses for catastrophic care. Support will be provided for the administration of the HEFs and HLFs, including the costs of Account Managers and administrative expenses of the Management Committees in the program provinces and project provinces. HCF Project Sub-component 1 will support this project component with technical assistance for training, monitoring and evaluation of the HEFs and HLFs, and computers for Account Managers.

Objective:

The objective of this project subcomponent is to have HEFs and HLFs established and operational in the six project provinces following the pilot tests of these funds in the two program provinces. In addition, Account Managers will be provided for program and project provinces.

Description:

The Project will achieve this objective through provision of annual funds for HEFs (including administrative expenses of Account Managers and Management Committees), start-up funds for HLFs in the six project provinces. Three provinces will receive HEF and HLF funding beginning in year 3 of the Project, and the remaining three provinces will receive HEF and HLF funding beginning in year 4. The Project also will support the hiring of local contractuals as Account Managers at the provincial and district levels in the program and project provinces. Computers will be provided to all Account Managers.

Performance measures:

- Annual funding transferred to the six project provinces for HEFs.
- Start-up funding transferred to the six project provinces for HLFs.
- Account Managers administrating HEFs and HLFs in all program and project provinces.

Activities:

Activity 1 *Annual funding of HEFs in six project provinces*

Activity 2 *Start-up funding for HLFs in six project provinces*

Activity 3 *Local contractuals for Account Management*

Local contractuals with expertise in double-entry accounting procedures will be recruited as Account Managers for a total of 235 person-months over project years 1 through 6. The con-

tractuals will work with the MOH in the implementation and operation of the HEFs and HLFs in each of the project and program provinces.

Responsibilities:

The PMO and the MOH will have responsibility for transferring funds for HEFs and HLFs to the project provinces for implementation, and for identifying and recruiting local contractuals to serve as account managers. The HEF/HLF provincial Account Manager will be responsible for making HEF payments to the provincial hospital for the health care costs of the eligible poor, and making HLF payments to the provincial hospital for the health care costs of patients who take loans. The HEF district Account managers will have responsibility for making HEF payments to the district hospital for the health care costs of the eligible poor, and making HEF capitation payments to health centers and village health care providers.

Schedule:

Activity	**2007**				**2008**				**2009**				**2010**				**2011**				**2012**			
HEFs																								
HLFs																								
Account Managers																								

Inputs (resources):

Activity	US$						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
HEFs	0	0	295,000	610,000	610,000	610,000	2,125,000
HLFs	0	0	40,000	50,000	0	0	90,000
Account Managers	6,800	6,800	13,200	22,400	22,400	22,400	94,000
TOTAL COST	6,800	6,800	348,200	682,400	632,400	632,400	2,309,000

Project Component: Health Care Financing

Project Sub-Component 3: Health Care Financing Studies

Output: Evaluation of HEF and HLF pilot tests, evaluation of the impact of increased recurrent cost funding, evaluation of village drug kits, evaluation of hospital pricing schemes

Strategies:

The Project seeks to establish health equity funds and health loan funds in each of the eight Northern provinces, increase the funding of the public health system for recurrent costs, and examine health care financing issues related to the performance of revolving drug funds and hospital pricing. This project subcomponent will support the evaluation of pilot tests of the HEFs and HLFs in the program provinces and subsequent annual evaluations of HEFs and HLFs in all provinces, annual evaluation of results-based recurrent cost funding in all provinces, and special HCF studies on the sustainability of village drug kits and alternative hospital pricing schemes.

Objective:

The objectives of this subcomponent are to: i) obtain reliable and accurate data and evidence on the effectiveness of HEFs and HLFs to increase the utilization of preventive and curative public health care services of the poor and near poor; ii) collect data on key health care service indicators on which to judge the impact of increased recurrent cost funding using a results-based approach; iii) conduct analytical HCF evaluation studies of HEFs, HLFs, and recurrent cost funding; and iv) conduct special purpose HCF studies on village drug kits and hospital pricing schemes.

Description:

Annual health care financing surveys and studies will be conducted to examine the effectiveness of increased funding for recurrent costs on key health service indicators of results-based provincial project and program funding. In addition, health care financing evaluation studies will be conducted of the effectiveness of the program province pilot tests of health equity funds and health loan funds to improve the access and utilization of public health care services by the poor and near poor, and annually in all provinces after implementation of these funds in the project provinces. Two other studies will focus on closely related health care affordability and access issues, namely: i) the long term sustainability of village drug kits implemented under PHCEP; and ii) testing the effects of alternative pricing schemes at hospitals for health care services.

Performance measures:

- Annual HCF surveys
- Annual HCF studies of HEF and HLF effectiveness
- Annual HCF studies results-based funding
- HCF study of hospital pricing
- HCF study of sustainability of village drug kits

Activities:

Activity 1 Annual HCF surveys

The Project will support local contracts for baseline and annual household surveys on public health care utilization by the poor and near poor in all eight provinces on which to evaluate the performance of HEFs and HLFs in the two program province pilot tests and six project provinces, and local contracts for baseline and annual household surveys on key health service indicators on which to judge the effects of increased recurrent cost funding in the public health care system. The HCF consultants will work with MOH in the achievement of all outputs under this sub-component, and will give support to MOH in other priority activities that arise.

Activity 2 HEF and HLF studies

An international HCF consultant with expertise in surveys and studies of results-based monitoring, HEFs and HLFs will be recruited for a total of 12 person-months, in divided inputs, over project years 1 through 6, two months each year. Local HCF consultants with expertise in surveys and studies of results-based monitoring, HEFs and HLFs will be recruited for a total of 36 person-months, in divided inputs, over project years 1 through 6, 6 months each year. The HCF consultants will conduct an initial evaluation of the pilot test of HEFs and HLFs in the two program provinces, make recommendations for changes in the design of the HEFs and HLFs, and conduct subsequent annual evaluations of HEFs and HLFs in the program and project provinces.

Activity 3 Results-based studies

An international HCF consultant with expertise in surveys and studies of results-based monitoring will be recruited for a total of 6 person-months, in divided inputs, over project years 1 through 6, one month each year. Local HCF consultants with expertise in surveys and studies of results-based monitoring, HEFs and HLFs will be recruited for a total of 18 person-months, in divided inputs, over project years 1 through 6, 3 months each year. The HCF consultants will conduct an annual evaluation of the effects of increased recurrent cost funding on key health service indicators in the eight program and project provinces.

Activity 4 Village Drug Kit Study

An international HCF consultant with expertise in revolving drug funds in Laos will be recruited for a total of 1 person-month, single input, in the second year of the Project. Similarly qualified local HCF consultants will be recruited for a total of 3 person-months, in divided inputs, in the second year of the project. The HCF consultants will conduct an evaluation of the sustainability of village drug kits implemented in PHCEP in the eight Northern provinces.

Activity 5 Hospital Pricing Study

An international HCF consultant with expertise in hospital costs and alternative pricing schemes in Laos will be recruited for a total of 1 person-month, single input, in the second year of the Project. Similarly qualified local HCF consultants will be recruited for a total of 3 person-months, in divided inputs, in the second year of the project. The HCF consultants will conduct an evaluation of alternative hospital pricing schemes including the current cost recovery system which charges for drugs, medical consumables, lab tests, etc, alternative systems allowed under PM Decree 381 which allows for fees to be charged for services provided by the staff including consultations, surgery, etc., and fixed fee schedules for categories of hospital services provided to patients.

Responsibilities:

The PMO and the MOH will have responsibility for identifying and recruiting the international and local HCF consultants to provide technical assistance for this sub-component and for local contracts for the HCF surveys.

Schedule:

Activity	**2007**				**2008**				**2009**				**2010**				**2011**				**2012**			
HCF surveys																								
HEF/HLF studies																								
Results-based studies																								
Village Drug Kit Study																								
Hospital Pricing Study																								

Inputs (resources):

Activity	US$						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
HCF surveys	50,000	64,000	64,000	85,000	106,000	106,000	475,000
HEF/HLF studies	64,800	64,800	64,800	64,800	64,800	64,800	388,800
Results-based studies	32,400	32,400	32,400	32,400	32,400	32,400	194,400
Village Drug Kit Study	0	62,400	0	0	0	0	62,400
Hospital Pricing Study	0	0	52,400	0	0	0	52,400
TOTAL COST	**147,200**	**223,600**	**213,600**	**182,200**	**203,200**	**203,200**	**1,173,000**

Program Component: Health Care Financing

Program Sub-Component: Pilot Test of Health Equity Funds and Health Loan Funds in Program Provinces

Output: HEFs and HLFs pilot tested in two program provinces

Strategies:

The project and program seeks to establish HEFs and HLFs in each of the eight Northern provinces. This program sub-component will provide funding for the HEFs in the two program provinces. The funding of the HEFs is critical to ensure an increased utilization of public health care services by the poor. The funding of HLFs is critical to ensure the near poor are not impoverished by large hospital expenses for catastrophic care. The HCF project subcomponents will operationalize this HCF program component with technical assistance for training, monitoring and evaluation of the pilot test, support for Account Managers and Management Committees, computers, etc.

Objective:

The objective of this project subcomponent is to have HEFs and HLFs established and operational in the six project provinces. This subcomponent will be implemented in the six project provinces following the pilot tests of these funds in the two program provinces.

Description:

The Project will achieve this objective through provision of annual funds for HEFs and start-up funds for HLFs in the six project provinces. Three provinces will receive HEF and HLF funding beginning in year 3 of the Project, and the remaining three provinces will receive HEF and HLF funding beginning in year 4.

Performance measures:

- Annual funding transferred to the six project provinces for HEFs.
- Start-up funding transferred to the six project provinces for HLFs.

Activities:

Activity 1 *Annual funding of HEFs in six project provinces*

Activity 2 *Start-up funding for HLFs in six project provinces*

Responsibilities:

The PMO and the MOH will have responsibility for transferring funds for HEFs and HLFs to the project provinces for implementation. The HEF/HLF provincial Account Manager will be responsible for making HEF payments to the provincial hospital for the health care costs of the eligible poor, and making HLF payments to the provincial hospital for the health care costs of patients who take loans. The HEF district Account managers will have responsibility for making HEF payments to the district hospital for the health care costs of the eligible poor, and making HEF capitation payments to health centers and village health care providers.

Schedule:

Activity	**2007**				**2008**				**2009**				**2010**				**2011**				**2012**			
HEFs																								
HLFs																								

Inputs (resources):

Activity	US$						Total
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	
HEFs	250,000	250,000	250,000	250,000	250,000	250,000	1,500,000
HLFs	35,000	0	0	0	0	0	35,000
TOTAL COST	285,000	250,000	250,000	250,000	250,000	250,000	1,535,000

COMPONENT 3: STRENGTHENING PRIMARY HEALTH CARE SYSTEMS

1. The PHC component of the HSDP is designed along the PHC policy of the MOH. It builds on the outputs already achieved by the predecessor projects supported by ADB (PHCP and PHCEP) as well as on other PHC projects of the MOH supported by other donors. PHCP and PHCEP have significantly increased the coverage with PHC services in the eight Northern provinces, both in terms of physical health infrastructure, equipment and supplies as well as in terms of village based services including the provision of village drug kits to virtually 100% of all target villages. These services are now available to the population. However, their utilization in many cases still remains low for various reasons.

2. The objective of the PHC component of the HSDP is to increase utilization of PHC services and along with this health benefits to the target population. This will be achieved by improving the quality and availability of services on the supply side, and by increasing access and demand on the clients' side. These objectives apparently are unanimously shared by the MOH and by ADB and are in line with the MOH overall policy to shift emphasis from quantity to quality.

3. However, the Consultant notes conflicting views regarding the scope of civil works to be provided under the HSDP on the sides of the MOH and of ADB. The MOH would like to physically further expand the network of PHC facilities by constructing another forty (40) HCs and upgrading existing HCs (50). ADB, on the other hand would like to first see the previous investment in new construction of HCs under the PHCEP fully set in value (adequate staffing, improved service quality, increased utilization rates etc.), before investing in new constructions and civil works on any larger scale. The Consultant shares the view, that pay-off of previous investment should be ensured before endeavoring on new ones. To address issues of deficient service quality of facilities newly built under the PHCEP, the HSDP allocates funds to HRD and supports recurrent costs.

4. Rather than allocating funds for a fixed number of facilities to be constructed or renovated, it would appear a reasonable basis for mutual agreement to base allocations for civil works on an as concrete as possible assessment of those facilities that definitely need renovation (based e.g. on evidence through photographs of dilapidated facilities available at the MOH) and on strategically required construction of new facilities (based on the zoning and mapping exercises conducted under the PHCEP). In the absence of such data, the following component description is based on extensive discussions with the MOH, and does not reflect ADB's concerns. This will need to be agreed upon during further steps of project design. The following two paragraphs provide an overview on the elements of the Component 3 targeted at the supply side and at the clients' side, as it stands to date.

5. On the **supply side**, interventions to improve quality and availability and access will include:

- continued training of PHC workers at HCs (in general and specifically of female staff and from small ethnic groups, this will mainly come under the HRD component);
- support to training of a new category (medical assistants) of mid-level staff for hospitals and HCs;
- upgrading technical skills of existing staff;
- strengthening of provincial and district health offices in their capacity to plan, budget for, implement, monitor and evaluate integrated PHC delivery packages;
- support to recurrent budgets for operational costs under the program grant;
- expanding the coverage PHC facilities network by new construction and renovation of HCs and one provincial hospital; and

- replenishing village drug kits and enhancing their scope to include oral contraceptive pills.

6. On the clients' side, interventions to increase the demand will include:

- provision of HEF and HLF to the poor and the near poor (cf. Component 2, Health Financing);
- expand peer education to the population at large as well as on selected topics to the respective population segments (DDC, SM, IMCI, nutrition promotion etc.);
- awareness campaigns through appropriate channels and media;
- strengthen village health institutions that support PHC; and
- continue to support the training of VHVs (refresher training and compensating for attrition).

Sub-component 1: Strengthening Provincial and District PHC Management

7. Strengthening provincial and district level PHC management will support capacity building for province and district level management staff through master's courses in Public Health at Mahidol University, Thailand and in-country at the National University of Laos. Details will be defined, and candidates selected (envisaged are 25 trainees) during actual project planning at the beginning of the first year. It will be streamlined with management training under the Component 4, Planning and Budgeting to ensure optimal complementarity in strengthening individual province and district level teams.

8. Province and district level training teams will receive TOT to upgrade their training capacity on technical topics and on teaching methodology. Thematic topics will include among others management and control of infectious diseases, better management of the EPI program, sexual and reproductive health with a focus on maternal health, HIV/AIDS/STI prevention and treatment, and nutrition related issues. A five days training is envisaged for five trainers in each of the eight provinces. Similar training events will be conducted at the district level in 62 districts. The duration of the training will be five days.

9. PHC management improvement can be seen as a center piece of the HSDP. It is supported also by interventions that, for budgeting purposes, are included under the HRD and Planning and Budgeting Components. This includes training of mid-level health workers (medical assistants) for district hospitals and health centers. After revision of job descriptions and training curricula for this category (during year one and two), 50 trainees will be taken in for a training of two years duration from year three of HSDP implementation. Comprehensive and integrated planning and budgeting training events will also be provided at province and district levels under the Planning and Budgeting Component.

10. Management training will be geared at leadership qualifications and team working abilities. Important elements and results will be the introduction or strengthening of supportive supervision and constructive dialogue between and within the different levels of the system. This will include exchange of experience and best practices as well as the introduction of elements of competition.

11. To ensure adequate infrastructure and equipment, which are essential prerequisites for the provision of quality health services, HSDP will renovate and provide standard equipment for one provincial hospital and for two district hospitals to be upgraded from Type B to Type A.

12. To support outreach activities from provincial level, HSDP will provide outreach vehicles with medical and audiovisual equipment for the six (6) provinces that have not yet been provided such vehicles under the PHCEP. To facilitate outreach activities from the DHO to

health centers and villages in their catchment areas, one (1) motorcycle per DHO will be provided. Along with this, support to non-salary recurrent costs for operation (e.g. fuel, communication, stationary, transport allowances etc.) will be of paramount importance.

Sub-component 2: Health Center Based Integrated PHC Services Management

13. To strengthen this subcomponent, the program will support capacity building of health center managers / officers in-charge. It is envisaged to train one person per HC for three days from selected 121 HCs. This will be complemented by support to recurrent costs for annual implementation review meetings.

14. As at province and district levels, capacity building will be complemented by infrastructure and equipment support to ensure adequate working conditions. In the area of civil works, however, the Consultant notes conflicting views between the MOH and ADB. The priority need of further improvement of quality of services is acknowledged by both parties.

15. Notwithstanding this, the MOH still sees significant need in expanding the network of existing fixed facilities (health centers). ADB, on the other hand would like to first see its investments in such facilities during the predecessor PHCP and PHCEP projects set in value, as shown, for example by better staffing and increased utilization rates.

16. The actual scope of civil works support at health center level will therefore be subject to further discussions and agreements between MOH and ADB during the upcoming steps of HSDP design. Currently the MOH proposes new construction of 40 health centers, while ADB sees the limit at a number of ten (10). MOH sees a need to renovate 50 health centers, while ADB suggests limiting this number to 25.

17. To support outreach activities from HC level to villages, HSDP will provide one (1) motorcycle per HC (249 excluding those that have already been provided under PHCEP). Non-salary recurrent costs support will also be provided on a lump sum basis to each HC to ensure effective operation.

Sub-component 3: Village Based Integrated PHC Services

18. Support to village based integrated PHC services will bank on achievements in strengthening village based institutions and village health workers under the PHCEP. Village health committees in 4,597 target villages will receive annual training sessions of three (3) days each over the entire project life. Peer educator training of three days duration will be conducted (in 54 districts not yet covered under the PHCEP) during the first two years of the project. Village health workers in all villages of the 54 districts not yet covered under the PHCEP will be trained for two weeks.

19. To ensure that villages and VHVs are sufficiently equipped, standard drug kits (27 items) will be provided as per requirements. Additional equipment, such as thermometers, blood pressure measuring devices, measuring tapes etc. will be provided and replenished to compensate spoilage and losses. Approximately 1,000 bicycles will be provided for selected poorest villages that have access to roads.

20. These interventions are aimed at supporting and standardizing a set of village based programs for replication in each and every village. Such village health programs would include (i) clear definitions of roles and functions of VHCs and other sectors (e.g. education, agriculture) for financial and technical support and supervision of thematic groups (e.g. pregnant women, mothers, school children); (ii) packages of village based MCH/FP/Nutrition services. Nutrition interventions included in village based programs will feed into compre-

hensive strategies and plans resulting in a National Nutrition Policy and Plan that defines nutrition as an essential element of integrated PHC packages.

21. National nutrition strategies would include (1) multi-sector, inter-agency planning and management involving health, agriculture, education, social welfare, economic planning, finance, trade and industry stakeholders; (2) nutrition promotion, behavior change communication and peer education within a demand based primary health care; (3) micronutrient supplementation on the short term and food fortification with micronutrients in the long term; (4) village based health and nutrition especially in the rural, remote and ethnic minority communities; and (5) formulation of a national research agenda on young child nutrition.

22. **Village Health and Nutrition Program**: Community based health and nutrition programs with village leaders, village health workers and mothers actively participating and involved in their planning, design, implementation and evaluation are the most practical direct service interventions that can have a quick impact to change the malnutrition situation in Laos.

23. The Village Health Committee (VHC) will take the lead in establishing community based health and nutrition programs. The VHC is composed of the Village Chief assisted by the Primary Health Care Workers, Village Health Providers, Village Health Volunteers, Peer Educators and the village-based officers of the three national unions, the Lao Women's Union, Lao Youth Union and the Lao National Front Union.

24. The three Unions are mandated to generate community participation, involvement and mobilization. They have had meaningful partnerships, with the Ministry of Health and the health system, supported by external donors, in increasing the demand for health services, especially among the poor, among women and among the ethnic minorities in programs on HIV/AIDS, immunization and maternal and child care. They will now be mobilized for nutrition.

25. The expertise of international non-government organizations (NGOs) present in Laos like World Vision, Save the Children, and Health Unlimited will also be tapped. They have been utilizing community development and community participation strategies in their health programs. Dialogue with them and access to their annual reports and health development monographs will further accelerate community involvement in health and nutrition.

26. Officers of the Lao Women's Union will be trained in basic nutrition for under five children. Together with the Village Health Committee, they will provide nutrition services to mothers. They will gather each month to learn about exclusive breastfeeding for infants and young child feeding. Breastfeeding support groups can be organized to increase the duration of exclusive breastfeeding. Mothers can also learn about proper weaning and preparation of appropriate complementary foods for infants above four months of age. Vitamin A and iron supplementation will also be given to children above six months. The use of iodized salt in every household will be reinforced.

27. Monitoring and supervision of community based health and nutrition programs will be provided by the nearest health center. Additional support will come from the District Health Office. Monitoring indicators will be the proportion of children under five demonstration positive growth curves; proportion of infants 0-4 months on exclusive breastfeeding; proportion of children above four months receiving complementary foods, Vitamin A and iron supplements.

COMPONENT 4 - PLANNING AND BUDGETING

13. This component aims to strengthen the MOH Planning and Budgeting Department. This includes supporting MOH units for strategic and annual planning and budgeting including preparing a medium-term expenditure framework, health economics and financing, and health information and statistics; and establishing an Integrated Project Administration Unit (IPAU) within the Planning and Budgeting Department that will support the implementation of international projects assisting MOH.

Sub-component 1: Strategic and Annual Planning

14. Analyses have shown serious under-funding and inefficient use of limited funds available in the public health system as a major problem. Existing treasury management causes late payment of salaries and delays in procurement. This calls for an urgent need to improve planning and governance as well as to establish sound planning and budgeting mechanisms that are based on needs and results.

15. Decentralization has devolved a large share of management, planning and budgeting responsibilities to the lower levels of public administration. To carry out most of these functions their capacity still needs considerable strengthening. Vertical programs, inadequate hospital management, and a lack of information exchange between the different actors contribute to a fragmented health care system. This hampers effective planning and budgeting. Actual budgetary allocations therefore do not reflect the strategic plans prepared by the PHOs and DHOs. Moreover, donor contribution and private payments in health is not accounted for at provincial and district levels.

16. Resource allocation processes and decisions are generally centralized with limited transparency. The control and auditing role of the center is weak and the implementation of policies is often undertaken in an ad-hoc manner, with no effective involvement of civil society. Local accountability is limited. The abolition of the formal tier of sub-districts at a level between village and district makes planning and management of service provision more difficult.

17. Strategic and annual planning at province level will be guided by the National Health Sector Development Plan 2006-2010, produced by the Ministry of Health in October 2005. This plan presents the sector and program targets for the health sector until 2010 that will be required to meet MDGs in health; and estimates the investment and recurrent cost that will be required to achieve 2010 targets. The MOH is in the process of developing Provincial Health Sector Development Plans 2006-2010 that will translate the content of the national plan to the context of each province. Based on these strategic plans, annual plans and budgets will be developed.

18. The project will support planning capacities at national and provincial levels through several approaches. Needs assessments and other operational research will identify weaknesses and opportunities. In response, a training program will be designed and implemented for workshops and other appropriate capacity building interventions. Likely contents will include data management and analysis, accounting and financial planning and budgeting and human resource management, planning and supportive supervision.

19. Equipment including IT facilities will be provided at the national level as well as software development in order to strengthen the health management information systems. Similarly, the provincial level (17 provinces) will receive equipment, training and workshop possibilities. Studies will address specific questions of planning at provincial level and its increasing political mandate in guiding the district health systems in their relevant areas.

20. The components will be assisted 4 months per year by an international Health Planning and Budgeting Specialist, as well as by a local full time Planning and Budgeting Specialist.

Sub-component 2: Health Information Systems

21. The basis for planning and budgeting is the timely availability of relevant and reliable data on health status, health service in- and outputs, and on program progress. Orientation towards the poor and gender and ethnic considerations need specific and disaggregated health information.

22. The Department of Planning and Budgeting is one of the key departments of the Ministry of Health. Its role is to support the Health Minister to assist in leading and managing the different departments within the Ministry of Health. Its primary functions relate to the development of health information and statistics, and also to planning, budgeting, finance, accounting, and microfinance. The Planning and Budgeting Department also has responsibilities with regard to repairs and basic construction (civil works), the technical promotion budget, preparation for setting up health insurance funds, government lands and properties management, internal and external expenditures and income management in order to ensure health sector development.

23. The progress of project implementation will be monitored through a set of key indicators to measure the development of policies, programs and action plans including budget expenditures for the project portion of the health sector development program, the delivery of health services to remote rural villages, the poor and to small ethnic groups and to women and children. The indicators will measure the HSDP's progress in improving access, quality and equity of health services delivered. Baseline indicators will be developed from the end-of-project household survey conducted by the PHCEP, which will include additional questions based on the expected requirements of the HSDP.

24. Household surveys will be undertaken at mid-term and at the end of the project to measure intermediary indicators related to the improvement of health and meeting MDGs in Maternal and Child Health and Nutrition. Surveys will be conducted by staff of statistic units of provincial health offices and by district surveyors and supervisors. This cooperation has been established in the context of previous surveys under the PHCEP (household and facility surveys) and staff involved has been trained to meet the specific requirements of those surveys. Refresher training and training for newly recruited surveyors to compensate for attrition will be provided by the program.

25. In order to assure the availability of reliable health information, the project will support the national level as well as the provincial level (17 provinces) through the provision of annual lump sums for equipment, software development, training and workshops.

26. The component will be assisted 2 months per year by an international Health Information Specialist, as well as by a local full time Health Information Specialist.

Sub-component 3: Health Financing Policy Unit

27. The Department of Planning and Budgeting is responsible for the development of new health financing systems. Some new approaches are being proposed by this project which already have been tested on a small scale by other projects. The HEF and the HLF approach will be introduced on a larger scale. Its development and implementation will need the strong and competent professional input from the Health Financing Policy Unit.

28. New health financing systems are crucial for the achievement of the project objectives. Their introduction will meet significant technical and possibly social difficulties, and

challenge the professional expertise and the managerial capacity of those in charge. In particular, strong economical, financial, and analytical skills will be important.

29. In response, the project will provide several scholarships for short courses in relevant fields and high level training for master and PhD degrees in health economics, health policy, and health financing. Training will be in-country and overseas.

Sub-component 4: Integrated Project Administration Unit (IPAU)

30. One of the most promising approaches for improved health financing is the more rational use of available resources through planning and coordination. This refers in particular to the coordination of funds provided by different donor organization.

31. Project administration can be gradually integrated in accordance with the Paris declaration. Similar types of project procurement and financial management functions for foreign assisted projects are spread over several departments, involving large transaction costs of MOH, duplication, lack of institutionalized administrative capacity, project delays, competition for limited staff time and consultants, etc. The ADB supported Project Management Office (PMO) of the PHC Expansion Project has built up considerable administrative capacity with provincial linkages which is unique in MOH, and could be mainstreamed and converted into an integrated Project Administrative Unit (IPAU) in MOH and used by various projects. IPAU could provide central administrative capacity to handle project administration, including civil works, procurement of equipment, financial management, and project monitoring. IPAU would take on the role of executing agency, with concerned departments being the implementing agencies

32. An Integrated Project Administration Unit (IPAU) within the Planning and Budgeting Department will be developed that will support the implementation of the HDSP as well as of other international projects assisting the Ministry of Health. This setting will allow for consistent coordination of donor funded intervention in the health sector and benefit from synergetic effects between projects.

33. In particular the IPAU will strengthen planning and budgeting capacities at central, provincial and district level. This will be of great importance for reliable and smooth planning and implementation of procurement and civil works projects, as well as for the transition to a performance-based management. Particular focus will be on strengthening provincial level capacities.

34. The project will support the central and the provincial (8) level with office equipment, vehicles, and salaries for leading professional staff. Further, funds will be provided for extensive capacity building, including management training, monitoring & evaluation, and project accounting and disbursement. Workshops will assure information exchange and participation of stakeholders. Recurrent costs for monitoring at the level of provinces and districts will be covered. Local and international architects, procurement specialist and an accountant firm will support operations of the HSDP and of other donor supported projects.

APPENDIX 6: External Assistance by Sector and Sub sector

Sector / Subsector	Agency	Project name	Start	End	Total budge US$
Health	ADB	Primary Health Care Expansion Project	2000	2007	25.000.000
Health	WB	Health Services Improvement Project	2004	2009	15.000.000
Health	WHO	WHO's core presence in countries	2006	2007	1.289.800
Health	UNICEF	Health Management and Promotion (Survival, Growth and Development Programme)	2002	2006	368.000
Health	UNICEF	Child Survival Interventions (Survival, Growth and Development Programme)	2002	2006	3.025.000
Health, communicable diseases	FAO	Building Capacity at the Grass-roots Level to Control Avian Influenza	2005	2008	2.910.990
Health, communicable diseases	WHO	Vectorborne and parasitic disease control	2006	2007	305.818
Health, communicable diseases	WHO	Communicable disease surveillance and response	2006	2007	1.342.927
Health, communicable diseases	WHO	Malaria	2006	2007	126.364
Health, communicable diseases	FAO	Immediate assistance for strengthening community-based early warning and early reaction to Avian Influe	2005	2006	6.000.000
Health, HIV/AIDS	UNDP	Enhancing Capacity for a Multi-Sectoral Response to HIV/AIDS in the Lao PDR	2006	2008	1.740.073
Health, HIV/AIDS, Malaria	WHO	Health, HIV/AIDS	2006	2007	218.344
Health, HIV/AIDS, Malaria	UNFPA	Reproductive Health Services through Primary Health Care Network	2002	2006	4.400.000
Health, HIV/AIDS	UNICEF	HIV Prevention (HIV/AIDS Prevention and Care Programme)	2002	2006	880.000
Health, HIV/AIDS	UNICEF	Care and Support for Affected Children and Families (HIV/AIDS Prevention and Care Programme)	2002	2006	290.000
Health, nutrition	WHO	Food safety	2006	2007	62.000
Health, maternal	WHO	Making pregnancy safer	2006	2007	144.000
Health, maternal	UNDP	Maternity Waiting Homes and Essential Obstetric Care	2003	2006	240.194
Health, maternal	UNICEF	Safe Motherhood (Survival, Growth and Development Programme)	2002	2006	925.000
Health, immunization	WHO	Immunization and vaccine development	2006	2007	600.550
Health, Environment / Natural Resources	WHO	Health and Environment	2006	2007	477.521
Health, Environment / Natural Resources	UNICEF	Support for School Sanitation (Water and Environmental Sanitation)	2002	2006	980.000
Health, Environment / Natural Resources	UNICEF	Support for Better Hygiene Practices and WES Facilities at Community Level (Water and Environmental S	2002	2006	1.700.000
Health, Population Issues	UNFPA	Strengthening the Data Base for Population and Development Planning	2002	2006	357.500
Health, Population Issues	UNFPA	Establishment of the Population Studies Centre at the National University of Laos	2002	2006	275.000
Health, Population Issues	UNFPA	Promotion of the National Population and Development Policy and Population Planning	2002	2006	550.000
Health, SRH	UNFPA	Addressing gender and reproductive health needs through the Lao Women's Union	2002	2006	550.000
Health, SRH	UNFPA	Promotion of Adolescent Reproductive Health through the Lao Youth Union network	2002	2006	250.000
Health, Food Security and Nutrition	UNICEF	Growth Development (Survival, Growth and Development Programme)	2002	2006	2.146.000
Health, financing	WHO	Health financing and social protection	2006	2007	836.055
Health / HRD	WHO	Human resources for health	2006	2007	325.537
Education	WFP	Access to Primary Education for Girls and Boys in Remote Areas of Lao PDR	2005	2010	22.784.163
Education	ADB	Second Education Quality Improvement Project	2001	2008	37.600.000
Health, policy, systems	WHO	Health system policies and service delivery	2006	2007	85.000
Health, education, schools	WHO	Health promotion in and through schools	2006	2007	94.000
Health, education, schools	WHO	Child and adolescent health	2006	2007	112.000
Education, Health	UNFPA	Institutionalizing Population Studies and Sexual Health Education through the Formal and Non-Formal Ec	2002	2006	700.000
Education	UNICEF	Quality Education especially for Girls (Learning for Child and Community Development Programme)	2002	2006	3.668.000
Infrastructure, Transport	WB	Provincial Infrastructure	1998	2006	27.800.000
Poverty Reduction	WB	Poverty Reduction Fund Project	2002	2008	21.710.000
Human Rights	UNICEF	Advocacy for CRC/CEDAW (Advocacy and Communication Programme)	2002	2006	311.700
Area and Rural Development	IFAD	Oudomxai Community Initiatives Support Project	2002	2010	21.140.000
Area and Rural Development	UNICEF	Development of Young Children and Women (Learning for Child and Community Development)	2002	2006	3.710.000

Source, UNDAF, Lao PDR

APPENDIX 7: Program Cost Estimates and Financing Plan

Summary of HSDP Financing

Asian Development Bank
1. Program Grant
Phase I: $5.72 million
Phase II: $6.98 million
Total: $12.7 million

2. Project Grant:
Phase I: $4.57 million
Phase II: $5.26 million
Total: $9.83 million

Government Counterpart Funds:
Phase I: $1.15 million
Phase II: $1.32 million
Total: $2.47 million

Total HSDP input: $25.00 million

Program Cost Estimates and Financing Plan

Description	Total Cost 1000 US$			ADB Financing 1000 US$			Government Financing 1000 US$		
Phase I	**Foreign Currency**	**Local Currency**	**Total**	**Foreign Currency**	**Local Currency**	**Total**	**Foreign Currency**	**Local Currency**	**Total**
1. Civil Works	0	580	580		550	550		30	30
2. Equipment and Vehicles	1.329	40	1.369	1.329		1.329		40	40
3. Drugs and Supplies	0	120	120		120	120			0
4. Staff Development	580	990	1.570	580	950	1.530		40	40
5. Workshops, Studies, Syst Devel	0	2.318	2.318		2.258	2.258		60	60
6. Consulting Services	1.005	251	1.256	1.005	251	1.256			0
7. Project Management	0	950	950		770	770		180	180
8. Operations and Maintenance	0	2.293	2.293		1.592	1.592		701	701
	0	0	0			-			
Total Base Cost	2.914	7.542	10.456	2.914	6.491	9.405		1.051	1.051
Contingencies	274	710	984	274	611	885	0	99	99
Total Cost	3.188	8.252	11.440	3.188	7.102	10.290	0	1.150	1.150
Percentage			100%			90%			10%

Program Cost Estimates and Financing Plan

Description	Total Cost 1000 US$			ADB Financing 1000 US$			Government Financing 1000 US$		
Phase II	Foreign Currency	Local Currency	Total	Foreign Currency	Local Currency	Total	Foreign Currency	Local Currency	Total
1. Civil Works	0	1.695	1.695		1.610	1.610		85	85
2. Equipment and Vehicles	2.683	100	2.783	2.683		2.683		100	100
3. Drugs and Supplies	0	150	150		150	150			0
4. Staff Development	481	1.350	1.831	481	1.200	1.681		150	150
5. Workshops, Studies, Syst Devel	0	1.577	1.577		1.457	1.457		120	120
6. Consulting Services	1.010	250	1.260	1.010	250	1.260			0
7. Project Management	0	420	420		350	350		70	70
8. Operations and Maintenance	0	2.677	2.677		2.000	2.000		677	677
						-			
Total Base Cost	4.174	8.219	12.393	4.174	7.017	11.191		1.202	1.202
Contingencies	393	773	1.166	393	660	1.053	0	113	113
Total Cost	4.567	8.992	13.559	4.567	7.677	12.244	0	1.315	1.315
Percentage			100%			90%			10%

Description	Total Cost 1000 US$			ADB Financing 1000 US$			Government Financing 1000 US$		
Phase I + II	Foreign Currency	Local Currency	Total	Foreign Currency	Local Currency	Total	Foreign Currency	Local Currency	Total
1. Civil Works	0	2.275	2.275	-	2.160	2.160		115	115
2. Equipment and Vehicles	4.012	140	4.152	4.012	-	4.012		140	140
3. Drugs and Supplies	0	270	270	-	270	270		0	0
4. Staff Development	1.061	2.340	3.401	1.061	2.150	3.211		190	190
5. Workshops, Studies, Syst Devel	0	3.895	3.895	-	3.715	3.715		180	180
6. Consulting Services	2.015	501	2.516	2.015	501	2.516		0	0
7. Project Management	0	1.370	1.370	-	1.120	1.120		250	250
8. Operations and Maintenance	0	4.970	4.970	-	3.592	3.592		1.378	1.378
Total Base Cost	7.088	15.761	22.849	7.088	13.508	20.596		2.253	2.253
Contingencies	667	1.483	2.150	667	1.271	1.938	0	212	212
Total Cost	7.755	17.244	24.999	7.755	14.779	22.534	0	2.465	2.465
Percentage			100%			90%			10%

APPENDIX 8: Consulting Service Requirements and Outline of Terms of Reference for Consultants

Table 1 presents the list of consultants and the number of person–months allocated to each consultant. Detailed terms of reference are provided below:

TABLE 1: SUMMARY OF EXPERTISE

	Person Months (International)	Person Months (Domestic)	Number of Consultants	
			International	Domestic
Human resource development				
HRD Specialist	12	72	1	1
Health Care Financing				
Health Care Financing Consultant	24	72	1	1
STRENGTHENING OF PHC				
PHC Systems and Management Specialist	54		1	
Provincial Advisor		72		8
Planning and Budgeting				
Health Planning and Budgeting Specialist	24	72	1	1
Health Information Specialist	12	72	1	1
Total	**126**	**360**	**5**	**12**

Human Resource Development

Human Resource Development Specialist (12 person–months of international consultant and 72 person–months of domestic consultant). The consultants will (i) review relevant GOL and MOH Policy and Plans; (ii) assist the MOH in the development of a comprehensive HR Policy, which addresses key HR issues including workforce size, training, distribution, mix and performance; (iii) assist the MOH in the design and implementation of a survey of MOH workforce to facility level, to provide the basis for detailed workforce planning; (iv) assist the MOH to prepare a HR Plan 2007 -2016, which addresses key HR issues including workforce size, training, distribution, mix and performance; (v) assist the MOH in supporting the development of HR Plans in target provinces; (vi) assist the MOH in strengthening HR management at national and provincial levels; and (vii) review the current in-service training system, and make recommendations to strengthen it, including development / revision of TOT courses for provincial and district training teams and in-service training coordinators; (vii) support Working Groups in the revision and/or development of in-service. The consultant will design simple improvements in the human resource management system in the provinces and districts, e.g. developments to the performance appraisal system, linking training to development plans, and supervision and reporting practices; (viii) prepare documentation on proposed improvements in management and in human resources management (HRM), and (ix) organize workshops on HRM for nutrition staff and prepare recommendations for extending good practice.

