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Report No: 82318-VN

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF
SDR68.60 MILLION
(US$106.0 MILLION EQUIVALENT)

TO THE

SOCIALIST REPUBLIC OF VIETNAM
FOR A

HEALTH PROFESSIONALS EDUCATION AND TRAINING FOR HEALTH SYSTEM REFORMS PROJECT

April 7, 2014

Health, Nutrition and Population Unit
Human Development Sector Department
East Asia and Pacific Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective February 28, 2014)

Currency Unit	=	Vietnam Dong (VND)
21,134 VND	=	US$1
US$ 1	=	SDR 0.65
SDR 1	=	US$ 1.55

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

ASTT	Administration of Science, Technology and Training	IFR	Interim Financial Reporting
CHS	Commune Health Stations	JAHR	Joint Annual Health Review
CK1	Specialist training for medical doctors	MOET	Ministry of Education and Training
CPMU	Central Project Management Unit	MOH	Ministry of Health
DA	Designated Account	MOU	Memorandum of Understanding
DALY	Disability Adjusted Life Years	NCDs	Non-communicable Diseases
DOM	Department of Organization and Management	OOP	Out-of-pocket
DPF	Department of Planning and Finance	ORAF	Operational Risk Assessment Framework
EMDP	Ethnic Minority Development Plan	PDO	Project Development Objective
ESMF	Environmental and Social Management Framework	PHC	Primary Health Care
EU	European Union	PIU	Project Implementation Unit
FM	Financial Management	POM	Project Operational Manual
HCMC	Ho Chi Minh City	PCRA	Procurement Capacity and Risk Assessment
HPET	Health Professionals Education and Training	PRA	Peer Review Assessment
HRH	Human Resources for Health	QA	Quality Assurance
HSPH	Hanoi School of Public Health	SHI	Social Health Insurance

Regional Vice President:	Axel Van Trotsenburg
Country Director:	Victoria Kwakwa
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Sector Manager:	Toomas Palu
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VIETNAM

Health Professionals Education and Training for Health System Reforms Project

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MAP IBRD 40517

PAD DATA SHEET

Vietnam

Health Professionals Education and Training for Health System Reforms (P131825)

PROJECT APPRAISAL DOCUMENT

EAST ASIA AND PACIFIC

EASHH

Report No.: PAD312

Basic Information			
Project ID P131825	EA Category B - Partial Assessment		Team Leader Eva Jarawan
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [ ] Financial Intermediaries [ ] Series of Projects [ ]		
Project Implementation Start Date 15-Jul-2014	Project Implementation End Date 31-Jul-2020		
Expected Effectiveness Date 15-Jul-2014	Expected Closing Date 31-Dec-2020		
Joint IFC No			
Sector Manager Toomas Palu	Sector Director Xiaoqing Yu	Country Director Victoria Kwakwa	Regional Vice President Axel van Trotsenburg

Borrower: Socialist Republic of Vietnam			
Responsible Agency: Ministry of Health			
Contact:	Professor Nguyen Cong Khan	Title:	Director
Telephone No.:	84-4-6273-2244	Email:	dr_nguyen_cong_Khan@yahoo.com

Project Financing Data(in USD Million)					
[ ] Loan	[ ] Grant	[ ] Guarantee			
[X] Credit	[ ] IDA Grant	[ ] Other			
Total Project Cost:	121.00		Total Bank Financing:	106.00	
Financing Gap:	0.00				

Financing Source	Amount
BORROWER/RECIPIENT	5.00
International Development Association (IDA)	106.00
European Union (EU)	10.00
Total	121.00

Expected Disbursements (in USD Million)

Fiscal Year	2014	2015	2016	2017	2018	2019	2020	2021	0000
Annual	0.00	15.00	20.00	25.00	30.00	13.00	3.00	0.00	0.00
Cumulative	0.00	15.00	35.00	60.00	90.00	103.00	106.00	106.00	0.00

Proposed Development Objective(s)

The PDOs are to improve the quality of health professionals education, strengthen management competencies in the health sector, and improve the competencies of Primary Health Care teams at the grass-roots level.

Components

Component Name	Cost (USD Millions)
Component 1: Improve the Quality of Health Professionals Education	63.00
Component 2: Strengthen Management Competencies in the Health Sector	12.00
Component 3: Improve Competencies of Primary Health Care Teams at the Grass-roots Level	41.00
Component 4: Project Implementation Support and Coordination	5.00

Institutional Data

Sector Board

Health, Nutrition and Population

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Health and other social services	Health	75		
Education	Tertiary education	25		
Total		100		

☑ I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes		
Theme (Maximum 5 and total % must equal 100)		
Major theme	Theme	%
Human development	Health system performance	75
Human development	Education for the knowledge economy	25
Total		100

Compliance

Policy

Does the project depart from the CAS in content or in other significant respects?	Yes [ ] No [X]
Does the project require any waivers of Bank policies?	Yes [ ] No [X]
Have these been approved by Bank management?	Yes [ ] No [ ]
Is approval for any policy waiver sought from the Board?	Yes [ ] No [X]
Does the project meet the Regional criteria for readiness for implementation?	Yes [X] No [ ]

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	**X**	
Natural Habitats OP/BP 4.04		**X**
Forests OP/BP 4.36		**X**
Pest Management OP 4.09		**X**
Physical Cultural Resources OP/BP 4.11		**X**
Indigenous Peoples OP/BP 4.10	**X**	
Involuntary Resettlement OP/BP 4.12		**X**
Safety of Dams OP/BP 4.37		**X**
Projects on International Waterways OP/BP 7.50		**X**
Projects in Disputed Areas OP/BP 7.60		**X**

Legal Covenants

Name	Recurrent	Due Date	Frequency
Section I of Schedule 2 to the FA	X		Continuous

Description of Covenant

The Recipient shall maintain the implementation arrangements as described in Section I of Schedule 2 to the Financing Agreement.

Name	Recurrent	Due Date	Frequency
Section 1.3 (a) of Schedule 2 of the FA		no later than 4 months after effectiveness	

Description of Covenant

The Project Operational Manual shall be adopted by the Ministry of Health no later than four months after the Effective Date of the Financing Agreement.

Conditions

Name	Type

Description of Condition

Team Composition

World Bank Staff

Name	Title	Specialization	Unit
Eva Jarawan	Lead Health Specialist	Team Leader	EASHH
Sabrina Gail Terry	Program Assistant	Program Assistant	EASHD
Kari L. Hurt	Senior Operations Officer	Senior Operations Officer	EASHH
Puti Marzoeki	Senior Health Specialist	Senior Health Specialist	EASHH
Susanna Hayrapetyan	Lead Health Specialist	Senior Health Specialist	ECSH1
Nina Masako Eejima	Senior Counsel	Senior Counsel	LEGES
Miguel-Santiago da Silva Oliveira	Senior Finance Officer	Senior Finance Officer	CTRLN
Mai Thi Phuong Tran	Financial Management Specialist	Financial Management Specialist	EASFM
Nga Thi Anh Hoang	Program Assistant	Team Assistant	EACVF
Sang Minh Le	E T Consultant	E T Consultant	EASHH
Nghi Quy Nguyen	Social Development Specialist	Social Development Specialist	EASVS
Thuy Cam Duong	Environmental Specialist	Environmental Specialist	EASVS

Rong Li	E T Consultant	E T Consultant	EASHH
Huong Thi Mai Nong	Associate Counsel	Associate Counsel	EACVF
Nguyen Hoang Nguyen	Procurement Specialist	Procurement Specialist	EASR2
Hai Yen Tran	ET Temporary	ET Temporary	EACVF

Non World Bank Staff

Name	Title	Office Phone	City
David Daniel Hunt	Consultant	202-828-0596	Washington, DC

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments
Vietnam	Yen Bai	Tinh Yen Bai	X		
Vietnam	Kon Tum	Tinh Kon Tum	X		
Vietnam	Thai Binh	Tinh Thai Binh	X		
Vietnam	Son La	Tinh Son La	X		
Vietnam	Lam Dong	Tinh Lam Dong	X		
Vietnam	Lai Chau	Tinh Lai Chau	X		
Vietnam	Ha Giang	Tinh Ha Giang	X		
Vietnam	Gia Lai	Tinh Gia Lai	X		
Vietnam	Dong Thap	Tinh Dong Thap	X		
Vietnam	Cao Bang	Tinh Cao Bang	X		
Vietnam	Dak Nong	Dak Nong	X		
Vietnam	Huyen Dien Bien	Huyen Dien Bien	X		
Vietnam	Nam Dinh	Tinh Nam Dinh	X		

I. STRATEGIC CONTEXT

A. Country Context

1. Vietnam has achieved an impressive record of economic growth and poverty reduction in the past 20 years. The economic reforms launched at the end of the 1980s have transformed Vietnam from one of the poorest countries in the world to a lower middle income country with a per capita income estimated at US$1,550 at the end of 2012[1]. Economic growth averaged 8 percent per annum for many years, but slowed to 5-6 percent beginning in late 2008. The poverty headcount fell from 58 percent in the early 1990s, to 14.5 percent by 2008, and by these standards is estimated to be well less than 10 percent by 2010. Based on an updated poverty line developed for the 2012 Poverty Assessment, which better reflects Vietnam's status as a lower middle income country, 17.2 percent of the population was still poor in 2012. Poverty is increasingly concentrated among Vietnam's ethnic minority populations, also in more isolated rural areas and smaller cities and towns. Although minorities make up only 15 percent of population, they account for nearly half of Vietnam's remaining poor (World Bank, 2012)[2].

2. In line with national socio-economic development and government's investments to develop access to health care, health outcomes in Vietnam have been improving remarkably throughout the country. The average life expectancy of the Vietnamese people has increased from 65.5 years to 75 years in the last decade. Both maternal and child mortality has been rapidly decreasing: infant mortality rate is 17.3 per 1000 births in 2011 compared to 36.1 in 1990; maternal mortality rate is 59 per 100,000 births in 2010 compared to 240 in 1990. Although aggregate outcomes have been improving, the equity of distribution of improved outcomes remains a problem. Maternal and child mortality remains high in remote and disadvantaged areas. There are three-fold differences in under-five mortality rates between the lowest economic quintiles and the highest quintiles, and the inequalities have increased over time. Vietnam is an aging country with the population over the age of 60 growing at the fastest rate. Non-communicable diseases (NCDs) account for almost two-thirds of mortality, followed by accident, injury and poisonings (more than 20%).

B. Sectoral and Institutional Context

3. Vietnam's rapid economic growth has provided substantial additional resources for all sectors, including the health sector. At the same time, the Government of Vietnam has shown strong political commitment towards universal health coverage over the last two decades, making it a national goal for 2014. In 2009, Vietnam passed the Law on Social Health Insurance to create a national Social Health Insurance program, making it the primary mechanism for achieving universal coverage. By 2011, coverage as measured by enrollment rates has increased significantly, reaching more than 64% of the population. A major challenge now lies in the expansion of coverage to the remaining 40% of the population while addressing the large out-of-pocket (OOP) share of total health spending, the range of system inefficiencies and financial sustainability.

[1] GNI per capita (Atlas Method): http://data.worldbank.org/indicator/NY.GNP.PCAP.CD

[2] World Bank 2012. *Well Begun, Not Yet Done: Vietnam's Remarkable Progress on Poverty Reduction and the Emerging Challenges.* World Bank in Vietnam, Hanoi.

4. In order to respond to increased coverage of health insurance, the government has to improve the supply of health services, including their availability, financial accessibility as well as quality. The most prominent and politically taxing issue in the health sector is the problem of hospital overcrowding: occupancy rates are especially high in central and provincial specialty hospitals with sometimes two to three patients per bed. Outpatient departments in those hospitals are also suffering from long queues. Self-referral by patients is common with rates as high as 93% in specialist hospitals. Co-payments or other financial mechanisms to dissuade self-referrals have proved to be insufficient to address this problem.

5. A number of underlying reasons for overcrowding have been advanced as follows: (a) increase in demand because of the aging of the population, increasing NCD morbidity, increased health insurance coverage and general economic development as well as inappropriate use of hospitals for basic health care; (b) revenue enhancing incentives (and consequent behaviors) resulting from hospital autonomy policy, payment mechanisms and private investments in medical equipment for profit in public hospitals; (c) deficient hospital infrastructure; (d)poor quality of services at the primary health care and district hospital level, including the perception of poor quality by users; and (e) inefficient referral, clinical, and patient flow management.

6. Clearly, a major factor contributing to overcrowding is that patients skip lower levels of care and go straight to higher level for examination and treatment. A recent analysis of a sample of patient records shows a high rate of self-referrals[3], about 42% in provincial hospitals, 59% in general central hospitals and 93.5% at the specialist hospitals. Patients indicated "trust to provide proper diagnosis and quality of care" as the main reason for the self-referral. The lack of technical capacity of the lower levels facilities is one part of the trust equation as they are perceived to be unable to provide functions stipulated by the Government mandate.

7. However, there are signs of progress. The Ministry of Health (MOH) has recently developed and is about to launch a quality monitoring and benchmarking system focused on improving patient satisfaction with the overall experience - a start to a more comprehensive quality system. As the 2012 Joint Annual Health Review – which had a particular focus on quality – pointed out, the MOH and related institutions have developed hundreds if not thousands of technical guidelines, protocols, and patient safety related circulars but there has not been a system in place to monitor, enforce or support implementation.

8. The government policy to increase the number of physicians and nurses in order to improve access to care has led to an increase in the number of medical and nursing schools and an increase in the number of students admitted to the schools. The number of medical schools has increased from 9 schools in 1997 to 14 schools to date. Admission to medical schools has almost tripled during the last 10 years. Graduates in general medicine were increased by around 60% from 1,550 in 2006 to 2,450 in 2012. The number of nursing schools is increasing even more rapidly. There are currently 14 undergraduate nursing programs (4 year training) and 29 nursing colleges (3 year training). Three of the 14 undergraduate nursing programs were established by the private sector indicating a growing interest of the private sector to invest in health professionals education. The undergraduate nursing program currently enrolls around 1,430 students each year, or a 10-fold increase during the last 10 years.

[3] "Hospital Overcrowding and Under-capacity: Issues and solutions", Health Strategy and Policy Institute, 2012.

9. Increase in the number of schools, and students, was not accompanied with needed investment. Clinical practice sites are limited to central and some provincial hospitals that cannot absorb the growing number of students. Investment in medical/nursing skill laboratories – essential teaching sites – is still limited, impacting the quality of education. Although Vietnam has produced the Knowledge, Attitude, and Practice book as the basis for standardizing medical curriculum in the country, the quality of curriculum implementation varies with the schools. The situation is similar for nursing education.

10. The quality of health professionals education is lagging not only in content but also in teaching methods. In the most advanced medical programs, medical teaching has gradually shifted from conventional to more active teaching methods although the level of progress varies among the schools. Medical education is six years: consisting of two years of basic medical sciences with introduction of clinical theory during the third and fourth year, and clinical practice during the last two years. Medical training was hospital based but moved gradually in the last 10 years towards a combination of hospital and community based health care. Some universities have received assistance from international partners to apply more active teaching methods such as problem based learning and case scenarios, and to introduce Objective Structured Clinical Examinations as a part of student assessment. However, such improvements are lacking in most programs, particularly those that are in the more remote areas. Vietnam has also benefited from the findings of the recent Lancet Independent Commission report on 21st century health professionals which calls for transforming education to strengthen health systems in an interdependent world.

11. The Ministry of Education and Training (MOET) introduced institutional accreditation in 2005. MOET Decision No 65/2007 refers to 10 standards and 61 criteria for accreditation of higher education institutions, while Decision 76/2007 explains the accreditation procedures, starting with an internal assessment by an internal assessment committee. By the end of 2012, all medical and nursing schools have completed the internal assessment and are waiting for an external review by an independent body which is to be established.

12. There is a consensus that the accreditation criteria developed by MOET are too general for medical/nursing teaching that requires specific facilities, equipment and clinical practice, and that a specific quality assurance system should be established. In collaboration with the medical and nursing schools, the Administration of Science, Technology and Training (ASTT) at the MOH, is in the process of developing the specific standards of education for medicine and nursing as the basis for developing instruments that can be used in an education quality assessment process. Nevertheless, Vietnam will need support in establishing the system as knowledge on quality assurance among the MOH staff and medical/nursing schools is limited.

13. Vietnam is committed to improving the quality of student assessment prior to graduation as part of the quality assurance system for health professionals education. Currently, student assessment at the end of medical and nursing education is conducted by individual schools and not guided by national standards. The examination methodology adopted by each school has never been reviewed and there has never been an evaluation of the competencies of graduates who pass the school examination. Standards of competencies for nurses and draft standards for physicians are available. The next step will be to improve the examination methodology and introduce a nationally standardized examination system.

14. There is recognition that in order to provide quality health services in a cost-effective and efficient way and ensure the fiscal affordability of universal health coverage, particularly for the bottom 40% of the population, there is a need to strategically strengthen policies, institutions, incentives and key service delivery inputs. For that, particularly in a highly decentralized system, the management capacity of health officers at various levels will need to be strengthened. According to a 2013 MOH survey, there is a large gap between need and current management capacity. Only 30% of hospital administrators are trained in management and although they have been working as managers for many years, more than 95% of health managers expressed a lack of management skills. The MOH has a master plan for health human resource development which calls for improving management capacity at all levels.

15. While the country has slowly embarked in a process of improving the quality of the medical and nursing graduates (the "flow" to the health care system), there is an existing "stock" of health professionals that are ill-prepared to respond to the dramatic epidemiologic and demographic change that the country is facing. In general, medical training is hospital-based, with little focus on developing skills and competencies that are needed at the primary health care level. Moreover, there is little preparation and incentive to practice at the primary care level and in the grass-roots health care network, especially at the commune level.

16. There is a severe shortage of health professionals at the grass-roots level, especially in disadvantaged areas. Less than 18% of the total workforce is currently working at the commune level, and about a third of the Commune Health Stations (CHS) are without a physician. The shortage of physicians is most severe in the poorest 62 districts where on average 30% of CHSs have a physician compared to 70% nationwide. The government has set a target of 80% of the communes staffed with a physician, yet it is difficult to attract qualified physicians to work in rural areas. About 53% are concentrated in urban areas where only 28% of the population lives.

17. Even when an adequate number of health staff works in CHSs, they often lack the competencies to perform designated services and deal with emerging health problems - to identify, manage, refer and coordinate patients. They also have limited decision rights to prescribe and do medical interventions. A recent 5C study shows that despite the number of training programs delivered with the support of international organizations, primary health care (PHC) teams are unable to provide most PHC services such as early detection of risk factors and management of most common NCDs, provision of prevention and counseling services, organization of medical care for the elderly with chronic conditions, maternal and child health services, etc. An evaluation of professional competency at commune level found that physicians and assistant physicians gave the wrong answer to more than 50% of the questions on cardiovascular and internal medicine problems.

18. To address the health sector issues presented above, Vietnam has embarked on a program of policy changes, regulation, enforcement and public persuasion in many areas including among others, health financing and health insurance, service delivery organization and pharmaceuticals, and human resources for health. The Joint Annual Health Review[4] (JAHR) of September 2013 describes in detail the 2013 major tasks Vietnam has embarked on, some of them well-underway

[4] Ministry of Health and Health Partnership Group, Joint Annual Health Review 2013 – Towards Universal Health Coverage, Hanoi, September 2013.

and others just initiated. In Health Financing/Health Insurance, reform is underway in the following areas: strengthening purchasing capacity and leverage of the Vietnam Social Security, raising the breadth and depth of health insurance coverage, and provider payment reform while improving payroll tax compliance. In Service Delivery, priorities that are defined by Government, with work underway, aim to address hospital overcrowding, strengthen PHC and care coordination across levels, and improve quality of care. In the area of pharmaceuticals, Vietnam is working to ensure supply of essential medicines at affordable prices, particularly as it relates to the Vietnam Social Security norms and rational use of drugs/benefit package. In the area of Human Resources for Health (HRH), there has been a major effort to raise the production of physicians and other health professionals. At the same time, there are efforts aimed at improving quality of HRH and their distribution through policies and legislation. However, as the JAHR notes, they have remained limited.

19. The Government has recently adopted several important directives which set government policies for strengthening grass-roots health network. Directive 06-CT/TW of the Central Party Committee emphasized the importance of investing in human resources, infrastructure and stable financing for recurrent activities at grass-roots level. The National Strategy for People's Health Care and Protection focuses on health workforce development, particularly at the grass-roots level. Moreover, the National Assembly Resolution No11/2011/QH13 calls to: (a) strengthen the Health Sector at the district and grass-roots level to reduce hospital overcrowding; and (b) implement reforms in human resource development. Similarly, the government's National Benchmarks for Commune Health Care (2011-2020) aims to ensure that "all CHS have adequate number of health workers with staff continuously trained".

20. **Rationale for World Bank Involvement:** This project fits within the comprehensive health services strengthening strategy, as part of the universal health coverage agenda and is part of the larger program that the Government is engaged in, with World Bank's support. This project is based on the strong political interest in reforming medical training institutions, and on improving quality of the country's health workforce. Given all the reforms underway in the health sector, this project focuses on the health workforce education and training agenda that has received major political support as evidenced by the laws and policies recently introduced.

21. The World Bank is able to bring its global and regional experience to the fore and support Government in addressing these issues. The most recent investment credit provided by the World Bank in the health sector aims at increasing efficiency and equity in the use of hospital services in selected provinces of the Northeast and Red River Delta provinces. The World Bank is also providing analytical and advisory support to improve the performance of the health insurance system and expand the coverage in a fiscally sustainable way. The World Bank is in a unique position to provide the breadth of this support through a combination of investment financing and advisory and analytical services. The project is specifically oriented towards addressing quality of care and PHC issues through: (a) improving basic health professionals education with a focus on nursing and medicine; (b) improving management competencies in the health sector; and (c) training of PHC teams at the grass-roots level through a combination of long-term and short-term modular courses and on-the-job training. In this effort, the World Bank is coordinating closely with other development partners, particularly the Asian Development Bank, the Global Fund, Global Alliance for Vaccines and Immunization, and the European Union (EU), to ensure complementarity of efforts and avoid duplication.

C. Higher Level Objectives to which the Project Contributes

22. The project will contribute to the objectives laid out in the Government's National Health Strategy for 2011-2020 as follows: (a) improving quality of medical services at all levels, enhancing universal health coverage, developing family medicine and strengthening PHC; (b) developing HRH in terms of numbers and quality, strengthening HRH in disadvantaged areas, expanding nursing education at the bachelor level, balancing training and utilization of health professionals; and (c) improving management and policy making capacity. The project will also complement the government's Health Human Resources Development Planning for the period from 2012-2020 with the overall objective of developing HRH in terms of sufficient quantity, quality, structure and appropriate distribution. This is in line with the recommendations of the Lancet Global Independent Commission report on education of health professionals for the 21st century which calls for instructional as well as institutional reforms[5].

23. The project is also consistent with the World Bank Country Partnership Strategy for 2012-2016 which calls for the World Bank to support Government's efforts to improve the delivery of services. This requires the right chain of events, e.g., good governance and information systems, appropriate regulatory systems and financing mechanisms, well-trained and motivated health workforce, and basic infrastructure and supplies. Improving the quality of human resources (both technical and managerial) and making sure that they have the basic equipment to deliver quality services is core to the improvement of service delivery and is essential to the country's modernization agenda. It is the focus of this operation.

24. The project's proposed activities are closely linked to the World Bank Group goals of ending extreme poverty and boosting shared prosperity. The current system has generated inequity in access to quality health care in two ways: the skills of health care providers are typically more limited in disadvantaged areas, and poorer Vietnamese are not able to afford the informal payments often requested by providers. The project will address these shortcomings and boost shared prosperity through two channels. First, the program will directly benefit the extreme poor and those in the bottom 40 percent by training providers at the primary health care level, with a focus on the 62 poorest districts where the project is targeted. Second, the improvements in health professionals education and management will generate broad improvements in the quality of the service provision that will benefit the bottom 40 percent and the extreme poor.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

25. The PDOs are to improve the quality of health professionals education, strengthen management competencies in the health sector, and improve the competencies of primary health care teams at the grass-roots level.