Health Care Financing

Health Care Financing Specialists (24 person-months international, 72 person-months domestic). In the first phase of HSDP, for each of the eight northern provinces, the consultants will (i) conduct training workshops for HEF/HLF managers and accountants at the province, district, and village levels; (ii) conduct HEF/HLF training workshops for hospital managers, health center staff and village health workers; (iii) conduct monitoring visits to provinces, districts and villages to ensure proper record-keeping of HEF/HLF transactions, and ensure HEF/HLF flow of funds to the poor for health care services; and (iv) review and refine methods of establishing and maintaining HEF/HLF at the province, district, and village levels. Further, in the field of financial management, he will (i) review health fiscal policies and governance reforms, elaborate health financing policy on the central and local levels in; (ii) develop financial management systems in line with the governments performance based system; (iii) develop and pilot proposed financial systems improvement at local levels; and (vii) help MOH and pilot provinces implement program's results based funding. He will advise local accountants as follows: In the first phase of HSDP, for the five provinces where HEF and HLF will be implemented, the one accountant will be responsible for the provincial level funds and one accountant will be responsible for each district level fund. The provincial consultants will (i) maintain detailed, accurate cost accounting records of all eligible poor patients treat at the provincial hospital; (ii) transfer HEF funds to the provincial hospital for the fees of poor patients on approval from the Management Committee; (iii) maintain detailed, accurate cost accounting records of all HLF patient loans and accounts receivable; (iv) transfer HLF funds to the provincial hospital for fees incurred by patients who are given loans on approval by the Management Committee; (v) ensure the transfer of HEF funds to the district Management Committees. The district accountants will (i) maintain detailed, accurate cost accounting records of all eligible poor patients treat at each district hospital; (ii) transfer HEF funds to the district hospital for the fees of poor patients on approval from the Management Committee; (iii) ensure the transfer of HEF funds to the third-party managers of HEFs at health centers and villages; and (iv) collect and maintain HEF cost and expenditure data from health centers and villages.

Strengthening of Primary Health Care (PHC) Systems

PHC Systems and Management Specialist (54 person–months of international consultant and 72 person-months of domestic provincial advisors). The consultants will (i) consult with officials at all levels and relevant sectors on health policy issues; (ii) comprehensive review current policies on health (MOH) as well as policy coordination issues across departments and relevant sectors; (iii) capacity needs analysis and organizational development analysis of the policy processes in the MOH; (iv) drafting of a national priority health policy agenda of the MOH, based on a consultative process; (v) periodic capacity building through mentoring and technology transfer for MOH especially on the Cabinet Office for Health Laws; (vi) conduct workshops on policy development in central level and selected provinces and districts, highlighting policy recommendations with different social and economic characteristics; and (vii) periodic review of the health policy development in Lao PDR. In the field of decentralization the consultant will (i) consult with officials at all levels and relevant sectors on health policy issues; (ii) review current policies on health (MOH) as well as policy coordination issues across departments; (iii) conduct workshops on policy development in central level and selected provinces and districts, highlighting policy recommendations with different social and economic characteristics; and (iv) develop a review of the status of decentralization in the MOH; Drafting of implementing guidelines of PM/01 s.2000 on decentralization as applied to MOH; capacity needs analysis for a decentralized health system; drafting of the Manual of Operations on health decentralization. With regard to licensing, the consultant will conduct (i) Evaluation of current regulatory functions of the Ministry of Health and the policies on standards and licensing; (ii) review of the standards, licensing and regulations governing PHC,

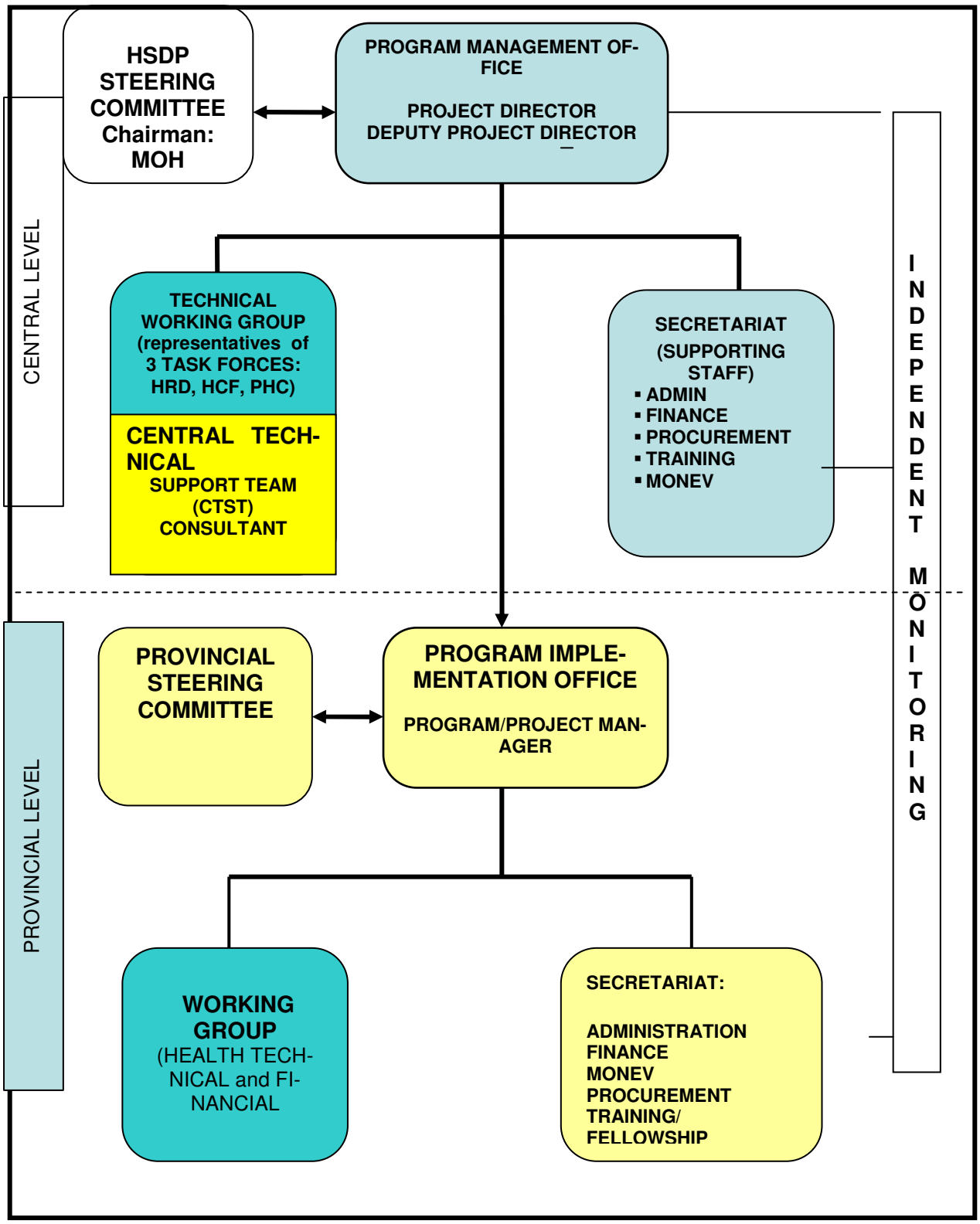
medicinal drugs, pharmacies, hospitals and health centers, water and sanitation; (iii) development of a framework for Lao PHC health standards; and (iv) drafting of the various Manuals of Operations needed by the MOH to enforce standards, licensing and regulations. Regarding Health promotion, the consultant will (i) appraise the current situation and limitations in health promotion; (ii) consult with relevant officials in MOH departments, and at all levels including at village level; (iii) recommend an effective approach and strategy for BCC in Laos, given the political, cultural, geographical and budgetary constraints in which it will be implemented; (iv) identify the capacity building needs at district and provincial levels to improve the BCC system and peer education, and develop an action plan for implementation; (v) support the design of public education initiatives and the evaluation of new concepts; (vi) training of trainers in BCC and social mobilization techniques for district and provincial staff, including collaboration with NGOs, and (vii) subsequent short training courses provided for outreach workers, community volunteers and NGOs.

Planning and Budgeting

Health Planning and Budgeting Specialist (24 person–months of international consultants and 72 person–months of domestic consultants). The consultants will: (i) review health planning and budgeting legislation and strategies, elaborate health planning and budgeting policy on the central and provincial/district levels in accordance with the decentralization strategy; (ii) help develop health program and activities costing approaches and prioritization systems; (iii) help enhance and implement integrated planning and budgeting systems; (iv) help develop output based funding mechanisms for integrated health package and pilot test them in the project sites; (v) support MOH by reviewing health financing roles and plan changes; and (vi) develop and piloting the community–based resources mobilization for sustainability. With regard to planning and implementation of civil works, the consultant will (i) prepare relevant project monitoring indicators; (ii) prepare lists and specifications of equipment, materials, and services to be purchased through ADB funding; (iii) prepare tender documents for the bidding of equipment and supplies in the project sites; (iv) assist the project management in the bidding process and evaluation of bids for equipment, supplies and services; (v) develop detailed guidelines for all procurement procedures; (vi) monitor the timeliness, progress and quality of equipment, materials, and services provided by contractors/suppliers, and prepare reports on work progress; (vii) ensure that contract documents, procurement procedures conform with ADB anti–corruption requirements; and (viii) report quarterly on procurements and on Project activities to ensure transparency and accountability at each level.

Health Information Systems Specialist (24 person–months of international consultants and 72 person–months of domestic consultants). The consultants will: (i) help develop the HMIS; (ii) develop a matrix for ICT system role, functions and responsibilities and assess skills–mixed requirements; (iii) develop and maintain internet connections between districts, provinces and the central level to enhance efficient flow of relevant information; (iv) install efficient internet–based mechanisms for project supervision and technical support; and (vi) develop and implement continuous training process for local staff on the use of ICT system. With regard to health surveillance, the consultant will undertake the following tasks: (i) drafting of the Manuals of Operations for HMIS and surveillance; this will be complementary to efforts being done by the World Bank supported HSIP in the central and south provinces; (ii) consult with relevant officials in MOH departments, and design of HMIS for PHC at central, provincial, district and village levels and design of national surveillance systems for the ten most common causes of deaths and illnesses; for reportable diseases; and (iii) periodic capacity building and mentoring of the Central Ministry of Health in health management information system and disease surveillance.

APPENDIX 9: Project Organization Structure



APPENDIX 10: Implementation Schedule

LAO PDR HSDP Implementation Plan	Phase I			Phase II		
Component/Sub-Component/Output/Action	2007	2008	2009	2010	2011	2012
1. HUMAN RESOURCE DEVELOPMENT						
A. Strengthening institutional capacity for HR policy, planning and management						
A.1 Capacity of the MOH DOP in HR policy, planning and management increased						
Scholarship for Masters in HR in regional university						
Attachment to HRD Departments in regional countries						
English Language Training for DOP staff						
A.2 Development of national HR Policy and 10 year HR Plan						
HRD Task Force meetings to develop HR Policy and Plan						
Workshops on HR Policy and Plan						
National survey of health staff						
Dissemination workshop with Steering Committee and Minister						
Printing and distribution of HR Policy and Plan						
HRD Task Force meetings to review HR Policy and Plan						
A.3 Development of provincial HR Plans						
Workshops to disseminate national HR Policy and Plan						
Provincial HR planning Workshops						
Provincial Working Groups						
Provincial visits by HRD Task Force members to support WG						
Workshop to finalize Provincial HR Plans						
A.4 Strengthened HRMIS						
Scholarship for Master on HRM in region						
Workshop on health personnel HRMIS form						
Web hosting and maintenance of HRMIS website						
Pilot test form and data entry						
Workshops for central and prov staff on database						
Provincial visits by DOP staff to set up HRMIS & train staff						
Follow-up support visits by DOP to provinces 1 / year						
A.5 Strengthened mechanisms for effective HRM						
A.5.1 Revision of Manual on Organization & Management of Health Personnel						
Working Group to revise contents						
A.5.2 Development of orientation program for new staff						
Working Group to develop manual						
Workshop in LP for Provinces						
Implementation of orientation course each year						
A.5.3 Development / finalization of job descriptions for provinces						
Visits by DOP to each province reintroduce concepts						
Provincial Working Groups						
Visits by DOP to each province to support finalization						
A.5.4 Development and implementation of performance appraisal tools						
Local contract to develop tools						
Working Group to contribution to development of draft tools						
Workshop to review draft						
Working Group to finalize tools & guidelines for use						
Regional Workshops x 2 to introduce tools, facilitated by DOP						
Provincial Workshops to disseminate and implement						
Visits by DOP to each province to support implementation						
A.6 Improved coordination of HRD stakeholders and activities						
Quarterly meetings of HRD Taskforce						

LAO PDR HSDP Implementation Plan	Phase I			Phase II		
Component/Sub-Component/Output/Action	2007	2008	2009	2010	2011	2012
B. Improving staffing of rural health facilities in target provinces						
B.1 Implementation of PHC Worker training						
Bridging course for ethnic minority students prior to PHC training						
25 students per year at Xiengkhuang School for 3 batches						
46 students per year at Luangprabang School for 4 batches						
25 students per year at Oudomxay School for 1 batch						
Visits to PHC Schools to monitor & support implementation						
B.2 Development and implementation of new Medical Assistant course in LP						
Workshop to finalize concept and job-description						
Working Group to develop curriculum						
Training of trainers in Thailand						
Training of trainers in Laos						
Implementation of pilot course with 50 students						
Working Group to finalize curriculum						
B.3 Training / upgrading of staff to support achievement of rural staffing standards						
Working Group to review HSS (see A.2) to identify staff gaps						
Scholarships for selected PH staff for clinical speciality training						
Scholarships for DH or HC staff to upgrade qualification or HS grads to train as health workers						
Scholarships for selected PH or DH staff for skills training						
Scholarships for selected DH or HC staff for skills training						

LAO PDR HSDP Implementation Plan	Phase I			Phase II		
Component/Sub-Component/Output/Action	2007	2008	2009	2010	2011	2012
C. Improving staff performance						
C.1 National capacity for health personnel education increased						
Scholarships for Masters in Health Personnel Education in region						
Tracer study of graduates from pre-service training courses						
Evaluation of health worker skills and performance						
English Language Training for Schools in North						
C.1.1 Development of standards for training and procedures for review of courses						
Working Group to prepare draft with consultant						
Workshop to finalize and disseminate						
C.1.2 Development of training database for Schools						
Working Group to prepare draft with consultant						
Workshop to finalize and disseminate						
C.1.3 Review of PHC Worker course						
Graduate preparedness study for PHC Workers						
Working Group to review curriculum based on findings						
Workshop to disseminate curriculum changes to Schools						
C.2 Inservice training system strengthened						
C.2.1 Strengthening in-service training structure and capacity						
Study tour to Cambodia to review in-service training system						
Working Group to revise structure for in-service training						
Working Group to develop curriculum to train CEC/PTT/DTT						
C.2.2 Development of standard in-service training modules and teaching materials						
Working Group to finalize topics, development format & guidelines for contractors						
Development of modules, including pilot testing and review						
Review of modules by Working Group						
Orientation Workshops for PTTs						
Orientation Workshops for DTTs						
C.3 Provincial and District capacity for in-service training increased						
Training of CECs in LP						
Training of PTTs						
Training of DTTs						
Refresher training for CECs, PTTs & DTTs annually						
C.4 Inservice training of health workers in target provinces						
Workshops to prepare materials and plan for TNA						
Conduct TNA of all staff						
Working Group to analyse results and prepare Training Plan						
Training of VHVs						
Training of HC staff						
Training of DH staff						
C.5 Supportive supervision of staff in target provinces						
Semi-annual supervisory visits HC to Village						
Quarterly supervisory visits Dist to HC						
Quarterly supervisory visits Prov to Dist						
Training of supervisors as needed						

2. HEALTH CARE FINANCING				Phase I			Phase II		
Component/Sub-Component/Output/Action				2007	2008	2009	2010	2011	2012
	A	Health Equity Funds							
			Xayabury						
			Xiengkhouang						
			Phongsaly						
			Luangnamtha						
			Oudomxay						
			Bokeo						
			Luangprabang						
			Huaphan						
		Health Loan Funds							
			Xayabury						
			Xiengkhouang						
			Phongsaly						
			Luangnamtha						
			Oudomxay						
			Bokeo						
			Luangprabang						
			Huaphan						
	B	HEF/HLF Implementation							
		Training of Accountants, Management Committees, Health Providers							
			Provincial Workshops						
			District Workshops						
			HC/Village Workshops						
		Local Acct Firm - Provincial and District Fund Management							
		Implementattion/Monitoring Field Visits - central staff to prov and districts							
	C	Health Care Financing Studies and Surveys							
		Baseline and annual HH Indicator Surveys							
		HEF Annual Evaluation Studies							
			Annual survey of funds operation/usage/depletion						
		HLF Annual Evaluation/Sustainabilty Studies							
			Annual survey of funds operation/usage/depletion						
		Drug Revolving Fund Sustainability Study							
			Village Drug Revolving Fund Survey						
		Hospital Cost and Pricing Study							
			Hospital survey						

3. STRENGTHENING PHC SYSTEMS	Phase I			Phase II		
Sub-Component/Output/Action	2007	2008	2009	2010	2011	2012
A Strengthening of Provincial and District PHC Services						
Training						
Training of health managers and leaders:						
a. Training of provincial managers and leaders at VT						
b. Training of district managers and leaders						
c. Training of health center managers and leaders						
Masters Degree in Public Health - Mahidol Univ						
Civil Works						
1. Provincial Hospital						
2. District Hospitals						
3. Health Centers						
New construction						
Renovation						
Equipments						
Standard equipment for Provincial hospital						
Standard equipment for district hospitals						
Standard equipment for health centers						
Village Drug Kits						
VHC Training						
Peer Education						
Training for District Team						
Training of Peer Educator						
Implementation of peer education in village						
Refresher training						
Consulting Services						
Funding for PHC Recurrent Costs						
PHO and Provincial Hospital						
DHO and District Hospitals						
Health Centers						

4. STRENGTHENING HEALTH SECTOR PLANNING AND BUDGETING

Sub-Component/Output/Action	Phase I			Phase II		
	2007	2008	2009	2010	2011	2012
A. Strategic and Annual Planning						
National Level						
Software Development						
Training						
workshops/studies						
Province Level						
Training						
workshops/studies						
B Health Information System						
National Level						
Software Development						
Training						
workshops/studies						
Province Level						
Training						
workshops/studies						
C Health Financing Policy Unit						
1. Training Overseas						
Health Economics- Master Degree (one person)						
Health Policy - Masters Degree (one person)						
Health Economics - PhD						
Short Courses/Study tours - Health Policy/Health Finance						
2. Training In Country						
Finance/management Masters Degree (1 person)						
3 Studies/Workshops						
D Integrated Project Administrative Unit (IPAU)						
3. Training and Workshops						
Project Management Training, Monitoring & Evaluation, Project Acctg/Disb						
HSDP Planning and Dissemination						
Workshop - National						
4. Project Management Salaries						
Director						
Deputy Director						
Local Staff (see local staff plan)						
5. Monitoring - province						
6. Monitoring - Districts						

APPENDIX 11: Staff Gaps in Health Centers and District Hospitals

Staff Gaps in Health Centers and District Hospitals: A macro-analysis

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Somchanh Xaysida

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Report prepared for the Health Sector Development Program
(LAO TA 4608)

Introduction

1. Health Centers and District Hospitals are responsible for providing basic health services to the majority of the population. Yet they are relatively understaffed, particularly with mid and high-level staff. This is partly due to lack of local people with mid-level or high-level health qualifications, and the reluctance of non-local staff to relocate from urban to rural or remote areas.

2. Health Centers are currently staffed by mostly first level nurses, with an average of only 1.5 staff per HC. In order to improve the quality of health services, the MOH is seeking to increase the number of staff employed in each HC to 3 – 5, and to ensure mid and/or high level staff is available in each facility. Some District Hospitals are currently without a doctor, and many of the nurses have only low-level qualifications. The MOH is seeking to ensure doctors are available in each DH, along with adequate numbers of mid-level staff. Current MOH figures on HC and DH staffing are attached as an annex to this analysis.

Strengths and Weaknesses of Macro-analysis

3. Macro-analysis of the staff gaps in District Hospitals and Health Centers, based on the achievement of staffing standards, is possible using MOH staffing data. It is important to note, however, that the most recent MOH Statistics of Health Staff in Lao PDR uses data from March 2005, and so does not reflect recruitment, retirements, dismissals, or transfers of staff since that time. The Department of Organization and Personnel also reports limitations regarding the accuracy of the workforce data. Data is provided by provinces, and is not verified by the DOP before it is utilized, due to lack of resources.

4. Macro-analysis is valuable because it provides an overall view of the staff available within the country, including at the different levels. It helps the MOH to identify overall deficiencies or surpluses, plan for training intakes, and explore the implications of different staffing standard scenarios. It does not allow for workforce planning at the facility level, as workforce distribution between facilities is not considered. In macro-analysis, the surplus in some facilities contributes numerically to reducing the deficit in other facilities. For example, if staffing standards require 1 surgeon in each provincial hospital, and the number of surgeons working at provincial hospitals nationally is currently 20, macro-analysis would assume there are sufficient surgeons at provincial hospitals. In reality, however, there may be 5 surgeons in one provincial hospital and none in 4 others. Since staff are unlikely to be transferred from one province to another, so in disaggregated analysis, the need in deficit provinces is not offset by a surplus elsewhere. Therefore, when staff gaps are disaggregated by province, district or facility, the total number of staff required generally increases.

Macro-analysis of Staff Gaps at HC and DH

5. Staffing gaps based on MOH staffing standards as currently stated[33], including the placement of a doctor in one-third of Health Centers by 2010, are set out in Table 1. There are no current staffing standards for DHs for paramedical staff such as pharmacy, dental, laboratory, physiotherapy or radiography workers. It is likely that all DHs have staff providing pharmacy and some laboratory services, although these staff may be low-level workers, or staff with qualifications that are not specific

[33] MOH. 2004. Ministerial Guideline No. 1350, concerning staff of District Hospitals and Health Centers. 6 October 2004, plus personal communication with Minister of Health, April 7th 2006

to the post. In order to estimate staff gaps, an assumption is made that each DH requires a minimum of 1 high or mid-level pharmacy and 1 mid-level laboratory worker, in addition to existing low-level staff, in order to provide basic services. An assumption is also made that Type A District Hospitals also need mid-level dental, radiology and physiotherapy staff to enable them to provide the range of services expected.

Table 1: Estimated staff gaps based on current MOH staffing standards[34]

Staff Category	Health Center Staff Gap[1]			District Hospital Staff Gap[2]			Total Staff Gap		
	M	F	Total	M	F	Total	M	F	All
Doctor	116	123	239	154	195	349	270	318	588
Medical Assistant	297	300	597	247	226	473	544	526	1070
Mid-Level Nurse	414	414	828	212	173	385	626	587	1213
PHC Worker	369	407	776				369	407	776
High/Mid Pharmacy Workers[3]				7	7	14	7	7	14
High/Mid Dental Workers						-31			0
Laboratory Technician[4]				18	17	35	18	17	35
Physiotherapist				0	0	0			0
Radiographer				13	13	26	13	13	26
Total	1196	1244	**2440**	651	631	**1282**	1847	1875	**3722**

[1] based on MD in 1/3 of all HC; plus 1 M/A, 1 Mid-Level Nurse, 1 PHC Worker per Type B HC; and 1 M/A, 1 Mid-Level Nurse, 2 PHC Workers per Type A HC

[2] based on minimum of 4 Doctors, 6 M/A and 12 Nurses (4 mid-level & 8 low-level) per DH; and a minimum of 1 mid-level Pharmacy Worker & 1 mid-level Laboratory Worker per Type B DH, and a minimum of 1 mid or high-level Pharmacy Worker, 1 mid-level Laboratory Worker, 1 Dental Worker, 1 Radiologist, 1 Physio per Type A DH

6. If the MOH annual recruitment quota of 500 for 2006 was maintained, filling these gaps would require the MOH to allocate all it's quota for the next 8 years to these posts, clearly an unrealistic expectation. In addition, filling the posts in 8 years is based on an assumption that new recruits, particularly doctors, would be willing to be posted to Health Centers and District Hospitals. This assumption is not borne out by current experience.

Discussion of Staffing Standards

7. The efficacy of posting doctors to Health Centers in the medium-term is debatable, given the current work environment and level of utilization of Health Centers. In the Northern provinces, only 34% of Health Centers had electricity (varying from 2% - 68%per province), and only 83% had water (varying from 67% - 100% per province)[35]. A doctor posted to a health facility which lacks such basic infrastructure, and therefore equipment, would be unable to use a large proportion of his/her skills and knowledge in diagnosing and treating patients. Not using such knowledge and skills would be a waste of the time and cost of training, and could result in a de-skilling of the doctor over time, if their skills were not being fully utilized. Even a long term goal of staffing Health Centers with doctors may not be desirable, given the level of services usually delivered in a health center type of setting.

[34] As set out in Ministerial Guideline No. 1350, plus personal communication with Minister of Health, April 7th 2006

[35] PHCEP. 2004. Health Facility Survey 2004

8. Current MOH staffing standards seek to post 4 doctors in each District Hospital, with specialist training in each of the 4 main specialty areas: surgery, internal medicine, pediatrics and obstetrics / gynecology. This may be an appropriate long term goal for the MOH, but may not be realistic in the short to medium term. There is considerable variation between District Hospitals, in terms of population served, distance to a Provincial Hospital, facility, equipment, services provided and current utilization. Some District Hospitals (DHs) do not have any doctor at present. There are many which do not yet have complete ancillary services such as electricity, water, transport, worker housing, patient and staff toilets available. Only 44% of DH's in the North had a complete set of ancillary service in 2004[36]. In planning to post doctors to DH's, it is important that the MOH is sure the doctor will have sufficient resources available to enable them to do perform well. Failure to do this could result in demotivation of doctors, and de-skilling if they are unable to practice regularly in key areas.

Alternative Scenarios

9. Instead of aiming to post a doctor to each Health Center, the MOH may be better off adopting an alternative approach to improving the quality of health services, focusing on quality mid-level health providers (e.g. medical assistants or technical nurses). The proposed new mid-level PHC staff category, similar to a Medical Assistant, could be an ideal alternative to doctors in Health Centers. The MOH should be able to achieve a significant improvement in capacity at the Health Center level, including the ability of Health Centers to offer quality diagnosis and treatment of common diseases, with this category of staff, in addition to well trained and skilled low-level staff such as PHC Workers.

10. A realistic interim step in District Hospital staffing may be to seek to post 4 doctors to each Type A DH, and 2 doctors to each Type B DH. This will help to improve service delivery, but in a more measured way, which reflects the wide variations that exist between District Hospitals. There are few District Hospitals at this time where medical specialists (e.g. Masters in Surgery) could be justified in terms of caseload. In most DHs, services could be adequately provided by doctors with informal training – experience and skills gained through attachments to one of the large Hospital – rather than specialist qualifications. Specialist doctors may be better posted to Provincial Hospitals, with patients referred to them from District Hospitals when necessary.

11. Table 2 presents an estimation of staff gaps in Health Centers and District Hospitals using alternative interim staffing standards.

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[36] PHCEP. 2004. ibid

Table 2: Estimated staff gaps based on alternate interim staffing scenario

Staff Category	Health Center Staff Gap[1]			District Hospital Staff Gap[2]			Total Staff Gap		
	M	F	Total	M	F	Total	M	F	All
Doctor				54	95	149	54	95	149
Mid-Level Generalists	341	343	684	285	225	510	626	568	1194
PHC Worker	368	408	776				368	408	776
High/Mid Pharmacy Workers[3]				7	7	14	7	7	14
High/Mid Dental Workers						-31			0
Laboratory Technician[4]				18	17	35	18	17	35
Physiotherapist				0	0	0			0
Radiographer				13	13	26	13	13	26
Total	709	751	**1460**	377	357	**734**	1048	1071	**2194**

[1] based on a minimum of 1 PHC Workers and 1 M/A or mid-level nurse per Type B HC, and 2 PHC Workers and 2 M/A or mid-level nurses per Type A HC (including sufficient female health workers)
[2] based on a minimum of 2 Drs, 6 M/A or mid-level nurse, 1 mid-level Pharmacy & Laboratory worker per Type B DH, and 4 Drs, 12 M/A or mid-level nurse, 1 mid-level Pharmacy, Laboratory, Dental, Radiology, Physiotherapy worker per Type A DH (including sufficient female health workers)

12. This scenario may represent a realistic first step in filling staff gaps, increasing staff quality, and improving health service performance. For Health Centers, Medical Assistants or Technical Nurses are assigned to each HC, and PHC Workers are employed to supplement or replace 1st level nurses over time. In District Hospitals, an initial target of 2 doctors per Type B, and 4 doctors per Type A is set. This level of staffing could realistically be achieved within 8 years, based on the recruitment request of the MOH for 2006, where over 300 of the 516 staff requested are for District and Health Center levels.

13. Tables with current staffing compared to minimum required are attached in the Annexes. It should be noted that these tables reflect staff required to raise the quality of services – and call for increases in mid and high-level staff, and the new PHC Worker for Health Centers – so do not call for any additional low-level nurses.

Staff Gaps in the Northern Provinces

14. Northern provinces have the same problems in staffing rural Health Centers and District Hospitals as are experienced nationally. The PHC Worker training strategy is contributing to improvements in staffing of HC, with 88 PHC Workers already employed, and another 155 expected to be recruited in 2006. Estimated staffing gaps are set out in the tables below, based on the two different staffing scenarios set out in the National analysis.

Table 3: Estimated staff gaps in North per current MOH staffing standards[37]

Staff Category	Health Center[1]			District Hospital[2]			Total Staff Gap		
	M	F	Total	M	F	Total	M	F	All
Doctor	49	50	99	81	98	179	130	148	278
Medical Assistant	120	139	259	109	121	230	229	260	489
Mid-Level Nurse	162	161	323	95	88	183	257	249	506
PHC Worker	101	142	243				101	142	243
Low-level Nurse				139	-98	41	139	-98	41
High/Mid Pharmacy Workers[3]				11	12	23			23
High/Mid Dental Workers						-5			0
Laboratory Technician[4]				12	13	25			25
Physiotherapist				3	3	6			6
Radiographer				5	6	11			11
Total	432	492	**924**	455	243	**698**	856	701	**1622**

[1] based on MD in 1/3 of all HC; plus 1 M/A, 1 Mid-Level Nurse, 1 PHC Worker per Type B HC; and 1 M/A, 1 Mid-Level Nurse, 2 PHC Workers per Type A HC

[2] based on minimum of 4 Doctors, 6 M/A and 12 Nurses (4 mid-level & 8 low-level) per DH; and a minimum of 1 mid-level Pharmacy Worker & 1 mid-level Laboratory Worker per Type B DH, and a minimum of 1 mid or high-level Pharmacy Worker, 1 mid-level Laboratory Worker, 1 Dental Worker, 1 Radiologist, 1 Physio per Type A DH

[37] As set out in Ministerial Guideline No. 1350, plus personal communication with Minister of Health, April 7th 2006

Table 4: Estimated staff gaps for North per alternate interim staffing scenario

Staff Category	Health Center[1]			District Hospital[2]			Total Staff Gap		
	M	F	Total	M	F	Total	M	F	All
Doctor				36	53	89	36	53	89
Mid-Level Generalist	132	149	281	125	130	255	257	279	536
PHC Worker	101	142	243				101	142	243
High/Mid Pharmacy Workers[3]				13	12	23	13	12	25
High/Mid Dental Workers						-5			0
Laboratory Technician[4]				12	13	25	12	13	25
Physiotherapist				3	3	6	3	3	6
Radiographer				5	6	11	5	6	11
Total	233	291	**524**	194	217	**409**	427	508	**935**

[1] based on a minimum of 1 PHC Workers and 1 M/A or mid-level nurse per Type B HC, and 2 PHC Workers and 2 M/A or mid-level nurses per Type A HC (including sufficient female health workers)
[2] based on a minimum of 2 Drs, 6 M/A or mid-level nurse, 1 mid-level Pharmacy & Laboratory worker per Type B DH, and 4 Drs, 12 M/A or mid-level nurse, 1 mid-level Pharmacy, Laboratory, Dental, Radiology, Physiotherapy worker per Type A DH (including sufficient female health workers)

15. The PHC Worker staff gap in Health Centers will be rapidly filled in the North if the graduates from training courses already in progress are employed. It would be appropriate for the Northern provinces to move on to a “next-step” goal of posting 2 PHC Workers per Type B Health Center, and 3 PHC Workers per Type A Health Center.

16. Further analysis of staffing requirements in the North, by province, is set out in the Annexes.

ANNEX 1: National Health Center and District Hospital Staffing

Table 1: Health Center Staffing National - Requirements for Staffing per MOH Staffing Standards for 2010

Staff Category	# of HCs			Current / Actual Staff[1]						Minimum Required Staff[2]					
	Type A	Type B	Total	M	Av./HC	F	Av./HC	Total	Av./HC	M	Av./HC	F	Av./HC	Total	Av./HC
Doctor	123	618	741	7	0.01	1	0.00	8	0.01	123	0.17	124	0.17	247	0.33
Medical Assistant	123	618	741	73	0.10	71	0.10	144	0.19	370	0.50	371	0.50	741	1.00
Mid-Level Nurse	123	618	741	18	0.02	18	0.02	36	0.05	432	0.58	432	0.58	864	1.17
Low-Level Nurse	123	618	741	427	0.58	434	0.59	861	1.16						
PHC Worker	123	618	741	63	0.09	25	0.03	88	0.12	432	0.58	432	0.58	864	1.17
All Target Categories	123	618	741	588	0.79	549	0.74	**1137**	1.53	1357	1.83	1359	1.83	**2716**	3.67

[1] source MOH Statistics of Health Staff in Lao PDR 2005 + added newly employed graduates of PHC Worker training 1st batch

[2] based on MD in 1/3 of HC, 1 M/A, 1 Mid-Level Nurse, 1 PHC Worker per Type B HC (including at least 1 female), in addition to low-level nurses posted and MD in 1/3 of HC, 1 M/A, 2 Mid-Level Nurse, 2 PHC Worker per Type A HC (including at least 1 female in each staff category), in addition to low-level nurses posted

Table 2: Health Center Staffing National – Alternative Scenario Minimum Requirements for Staffing

Staff Category	# of HCs			Current / Actual Staff[1]						Minimum Required Staff[2]					
	Type A	Type B	Total	M	Av./HC	F	Av./HC	Total	Av./HC	M	Av./HC	F	Av./HC	Total	Av./HC
Doctor	123	618	741	7	0.01	1	0.00	8	0.01						
Medical Assistant	123	618	741	73	0.10	71	0.10	144	0.19						
Mid-Level Nurse	123	618	741	18	0.02	18	0.02	36	0.05						
All Mid-Level Generalist	123	618	741	91	0.12	89	0.12	180	0.24	432	0.58	432	0.58	864	1.17
Low-Level Nurse	123	618	741	427	0.58	434	0.59	861	1.16						
PHC Worker	123	618	741	64	0.09	24	0.03	88	0.12	432	0.58	432	0.58	864	1.17
All Target Categories	123	618	741	582	0.79	547	0.74	**1129**	1.52	864	1.17	864	1.17	**1728**	2.33

[1] source MOH Statistics of Health Staff in Lao PDR 2005 + added newly employed graduates of PHC Worker training 1st batch

[2] based on minimum of 1 PHC Worker & 1 M/A or Mid-Level Nurse per Type B HC (including at least 1 female) in addition to any low-level nurses posted and minimum of 2 PHC Worker (including 1 female) & 2 M/A or Mid-Level Nurse (including 1 female) per Type A HC in addition to any low-level nurses posted

Table 3: District Hospital Staffing National – Requirements for Doctors, Medical Assistants & Nurses per MOH Staffing Standards

Staff Category	# of DH's			Current / Actual Staff[1]						Minimum Required Staff[2]					
	Type A	Type B	Total	M	Av./DH	F	Av./DH	Total	Av./DH	M	Av./DH	F	Av./DH	Total	Av./DH
Doctor	26	100	126	98	0.78	57	0.45	155	1.23	252	2.00	252	2.00	504	4.00
Medical Assistant	26	100	126	131	1.04	152	1.21	283	2.25	378	3.00	378	3.00	756	6.00
Mid-Level Nurse	26	100	126	40	0.32	79	0.63	119	0.94	252	2.00	252	2.00	504	4.00
Low-level Nurse	26	100	126	218	1.73	849	6.74	1067	8.47	504	4.00	504	4.00	1008	8.00
Total	26	100	126	487	3.87	1137	9.02	**1624**	12.89	1386	11.00	1386	11.00	**2772**	22.00

[1] source MOH Statistics of Health Staff in Lao PDR 2005

[2] based on minimum of 4 Doctors, 6 M/A and 12 Nurses (4 mid-level & 8 low-level) with 50% female in each staff category per DH

NOTE: Low-level nurse training was discontinued in 2003, and replaced with mid-level Technical Nurse training, therefore low-level nurse requirements will need to be met through employment of Technical Nurses (or perhaps PHC Workers)

Table 4: District Hospital Staffing National – Alternative Scenario, Interim Requirements for Doctors, Medical Assistants & Nurses

Staff Category	# of DH's			Current / Actual Staff[1]						Minimum Required Staff[2]					
	Type A	Type B	Total	M	Av./DH	F	Av./DH	Total	Av./DH	M	Av./DH	F	Av./DH	Total	Av./DH
Doctor	26	100	126	98	0.78	57	0.45	155	1.23	152	1.21	152	1.21	304	2.41
Medical Assistant	26	100	126	131	1.04	152	1.21	283	2.25						
Mid-Level Nurse	26	100	126	40	0.32	79	0.63	119	0.94						
All Mid-Level Generalists	26	100	126	171	1.36	231	1.83	402	3.19	456	3.62	456	3.62	912	7.24
Low-level Nurse	26	100	126	218	1.73	849	6.74	1067	8.47						
Total	26	100	126	487	3.87	1137	9.02	1624	12.89	608	4.83	608	4.83	1216	9.65

[1] source MOH Statistics of Health Staff in Lao PDR 2005

[2] based on minimum of 2 Doctors (50% female) & 6 M/A or Mid-Level Nurse (50% female) per Type B DH, in addition to any low-level nurses posted and a minimum of 4 Doctors (50% female) & 12 M/A or Mid-Level Nurse (50% female) per Type A DH, in addition to any low-level nurses posted

NOTE: These calculations assume that all doctors working at the DH level will perform technical work, even if they also do administration

Table 5: District Hospital Staffing National – Minimum Requirements for Paramedical Staff

Staff Category	# of DH's			Current / Actual Staff[1]		Minimum Required Staff[2]		Staff Gap
	Type A	Type B	Total	Total	Av./DH	Total	Av./DH	Total
Pharmacist	26	100	126	28	0.22			
Pharmacy Mid-level	26	100	126	84	0.67			
All Pharmacy Workers[3]	26	100	126	112	0.89	126	1.00	14
Dentist	26	100	126	26	0.21			
Dental Assistant	26	100	126	31	0.25			
All Dental Workers	26	100	126	57	0.45	26	0.21	-31
Laboratory Technician[4]	26	100	126	91	0.72	126	1.00	35
Physiotherapist	26	100	126	26	0.21	26	0.21	0
Radiographer	26	100	126	0	0.00	26	0.21	26
Total	26	100	126	**286**	2.27	**330**	2.62	**75**

[1] source MOH Statistics of Health Staff in Lao PDR 2005

[2] based on minimum of 1 mid-level Pharmacy Worker & 1 mid-level Laboratory Worker per Type B DH
and a minimum of 1 mid or high-level Pharmacy Worker, 1 mid-level Laboratory Worker, 1 Dental Worker, 1 Radiographer, 1 Physio per Type A DH

[3] does not include low level Pharmacy Workers, as assumes all DH should have at least 1 mid-level Pharmacy Worker

[4] does not include low level Laboratory Workers, as assumes all DH should have at least 1 mid-level Laboratory Worker

NOTE: These calculations assume that all technical staff working at the DH will perform technical work, even if they also do administration

Note: Any surplus of staff in a category is not included in the total Staff Gap estimation, as one category of paramedical staff cannot substitute for another in this calculation.