[5] Julio Frenk, et al. Health Professionals for a new century: transforming education to strengthen health systems in an interdependent world. *Lancet* 2010; 376: 1923-1958.

B. Project Beneficiaries

26. The project is expected to have a positive impact on the health system through increasing: (a) the proportion of the new flow of health professionals coming out of programs that have completed steps aimed at improving their competencies and skills; (b) the number of managers at all levels who have completed at least one management course; and (c) the percent of PHC teams who are trained according to the core principles of PHC. The immediate project beneficiaries will be medical, pharmacy and nursing universities, nursing colleges, management training centers, PHC personnel and facilities, especially in the disadvantaged areas. The project will have an impact on the teaching and learning process in 71% of the medical schools, 37% of the nursing schools and 80% of the pharmacy programs. The project will also benefit communities in the 15 targeted provinces where 80% of the CHS health staff are expected to be trained. In the medium- to long-term, regulations and policies relative to health professionals education (accreditation and standardized examination) will have a positive impact on the quality of health graduates throughout the country and on patients and communities who will receive improved care, particularly women who are the main users of PHC facilities.

C. PDO Level Results Indicators

27. The PDOs will be measured through the following indicators (see Annex 1 for details):

Outcome indicators:

(a) Number of health professionals programs that have completed the Peer Review Assessment;
(b) Percent of first takers who have passed the standardized examination for their area of study (medicine, nursing, pharmacy);
(c) Number of managers that have completed at least one management course;
(d) Percent of young volunteer physicians who work in disadvantaged districts during the year following completion of specialist (CK1) training; and
(e) Percent of CHS staff per province that have improved their clinical skills in the management of selected conditions by at least 25% after training.

III. PROJECT DESCRIPTION

A. Project Components

Component 1: Improve the Quality of Health Professionals Education (US$63 million)

(a) Subcomponent 1.1: Improve the quality assurance system of health professionals education (US$20 million)

28. The project will support the establishment, by MOH decision, of a quality assurance (QA) Council initially for medical and nursing education which in time could include other health disciplines such as pharmacy, public health, etc. The Council will be initially housed under the ASTT. The scope of the QA system will be three-folds: (a) establishment of standards for health professionals education (b) set-up a peer review assessment (PRA) initially for

medical and nursing programs; and (c) set-up a standardized examination system initially for medical and nursing students. The project will finance expenditures to support the QA Council in meeting the requirements stipulated in MOET Circular 61/2012/TT-BGDDT dated December 28, 2012 regarding the regulation on registration, licensing and organization of an education accreditation entity to become independent sometime in the future. Standards for basic medical and nursing education are being prepared with the active participation of the schools and professional associations. MOET will review and validate both standards which will be used as the basis for establishing the peer review assessment instruments for medicine and nursing. The project will also support the work of two task forces to set up the PRA system. The first task force will work on the PRA policies and procedures, while the second task force will develop and test the PRA instrument and train the assessors. The project will also support the work of a task force under the QA Council in setting up the standardized final examination initially for medical and nursing students. Throughout the course of project implementation, other institutions training health professionals, such as for pharmacy and public health, will learn from the experience of medicine and nursing and, as they become ready, will also establish their QA system.

(b) Subcomponent 1.2: Supportive measures to meet the standards of health professionals education (US$43million)

29. The standards for health professionals education will be the reference for determining investment needs. Selected medical and nursing schools – and as they become ready, other health professionals' schools - will receive financial assistance/grants through the project to scale-up their performance and achieve the required standards. Detailed activities covered under the grants program and eligible expenditures are described in Annex 2.

Component 2: Strengthen Management Competencies in the Health Sector (US$12 million)

(a) Subcomponent 2.1: Strengthen health management training (US$6 million)

30. The project will support Hanoi School of Public Health (HSPH) and Ho Chi Minh City (HCMC) Institute of Public Health to strengthen their capacity in health management training. These centers are expected to be the leading institutions for delivering management training to health managers nationwide. The financial support to the centers will cover: (a) training of trainers, and health managers and officials; (b) minor renovation and repair of existing facilities; (c) provision of training equipment, office equipment and furniture; (d) local and/or international consulting services for developing training materials including E-learning; and (e) health management learning resources.

31. The training centers are expected to deliver the training to about 4000 managers at various levels. Disbursement of funds under activity (a) of this component will be output-based (all other activities will be input-based), and centers will be paid on the basis of managers and health inspectors trained. Unit costs have been defined based on experience and consultations within the MOH and with the provinces and training institutions. They have also been reviewed by the World Bank Team and agreed upon (see Table 2.3). A Memorandum of Understanding (MOU) between the Central Project Management Unit (CPMU)/MOH and the training

institutions will define roles and responsibilities of the centers as well as the MOH. A draft MOU has been prepared and will be part of the draft Project Operational Manual (POM).

32. Evaluation of the training programs under this component will be carried out by the training centers who will certify the successful completion of the training programs. For payment purposes, the project external auditor will verify the number of trained managers.

(b) Subcomponent 2.2: Improve policy-making in human resources for health (US$6 million)

33. The objectives of this sub-component are to improve coverage and distribution of HRH, particularly in the disadvantaged areas. The project will finance studies, dissemination and knowledge exchange activities leading to improving the HRH policy environment. Studies on HRH management will be conducted to provide policy makers with evidence meant to revise the existing HRH policies. Scientific conferences and consultation workshops will be organized to foster policy dialogue, and inform public opinion on HRH management issues.

34. The project will pilot a program that is meant to improve the distribution of HRH in the disadvantaged areas (about 62 districts). About 500 freshly graduated physicians are expected to volunteer in this program that will finance their training in one of the specialty areas for a district hospital (surgery, pediatrics, ob-gyn, internal medicine, etc.) leading to CK1 (see Annex 2 for details). In preparation of the launch of such a program, the MOH needs to conduct the following activities: (a) physician needs assessment in the disadvantaged districts; (b) information campaign to medical students, young physicians, central hospitals, provincial and district health managers and relevant stakeholders at the local level; and (c) drafting a MOU between the MOH and teaching institutions as well as between the MOH and central and provincial hospitals. Finally, the MOH will need to draft the "commitment" form to be signed by the volunteer, the central or provincial hospital as well as the MOH. The project will finance support to selected teaching institutions and/or hospitals to encourage freshly graduated and/or trained physicians to volunteer to work in the disadvantaged areas. It was agreed that the disbursement for this aspect of the program will be output-based, i.e., teaching institutions will be compensated on the basis of number of trained young physicians. Unit costs have been defined based on experience and consultations within the MOH and with the provinces and teaching institutions. They have also been reviewed by the World Bank Team and agreed upon (see Table 2.3). Details of such an arrangement, along with a draft MOU, will be in the POM.

35. Evaluation of the training programs under this component will be carried out by the training institution who will certify the successful completion of the training programs. For payment purposes, the project external auditor will verify the number of trained young physicians.

Component 3: Improve Competencies of Primary Health Care Teams at the Grass-roots Level (US$41 million)

36. This component will address significant HRH issues particularly: (a) the mismatch between the knowledge/skills competencies of existing health personnel at grass-roots level and the burden of disease in the community; and (b) lack of modern equipment at CHS. The project will prepare primary health care teams to deliver integrated preventive, curative, and

rehabilitative services to better cope with the double burden of disease – communicable and NCDs. The project does not aim at increasing the number of health staff deployed at the grass-roots level. Moreover, the established training programs will continue to be offered beyond the five years of the project period as part of the Continuing Professional Development programs. It will also improve provision of equipment at CHS to support the delivery of PHC services.

(a) Subcomponent 3.1: Train PHC teams at the grass-roots level (US$19 million)

37. This sub-component will support the training of PHC teams at the grass-roots level in the 15 selected provinces, through a combination of long- and short-term modular training courses and on-the job training. This will be in the form of an MOU between MOH and the training institutions who will be entrusted to provide the training, financed on the basis of outputs. The project will finance needs assessment, curriculum review and development for training of PHC teams. Training institutions will offer a menu of training options to the health professionals. Unit costs have been defined based on experience and consultations within the MOH and with the provinces and training institutions. They have also been reviewed by the World Bank Team and agreed upon (see Table 2.3). As in subcomponents 2.1 and 2.2, the project external auditor will verify the number of staff trained for payment purposes. In addition to the training, the project will finance an independent evaluation of the PHC teams' performance post-training. The EU has committed to co-finance this project. While it supports in principle the objectives of the project as a whole, it will finance activities under this sub-component only. Relevant documents to firm-up this co-financing have been prepared and are being finalized.

(b) Subcomponent 3.2: Ensure that trained PHC teams have access to basic equipment according to the national benchmarks (US$22 million)

38. In this sub-component, the project will finance the following activities: (a) provision of laboratory and medical equipment as well as furniture to PHC teams in project provinces based on national benchmarks for CHS; and (b) provision of laboratory, medical equipment and medical furniture for clinical training sites. Each project province will prepare an equipment development plan which will include an assessment of the equipment gap at each CHS as compared with the approved MOH standard list, and the description of the CHS needs. The MOH will prepare the specifications for each equipment item to be procured under the project. In preparing such plans, the province health authorities will take into account the fact that the EU and the Global Fund have financed, or are planning to finance, equipment for CHSs in some of the selected provinces. Delivery of equipment to the CHS is conditional on at least one staff of the center having completed the planned training in the core principles of PHC.

Component 4: Project Implementation Support and Coordination (US$5 million)

39. This component will support: (a) the establishment and operation of the CPMU under the Directorate of Science and Training of the MOH; and (b) coordination between the MOH and concerned ministries and agencies in the implementation of the project. It will provide the necessary implementation and technical capacity at the Central level to plan and coordinate the implementation of the project. The CPMU will manage the review and approval of grants to training institutions under sub-component 1.2, MOUs between the MOH and the HSPH and the HCMC Institute of Public Health as well as between the MOH, teaching institutions and central

and provincial hospitals, under sub-components 2.1 and 2.2 respectively, and MOUs between the training institutions and MOH sub-component 3.1 of the Project. It will also be responsible for monitoring and managing the various studies and technical assistance under the project. This will be done under the oversight of the Steering Committee. The project will finance: support for project management and supervision, procurement, disbursement, financial management (FM), project audit, and project monitoring and evaluation (including training of project coordination staff and workshops for the preparation of grants; and incremental operating costs).

B. Project Financing

40. **Lending Instrument.** The project will be an Investment Project Financing in the form of an IDA credit on blend terms (Final year maturity of 25 years, including 5 year Grace Period).

Project Cost and Financing (US$121 million)

Table 1: Project Cost by Components

	Project Components	Project Cost	GOV	EU	IDA Financing	% IDA Financing
1.	Improve the quality of health professionals education.	63	1.4	-	61.6	98
2.	Strengthen management competencies in the health sector.	12	1		11	92
3.	Improve competencies of Primary Health Care Teams at the Grass-roots Level.	41	2	10	29	71
4.	Project implementation support and coordination.	5	0.6		4.4	88
	Total Financing Required	121	5.0	10	106	88

41. Counterpart funding (estimated at US$5 million) will be used to finance offices and salary allowances for government staff seconded to the project in accordance with government norms and regulations.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

42. The implementing agency will be the MOH. As per its common practice, the MOH will establish a Project Steering Committee (PSC) which will largely be a consultation body for discussing issues related to project implementation. It will be chaired by the Minister of Health who has approved the following proposed composition: Vice-minister in charge of training as

Vice-Chair, directors/vice directors of ASTT, Department of Organization and Management (DOM), Department of Planning and Finance (DPF), Department of International Cooperation, Administration of Preventive Medicine, Administration of Medical Services, Administration of Drug Control, and representatives of the following ministries: Planning and Investment, Finance, Education and Training, and Internal Affairs.

43. Project management has been streamlined to some extent as the CPMU has been approved by the Minister of Health as part of the ASTT with the Director of ASTT as the CPMU director. The CPMU includes three deputy directors one each selected from ASTT, DOM and DPF respectively. It will be staffed to carry out the following functions: project management, procurement, FM, disbursements, audit (internal and external), and monitoring and evaluation. It is being staffed to include a chief accountant, a FM specialist, a procurement officer, and a project coordinator. Details in terms of roles and responsibilities will be described in the POM. During negotiations, it was agreed that the deadline for the adoption of the POM by the MOH will be no later than four months after the Effective Date of the Financing Agreement.

44. Other stakeholders that are critical to project implementation are the universities/schools/colleges and provincial and district authorities. Universities/colleges will be implementing the grants under sub-component 1.2, and the training programs under Component 2, and sub-component 3.1. Under sub-component 1.2, training institutions may establish a Project Implementation Unit to support the implementation and administration of the grant funds. In that case, they will be responsible for allocating their own resources to finance itscost The Minister of Health will sign a grant agreement with the Dean of each university/college for the grant implementation. The primary responsibility for supervision and monitoring of the grants implementation under sub-component 1.2 lies with the ASTT. The CPMU director will sign off on the release of the semi-annual payment to each school. The specific details of the procedures for development, implementation, and funding of the grants (under subcomponent 1.2) are being detailed in the POM.

45. Under component 2, the CPMU will sign an MOU with the two training institutions responsible for implementing sub-component 2.1. There will be two types of MOUs. The first is input-based and includes minor renovations, procurement of office equipment and technical assistance to revise/develop curricula. The second is output-based and includes training of managers and health inspectors at central, provincial, district and facility levels. Training costs have been estimated and the centers will be paid on the basis of people trained. With respect to subcomponent 2.2, which includes the Young Volunteer Physicians Program, CPMU will sign an MOU with training institutions and central and provincial level hospitals. The MOH will include in the POM the modalities for disbursing the relocation benefits to the young Physicians who will relocate to the disadvantaged districts. Monthly allowances will be paid by the recruiting hospital and will be included in the unit cost.

46. Under component 3, CPMU will sign an MOU with training institutions implementing subcomponent 3.1; they will be paid on the basis of number of staff trained according to an agreed curriculum. The CPMU will be responsible to manage all contracts with the training institutions. A PHC Training Coordination Committee will be established to review and approve a unified curriculum for training of PHC providers at the commune level. In addition to relevant departments of the MOH, the Committee will also include representatives of health professionals

programs and professional associations. Province health authorities are preparing and will submit to the MOH the province PHC staff development plans and inventory of available equipment at CHS. Once endorsed by the MOH, the Provincial PHC staff development plans will serve as the basis for the MOUs between the MOH and training institutions. Similarly, the MOH will review the equipment development plans that are being prepared by the participating provinces to assess the equipment gap at each CHS as compared with the approved MOH standard list. These will serve as the basis for the procurement of CHS equipment.

47. As part of their submission of the training and equipment plan, the Central and Provincial authorities commit to ensure that trained PHC staff will be in a position to apply their newly acquired skills in their work environment at grass-roots level. For this, barriers presently existing, and preventing a large number of CHS to perform a wide range of services, should be removed in these particular CHSs (Vietnam Social Security accreditation, equipment, medicines, authorisation from DOH, etc.). This will require on-going dialogue among stakeholders, during project supervision, and beyond this project. Experience has shown that in provinces where similar PHC/family medicine training has taken place, newly-trained CHC staff has seen a positive change in their ability to apply their newly-acquired skills.

B. Results Monitoring and Evaluation

48. The monitoring and evaluation framework for the project follows the results framework and monitoring outlined in Annex 1. The CPMU will be responsible for results monitoring of the project. This includes reporting on project performance according to agreed indicators for the semi-annual progress reports which will inform World Bank missions, annual reports, and inputs to mid-term and final project evaluation. The CPMU will develop required data collection instruments and a data recording and reporting system.

49. Universities are expected to follow a unified and approved curriculum to train the PHC teams, and they will be paid on the basis of numbers trained. As part of their terms of reference, the project auditors will be asked to certify the number of people trained as it will determine the amount to be paid (output-based). The project will finance an independent organization to assess whether the training curriculum is implemented as planned and whether trained staff exhibits the competencies and skills to deliver quality health services. Data will come from CHS assessment and vignettes. Similarly, the management training centers will follow a competency-based standard for every type of training and will be evaluated accordingly by an independent organization.

50. Whenever feasible, indicators – PDO level as well as intermediate – will be disaggregated by gender. Under Component 1, composition of the task forces will be monitored to ensure adequate gender balance. In addition, training institutions will report results of the pilot standardized test by gender. If not already available, health professionals' programs will improve on their routine information system to report on admissions, attrition and graduation by gender. Similarly, provincial authorities will be asked to present gender disaggregated HRH training plans. This will inform on the selection of staff to be trained and will allow the CPMU to monitor that all have equal training opportunities. It will also help monitor retention at CHS level and movement up the career ladder.

C. Sustainability

51. Macroeconomic stability continues to improve, underpinned by moderating inflation and strengthening external accounts. GDP growth is expected to rise modestly, to 5.5 percent by 2017. Government's commitment to increasing the health share of Vietnam's annual state budget will help ensure the long-run sustainability. The cost savings incurred from increase in utilization of PHC services and district level hospitals as a result of project related interventions are likely to lessen the budgetary burden significantly. At the same time, the following elements will increase the sustainability of the human resource strengthening activities: (a) focus on long-term education and training to produce a new cadre of health professionals; (b) support the young physician volunteer program in disadvantaged areas and training of PHC teams at the grass-roots level to develop the health workforce capacity locally, and thereby address the human resource gap in a more sustainable manner; and (c) strengthen the health management training to develop sustainable capacity and improve management performance at all levels in the health sector. Finally, this project will complement the other reforms that the government plans to implement outside of this investment credit and with World Bank support, including: (a) changing the provider payment system to correct the incentives engendered by the current fee-for-service system; and (b) increasing the efficiency and equity in the use of hospital services. Perhaps the most significant challenge facing sustainability from this project is related to the possibility that trained professionals may not have the mandate to apply their newly acquired skills in their work environment at grass-roots level. The Government has demonstrated its willingness to remove such barriers in those CHCs where staff has completed the training. Together, these joint efforts will help to ensure that the objectives of the project investment are attained in a sustainable way.

KEY RISKS AND MITIGATION MEASURES

D. Risk Ratings Summary Table

Stakeholder Risk	Moderate
Implementing Agency Risk	
- Capacity	Substantial
- Governance	Substantial
Project Risk	
- Design	Substantial
- Social and Environmental	Low
- Program and Donor	Low
- Delivery Monitoring and Sustainability	Substantial
Overall Implementation Risk	Substantial

E. Overall Risk Rating Explanation

52. As discussed in detail in Annex 4, the overall risk of the project is rated as Substantial. The most critical risks are related to the fact that: (a) ASTT- the Department at the MOH that is

given responsibility to coordinate project implementation - has no prior experience with World Bank financed projects, thus necessitating consultation with other parts of the MOH that do have the experience and relying on their support and guidance; and (b) the project design which, even after mitigation measures, remains substantial as it involves transforming health professionals education, especially medical, pharmacy and nursing education system as well as scope of services and competencies of staff at the PHC level. It will involve consultations, coordination and consensus – all necessary but time-consuming, and perhaps causing slow implementation. Finally, the project is grounded on an underlying assumption that training leads to improved provider competency that leads to delivery of better services. Recent studies, such as the India study[6], cast some doubts on that premise and raise the question of whether knowledge and competencies necessarily translate into practice or effort by health providers. Experience of similar projects of limited scope, such as the one in Hue province that is supported by the Atlantic Philanthropies, shows that the risk is minimized when training is modular, is conducted partly on the job, and is accompanied by close supervision, and clear accountability – including perceptions of consequence of poor performance and improved organization of care. This project is based on the Hue example which has been thoroughly evaluated and has provided useful lessons.

V. APPRAISAL SUMMARY

A. Economic and Financial Analyses

53. Public investment in the project is justified principally for the public goods nature of the quality assurance assessment and training activities and for the positive externalities associated with improved population health outcomes. Project activities can address the information asymmetry in the current healthcare market where patients cannot assess the quality of health professionals and would require the Government to play a role in making sure that health professionals are trained appropriately and are qualified to provide health services. Though the private sector has been engaged in some health professionals education and training programs in Vietnam, the quality of these programs is considered poor and there are no appropriate quality assurance mechanisms. Without clear revenue possibilities of investing in quality assurance programs, it is highly unlikely that the private sector would invest in such activities to a degree that is socially optimal.

54. A different economic analysis has been used for each of the three main components of the project. The analysis for Component 1 reviews empirical evidence on the causal linkages between quality assurance of health professionals education and improved quality of care. Although there is no guarantee that quality assurance necessarily leads to improvement in the quality of care that the community receives, a sustained improvement in quality of care can only happen if health care providers are properly trained. Overall, empirical evidence from both developed and developing countries, though scarce, suggests that there is potential to improve health outcomes through quality assurance in medical education. Improved health outcomes can generate indirect economic benefits, which can be reflected by: (a) gained productivity as a result

[6] J Das, A Holla, V Das, M Mohanan, D Tabak, B Chan, In urban and rural India, a standardized patient study showed low levels of provider training and huge quality gaps, Health Affairs, 2012.

of reduced morbidity or mortality; (b) reduced out-of-pocket spending due to more accurate diagnosis and appropriate treatment; and (c) reduced public expenditure in the health sector.

55. The analysis for Component 2 and Component 3 quantifies one expected benefit of the project (increased allocative efficiency and cost containment in the health sector), and provides an illustrative cost-benefit analysis. The project is likely to generate significant cost savings as patients increase confidence in and utilize more services at CHSs for outpatient care and at district level hospitals for inpatient care. From a broader health sector perspective, seeking care at the lower levels of the system is more cost-effective, and associated with greater allocative efficiency. The cost-benefit analysis focuses on the expected cost savings in the health sector and estimates the net present benefit at around US$260 million, yielding a gross benefit-cost ratio of 15.2. However, it doesn't quantify many of the other expected benefits such as improvements in health outcomes, improvements in financial protection, and reduction in travel and indirect costs of seeking care at grass-roots level. Even with the very conservative assumptions and only a partial accounting of all possible benefits, the anticipated net benefits from component activities are substantial. The results strongly support investment activities in the project.

56. The financial sustainability of the project relies on the ability of the government budget to meet the incremental recurrent costs associated with the project investments after the project ends and counterpart funding commitments. At current growth projections, Vietnam could expect additional fiscal resources for health of about 0.4 percent of GDP from 2010 to 2017. The Government appears to have the capacity to create fiscal space to finance costs associated with project implementation. The fiscal impact of the incremental operating and maintenance cost from the project expenditure is relatively low at around 0.06% of total government health budget. The increase in salary budget due to the intake of new medical graduates by the health system is estimated to be 1% of the health budget and is expected to be offset by the savings due to increased utilization of CHSs and lower utilization rates of provincial and central hospitals.

B. Technical

57. The project supports human resource development – a key priority for the Government and its technical design reflects Government's own policy as described in several documents such as the Joint Annual Health Review 2009 which focused on HRH. On January 20, 2011, the Vietnam MOH organized the official launch of the Lancet Commission Report which inspired the project design. Later on, ASTT organized several consultation workshops with provincial authorities and leaders of training institutions in the country which confirmed the increased recognition of the central role of HRH in the drive towards universal health coverage and influenced the project design.

58. Peer review assessment and standardized examination provide tools to ensure the quality of the country's health care workforce, in the face of a changing disease pattern. Establishing education standards is the first step in this process. Similarly, building of a blueprint that identifies what the graduates need to know will drive the item World Bank for the standardized examination. Vietnam is learning about peer review assessment and standardized examination from the example of other countries in the west and in Asia, such as Indonesia.

59. Important lessons are also learned in training and in PHC system improvement. As mentioned under the risk section, the project is grounded on an underlying assumption that training leads to improved provider competencies that lead to delivery of better services. While this risk is real, there is, at the same time, strong evidence demonstrating that primary care led, managed, and delivered by competent physicians and PHC teams that are well-trained in core principles of primary care and family medicine, in well-managed facilities, results in improved population-based outcomes.