Annex 2: Health Center and District Hospital Staffing in Northern Provinces

Table 6: Health Center Staffing in 8 Northern Provinces - Requirements for Staffing per MOH Staffing Standards for 2010

Staff Category	# of HCs			Current / Actual Staff[1]						Minimum Required Staff[2]					
	Type A	Type B	Total	M	Av./HC	F	Av./HC	Total	Av./HC	M	Av./HC	F	Av./HC	Total	Av./HC
Doctor	30	271	301	1	0.00	0	0.00	1	0.00	50	0.17	50	0.17	100	0.33
Medical Assistant	30	271	301	30	0.10	12	0.04	42	0.14	150	0.50	151	0.50	301	1.00
Mid-Level Nurse	30	271	301	3	0.01	5	0.02	8	0.03	165	0.55	166	0.55	331	1.10
All Mid-Level Generalist	30	271	301	33	0.11	17	0.06	50	0.17						
1st Level Nurse	30	271	301	220	0.73	121	0.40	341	1.13						
PHC Worker	30	271	301	64	0.21	24	0.08	88	0.29	165	0.55	166	0.55	331	1.10
All Low-Level Generalist	30	271	301	284	0.94	145	0.48	429	1.43						
All Target Categories	30	271	301	317	1.05	162	0.54	479	1.59	530	1.76	533	1.77	1063	3.53

[1] source MOH Statistics of Health Staff in Lao PDR 2005 + added newly employed graduates of PHC Worker training 1st batch

[2] based on MD in 1/3 of HC, 1 M/A, 1 Mid-Level Nurse, 1 PHC Worker per Type B HC (including at least 1 female), in addition to any low-level nurses posted and MD in 1/3 of HC, 1 M/A, 2 Mid-Level Nurse, 2 PHC Worker per Type A HC (including at least 1 female in each category), in addition to any low-level nurses posted

Table 7: Health Center Staffing 8 Northern Provinces – Alternative Scenario Minimum Requirements for Staffing

Staff Category	# of HCs			Current / Actual Staff[1]						Minimum Required Staff[2]					
	Type A	Type B	Total	M	Av./HC	F	Av./HC	Total	Av./HC	M	Av./HC	F	Av./HC	Total	Av./HC
Doctor	30	271	301	1	0.00	0	0.00	1	0.00						
Medical Assistant	30	271	301	30	0.10	12	0.04	42	0.14						
Mid-Level Nurse	30	271	301	3	0.01	5	0.02	8	0.03						
All Mid-Level Generalist	30	271	301	33	0.11	17	0.06	50	0.17	165	0.55	166	0.55	331	1.10
1st Level Nurse	30	271	301	220	0.73	121	0.40	341	1.13						
PHC Worker	30	271	301	64	0.21	24	0.08	88	0.29	165	0.55	166	0.55	331	1.10
All Low-Level Generalist	30	271	301	284	0.94	145	0.48	429	1.43						
All Target Categories	30	271	301	317	1.05	162	0.54	479	1.59	330	1.10	332	1.10	662	2.20

[1] source MOH Statistics of Health Staff in Lao PDR 2005 + added newly employed graduates of PHC Worker training 1st batch

[2] based on minimum of 1 PHC Worker & 1 M/A or Mid-Level Nurse per Type B HC (including at least 1 female), in addition to any low-level nurses posted and minimum of 2 PHC Workers (including 1 female) & 2 M/A or Mid-Level Nurse (including 1 female) per Type A HC, in addition to any low-level nurses posted

Table 8: District Hospital Staffing 8 Northern Provinces – Requirements for Doctors, Medical Assistants & Nurses per MOH Staffing Standards

Staff Category	# of DH's			Current / Actual Staff[1]						Minimum Required Staff[2]					
	Type A	Type B	Total	M	Av./DH	F	Av./DH	Total	Av./DH	M	Av./DH	F	Av./DH	Total	Av./DH
Doctor	11	45	56	31	0.55	14	0.25	45	0.80	112	2.00	112	2.00	224	4.00
Medical Assistant	11	45	56	59	1.05	47	0.84	106	1.89	168	3.00	168	3.00	336	6.00
Mid-Level Nurse	11	45	56	17	0.30	24	0.43	41	0.73	112	2.00	112	2.00	224	4.00
All Mid-Level Generalists	11	45	56	76	1.36	71	1.27	147	2.63						
Low-Level Nurse	11	45	56	85	1.52	322	5.75	407	7.27	224	4.00	224	4.00	448	8.00
Total	11	45	56	192	3.43	407	7.27	599	10.70	616	11.00	616	11.00	1232	22.00

[1] source MOH Statistics of Health Staff in Lao PDR 2005

[2] based on minimum of 4 Doctors, 6 M/A and 12 Nurses (4 mid-level & 8 low-level) with 50% female in each staff category per DH

NOTE: These calculations assume that all doctors working at the DH will perform technical work, even if they also do administration

Table 9: District Hospital Staffing 8 Northern Provinces – Alternative Scenario, Interim Requirements for Doctors, Medical Assistants & Nurses

Staff Category	# of DH's			Current / Actual Staff[1]						Minimum Required Staff[2]					
	Type A	Type B	Total	M	Av./DH	F	Av./DH	Total	Av./DH	M	Av./DH	F	Av./DH	Total	Av./DH
Doctor	11	45	56	31	0.55	14	0.25	45	0.80	67	1.20	67	1.20	134	2.39
Medical Assistant	11	45	56	59	1.05	47	0.84	106	1.89						
Mid-Level Nurse	11	45	56	17	0.30	24	0.43	41	0.73						
All Mid-Level Generalists	11	45	56	76	1.36	71	1.27	147	2.63	201	3.59	201	3.59	402	7.18
Low-Level Nurse	11	45	56	85	1.52	322	5.75	407	7.27						
Total	11	45	56	192	3.43	407	7.27	599	10.70	268	4.79	268	4.79	536	9.57

[1] source MOH Statistics of Health Staff in Lao PDR 2005

[2] based on minimum of 2 Doctors (50% female) & 6 M/A or Mid-Level Nurse (50% female) per Type B DH, in addition to any low-level nurses posted and a minimum of 4 Doctors (50% female) & 12 M/A or Mid-Level Nurse (50% female) per Type A DH, in addition to any low-level nurses posted

NOTE: These calculations assume that all doctors working at the DH level will perform technical work, even if they also do administration

Table 10: District Hospital Staffing 8 Northern Provinces – Minimum Requirements for Paramedical Staff

Staff Category	# of DH's			Current / Actual Staff[1]		Minimum Required Staff[2]		Staff Gap
	Type A	Type B	Total	Total	Av./DH	Total	Av./DH	Total
Pharmacist	11	45	56	5	0.09			
Pharmacy Mid-level	11	45	56	28	0.50			
All Pharmacy Workers[3]	11	45	56	33	0.59	56	1.00	23
Dentist	11	45	56	9	0.16			
Dental Assistant	11	45	56	7	0.13			
All Dental Workers	11	45	56	16	0.29	11	0.20	-5
Laboratory Technician[4]	11	45	56	31	0.55	56	1.00	25
Physiotherapist	11	45	56	5	0.09	11	0.20	6
Radiographer	11	45	56	0	0.00	11	0.20	11
Total	11	45	56	85	1.52	145	2.59	**65**

[1] source MOH Statistics of Health Staff in Lao PDR 2005

[2] based on minimum of 1 mid-level Pharmacy Worker & 1 mid-level Laboratory Technician per Type B DH
and a minimum of 1 mid or high-level Pharmacy Worker, 1 mid-level Laboratory Technician, 1 Dental Worker, 1 Radiographer, 1 Physio per Type A DH

[3] does not include low level Pharmacy Workers, as assumes all DH should have at least 1 mid-level Pharmacy Worker

[4] does not include low level Laboratory Workers, as assumes all DH should have at least 1 mid-level Laboratory Worker

NOTE: These calculations assume that all technical staff working at the DH level will perform technical work, even if they also do administration

Note: Any surplus of staff in a category is not included in the total Staff Gap estimation, as one category of paramedical staff cannot substitute for another in this calculation.

APPENDIX 12: Financial and Economic Analysis

I. Financial Analysis

A. Macroeconomic Context

1. Lao PDR is a small, sparsely populated, landlocked country with a rich but vulnerable natural resource base – water, forests and minerals. Lao PDR shares borders with Thailand, Vietnam, China, Cambodia, and Myanmar, and is at the geographic center of the dynamic Greater Mekong Subregion. A large majority of the 2.6 million population[1] relies for its livelihood on subsistence agriculture, as the rural economy accounts for some 80% of the population[2]. However, due to the mountainous terrain, just 4% of the nation's land area is considered arable. Urbanization remains relatively low, at 25 percent. Ethnic minority groups are about 30% of the population, mostly situated in the Northern areas. The incidence of poverty fell from 45% in 1990 to 30.0 % in 2003[3]. Unemployment rate is 5.7% (1997 estimate). Laos' Human Development Index ranking in 2002 is 135 of 177 countries[4].

2. Laos has been gradually moving towards a more liberal approach to economic development while retaining its social goals for the society. The policy of moving from command economy towards a market economy was introduced in 1982 at the 3rd Congress of the LPRP. In 1986, the central planned system was officially abandoned and the New Economic Mechanism (near total price liberalization, exchange rate unification, removal of Government's trade monopoly and opening up of foreign and inter-provincial trade came into being. Since then, state-owned enterprises have been reduced by 75%; and private firms were allowed to enter the market. Towards the end of the 1990s, due to the Asian financial crisis and a breakdown in monetary and fiscal management, the country underwent an acute period of macroeconomic instability. In late 1999 the Government responded by launching a successful stabilization program (tightening monetary and fiscal policies). By early 2001 the currency had stabilized and inflation was reduced to single digits. Headline inflation averaged 11 percent per annum from 2001 to 2004 compared to an average of nearly 70 percent per annum during 1997-2000.

3. At an aggregate level, the Lao economy is performing moderately well, with growth of real GDP consistently lying between 5 and 6 per cent since 2000, slightly above the average rate over the preceding decade[5]. Measured poverty incidence has declined over this period. In recent years, Lao PDR has experienced relatively good economic gains as real GDP growth increased from 5.8 percent to 6.5 percent from 2000 to 2004[6]. The GDP of Lao PDR was Kp. 24,621 billion in 2004, or $2,372.0 million at the annual average market exchange rate. In 2005 the GDP increase to Kp. 29,204 million or $2,755 million. The GDP per capita in 2000 was $335.10 and increased to $402 in 2004 and $491 in 2005[7]. Agriculture including livestock, fishery, and forestry is still the leading economic sector where this sector contributes 45.4% to total GDP of 2005, followed by industry (including electricity) 28.2%, and then by services 26.4%. The largest sector, agriculture, recorded growth of 3.5%. While rice still accounts for the majority of the agricultural production, the production of cash crops is increasing. There was 11.4% growth in the industrial sector, driven by the expansion in mining. The services sector grew by 7.3 %, partly reflecting a recovery in tourist arrivals.

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[1] Population and Housing Census, 2005, Preliminary Report, National Statistics Center Population Census, 2005
[2] ADB 2004: Report and Recommendation of the President to the Board of Directors on a Proposed Loan to Lao PDR for Northern Community-Managed Irrigation Sector Project.
[3] Lao PDR - National Growth and Poverty Eradication Strategy (NGPES)
[4] Human Development Report, 2004.
[5] Peter Warr, ADB Institute Discussion Paper No. 25: Road Development and Poverty Reduction: The Case of Lao PDR, 2005.
[6] ADB Report: "Country Strategy Program, Lao PDR" 2006
[7] 2004 estimate; ADB Country Strategy Program Update for Lao PDR: 2006-2008.

4. The government made progress in strengthening its revenue base in 2004. Revenue collection, excluding grants, is estimated to have increased 12% in 2004. As percent of GDP, central government expenditure declined from 18.4% in 2000 to 16.7% in 2004, overall fiscal deficit narrowed from 6% to 4.8% during the same period. Efforts were made to address an imbalance in public expenditure, reflected in an increase in recurrent expenditures (wages, transfers, interest payments) from 7.8% of GDP in 2003 to 8.4% in 2004. At the same time, capital and onlending expenditure declined from 11.2% to 8.8%. The government is taking action to raise the revenue required for social and economic development. It has committed to introducing a value-added tax by January 2007. Growth in broad money supply remained around 20%, and inflation fell to annual rate of 10.6% in 2004, and the exchange rate remained stable. Exports increased by 21.4% ($374.0 million in 2004 to $455.6 million in 2005 and import increased by 22.1% ($562 million to $686 million during the same period[8]. Foreign direct investment (FDI) commitments in 2005 remain robust, led by continued investment in the mining and power sectors. The level of the country's overall external debt stock was estimated at nearly $2 billion in 2004, with debt service ratio of 9.4% of exports[9].

5. Implementation of Lao's forthcoming hydropower project, and increased production from the mining sector, are forecast to be the key engines of economic growth over the next five years. However, these sectors generate relatively few jobs, and are dependant on foreign investment inflows. With a young work force, rising numbers of school leavers, and a population growing at 2.5% per annum, promoting growth in sectors other than mining and hydropower is important for generating employment, and ensuring stable and rapid growth in the long-run. A number of factors combine to impede labor-intensive growth and competitiveness including inadequate labor and entrepreneurial skills, high transport costs, the small and fragmented domestic market, restrictive investment laws; limited credit, lack of competitiveness in the export market, and a weak and still subsistence-oriented agriculture sector. Export-oriented, private sector investment is increasingly emphasized in Government's plans and strategies, in recognition of constraints to public investment, Government's limited capacity to absorb new entrants to the labor market, and the need to refocus public spending to accord greater priority to recurrent outlays.

6. The IMF forecasts 6-7%[10] growth in real GDP between 2006 and 2010, incorporating strong impetus from the mining and hydroelectric sectors and growing employment. External trade is expected to continue to grow at more than 10 percent annually. Despite significant infrastructure gains put into place during the past 15 years, particularly with respect to roads, power and telecommunications, infrastructure remains underdeveloped and large tracts of land remain contaminated by unexploded ordinance. Reliance on external support to the budget remains high, and donor-funded programs account for nearly two-thirds of all public investment. Challenges to macroeconomic management include the low ratio of government revenue to GDP and the high external debt burden (servicing external debts is likely to include approximately 20 percent of recorded exports and 20 percent of Government revenue). In addition many public enterprises continue to make substantial losses and the trade environment is not yet attractive enough to foreign investment. The four fundamental challenges for Lao PDR include maintaining macroeconomic stability, improving competitiveness, advancing trade reforms, and enhancing good governance. Although the high rates of economic growth in recent years have been effective in reducing income poverty, more attention is needed to ensure that the growth process generates productive employment for the growing labor force. Poverty reduction remains an overarching aim of the Lao PDR Government, with a target of graduating from LDC status by 2020. To accelerate poverty reduc-

[8] Lao PDR: Committee of Planning and Investment, Government of Lao PDR, Socio-Economic Development Plan 2005-2006.
[9] ADB Report: "Country Strategy Program, Lao PDR" 2006
[10] International Monetary Fund, Lao PDR Medium Term Economic Framework 2003/2004 to 2005/2006.

tion, the government puts emphasis on agricultural commercialization, hydropower and mining sector development, human resource development, and regional integration.

Table 1: Selected Country Economic Indicators

Item	Year					
	2000	2001	2002	2003	2004	2005
GDP per Capita ($, current)	335.1	333.3	325.5	350.5	402.0	491.0
GDP (current prices, KN billion)	13,671.3	15,670.0	17,967.6	20,307.1	24,621.0	29,204.0
Share of GDP						
-Agriculture	52.5	51.0	50.1	49.2	47.0	45.4
-Industry	22.9	23.3	24.2	25.1	26.8	28.2
-Services	24.6	25.7	25.7	25.7	26.2	26.4
Government Finance (% GDP)						
-Revenue	12.4	12.6	13.4	11.0	11.9	12.3
-Expenditure and Onlending	18.4	20.2	11.0	18.8	16.7	19.4
-Overall Fiscal Surplus (Deficit)	(6.0)	(7.6)	(8.3)	(7.8)	(4.8)	(5.7)*
External Payments Indicators						
-External Debt Service (% of exports of goods and services)	5.7	7.8	8.9	6.8	9.4	na
-Total External Debt (% GDP)	83.16	82.7	88.8	104.0	93.9	na
Export ($ Million)	na	324.8	322.6	532.6	374.3	455.6
Import ($ Million)	na	528.3	533.6	551.1	561.8	686.0
Foreign Direct Investment (% GDP)	na	2.4	26.9	23.3	21.5	16.3
Consumer Price Index (annual % change)	8.4	7.8	10.7	15.8	10.6	6.9
Exchange Rate (KN/$, average)	7,887.6	8,964.6	10,056.3	10,652.0	10,380.0	10,600.0
Population (million)	5.2	5.3	5.4	5.7	5.8	5.6[11]

Source: FY2000-2001, Country Strategy Program, 2006, ADB; 2005 Lao PDR: Macroeconomic Indicators for Fiscal Year 2000-05 and Plan for FY 2006-2010, IMF.
*Budget deficit in 2005 is based on different sources, hence the increase in overall deficit.

B. Health Expenditure

7. ***Composition of Health Expenditure***. Total health expenditure consists of government health expenditure and household out-of-pocket spending on health care. Government health expenditure includes both domestically financed government health expenditure (recurrent and capital health expenditure financed mostly out of tax revenue) and foreign-financed government health expenditure (foreign donors and international NGOs, all classified as capital expenditure). Total health spending is extremely low and donors and households play an important role in financing the health sector. Total health expenditure decreased from US$21.7 million in 1999 to US$13.1 million in 2003 as a result of the decline of both foreign-financed and out-of-pocket household health expenditure (Table 2). Per capita health expenditure in Lao PDR declined from $11.81 to $7.38 during the same period[12]. The share of total health expenditure accounted for by domestically financed government health spending has varied considerably over the last 12 years. This share was 22 percent in 1992-1993, increasing to 32 percent in 1994-1995 before falling to 12 percent and 9 percent in 1997-1998 and 1999. In 2003, domestically financed government health spending has returned to 18 percent of total health expenditure. Externally funded health expenditure as

[11] Source: Population and Housing Census, 2005, Preliminary Report, National Statistics Center.
[12] 2002/03 estimate for Lao PDR is very low compared to other East Asia & Pacific countries (US$63), Low & Middle Income countries (US$73), Low Income countries (US$29), and to levels in neighboring countries.

percent total health expenditure ranged from 17 percent to 35 percent, while the share of household out-of-pocket expenditures ranged from 49 percent to 58 percent.

Table 2. Total Health Expenditure by Financing Source, 1992-2003 (Current US$, millions)

	Calendar years				
Financing source	**1992-1993**	**1994-1995**	**1997-1998**	**1999**	**2002-2003**
Government (domestically financed)	8.40	16.30	8.31	5.55	7.09
Central MOH	3.33	6.33	2.31	1.54	1.89
Provinces	4.95	9.70	5.20	3.49	5.22
Foreign-financed	8.61	8.43	22.05	21.69	13.05
Donors	5.36	7.70	17.64	18.63	NA
NGOs	3.25	0.70	4.40	3.06	NA
Households	20.68	26.21	42.09	34.30	19.02
User fees at public facilities	NA	NA	15.07	12.21	NA
Other private expenditure	NA	NA	27.02	22.09	NA
Total health expenditure	38.18	50.68	72.45	61.63	39.17
Total per capita (US$)	8.54	11.26	14.94	11.81	7.38
Percent domestically financed government health spending	22.0	32.2	11.5	9.0	18.1
Percent foreign-financed health spending	22.6	16.6	30.4	35.2	33.3
Percent household-financed health spending	54.2	51.7	58.1	55.7	48.6

Source: Knowles, 2006.
NA=not available.

8. ***Government Allocation to Health[13].*** As a percent of GDP, domestically financed government health expenditure was less than 1 percent[14] during the period FY95 to FY97 before decreasing to 0.3 percent of GDP in FY99 where it has remained (except for a modest increase to 0.4 - 0.5 percent of GDP during FY01-FY02). Similarly, domestically financed government health spending was about 4 percent of total government expenditure in FY97 before decreasing to below 2 percent in FY99 where it has remained, except in FY02, when it increased to 2.7 percent of total government expenditure. These data indicate that the level of government health spending has not fully recovered from the sharp decreases experienced during the 1999-2000 economic and financial crises. Total government health expenditure as a percentage of total government expenditure (6 percent) is also low compared to many low and middle-income countries, with the exception of Vietnam, where it is also about 6 percent. There has been little change during the period FY02 to FY05 in total government health expenditure either as a percentage of GDP or as a percentage of total government expenditure[15].

9. ***Health Expenditure by Category***. By economic category (Table 3), 2003 estimates indicate that capital expenditure, drugs, and personnel salaries accounted for majority of total health spending, representing 39%, 34%, and 12%, respectively, of total health expenditure. There has been an inverse shift in expenditures from drugs to capital expenditure during the period 1999 to 2003. Nevertheless, this leaves government health facilities with very

[13]Jim Knowles, Chapter 3: Health, Lao PDR - Public Expenditure Review (Draft), 2006.
[14] Total government health expenditure is equal to about one percent of GDP, which is low compared to other East Asia & Pacific countries (1.9 percent), other Low & Middle Income countries (2.7 percent), other Low Income countries (1.5 percent) and even compared to neighboring low-income countries
[15] Jim Knowles, Lao PDR - Public Expenditure Review (Draft), 2006.

little resources to pay for operation and maintenance[16]. As share of recurrent expenditure is low, average salary is too low compared to other developing countries in the region even though it accounts for large share of recurrent spending. By funding source, foreign-financed and households comprised about 60% of total health expenditure, with central MOH and provinces. Private (households) spending primarily comes from user fees and drugs (through revolving drug funds/RDF[17] at hospitals and health centers). Cost recovery has been implemented in Lao PDR since about 1992, mainly through the sale drugs financed through facility-managed revolving drug funds. User fees are also collected for some services in government hospitals and health centers[18]. In fact user fee-financed expenditure accounted for a larger share of total public health spending in 2002 than domestically financed government spending. MOH estimates that more than 50% of operational costs of central and provincial hospitals and 33% in district hospitals are currently being met by cost recovery. It should be noted that household spending on drugs account for about 90%. It is apparent that no subsidies are provided for the poor even if there is are exemptions policies in cost recovery.

Table 3. Total Health Expenditure by Spending/Financing Unit and by Economic Category, 1999/2000

Economic category	MOH	Provinces	Households	Foreign	Total	Percent
1999						
Personnel	4,361	12,236	37,567	34,239	88,403	17.8
Drugs	500	732	245,766	25,679	272,677	54.8
Other supplies	1,470	2,322	3,441	25,679	32,912	6.6
Subsidies	664	2,909	0	NA	3,573	0.7
Capital	5,178	9,369	0	85,597	100,144	20.1
Total	12,173	27,568	286,774	171,194	497,709	100.0
2002/03						
Personnel	7,829	29,813	25,666	2,221	65,528	12.0
Drugs	921	1,681	167,910	15,162	185,674	33.9
Other supplies	2,707	5,332	2,351	66,778	77,168	14.1
Subsidies	1,223	6,680	0	NA	7,903	1.4
Capital	60,506	100,651	0	50,294	211,451	38.6
Total	73,186	144,156	195,928	134,455	547,724	100.0

Source: Knowles, 2006.

10. ***Provincial Health Expenditure.*** Per capita government health spending varies considerably among provinces. On average, capital expenditures account for a large of provincial health expenditure (70% in FY 2001-04), except Xayxombuon which spent 91% of total health expenditure for recurrent cost. Capital spending has increased sharply during the past few years due to substantial increases in external donor funding. Similar to aggregate health spending, the omission of provincial spending financed by user fees and external donors in the accounts actually distorts the capital-recurrent classification of provincial health spending. Provincial and district hospital currently cover more than 50% of their operation costs

[16] The health system has to rely on out of pocket payment for health care to finance its operations.

[17] Under the current DRF-based system, the level of cost recovery in Lao public hospitals is relatively high compared with other countries in the region.17 This may be a reflection of low salaries paid to hospital personnel and low level of government funding of hospitals.

[18] Government policy on user fees, including exemptions of certain groups from having to pay user fees, is based on the Prime Minister's Decree No. 52 issued on 26 June 1995 and by Implementation Guideline No. 2635 issued by the Ministry of Health on 12 December 1995.

from user fees. If user fees are added, capital cost could account for 50% of provincial spending on health.

Table 4: Provincial Health Expenditure, 2001-2004

Province	% of total province expenditure		Share of total province's health expenditure				Share of salaries in total recurrent expenditure	Per capita government health spending (excluding donor financing) US$
			Expenditure Type		Funding Source			
	Total	Excluding donors'	Capital	Recurrent	Local	Donor		
Vientiane City	2.4	2.1	13.4	86.6	93.0	7.0	71.6	7.9
Phongsaly	5.1	2.1	58.0	42.0	46.2	53.8	88.8	9.5
Luangnamtha	9.0	2.9	73.1	26.9	30.9	69.1	67.5	13.8
Oudomxay	11.9	3.0	80.5	19.5	23.6	76.4	79.1	12.6
Bokeo	9.8	3.2	72.0	28.0	36.7	63.3	79.8	15.8
Luangphabang	26.1	3.2	87.5	12.5	16.9	83.1	82.1	12.4
Hua Phan	6.5	2.8	65.8	34.2	43.5	56.5	70.3	11.2
Sayauly	7.9	2.9	69.8	30.2	37.1	62.9	67.9	10.0
Xiengkhoang	5.6	4.0	49.0	51.0	65.5	34.5	81.9	12.6
Vientian Pro	5.4	3.6	36.8	63.2	76.5	23.5	69.3	11.3
Bolikhamxay	4.8	3.7	37.6	62.4	80.6	19.4	75.1	12.9
Khamouan	2.5	2.0	36.1	63.9	74.4	25.6	72.2	12.9
Savanakhet	7.9	3.8	59.1	40.9	57.0	43.0	78.8	9.2
Saravane	10.5	6.7	67.7	32.3	59.8	40.2	81.6	16.7
Sekong	7.3	5.0	35.6	64.4	74.4	25.6	74.4	28.6
Champasak	7.1	3.7	65.2	34.8	48.3	51.7	64.6	14.9
Attapeu	3.4	2.5	68.2	31.8	43.4	56.6	71.5	11.5
Xaysomboun	2.4	2.4	8.8	91.2	100.0	0.0	66.1	12.1
Total	7.8	3.2	69.7	30.3	21.8	78.2	68.5	11.9

Source: Knowles, 2006

11. Provinces spend only 7.8% of total government allocations to health indicating the low government commitment to the health sector. More than two thirds (70%) of government recurrent health expenditure goes to salaries and the rates are quite similar among provinces except Phongsaly spent the most (86%) and Champasak spent the least 57.5 % on salaries.

C. Financial Sustainability of the Health Sector

12. The sustainability of the health care system is a serious concern of the Government. Laos is still in the process of restructuring its economy and reforming its health care system and, as a result, the amount of resources available for all sectors (including health) is quite limited. Although the health needs of the country are great, any investment in the health system must be sustainable, in the long run, with domestic resources. Laos is unusual among Asian countries with its largest share of health spending currently coming from private (household) expenditures, at 49% (Table 2). The Government's contribution to total health care is estimated to be 18% and development partners for the remaining 33% of the total. The Government's effort is severely limited by its narrow revenue base, currently accounting for around 12% of the GDP. While the private sector (households and community) can be an important resource for the health sector, there are serious equity issues associated with high private costs and a weak social safety net.

13. Generous foreign financing has maintained the share of government health spending in total health expenditure within a range of 42 percent to 51 percent, while the share of household out-of-pocket expenditures in total health spending has ranged from 49 percent to 58 percent. This last indicator is lower than the average among other East Asia & Pacific countries (62 percent) or among other Low Income countries (72 percent) and is about the same as the average among other Low & Middle Income countries (55 percent).[19]

14. The data in Table 7 also show a sharp decrease in 2002/03 in total health expenditure expressed in US dollars. Some of the observed decrease is due to a decrease in the level of foreign-financed health expenditure, from an estimated level of US$21.7 million in 1999 to US$13.1 million in 2002/03. In addition, the data indicate a sharp drop in reported out-of-pocket spending by households in US dollars between the period 1997-1999 and 2002-2003. This drop may be due to a decline in total consumption per capita in US dollars between 1997/98 and 2002/03 as a result of a sharp decline in the value of the Kip during this period.

15. The JICA-sponsored 2002 Lao Health Master Planning Study estimates of total health expenditure by economic category in 1999 are given in the top half of Table 7. These estimates indicate that drugs accounted for 55 percent of total health spending in 1999. Corresponding estimates for 2002/03 are reported in the bottom half of Table 7. They indicate that the share of capital spending in total health expenditure has increased sharply since 1999 (i.e., from 20 percent to 39 percent), while the share of drugs in total health spending has decreased by about the same amount (i.e., from 55 percent to 34 percent). The share of personnel expenditure has also declined (from 18 percent to 12 percent), while that of other supplies has increased from 7 percent to 14 percent.

Table 4a: Total health expenditure (million Kip) by spending/financing unit and by economic category, 1999/00

Economic category	MOH	Provinces	Households	Foreign	Total	Percent
1999						
Personnel	**4,361**	**12,236**	**37,567**	**34,239**	**88,403**	**17.8**
Drugs	**500**	**732**	**245,766**	**25,679**	**272,677**	**54.8**
Other supplies	**1,470**	**2,322**	**3,441**	**25,679**	**32,912**	**6.6**
Subsidies	**664**	**2,909**	**0**	**NA**	**3,573**	**0.7**
Capital	**5,178**	**9,369**	**0**	**85,597**	**100,144**	**20.1**
Total	**12,173**	**27,568**	**286,774**	**171,194**	**497,709**	**100.0**
2002/03						
Personnel	**7,829**	**29,813**	**25,666**	**2,221**	**65,528**	**12.0**
Drugs	**921**	**1,681**	**167,910**	**15,162**	**185,674**	**33.9**
Other supplies	**2,707**	**5,332**	**2,351**	**66,778**	**77,168**	**14.1**
Subsidies	**1,223**	**6,680**	**0**	**NA**	**7,903**	**1.4**
Capital	**60,506**	**100,651**	**0**	**50,294**	**211,451**	**38.6**
Total	**73,186**	**144,156**	**195,928**	**134,455**	**547,724**	**100.0**

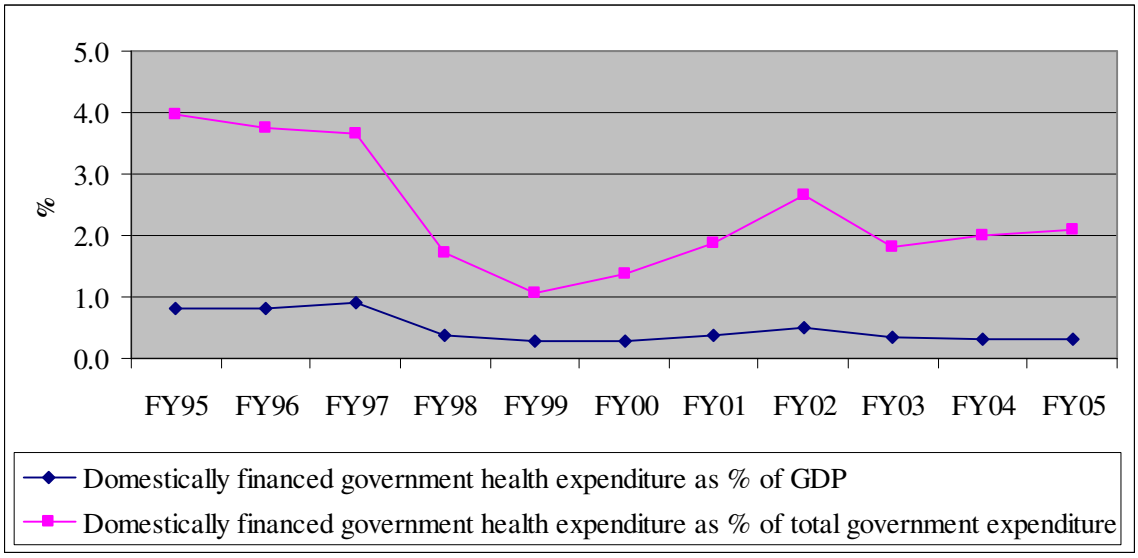
Source: MOH and JICA, 2002.

16. Figure 1 presents data on domestically financed government health expenditure in relation to GDP at market prices and to total government expenditure. Domestically financed government health spending was less than 1 percent of GDP during the period FY95 to FY97 before decreasing to 0.3 percent of GDP in FY99, where it has remained except for a

[19] Knowles, 2006.

modest increase to 0.4 - 0.5 percent of GDP during FY01-FY02. Similarly, domestically financed government health spending was about 4 percent of total government expenditure in FY97 before decreasing to below 2 percent in FY99 where it has remained, except in FY02, when it increased to 2.7 percent of total government expenditure. These data indicate that the level of government health spending has not fully recovered from the sharp decreases experienced during the 1999-2000 economic and financial crises.

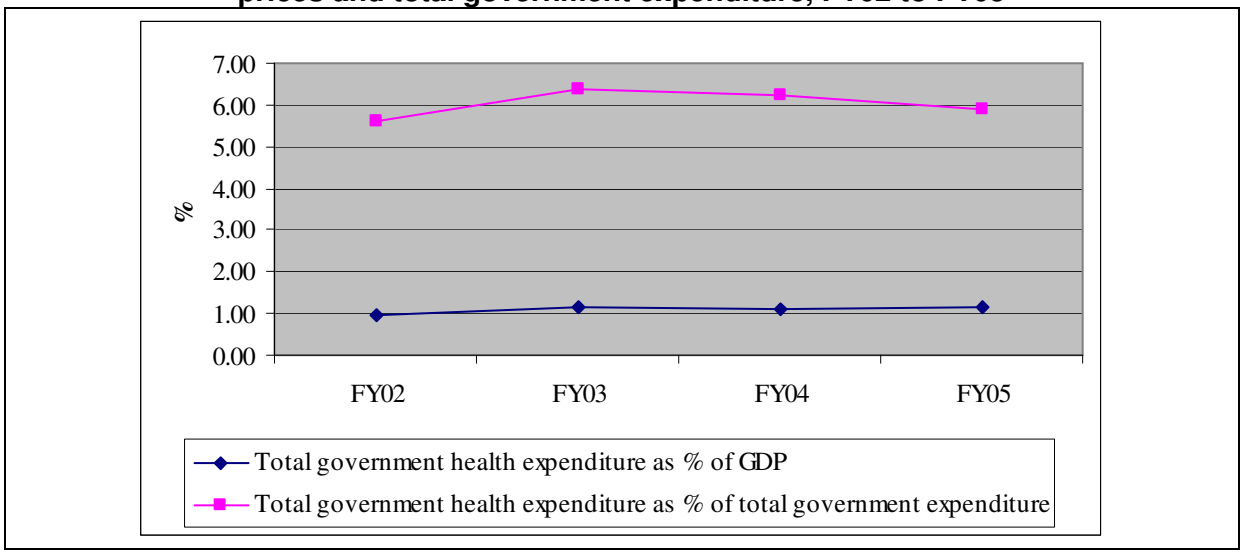
Figure 1: Domestically financed government health expenditure as a percentage of GDP at market prices and of total government health expenditure, FY95 to FY05



Source: Knowles, 2006.

17. Total government health expenditure as a percentage of total government expenditure (6 percent) is also low compared with many low and middle-income countries, but not compared with Vietnam, where it is also about 6 percent. Figure 2 shows that there has been little change during the period FY02 to FY05 in total government health expenditure either as a percentage of GDP or as a percentage of total government expenditure. Total government health expenditure is equal to about one percent of GDP, which is low compared with other East Asia & Pacific countries (1.9 percent), other Low & Middle Income countries (2.7 percent), other Low Income countries (1.5 percent).