C. Financial Management

60. The CPMU has been established by the MOH and will play the leading role on FM. The World Bank carried out the FM Capacity and Risk Assessment based on the capacity assessment of the MOH, related departments and universities. The FM function of the MOH/ASTT and DOM and universities meet the World Bank's minimum FM requirements. The FM action plan to address FM risks includes the following actions: (a) POM including FM section, focusing on the grants to the universities mechanism and the output based disbursement; (bi) appointment of qualified staff with adequate training on World Bank's procedures; and (c) implementation of an internal audit function.

61. Fund flow will be channeled through the Designated Account (DA) opened by CPMU at a commercial bank acceptable to the World Bank. This design was agreed with MOH to overcome the current limitations of the country system funds flow. There will be one segregated DA denominated in US dollars maintained by CPMU for the whole project. Funds from CPMUs to the implementing universities for sub-component 1.2 will be transferred to the Universities' commercial bank accounts on an advance and subsequent documentation basis, based on the annual Grant Agreement between the two parties. Expenditures for the Quality Assurance Council's activities will be paid by the CPMU from the DA as well. A brief summary of how the output-based schemes would work is detailed as follows:

(a) Training institutions/hospitals produce list of number of trainees/managers x Unit Cost of Trainees/Managers;

(b) Independent Verification Agent/External Auditor verifies the number of Trainees/Managers and the correct/agreed Unit Cost is being used;

(c) List and accompanying verification report submitted to the CPMU;

(d) CPMU can either pay the Training Center/Hospital from the DA or if the amount to be paid to Training Center/Hospital is above the Minimum Application Size, the CPMU can request the World Bank to make a Direct Payment to the Training Center/Hospital;

(e) This process can be set to take place on a quarterly basis; and

(f) Supporting documentation required for each payment consist of the list of number of trainees x Unit Cost of Trainees and accompanying verification report.

62. There will be a single auditor hired by MOH CPMU. MOH CPMU will consolidate all financial reports from universities/colleges and any other implementing entities into one project financial statement, to be audited and submitted to the World Bank annually within six months

after the year end. The terms of reference TOR of the external auditor will be extended to cover the verification of outputs which triggers the payments in sub-components 2.1 and 2.2, and sub-component 3.1. Interim Financial Reporting (IFR) will be done on a semester basis to be submitted within 45 days after the end of each period. Because of the complicated design of the project and limited capacity of the implementing agencies, an internal audit function is required. The readiness of MOH for this function is low, therefore an outsourced internal audit function is being considered. More details on FM capacity and arrangements are available in Annex 3.

D. Procurement

63. Procurement for the proposed project will be carried out in accordance with the World Bank's "Guidelines: Procurement of Goods, Works and Non-consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011 ("Procurement Guidelines"), and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011 ("Consultant Guidelines").

64. The project implementing agency will be the MOH. The CPMU that has been established under MOH will be responsible for overall procurement activities financed by IDA funds. CPMU includes staff from MOH departments that are involved in project activities including the ASTT, DOM, and DPF. Other key stakeholders involved in the proposed project include participating universities/colleges, whose participation will be two-fold: (a) implementing the allocated funds to enhance their training capacities; and (b) conducting training programs.

65. A procurement capacity and risk assessment (PCRA) of MOH and a few selected participating universities was conducted by the World Bank team in September 2013. The assessment identified several procurement risks that could arise in the proposed project: (a) possible delays in procurement activities; and (b) possible non-compliance with World Bank procedures (including governance and corruption issues). Based on these initial capacity assessment results, the procurement risk for the proposed project is rated as "**Substantial**."

66. To mitigate the risks and build up capacity, MOH has agreed to take a number of measures. More detailed findings of the PCRA and the mitigation measures to address the identified risks, as well as the procurement arrangements for the project are presented in Annex 3.

E. Social (including Safeguards)

67. The World Bank's safeguard policy on Indigenous People (OP 4.10) is triggered because of the ethnic minority groups that live in some of the disadvantaged districts that are targeted by the Project. However the project is expected to have no adverse impacts on ethnic minority groups. It is expected that the project will help to improve the quality of health professionals education and the competencies and of PHC Teams, especially in disadvantaged areas. In line with OP 4.10, a Social Assessment has been done to identify and characterize key stakeholders in terms of their importance to and influence over the project objectives and implementation; to identify potential barriers (cultural, institutional, financial, language etc.) for ethnic minority health staff in the project area to access the project benefits and services; and to document the 'broad community support' toward the project's activities and define the processes for ensuring

the consultation and participation of these stakeholders (especially ethnic minority health staff) in project design, implementation, and monitoring and feedback. An Ethnic Minority Development Plan (EMDP) has been developed for the project. The mechanisms for ensuring culturally appropriate intervention and equal access to the project's benefits are addressed in the POM and in the EMDP. Implementing agencies will develop appropriate monitoring and evaluation tools with data of beneficiaries disaggregated by gender and ethnic group.

68. The World Bank's OP4.12 on Involuntary Resettlement will not be triggered, given that land/assets acquisition is not envisaged under the proposed project's components.

F. Environment (including safeguards)

69. The project triggers OP/BP 4.01 on Environmental Assessment as it consists of investments which may cause environmental impacts related to: (a) minor building renovations and/or refurbishment for some of the 26 medical/nursing schools under Component 1.2 and the 2 training centers under Component 2.1; and (b) use of medical equipment purchased for clinical training sites and a number of CHSs at 15 participating provinces under Component 3. This type of investment will potentially generate impacts typically known for small scale renovation works and are linked to healthcare waste management practices at CHSs. Such impacts are small, localized and manageable provided there is good management practice. On the positive side, the project will help to raise awareness on environmental protection as it proposes to include a training module for health workforce on healthcare waste management. The project is not expected to have significant environmental impact and therefore is classified as a category B.

70. As part of project preparation, a brief Environmental and Social Management Framework (ESMF) has been developed by the Government to address the potential adverse environmental impacts. The ESMF is in accordance with the national regulations on environmental management as well as with World Bank's safeguard policies and requirements on public consultation and information disclosure. More details on environmental assessment, ESMF content, public consultation and disclosure process are described in Annex 3.

Annex 1: Results Framework

Vietnam: Health Professionals Education and Training for Health System Reforms Project

Project Development Objectives (PDO): To improve the quality of health professionals education, strengthen management competencies in the health sector, and improve the competencies of primary health care teams at the grass-roots level.

Indicator Name	Comp	Unit	Cumulative Target Values									
			Baseline 9/30/2014	YR 1 9/30/2015	Y2 2 9/30/2016	YR 3 9/30/2017	YR 4 9/30/2018	YR 5 9/30/2019	End target (YR 6) 12/31/2020	Frequency	Data source	Responsibility
PDO Indicator												
Number of health professionals programs that have completed the Peer Review Assessment (PRA)	C1	Number	All schools have completed the self-evaluation				two medical programs one 4-yr nursing programs one 3-yr nursing programs	Four medical programs two 4-yr nursing programs three 3-yr nursing programs	Six medical programs three 4-yr nursing programs five 3-yr nursing programs one pharmacy program	End of year 4, 5 and 6	PMU report QA Council information system/database	PMU
Percent of first takers who have passed the standardized examination for their area of study (medicine, nursing, or pharmacy)	C1	Percent	0				60% for each of the programs	70% for each of the programs	80% for all programs	Evaluation to be undertaken at year 4, 5 and 6	PMU Report Program Assessment Report	PMU
Number of managers that have completed at least one management course	C2	Number (cumula-tive)	0	0	500	1500	2500	3500	4000	Years 3, 4, 5, and 6	Annual reports from the two centers to the CPMU	HCM and Hanoi centers
Percent of young volunteer physicians who work in disadvantaged districts during the year following completion of CK1 training	C2	Percent	0	0	0	90	90	90	90		Annual report from the DOM	CPMU + DOM
Percent of CHS staff per province that have improved their clinical skills in the management of selected conditions by at least 25% after training.	C3	Percent	0	-	-	50%	-	-	80%		Baseline, mid-term and final project year	Independent Evaluation Organization

Intermediate Results Indicators												
Number of trained assessors	C1	Number			sixty (60) medicine; thirty (30) nursing		six pharmacies					
Examination blueprint ready	C1	Blueprint		Blueprint ready								
Item Bank ready	C1	Item Bank		Item Bank ready								
Number of management trainers enrolled in a graduate program	C2	Number	0		5	6	3			Annual	Report from the 2 training centers	DOM/CPMU
Number of students enrolled in a management course	C2	Number	0	0	600	1100	1100	1100	600	Annual report	Report from the two training centers	DOM/PMU
Number of health staff enrolled in a training program	C3	Number	0	500	2000	2500	3500	-	-			Universities and PMU
Number of CHS provided with a set of basic equipment	C3	Number	0	0	1000	1300	0					

Results Framework Definition

Comp	Project Development Objective Indicators	
C1	Number of health professionals schools that have completed the Peer Review Assessment (PRA)	The school has gone through the PRA consisting of the self-assessment, external assessment including the survey visit, and has received decision on PRA status.
C1	Percent of first takers who have passed the standardized examination	Students who take the standardized exam and pass it at the first attempt.
C2	Number of managers that have attended at least one management course	Managers at the central, provincial and district levels who have completed at least one of the management courses offered.
C2	Percent of young volunteer physicians who work in disadvantaged districts during the year following completion of CK1 training	MDs that have completed CK1 and work in one of the 62 project districts in the year following completion of CK1 training.
C3	Percent of CHS staff per province that have improved their clinical skills in the management of selected conditions by at least 25% after training	CHS health staff in the selected project provinces that have completed the PHC training program offered by the selected universities or colleges (under a MOU) and are evaluated by the Independent Evaluation Organization on their management of conditions such as diarrhea, chest pain and pre-eclampsia.
Intermediate Results Indicators		
C1	Number of trained assessors	Assessors able to participate in a PRA according to the agreed procedures and PRA instrument.
C1	Examination blueprint ready	Examination blue print is an examination outline that lists the learning objectives that students are to demonstrate or a process of linking the test to the learning objectives.
C1	Item Bank ready	Item Bank is a repository of test items, in this case to be used in the examination of medical, nursing and pharmacy students.
C2	Number of management trainers enrolled in a graduate program	Center staff enrolled in a Master/Ph.D. program in health management.
C2	Number of students enrolled in a management course	Managers and health inspectors at the central, provincial, and district levels who are enrolled in a management course offered through this project.
C3	Number of health staff enrolled in a training program	CHS staff in the selected provinces that are enrolled in a training program offered by the selected universities.
C3	Number of CHS provided with a set of basic equipment	CHS in selected project provinces that receive basic equipment as per the agreed benchmarks for CHS equipment.

Annex 2: Detailed Project Description

Vietnam: Health Professionals Education and Training for Health System Reforms Project

71. The project will contribute to the objectives laid out in the Government's Five Year Health Plan 2011-2015 as follows: (a) consolidating of health system organization, especially at grass-roots level; (b) strengthening preventive medicine/public health sector; (c) improving quality of medical examination services; and (d) strengthening HRH. The project will also complement the Government's Health Human Resources Development Plan for period from 2012-2020 with the overall objective of developing health human resources in terms of sufficient quality, structure and appropriate distribution.

72. Assisting the Government in this area has strong links to the existing World Bank Country Partnership Strategy. Improving the quality of human resources is a core engagement area of the Country Partnership Strategy and is essential to the country's modernization agenda.

73. This project fits within the comprehensive health services strengthening strategy, as part of the universal health coverage agenda and is part of the larger program that the Government is engaged in, with World Bank's support. To address the health sector issues presented above, Vietnam has embarked in a program of policy changes, regulation, enforcement and public persuasion in many areas including among others, health financing and health insurance, service delivery organization and pharmaceuticals, and human resources for health. The JAHR[7] of September 2013 describes in detail the 2013 major tasks Vietnam has embarked on, some of them well-underway and others just initiated. In Health Financing/Health Insurance, reform is underway in the following areas: strengthening purchasing capacity and leverage of the Vietnam Social Security, raising the breadth and depth of health insurance coverage, and provider payment reform while improving payroll tax compliance. In Service Delivery, priorities that are defined by Government, with work underway, aim to address hospital overcrowding, strengthen PHC and care coordination across levels, and improve quality of care. In the area of pharmaceuticals, Vietnam is working to ensure supply of essential medicines at affordable prices, particularly as it relates to the VSS norms and rational use of drugs/benefit package. In the area of HRH, there has been a major effort to raise the production of physicians and other health professionals. At the same time, there are efforts aimed at improving quality of HRH and their distribution through policies and legislation. However, as the JAHR notes, they have remained limited. This project is based on the strong political interest in reforming medical training institutions, and on improving quality of the country's health workforce. Given all the reforms underway in the health sector, this project focuses on the health workforce education and training agenda that has received major political support as evidenced by the laws and policies recently introduced.