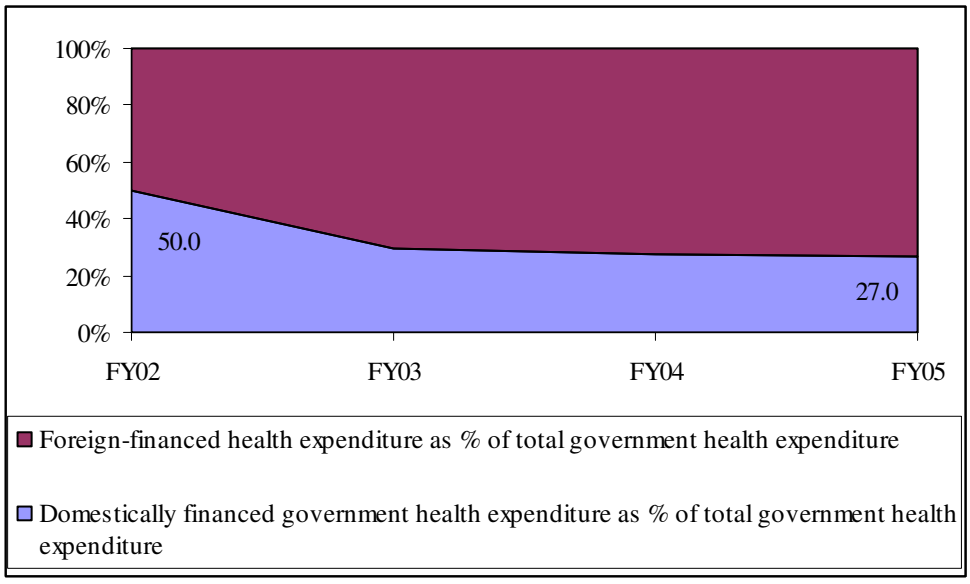
Figure 2: Total government health expenditure as a percentage of GDP at market prices and total government expenditure, FY02 to FY05



Source: Knowles, 2006

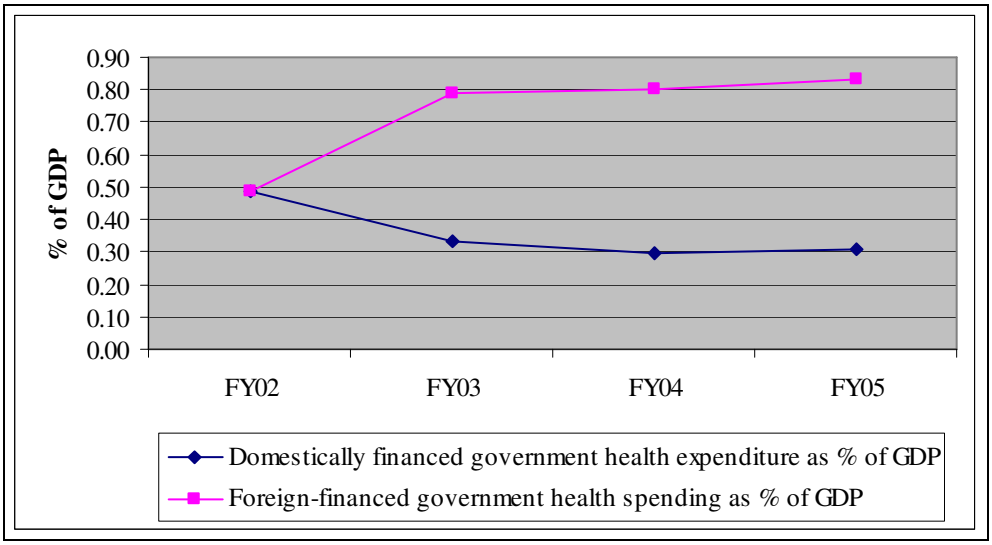
18. Moreover, Figure 3 shows that there has been a dramatic decrease during this short period in the share of domestically financed government health spending in total government health spending. This large shift reflects rapid growth in foreign-financed government health expenditure in relation to GDP as well as an almost equally sharp decrease in domestically financed government health expenditure in relation to GDP (Figure 4).

Figure 3: Shares of domestically and foreign-financed government health expenditure in total government health expenditure, FY02 to FY05



Source: Knowles, 2006

Figure 4: Domestically and foreign-financed government health expenditure in relation to GDP at market prices, FY02 to FY05



Source: Knowles, 2006

19. The composition of health spending indicates that Government of Laos currently does not have sufficient resources to sustain the health sector on its own. With a budget between $2 to $3 per capita, Government spending is well below the recommended targets for health spending[20]. Given Lao's low income and revenue base, the country will have to depend on international assistance for several more years. Laos needs to develop an "exit strategy" to ensure that the health sector will function with reduced donor support. It will also have to develop a strategy to better target private health care spending.

20. Due to the "unfunded" mandate of fee exemption for the poor, Government strategy supports the establishment of social safety net mechanisms such as health equity funds (grants) for the poorest quintile and interest free health loan funds for the near poor. While the program supports this pro-poor mechanism, there is need to ensure its sustainability. Several approaches that ensure sustainability include: (i) linking health improvement to national program on poverty eradication, (ii) improving public private partnerships (PPP) in particular through Corporate Social Responsibility (CSR), (iii) improving local government commitment, and (iv) earmarking taxes (e.g. specific taxes for non-essential items) for health equity and loan funds. Policy reforms are essential to support the health sector reforms. Health insurance (incl. community-based health insurance) should be expanded taking into account affordability issues of the vulnerable population. This may be supported, for instance, by provision of government subsidies for "health assurance card" as an effective targeting mechanism for free health services for the poor. It is expected that significant efficiency gains can be realized through the systemic reforms proposed under the Project. Better public-private partnership could also involve the private sector in health care financing, managed care and other reforms.

D. Fiscal Impact

21. The Project comprises investment and institutional development components. It is designed to enhance the quality and management support systems thus aiming at achieving efficiency gains in health service delivery. The program portion supports recurrent costs for the provincial governments through increased fiscal autonomy. Financial rate of return is not calculated since investment is on promotive and preventive services. This is considered

[20] WHO recommended per capita health expenditure is $30.

as core poverty reduction[21] and user charges will not be applied in the investment Project. To evaluate HSDP's sustainability during and after project implementation, the financial analysis focuses on the fiscal impact of the project on overall government and health sector budgets.

22. About 20% of the project portion of HSDP will be Government counterpart contribution from non-cash sources. The total financial cost of the Project, inclusive of taxes, duties, and contingencies, is estimated at $28.0 million. From the total Project cost, ADB will provide $25 million grant financing (two phases over 6 to 7 years), with the Government contributing about $3 million of the total Project cost through tax and in-kind contributions. The Government's annual share in Project costs will average around $0.5 million during the six-year Project period. The recurrent costs to be borne by the Government during the Project are estimated to be about $0.93 million per year and include: (i) the operating expenses related to infrastructure, and (ii) project running costs. Based on project disbursements, projections were made to assess the annual health expenditure as a result of the incremental investment so that the government is presented with clear commitment for non-cash contributions from the government and the community. (Table 5).

23. The project will have minimal impact on central budgetary resources (health) as these represent an average of about 6.4% of government allocations during the Project years. In order to make substantial impact on key health indicators, it is essential that local spending for health be increased during Project implementation in order to sustain and deepen the benefits. Although the costs of the reforms are one-time costs, there is need to ensure by commitment of the provincial, district and villages to institutionalize these reforms. Resource mobilization mechanisms should likewise be explored through local government empowerment, community mobilization, and PPP.

[21] The 8 Northern provinces have exhibited relatively high poverty and poor health indicators, and low fiscal capacity.

Table 5: Fiscal Impact
Actual and Projected, 2001 - 2015

Basic Data	Actual/Planned			Project Years								After Project		
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2007-2012	Total $ Mil	2012	2013	2014
GDP	25,600	29,294	33,300	35,631	38,125	40,794	43,650	46,705	49,974	254,879	24,045.18	49,974	53,472	57,215
GDP Growth Rate, % constant	8.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	Average 7	Average 7	7.0	7.0	7.0
% Allocation to Health	0.7	1.1	0.9	1.0	1.1	1.1	1.2	1.3	1.4	1.2	1.2	1.4	1.5	1.6
State Expenditure	4,172	5,825	7,390	7,019.3	7,510.7	8,036.4	8,599.0	9,200.9	9,844.9	50,211.1	4,736.9	9,844.9	10,534.0	11,271.4
Annual Health Budget	180	322.8	303.1	348.6	400.8	461.0	530.1	609.6	701.1	3,051.2	288	701.1	806.27	927.2
Central level	65.6	167.7	110.1	126.6	145.6	167.4	192.6	221.5	254.7	1,108.4	105	254.7	292.91	336.8
Province level	114.8	155.2	193.0	221.9	255.2	293.5	337.5	388.1	446.3	1,942.5	183	446.3	513.25	590.2
Capital expenditures a/	114.8	243.4	210.0	241.5	277.8	319.4	367.4	422.5	485.8	2,114.4	199	485.8	558.67	642.5
Recurrent budget b/	65.5	79.3	93.0	106.9	123.0	141.4	162.6	187.0	215.1	936.1	88.3	215.2	247.5	284.6
- Salaries	42.7	46.7	54.3	62.5	71.9	82.6	95.0	109.3	125.7	546.9	52	125.7	144.56	166.2
- Wages and benefits	6.6	16.9	19.7	22.7	26.1	30.0	34.5	39.6	45.6	198.3	19	45.6	52.44	60.3
- Operation & maintenance	9.5	11.9	13.9	16.0	18.4	21.1	24.3	28.0	32.2	139.9	13	32.2	37.03	42.6
- Subsidies & transfers	6.7	3.8	5.1	5.8	6.7	7.7	8.8	10.2	11.7	50.9	5	11.7	13.46	15.5
HSDP Finance Plan														
ADB				24.70	48.55	32.65	42.40	66.25	50.35	264.89	25.00			
Government				3.18	7.95	4.77	3.18	7.95	4.77	31.80	3.00			
HSDP Total				27.88	56.50	37.42	45.58	74.20	55.12	296.69	28.00			
% Total				100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0			
ADB				88.6	85.9	87.3	93.0	89.3	91.3	89.3	89.3			
Lao PDR				11.4	14.1	12.7	7.0	10.7	8.7	10.7	10.7			
Project														
ADB grant				15.90	39.75	23.85	15.90	39.75	23.85	159.00	15.00			
Government				3.18	7.95	4.77	3.18	7.95	4.77	5.30	0.50			
Total				19.08	47.70	28.62	19.08	47.70	28.62	190.80	18.00			
Program														
ADB grant				8.80	8.80	8.80	26.50	26.50	26.50	105.89	10.00			
HSDP by Category														
Capital cost (80%) c/				22.30	45.20	29.93	36.46	59.36	44.10	237.36	22.40			
Operating expenses (20%) d/				5.58	11.30	7.48	9.12	14.84	11.02	59.34	5.60	11.02	9.92	8.93
%HSDP/Govt capital cost c/a				9.2	16.3	9.4	9.9	14.1	9.1	11.2	11.2			
%HSDP recurrent/Govt recurrent d/b				5.2	9.2	5.3	5.6	7.9	5.1	6.3	6.3	5.1	4.0	3.1
Exchange Rate 1$ to Kip	10,539	10,600	10,600	10,600	10,600	10,600	10,600	10,600	10,600	10,600	10,600	10,600	10,600	10,600

1. Ministry of Finance data.
2. 2007-2020 PPTA estimates. Key assumptions: GDP growth rate-7%, Health expenditure growth rate-15 percent & State expenditures 19.7% (Average 4years 2003-06).

II. Economic Analysis

24. HSDP's principal objective is to improve the quality of life for people in rural areas by decreasing the mortality and morbidity caused by diseases that can be prevented or easily treated. The Project consists of four main components: (i) Human Resource Development, (ii) MOH Institutional Development, (iii) Strengthening Primary Health Care (PHC), and (iv) Project Management. The project will improve access to quality curative and preventive services through the PHC service delivery network in the eight northern provinces of the Lao PDR.

25. The economic analysis aims to provide justification for government intervention since the government is using scarce public resources. The main factors considered are the health sector reforms correction for market failure and meeting society's equity objective. Government intervention is justified, and an assessment is made to determine whether the social benefits outweigh the social costs. The use of quantitative analysis is based on estimates of the likely net present value of the Program's benefits in relations to its costs, as well as the rationale for why the discounted benefits are expected to exceed its discounted costs.

26. To assess the economic viability and efficiency of the investment under the Project, economic benefits and costs were identified and an economic internal rate of return (EIRR) over 20 years was estimated. The EIRR for the project was estimated as part of project preparation. It was assumed that the key economic gain from the project would be the added future value of labor from a decrease in the under-five mortality rate[1]. The analysis assumes a 10% reduction in the under-five mortality rate would yield an EIRR of 20.6%. Since this analysis, the Bank[2] has developed procedures for valuing economic benefits from increased labor productivity as a result of decreased incidence of ill-health and also from any cost savings from decreased health service expenditure. The valuation procedure adopted in these guidelines is used in this retrospective economic evaluation of the project. Key assumptions used in the analysis are subsequently described.

A. Economic Rationale

27. Public intervention in the health sector typically has a number of justifications: public goods, positive externalities, and merit goods. Spending public resources, whether from current budget or through loan funding, is supported most strongly where: (i) resources are targeted to services that have substantial positive externalities – this requires strengthening the ability of primary care to deliver basic health services; (ii) providing an insurance or social safety net function for the most uncertain health services; (iii) increasing appropriate use of PHC services amongst the poorest groups; and (iv) reducing funding and not promoting inappropriate and ineffective services.

28. The strongest rationale for Government of Lao's involvement in health sector is that it could contribute to a more effective and efficient functioning of the health system and/or that it could contribute to poverty alleviation and redistribution of income. There is a justification for Government involvement in the provision of health services which have "public goods" nature, such as malaria control, surveillance and control of communicable diseases (HIV/AIDS and avian flu), sanitation, mass education, etc. Similarly, many health services can create large spillover effects (such as vaccination for preventive health services), pro-

[1] ADB. 1994. Report and Recommendation of the President to the Board of Directors on a Proposed Loan to Lao PDR for Primary Health Care Project. Manila, 24.

[2] Bloom, E. and Choynowski, P. (2003) Economic Analysis of Health Projects: A Case Study in Cambodia, ERD Technical Note No. 6, ADB, Manila and P. A. Musgrove (2003) Health Economics in Development, November 2003 by World Bank.

duce greater social benefit than private benefit (such as family planning). There is also a rationale for Government involvement in the provision of health information and research, both of which have the same characteristics as public goods. The Lao population's knowledge of the benefits of preventive health services is quite inadequate, which has lead to low level of utilization of preventive services.

29. In spite of the progress made in recent years, health status indicators demonstrate that the population remains affected by significant health problems. Disparities exist among urban and rural social indicators. Infant mortality and maternal mortality continue to be among the highest in the region. Notwithstanding the impact of poverty and of the situation in other sectors, public health issues can be mitigated with adequate financing and improved performance of the health delivery system. Weaknesses in the health system will continue to hamper improvements in health indicators unless the low and inefficient use of resources, adequate incentives for service delivery, low capacity of service providers, and core issues of physical and financial access are addressed.

30. In such a scenario, investing in health is likely to generate substantial economic returns. HSDP has been designed to have a systemic effect, supporting both activities that generate direct health benefits for the target population and activities that will affect the planning, financing and management of health in Laos. The project aims at creating the practical conditions for actual implementation of an integrated primary health care package at village level while developing the critical capacity for efficient management of the health system at all levels. The project will focus on the needs of the poor and vulnerable, by building institutional capacity in the health workforce at all levels; improving the equity, efficiency and sustainability of health care financing, and improving the delivery and quality of primary health care services. An equitable and efficient allocation of scarce resources can play an important role in improving the health status of the poor.

31. In Laos, it is important that services known to have a significant effect on the key outcomes (IMR and MMR) are made available in a way that increases consumption quickly, particularly amongst the poorest groups. In general there is a choice to be made, in addressing these market imperfections, between providing services directly or by giving purchasing power to target groups and allowing them to obtain services. Internationally there is some evidence that demand side subsidies, such as vouchers for services, can be effective in raising use but the evidence base remains weak and un-robust (Ensor, 2003). The lack of a well-organized and regulated private sector limits the scope for public-private competition and choice. This means that improving quality and accessibility through the regulation and funding of the public sector is likely to remain the most used option for targeting services. However the scope for some demand side subsidies should not be ignored particularly as there is evidence, that some of the barriers to use of services among poor rural populations are related to demand side issues rather than a lack of supply. Scope for providing demand side interventions must be explored in pilot areas during the project.

B. Cost-Benefit Analysis

32. The quantitative cost-benefit analysis for the Project follows the methodologies outlined in *ADB's Guidelines for the Economic Analysis of Health Projects*. Key assumptions include:

- ***Discount rate.*** The economic opportunity cost of capital was assumed to be 12%. Most health project analyses tend to use 3% as a discount factor; therefore, future benefits are likely to be given greater value. To harmonize this analysis with other project appraisal in non-health sectors, a higher discount rate is utilized.

- ***Projection of Project Benefits and Costs.*** The period of analysis covers 20 years and benefits and costs are calculated in constant 2007 dollar prices. Key benefits incorporated in the economic evaluation framework involve cost savings from reduced out-of-pocket health expenditure and productivity benefits from increased labor supply.

- ***Economic cost of labor.*** The opportunity cost of labor or the shadow wage rate (SWR) for both urban and rural adults was calculated at US$0.5 per day. This estimate is derived from basic statistics from Lao, PDR[3].

C. Economic Costs

33. Base investment costs are in constant 2007 dollar prices. Costs are derived from projected disbursements over the implementation period and are adjusted for inflation into 2007 dollar terms. Incremental recurrent costs are calculated for the 15 years following the six-year project implementation period.

D. Economic Benefits

34. The project is expected to yield several benefits. These include improved health status in the project provinces and districts through increased spending, better prioritization and targeting of health service delivery, improved resource allocation and mobilization, enhanced quality care, and better access to vulnerable groups. Local governments informed by local concerns will devise cost-efficient delivery systems to expand the outreach of public health services. The project will increase the economic benefits of decentralization at the provincial and district levels through capacity building, physical investment, and reforms.

35. HSDP's support to PHC will play a key role in the decrease of MMR, IMR and general morbidity. It relies on the strengths of PHC, which bring essential support to cost-effective treatment and preventive activities. Health staff will be trained on clinical and non-clinical approaches. HSRP is expected to increase the number of persons receiving quality health care; and will contribute directly to improve the productivity of target beneficiaries.

36. These measurable economic benefits are directly linked to the final health outcomes of HSDP. Intermediate benefits likewise relate to the capacity development and rationalization of staffing and facilities under HSRP. An effective health system, capable of delivering equitable and quality healthcare will improve health outcomes. Human capital development is an economic benefit itself and it creates the potential for yielding sustainable synergies through the proposed project. For estimation purposes, the economic analyses assume that human capital in the health sector will generate increasing returns in terms of economic gains.

37. The Project will support the Lao health system in improving the health status of the population. The Project will improve the socio-economic condition of the target beneficiaries. The Project will have several positive impacts on the population's health and welfare that can be quantified in economic terms**.** Key project benefits are to be estimated in the following ways: (i) cost savings due to increased health awareness and reduced disease prevalence; and (ii) enhanced income of both rural and urban income earners who care for the sick. Costs and benefits are outlined in Table 2 for investment and recurrent expenditures over a 20-year projection. In summary, key benefits include:

[3] Government of Laos, (2000) Basic Statistics of the Lao, PDR 1975-2000, State Planning Committee, Vientiane

Table 6: Economic Rate of Return (EIRR)

Year	Increased Service Coverage	Labor Productivity: Increased Labor	Labor Productivity: Labor Economic Benefit	Reduced Health Expenditure	Gross Benefit	Investment Cost	Recurrent Cost	Net Benefit
	%	Days	US$m	US$m	US$m	US$m	US$m	US$m
2007	0%	-				1.63	0.00	-1.63
2008	20%	129,604	0.06	0.16	0.22	3.26	0.02	-3.05
2009	30%	194,405	0.21	0.52	0.73	2.01	0.05	-1.33
2010	40%	259,207	0.40	1.01	1.42	3.26	0.07	-1.91
2011	50%	324,009	0.70	1.74	2.43	3.26	0.20	-1.02
2012	50%	330,489	0.90	2.26	3.16	1.63	0.27	1.26
2013	50%	337,099	0.95	2.38	3.34	0.00	0.30	3.04
2014	50%	343,841	0.97	2.43	3.40	0.00	0.30	3.10
2015	50%	350,718	1.03	2.57	3.59	0.00	0.30	3.29
2016	50%	357,732	1.08	2.70	3.79	0.00	0.30	3.49
2017	50%	364,887	1.10	2.76	3.86	0.00	0.30	3.56
2018	50%	372,184	1.16	2.90	4.07	0.00	0.30	3.77
2019	50%	379,628	1.22	3.06	4.28	0.00	0.30	3.98
2020	50%	387,221	1.25	3.12	4.36	0.00	0.75	3.61
2021	50%	394,965	1.31	3.28	4.59	0.00	0.75	3.83
2022	50%	402,864	1.34	3.34	4.68	0.00	0.75	3.93
2023	50%	410,922	1.40	3.51	4.91	0.00	0.75	4.16
2024	50%	419,140	1.47	3.68	5.15	0.00	0.75	4.40
2025	50%	427,523	1.50	3.75	5.26	0.00	0.75	4.50
2026	50%	436,073	1.57	3.94	5.51	0.00	0.75	4.76
		6,622,512				**15.04**	**7.97**	**45.73**
							NPV=	**$28.36**
							EIRR=	**20.6%**

Note: 306 heath centers serving around 6,500 people each center; population growth rate is 2.6%.

- ***Cost savings due to increased health service coverage***. Resource or out-of-pocket savings may flow from: (i) increased access to health services to reduce transport costs; and (ii) more efficient and rational diagnosis and treatment to reduce cost of treatment. Improvements in health status as a result of health awareness activities lead to significant decreases in out-of-pocket health expenditures. In 2001, it was estimated that out-of-pocket health expenditure in Laos was in the order of $7 per person[4].

  A range of other studies support this level of health expenditure. For example, A recent costing analysis by WHO (2005) suggested average out-of-pocket expenditure was in the order of $6.6 per person. Bloom and Choynowski.(2003) calculated that out-of-pocket health expenditure would decrease with the availability of improved health services in Cambodia In their study, it was assumed that expenditure would decrease by $6 per person in areas targeted by an ADB-supported health project in that country. This decrease is equivalent to a reduction of about 23%. If a similar decrease in out-of-pocket expenditure is assumed for Laos, then a cost saving of $1.5 per person would be realized. This assumption is included in the economic evaluation, as project beneficiaries are expected to have increased access to the improved health centers and district hospitals.

- ***Increased income through reduced sick leave or time for caring***. Adults often have to care for sick children, or they may contract infectious disease themselves and suffer reduced work productivity and foregone income through premature death. The nature of these productivity losses have received limited attention in the literature, although demographic and household surveys indicate that considerable time is lost through transportation and care of sick family members. For example, surveys of the costs of caring and

[4] WHO (2004) World Health Yearbook, WHO, Geneva

transporting HIV/AIDS-affected family members to health facilities within Asia and Africa are shown to be considerable[5].

Bloom and Choynowski (2003) estimated that improved health services in Cambodia would result in a 2.3 days average reduction in per capita lost days of work due to illness. Health surveys in Laos indicate that health status has improved dramatically over the period of the PHC expansion project. As already cited, in 1988, infant mortality rate was recorded at 109/1,000 live births but in the recent MOPH survey in 2000, it has decreased to 82/1,000 live births. Additionally, maternal mortality was 656/10,000 live births in 1990 and has subsequently decreased to 530/10,000 in 2000. In light of these gains, it is assumed that each person of working age within project target areas has an average of four days of lost labor per year.

- ***Increased service coverage***. The grant is expected to strengthen primary health care centers primarily in the eight Northern provinces, with a population of about 2 million people. Given the population in these provinces is about 0.5 million people, the PHC facilities serve around 50% of the population. All centers are still operational to date. Although there were some delays in the implementation of some project activities, overall implementation was undertaken within the planned project time frame. Correspondingly, health service coverage is assumed to increase in similar incremental steps of 10% per annum until the coverage ceiling of 50% is reached.

E. Economic Internal Rate of Return (EIRR)

38. The Project is estimated to result in more than 0.5 million avoided days of lost work days due to illness and out-of-pocket health expenditure cost savings of $0.5 million within the Project target areas. The EIRR from this impact is estimated to be 20.6%, and an economic net present value (NPV) of $28.4 million is calculated. Cost savings and labor productivity account for 60% and 40% of total economic benefits, respectively.

F. Least Cost Analysis and choosing between alternatives

39. The project design, especially the range of supply-side interventions, takes careful account of international research on which mix of inputs correlates strongly with health standards and quality improvement. International research demonstrates that key interventions are: (i) availability of well-qualified and motivated health staff; (ii) availability of equipment, drugs and consumables; (iii) effective primary health care (PHC); and (iv) results-oriented hospital and health care governance and management systems. The project design responds directly to these findings. Government's concept on health development are: (i) full health care service coverage and health care service quality; (ii) development of early integrated health care services; (iii) demand-based health care services; and (iv) self-reliant health care services. There is a strong project focus on improving PHC delivery, human resources development, health care financing (pro-poor equity funds), and results-based management (planning and budgeting) systems improvement. HSDP aims to provide a comprehensive PHC package of preventive and curative services, through the integration of all basic health services at the community, health center, district and provincial levels to improve accessibility, quality and sustainability of service delivery. Integration of PHC services will also require an overall mobilization and increased involvement of existing community-based health providers and mass organizations; continuous support to provision of drug kits/revolving funds; and innovative approaches to outreach services and health promotion at community level.

[5] For example, the Impact of HIV/AIDS Mortality on Households in Thailand" in Bloom, D. and Jacobs P, Fassbender K. The measurement of indirect costs in the health economics evaluation literature. Int J Technol Assess Health Care. 1998; 14:799-808

40. In HSDP, alternative project designs a more global view on specific areas have been considered. Many projects in Laos have been focused on various ways of providing PHC services, which include support to district referral systems, expansion of public health centers, outreach services. Etc.. A more balance project has been designed including increased support to the referral system on specific program to effect a more global impact on the whole system. Alternative Institutional arrangements have also been developed through a more decentralized approach by channeling health service delivery through outreach programs while concurrently improving the quality of human resources and health management systems. A number of options were thus examined, including (i) the balance of PHC and referral management; (ii) academic upgrading and pedagogy training in clinical and health management; (iii) the strengthening of management/planning and budgeting systems at district level; and (iv) provision of health financing schemes.

41. A least cost analysis was undertaken using the various alternative options, and the most important were: (i) Integrated PHC service coverage and health care service quality; and (ii) demand-based, outreach PHC service. The analyses aims to identify the least-cost project option for supplying output to meet forecast demand, the selection of which emanates from mutually exclusive, technically feasible project options aimed at promoting productive efficiency. Least-cost analysis enables the ranking of mutually exclusive project options, alternative ways of producing the same output of the same quality. Since benefits are the same, the alternative the lowest present value of cost[6], discounted by the opportunity cost of capital. Alternative options consist of different design options, approaches, and time phasing of what is essentially the same project. In comparing the project options, least-cost analysis has been based on economic prices. Table 7a presents the assumptions used in the least cost analyses.

42. Table 7b shows the present worth of both project options at discount rates of 8 and 13 percent. The ranking of the PHC alternatives, based on the cost stream with the lowest present worth, may change between lower and higher discount rates. The resulting calculations, however, show that under both the opportunity cost of capital of 8 and 13 percent, the PHC strategy that is most cost-effective is the demand-based PHC (outreach) service delivery alternative.

[6]The hurdle rate for ADB projects is between 10-12%.

Table 7a: Least Cost Project Options (Annual Costs Assumptions)

Particulars	Alternative 1: Demand-Based, Outreach PHC System	Alternative 2: Integrated PHC Referral System
Unit Cost	$37,000[7] per HC/38 HCs, includes HRD and supervision; Total cost of $1.4 million construction for HC upgrading and recurrent cost for HC=$1.4 million x 15%	$37,000 per HC/38 HCs/province ($2.1 million per province); 1 provincial hospital; 1 satellite district hospitals = Total cost of $1.4 million construction for HC upgrading and recurrent cost for referral network for 1 prov hospital; 1 satellite district hospital=$1.4 M+$700,000+$400,000=$2.4 million x 15%
Total Cost Requirements for 8 Project Provinces	$2.52 million per province or $20.2 million for 8 provinces	$2.1 million for each province or $16.8 million per 8 provinces
HSDP Cost[8] - $28 million for 6 years	$2 million per province for PHC Strengthening	$4.7 million per province for PHC, HRD, HEF, Planning and Budgeting; $700,000/provincial hospital; $280,000 for 7 district hospitals – total cost of reform = $5.8 million
	Least Cost Option = $3.3-5.2 million @8% and 13 discount rate, respectively	Total cost = $3.7-5.8 million @8% and 13 discount rate, respectively

[7] Based on PPTA findings, the unit cost to provide a health center full service coverage, including drugs and consumables based on average population served and epidemiological profile of Lao PDR is estimated at $37,000, and $5,700 (for ADB funding, net of donor assistance)

[8] PPTA Health Sector Development Program, Draft Final Report, November 2006

Table 7b Choosing Between PHC Project Alternatives

Year	Alternative 1: Demand-Based Outreach PHC System			Alternative 2: Integrated PHC Referral System		
	Capital O&M	Present Worth @		Capital O&M	Present Worth @	
		8%	13%		8%	13%
0	4.032	448	288	3.360	373	240
1	6.048	672	432	5.040	560	360
2	5.040	560	360	4.200	467	300
3	3.024	336	216	2.520	280	180
4	2.016	224	144	1.680	187	120
5	1.680	187	120	2.205	245	158
6	1.680	187	120	2.205	245	158
7	1.680	187	120	2.205	245	158
8	1.680	187	120	2.205	245	158
9	1.680	187	120	2.205	245	158
10	1.680	187	120	2.205	245	158
11	1.680	187	120	2.205	245	158
12	1.680	187	120	2.205	245	158
13	1.680	187	120	2.205	245	158
14	1.680	187	120	2.205	245	158
15	1.680	187	120	2.205	245	158
16	1.680	187	120	2.205	245	158
17	1.680	187	120	2.205	245	158
18	1.680	187	120	2.205	245	158
19	1.680	187	120	2.205	245	158
20	1.680	187	120	2.205	245	158
NPV	47.040	5.227	3.360	52.080	5.787	3.720

Notes:
1. Costs streams are expressed in economic terms at constant prices.
2. Costs streams assumes 8 provinces, 7 district hospitals and 38 HC per province.
3. Capital costs assumes investment in equipment and facilities upgrading for PHC; and staff upgrading, supervision and recurrent costs.

APPENDIX 13: Performance Indicators

The following performance indicators have been prepared by the Consultant in coordination with the MOH to measure the achievement of project objectives. Many of these are based on national levels and are geared to an overall achievement of relevant MDG and nutritional service standards.

Component	Indicator
Diarrheal Disease Control	1. % children under five with diarrhea in past four weeks, who were taken for appropriate treatment (ORS) to a PHC system facility
Safe Motherhood	2. % pregnant women who receive at least one ANC check in the last year. 3. % Deliveries Assisted by Trained health worker in the last year.
Birth Spacing	4. % WRA who receive contraceptives from a pubic health care provider
Breast Feeding	5. % of women who breastfeed immediately and exclusively (from birth to 4 months of age)
Human Resource Development	6. % HW at HC from Small Ethnic Groups (Minorities) increased 7. % female HW at HC 8. % HC fully staffed according to MOH standards
Primary Health Care	9. % population with access to a PHC facility within one hour throughout the year 10. % villages with village drug kit (VDK) 11. % utilization of public health care services for illness in the past four weeks.
Health Promotion / BCC	12. % population with knowledge of birth spacing, HIV/AIDS, Breastfeeding etc.

APPENDIX 14: Indicative Procurement Plan

Table 1: Indicative Procurement Plan by Component											
(US$)											
			Base Cost (US$)								
Component			**2007**	**2008**	**2009**	**Phase I**	**2010**	**2011**	**2012**	**Phase II**	**Total**
1	**Human Resource Development**		75.150	16.680	43.680	135.510	514.680	43.680	4.680	563.040	**698.550**
2	**Health Care Financing**		-	-	-	-	-	-	-	-	**-**
3	**Strengthen PHC Systems**		414.000	608.150	398.150	1.420.300	2.337.700	1.622.200	234.000	4.193.900	**5.614.200**
4	**Strengthen MOH Planning and Budgeting**		355.000	198.000	83.000	636.000	168.000	83.000	63.000	314.000	**950.000**
	Total Base Cost		**844.150**	**822.830**	**524.830**	**2.191.810**	**3.020.380**	**1.748.880**	**301.680**	**5.070.940**	**7.262.750**

Table 2: Procurement Plan by Expenditure Category												
(US$)												
			Base Cost (US$)									
Expenditure Category			**2007**	**2008**	**2009**	**Phase I**	**2010**	**2011**	**2012**	**Phase II**	**Total**	**Percent**
1	Civil Works		153.000	283.000	253.000	689.000	1.118.000	713.000	103.000	1.934.000	**2.623.000**	**36%**
2	Equipment and Vehicles		691.150	426.680	158.680	1.276.510	1.842.380	937.680	153.680	2.933.740	**4.210.250**	**58%**
3	Drugs and Supplies		-	113.150	113.150	226.300	60.000	98.200	45.000	203.200	**429.500**	**6%**
	Total Base Costs		**844.150**	**822.830**	**524.830**	**2.191.810**	**3.020.380**	**1.748.880**	**301.680**	**5.070.940**	**7.262.750**	**100%**
	Percent		**12%**	**11%**	**7%**	**30%**	**42%**	**24%**	**4%**	**70%**	**100%**	

LAO PDR HSDP ADB -
Table 3: Indicative Procurement Plan - by Line Item

Component/Sub-Component/Output/Action	Specifications	Unit	Quantity							Unit cost	Cost (in US$)								Total ($)
			07	08	09	10	11	12	Total		2007	2008	2009	Phase I	2010	2011	2012	Phase II	
1. HUMAN RESOURCE DEVELOPMENT																			
A. Strengthening institutional capacity for HR policy, planning and management																			
A.1 Capacity of the MOH DOP in HR policy, planning and management increased	**TOTAL:**										**68 350**	**4 680**	**4 680**	**77 710**	**14 680**	**4 680**	**4 680**	**24 040**	**101 750**
Computers	2 laptops, 3 desktops with printers for DOP (+ initial supplies)	Unit	5	0	0	5	0	0	10	2 000	10 000	0	0	10 000	10 000	0	0	10 000	**20 000**
Photocopiers	2 with multiple collation capacity for DOP (+ initial supplies)	Unit	2	0	0	0	0	0	2	8 000	16 000	0	0	16 000		0	0	0	**16 000**
Crew cab pickup truck	For field visits & supervision	Unit	1	0	0	0	0	0	1	27 000	27 000	0	0	27 000	0	0	0	0	**27 000**
Motorcycle	For Vientiane activities	Unit	1	0	0	0	0	0	1	1 200	1 200	0	0	1 200	0	0	0	0	**1 200**
Sound system - ampliphier, microphone, speakers & accessories	1 set	Unit	1	0	0	0	0	0	1	1 370	1 370	0	0	1 370	0	0	0	0	**1 370**
Digital camera	2 for field observations and training	Unit	2	0	0	0	0	0	2	300	600	0	0	600	0	0	0	0	**600**
Video camera	1 for field observations and training	Unit	1	0	0	0	0	0	1	1 000	1 000	0	0	1 000	0	0	0	0	**1 000**
LCD projector	1 for presentations	Unit	1	0	0	0	0	0	1	3 000	3 000	0	0	3 000	0	0	0	0	**3 000**
Overhead projector	With capacity to display images from paper + transparency	Unit	1	0	0	0	0	0	1	2 000	2 000	0	0	2 000	0	0	0	0	**2 000**
Bookcase	6 x large with glass doors	Unit	6	0	0	0	0	0	6	250	1 500	0	0	1 500	0	0	0	0	**1 500**
Office supplies and maintenance of equipment purchases	Toner, paper, maintenance and repairs etc	Unit	1	1	1	1	1	1	6	4 680	4 680	4 680	4 680	14 040	4 680	4 680	4 680	14 040	**28 080**
A.2 Development of national HR Policy and 10 year HR Plan																			
A.3 Development of provincial HR Plans																			
A.4 Strengthened HRMIS	**TOTAL:**										**4 000**	**12 000**	**0**	**16 000**	**0**	**0**	**0**	**0**	**16 000**
Computers for DOP	1 laptop & 1 desktop with printer for DOP just for HRMIS	Unit	2	0	0	0	0	0	2	2 000	4 000	0	0	4 000	0	0	0	0	**4 000**
Computers for each PHO for dedicated HR work only	Desktop with printer and intial supplies - if needed	Unit	0	8	0	0	0	0	8	1 500	0	12 000	0	12 000	0	0	0	0	**12 000**

A.5 Strengthened mechanisms for effective HRM																				
A.5.1 Revision of Manual on Organization & Management of Health Personnel																				
A.5.2 Development of orientation program for new staff																				
A.5.3 Development / finalization of job descriptions for provinces																				
A.5.4 Development and implementation of performance appraisal tools																				
A.6 Improved coordination of HRD stakeholders and activities																				
B. Improving staffing of rural health facilities in target provinces																				
B.1 Implementation of PHC Worker training																				
B.2 Development and implementation of new Medical Assistant course in LP		**TOTAL:**										**0**	**0**	**0**	**0**	**500 000**	**0**	**0**	**500 000**	**500 000**
	Equipment and materials for LP facility	package	Unit	0	0	0	1	0	0	1	500 000	0	0	0	0	500 000	0	0	500 000	**500 000**
B.3 Training / upgrading of staff to support achievement of rural staffing standards																				
C. Improving staff performance																				
C.1 National capacity for health personnel education increased		**TOTAL:**										**2 800**	**0**	**0**	**2 800**	**0**	**0**	**0**	**0**	**2 800**
	Motorbike for PH Schools	2, one for OD, one for XK, for supervision of students	Unit	2	0	0	0	0	0	2	1 200	2 400	0	0	2 400	0	0	0	0	**2 400**
	Television and VCD player for PHC School	1 x 25 inch TV and VCD player, for XK School	Unit	1	0	0	0	0	0	1	400	400	0	0	400	0	0	0	0	**400**
C.1.1 Development of standards for training and procedures for review of courses																				
C.1.2 Development of training database for Schools																				
C.1.3 Review of PHC Worker course																				
C.2 Inservice training system strengthened																				
C.2.1 Strengthening in-service training structure and capacity																				
C.2.2 Development of standard in-service training modules and teaching materials																				
C.3 Provincial and District capacity for in-service training increased		**TOTAL:**										**0**	**0**	**39 000**	**39 000**	**0**	**39 000**	**0**	**39 000**	**78 000**
	Supply teaching equipment and materials for provinces	1 set per province (8 provinces)	Unit	0	0	8	0	8	0	16	1 000	0	0	8 000	8 000	0	8 000	0	8 000	**16 000**
	Supply teaching equipment and materials for districts	1 set per district (62 Districts)	Unit	0	0	62	0	62	0	124	500	0	0	31 000	31 000	0	31 000	0	31 000	**62 000**
C.4 Inservice training of health workers in target provinces																				
C.5 Supportive supervision of staff in target provinces																				
Consulting Services																				
2. HEALTH CARE FINANCING				**Quantity**							**Unit**	**Cost**								

Component/Sub-Component/Output/Action				Specifications	Unit	07	08	09	10	11	12	Total	cost	07	08	09	Phase I	10	11	12	Phase II	Total ($)
	A	Health Equity Funds																				
		Health Loan Funds																				
	C	Health Care Financing Studies and Surveys																				
3. STRENGTHENING PHC SYSTEMS						Quantity							Unit cost	Cost								
Sub-Component/Output/Action				**Specifications**	**Unit**	**07**	**08**	**09**	**10**	**11**	**12**	**Total**		**07**	**08**	**09**	**Phase I**	**10**	**11**	**12**	**Phase II**	**Total ($)**
A	**Strengthening of Provincial and District PHC Services**																					
	Training																					
	Civil Works			**TOTAL:**										**0**	**190 000**	**190 000**	**380 000**	**1 055 000**	**650 000**	**40 000**	**1 745 000**	**2 125 000**
			1. Provincial Hospital	1 Set of civil works renovation per hospital	Hospital	0	0	0	1	0	0	1	405 000	0	0	0	0	405 000	0	0	405 000	**405 000**
			2. District Hospitals	1 Set of civil works upgrading per hospital	Hospital	0	0	0	1	1	0	2	80 000	0	0	0	0	80 000	80 000	0	160 000	**160 000**
			3. Health Centers																			
			New construction	1 Set of new construction per HC	HC	0	5	5	15	15		40	34 000	0	170 000	170 000	340 000	510 000	510 000	0	1 020 000	**1 360 000**
			Renovation	1 Set of renovation per HC	HC	0	5	5	15	15	10	50	4 000	0	20 000	20 000	40 000	60 000	60 000	40 000	160 000	**200 000**
			Vehicles	**TOTAL:**										**414 000**	**210 000**	**0**	**624 000**	**706 700**	**606 000**	**49 000**	**1 361 700**	**1 985 700**
			Vehicles - Outreach Team	1 outreach vehicle per province	4 WD	0	6	0	0	0	0	6	35 000	0	210 000	0	210 000	0	0	0	0	**210 000**
			Vehicles - 4 WD	1 vehicle 4 WD per PHO & DHO, 2 per PIO	4 WD	16	0	0	23	23	0	62	22 000	352 000	0	0	352 000	506 000	506 000	0	1 012 000	**1 364 000**
			Vehicles - Motorcycles	1 motorcycle per HC & DHO	Motorcycle	62	0	0	100	100	49	311	1 000	62 000	0	0	62 000	100 000	100 000	49 000	249 000	**311 000**
			Bicycles	1 bicycle per poorest village with road	Cycle	0	0	0	#####	0	0	#####	100	0	0	0	0	100 700	0	0	100 700	**100 700**
			Equipments	**TOTAL:**										**0**	**45 000**	**45 000**	**90 000**	**466 000**	**218 000**	**50 000**	**734 000**	**824 000**
			Standard equipment for Provincial hospital	1 Set of standard hospital equipment per PH	Set	0	0	0	1	0	0	1	158 000	0	0	0	0	158 000	0	0	158 000	**158 000**
			Standard equipment for district hospitals	1 Set of standard hospital equipment per DH	Set	0	0	0	1	1	0	2	68 000	0	0	0	0	68 000	68 000	0	136 000	**136 000**

			Standard equipment for health centers	1 Set of standard equip-ment for HC	Set	0	9	9	30	30	10	88	5 000	0	45 000	45 000	90 000	150 000	150 000	50 000	350 000	**440 000**
			PHC Shirts	Lump sum for Central & 8 provinces	Shirt	0	0	0	1	0	0	1	90 000	0	0	0	0	90 000	0	0	90 000	**90 000**
	Village Drug Kits			**TOTAL:**										**0**	**113 150**	**113 150**	**226 300**	**60 000**	**98 200**	**45 000**	**203 200**	**429 500**
			a. Village based equipment for DK	Equipment 5 items	Equip		#####	#####		#####		#####	50	0	53 150	53 150	106 300	0	53 200	0	53 200	**159 500**
			b. Village Drug Kits	27 items	DK		400	400	400	300	300	#####	150	0	60 000	60 000	120 000	60 000	45 000	45 000	150 000	**270 000**
	Peer Education			**TOTAL:**										**0**	**50 000**	**50 000**	**100 000**	**50 000**	**50 000**	**50 000**	**150 000**	**250 000**
			IEC Equipment	1 Set per village	Set		200	200	200	200	200	#####	250	0	50 000	50 000	100 000	50 000	50 000	50 000	150 000	**250 000**
	Consulting Services																					
	Funding for PHC Recurrent Costs																					
4. STRENGTHENING MOH PLANNING AND BUDGETING																						
						Quantity							**Unit**	**Cost**								
Sub-Component/Output/Action				**Specifications**	**Unit**	**07**	**08**	**09**	**10**	**11**	**12**	**Total**	**cost**	**07**	**08**	**09**	**Phase I**	**10**	**11**	**12**	**Phase II**	**Total ($)**
	A.	**Strategic and Annual Planning**		**TOTAL:**										**0**	**52 500**	**10 000**	**62 500**	**52 500**	**10 000**	**0**	**62 500**	**125 000**
		National Level																				
			Equipment		lump-sum/yr		1	1	1	1		4	10 000	0	10 000	10 000	20 000	10 000	10 000	0	20 000	**40 000**
		Province Level		17 provinces																		
			Equipment		lump-sum/yr		17		17			34	2 500	0	42 500	0	42 500	42 500	0	0	42 500	**85 000**
		Consulting Services																				
	B	**Health Information System**		**TOTAL:**										**0**	**52 500**	**10 000**	**62 500**	**52 500**	**10 000**	**0**	**62 500**	**125 000**
		National Level																				
			Equipment		lump-sum/yr		1	1	1	1		4	10 000	0	10 000	10 000	20 000	10 000	10 000	0	20 000	**40 000**

		Province Level		17 provinces																	
			Equipment		lump-sum/yr		17		17			34	2 500	0	42 500	0	42 500	42 500	0	0	42 500	**85 000**
		Consulting Services																				
	C	**Health Financing Policy Unit**																				
		1. Training Overseas																				
		2. Training In Country																				
	D	**Integrated Project Administrative Unit (IPAU)**																				
		1. Vehicles		**TOTAL:**										**88 000**	**0**	**0**	**88 000**	**0**	**0**	**0**	**0**	**88 000**
		Vehicles - 4 WD			No	4	0	0	0	0	0	4	22 000	88 000	0	0	88 000	0	0	0	0	**88 000**
		2. PMO/PIO Office Equipment	**Office Equipment**	**TOTAL:**										**114 000**	**0**	**0**	**114 000**	**0**	**0**	**0**	**0**	**114 000**
			Office Equipment-PMO		Sum	1	0	0	0	0	0	1	50 000	50 000	0	0	50 000	0	0	0	0	**50 000**
			Office Equipment-PIO		Sum	8	0	0	0	0	0	8	8 000	64 000	0	0	64 000	0	0	0	0	**64 000**
		3. Training and Workshops																				
		4. Project Management Salaries																				
		8. Procurement and Civil Works		**TOTAL:**										**153 000**	**93 000**	**63 000**	**309 000**	**63 000**	**63 000**	**63 000**	**189 000**	**498 000**
			Local Architect Firm		month	3	3	3	3	3	3	18	5 000	15 000	15 000	15 000	45 000	15 000	15 000	15 000	45 000	**90 000**
			International Architect		month	3						3	20 000	60 000	0	0	60 000	0	0	0	0	**60 000**
			Procurement Specialist		month	2	2					4	15 000	30 000	30 000	0	60 000	0	0	0	0	**60 000**
			Accounting Firm		Month	12	12	12	12	12	12	72	4 000	48 000	48 000	48 000	144 000	48 000	48 000	48 000	144 000	**288 000**

APPENDIX 15: Program Modalities and Funding Arrangements

1. The MOH plans to institutionalize PHC through the establishment of Provincial and district level results-based programs, nation-wide. Future health service activities will be results-based and future programs will follow national directives to decentralize responsibilities. The Prime Minister's Instruction 01 of March 2000 established the principle of decentralization with the province as strategic unit, the district as the planning and budgeting unit and the village the implementing unit for government programs. Program responsibility shifts from central level to the provincial and district levels. The Province is to manage strategic plans and control expenditure, the district is to plan and budget, formulate, implement and evaluate programs and the village is to implement the plans, collect data and take action on socio-economic and development programs. Planning for this approach has been undertaken at different levels of the MOH health delivery system during the past 5 years and capacity has been built in several provinces to implement results-based approaches.

2. The NHSDP 2006-2010 sets targets for the health sector and for each of the MOH programs and projects based on the National Growth and Poverty Eradication Strategy (NGPES) to achieve MDG targets. It developed strategies for each program and project, set operational targets and then estimated planned expenditures by program and project for the five year period. Costing for the Plan was based on the detailed plans and actual costs in the existing six MOH programs and 47 projects. Based on an estimation of available Government, Community and Donor funds, the MOH then estimated gap in required funds to reach the NGPES targets. This funding gap needs to be filled if the MOH is to reach NGPES and MDG targets.

3. This planning and budgeting exercise, which was undertaken in 2005 at the national level, now is being undertaken at the provincial level. Using the same methodology and the same teams that supported the preparation of the NHSDP, each province is preparing a Provincial Health Sector Development Plan 2006-2010. Meetings are planned for May and June in many provinces and the MOH plans to have the plans completed by July 2006. The MOH will then assist the provinces to prepare results-based Annual Provincial Plans and Budgets for 2007-2008 and similar plans for HSDP, 2007-2008. These plans would be the basis for results-based decentralized program operation agreements/MOUs with the MOH for funding through program or project mechanisms beginning in 2007.

4. The next phase of ADB support to the MOH will need to support the Ministry in the implementation and management of results-based decentralized programs at the provincial, district, and village levels. ADB has provided similar support to a number of Lao PDR programs that supported a decentralized, results-based approach.

a. Project Funding[1]

5. The "Project" funding modality is used for specific limited areas of work with clearly defined goals, objectives, and results. It controls the inputs (financing and materials) to a project in order to control the activities which in turn control the outputs or results of project activities. This form of support enables the funding organization and the project management unit to tightly monitor all the activities and thereby control the results. Project funding is usually characteristic of situations where close control over implementation is necessary. It is also used where there is a problem in specifying the activities that are to be undertaken, separating those activities from other related activities, and a need to ensure that the planned and desired activities actually take place. The project mode follows ADB accounting

[1] The following sections draw heavily on Options for Funding Modalities for the Health Sector Development Program, Thomas D'Agnes, March 2006

and disbursement systems and the project management unit needs to report to ADB often and clear accounts on a regular basis.

6. Under the Health Sector Development Program (HSDP), the provinces would be responsible for achieving targets and accountable for the use of funds. If a project approach is used for HSDP, substantial resources will be made available to the provinces for PHC and the Equity/Soft Loan Fund, but the central MOH (specifically the Project Director and the PMO) will be responsible to ADB for project implementation and financial accountability. Such an arrangement creates a form of moral hazard for the provinces, and does not create the correct incentives for a results based approach.

7. In summary, MOH is fully capable of using the project approach and has demonstrated this capability through the PHCEP. Under HSDP, the amount of funds transferred and managed directly by the provinces would be considerably higher than in PHCEP, while the amount of funds used for civil works and procurement would be substantially less. This would translate into a three-fold increase in management burden for the PMO Finance unit and a one third reduction in management burden for the PMO Civil Works and Procurement Unit. The management burden for ADB would remain essentially constant. This approach would be suitable under the following conditions:

(i) The management intensity that ADB provided for PHCEP is sustained and possibly enhanced for NHSDP
(ii) The MOH increases the capacity of the PMO Financial unit three-fold in order to accommodate anticipated increased financial management burden for HSDP.
(iii) The MOH adjusts capacity in the PMO Civil Works and Procurement Unit in accordance with anticipated reductions in management burden under HSDP.
(iv) Mechanisms can be established which place responsibility for project implementation and financial accountability squarely on the shoulders of the provinces in return for achieving desired results and outcomes for increasing coverage of PHC services, increasing quality of care, and expanding access to health services for the poor.

b. Program Funding

8. The “Program” funding modality is used to assist a Government to implement a policy change in a sector or sub-sector or to improve the performance of a sector or sub-sector through policy and institutional improvements. Program support can cover the Ministry level or sub-sector level funding gap between the resources that a Ministry has available for an approved program and the resources that would be required to meet targets and make the planned institutional and programmatic changes. Program support also is used to assist a country to develop a sector or sub-sector as a whole. A sector reform and development plan that would enhance efficiency and performance, including policy change and institutional improvement could be the basis for program assistance.

9. Policy Reform often entails substantial costs which can be budgeted and provided through program funding. Program funding is provided in “tranches”, or fund releases to the Government (MOF) when pre-conditions and policy reforms are realized. Tranches are substantial as usually there are no more than three tranches in a program. Tranches can be released into the MOF general funds or placed in special restricted accounts earmarked for the designated Ministry program. Funds are released to the program through normal government budgetary procedures. Program funds could be linked to Ministerial or Sector performance or results. In the case of the HSDP, a tranche of funds could be released when the Ministry meets the pre-conditions or when the MOH program or the provincial programs achieve the agreed results. This could include PHC coverage targets, improvements in quality of care or increased access for the poor or ethnic minorities.

10. Program assistance is appropriate where national policy reform and institutional change is required; and where there are tangible adjustment costs associated with these reforms. It requires a sector reform and development plan with a policy reform agenda. The level of assistance must be sufficient to improve the performance of a sector as a whole. None of these conditions exist in the health sector with regard to HSDP.

The following table compares the advantages and disadvantages of project vs. program funding:

Project Funding	Program Funding
Advantages	
• MOH/PMO for PHCEP, has 6 years of experience managing an ADB financed Loan project successfully	• Quick disbursing as disbursements are made in tranches linked to policy or institutional reform or program results
• MOH/PMO has developed the management capacity to manage a large ADB financed loan effectively	• Lower management intensity and fewer transaction costs for ADB
• MOH/PMO has developed and instituted management systems for project planning, disbursement and replenishment of funds, training, civil works, procurement, monitoring, supervision, evaluation and reporting on an ADB financed loan using project assistance approaches following ADB guidelines	• Tranches are released directly into the government treasury for use as budget support.
• MOH/PMO has qualified staff who have demonstrated capacity to manage a project assistance type loan	• As disbursements are done in tranches, the management burden and transaction costs for the donor agency are lower.
• MOH/PMO has demonstrated that it can manage a large project successfully, disburse funds efficiently, and achieve outputs as stipulated in the project agreement in a timely fashion.	• Linked to policy reform and institutional change
Disadvantages:	
• Project funding has a heavy management burden for both the EA and the donor, because funds must be advanced, disbursed, and replenished multiple times during the project period.	• Based on policy reform and institutional change, not results based, hence not appropriate in the health sector at this time
• High transaction costs for the donor agency. In PHCEP the MOH, MOF and ADB had to transact 104 withdrawal applications until the present time to disburse 78% of the loan amount.	• Disbursements fund adjustment costs of the policy reform or institutional changes rather than recurrent costs required to improve results (increased quality and improved coverage) in the health sector.

• Because project assistance must strictly adhere to ADB guidelines for civil works, procurement, and consulting services, it tends to be slow disbursing;	• Unless tranches released to MOF as budget support are earmarked to MOH, there is no guarantee that these funds will be available to the MOH.
• Requires 20% counterpart funding from government	
• Responsibility for implementation and accountability for funds remain with central MOH although results must be achieved by provinces. This creates a form of moral hazard for the provinces, where they are given resources for project implementation but accountability lies elsewhere.	

c. Project-Program (Sector Development Program)

11. A Project-Program or Sector Development Program (SDP) combines Program and Project types of assistance in one overall ADB assistance package. It includes project assistance which is similar to the Project Support, described above and also program assistance. The purpose of this form of support is to make full use of the advantages of each form of assistance, and to minimize the disadvantages. Program funding can be made available to support the costs of implementing policy reforms and the gap between resources and requirements to meet sector or sub-sector targets. Project assistance can be made available to support specific planned activities, build capacity, provide technical assistance, and procure needed civil works, supplies and equipment.

12. A Project-Program SDP would conform easily to the needs of the MOH in supporting the policy change to a provincial and district results-based program approach while still building the capacity of the MOH to manage the program and to improve quality at all levels. A Project-Program SDP also would provide a way to effectively implement an equity fund for the poor while also supporting needed financing policy studies and technical assistance for the equity fund. An SDP is preferred where there are needs for both decentralized, result-based activities and also technical assistance and capacity building.

13. An SDP would be the preferred form of assistance where policy reform results in substantial costs. The Program portion would be quick disbursing and enable funds to be made immediately available for operations and also for additional planning and management support at the provincial and district levels. The Investment portion would be useful in building MOH management capacity, improving quality of services and assisting in the implementation of the program at all levels. The presence of the project support would enhance implementation of the policy reforms supported by the program funding.

d. Assessment of the Sector Development Program (SDP) Funding Modality

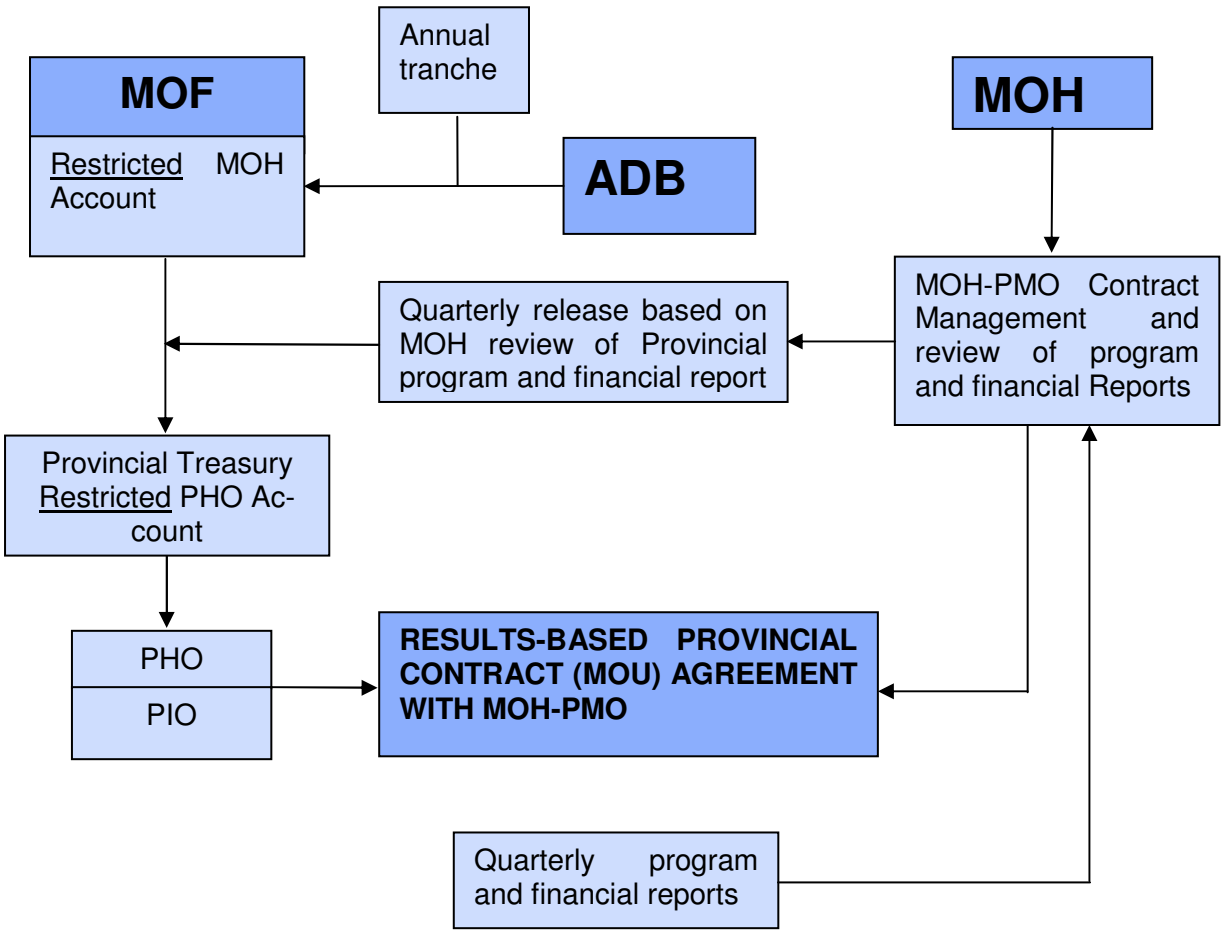
14. The SDP is a hybrid between project assistance and program assistance. Both have advantages and disadvantages. As the components of HSDP are being conceptualized, it has become clear that several areas lend themselves to project assistance and others lend themselves nicely to program assistance. Consequently, the SDP, or the hybrid approach for HSDP offers several distinct advantages:

- It is programmatically compatible for HSDP

- It allows the MOH to make a gradual transition from traditional project assistance to a performance based program assistance modality, with an opportunity to learn lessons and gain experience with program assistance prior to a broader scale up.
- It allows the MOH to build on the capacity it has developed in project management using the project management approach.
- Program assistance is more conducive to results based programming
- Program assistance will put the onus for achieving results in the provinces where it belongs.
- The planning and budgeting process required to prepare a results based provincial program assistance plan is compatible with the GOL policy to make the province the strategic planning unit and to make the district the planning and budgeting unit.

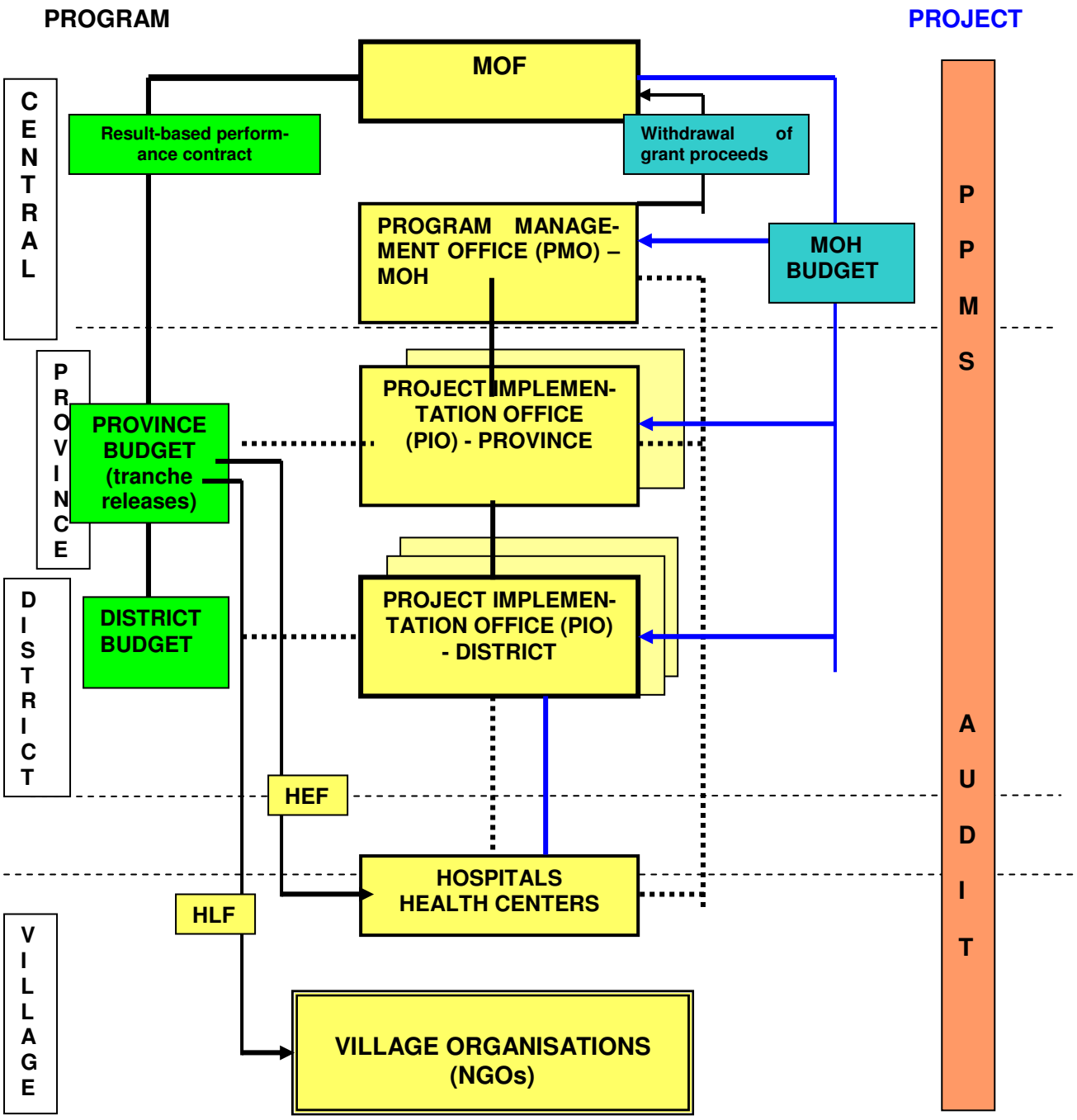
15. The SDP, when constructed as a combination between project assistance and performance based or results based program assistance, is a viable option as a funding modality for HSDP.

PROGRAM MODALITY DIAGRAM



APPENDIX 16: Funds Flow Mechanism

LAOS-HSDP FUNDS FLOW MECHANISM



HEF = Health Equity Funds
HLF = Health Loan Funds

Program grant

Project grant

APPENDIX 17: HSDP Program Adjustment Costs

1. HSDP's key policy reforms targeted under this Program have been developed. The HSDP will address the root causes of the health sector performance by putting into place the appropriate incentives for change in systems, processes, and rewards. The HSDP takes into account the lack of fiscal resources available to the Government to invest in health and poverty reduction; and proposes a refocus of health spending and higher expenditures in areas that directly benefit the poor. The HSDP follows a strategy that invests in people and primary health facilities, and focuses on building local capacity to effectively manage health services. The envisaged policy actions and reform interventions emphasize resource-based allocation, increased accountability and good governance, and consumer participation. The structure of the program grant enables these strategies, and the lessons learned to be integrated with ongoing and future investments in the sector. The Program component of HSDP aims at system-wide changes of human resource development, primary health care, and health care financing.

2. The reforms will be supported by the program and project components, which will implement all proposed policy changes in selected provinces. HSDP will focus on the needs of the poor with special attention to indigenous people. Close collaboration among development partners under MOH's leadership will be undertaken under the program component through establishment of an integrated project administration which has been going on during the last years and will form the basis for analyzing lessons learned before additional external assistance will help to extend the implementation of the Program to other provinces. The adjustment costs for the reform program are estimated at $13 million over 3 years (Table A7.2).

3. With the Health Sector Development Program (HSDP), efficiency of health spending will be improved through three main mechanisms. Fewer staff will be necessary to operate the system as a result of revised norms (staff size; doctors and nurses to patient ratios, number of days per stay). Per person expenditure on health operating costs is expected to decrease as a result of increased utilization of lower level facilities, and purchaser systems reform in social insurance. The HSDP will encourage a pro-poor restructuring of health budgets. Health spending will be better targeted as a result of the shift from personal care (tertiary level) to public health support (i.e., vertical programs for tuberculosis, malaria, purchase of drugs, surveillance, and expansion of public health facilities).

4. Taking into consideration the low recurrent costs of health facilities, the Government will support the provision of incremental funding for non-salary recurrent costs in the project provinces. Health care financing will be rationalized through establishment of management information systems, technical assistance for developing and pilot testing new pro-poor equity schemes and studies. Subsidies will be provided for health equity funds for the poor (assuming 20% of the population or about 1.0 million people. Further structural adjustments will be achieved with a view to granting hospital autonomy through provision of additional fund to provincial and district hospitals for quality improvement. Improving and integrating primary health care systems will be supplemented under the program through the financing of essential package of health services and outreach for the poor and ethnic minorities at the primary level. Under the proposed reforms, the project will support development of integrated PHC systems. HSDP implementation will involve a radical overhaul of management processes at hospital and public health facilities along with considerable strengthening of capacities for designing, managing, and implementing health sector reforms. Comprehensive master plan for Human Resource Development will likewise be provided under the program component along with appropriate staff incentives for remote postings.

Table A7.2: Reform Cost Estimates, 6-Year Period
($ million)

Item	Cost
MTEF Recurrent Cost Financing[1]	**1.63**
Equity and Loan Funds	
A. Provision of Health Equity Fund for the poorest quintile	3.63
B. Health Loan Fund provision for the near poor	0.12
Subtotal (1)	**3.75**
Hospital Autonomy	
A. Quality improvement and recurrent funding for provincial hospitals	0.36
B. Quality improvement and recurrent funding for district hospitals	0.66
Subtotal (2)	**1.02**
PHC Integration	
A. Provision of essential package of services for the poor	2.36
B. Outreach service	0.90
Subtotal (3)	**3.26**
HRD Master Plan	**0.60**
Staff Incentives	**2.75**
Total	**13.00**

Source: PPTA estimates based on data from the MOH.

[1] Provincial recurrent costs are assumed to be doubled during the HSDP implementation period in the eight target provinces.

APPENDIX 18: Implementation Strategies

A. Strategy for Project and Program Approach

1. The HSDP will be implemented as a "**project-program**", or "**sector development program**" (SDP). The Government and the MOH would like the ADB program to follow a results-based approach. This conforms also to ADB's intention to move towards a program approach in all sectors in Laos. However, there is little experience with this type of program in the MOH (although there is some experience in other Ministries in Lao, PDR). The MOH-PMO is therefore reluctant to follow a program model, because of issues concerning control and transparency. The PMO has been very successful in implementing the PHCEP and would like to continue with the project approach system they followed in this project. The strategy to reconcile the MOH preference for a results-based approach with the needs of the MOH-PMO for a project approach would be to combine the approaches in a project-program system.

2. The **program component** of the HSDP would support several provincial health system development policies that are results-based. Provinces would be provided with supplementary funding for improving PHC on the basis of comprehensive annual plans showing all sources and uses of funds. The program will aim to improve PHC coverage and quality of care through pro-poor equity funds, quality improvements, strengthening staff performance, and supporting performance-based management. The program component will entail planning, accountability, flow and conditionality of funds, and the provincial commitment and capacity for such an approach.

3. The **project component** of the HSDP would support these areas, including related policy analysis and financing studies, Integrated Program Administration Unit (IPAU), and central activities for HRD, health systems development, and capacity building. Possible project components include: (i) Human Resource Development; (ii) Health Care Financing; (iii) Strengthening PHC Systems; (iv) Planning and Budgeting. Consistent with the 6th NSEDP and health sector strategies, HSDP proposes the integration of vertical programs into PHC; health human resources development; health financing and affordability, community-managed health and nutrition promotion, donor coordination, and effective and efficient performance-based integrated health budgeting and financing in a decentralized environment.

4. The proposed Project-Program approach (HSDP) could use project funding to support investments to build MOH capacity in health system development and program management and support the implementation of the program approach in the provinces. It could also provide technical assistance to the provinces in financial and program management and in specific technical areas. At the central level it could support HRD, finance studies and special projects as well as procurement of supplies and equipment and some limited civil works. The Project-Program could also support a decentralized results-based program approach at the provincial level in two provinces in the North and an equity fund for the poor at the provincial level in all 8 provinces. The provincial program component could provide supplementary funding for non-salary recurrent costs to meet resource gaps identified in the provincial annual PHC plan and budget for HSDP. Program support could be provided to increase recurrent costs, improve staff performance through incentives for rural and remote assignments and possibly facility-results-based performance incentives. Program support could also be provided for provincial in-service training and for village-based programs in nutrition and heath promotion.

5. Project funding could be used to support a results-based contracting out of PHC services by provinces. Specific agreements would be negotiated following the same procedures as used for the program funded provinces, but supported with pro-

ject (not program) funds. This approach could provide recurrent cost and program support provincial grants for results-based programs under a project funding modality. This would be based on MOH/PMO/IPAU contracts with the Province, similar to the MOUs that would be used in the Program approach. However, in the project approach, the contracts would be developed by the PMO in collaboration with the Provinces and the contract agreements would be negotiated between the provinces and the PMO/IPAU. These provincial results-based grants might be smaller than the program grants, depending on the results of the provincial annual PHC plan for HSDP, but would be under more direct management supervision from the PMO/IPAU. The use of a project funding mode for results-based provincial contracting would build the capacity in the provinces to move to a program funding mode in the second phase of the project-program.

B. HSDP Contracting Strategy

6. The Strategy for this approach would be as follows:

1. The MOH, through the PMO/IPAU, will contract out the delivery of a package of Primary Health Care Services to Provinces, linking contract payments to health improvement results.
2. It will build the capacity of the Provincial Health Offices to manage the health service contracts and to plan, finance, monitor, evaluate and coordinate health services in the province.
3. Based on the “Primary Health Care Services Package”, the Provinces and the MOH have agreed on defined objective standards for the province to meet that are consistent with national program guidelines.
4. The Province, through the Provincial Health Office, will develop and implement a system ensuring the provision of these specific health services and the achievement of specific levels of improvement in coverage and quality of service, by the end of four years.
5. The services to be provided are defined in the Provincial Health Sector Development Plan 2006-2010 and the Results-Based Annual Provincial PHC Plan and Budget for HSDP and the negotiated agreement between the MOH/PMO/IPAU and the Province/PHO on Terms of Reference, Scope of Work and Objectives/Targets based on these documents.
6. The Province, through the PHO and the DHOs, will be responsible for implementing the primary health care delivery system.
7. The Province will accomplish the specified scope of work, with the specified levels of health coverage and quality that are to be achieved within a four-year period.
8. These PHC services are the PHC Services Package, to be provided by District Hospitals, HCs, and through VHCs, VHVs, PEs and Health Center outreach.
9. Targets will be based on empirical baseline figures for each Province developed through a 2006 project survey.

C. HSDP Program Contracting Procedures

7. The procedures would be as follows: The MOH, through the PMO/IPAU, will contract with the Provinces (through an MOU for the “Program” Provinces and a contract for the “project” provinces) for the delivery of a package of essential services to

ensure that the specified health services are provided, and that the program achieves the indicated levels of community coverage and quality of health services.

8. The basis for this will be the results-based Annual Provincial PHC Plan and Budget:

1. The province identifies PHC services to be delivered including activities and their costs and indicators for their achievement.
2. The province identifies current funding and funding gaps.
3. The province develops results-based plan and budget for all required inputs to achieve the agreed indicators that are not covered by other funding sources.
4. The MOH/PMO/IPAU reviews plan and budget
5. Discussion/negotiation between province and MOH/PMO/IPAU and agreement on activities, schedule and support requirements.
6. Provincial contract/MOU with MOH through the PMO/IPAU for the delivery of PHC services and achievement of indicated levels of community coverage, PHC results and health service quality, including all relevant cost categories and detailed costs.
7. Initial mobilization payment will be provided to Province.
8. Funds will be disbursed quarterly, based on PMO/IPAU analysis of program and financial reports.
9. The MOH/PMO/IPAU monitors activities and progress and verifies financial reports.
10. It assists province and district to correctly manage and monitor progress.
11. It assists province and district to implement program activities/trains trainers, etc.
12. The MOH/PMO/IPAU conducts annual surveys to measure household-based indicator.

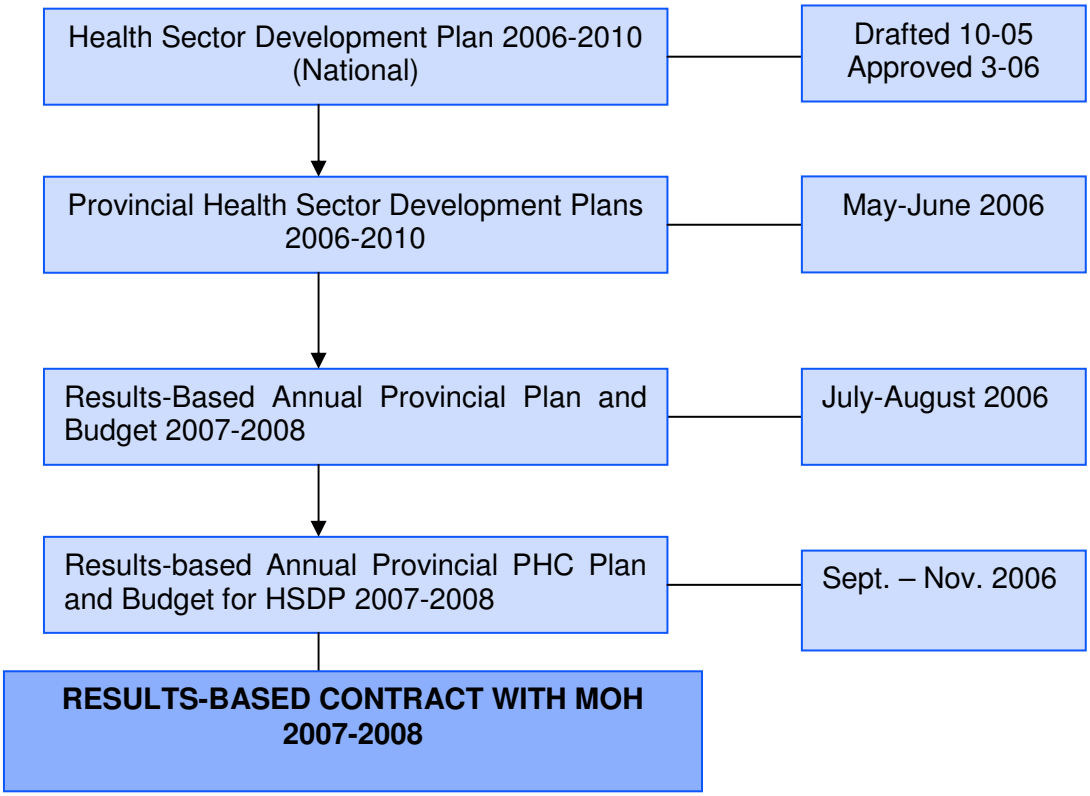
9. **Baseline Data**. Gender- and poverty-disaggregated baseline household survey data will be used to develop the values of key performance indicators and a summary score for assessing overall performance of the Provinces.

10. **Monitoring**: Program and financial reports will be provided each month, including implementation measures to track program activity status. Regular supervision of the Provinces, Districts and PHC activities by the PMO/IPAU and by an independent firm, using an integrated supervisory instrument (ISI) and other monitoring techniques, will ensure services are provided and that drugs and personnel are available.

11. **Evaluation**: Household surveys will be repeated every year to track key performance and impact indicators.

12. **Payments**. Following the mobilization payment, partners will receive quarterly payments based on the agreed contract. A lump-sum payment method will be used to reduce administrative burden on the Provinces.

13. *Results-Based Provincial PHC Plans for HSDP 2007-2008* could be developed by the Provinces, working with the MOH/PMO for the PHCEP and these plans could be used to prepare results-based provincial contracts and MOUs with the MOH. This process could initiate the program and provincial contracting phase of the proposed HSDP. This provincial planning process could be undertaken on an accelerated basis with PMO/IPAU support in several target provinces so that these provinces could complete their annual PHC plans for HSDP within a few months. This process is shown in the diagram below:



14. The MOH developed the *National Health Sector Development Plan 2006-2010* (NHSDP) during 2005 with support from the PHCEP - PMO. This plan was approved by the Lao PDR Party Congress in March 2006 and now forms the basis for a detailed provincial health planning process. The MOH has already initiated this health planning process with all provinces now working to develop five year health sector development plans as part of a provincial planning exercise. Planning meetings are scheduled in some northern provinces in May and June 2006.