[7] Ministry of Health and Health Partnership Group, Joint Annual Health Review 2013 – Towards Universal Health Coverage, Hanoi, September 2013.

Project Beneficiaries

74. The project is expected to have a positive impact on the health system through increasing: a) the proportion of the new flow of health professionals coming out of programs that have completed steps aimed at improving their competencies and skills; (b) the number of managers at all levels who have completed at least one management course; and (c) the percent of PHC teams who are trained according to the core principles of PHC. The immediate project beneficiaries will be medical, pharmacy and nursing universities, nursing colleges, management training centers, PHC personnel and facilities, especially in the disadvantaged areas. The project will have an impact on the teaching and learning process in 71% of the medical schools, 37% of the nursing schools and 80% of the pharmacy programs. The project will also benefit communities in the fifteen targeted provinces where 80% of the CHS health staff are expected to be trained. In the medium-long-term, regulations and policies relative to health professionals education (accreditation and standardized examination) will have a positive impact on the quality of health graduates throughout the country and on patients and communities who will receive improved care.

Component 1: Improve the Quality of Health Professionals Education (US$63 million)

(a) Subcomponent 1.1: Improve the quality assurance system of health professionals education (US$20 million)

75. The project will support the establishment, by MOH decision, of a QA Council, initially for medical and nursing education which will be housed under the ASTT of the MOH. When ready, other disciplines such as pharmacy and public health can join the unit. The scope of the QA unit will be three-folds: (a) establishment of standards for health professionals education; (b) set-up a PRA of initially medical and nursing programs; and (c) set-up a standardized examination system initially for medical and nursing students.

76. MOH has prepared a draft decision to establish the QA Council. It will be led by the Director of ASTT and include representatives from health professionals' schools, MOET, and health professionals associations. Its composition has been approved by the Minister of Health and it is awaiting names of members from outside the MOH. The members of the Council will initially be senior health professionals education experts of the country. Representation will come from weak as well as strong schools. The Council will have its own work space/office at the CPMU, and project resources could be used to finance the procurement of office furniture and equipment, technical assistance, study tours and workshops.

77. In establishing the PRA, ASTT and the QA Council will use MOET regulations on accreditation as a reference. The project will allocate resources to assist the Council in meeting the criteria for the registration, licensing and organization of educational accreditation body in MOET Circular No. 61/2012, so if desired, it can apply for MOET acknowledgement when it has met all the required criteria. The developed PRA system will be aligned with the accreditation system developed by DGETA, MOET, although the standards will be elaborated to introduce technical criteria specific for each health discipline.

78. Once established, the QA Council's first task is to form two task forces to set up the PRA. Their terms of reference will be discussed with, and agreed to by the World Bank. The first task force will work on the PRA policies and procedures for conducting PRA. The second task force will develop and test the PRA instrument based on the standards of education that will be endorsed by the MOH and MOET, and conduct the training of the assessors.

79. The responsibilities of the task force for developing the policies and procedures for the PRA process will minimally include:

(a) Developing policies and procedures for recruitment of the assessors (number, composition, qualifications);

(b) Developing the procedures for conducting the peer review assessment process;

(c) Developing a series of documents including guidelines for school self-assessment, guidelines for schools in preparing for survey visits, guidelines for student involvement, and guidelines for survey team report preparation;

(d) Deciding on the decision making process, and the recording and reporting of the results of the PRA process; and

(e) Designing an accountability mechanism to avoid conflict of interest.

80. The responsibilities of the task force for developing the instruments for the PRA process will minimally include:

(a) Developing and piloting the instruments based on the standards of education currently being prepared by the ASTT;

(b) Conducting a workshop to familiarize the schools about the use of the instrument in the PRA process, in collaboration with the ASTT; and

(c) Conducting training of the selected assessors in using the instruments.

81. When the set-up of the PRA system is complete and the schools are aware of the system, the QA Council will begin organizing the PRA of schools. Project resources could be used to conduct PRA try outs and the actual PRA. In the meantime, the QA Council and the ASTT may develop a scheme or a business plan to sustain the PRA beyond the project and have it evolve into an accreditation system.

82. The second quality assurance measure is the standardized examination. The project will support the work of a task force under the QA Council in setting up the standardized final examination for initially medical and nursing students. The output of the task force will include, among others, the blue print for the examination, the methodology, the item banking system, and the examination process. In developing the examination methodology the experts will consider for example, the option of conducting a Knowledge Based Test only or a combined Knowledge Based Test and Objective Structured Clinical Evaluation.

(b) Subcomponent 1.2: Supportive measures to meet standards of health professionals education (US$43 million)

83. The standards of education for health professionals education will be the reference for determining investment needs. Selected medical and nursing schools, and when ready, pharmacy and public health schools, will receive financial assistance/grants through the project to scale-up their performance and achieve the required standards. Table 2.1 below lists the universities/colleges:

Table 2.1: List of training institutions and provinces targeted by the project

	10 Universities providing medical education program	2 Universities providing Pharmacist education program	6 Universities providing 4 year nursing education program	10 Colleges providing 3 year nursing education program	Others	Provinces
1	Hanoi Medical University	Ha Noi Pharmacy University	Nam Dinh Nursing University	Son La Medical College	Hanoi School of Public Health	Lai Chau
2	Ho Chi Minh city Medical-Pharmaceutical University	Pharmacy Faculty of Ho Chi Minh city Medical-Pharmaceutical University	Hai Duong Medical Technical University	Lang Son Medical College	Hai Duong Pharmacy College	Dien Bien
3	Hue Medical-Pharmaceutical University		Nursing Faculty of Hanoi Medical University	Ha Tinh Medical College		Son La
4	Can Tho Medical-Pharmaceutical University		Nursing Faculty of Ho Chi Minh city Medical-Pharmaceutical University	Quang Nam Medical College		Cao Bang
5	Thai Binh Medical-Pharmaceutical University		Da Nang Medical-Pharmaceutical Technical University	Khanh Hoa Medical College		Lao Cai
6	Hai Phong Medical-Pharmaceutical University		Pham Ngoc Thach Medical University	Lam Dong Medical College		Yen Bai
7	Thai Nguyen Medical-Pharmaceutical University			Dong Thap Medical College		Ha Giang
8	Vinh Medical University			Dong Nai Medical College		Gia Lai
9	Medical-Pharmaceutical Faculty of Tay Nguyen University			Bach Mai Medical College		Kontum
10	Medical and Pharmacy Faculty of Hanoi National University			Quang Ninh Medical College		Dak Nong
11	Medical Faculty of Hochiminh National University					Lam Dong
12						Thai Binh
13						Nam Dinh
14						Khanh Hoa
15						Dong Thap

84. Activities under the grants program will cover the following areas:

(a) Improving the implementation of health professionals education curriculum, for example establishing a functioning network of clinical practice sites with provincial hospitals, district hospitals and PHC facilities, strengthening internal quality assurance system;

(b) Strengthening teaching, training and learning facilities, for example procuring medical/nursing skill laboratories, establishing field practice laboratories, modernizing and strengthening of the library, improving internet/electronic connectivity to facilitate e-learning through e-library and networking among medical universities;

(c) Building the capacity of health professionals' faculty, for example degree training program, developing recruitment and training system of clinical instructors, training of examination item writers, training of tutors, etc.;

(d) Strengthening the health professionals education unit within the university, for example staff recruitment system and minor physical/office facilities improvement, internal quality assurance staff, curriculum development, and staff capacity building through short- and long-term in-country and overseas training; and

(e) Establishing data management capacity, for example developing and managing database on health professionals education, data analysis and reporting for education planning and development, institution decision making and accreditation purposes.

85. Eligible expenditures under the grants program include workshops, equipment to improve teaching learning process, degree and non-degree training, information technology, technical assistance, minor building renovation and enhancing library collection. The allocation of resources for procurement of goods should not exceed 60% and for minor refurbishing should not exceed 10% of the total amount of grant funds to each school. The project will provide financing support to 28 schools in total, selected according to agreed criteria. They are 10 medical schools, 16 nursing schools consisting of the 4-year nursing program (6 schools), and 3 year nursing program (10 schools), 3 pharmacy schools including the university program (2 schools) and one assistant pharmacist program, and a school of public health. The financial support will be up to US$2 million per medical school, and up to US$1 million for nursing, pharmacy and public health schools. The implementation period is four years for each school.

86. It is known that Hanoi and HCMC medical schools are the most established medical schools in Vietnam. In this regard, they may propose an additional proposal amounting maximum US$1 million per school. The aim of the additional proposal is to support other schools to meet Vietnam's standards of education for medicine or for nursing.

87. The guidelines for proposal development, review and approval process are a part of the approved POM.

Component 2: Strengthen Management Competencies in the Health Sector (US$12 million)

88. According to a MOH survey[8], there is a large gap between the level of need and current management capacity. Only 30% of managers are trained in management, and more than 95% of health managers expressed a need to improve their management skills, even though they have been working as managers for years. The aim of this component is to strengthen health management training in the country and improve the capacity to manage the health sector.

(a) Sub-component 2.1: Strengthen health management training (US$6 million)

89. The project will support HSPH and HCMC Institute of Public Health to strengthen their capacity in health management training. These centers are expected to be the leading institutions for delivering approved management training to health managers nationwide. The financial support to the centers will cover: (a) training of trainers, and health managers and officials; (b) minor renovation and repair of existing facilities; (c) provision of training equipment, office equipment and furniture; (d) local and/or international consulting services for developing training materials including E-learning; and (e) health management learning resources.

90. The project will finance training of trainers in the form of doctorate and master degree training, and short-term training in health policy, health economics, hospital management, HRH management and other related fields. Guidelines for selecting candidates for training of trainers are described in the POM. The project will also finance the development of various health management curricula targeted at: (a) managers and policy makers at central and provincial levels; (b health inspectors at central and provincial levels; (c) hospital administrators; (d) managers of preventive health centers; (e) department managers in health facilities; and (f) district managers for the selected project provinces. Curricula developed should be competency-based, and geared to the needs of the targeted trainees. They will be a blend of theory and practical teaching, using e-learning methods to the extent possible. Wherever needed, international or local technical assistance will be provided. The newly-developed and/or adapted training curricula will be approved by the MOH before they are delivered.

91. The training centers are expected to deliver the training to about 4,000 managers at various levels. Disbursement of funds under activity (a) of this component will be output-based (all other activities listed under paragraph 89 above will be input-based), and centers will be paid on the basis of managers and health inspectors trained. Unit costs have been defined based on experience and consultations within the MOH and with the provinces and training institutions. They have also been reviewed by the World Bank Team and agreed upon (see Table 2.3). A MOU between the CPMU/MOH and the training institutions will define roles and responsibilities of the centers as well as the MOH. A draft MOU has been prepared and will be part of the draft POM.

[8] Ministry of Health, Administration of Medical Services, 2013. Training Needs Assessment in Hospital Management for Leadership Personnel.

92. Evaluation of the training programs under this component will be carried out by the training centers who will certify the successful completion of the training programs. For payment purposes, the project external auditor will verify the number of trained managers.

(b) Sub-component 2.2: Improve Policy-making in Human Resources for Health (US$6 million)

93. The objective of this sub-component is to improve coverage and distribution of HRH, particularly in the disadvantaged areas. The project will finance studies, dissemination, and knowledge exchange activities leading to improving the relevant HRH policy environment. Studies on HRH management will be conducted to provide policy makers with evidence meant to revise the existing HRH policies. Scientific conferences and consultation workshops will be organized to foster policy dialogue, and inform public opinion on HRH management issues.

94. The project will pilot a program that is meant to improve the distribution of HRH in the disadvantaged areas (about 62 districts). About 500 young physicians are expected to volunteer in this program that will finance their training in one of the specialty areas for a district hospital, or district health center (surgery, pediatrics, ob-gyn, internal medicine, etc.) leading to CK1. In return, the physicians make a commitment to work in the disadvantaged districts for two years, in the case of females, and three years in the case of males. In addition to financing the CK1 training, the MOH will offer a relocation benefit and once they complete the rotation in the disadvantaged districts, will secure a job for them in the central and provincial hospitals.

95. In preparation of the launch of such a program, the MOH has initiated the following activities: (a) physician needs assessment in the disadvantaged districts; (b) information campaign to medical students, young physicians, central hospitals, provincial and district health managers and relevant stakeholders at the local level; and (c) drafting a MOU between the MOH and teaching institutions as well as between the MOH and central and provincial hospitals. Finally, the MOH will need to draft the "commitment" form to be signed by the volunteer, the central hospital, as well as the MOH. The project will finance support to selected teaching institutions and/or hospitals to encourage freshly graduated and/or trained physicians to volunteer to work in disadvantaged areas. It was agreed that the disbursement for this aspect of the program will be output-based, i.e., teaching institutions will be compensated on the basis of number of trained young physicians. Unit costs have been defined based on experience and consultations within the MOH and with the provinces and teaching institutions. They have also been reviewed by the World Bank Team and agreed upon (see Table 2.3). The MOH will include in the POM the modalities for disbursing the relocation benefits to the young physicians who will relocate to the disadvantaged districts. Monthly allowances will be paid by the recruiting hospital and will be included in the unit cost.

96. Evaluation of the training programs under this component will be carried out by the teaching institution who will certify the successful completion of the training programs. For payment purposes, the project external auditor will verify the number of trained young physicians.

Component 3: Improve Competencies of Primary Health Care Teams at the Grass-roots Level (US$41 million)

97. This Component will address significant HRH issues particularly: (a) the mismatch between the knowledge/ skills/competencies of existing health personnel at grass-roots level and the burden of disease in the community; and (b) lack of modern equipment at CHS. The project does not aim at increasing the number of health staff deployed at the grass-roots level. It will prepare health professionals to deliver integrated preventive, curative, and rehabilitative services to better cope with the double burden of disease – communicable and non-communicable. It will also improve provision of equipment at CHS and training sites to support the delivery of PHC services.

98. The Component will finance: (a) short-term and long-term clinical training of PHC teams which include: physicians, assistant physicians, nurses, laboratory technicians, midwives village health workers and assistant pharmacists; (b) technical assistance for review of available standardized competency-based curriculum for training programs; (c) TA for the development of training curriculum for village health workers and pharmacy assistants; (d) TA on PHC training evaluation and PHC teams' performance monitoring; and (e) provision of standard package of medical equipment and furniture to PHC teams in project provinces and training sites.

(a) Sub-component 3.1: Train PHC teams at the grass-roots level (US$19 million)

99. This sub-component will support the training of PHC teams at the grass-roots level in the 15 selected provinces through a combination of long-term and short-term modular training courses and on-the job training. This will be in the form of an MOU between the MOH and the training institutions financed on the basis of outputs. The project will finance needs assessment and curriculum review and development for training of PHC teams. Following a series of consultations with universities, provincial authorities and health professionals, it was agreed that universities will offer a menu of training options to the health professionals. For example, physicians may choose to enroll in the two-year training leading to a CK1 in family medicine (equivalent to a specialist) or a one-year program leading to a certificate. Several programs will be also available for assistant physicians, nurses, midwives, laboratory technicians, village health workers and assistant pharmacists. No matter what the duration of the training is or the degree it leads to, it will be hands-on and worksite-based - and its focus will be on ensuring that the trained professional has adequate competencies and skills in the core principles of PHC and family medicine, in line with the best practices in middle income countries.

100. Each provincial authority is preparing its own detailed HRH plan which will serve as the basis for the MOU between the university and the MOH. Unit costs have been defined based on experience and consultations within the MOH and with the provinces and training institutions. They have also been reviewed by the World Bank Team and agreed upon (see Table 2.3). As in subcomponents 2.1 and 2.2, the project external auditor will verify the number of staff trained for payment purposes.

101. In addition to the training, the project will finance an independent evaluation of the PHC teams' performance post-training. Evaluation will be conducted by: (a) universities and colleges who aim at certifying the successful completion of their training course; and (b) by independent evaluators for the purpose of quality monitoring, using direct observation of PHC teams' performance on the job and/or clinical vignettes.

102. The EU has expressed an interest in co-financing this project. While it supports in principle the objectives of the project as a whole, it has expressed an interest in co- financing activities under this sub-component only. Relevant documents to firm-up this co-financing are being prepared.

103. *District hospitals/training sites:* The short modular and on-the-job training for CHS physicians, nurses, assistant pharmacists, and midwives is developed taking into account community health needs. It will be delivered under the supervision of clinical preceptors (supervisors) at district hospitals which will be the training sites as well as selected CHS/Inter-communal Polyclinic Centers.

104. *Standardized curriculum for training of PHC staff:* For CKI level training, the universities will use standardized curriculum for family medicine which was designed in collaboration with international experts and meets international standards. For certificate level training of physicians a one year (plus six months on-the-job) modular and on-job training curriculum developed by some universities will be adopted by MOH. Meanwhile, the existing four-year training program curriculum will be used for the training of physician assistants to become physicians. Nurses and midwives at the CHSs will be given the option to choose between several training programs. The project will finance development of one year (plus six months on-the-job) training for nurses and midwives as well as lab technician and revision of existing six months (plus six months on-the-job) curriculum for training of nurses, midwives and lab technicians. In addition, the project will finance development of curriculum for short-term training of village health workers and assistant pharmacists. Once their competencies are defined and curricula for their training are ready, the project will finance the delivery of such training. Funds will be allocated in the project accordingly. Estimated unit costs for output-based training under Components 2 and 3 are listed in Table 2.3.

105. *Continuing Professional Development:* The trainers and training sites will play a significant role in the establishment of the Continuing Professional Development. It is anticipated that the established training programs will continue to be offered beyond the five years of the project period with support from the Vietnamese government.

(b) Sub-component 3.2: Ensure that trained PHC teams have access to basic equipment according to the national benchmarks (US$22 million)

106. Under this sub-component, the project will finance the following activities: (a) provision of laboratory, medical equipment and furniture to PHC teams in project provinces based on national benchmarks for CHS; (b) provision of laboratory, medical equipment and medical furniture for clinical training sites.

107. Project provinces are indicating their needs for PHC equipment compared to national benchmarks. The MOH will prepare the specifications for each item of equipment to be procured under the project. In preparing such plans for equipment, the province health authorities are taking into account the fact that the EU has financed equipment for CHSs in 6 of the selected provinces. In addition to CHS in selected provinces, the standard set of laboratory and medical equipment will be provided to training sites to facilitate the training process. Delivery of equipment to the CHS is conditional on at least one staff of the center having completed the planned training in the core principles of PHC.

Component 4: Project Implementation Support and Coordination (US$5 million)

108. This component will support: (a) the establishment and operation of the CPMU under the Directorate of Science and Training of the MOH; and (b) coordination between the MOH and concerned ministries and agencies in the implementation of the project. It will provide the necessary implementation and technical capacity at the Central level to plan and coordinate the implementation of the project. The CPMU will manage the review and approval of grants to training institutions under sub-component 1.2, MOUs between the MOH and the HSPH and the HCMC Institute of Public Health as well as between the MOH, teaching institutions and central and provincial hospitals, under sub-components 2.1 and 2.2 respectively, and MOUs between the training institutions and MOH sub-component 3.1 of the Project. It will also be responsible for monitoring and managing the various studies and TA under the project. This will be done under the oversight of the Steering Committee. The project will finance: support for project management and supervision, procurement, disbursement, FM, project audit, and project monitoring and evaluation (including training of project coordination staff and workshops for the preparation of grants; and incremental operating costs).

Table 2.2: Number of Health Professionals by level in Selected Provinces

No	Province	Physicians			Midwives			Nurses			Assistant Physicians		
		Provincial level	District level	Commune level	Provincial level	District level	Commune Level	Provincial level	District level	Commune level	Provincial level	District level	Commune level
1	Đak Nông	92	109	27	22	82	89	114	249	140	28	92	144
2	Gia Lai	270	219	114	100	171	282	441	373	403	132	195	373
3	Thái Bình	474	427	199	67	146	229	449	528	142	12	109	752
4	Nam Định	357	293	187	50	71	230	553	544	402	44	215	397
5	Khánh Hoà	432	147	56	87	155	200	728	306	134	158	173	322
6	Đồng Tháp	436	267	150	160	155	212	953	448	113	257	333	591
7	Lâm Đồng	276	281	105	95	163	242	423	185	195	104	196	293
8	Lai Châu	148	96	6	48	95	71	271	335	185	237	433	300
9	Điện Biên	80	113	8	46	109	106	284	227	119	208	403	449
10	Sơn La	238	251	130	33	111	244	278	313	390	189	338	438
11	Cao Bằng	198	227	146	32	139	210	206	379	178	116	294	397
12	Lào Cai	269	219	27	61	185	187	341	411	279	96	372	353
13	Yên Bái	270	185	93	49	220	115	309	261	207	101	237	366
14	Hà Giang	207	242	43	44	170	178	216	526	222	325	680	458
15	Kon Tum	192	111	82	62	97	86	322	252	155	53	151	131

Table 2.3: Unit costs and quantity by type of training[i]

No	Activities	Unit	Unit cost	Quantity	Amount in USD	Financing approach
2	**Component 2**					
	Developing Human resource for 2 management training centers					
	PhD degree training	person	120,000	4	480,000	MOU with Hanoi School of public health
	Master degree training	person	60,000	10	600,000	MOU with Hanoi School of public health
	TOT on health facility management for managers of practical training sites	person	1,000	50	50,000	MOU with Hanoi School of public health
	TOT of management training course for managers of Commune health station	person	1,000	60	60,000	MOU with Hanoi School of public health
	Study tours in- country	person	50	1,000	50,000	CPMU carries out
	Study tours oversea	person	50	5,000	250,000	CPMU carries out
	Delivering management training curricula					
	Leadership and management training course for leaders/managers involved in health policy	Trainee	1,000	700	700,000	MOUs with Hanoi School of public health and HCM city Institute of Hygiene and Public Health
	Management training course for leaders/managers of central and provincial non-commercial health offices (curative and preventive areas)	Trainee	600	2,300	1,380,000	MOUs with Hanoi School of public health and HCM city Institute of Hygiene and Public Health

No	Activities	Unit	Unit cost	Quantity	Amount in USD	Financing approach
	Management training course for managers at district level health facilities.	Trainee	600	1,000	600,000	MOUs with Hanoi School of public health and HCM city Institute of Hygiene and Public Health
2.2	**HRH management**					
	Young volunteer doctor program					
	CK1 specialist training for young volunteer doctor (under MOUs with medical schools)	Doctor	6275	500	3,137,500	MOUs with selected medical schools
	Managing young volunteer doctor (under MOUs with hospitals)	Doctor	2,686	500	1,343,000	MOUs with selected hospitals
	Other activities					
	HRH policy development and capacity building					
	05 revised policies on HRH management	policy	5	72,018	360,092	
	05 developed guidelines for HRH management	guideline	5	4,801	24,006	
	10 scientific conference on HRH	conference	10	24,006	240,061	
	10 oversea study tours	Tour	10	24,006	240,061	
	5 studies on HRH	Study	5	48,012	240,061	
3	**Component 3**					
3.1	**Training for PHC teams**					
	Reviewing, revising/developing and standardizing curricula	Curricula	19,205	8	153,639	To be discussed with MOH
	Updating provincial training	Province	2,401	15	36,009	

No	Activities	Unit	Unit cost	Quantity	Amount in USD	Financing approach
	needs and HRH plan					
	Delivering training courses					
	Training of trainers at local health colleges	Trainer	808	300	244,863	MOUs with medical schools
	FM level I specialist	Trainee	6275	500	3,168,811	MOUs with medical schools
	FM oriented specialist	Trainee	3993	800	3,226,426	MOUs with medical schools
	Four year training to upgrade assistant physician	Trainee	7986	150	1,209,910	MOUs with medical schools
	Short-term training for nurses, midwives, physician assistants	Trainee	1148	7,800	9,044,075	MOUs with provincial health colleges
	Ultrasound and ECG for doctors	Trainee	547	1,200	662,570	MOUs with provincial health colleges
	Management training for CHS managers	Trainee	380	2,000	768,197	MOUs with provincial health colleges
	Pharmacy	Trainee	404	1,000	408,104	MOUs with provincial health colleges

[i] This is not the complete list of activities. Others that are the subject of input-based MOUs are not in this list. Also, more training activities may be added in the future as they become ready. Unit costs will be updated as needed.