15. The PMO/IPAU could further support this process to accelerate development of five year *NHSDPs 2006-2010*. These plans would then lead to the preparation of results-based *Annual Provincial Plans and Budgets for 2007-2008* and then to the preparation of results-based *Annual Provincial Plans and Budgets for HSDP 2007-2008* that would be the basis for the results-based HSDP Contracts and MOUs with MOH that would be used for provincial program funding and contracting out of health services to the provinces. This process could be conducted during May to November 2007 so that the draft contracts for at least several Provinces could be ready for review by ADB by December 2006.

APPENDIX 19: Gender Strategy
Gender Mainstreaming into Health System

A. Introduction

1. Currently there are many versions of definition on Gender Mainstreaming; but all of them have the same concept and approaches, namely integrating Gender perspectives and Gender Equality to all activities e.g. policy development, research, advocacy/dialogue, legislation, resource allocation, and planning, implementation and monitoring of programs and projects. The Gender issue in health in the Lao PDR needs to be analysied in the light of the situation and culture of ethnic minorities because of mututal links.

B. Background

1. The Rationale

2. The rationale for taking a Gender Perspective in the Health Sector is that primarily the right to health is a basic human right of both women and men. The commitments made by government of countries in these areas include attention to the specific health needs and problems and the linkages between health rights and other right such as Gender equality. For example, health messages and services that encourage men to take more responsibility for fertility control, care of their children and the health of their partners serve both health and equality objectives.

3. Individual health and well-being of both women and men is integral to development. The achievement of the individual health and well-being is not only a major goal in itself, but serves to support the achievement of other development objectives. The low health status of women is a cost to society as a whole as it limits productivity. In addition, health problems faced by women have an impact on the health and productivity of the next generation. Investment in women's health benefits women by improving their quality of life, but also benefit families, communities and the whole society.

4. Gender inequality and health care are inter-related. Gender based-discrimination and inequality are contributing factors to women's health problems and needs. This includes for example nutritional deficiency due to unequal allocation of food, injury due to domestic violence, risk of contracting STI and HIV/Aids due to lack of personal autonomy and bargaining power in relationship. It also includes reluctance of the family to seek health care for girls and women due to economic dependency and burden of responsibility in the family. The analysis of Gender inequality and discrimination can result in more effective health programming by identifying particular women's health risk, women's constraint in accessing health services, and the role of men in decision making about health related behaviors.

2. Context and challenges and constraints to Gender Mainstreaming in Lao PDR

5. The government of the Lao PDR has made efforts to implement its policy on Gender Equality. In 2003 the government of LPDR had established the National Commission for the Advancement of Women, in order to promote and oversee the Gender Mainstreaming process. Gender Mainstreaming is a strategy which leads to Gender Equality between women and men in all spheres (legal, political, and socio-economic). But in this early stage of implementation, the process is facing technical constraints and challenges listed below:

- Lack of staff capacity, especially human resources (skilled in Gender);
- Lack of precise and accurate data, especially Gender-disaggregated statistics and relevant Gender information, which need to been identified and compiled, and to make use in planning, implementation, monitoring and evaluation processes;
- Lack of precise structure and mechanism of Gender Mainstreaming process within the Institutions; as well as greater coordinated partnerships among various government organizations, international development agencies and NGOs; and
- Lack of facilities and budget to support capacity building on Gender Mainstreaming and other related activities.

3. Context of PHC development

6. The Ministry of Health (MOH), through the Primary Health Care Expansion Project (PHCEP), has expanded the PHC network in the 8 Northern Provinces. However, while additional PHC facilities with some better qualified and trained staff are in place, the systematic delivery of services is still a challenge. Physical access has improved, in general, but important barriers to health care include quality, acceptability and affordability of care, delivery and demand for health services, in particular for vulnerable groups including women, the very poor and ethnic minorities.

7. Conclusive evidence shows that women with little or no education and low literacy, women living in rural areas, women who are poor and women who belong to ethnic minority groups are the most vulnerable and receive less health care in general and meant for women only.

8. Competency, compassion and cultural sensitivity are the hallmarks of an effective health care provider. And in a multi-cultural environment like Laos, it is not only technical competency in health, but also ethno-linguistic cultural competency and Gender sensitivity that matter most to patients in accessing quality health care.

9. Therefore in order to improve health care services and equitable access of vulnerable people there is a substantial need to mainstream Gender perspective into Health Institution at all levels, and scope of activities, namely in policy/regulations formulation, planning, budgeting, as well as all programs and projects, although most Health Projects are used to be considered as “already Gender Mainstreamed Projects”, because their focus are usually on women.

10. Gender Strategies will help MOH and its Projects to have a broad view on the socio-economic and cultural context of their target groups, women and men as well as on pro-poor approaches to develop activities for improvement of health system management, services delivery and access. It is an institutional strategy aimed at giving equal opportunity, capability, and decision making of women and men at all levels. The proposed strategies focus mainly on creating the institutional framework for Gender Mainstreaming, and capacity building for Gender Mainstreaming. They comprise of 10 key elements that are closely inter-related.

C. Strategy

1. Integrating Gender Perspectives into Health Policy

11. In order to ensure that the Health sector has clear policies there is a need to review the existing policies in terms of commitment to Gender equality, which is sup-

ported by a proactive drive of senior and middle management (political will), and expressed in a written policy and mission statement, as well as in resource allocation and advocacy for public participation in planning for health policy and services that seek the views of both women and men.

12. The International Conference on Population Development (1994), the Convention on the Elimination of All Forms of Discriminations Against Women (CEDAW), and the Beijing Platform of Action (1995) serve as valuable references to formulate Gender sensitive Health policies. The recent policy on Reproductive Health issued in November 2005 can be a good basis for future policies and regulations.

13. The HSDP recommends the introduction of a Social Health Insurance system that provides coverage for the very poor and the near-poor population (Equity Funds and Health Loan Funds). The policy/system will help to solve problems of affordability of the population. To ensure the effectiveness of the system, a study with Gender perspective of the pilot project is recommended to be conducted before the project formulation stage. This is to identify the possible constraints of women's access and seek ways to formulate the most appropriate procedure.

14. The issue is raised here, because many studies, including the recent field research (Cases Studies), commissioned by ADB PPTA showed that there are significant inequalities among men and women in most studied Ethnic groups. Women do not have negotiation and decision making power, and in most cases they have to ask authorization of the husband or at least ask his company to go to the hospital. Therefore Gender issues have to be highlighted and addressed in the sense that poor women (and men) will get the same access to health care. The responsibility of the partners (husband/wife), as well as of the parents towards children (equally boys or girls) should also be emphasized and the procedures should be carefully developed to guarantee the equal access.

15. All policies should be developed in broad consultation with staff and stakeholders (women villagers), and it should include mechanisms to ensure that staff understands the policy with Gender dimension and its implications for their every day work, and have competencies and resources to implement it effectively.

2. Integrating Gender Perspective into Organizational Structure

16. In 2001, the Ministry of Health had issued an official notice concerning approval to set up a Gender Team, whose members were to be trained by the LWU GRID, supported by international trainers. These Gender Team members should be a part of the network, because they already have basic knowledge on Gender analysis and Mainstreaming, and with an upgrading course they would be able to provide technical advices (on Gender) to various health projects.

17. In 2004, in accordance with the National Commission for Advancement of Women (Lao-NCAW), the MOH has set up the Committee for Women's Advancement (Sub-CAW), which comprised of 7 members from key ministerial departments, and which is lead by the Vice Minister. Its mandate and function are to encourage and oversee Gender Mainstreaming process and women's promotion for Gender equality and equity in the Health sector (Ministry and other institutions at all levels).

18. Therefore is it recommended MOH to set up a Gender Focal Point network at ministerial level, as technical team, which will work under guidance and support of the Sub-CAW (political set up). To make the organization and mechanism simple but effective, it is suggested that some members of the Sub-CAW play the role of Gender Focal Points. Because the Health Sector is broad, there is a need to organize spe-

cialized Gender Focal Points Team, which comprise of 2-3 members. It is suggested that the first team is specialized and responsible for research; the second for program/project formulation; the third for human resource development; the forth for mainstreaming Gender into health information and education.

19. All Departments and Health Institutions should be officially informed about the existence of the Gender Focal point network, its structure, mandate and functions, in order to facilitate the coordination and cooperation in Gender Mainstreaming in related fields.

3. Human resource Development

20. Human resource strategies have a dual internal/external function in relation to Gender Mainstreaming.

a) Internally, the organization should have the ability to practice and model Gender equality in its own internal functioning e.g. hiring policy with Gender balance (as well as Ethnicity). It is highly recommended that Gender perspective is well integrated in the development of a 5 year HR Plan for the health sector.

For example: recruitment PHC staff; health providers e.g. Village Health Volunteers, Village Health Committee members. There is a need to apply the method of Affirmative Action (AA) to fill in Gender and Ethnicity gaps actually existing in Health workforce, especially at local level. This model should be replicated for the HR planning of the ministerial and provincial level training and staffing.

To be able to set up a resource development plan there is a need to conduct a review of Human Resource Development with Gender and Ethnicity perspectives. The Primary Health Care Expansion Project (Human Resource Development Sub-sector Analysis) did a good overview on Health Workforce, but due to the lack of disaggregated statistical data (by Gender and Ethnics), it was not possible to provide a clear figure, especially on Ethnicity. In the future it is crucial to set up a data base on the Health workforce with the integration of the Gender and Ethnicity aspect, and steadily reach Gender and Ethnicity balance in the future (quantitative and qualitative).

b) Externally, the Health sector needs to contribute more effectively to greater Gender Equality in its program and impact e.g. including commitment and competence to work for Gender Equality in job descriptions, terms of reference and performance criteria (including those of health technical international and national consultants). The staff recruitment, promotion, budgetary allocations, implementation of state regulations regarding female employees, and the performance of managers in following on Gender equality initiatives, should be monitored.

c) A Gender Advisor should be provided part-time during the first phase when there is not enough in house-expertise. It is recommended to involve external professionals in Gender in Development (Health) in order to back up Gender capacity in the Health sector. She/He will act as mentor of on the job-training for the Gender Focal Point Team to fulfill their advisory tasks on the Gender Mainstreaming process. There is also need for long term training or upgrading courses for Gender professionals for the Health sector.

4. Creating Gender Equality Culture in Health sector

21. The Health sector should promote a Gender equality environment within all health institutions, and at all levels. This means that in all health communities/societies, attention should be paid to eliminating Gender discrimination in staff recruitment, promotion to higher position/remuneration, and selection for training/study tours.

22. Promote a friendly environment for women (and men) where there is no sexism (dirty joke, sexism posters and images on the computer screen), sexual harassment (verbal, physical) in the workplaces, hospitals, health schools and institutions. Health students should be given clear rules and guidance in order to educate them as future medical professionals to adopt correct behavior patterns already while being in school.

23. All health education media should include Gender dimensions and recommendations aiming at reducing women's discrimination, subordination, and on the other hand promoting the enjoyment of women's right and interest in equal with men's.

24. Among health staff, promote breast feeding, by authorizing special time for women to feed their baby. Promote paternity leave when their wives delivered a baby. Promote men's participation in household work, care for children, sick family members, in order to give women more free time and to enable them to develop themselves (In the LPDR women work one hour longer than men- LECS III source-2002).

5. Engendering Statistics.

25. In the actual situation, most Health Institutions are keeping record on Gender and Ethnicity of their patients, but there is no requirement of disaggregating data for reporting to the central (MOH). Therefore to enable managers, planners, policy makers identify issues and monitor progress, it is recommended to integrated Gender disaggregated statistics into the regular Health information system.

26. This includes Gender disaggregated statistics in health workforce, health statistics to monitor Gender and Ethnicity balance or gap in each development stage. The participation of the target groups and stakeholders should also be disaggregated by Gender and Ethnic groups as well. For planning and monitoring, Gender sensitive indicators are necessary to be developed.

6. Capacity Building: Raising Gender Awareness and Building Skills

27. The concept of Gender in Laos is considered as new, particularly when it is about Gender Mainstreaming. Most people misunderstand that the work on Gender (Gender Mainstreaming) is an exclusive task of the Lao Women's Union and that those organizations who work mostly with people e.g. Education, Health sector automatically consider Gender issues. In fact the concept as well as the Gender issues and related works are much wider than they are usually understood.

28. Gender issues are frequently related to ethnic social systems. Health officials have to be provided with knowledge and skills on Gender in order to understand deeply health issues that related to the specific characteristics of their target groups with a variety of ethnic identities with very different Gender characteristics that are

mainly based on the deep root of Gender relations and social systems (patriarchal or matriarchal), and moreover the relation with the socio-economic, cultural context, and geographical environment where they live.

29. Therefore it is recommended to conduct a Gender Awareness workshop for introducing the concept and advocacy for Gender Equality, for poverty reduction and health improvement of the population. A special Gender workshop should be developed for the specific target group of Health officials and professionals, e.g. senior management officials (including HDR), planners, and projects managers. At central and provincial level, the training curriculum should include the concept on Gender in Development, Gender analysis, Gender disaggregated statistics, Gender Empowerment, and Skills in Gender Planning and Mainstreaming, using Gender Checklists for Health.

30. District planners and PHC workers should be provided with more practical skills. Besides Gender Awareness, the Participatory Rural Appraisal should be trained. For all Health students and health practitioners, the training should be on Gender Awareness with Gender issues of access of women to health services, especially of women of the poor Ethnic groups. The Gender equality, ethnic equality and pro-poor approach should be integrated in the concept of Medical Ethics.

31. To increase resources in Gender and create in-house expertise, the strategy should foresee capacity building in short term as well as in long term. It is important to build capacity of Gender Focal Points who will act as resource persons for various departments and institutions (Hospitals, Medical Schools). Training of trainers and upgrading course for existing Gender trainers (that have been trained by Gender Resource Development Center/LWU) in the past should be supported to further development of skills.

7. Integrating Gender into planning procedures

32. In order to effectively support the Gender Mainstreaming process, there is a need to technically and financially support the existing Ministerial Sub-CAW (Committee on Advancement of the Women) in order to enable them to execute their role as agency on promotion and oversee Gender Equality and Women's Advancement in the Health sector at all levels.

33. The MOH should work out "screening mechanism" for Gender Mainstreaming of programs and projects, namely by giving responsibility to the Gender Focal Point and the Sub-CAW, to give comments to any new projects, especially at the formulation stage. They also need to be involved in the annual review/monitoring as well as the evaluation stage.

34. In order to make the mechanism effective, it is recommended that the MOH test the model because so far in the country there is no model on the functioning of the Gender Mainstreaming mechanism at the ministerial level (Integrating Gender into planning and budgeting). After making some experiences, the MOH should develop official guidelines.

35. The planning procedure should be carried out with integration of Gender sensitive and participatory approach in a systematic way, mainstreaming Gender in each stage of the programming cycle e.g. sector analysis, project formulation/appraisal, annual review / monitoring and evaluation.

36. Any sector analysis has to be based on Gender disaggregated data, for example, the incidence of malnutrition, infectious deceases, malaria, STI and HIV/AIDS etc…

37. In the project formulation stage, the key points are to develop clear statements for the objectives and Gender responsive activities to meet the practical needs of women (and men) e.g. access to health services (information, education and health care), or/and to overcome the barriers that hamper women's empowerment (strategic needs) e.g. language, shyness, lack of self- confidence, low self –esteem.

8. Developing tools for Gender Mainstreaming

38. For Gender Mainstreaming, a set of tools needs to be developed, disseminated and applied:

a) Developing the Toolkits. In order to facilitate the learning on Gender and Mainstreaming it is necessary to develop learning/teaching resources specifically relate to Health. They include the following material in Lao language, e.g. 1) a Reference Manual on "Gender in Health Development", 2) Guide on Gender sensitive planning of Health programs and projects with the checklist. The experiences can be obtained from international experience e.g. Gender Mainstreaming Guideline developed by many international agencies, and 3) Manual on Participatory Rural Appraisal.

b) Research. All health researches, case studies concerning workforce or target groups should include Gender dimension (Gender analysis). Gender issues obtained from research findings should be collected and pulled together in a reference document. They should be broadly disseminated through health bulletins or/and media. Importantly the analyzed information should be provided to planners and decision makers for their use in policy formulation and planning.

c) A "Gender resource shelf" in the office of the Focal Point, the MOH library or any Health institution should be organized. It should contain copies of researches (national and international), publications, training manuals, list of websites concerning international.

9. Consulting all stakeholders and developing strong partnership

39. Health officials and PHC workers need to have skills to make use of the potential coordination and know how to build partnership with other sectors and how to work as competent partners for Gender Mainstreaming.

40. First of all Health officials at all levels should consider women villagers from all ethnics as partners/stakeholders, which they should involve in project identification, planning and implementation, as well as monitoring and evaluation of impacts. It is necessary to build partnership with women's organization for Gender training, information and best practice sharing.

41. Health projects need to be proactive partners with the agriculture sector for food production (home gardening) and processing. Village teachers are also necessary partners in hygiene and sanitation of children, empowerment of girls to prepare as future Health workers. The Poverty Reduction Funds Committee is a body to be coordinated in terms of increasing income generation in order to support poor families to get out of poverty and improving affordability of Health services and access to

Health Loan Funds. They should encourage PRF and NGOs, working on rural development, to involve more women into village development activities and participation in decision making.

42. Many NGOs have tested innovative models in working with poor rural and ethnic areas for Gender equity. Therefore it is worth to learn from their best practice and adapt to PHC activities at grass root level. PHC workers need to coordinate very well with village authorities, and its organizations (Health Committee) to mobilize villagers for various Health activities.

10. Gender responsive budgeting

43. Gender budgeting is not a separate budget for women; but is the Gender analysis of any form of public expenditure or method of raising revenue, and is assessing the implications for women and girls as compared to men and boys. To develop Gender Budgeting some key questions are to be asked e.g.:

- How is Gender taken into account in policy formulation, implementation and monitoring?
- What priorities are given to reduce Gender inequality?
- Are specific targets for Gender equality being met?

44. Adequate budgetary allocations (Gender responsive pro-poor budgets) facilitate the availability of appropriate human and material resources and investment which can lead to appropriate functioning of health services which means better utilization of health services by poor rural women and men. These outcomes lead to the expected impact, namely the improved health status of poor women and men.

APPENDIX 20: Gender and Ethnic Minority Action Plan

HSDP Components	Actions proposed
Component 1: Human Resource Development	
1.1. Strengthening institutional capacity for HR policy, planning and management	• Ensure that HR policy, planning and management will support the Government's policy to address shortages of female staff and students from ethnic groups. • Develop policies in broad consultation with staff and stakeholders (women staff and villagers). • In development and revision of training curricula, ensure due reflection of health needs of women and ethnic groups (e.g. reproductive health, family planning). • Develop hiring and deployment policies with gender focus. • In selection of candidates for masters' courses and scholarships, give preference to female staff.
1.2. Improving staffing of rural health facilities in target provinces	• Promote adequate staffing of rural health facilities with particular emphasis on female health workers. • Observe gender and ethnic equality in staff development and promotion. • Ensure gender and ethnic focus in scholarships and student intake. • Continue bridging training for trainees from small ethnic groups to upgrade their general education level to enable them to participate in PHC worker training.
1.3. Improving Staff performance	• Ensure equal working hours and payment for male and female staff. • Provide women friendly working environment for female staff (free from sexism, [verbal or physical] harassment etc.). • Ensure equally friendly attitudes towards female and male patients. • Reduce waiting times for pregnant women and those with small children.
Component 2: Health Care Financing	
2.1. Health Equity / Loan Funds	• Involve women stakeholders in the design of mechanisms for fund allocation and release (including e.g. LWU members). • In contracting additional staff (e.g. accountants), give preference to women with equal qualification
2.1. Health Equity / Loan Funds Implementation	• Observe gender and ethnic equality in health staff participating in training events / workshops. • Ensure gender and ethnic equality in accessing Health Equity and Health Loan Funds (HEF/HLF) • Make arrangements for fast and un-bureaucratic release of HEF/HLF for referral of women with risk pregnancies, particularly in emergency situations • Ensure availability of HEF/HLF for women's caretakers, for caring for families / children left at home.
2.3 Health Care Financing Studies and Surveys	• Design studies and surveys with a focus on gender and ethnic minority needs.
Component 3: Strengthening PHC Management	
3.1. Strengthening of Provincial and District PHC Services	• Involve women stakeholders in the planning, implementation and monitoring of provincial and district health plans (including e.g. LWU members). • Ensure gender and ethnic focus in PHC services planning. • Base planning on sex and ethnicity disaggregated data in the information systems at provincial, district and village levels.

HSDP Components	Actions proposed
	• Ensure adequate budgetary allocations (gender responsive pro-poor budgets). • Participants to workshops to assess/validate data collection procedures should include men and women from Lao and non-Lao ethnic groups. • Ensure gender and ethnic focus in allocation training opportunities. • In selection of candidates for masters' courses and scholarships, give preference to female staff.
3.2. Training of Village Health Workers	• In training and retraining of village health workers focus on female workers and those from small ethnic groups. • Involve women groups and members from small ethic groups in the selection of new candidates for village health worker training • In revision of training curricula, ensure due reflection of health needs of women and ethnic groups (e.g. reproductive health, family planning). • Include oral contraceptive pills into the content of village drug kits.
Component 4: Planning and Budgeting	
	• Observe gender equality in selecting MOH staff for participation in training events / workshops. • In selection of candidates for PhD, masters' courses and scholarships, give preference to female staff. • In Health Information System Development ensure gender and ethnicity disaggregated data management. • Ensure adequate budgetary allocations (gender responsive pro-poor budgets). • In contracting additional staff, give preference to women with equal qualification.

APPENDIX 21: Poverty Reduction and Social Strategy

SUMMARY OF POVERTY REDUCTION AND SOCIAL STRATEGY

A. Linkages to the Country Poverty Analysis

Is the sector identified as a national priority in country poverty analysis?	☒ Yes ☐ No	**Is the sector identified as a national priority in country poverty partnership agreement?**	☒ Yes ☐ No

Contribution of the sector or sub-sector to reduce poverty in Lao People's Democratic Republic (Lao PDR):

Health is a key factor in achieving sustained economic growth, poverty reduction, and gender equality. The Government of Lao PDR (GOL) identifies health as a priority in its draft Sixth National Socio-Economic Development Plan (NSEDP-6, 2006-2010) that feeds into its poverty reduction strategy outlined in the National Growth and Poverty Eradication Strategy (NGPES, 2003). The NGPES' operational framework comprises four main sectors: agriculture, education, health, and infrastructure. In the health sector, NGPES priorities include strengthening and improving the quality of health care at grassroots level, particularly in under-served areas and especially for vulnerable groups, including mothers and children and small ethnic groups.

The Health Sector Development Program (HSDP) aims at improving the health status particularly of the poor and of underserved strata of the population, by improving the quality of care, financial access and health care utilization. It supports the health sector strategy (Health Strategy up to the year 2020) ensure full health care service coverage, justice and equity in order to increase the quality of life of all Lao ethnic groups".

The HSDP contributes to poverty reduction and economic integration within the region. Improved health will reduce income losses and expenditures due to ill health, will protect the labor force and production of food and cash crops. In education, children in good health and nutrition status learn faster and miss school less frequently due to illness.

Main features of the HSDP for poverty reduction are approaches to improve access to health care by the poor, the near poor, women and vulnerable ethnic minority groups by introducing Health Equity Funds and Health Loan Funds. These funds will not only permit the poor to access the health system, but also prevent them from being pushed into even deeper poverty by spending on catastrophic health events.

B. Poverty Analysis

Targeting Classification: Targeted intervention

The country has recently experienced relatively good economic gains. The GDP per capita in 2000 was $335 and increased to $402 in 2004 and $491 in 2005[(69)]. Under the New Economic Mechanism (NEM), introduced in 1986, Lao PDR is in transition from a centrally planned to a market economy. The annual real gross domestic product (GDP) growth increased from 5.8% to 6.5% from 2000 to 2004[70]. This is slightly above the average rate over the preceding decade[71]. The IMF projects 6-7% growth from 2006-10. Overall poverty has declined from 46% in 1992 to 32% in 2003.[72] Development, however, has been concentrated in the urban and advanced sectors of society. There is a growing disparity of economic growth between urban and rural areas, and between income of the rich and the poor. Lao PDR remains the least developed, as it ranks as 131 out of 177 countries in UNDP's *2005 Human Development Report*.

More than 80% of the population lives in rural and remote areas. The average population density is 24 persons per km^2. The majority of its 5.6 million people live in small scattered villages. The Lao PDR latest population census (2005) showed a population of 5.6 million people spread over 17 provinces, 141 Districts, 10,552 villages. The average number of households per village is 91. The average household size is 5.9. The eight northern provinces have a population of 1,976,816 comprising 35% of the country's total population, with an average population density of 17.9/km^2. There are 61 districts (42% of the national) and 4,596 villages (43% of the nation).

The National Growth and Poverty Eradication Strategy (NGPES) 2003 and the Committee on Planning and Investment (CPI) have identified 72 "poor" districts (consisting of 2.1 million people) as priority targets for development; out of these, 47 are classified as "poorest" districts (comprising 1.2 million people). In the eight Northern provinces, there is a concentration of poor and particularly the poorest districts. While at national level 50.7% of all districts qualify as poor, and 33.1% as poorest, in the eight Northern provinces 60.7% of all districts are poor and 44.3% poorest. Also most of the small ethnic groups that represent about 30% of the total population live in the Northern provinces. Many of them live in remote, mountainous areas, thus making physical access to any services difficult for them. This applies in particular also to social services such as health and education.

High burden of disease and limited access to health services reduce productivity and economic status of the poor rural population. For ethnic groups access barriers are compounded by socio-cultural and language barriers. Lack of health staff that understand ethic culture and languages discourage members from small ethnic groups from utilizing avail-

[69] 2004 estimate; ADB Country Strategy Program Update for Lao PDR: 2006-2008.
[70] ADB Report: "Country Strategy Program, Lao PDR" 2006
[71] Knowles, James C. 2006, "Public Expenditure in the Lao PDR Health Sector"
[72] Laos Expenditure and Consumption Survey (LECS) 2003

able health services. A focus is of the HSDP is therefore on further expanding the network of village based services operated by health workers originating from the community itself. Bridging courses have been introduced under the PHCEP for students who do not already meet the general education pre-requisites for entry into formal PHC worker training courses.

The HSDP will be implemented in the eight Northern provinces that have been supported under the predecessor project PHCEP: Xayabury, Phongsaly, Bokeo, Luangnamtha, Oudomxay, Luangprabang, Xieng Khouang, and Hauphan. Within the provinces, districts are selected in line with the NGPES development priorities.

Is there a stakeholder analysis? ☒ Yes ☐ No

The NGPES (2004) calls for increased participation by local people in program planning and implementation. Prime Minister (PM) Instruction 001 (March 2000) and PM Instruction 010 (June 2001) are relevant to the Government's approach to poverty reduction. The latter provides an official definition of poverty, and the former redefines central-local relations. While provinces are strategic planning units, districts are project planning and budgetary units, and health centers and villages are the implementation units that are responsible for collecting health data. GOL's policy document[73] on governance issues also supports the importance of people's participation. To strengthen MOH's ability to implement decentralization and achieve quality integrated PHC services and packages, the following actions are necessary: (i) human resource development, (ii) health financing, (iii) strengthening PHC management, and (iv) institutional strengthening of MOH, provincial and district health offices in planning and budgeting.

At the central level, the MOH sets standards, implements donor-funded projects, and manages national health programs in such areas as malaria, immunization, and food and drug regulation, and provides technical oversight to provincial health offices. MOH also allocates public health personnel at all levels of the public health system and operates training schools for upper-level health personnel (except medical doctors, whose training is under the Ministry of Education). MOH operates several large tertiary care facilities, including four teaching hospitals located in Vientiane. At the province level, provincial health offices (PHOs) implement national health programs and donor-funded projects within their provinces, operate provincial and regional hospitals, supervise district health offices (DHOs) and provide lower-level training and in-service training. At the district level, DHOs supervise and manage the delivery of health services at district hospitals and health centers. District health staff is expected to provide outreach and/or mobile services in villages and to supervise a network of village health volunteers (VHV) who support the activities of the public health system and provide basic primary health care.

At the village Level, there is a Village Health Committee (VHC), Village Health Volunteer (VHVs), a Private Health Professional and a Village Drug Kit (VDK) facility available at this level. VHVs are volunteer health workers with formal, basic health care training, responsible for disease prevention, health promotion, and treatment of common diseases for the population in their village catchment areas. Peer educators (VHVs and members on national unions) provide health promotion to villagers.

Is there a participation strategy? ☒ Yes ☐ No

A participation strategy is incorporated into the overall project design. The program grant offers policy support to the Ministry of Health for decentralization in the health sector in Lao PDR. The HSDP supports consultations and coordination among departments within MOH, between MOH and other line ministries, between the central and administrative levels, and at the district and village level. The need to employ participatory approaches is especially important for the introduction of health equity and loan funds. Villages will participate in the zoning process. Women will select and propose village health workers. Health committees at different levels will play an important role in the management of health facilities and of health programs.

D. Gender Development

Strategy to maximize impacts on women:

The HSDP will involve women and the LWU under the Lao National Commission for the Advancement of Women (NCAW), into (i) HRD policy development, (ii) into design and implementation of Health Equity and Health Loan funds, (iii) in planning, design and monitoring of provincial and district health plans as well as in selection of new village health workers, and vi) give preference to female MOH staff on capacity building in planning and budgeting.

The HSDP addresses the issue of particularly low utilization of services targeted at women. Selection of health workers to be trained / retrained at all levels will specifically focus on filling existing gaps in female staff. Contents of training will be gender and ethnicity sensitive. This will include an emphasis on reproductive health and family planning.

Has an output been prepared? ☒ Yes ☐ No

E. Social Safeguards and Other Social Risks

Item	Significant/ Not Significant/	Strategy to Address Issues	Plan Required

[73] GOL. 2003. *Public Service Reform, People's Participation, Rule of Law and Sound Financial Management: Government Document on Governance Issues*. Policy paper presented at the Roundtable Process. Vientiane: 4 April.

	None		
Resettlement	Significant ☒ Not significant ☐ None	No land acquisition and resettlement is expected. One of the selection criteria for supporting new/additional civil works (i.e., health center construction) is that they would be built on existing MOH sites with no new land acquisition.	☐ Full ☐ Short ☒ None
Affordability	Significant ☐ Not significant ☒ None	HSDP provides targeted support to the poor and ethnic minority groups, particularly women and adolescent girls, to expand access to health services. Health equity and loan funds will address access barriers of the poor and near-poor.	☒ Yes ☐ No
Labor	☐ Significant ☒ Not significant ☐ None	There are no risks associated with labor policy, law or broader labor issues. HSDP, through policy-support and training, will help to increase the number of female health workers and contribute to better deployment female staff.	☐ Yes ☒ No
Indigenous Peoples	☒ Significant ☐ Not significant ☐ None	Ethnic minority groups will specifically targeted by the HSDP. Bridging training to compensate for their low general educational standards will enable them to participate in formal training for PHC workers. A separate action plan has been prepared in Appendix 5.	☒ Yes ☐ No
Other Risks and/or Vulnerabilities	☐ Significant ☒ Not significant ☐ None	None.	☐ Yes ☒ No

APPENDIX 22: Results Based Provincial Health Programs: Criteria, Steps and Procedures

Under the HSDP Program funding component, each of the Provinces concerned will conclude result-based contracts with the GOL (MOF/MOH??) for the implementation of activities summarized under this component called "Results Based Provincial Health Program" (RBPHP).

In preparation for this new cooperation modality between the MoH and the Provinces, the Central MoH has to take a few organizational and administrative steps:

Organization and Management of the Central Ministry of Health

a. Issuance by the Minister of Health of a Ministerial Order for the Results Based Provincial Health Program (RBPHP)
b. Organization or designation of a MOH Cabinet Office/Committee/Unit and its Head/Officer in charge to be in mainly responsible for the Results Based Provincial Health Program (RBPHP)
c. Setting up of the organization and management mechanisms for the implementation of the of the RBPHP – 1) Formulation of concept paper on RBPHP in Lao Language 2) Workshop design and workshop plans for consensus building on RBPHP; 3) Draft implementation guidelines for central level units; 4) Documentation of good practices of organization and management of provincial health an district health offices; 5) Initial draft guidelines and check list for selecting the eligible provinces for RBPHP.

The central Ministry of Health, in consultation with the provinces, will have to agree on the minimum criteria for eligibility to enroll in the Results Based Provincial Health Program. Here are some considerations to take in deciding the minimum criteria:

Level of Management Organization of the Province:

a. Presence of a Provincial Government policy issued as an Executive Order of the Provincial Governor declaring support for and acceptance of the results-based provincial health program
b. Presence of a formally organized Provincial Government Management Team led by the Provincial Governor with the following members: Provincial Planning Director, Provincial Finance Director, Provincial Health Officer, Director of Cabinet of the Governor's Office, Provincial Personnel Officer, any of the Vice Governors and the Pathet Lao Provincial Party Officer. Their terms of reference (TOR) are defined in the context of their responsibilities in ensuring a Results Based Provincial Health Program. A permanent secretariat for the Provincial Government Management Team will also be appointed by the Governor.
c. Presence of written standard manual of operations for Provincial Planning and Provincial Finance Operations, including budgeting, accounting and auditing
d. Presence of written standard manual of operations for health planning of the Provincial Health Officer, including budgeting

Basic Information Needed from Each Province and From Each Provincial Department

a. Office of the Governor, Director of Cabinet: The Provincial Organogram and the names of all officials; the different permanent and ad hoc working committees under the Governor's office and their corresponding terms of reference;

b. Provincial Planning Director: latest 5 year Provincial Strategic Development Plan; latest Provincial Development Plan 2005-2006; organogram of the Planning Department and names of top officials and chiefs of sections and units; List of major foreign funded development projects (outside of health) in the province from 2001-2006;
c. Provincial Finance Director: Summaries of Provincial Budgets 2000-2005; Summaries of Provincial revenues and incomes 2000-2005; list and amounts of Overseas Development Assistance (ODA) 2000-2006; Summaries of District Budgets and Incomes 2000-2005 for all districts; organogram of the Finance Department and names top officials and chiefs of sections and units;
d. Provincial Health Director: latest 5 year Provincial Strategic Health Plan; Summaries of Provincial Health Plans and Health Budgets -2001-2005; Vital health statistics 2001-2005; Health Department organogram and names of top officials and chiefs of sections and units; total number of provincial employees and their classification according to gender, educational background, mother language and ethnic minority group; rank; permanent or temporary appointment;
e. Provincial Hospital Chief: Vital Hospital Statistics 2005 and trends data from 2001-2005 particularly annual occupancy rate; annual total hospital births per year and its proportion to total hospital admissions; annual number of caesarian sections; dilatation and curettage; maternal mortalities and infant mortalities; 2001-2005 annual hospital budget, hospital revenues and income, hospital outstanding debts. List of donors and their donations for the past 5 years. total number of hospital employees and their classification according to gender, educational background, mother language and ethnic minority group; rank, permanent or temporary appointment.

Capacity Building of Provinces Eligible for the Results Based Provincial Health Program

A capacity building program will be developed for the initial eligible provinces. The program can consist of the following:

1. Needs analysis of the provincial and district managers regarding their skills and knowledge on Results Based Provincial Health Program;
2. Fielding of Management Mentors, at least one, for every province;
3. Documentation of best practices in health care management and health care operations, systems and procedures at the provincial and district levels;
4. Ranking of districts according to capabilities in management, health care delivery, planning and financial operations and inter-agency cooperation at district levels.
5. Launch of the Management Training Seminars on: Strategic Policy Management for Provinces; Strategic Planning; Strategic Health Care Management; Financial Health Management; Accounting and Auditing for Health; Social Marketing of Health Services;
   Health Human Resources and Development Management; Social Health Insurance; and
   Health Management Information Systems;
6. Monthly provincial team management operations meeting as an item in the agenda of the
   Regular monthly meetings with the Governor;
7. Weekly provincial executive health management committee with RBPHP as a regular item in the agenda;
8. Development and printing of the various Manual of Operations for every management area of the RBPHP.

There will also have to be a regular monthly Central-Provincial team meetings with RBPHP as a item in the agenda.

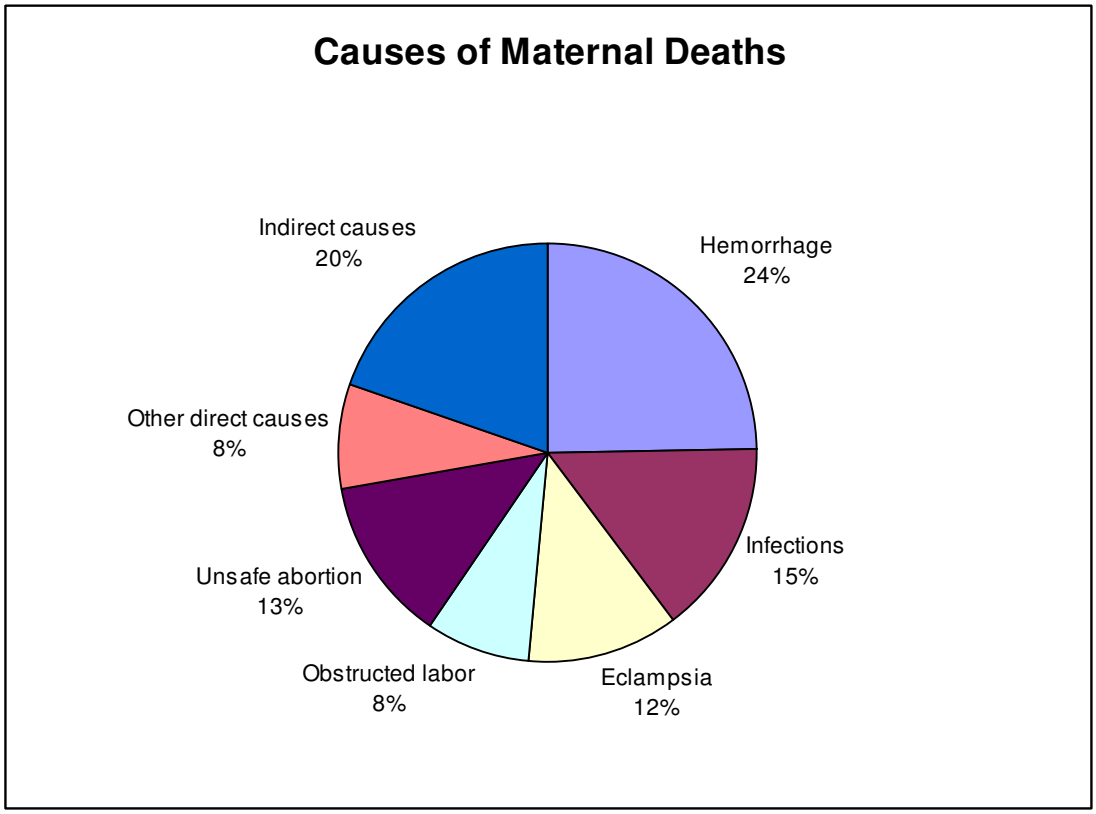
APPENDIX 23: Safe Motherhood

1. BACKGROUND

42. Maternal deaths are classified as "the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes"[74]. Safe motherhood is a global movement aimed at reducing maternal mortality and morbidity.

43. Maternal deaths are divided into two groups – those directly caused by the pregnancy, and those indirectly caused by it. Indirect causes of maternal death are those related to pre-existing or concurrent diseases which do no arise directly from the pregnancy, but may be aggravated by it, and complicate it. It is estimated that indirect causes, (such as anemia, malaria, cardiovascular disease) account for 20% of maternal deaths globally. Direct causes of maternal death are those attributable to complications of pregnancy or childbirth, or that result from interventions, omissions, incorrect treatment or events that result from these complications. The major direct causes of maternal death are hemorrhage (24%), sepsis (15%), pre-eclampsia / eclampsia (12%), obstructed labor (8%) and unsafe abortion (13%)[75].

Figure 1



Source: WHO. 2005. World Health Report 2005: Make every mother and child count. Geneva.

44. Globally, it is expected that 10.5% of all live births will be complicated by postpartum hemorrhage, 4.6% by obstructed labor, 4.3% by sepsis and 3.2% by pre-eclampsia[76].

[74] WHO. 1993. International statistical classification of diseases and related health problems – 10th revision. Geneva.
[75] WHO. 2005. The World Health Report 2005: Make every mother and child count. Geneva.
[76] WHO. *Op cit.* Ref. 2.

45. It is estimated that between 11% and 17% of maternal deaths will occur during labor, and that 50% to 71% will occur in the postpartum period (including 45% during the first 24 hours after birth, and 66% during the first week after birth)[77]. At this time, there is no effective method to screen pregnant women to identify all those who will experience complications during childbirth or in the postpartum period, although it is possible to identify a proportion of women who can be considered to be at higher risk of certain complications.

46. There is a wide disparity in rates of maternal mortality between countries and within them. If nothing was done to intervene in childbirth, it is estimated that between 1000 and 1500 mothers would die for every 100,000 live births[78]. While many developed countries have managed to reduce this rate to less than 10 per 100,000 births, some developing countries, particularly in Africa, have levels over 1000, and a number of countries in Asia have levels higher than 500 per 100,000. Globally, rural and remote populations have been found to have higher rates of mortality than their urban counterparts, while the poor and ethnic minorities are also vulnerable[79].

47. Many of the causes of maternal death can be prevented or treated with relatively simple interventions. The impact of hemorrhage, for example, can be reduced through antenatal interventions such as treatment of anemia and malaria if present. Active management of the third stage of labor, including an injection of oxytocin, can significantly reduce the risk of postpartum bleeding. If hemorrhage occurs, manual removal of the placenta may allow the uterus to contract and prevent further bleeding. All these interventions can be performed by a midwife at the first level of care, provided she or he has the appropriate knowledge and skills, and the necessary drugs and equipment. Aseptic technique during labor and birth will reduce the risk of infection. Monitoring a woman's blood pressure during pregnancy and labor will allow the health worker to identify those with high blood pressure, and refer them to hospital for treatment.

48. Actions to reduce maternal deaths also have the potential to significantly reduce child deaths. It is estimated that up to 50% of stillbirths and early neonatal deaths could be prevented if all mothers received professional care during pregnancy, birth and in the immediate postpartum period[80]. Proper management of labor and delivery reduces the risk of newborn asphyxia or birth injuries. Prevention or treatment of maternal infections during pregnancy, and aseptic techniques during birth can prevent newborn infections. Nutrition education and supplements for the pregnant woman also benefits the newborn. The synergy between maternal healthcare and newborn health makes it important that strategies to reduce maternal deaths also address newborn health. There are opportunities to increase the cost effectiveness and impact of strategies by widening the focus of interventions to include newborns as well as mothers.

2. INTERNATIONAL EXPERIENCE

49. International experience has identified a number of factors that make a significant difference in reducing maternal and newborn deaths.

2.1 Political will

50. One of the most important elements in successful reduction of maternal deaths is shared political will. Piecemeal approaches have not proven very effective, due to the complex na-

[77] AbouZahr C. 2003. *Global burden of maternal death and disability*. In: Rodeck C. ed. Reducing maternal death and disability in pregnancy. Oxford. Oxford University Press.
[78] WHO. *Op cit.* Ref. 2.
[79] WHO. *Op cit.* Ref. 2.
[80] WHO. *Op cit.* Ref. 2.

ture of the problems. Experience has shown that countries that have succeeded in making motherhood safer share three characteristics[81]:

- Policy makers and managers were aware they had a problem, knew it could be tackled, and decided to act
- A strategy was taken that included not just antenatal care, but also professional care at and after birth for all mothers, by midwives, nurse-midwives or doctors, backed up by hospital care
- Access to these services – geographic and financial – was guaranteed for the entire population

2.2 Health systems

51. There has been much written about the impact that contextual factors such as access to education for women, safe water, income and female literacy, have on maternal and neonatal mortality. While these factors are important, around 50% of inter-country variations in maternal and neonatal death can be explained by health systems, particularly human resource density[82].

52. The health system must properly support the health worker if they are to be effective in reducing maternal and newborn deaths. There must be adequate supplies of drugs and materials, and appropriate equipment maintained in working order, for the health worker to deliver the expected services. Health workers need appropriate supervision and support, regular in-service training, access to more senior and experienced staff for consultation regarding clinical or administrative problems, and a feeling that they are a valued member of the health team. The health system needs to provide these conditions for all health workers, including those providing safe motherhood services.

53. There have been many definitions of appropriate health services for mothers and newborns in the past decade, including classification of levels of service using terms such as “essential” and “emergency” obstetric care. Some confusion has resulted from the frequent changes in recommended approaches to improving maternal care, at times distracting countries and providers from the real issues. Recent literature, including the World Health Report 2005, supports a simplified approach that includes two levels of care: first-level services, and back-up services. The key features of this two tier system for maternal and newborn care, based on the WHO model, are provided below.

[81] De Brouwere V. & Van Lergerghe W. 2001. *Safe motherhood strategies: a review of the evidence.* Studies in Health Services Organisation and Policy, 17:7-33

[82] WHO. *Op cit.* Ref. 2.

Table 1: Features of levels of maternal and newborn care

	First-level maternal and newborn care	Back-up maternal and newborn care
Defining feature	Close to client: demedicalized but professional	Referral level technical platform
For whom?	For all mothers and newborns	For mothers and newborns who present problems that cannot be solved by first-level care
By whom?	Best by midwives; alternatively by doctors or by doctors or nurses if correctly trained and skilled	Best by a team that includes obstetricians and pediatricians; alternatively appropriately trained doctors or mid-level technicians
Where?	Preferably in midwife-led facilities; also in all hospitals with maternity wards	In all hospitals

54. For this system to work, it is essential that there is an effective referral mechanism between the first and back-up levels of service. The first-level of service mainly provides care for women during normal pregnancy and birth. Some complications, however, can also be managed at this level, either through prevention, early detection, or active treatment during an emergency. The midwife providing first level care needs to be able to transport a mother or newborn to the back-up hospital in a safe and timely manner should complications arise. She needs to be able to communicate with the hospital regarding the patient in advance of their arrival. The hospital needs to be able to communicate with the midwife prior to the discharge of the patient, to ensure she will properly follow-up the patient at home. A continuum of care approach needs to be used.

55. The health system also needs to protect the mother from unnecessary interventions during labor and birth. Cesarean sections, oxytocin to augment labor, episiotomy and other medical interventions are important tools in management of complicated births, but there is also a risk of overuse, resulting in potential harm to mother and baby. The health system needs to ensure there are not incentives which encourage overmedicalization of childbirth.

2.3 Human resources

56. International experience has shown that the quality of the health worker is fundamental to the success of any strategy to reduce maternal and newborn deaths. Skilled professionals, particularly midwives, are the foundation of this strategy. It is estimated that as few as 7% of mothers will have complications that require referral to back-up services. Evidence is less clear for newborns, but it is estimated that 9 – 15% of newborn deaths could be prevented with access to back-up care[83]. It can be assumed, therefore, that 80% of mothers and newborns will require only first level services, presuming the first-level provider is competent to manage normal pregnancy, labor and delivery, and recognize, stabilize and refer complicated cases. The quality of the first-level provider is particularly important in circumstances where back-up services are some distance from the first-level facility, as in Laos.

[83] WHO. *Op cit.* Ref. 2.

57. Key lessons learned from international experience regarding human resources for safe motherhood include[84]:

- Skilled professional care during pregnancy and birth, and in the first week postpartum, reduces both maternal and neonatal mortality and morbidity
- First-level services must be provided by skilled professionals (midwives or their equivalent), not by volunteers or trained "lay workers", if they are to be effective. First level care is not just routine uneventful care, it saves lives and manages emergencies, and requires the complex decision-making skills of a professional
- Volunteers or Traditional Birth Attendants (TBAs) cannot replace the services provided by a skilled professional – evidence from more than 20 years of training TBAs has shown only a small impact on perinatal mortality, and none on reducing maternal mortality. The role of lay workers should be complementary to, not a substitute for, services provided by skilled professionals in first-level and back-up care of mothers and newborns.
- There is little evidence on the best methods of pre-service training to prepare professionals for their role as first level providers of maternal and newborn care. Expanding pre-service training for nurses to include more midwifery subjects has not been shown to be effective. Based on the limited evidence available, two strategies have shown better results. Both require an entry level of 10 years of formal education. One approach is 3 years of nurse training, followed by 1 or 2 years of midwifery training. The other is direct entry midwifery training, involving 3 years of combined theory and practical training.
- Increasing the availability of first-level and back up professionals and facilities is not sufficient to guarantee improved maternal and child outcomes. Staff performance and motivation must also be addressed. There is considerable variation internationally and within countries regarding the skills and competencies of midwives, nurses and doctors, and their motivation to perform at their best.

2.4 Technical approaches

58. There are numerous technical guidelines on birth spacing and reproductive health, antenatal care, care during labor and delivery, and postpartum care for mothers and newborns, developed by WHO, UNICEF and others. These include the prevention, diagnosis and management of complications. Many technical guidelines have been tested in the context of developing countries, and are designed to balance impact and cost-effectiveness. Some of these technical guidelines, including IMCI, have been adapted for use in Laos. Technical problems generally arise not from lack of information on appropriate care of mothers and newborns, but from limitations in their application, lack of human, financial and physical resources for implementation, difficulties in training clinical staff and managers to achieve improvements in performance etc.

59. One feature of effective maternal and newborn care is a continuum of care that extends from pregnancy into the postpartum period. It must be emphasized that half maternal deaths occur in the week after birth. There needs to be a conceptual adjustment regarding the role and responsibility of the midwife, to expand current practices to include care and supervision of the mother and newborn, not just in the immediate postpartum period, but in the days and weeks following.

[84] WHO. *Op cit.* Ref. 2.

3. APPLICATION IN LAO PDR

3.1 Lao Context

60. Lao PDR has a maternal mortality ratio of 530 per 100,000 live births[85]. Although this ratio fell between 1995 and 2000, it is still considerably higher than most neighboring countries. The variations found between rural and remote populations globally are reflected in the Lao context. The difference between rural and urban ratios is significant in Laos, with rural mothers around 3.5 times more likely to die during pregnancy than their urban counterparts[86]. Differences are also apparent between the rural regions, with women in the south and north more likely to die than their counterparts in central rural regions. Participation in antenatal care is low. The Reproductive Health Survey in 2000 found that only 24% of women nationally received antenatal care, but there was also wide disparity between rural and urban settings. Only 18% of rural women received antenatal care, compared to 73% of urban women[87]. The Household Health Survey in 2004 found that only 9% of women in Northern provinces gave birth in a Hospital, and only 14% of women gave birth attended by a trained health professional[88]. The majority of women in the North gave birth at home attended by friends or relatives (67%) or without help (13%).

61. Maternal and newborn health in Laos is under the responsibility of the Ministry of Health. The National Maternal and Child Health Center (NMCHC) has oversight responsibility, and manages several national programs addressing maternal and child health, including Safe Motherhood, Reproductive Health (RH), Integrated Management of Childhood Illnesses (IMCI), and Expanded Program of Immunization (EPI). Improving maternal and child health is a priority for the GOL and the MOH, and is reflected in key policy statements. A MOH Steering Committee is currently working to develop strategies to improve health services and health outcomes for mothers and newborns. Many partner organizations are supporting the MOH in these efforts, including ADB. The overall goal of the proposed Health Sector Development Program is to contribute to improving the health of the poor to achieve the MDGs of reducing maternal and child mortality, and malnutrition. Strategies to upgrade hospitals to provide back-up services include training teams of staff in the skills required to provide surgical services – surgery, anesthetics, instrumentation – improving facilities and supplying necessary equipment.

3.2 Lao Challenges

62. The Lao context presents a number of challenges for application of international lessons learned on how to reduce maternal and newborn deaths. These include:

- low population density and a dispersed population
- limited transportation and communication infrastructure
- diverse ethnic backgrounds of the population with under-representation of ethnic minorities in the health workforce
- low utilization of public health services
- geographical barriers to health service provision, particularly during the wet season
- poorly developed referral network between health service levels
- limited financial resources to provide health services
- limited technical capacity in maternal and newborn health
- low ratio of midwives per population
- high proportion of home births

[85] GOL. National Statistics Center. 2000. Lao Reproductive Health Survey. State Planning Committee, Vientiane.
[86] MOH. 2000. National Health Survey. *and* GOL. National Statistics Center. 2000. Lao Reproductive Health Survey. State Planning Committee. Vientiane.
[87] Lao Health Master Planning Study. 2002. Final Report Volume 4:Sector Review. *from* GOL. National Statistics Center 2000. Op cit. Ref. 13.
[88] PHCEP. 2004. Household Health Survey. MOH/ADB.

- very low percentage of births attended by a skilled professional

3.3 Proposed approaches

2. a. First level care

i. Location

63. The low density of the population in remote areas creates difficulties in deciding how to distribute services to ensure both efficiency and universal access. For efficiency, a first level facility should be staffed by a team of midwives providing services for their catchment population. Working in teams allows for 24 hour service coverage, and quality control through peer support and supervision. In reality, there are very few rural areas in Laos where the deployment of a team of midwives in one facility could be justified by the number of births expected per year in the population within easy access of the facility. The average Health Center in the Northern provinces in Laos has a catchment population of 6,000 people in 14 villages. With a fertility rate of 3%, it could be expected that there would be 180 pregnancies per year in the catchment area, with around 150 live births[89]. Studies have shown a midwife can care for mothers and newborns to an average of 175 births per year[90]. With this number of births expected it would be inefficient to post more than 1 midwife per Health Center. Yet employing only one midwife limits the availability of services should that midwife be absent for training, sick, or on leave.

64. For practical and economic reasons, the Health Center is the most obvious choice as the location for first level maternal and newborn services in Laos. The village level has the advantage of being close to the population, but has insufficient catchment population to be economically efficient, and does not currently have any professional staff or building. District level is not sufficiently close to the population to allow universal access.

65. Health Centers will need strengthening in terms of professional staff, facility and equipment if they are to be able to provide the range of first level services that have been demonstrated to reduce maternal and newborn deaths.

ii. Home birth

66. Almost 90% of women in Laos currently deliver at home, generally without the care of a trained health professional[91]. Changing this cultural dynamic will take a significant amount of time. It will also require major improvements to Health Centers, to make the facility an attractive alternative to birthing at home. Many Health Centers do not have a private room that could be used by women in labor and during birth, electricity, a toilet or water supply[92].

67. In the absence of adequate facilities in many Health Centers, it is appropriate to prepare and support midwives in offering first-level services in women's homes, provided basic requirements for hygiene and access to transport for referral to hospital, if needed, are met. This strategy would be an important interim step in reducing the number of maternal and newborn deaths by increasing the percentage of women giving birth with the assistance of a skilled health professional.

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[89] Galvez-Tan J. 2006. HSD Consultant HSDP2 PPTA. *Expected annual performance of Health Centers in the North*. Unpublished.

[90] WHO. *Op cit.* Ref. 2.

[91] MOH. 2000. National Health Survey. *and* GOL. National Statistics Center. 2000. Lao Reproductive Health Survey. State Planning Committee. Vientiane.

[92] Only 25% of HC in the North had a delivery room, 34% had electricity, and 67% had a patient toilet, based on the 2004 Health Facilities Survey conducted by the PHCEP.

68. To work effectively at home births, midwives would need to have a full range of portable equipment, either manually or battery operated, transport to travel to the mother's home, and training that prepared them for providing quality maternal and newborn care under such circumstances.

69. A longer term strategy of upgrading Health Centers (and rural Hospitals) to ensure the environment is suitable and attractive to mothers during labor and birth would need to be implemented to encourage an increase in the percentage of mothers giving birth in a health facility.

iii. Providers

70. WHO recommends midwives as the ideal providers of first-level maternal and newborn care[93]. Alternatively, nurses or doctors with appropriate training could be used, but there is concern that deployment of doctors may not be cost efficient at this level of service. As discussed above (see paragraph 16), Traditional Birth Attendants and Village Health Volunteers should not be considered suitable providers of first-level services. Over 2 decades of experience has shown their role is complementary to, not a substitute for, skilled professional maternal and newborn care.

71. Direct entry midwifery training was discontinued in Laos many years ago. The current workforce strategy is to train multiskilled Technical Nurses to be competent in both nursing and midwifery. The reality is that graduating Technical Nurses do not have sufficient midwifery competence to provide the services required to reduce maternal and newborn deaths. This is consistent with international experience. The MOH and partners recognize this, and are now urgently considering how to improve midwifery skills and service availability.

72. In order to have sufficient professional staff with appropriate skills at the Health Center level to provide first-level maternal and newborn care, working within the current budgetary framework and staffing levels, a multiskilled staffing approach will need to be used. Firstly, a concerted effort will need to be made to increase the number of professional staff posted to Health Centers. The new graduations of Technical Nurses from the Regional Public Health Schools are well located for recruitment to rural Health Centers. The new Primary Health Care (PHC) Workers are also being posted to Health Centers, and many have the capacity to meet the criteria of a minimum of 10 years of general education and 3 years of pre-service training which is associated with improved service delivery[94]. Nurses or PHC workers posted to Health Centers would then need to receive post-basic training in midwifery. This training would need to be of sufficient duration and quality to ensure they develop the knowledge and skills necessary to provide first-level care to mothers and babies, including routine care of normal deliveries, but also to prevent or resolve complications as they arise and respond to life-threatening emergencies. There should be a minimum of two Nurses or PHC Workers with post-basic midwifery training at each Health Center to ensure uninterrupted service provision, and to allow for peer support and supervision.

73. To ensure sustainability of staffing of Health Centers in remote, ethnic minority communities, it will be necessary to increase the representation of ethnic minorities in the workforce. Successful strategies such as the identification and training of young people from remote villages, including the use of bridging courses to raise their general education to the required level if necessary[95], should be used to ensure first-level maternal and newborn services are

[93] WHO. *Op cit.* Ref. 2.

[94] As discussed in Paragraph 16 above, international experience shows better outcomes when maternal and newborn services are provided by staff who have minimum of 10 years of general education, followed by 3 years of direct entry midwifery training OR 3 years of nursing training followed by 1 – 2 years of post-basic midwifery training.

[95] The PHCEP successfully used this strategy to increase the representation of ethnic minority groups in Primary Health Care Worker training and Health Center staff recruitment.

culturally and socially acceptable to the community. Attempts to post staff to Health Centers where they do not have family ties have not been successful in the past, and given the continued low salaries and the lack of incentives for rural service, this is not likely to change in the near future.

74. Regular supportive supervision of nurse-midwives providing first-level services would be needed to ensure they are performing to the expected standard. Skilled supervisors would help nurse-midwives to solve clinical and administrative problems, and provide on the job training. Clinical guidelines and other tools should be provided as a reference for use during the provision of services. Regular in-service training would also be needed to ensure staff skills were kept up to date, including mastering new technologies and changes in protocols or guidelines.

75. It should be noted that most nurses or midwives working in Health Centers do not have currently have the equipment or the skills to provide mothers and their newborns with appropriate first-level services at home or in the Health Center[96]. It will take a concerted effort to upgrade the skills of staff, and to ensure they have the equipment necessary to deal effectively with normal deliveries and the unexpected complications that inevitably arise in a percentage of cases.

iv. Training

76. The provision of effective first-level maternal and newborn care at the Health Center level, using a multiskilled professional staffing approach will require a major investment in training. Current and future Technical Nurses and suitable PHC Workers posted to Health Centers will need to be skilled in midwifery – competent to manage normal and complicated pregnancy, labor and delivery, provide quality post-partum maternal care, and to resuscitate and care for the newborn.

77. To develop the required skills they will need to be trained in a competency based program, using problem based and active learning methods, and have sufficient supervised and structured clinical practice to ensure they are confident and competent to perform independently in both facility and home settings. International experience suggests this training should be 1 – 2 years duration[97], but the evidence is not extensive, and examples of effective, shorter training courses can be found.

78. Providing high quality, competency based midwifery training in Laos will be challenging for a number of reasons. Firstly, there are few births in health facilities, particularly in rural Hospitals or Health Centers, which limits the amount of relevant clinical practice which students can experience during training. This problem is compounded by the high numbers of medical and nursing students who will be competing with the midwifery trainees for clinical experience in many large hospitals. Secondly, there is limited technical and educational capacity to teach midwifery. This problem is compounded by the high proportion of women giving birth without a skilled professional attendant, as this reduces the opportunities for qualified midwives to keep their skills current.

79. Key pre-requisites for introducing an effective post-basic midwifery training course will be developing a core group of trainers in each training facility and clinical practice site with excellent clinical and teaching skills, and ensuring that students receive sufficient, relevant clinical practice during their training to develop the required competencies. Innovative strategies will be needed to achieve these pre-requisites.

[96] See HSDP2 PPTA HRD Sub-sector Analysis, National Situation – G. Staff Performance.
[97] WHO. *Op cit.* Ref. 2.

80. Training of the core group of trainers who will lead the improvements in midwifery training should begin with strengthening their clinical skills. It is proposed that this training should include a period of clinical training at a site where it is possible for trainees to experience a high number of births. Jose Fabella Hospital in Manila, Philippines is one such site which accepts international midwifery students for short courses. There are between 100 and 200 births per day in this facility and the Hospital setting is not sophisticated. The patients are generally poor, have had little or no antenatal care, and are suffering from anemia, poor nutrition and other conditions which increase the chance of complications during labor, birth and the postpartum period. These characteristics are similar to those of many mothers in rural Laos.

81. This Hospital provided a very successful training course for midwives from Cambodia in 2001, allowing relatively inexperienced midwives to develop competency and confidence in managing normal births and a range of complications including prolonged or obstructed labor, dystocia, postpartum hemorrhage, retained placenta, perineal tears, and newborns requiring resuscitation. The course, with the duration, content and required skills negotiated in advance, was largely practical, with some observation and lots of supervised clinical practice, which made it suitable for trainees with very limited English language skills. It would be possible to include antenatal and early postpartum care in the course. There is also potential in the Philippines to identify placements for international midwives to work with local community based midwives. Two batches of Cambodian midwives participated in a one month training course at Jose Fabella in 2001, and became the core group of experts that developed and implemented a new post-basic midwifery curriculum there. If each group of midwives attending the training included some English speakers who could translate for their colleagues when necessary, and assist in theoretical sessions or case discussions with the Philippine midwives, it is this consultant's opinion that the course would be beneficial for midwives with very low level of English language skills.

82. The core group of trainers trained would be the foundation of a successful post-basic midwifery training course in Laos. The content and duration of the course should be developed based on the competencies required and the time needed for the average Lao Technical Nurse or PHC Worker to develop these skills. International technical assistance would likely be required for course development and early implementation. This could be provided by expert/s from within the Region, for example from the Philippines or Thailand.

83. The training course should be provided in the regional Public Health Schools, to make it more relevant and accessible for staff from rural areas. Theoretical training should be balanced with extensive supervised and structured clinical practice. The Provincial Hospital and District Hospitals with higher numbers of births should be used as clinical training sites. If there are Health Centers with birthing facilities used by their community, in the catchment area for the School, these should also be used as clinical training sites. In addition, to prepare students for work at home births, efforts should be made to identify midwives active in the home setting, assess and if necessary upgrade their clinical skills, and place students with them for community practice rotations during their training. This will not be an easy task, but is necessary if maternal and newborn deaths are to be reduced in the transition period before the proportion of births in health facilities such as Health Centers increases.

84. The need to ensure all students get sufficient clinical practice to develop the necessary skills to provide quality maternal and newborn care should balance the urgent need to increase midwifery services. There is no value in having lots of staff with inadequate skills – this may lead to an increase in the percentage of births attended by a trained professional, but is unlikely to lead to a decrease in maternal or newborn mortality or morbidity. It will be necessary to keep student intakes and class sizes to a level where the quality of training, including clinical practice, can be assured. This also applies to the number of training sites. There is no value in rolling out a training strategy that includes too many sites to be able to

assure sufficient technically and educationally competent teachers and clinical instructors. Similarly, providing too short a training course for the average student to develop the necessary competencies would be an inefficient investment. Great care should be taken during the pilot phase to ensure quality of training, not just quantity.

85. The course must also ensure students develop the communication and health promotion skills necessary to establish a close relationship with the mother and family during the pregnancy; effectively advocate for labor and birth in an appropriate health facility where one is available; or prepare for home birth with transportation arranged to a back-up facility in the case of complications. In addition, care should be taken to emphasize the provision of care during the postpartum period, since this is the time when a significant proportion of maternal and newborn deaths occur.

86. There will be additional costs associated with this type of training. Practical training, especially in settings which are distant from the School, requires transportation and living allowances for students and clinical supervisors. Increasing the proportion of clinical practice in the training course will require additional clinical instructors, if this practice is to result in students learning appropriate technical and other skills. Apprentice style attachments to midwives practicing home births may require payment of the midwife, and allowances to cover living and transportation of the student. Supervision costs of apprentices will be increased because only 1 or 2 students will be attached to any 1 midwife. The benefits, risks and requirements for success of different training approaches to increasing the availability of midwifery services are described in the Appendix to this paper.

87. In addition to the post-basic midwifery course, a competency-based midwifery short course training program should be developed and provided for midwives currently providing clinical services at the first-level of care. It is likely that this course would need to be 2 – 4 months in duration, to ensure midwives develop the necessary skills to provide quality care to mothers and newborns.

88. Training strategies also need to include ongoing access to in-service training for first-level service providers. This training could include on-the-job training from skilled staff during supervisory visits, off-site short courses, or distance education methods using self-learning materials. There needs to be regular training need assessments, and provision made to meet the needs identified for long term sustainability of Safe Motherhood services.

89. It should be noted that the national Maternal and Child Health Center (MCHC), responsible for providing in-service training for midwives and others involved in maternal and child health services, has recently decided to stop training using off-site short course approaches. Their analysis suggested this kind of training has not led to sustained improvements in the skills or behavior of service providers. Instead, they will be trialing on-the-job training approaches where staff learn in the environment where they practice, supervised by experienced trainers / mentors[98]. The results of this change in approach should be followed closely for lessons that can be applied to other in-service training in Laos.

3. b. Back-up services

i. Location

90. Back-up services are provided by hospitals, which need to have the capacity to provide complex care that is beyond the competence or means available to the midwife at the first-level of care. For back-up services to be effective, they need to be accessible to the population; they need to be staffed 24 hours a day by doctors and/or others with appropriate skills

[98] Personal communication with Dr. Kaisone Chounramany, Director MCHC. February 2006.

to manage obstetric or newborn emergencies, and they need to have the equipment and supplies necessary to perform operations such as cesarean sections, and to resuscitate and care for sick newborns. There are Provincial and District Hospitals providing hospital services to the rural population in Laos.

91. The Health Facilities Survey conducted in the Northern provinces by the Primary Health Care Expansion Project (PHCEP) in 2004 identified staff with post-graduate training in surgery, anesthetics, obstetrics and pediatrics in almost all Provincial Hospitals. The 2 Provincial Hospitals without a full compliment of post-graduate trained staff were still providing services in these areas. Type A District Hospitals generally have doctors posted, and many in the North have staff with post-basic training in surgery and anesthetics (82%), obstetrics (73%) and pediatrics (55%)[99], and have a functional operating theatre. Many Type B District Hospitals, however, do not have a working operating theatre, and some do not have any doctor on staff[100]. The geography and demographics of Laos make the provision of accessible back-up maternal and newborn services problematic. The Household Health Survey conducted by PHCEP in 2004 in the Northern provinces found that only 41% of villages were within 1 hour travel to a hospital during the dry season, while 16% of villages were more than 4 hours travel from a hospital OR health center.

92. The MOH vision is to upgrade the staff and facilities of District Hospitals, to make health services more accessible to rural populations. This is a particularly important component in any strategy to reduce maternal and newborn deaths, as access to back-up services in an emergency is very time sensitive. If back-up maternal and newborn care was only available in 2 or 3 hospitals per province (the Provincial Hospital and the Type A District Hospital/s), this would not provide the density of services to allow universal timely access to such care for the rural population.

93. While progress has been made in Laos in building the capacity of Provincial and District Hospitals, particularly in regard to surgery, there is still a long way to go before all District Hospitals could provide effective back-up services for maternal and newborn care. In the Northern provinces there are some District Hospitals that do not have electricity or basic physical amenities, and do not have a doctor on staff[101]. There are considerable difficulties in posting high level staff such as doctors to rural hospitals, particularly those serving mainly ethnic minority communities, an issue that impacts all rural services including maternal and newborn care. More description of contributing factors can be found in the HRD Sub-Sector Analysis to which this Appendix is attached.

94. The Safe Motherhood goal should be to have back-up maternal and newborn services available in all District Hospitals, but clearly this will take some time. When planning hospital upgrades, priority should be given based on the population served and distance to an alternative referral hospital. A functioning operating theatre is an important component of comprehensive back-up services, but other functions are also important. Electricity, refrigeration capacity (for safe storage of oxytocin and other drugs), adequate facilities, equipment and supplies for resuscitation of newborns and management of an eclamptic mother, in addition to staff with the skills to provide such services, are all important.

ii. Providers

95. An ideal back-up service includes care by doctors with specialist training in obstetrics and pediatrics[102]. Alternatively, multi-skilled general doctors or mid-level staff with appropriate

[99] PHCEP. 2004. Health Facilities Survey. MOH/ADB. Vientiane.
[100] PHCEP. *Op cit.* Ref. 21.
[101] PHCEP. *Op cit.* Ref. 21.
[102] WHO. 2005. *Op cit.* Ref 2.

post-basic training can be used, provided they have the knowledge and skills necessary to perform surgery when required, to treat eclampsia, neonatal or maternal sepsis or manage other complex problems in an emergency or non-emergency situation. These doctors need to be supported by sufficient numbers of experienced mid-level staff such as medical assistants or nurses to ensure back-up services are available 24 hours a day, 7 days a week.

96. As discussed above, there are currently insufficient doctors or alternative staff with the necessary skills working in rural hospitals in Laos to provide back-up services at every hospital. It will be necessary to increase the number of doctors posted to District Hospitals to a minimum of 2 per facility, and the obstetric and pediatric skills of these doctors to ensure services are universally accessible. Increasing staff and skills must go hand in hand with upgrading of the facilities, equipment and supplies, for any significant impact to be achieved.

97. As discussed in the Sub-Sector Analysis to which this Appendix is attached[103], posting doctors to rural hospitals is problematic for many reasons. Long term solutions may require identification and training of local high school graduates as medical doctors, with a contract to return to their place of origin to work after graduation. This approach will clearly take time. Improving working conditions and facilities, offering housing, and providing benefits such as access to in-service training may act as incentives for doctors to relocate from rural to urban areas, but this approach is costly and may not be sustainable.

98. Hospitals also need to provide first-level maternal and newborn services for their immediate community, particularly if there is no Health Center nearby with adequate facilities for labor and birth. For this reason, there need to be midwives or nurse-midwives on staff 24 hours a day, 7 days a week. Women receiving first-level care at the Hospital should be cared for by midwives or nurse-midwives, preferably those who provided them with antenatal care, and medical interventions should be kept a minimum unless complications arise. Women receiving first-level services in Hospitals have immediate access to back-up services if needed – a distinct advantage in Laos where referral systems are not well developed and transportation within rural areas is difficult, particularly in the wet season.

99. Regular supportive supervision of staff providing back-up and first-level services in Hospitals would be needed to ensure they are performing to the expected standard. Skilled supervisors would help solve clinical and administrative problems, and provide on the job training. Clinical guidelines and other tools should be provided as a reference for use during the provision of services.

iii. Training

100. Strategies currently used in Laos to train doctors in surgery and obstetrics are appropriate and successful. Short-course post-basic training provided by the major tertiary hospitals has allowed doctors to develop basic skills in surgery, obstetrics and other areas in a relatively short period of time (4 – 6 months), minimizing interruptions to service delivery at the Hospital where they are posted. Post-graduate training is offered by the Faculty of Medical Science (FMS) in Pediatrics, Gynae-Obstetrics, Surgery and Anesthetics, and other areas. This training is over a much longer period and so should involve the rotation of another doctor through the post occupied by the trainee for the duration of their course, to avoid significant disruptions to service delivery at their Hospital. Clinical specialists are available to provide clinical and theoretical training for short-course post-basic training and for the post-graduate courses, and occasional technical assistance is provided by international universities and other partners, contributing to increasing quality.

[103] HRD Sub-Sector Analysis, ADB PPTA, Section D: Staff Distribution.

101. Similarly to all health worker training in Laos, funding post-basic and post-graduate training of doctors is problematic. Training Hospitals charge fees for short-courses, the FMS charges for tuition and other services, and doctors attending from rural areas need living allowances for the duration of their course. Budget to cover these costs is not generally found in Provincial or District budgets. A significant training budget will be required to ensure staff at rural Hospitals have the skills needed to provide back-up maternal and newborn care.

102. In addition to provision of training for doctors, midwives working in hospitals will need training to improve their skills. Hospital midwives should be provided with competency-based short course training to upgrade their skills to the level necessary to ensure quality care is available to mothers and newborns in hospitals.

103. As with first-level services, training strategies need to include ongoing access to in-service training for back-up service providers, whether this is on the job training from skilled staff during supervisory visits, off-site short courses, or through provision of training materials for distance education. There needs to be regular training need assessments, and provision made to meet the needs identified for long term sustainability of Safe Motherhood services.

4. c. Referral mechanisms

104. For a two-tier Safe Motherhood strategy to be effective, there needs to be close linkages between first-level and back-up services. Midwives providing first-level services must have the capacity to transfer mothers to back-up facilities in an emergency. Without this capacity, their confidence in themselves, and the community's confidence in their services, will be eroded, leading to reduced interest in skilled professional attendance at births. In addition, there needs to be good communication between back-up services and first-level services, to ensure that mothers discharged from Hospital will receive appropriate follow-up and care when they return to their community.

105. Any strategy that includes training and posting staff to provide maternal and newborn care at first and back-up levels of service must also strengthen referral mechanisms, whether it is through providing ambulance service or funds to pay for hiring transportation. In addition, communication needs to be improved, through radio-phones or other methods that are suitable for the rural Lao setting. Communication allows midwives at the first-level to get advice when needed from more senior staff, to provide advance warning of an emergency case that is being transferred, and to receive information on patients being discharged from hospital.

4. RECOMMENDED STRATEGIC DIRECTIONS

To strengthen Safe Motherhood services and reduce maternal and newborn deaths, it is recommended:

a. First-level services should be provided by skilled professionals at the Health Center (HC) level, requiring:
   - Posting of sufficient mid-level nurses or PHC Workers (at least 2 per HC)
   - Post-basic midwifery training for at least 2 mid-level nurses or PHC Workers per HC, to include management of normal labor, delivery and postpartum, and recognition, resolution or referral of complications / emergencies
   - Short-course competency based training for midwives currently providing first-level services to upgrade their skills to an appropriate level
   - Discontinuation of strategies to train Traditional Birth Attendants as first-level maternal and newborn care providers
   - Upgrading of HC facilities to ensure a safe and attractive environment for labor, delivery and the immediate postpartum period

- Upgrading of HC equipment and supplies to ensure staff providing first-level services have the tools necessary to provide appropriate care in the HC
- Provision of a home birth kit for all midwifery trained staff so they have the tools to provide appropriate care at home
- Regular supportive supervision of staff providing first-level services by technically skilled supervisors, with an emphasis on assisting staff to solve clinical and administrative problems, and provide in-service training

b. Back-up services should be provided at the District and Provincial Hospital level, requiring:
- Posting of sufficient doctors (at least 2 per DH, more for PH)
- Post-basic training of at least 2 DH doctors in obstetrics, surgery and pediatrics
- Post-graduate training of PH doctors to ensure at least 2 per hospital trained in obstetrics and 2 per hospital trained in pediatrics
- Posting and training of sufficient mid-level staff to support the provision of back-up level services at DH and PH
- Establishment and maintenance of a functional operating room in every DH (with priority given to upgrading facilities in those DH where no other hospital with such facilities is within access of the population)
- Upgrading of facilities, equipment and supplies as necessary to ensure appropriate back-up services can be provided, including management of eclampsia and postpartum hemorrhage, resuscitation of the newborn, care of the sick or premature newborn
- Posting of sufficient midwifery trained mid-level nurses or midwives to provide first-level services for the population
- Provision of post-basic midwifery training for nurses, or short-course competency based training for midwives currently working in the obstetric wards of hospitals
- Provision of equipment and supplies needed to ensure appropriate first-level services
- Upgrading of facilities where necessary to ensure there is a safe and attractive environment for labor, birth and the immediate postpartum period

c. Referral mechanisms should be strengthened to allow appropriate communication and transportation of patients between first and back-up level services.

d. Improvements to first-level services and back-up level services should be planned and implemented simultaneously, for best impact on maternal and newborn mortality and morbidity.

e. Priority for roll out of improved services should be given to those areas where maternal mortality is highest and where access to services is currently lowest.

Training Options for Increasing the Quality of First-level Maternal and Newborn Care

Strategy	Benefits	Risks	Requirements for Success
Reintroduce pre-service Midwife training course (3 year)	• Re-creates a cadre of specialist first-level midwifery providers whose focus will be on the care of women and infants • 3 year training on midwifery skills ensures graduates have the competence to provide the services needed • Students are not already MOH staff, so may be self-funding during training (as for nurse or doctor training)	• The number of births expected in the catchment population of most Health Centers is insufficient to justify the posting of a specialist staff member • New graduates will need to be recruited by the MOH – this is problem given the current quota levels • Slow process as the lead in time for the posting of new staff on the job is 3 years once the course is introduced • Students from ethnic minority backgrounds may not be eligible to enroll due to lack of high school certificate and funds to pay for training • Mid-level training requires input from Ministry of Education into the course, so outcome may not be exactly as MOH expects	• Competency based training course with emphasis on problem solving and ample opportunity for relevant, supervised, structured clinical practice • Trainers with good technical AND teaching skills • Funding for development of course and trainers • Funding for ongoing implementation of the course – funds to support clinical practice off site etc. • Scholarships and bridging courses for students from ethnic minorities to ensure their participation • Recruitment of graduates by the MOH to fill posts in HC in rural and remote areas
Post-basic Midwifery course for mid-level nurses and PHC Workers (1 year)	• Multi-skilled staff are suited to the relatively small number of births expected in the catchment area of most Health Centers • Avoids duplication of basic sci-	• Existing Health Center staff will be absent from their post for 1 year, reducing the availability of health services for that period • I year course may not develop	• Competency based training course with emphasis on problem solving and ample opportunity for relevant, supervised, structured clinical practice • Trainers with good technical AND

	ence and other topics that would occur if pre-service midwifery training was introduced, thus reducing the demands on teaching capacity • Lead time only 1 year, so less delay in improved delivery of services than 3 year pre-service Midwifery training strategy • There are many mid-level nurses and PHC Workers already employed by the MOH, so this approach avoids the need to employ as many new staff	the level of skills needed or the capacity for complex decision making that is central to maternal and newborn care • Costs may be higher than for pre-service Midwifery training strategy, as most students will already be MOH staff and so will require living and transport allowances while studying	teaching skills • Funding for development of course and trainers • Funding for ongoing implementation of the course – living and travel allowances for students who are already MOH staff, funds to support clinical practice off site etc. • Posting of at least 2 mid-level nurses or PHC Workers to each HC to ensure suitable staff are available to participate in training
Short-course skills training for Midwives, Nurses and PHC Workers (eg 2 – 4 months)	• Shorter lead time before staff with better skills available on the job • Reduced time where staff are absent from work while training • More acceptable to staff, particularly women, as does not require them to be away from their family for prolonged period of time	• Short-course training may not develop the level of skills needed or the capacity for the complex decision making that is central to maternal and newborn care • If skills are not improved sufficiently, will not have a significant impact on reducing maternal and newborn mortality, so the investment will not have been cost-effective	• Competency based training course with emphasis on problem solving and ample opportunity for relevant, supervised, structured clinical practice • Trainers with good technical AND teaching skills
Apprentice style training where students work with an experienced midwife in a setting similar to where they will practice in the future, particularly in homes	• One on one teaching in a "real" environment that is similar to where they will practice in the future • Practical training with opportunities	• Slow process as one teacher per student for each training • May not develop sufficient theoretical basis for complex deci-	• Competent and experienced midwives with active midwifery practices who are willing to take on an apprentice • Funding for development of training

	for reflection and discussion with teacher	sion making • Learning limited to those experiences and practices of one midwife – student may not be exposed to full range of normal / abnormal cases	materials / contracts / procedures / log books etc to evaluate student learning • Funding for ongoing implementation of the program – living and travel allowances for students, possibly fees for midwife who is taking on the apprentice
On the job training where a competent midwife spends extended periods of time (eg 2-4 weeks) with a less experienced health worker, teaching them while assisting them with midwifery patients in their usual workplace/s	• One on one teaching • Teaches the health worker how to deal with normal and complicated cases in their own workplace and environment, using their own resources • Practical training with opportunities for reflection and discussion with teacher	• Slow process as one teacher per student for each training • May not develop sufficient theoretical basis for practice • Learning limited to those patients that come during the period that the trainer midwife is present – unlikely to be exposed to full range of normal / abnormal cases	• Competent and experienced midwives who are willing to travel around the country for extended periods of time • Funding for development of training materials etc • Funding for ongoing implementation of the program – living and travel allowances for the midwifes who are providing the training

NOTE: Whichever training option/s are chosen, there is a need to include home births in the course or program. This will

- Prepare health professional with skills needed to provide services in the current location of most rural births – immediately implementable
- Likely to reduce maternal and newborn mortality and morbidity by increasing the relevant skills of professionals attending births at home
- May increase proportion of births attended by skilled professionals as professionals will be more confident re home birth and will more willingly attend

Recommendations on training options for first-level services:

- Post-basic midwifery training for mid-level nurses or PHC Workers posted to Health Centers
- Competency based short-course training for midwives currently providing maternal and newborn care
- Continued scholarships and bridging courses for students from ethnic minorities to allow them to participate in PHC Worker training (and Technical Nurse training)
- International training for a core group of Lao midwives to become the leaders in developing and implementing the course
- Ongoing financial support for training to ensure extensive supervised clinical practice can be undertaken by students, including in District Hospitals, Health Centers and homes.

APPENDIX 24: Staff Gaps in Provincial and Regional Hospitals: A format for macro-analysis using Northern Provinces

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Introduction

106. The purpose of this paper is to provide a model for macro-analysis of provincial and regional hospitals, and to highlight issues that need further discussion within the MOH. The most significant of these issues is that current staffing standards are not sufficiently specific to allow calculation of staffing needs for all categories of staff, or for all areas of service. Staffing standards need to be developed based on analysis of the specific role and function of the hospitals. Comparisons with staffing of provincial hospitals in other countries are not useful, except perhaps for ratios between different major staff categories (such as doctors and nurses), Each country has its' own unique definition of a provincial hospital in terms of population served, services to be provided, and classifications and job descriptions of staff employed to provide these services.

Provincial and Regional Hospitals

107. Provincial Hospitals are located in the provincial capital in every province in Laos, and are responsible for providing secondary level hospital services to the people within that province, including referrals from District Hospitals. Provincial Hospitals are expected to provide services in 12 areas: internal medicine and traditional medicine; surgery; anesthesia and intensive care unit; obstetrics and gynecology; pediatrics; ear, nose and throat; ophthalmology; dentistry; laboratory; imaging and xray; pharmacy; rehabilitation.

108. Regional Hospitals are those provincial hospitals that have been designated to provide a higher level of hospital services, between that of provincial hospitals and the tertiary referral hospitals in Vientiane. These hospitals are usually located at a transportation cross-road between provinces. Regional Hospitals are expected to be technically sophisticated, providing additional specialty services not available at standard Provincial Hospitals, and to accept referrals from Provincial Hospitals. The MOH plans to give Regional Hospitals a major role in training, as a practical training center for family medicine residency training, and other advanced level training that has previously only been offered in Vientiane.

109. Within the 8 Northern provinces, Luang Prabang and Oudomxay have designated Regional Hospitals, while the other 6 provinces have Provincial Hospitals. There is, however, considerable variation in the current capacity and caseload of the different Provincial Hospitals, and between the two Regional Hospitals. In 2004, the average number of outpatients varied from 22 per day in Phongsaly, to 127 per day in Luang Prabang, and the average number of inpatient admissions varied from 1758 per year in Luangnamtha, to 8421 in Luangprabang. While both Luangprabang and Oudomxay are designated Regional Hospitals, Oudomxay had the second lowest number of outpatient visits of all 8 provinces, and fewer inpatient admissions than Xiengkhuang and Bokeo, both of which are designated Provincial Hospitals[104].

Strengths and Weaknesses of Macro-analysis

110. Macro-analysis is valuable because it provides an overall view of the staff available within the country, or in this paper the Northern region. It can help the MOH to identify overall deficiencies or surpluses, plan for training intakes, and explore the implications of different staffing standard scenarios. It does not allow for workforce planning at the facility level, as workforce distribution between facilities is not considered. In macro-analysis, the surplus in some facilities contributes numerically to re-

[104] PHCEP. 2004. Health Facility Survey.

ducing the deficit in other facilities. For example, if staffing standards require 1 surgeon in each provincial hospital, and the number of surgeons working at provincial hospitals nationally is currently 20, macro-analysis would assume there are sufficient surgeons at provincial hospitals. In reality, however, there may be 5 surgeons in one provincial hospital and none in 4 others. Staff are unlikely to be transferred from one province to another, so in disaggregated analysis, the need in deficit provinces is not offset by a surplus elsewhere. Therefore, when staff gaps are disaggregated by province, district or facility, the total number of staff required generally increases.

111. A major weakness of the macro-analysis undertaken for the purpose of this paper is the quality of data used. The MOH Statistics of Health Staff in Lao PDR does not provide sufficient detail of staffing to allow analysis by service area. Instead, this paper was based on the results of a staffing survey which was faxed to all Provincial Hospitals in the North during May 2006. Information received was reviewed, and provinces were asked to clarify any obvious gaps in information. There is potential, however, for errors within the data returned, due to misunderstandings between the Provincial Hospital staff completing the forms and the consultants who developed them. In effect, the forms were pilot tested in the North, and will be further refined for use in the other provinces if the MOH decides this is required.

Macro-analysis of Staff Gaps at PH and RH in Northern provinces

112. In the health sector context, the purpose of staff is to manage or deliver health services. It is essential, therefore, that any analysis of staffing requirements is based on clear identification of the services to be provided. The workforce planning process has 5 major steps:

- clarification of the role and function of the unit,
- identification of the major areas of work necessary to achieve the function,
- analysis of the tasks or activities to be undertaken in each area of work,
- identification of the personnel categories and skills required for these tasks or activities
- based on the expected workload in each area of work, identification of the number of personnel required in each category

113. In Ministerial Guideline No. 1351 the MOH clarified the function of Provincial and Regional Hospitals, and identified their major areas of work. The next three steps in the process have not yet been well addressed. This makes the identification of staff requirements problematic.

114. The assumptions and staffing standards used in this paper to calculate the staffing gaps are set out in the Annexes. These were based on MOH instructions regarding the role of Province and Regional Hospitals[105], thoughtful consideration of staffing needed for these areas of service, and for management of the hospitals, and calculation of minimum staff required to provide services 24 hours per day, 7 days per week. There was no formal discussion with the Curative Department – although the consultant team made numerous attempts to secure an appointment, it was not possible within the time available. The consultants are not experts in hospital management or in the provision of curative services. The analysis is therefore presented simply as a model of the approach that could be taken to identify gaps in provincial hospitals, and as the basis for discussion within the MOH. Table 1 sets out the estimated staff gaps based on the staffing standards used.

[105] MOH. 2004. Ministerial Guideline No. 1351, concerning provincial and regional hospitals

Table 1: Provincial and Regional Hospital Staffing Gaps in Northern Hospitals

Staff Category		Staff Gap and Area of Service														
Qualification	**Extra Qualification / Training**	**Int. Med**	**Surgery**	**Anesthet**	**Ob-Gyn**	**Pediatric**	**ENT**	**Opthal**	**Dentist**	**Lab**	**Xray**	**Pharmacy**	**Rehab**	**Emer / ICU**	**Mgmt**	**Total Gap**
Doctor	Specialist	9	3	6	8	8	1	-1	0	0	8	0	0	4	0	46
Doctor	Masters	-1	-3	0	0	0	0	0	0	0	-1	0	0	0	5	0
Doctor	Diploma	0	0	0	-1	0	-1	0	0	0	-2	0	0	0	0	-4
Doctor	Extra training	0	0	6	1	1	7	6	0	0	2	0	2	13	7	45
Doctor		-1	5	0	6	6	-1	0	0	0	-2	-2	-1	-9	-10	-9
All Doctors		7	5	12	14	15	6	5	0	0	5	-2	1	8	2	**78**
Medical Assistant	Extra training	-4	-1	-2	-7	-9	5	3	-2	-3	6	0	-1	13	7	5
Medical Assistant		-27	-8	-1	-20	-8	-3	-1	-1	-3	-2	-10	-7	-15	-14	-120
All Medical Assistants		-31	-9	-3	-27	-17	2	2	-3	-6	4	-10	-8	-2	-7	**-115**
Bachelor Nurse	Diploma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bachelor Nurse	Extra training	0	-1	-1	0	0	0	-1	-1	0	0	0	0	0	8	4
Bachelor Nurse		8	10	0	10	10	0	0	-1	0	-2	0	0	10	0	45
Mid-Level Nurse	Extra training	-2	-1	4	-6	0	10	6	0	0	-1	0	0	42	-3	49
Mid-Level Nurse		51	47	-3	42	50	0	0	0	0	-1	-1	-3	46	-4	224
All high/mid Nurses		57	55	0	46	60	10	5	-2	0	-4	-1	-3	98	1	**322**
Auxiliary Nurse		-3	14	-2	22	28	-2	7	9	8	-3	6	0	-23	-11	50
All nurses		54	69	-2	68	88	8	12	7	8	-7	5	-3	75	-10	**372**
Pharmacist		0	0	0	0	0	0	0	0	0	0	-5	0	0	0	-5
Pharmacy mid-level		0	0	0	0	0	0	0	0	0	0	15	0	0	0	15
Dentist		0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Dentist - mid-level		0	0	0	0	0	0	0	11	0	0	0	0	0	0	11
Bachelor Laboratory		0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
Laboratory - mid-level	Extra training	0	0	0	0	0	0	0	0	-9	0	0	0	0	0	-9
Laboratory - mid-level		0	0	0	0	0	0	0	0	19	0	0	0	0	0	19
Hygienist		0	-1	0	0	0	0	0	0	0	0	0	0	-2	-1	-4

Physiotherapist		0	-1	0	0	0	0	0	0	0	0	0	13	0	-1	11
Prosthesist		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Radiographer Tec		0	0	0	0	0	0	0	0	0	26	0	0	0	0	26
Non-health profession	Masters	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-health profession	Bachelor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-health profession	Diploma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-health profession		0	0	0	0	0	0	0	0	0	-2	0	0	0	10	8
1st level health worker		-11	-11	-3	-9	-14	-2	-8	0	-4	-3	-8	0	-11	-15	-99
TOTAL		19	54	4	46	72	14	11	16	16	23	-5	3	68	-22	**319**

NOTE: All negative numbers represent a surplus of staff compared to standards used. Care should be taken in interpreting totals for each area of service, as surplus staff in one category may be replacing gaps in other categories which are not functionally comparable.

Discussion of Staffing Gaps Identified

115. The gaps identified in Table 1 are based on the staffing standards attached in Annex 1 and 2. These are not official MOH standards, and need to be reviewed and revised by the relevant MOH Departments and representatives of provincial and regional hospitals.

116. Care should be taken when interpreting the total staff gaps, as surpluses in one category cannot replace deficits in other categories of staff. The summary rows – all doctors, all mid and high-level nurses and all nurses – can be used to identify the potential to fill gaps in skill areas by training staff already employed in provincial and regional hospitals. This strategy reduces the requirement for recruitment of new staff, which is an advantage in the current climate of limited civil service growth. As previously stated, macro-analysis does not provide detail of the staffing at the facility level. Annexes attached in Excel format provide a breakdown of staffing analysis by facility in the Northern provinces.

117. There needs to be clarification of the relative scope of work of the different categories of health workers. JICA is supporting the MOH in this area for the nursing categories, but it is also needed for other categories, and needs to be carefully coordinated to reduce overlaps or duplications. Without information on scope of work, it is difficult to identify the category of staff required for the different tasks and activities in each service area. The need for this is highlighted by the apparent surplus of Medical Assistants identified in Table 1. The surplus arises because the standards used were developed with a focus on requirements for Doctors and for mid and high level Nurses. In many provincial hospitals Medical Assistants are currently performing functions than in the future may be assigned to Doctors or mid or high level Nurses. It may be the intention of the MOH to continue to use Medical Assistants in this way, although if this is the case, the training of Medical Assistants will need to be recommenced, and the role of Medical Assistants compared to those of Doctors and Nurses will need to be considered.

118. Another area for discussion is the role of auxiliary nurses in the future in provincial and regional hospitals. Some hospital managers have suggested phasing out low level staff completely from provincial hospitals as a strategy to improve the quality of services. It is important that such a decision is carefully thought through, as it carries significant risks, particular in terms of cost effectiveness of the workforce. There are many tasks in hospitals that require some training and technical skill but do not necessarily need the advanced level of training and skill that a mid-level nurse or technician has. Such tasks may include: preparing and sterilizing instrument packs for operations; restocking pharmacy stores; cleaning dental instruments and assisting the dental technician during procedures; cleaning hospital equipment and linens that are contaminated with bodily fluids; assisting family members in lifting, washing and feeding patients with limited capacity. In many countries such tasks are performed by nursing aides or orderlies or assistants who have received a short training course covering basic infection control and hospital hygiene, care of the sick patient and other procedures. They may also be trained on the job. These aides work under the responsibility and supervision of a registered nurse or more senior health professional. If there is no 1st level staff to perform these tasks, they will have to be performed by more highly qualified staff, which is a waste of the time and resources spent in training and employing such staff.

119. Provincial, regional and tertiary hospitals are actually ideal settings for low-level staff to be posted, as the large number of staff on duty at any time means there is ample opportunity for supervision and support, including immediate referral of problems to more highly qualified staff. Any reduction of the number of low-level staff in provincial hospitals would require transferring such staff to other facilities, or waiting for natural attrition and replacing staff who retire or resign with mid or high-level staff. If low-level staff were transferred to District Hospitals or Health Centers, they would be working in an environment where they would have less access to more highly qualified staff for supervision and support. This would in-

crease the risk of low-level staff being required to make decisions and take responsibility for management of cases that are beyond their level of expertise. Utilization of low-level staff within the health workforce does not necessarily lead to reduced quality of care, provided the job description and posts of low-level staff realistically reflect their level of competence.

120. It is essential that the staff mix for each health facility is based on the services to be provided in that facility. Each category of staff should have a specific role and function that is appropriate to their level of training. The roles of the different categories of staff should be complimentary, and all should contribute to the achievement of the mission of the facility. In any country, but particularly in a financially constrained environment such as Laos, quality considerations should be viewed alongside cost-effectiveness. As in all business models, the question should be asked “who can provide this service at the required standard of quality and at the minimum cost”.

121. The largest gap in staffing in this early analysis appears to be for mid and high-level nurses. Fortunately there are ample graduates expected from the new mid-level Technical Nurse training course to meet the needs of the MOH in this area, and Bachelor Nurses are being trained at the College of Health Technology. The challenge will be to balance recruitment within the MOH annual quota to support the achievement of the MOH guidelines of staff mix of 3 – 5 nurses per doctor.

Annex 24.1: Staffing Standards for Provincial Hospitals (Draft for Discussion)

These staffing standards used are based on:

- Currently available MOH standards for health workers in provincial hospitals (per MOH Decree #1351, 6th October 2004)
- Thoughtful assumptions regarding other service areas and categories of staff
- Calculation of minimum staff required for service coverage 24 hours / day, 7 days / week (roughly 3 staff per 1 service)

No standards are set for 1st level staff, except auxiliary nurses, who are included based on the calculation of the ratio of nurses to doctors.

No standards are set for support staff such as drivers, cleaners or laundry staff.

This results in minimum requirements of:

1. Internal Medicine, Surgery, Ob-gyn, Pediatrics
   - 1 doctor with specialist qualification in the relevant area
   - 1 doctor with tertiary hospital training in the relevant area
   - 1 doctor with no additional training
   - 1 bachelor nurse for head nurse
   - 5 mid-level nurses
   - 5 auxiliary nurses
   - (a ratio of around 4 nurses : 1 doctor)

2. Anesthetics
   - 1 doctor with specialist qualification in the relevant area
   - 1 doctor with tertiary hospital training in the relevant area
   - 1 medical assistant with tertiary hospital training in the relevant area
   - 1 mid-level nurse with tertiary hospital training in the relevant area

3. ENT
   - 1 doctor with tertiary hospital training in the relevant area
   - 1 medical assistant with tertiary hospital training in the relevant area
   - 1 mid-level nurse with tertiary hospital training in the relevant area

4. Ophthalmology
   - 1 doctor with tertiary hospital training in the relevant area
   - 1 medical assistant with tertiary hospital training in the relevant area
   - 1 mid-level nurse with tertiary hospital training in the relevant area
   - 1 auxiliary nurse for vision screening

5. Dentistry
   - 1 dentist
   - 2 mid-level dental technician
   - 1 auxiliary nurse (or 1st level health worker)

6. Laboratory
   - 1 bachelor laboratory
   - 4 mid-level laboratory technicians
   - 1 auxiliary nurse (or 1st level health worker)

7. Xray / Imaging
   - 1 doctor with specialist qualification in the relevant area
   - 1 medical assistant with tertiary hospital training in the relevant area
   - 3 radiography technicians

8. Pharmacy
   - 1 pharmacist
   - 3 mid-level pharmacy technicians
   - 2 auxiliary nurses (or 1st level health worker)

9. Rehabilitation
   - 4 physiotherapists

10. Emergency Room / ICU
   - 2 doctors with tertiary hospital training in the relevant area
   - 2 medical assistants with tertiary hospital training in the relevant area
   - 1 bachelor nurse
   - 4 mid-level nurses with tertiary hospital training in the relevant area
   - 6 mid-level nurses

11. Hospital Management
   - 1 doctor with Masters degree in relevant area
   - 1 doctor with extra training in management
   - 1 medical assistant with extra training in management
   - 1 bachelor nurse (as chief nurse)
   - 1 finance officer or accountant (non-health professional)
   - 1 statistician (non-health professional)
   - 2 administrative assistant (non-health professional)
   - 2 equipment maintenance person (equip repair, electrical repair etc)

TOTAL of 117 staff required, plus support staff

Annex 24.2: Staffing Standards for Regional Hospitals (Draft for Discussion)

These staffing standards used are based on:

- Assumptions regarding the role of Regional Hospitals as referral centers for other Provincial Hospitals, site for family medicine residency training and other proposed advanced level training
- Currently available MOH standards for health workers in provincial hospitals (per MOH Decree #1351, 6th October 2004)
- Assumptions regarding other service areas and categories of staff
- Calculation of minimum staff required for service coverage 24 hours / day, 7 days / week (roughly 3 staff per 1 service)

No standards are set for 1st level staff, except auxiliary nurses, who are included based on the calculation of the ratio of nurses to doctors.

No standards are set for support staff such as drivers, cleaners or laundry staff, or non-professional administrative staff.

This results in minimum requirements of:

1. Internal Medicine, Surgery, Ob-gyn, Pediatrics
    - 2 doctors with specialist qualification in the relevant area
    - 2 doctor with tertiary hospital training in the relevant area
    - 2 doctors with no additional training
    - 2 bachelor nurse for head nurse
    - 12 mid-level nurses
    - 12 auxiliary nurses
    - (a ratio of 4 nurses : 1 doctor)

2. Anesthetics
    - 2 doctors with specialist qualification in the relevant area
    - 2 doctors with tertiary hospital training in the relevant area
    - 2 medical assistants with tertiary hospital training in the relevant area

3. ENT
    - 1 doctor with specialist qualification in the relevant area
    - 1 doctor with tertiary hospital training in the relevant area
    - 1 medical assistant with tertiary hospital training in the relevant area
    - 2 mid-level nurses with tertiary hospital training in the relevant area

4. Ophthalmology
    - 1 doctor with specialist qualification in the relevant area
    - 1 doctor with tertiary hospital training in the relevant area
    - 1 medical assistant with tertiary hospital training in the relevant area
    - 1 mid-level nurse with tertiary hospital training in the relevant area
    - 1 auxiliary nurse for vision screening

5. Dentistry
    - 2 dentists
    - 4 mid-level dental technicians
    - 2 auxiliary nurses (or 1st level health workers)

6. Laboratory
    - 2 bachelor laboratory

- 6 mid-level laboratory technicians
- 2 auxiliary nurses (or 1st level health workers)

7. Xray / Imaging
   - 1 doctor with specialist qualification in the relevant area
   - 2 doctors with tertiary hospital training in the relevant area
   - 1 medical assistant with tertiary hospital training in the relevant area
   - 4 radiography technicians

8. Pharmacy
   - 2 pharmacists
   - 6 mid-level pharmacy technicians
   - 2 auxiliary nurses (or 1st level health workers)

9. Rehabilitation
   - 1 doctor
   - 6 physiotherapists

10. Emergency Room / ICU
    - 2 doctors with specialist qualification in the relevant area
    - 2 doctors with tertiary hospital training in the relevant area
    - 1 doctor with no additional training
    - 1 medical assistant with tertiary hospital training in the relevant area
    - 2 bachelor nurse
    - 10 mid-level nurses with tertiary hospital training in the relevant area
    - 6 mid-level nurses
    - (a ratio of 3 nurses : 1 doctor or medical assistant)

11. Hospital Management
    - 1 doctor with Masters degree in relevant area
    - 2 doctors with extra training in management
    - 1 medical assistant with extra training in management
    - 1 bachelor nurse (as chief nurse)
    - 2 finance officers or accountants (non-health professional)
    - 2 statisticians (non-health professional)
    - 2 administrative assistants (non-health professional)
    - 4 technical maintenance staff (equipment repair, electrical etc)

TOTAL of 226 staff per Regional Hospital, plus support staff

APPENDIX 25: Medium Term Expenditure Framework (MTEF) Analysis

I. Background (*Provincial Budget Analysis)*

122. Improvements in quality and utilization of health services by vulnerable groups, including women and children, the very poor and ethnic minorities are restricted by lack of funds at all levels of the health system. The expansion of service delivery and improvement in effectiveness is especially hampered by the lack of financial resources at the district and health center level for management and supervision, including local travel, supplies, repair and maintenance of facilities and other critical costs. The lack of recurrent cost budget is preventing the provincial and district health officials from implementing programs and delivering services as well as improving quality. Moreover, existing cost recovery policies have adversely affected access by the poor to health services, as exemptions at referral hospitals are not uniformly adopted. The resources generated from these funds are used to augment shortages in recurrent funds at health services at local levels.

123. Overall, about 40% of the government budget is allocated to the central level, with the remaining allotted to provinces. The eight Northern project provinces account for about 34% of total state resource envelope, representing over half of provincial allocations. From 2001 to 2005, the government average annual allocations to MOH, province and the project provinces have increased 2.5 times, 2.0 and 1.5, respectively. By expenditure type, 30.3% of the state budget goes to new capital and investment (93% foreign capital and 7% local capital). As a consequence, little resources are available for operating and maintenance costs, which makes existing facilities rapidly deteriorate and hinders the delivery of public services. Public resources are concentrated in better-off urban areas, while populations in remote areas receive a low proportion of available resources. That is so in spite of the fact that health resources are in fact better distributed than overall government expenditure.

Table 1: Health Sector Budget 2002-2006
(in million kip)

	2002	2003	2004	2005	2006	Average	% of Total
Category of Expenditure	**Million kip**	**Million kip**	**Million kip**	**Million kip**	**Million kip**	**Million kip**	**(Average)**
Overall Sate Budget	179 939,00	254 626,00	180 409,00	322 879,00	303 143,00	248 199	100%
Central level (MOH)	65 026,00	81 527,00	65 577,00	167 706,00	110 174,00	98 002	39%
Provincial level	114 913,00	173 099,00	114 832,00	155 172,00	192 969,00	150 197	61%
8 Project Provinces	57 127,00	110 808,00	56 139,00	83 123,00	117 827,00	85 005	34%
Pongsaly	1 817,00	4 424,00	4 007,00	5 751,00	33 567,00	9 913	4%
Luangnamtha	1 999,00	7 855,00	6 786,00	11 592,00	13 041,00	8 255	3%
Oudomxay	10 600,00	14 437,00	11 002,00	16 750,00	4 593,00	11 476	5%
Bokeo	5 484,00	5 275,00	5 177,00	13 080,00	9 086,00	7 620	3%
Luangprabang	20 190,00	58 228,00	8 328,00	7 659,00	11 634,00	21 208	9%
Huaphan	5 232,00	7 829,00	7 449,00	15 144,00	18 297,00	10 790	4%
Xaignabouri	7 734,00	9 025,00	8 786,00	6 036,00	17 185,00	9 753	4%
Xieng Khouang	4 070,00	3 735,00	4 602,00	7 112,00	10 423,00	5 988	2%

124. Sector funding relies heavily on foreign sources (65%f the public resources). While foreign funding has increased, cost recovery revenues have expanded, and have largely substituted for the decreasing government expenditure. In many facilities, Government budget represents only a relatively small portion of the resources consumed. A larger part comes from drug sales, user fees for services and amenities provided, and in some cases donor funds. MOH and provinces have prioritized the allocation of resources from their own budget to capital costs, without allocating the necessary recurrent costs for the maintenance of existing facilities, supervision, and medical supplies. There has been a reliance on foreign funds through project and grants for program delivery. Expanding facilities has been the ma-

jor focus during the last decade, hence the increased capital expenditure. Moreover, donor funding has been classified as investment costs, which include software investments in systems development, training and other recurrent items.

Table 2: Health Budget by Expenditure Type and Source

	2001		2002		2003		2004		2005		2006	
	Billion Kip	%	Billion Kip	%	Billion Kip	%	Billion Kip	%	Billion Kip	%	Billion Kip	%
Overall State Budget	3,531	100.0	3,599	100.0	4,410	100.0	4,172	100.0	5,825	100.0	7,390	100.0
Recurrent budget	1,460	41.0	1,672	46.0	1,884	43.0	2,416	58.0	3,223	58.0	3,741	58.0
Capital Budget	2,072	59.0	1,926	54.0	2,526	57.0	1,756	42.0	2,602	42.0	3,649	42.0
State budget on health	131	3.7	180	0.01	255	0.0	180	0.0	323	0.0	303	0.0
Foreign Assistance	66	50.0	90	50.0	179	70.3	105	58.2	233	72.2	197	65.0
Health Budget (% GDP)	131	0.86	180	1.02	255	1.18	180	0.70	323	1.11	303	0.91

125. *Provincial Health Expenditure*. Per capita government health spending varies considerably among provinces. On average, capital expenditures account for a large share of provincial health expenditure (70% over FYs 2001-04), except Xaignabouri, which spent 91% of total health expenditure for recurrent costs. Capital spending has increased sharply over the past few years due to substantial increases in external donor funding. Similar to aggregate health spending, omission of provincial spending financed by user fees and external donors in the accounts actually distorts the capital-recurrent classification of provincial health spending. Provincial and district hospitals currently cover more than 50% of their operation costs from user fees. If these are added, capital cost could account for 50% of provincial spending on health.

Table 3: Provincial Health Expenditure, 2001-2004

Province	% of total province expenditure		Share of total province's health expenditure				Share of salaries in total recurrent expenditure	Per capita government health spending (excluding donor financing) US$
			Expenditure Type		Funding Source			
	Total	Excluding donors'	Capital	Recurrent	Local	Donor		
Vientiane City	2.4	2.1	13.4	86.6	93.0	7.0	71.6	7.9
Phongsaly	5.1	2.1	58.0	42.0	46.2	53.8	88.8	9.5
Luangnamtha	9.0	2.9	73.1	26.9	30.9	69.1	67.5	13.8
Oudomxay	11.9	3.0	80.5	19.5	23.6	76.4	79.1	12.6
Bokeo	9.8	3.2	72.0	28.0	36.7	63.3	79.8	15.8
Luangphabang	26.1	3.2	87.5	12.5	16.9	83.1	82.1	12.4
Hua Phan	6.5	2.8	65.8	34.2	43.5	56.5	70.3	11.2
Sayauly	7.9	2.9	69.8	30.2	37.1	62.9	67.9	10.0
Xiengkhoang	5.6	4.0	49.0	51.0	65.5	34.5	81.9	12.6
Vientian Pro	5.4	3.6	36.8	63.2	76.5	23.5	69.3	11.3
Bolikhamxay	4.8	3.7	37.6	62.4	80.6	19.4	75.1	12.9
Khamouan	2.5	2.0	36.1	63.9	74.4	25.6	72.2	12.9
Savanakhet	7.9	3.8	59.1	40.9	57.0	43.0	78.8	9.2
Saravane	10.5	6.7	67.7	32.3	59.8	40.2	81.6	16.7
Sekong	7.3	5.0	35.6	64.4	74.4	25.6	74.4	28.6
Champasak	7.1	3.7	65.2	34.8	48.3	51.7	64.6	14.9
Attapeu	3.4	2.5	68.2	31.8	43.4	56.6	71.5	11.5
Xaignabouri	2.4	2.4	8.8	91.2	100.0	0.0	66.1	12.1
Total	7.8	3.2	69.7	30.3	21.8	78.2	68.5	11.9
			1040.5	759.5	936.6	863.4		
AVERAGE			61.2	44.6	55.1	45.9		

Source: Knowles, 2006

126. Based on the Health Expenditure Plan 2006-2010, projected sector program expenditures for the MOH's six programs are expected to reach $322 million, with donor funding (ob-

ligated and planned) representing 54.5% of total requirements. The projected funding gap of $22.1 million is estimated for the 5-year period.

Table 4: Health Expenditure Plan 2006-2010 ($, million)

Program	Total	Govt	Community	Donor Obligated	Donor Planning	Donor Gap
Hygiene-Prevention	142.2	20.2	4.5	43.7	57.3	16.5
Curative	91.5	14.2	27.5	28.5	12.7	8.6
Food and Drug	11.7	1.1	0.2	1.5	0.4	8.5
Human Resources	49.9	5.1	0	17.6	3.5	23.7
Research	2.2	0.1	0	1.9	0	0.2
Plan/Budget/Admin	25.3	2.4	0	5.8	3.4	13.7
Total	**322.8**	**43.1**	**32.2**	**99**	**77.3**	**71.2**
% to Total	**100**	**13.3**	**9.9**	**30.7**	**24**	**22.1**
Average/prov	**17.9**	**2.3**	**1.8**	**5.5**	**4.2**	**3.9**

127. Program funding for results-based provincial health development plans will be provided to one or two provinces during the first phase of HSDP to support provincial health system development policies that are tied to performance indicators. The two provinces will be provided with supplementary funding for improving PHC on the basis of comprehensive annual plans showing all sources and uses of funds. The program will aim to improve PHC coverage and quality of care through pro-poor equity funds, quality improvements, staff performance (incentive), and performance-based management. The total cost of a provincial results based PHC program using the indicators for the period 2006-2010 has been estimated based on the funding required to meet GOL targets in one province. The estimated funding availability for the same period (2006-2010) from the GOL, donors, and from the community (as user fees for drugs and services) for a results-based PHC program in one province has then been estimated. This estimate should include funding that has been committed or planned for the period 2006-2010. The projected annual requirements that needs to be provided by HSDP over the period 2007-2010 (FY 2007/08, 2008/09, 2009/10), to enable one province achieve program targets are summarized in Table 5 below.

Table 5: Projected Health Expenditures – One Province (2006-2010) ($'000)

	2006	2007	2008	2009	2010
PHC Requirements ($5,200, cf. HC-Appendix below) a/	.096	.098	.101	.104	.107
Provincial Budgets b/	16.0	18.3	20.1	22.1	24.3
Total Provincial Requirements c/	16.1	18.4	20.2	22.1	24.5
Provincial Funds (average) d/	9.3	11.2	13.3	16.1	17.7
Funding Gap e/	**7.0**	**7.2**	**6.9**	**6.0**	**6.8**

Note: a/PHC requirements are based on primary health care estimates for each health center serving a population of 62,000. Population growth rate is assumed at 2.7% annually.
b/ Provincial budgets are estimated based on funding of local budgets (55%) and donor funding (45%) for a province was around $14.6 million. Table 4; for 2005 total health spending ranged from $8 million to $15 million.
c/ a+b
d/ Provincial Funding gaps are estimated at a-c.
e/ Funding gaps are estimated at c-d.

HC-Appendix:

Estimated Cost for Primary Health Care

Demographic and Epidemiology Data	PHC Services	Number of Visits	Quantity	Unit Cost ($)	Total Cost ($)	Donor Funding
Under one 2.5% 150 infants	Immunization 5 visits 7 antigens	150 first visits	150 EPI Packages			
			150	40	6,000	GAVI
	-Vitamin A at 7 months 200.000 IU		150	0.02	3	UNICEF
	-Growth Monitoring and Promotion GMP monthly -Exclusive breastfdg - 6 mos -Comple. feeding (7-11 mos)					
	Handout on EPI, BF, CF		150	0.2	30	HSDP
Under two 150 under one + under two (12 months - 23 months)	-GMP Vitamin A 200.000 IU q 6 mos 2x a year =300		300	0.02	6	UNICEF
	-Deworming q 6 months		300	0.05	15	
	-GMP monthly Complementary feeding handouts		150	1.2	180	HSDP
Under five 12.5% 450 infants	-Vitamin A q 6 months		900	0.02	18	UNICEF
	-Deworming q 6 months		900 deworming Mebendazole 500 mg	0.05	45	HSDP
	-GMP q 6 months					
Pregnant Women 3.0%	-Ante Natal Care	180 first visits	180			
	4 ANC visits	540 ANC visits	540			
	Tetanus Toxoid 2x	TT Doses	360	0.075	27	GAVI
	Iron Folate 180 tablets		32,400	0.002	64.8	HSDP
	Mother and Baby Book		180	1.2	216	HSDP
	Birth Plan		180	0.2	36	
70% effective demand for Family Planning and Birth Spacing	-Family planning services	70 first visits of women/couples		0.3	115.2	
		Number of pill cycles	384			
			IUDs 28	0.77	21.56	UNFPA
			Injectables 80	0.8	64	
			Contraceptives 700	0.03	21	
			Follow up visits of 3 per year – 210 addtl visits			
100% coverage of treated bed nets for prevention of malaria	-Treated bed nets at 3 per household		300 treated bed nets distributed	3.5	1,050	Global Fund
19% access to sanitary latrines in rural areas	Target of 100% access to sanitary latrines		81 sanitary systems built	25	2,025	SIDA
37.6% access to safe drinking water in rural areas	Target of 100% access to safe drinking water		62 additional households w access to safe drinking water (water pumps, gravity spring wells etc)	350	21,700	SIDA
Tuberculosis 1/1000	-8 months multi drug therapy	6 first visits	6	3.6	21.6	Global Fund
	-sputum smear maximum of three per TB suspect	7 more visits once a month for 7 months			0	
			42	0.6	25.2	
Malaria 3% with positive smear	Co-artem as drug of choice	180 first visits	4320	0.15	648	Global Fund
	Malarial Smear		180	0.55	99	
ARI 1% of children under 5 every 2 wks – 8 cases q 2 wks	Co-trimoxazole suspension	208 visits for ARI per year	416	0.35	145.6	HSDP
Diarrhea 6% of children under five every 2 weeks – 45 cases	Oresol	1,170 visits for diarrhea	5850	0.1	585	HSDP
Acute illnesses 2.5% 150 cases every 2 weeks	Symptomatic treatment	3,900 visits for any acute illness	3900	1	3,900	HSDP
Grant Total					**37,061.96**	
Total for HSDP/Health Center						**5,217.4**