Annex 3: Implementation Arrangements

Vietnam: Health Professionals Education and Training for Health System Reforms Project

Project Institutional and Implementation Arrangements

109. **Management Structure.** The MOH will be responsible for the overall execution of the project. The ASTT will be responsible for the overall project and for technical oversight of project Components 1 and 3 while DOM will have technical oversight for Component 2.

110. **Project Steering Committee**. As per MOH's common procedures, the Minister of Health has approved the proposed Project Steering Committee and its composition. The Decision establishing it is awaiting the names of the Committee's members. It will largely be a consultation body for discussing issues related to project implementation. It will be chaired by the Minister and will include vice-minister for raining, directors of ASTT, DOM and DPF and representatives from MOET and provincial authorities. A PHC Training Coordination Committee will be established to review and approve a unified curriculum for training of PHC providers at the commune level. In addition to relevant departments of the MOH, the Committee will also include representatives of medical and nursing programs.

111. **Central Project Management Unit.** A CPMU has been established to coordinate the overall project and implement its activities. The Director of ASTT has been appointed as the CPMU Director. He will have three deputies from ASTT, DOM, and DPF. The CPMU will be staffed to carry out the following functions: project management, procurement, financial management, audit (internal and external), and monitoring and evaluation. Details in terms of roles and responsibilities will be described in the POM. During negotiations, it was agreed that the deadline for the adoption of the POM by the MOH will be no later than four months after the Effective Date of the Financing Agreement.

112. The role of the CPMU will be:

(a) Coordination with the World Bank, MOH management and concerned departments, the provincial DOH, universities/colleges; the management training centers, Ministries and agencies at the national level for overall implementation guidance, institutional arrangements and technical guidance/support;

(b) Implementation of the CPMU activities, including, but not limited to, management and supervision of grant agreement with universities/colleges, MOU with the training centers and the universities, TA contracts, procurement of goods at central level including the procurement of large packages under Components 1 and 3;

(c) Management of the designated account at central level and fiduciary duties including annual financial audits and monitoring of the MOUs and accounts with universities and provinces;

(d) Preparation of overall work plan, annual work plan, procurement, financial plans, regular and progress and thematic reports;

(e) Implementation of the monitoring and evaluation of the project activities, impact evaluation against the project result framework and performance indicators; and

(f) Organization of the routine semi-annual supervision mission, mid-term review and final review.

113. **Quality Assurance Council.** A Quality Assurance Council has been established by a Minister of Health decision. It includes 15 members with the Director of ASTT as chair and representatives from health professionals schools, MOET, and health professionals associations. It will have an office space at the project CPMU. The project will finance furniture and office equipment and a secretary to support the administration of the Council. Once established, the QA Council will form three task forces consisting initially of health professionals education experts, to prepare the policies and procedures, guidelines, and instruments to develop the peer review assessment and standardized examination systems. The management and operations of the QA Council are included in the POM.

114. **Memorandum of Understanding.** Following the signing of the Financing Agreement, the MOH will enter into a MOU with the HSPH and the Institute of Public Health of HCMC for the implementation of the management training, with teaching institutions providing CK1 training for paying the tuition fees of the young volunteer doctors, and with the central/provincial hospitals employing the young doctors for paying their monthly allowance. For implementing sub-component 3.1, the MOH will have a MOU with each of the training institutions for the implementation of the PHC team training. MOUs will describe the roles and responsibilities of parties signing the MOU and the agreed outputs under each MOU. The POM includes a sample of the MOU.

115. **Role of Project Provinces.** Each province health authorities will prepare and submit to the MOH the province PHC staff development plans and inventory of available equipment at CHS. The province staff development plan should provide composition of PHC staff at CHS in the province, the training status of team members, the number of staff subscribed for each training program and proposed schedule for their training. The MOH will review, endorse the plan and sign the MOU with medical universities based on provided information. The equipment development plan will assess the equipment gap at each CHS as compare with approved by MOH standard list and will include the description of the needs. The MOH will prepare the specifications for each item of equipment to be procured under the project. In preparing such plans for equipment, the MOH will take into account the fact that the EU has financed equipment for CHSs in ten of the selected provinces.

116. **Grant Agreement with universities/colleges**. Upon completion of proposal development, review and approval process under sub-component 1.2 of the project, the MOH will enter into a grant agreement with each participating university/college. The POM includes a sample of the grant agreement.

Financial Management, Disbursements and Procurement

Financial Management

117. The inherent risk to the project FM is assessed as High and the project control risk is assessed as Substantial after mitigation measures are taken. The key risks identified at preparation stage are: (a) project management personnel are not yet appointed, leading to lack of responsibility in project design and budgeting; (b) non-existence of internal audit function, which may not prevent or detect early any misuse of project fund; (c) limited financial reporting capacity which may result in inaccurate and delayed financial information for project management decision making; and (d) a high number of universities and schools, with various level of capacity, participating both as implementing agencies and as service providers which may be difficult for CPMU to manage.

118. The FM Action Plan is as follows:

Table 3.1: Financial Management Action Plan

	Actions on Financial Management	Expected Date of Completion	Responsibility
1	Appointment of adequate qualified experienced officers to be in charge of FM of the project at CPMU and all implementing agencies	May 30, 2014	CPMU and all implementing agencies
2	POM, including FM section. Detailed description for grant mechanism, MOU, and output based disbursement	No later than 4 months after effectiveness	CPMU
3	Training for project FM personnel	Project Launch	CPMU, World Bank
4	Budget for consulting firm to be internal auditor included in the Procurement Plan for first year. TOR and recruitment process subject to prior review.	Done	CPMU
5	Appointment of external audit for the project financial statements. TOR of external auditor includes verification of outputs (number of students trained).	6 months after Effectiveness	CPMU
6	Budget for financial audit included in Procurement Plan for first year, TOR and recruitment process subject to prior review.	Done	CPMU

119. MOH will be the implementing agency at central level. It has established a CPMU to perform the daily project management function. The FM function in universities will be performed by the existing FM units of the universities. Areas of weakness that need to be addressed during the project preparation and implementation are: (a) lack of internal audit function; (b) lack of formalized internal reporting system for management purposes; and (c) lack of experience in managing large donors funded projects. The World Bank carried out the FM Capacity and Risk assessment based on the capacity assessment of the MOH, related

departments and universities. The FM function of the MOH/ASTT, DOM and universities meet the World Bank's minimum FM requirements The World Bank will formally re-review/evaluate the capacity of CPMU and univertities team once all staff are appointed.

120. **Interim Financial Reports (IFRs)**. MOH CPMU will prepare IFRs based on the information provided by universities and submit to the World Bank within 45 days of the end of the semester. The IFRs, which are unaudited, will cover all project activities. The IFRs include the following forms:

IFR1: Sources and Uses of Funds
IFR2: Disbursement by component
IFR3: Statements of Designated Accounts Reconciliation

121. **External Audit.** Project financial statements will be prepared by the MOH/CPMU. The project's annual financial statements will be audited in accordance with international auditing standards and in compliance with the independent auditing regulations of Vietnam. MOH CPMU will be responsible for the appointment of the auditor for the entire project in accordance with the World Bank's guidelines. The audit TOR will be extended to cover the verification of outputs which triggers the payments for sub-components 2.1, 2.2 and sub-component 3.1 (number of students/managers trained).

122. **Internal audit.** The readiness of MOH on this function is limited, therefore this function is to be outsourced at least for the first three years. Afterwards, that the MOH will consider using its own staff to be the project internal auditors. The assignment and TOR of the internal auditors will be reviewed by the World Bank and the auditor is expected to be hired about six months after project outsourced internal audit function will be considered. Recruitment of internal auditors is included in the Procurement Plan for 1st year of the project. The TOR of the consulting firm will include tasks for on the job training of MOH assigned internal auditors, and developing internal audit manual for the Project.

123. **Governance and Anti-corruption.** To strengthen the FM arrangements for the project and to help reduce the risk of fraud and corruption, there will be particular emphasis on the following areas: (a) clear FM responsibilities without gaps and overlaps in the duties to be performed as per the FM manual; (b) internal audit function with comprehensive TOR approved by the World Bank; and (c) authorization by Expenditures Verification Agencies (State Treasury and Vietnam Development Bank) prior to payments, following the procedures in the country.

Disbursements

124. **Funds Flow.** The primary disbursement method will be Advances. One segregated US Dollar denominated DA will be set up and managed by the CPMU at a comercial bank acceptable to the World Bank with a Fixed Ceiling of US$10,000,000. Supporting documentation required for documenting eligible expenditures paid from the DA are Statement of Expenditures and a list of payments against the contracts that are subject to the World Bank's prior review, together with Records. The Statement of Expenditures for the output based schemes will need to detail a listing of the number of Trainees/Managers x Unit Cost of Trainees/Managers and the accompanying verification report. The frequency for reporting

eligible expenditures paid from the DA is quarterly. The Reimbursement, Special Commitment, and Direct Payment disbursement methods will also be available. The Minimum Application Size for Reimbursement, Special Commitment and Direct Payments will be US$2,000,000 equivalent.

125. The project will have a Disbursement Deadline Date (final date on which the World Bank will accept applications for withdrawal from the Recipient or documentation on the use of Credit proceeds already advanced by the World Bank) four months after the Closing Date. This "Grace Period" is granted in order to permit the orderly project completion and closure of the Credit accounts via the submission of applications and supporting documentation for expenditures incurred on or before the Closing Date. Expenditures incurred between the Closing Date and the Disbursement Deadline Date are not eligible for disbursement, except as otherwise agreed with the World Bank.

126. **Proposed Disbursement Schedule.** Disbursement will be made against eligible expenditures for each of the project components. It is expected that the proceeds of the credit will be disbursed over a period of six years from 2014 to 2020, including grace period.

127. **EU Co-financing***:* The EU has expressed interest in co-financing sub-component 3.1 of the project. Financing will be for MOUs between the MOH and universities/colleges for the training of PHC teams in the participating provinces of the project. It was agreed that some MOUs will be entirely financed by EU and others entirely financed by IDA. The same disbursement arrangements/methods as for the IDA Financing will be used for the EU funding, with a segregated USD denominated DA to be set up and managed by the CPMU at a commercial bank acceptable to the World Bank with a Fixed Ceiling of US$2,000,000 and a Minimum Application Size of US$400,000.

Procurement

128. **Institutional Arrangement.** The project implementing agency will be the MOH. The CPMU established under MOH will be responsible for overall procurement activities financed by IDA funds. CPMU will include staff from MOH departments that are involved in project activities including ASTT, DOM, and DPF. Other key stakeholders involved in the proposed project will be participating universities/colleges, whose participation will be two-fold: (a) implementing the allocated funds to enhance their training capacities; and (b) conducting the training programs. The universities may or may not establish their own Subsidiary Project Management Unit, depending on specific context of each university.

129. **Procurement Capacity and Risk Assessment.** The World Bank team conducted a PCRA in September 2013 based on the assessment of capacities of MOH and a few selected participating universities. While the MOH is familiar with the World Bank's procurement rules and procedures in general, this will be however the first time for the departments of ASTT and DOM to be directly involve in a World Bank financed operation. The majority of participating universities will also for the first time implement a World Bank financed project. The PCRA revealed that the procurement management capability of ASTT and DOM and that of the participating universities is relatively weak. Although the concerned departments and universities have some experience in conducting procurement in accordance with Vietnam public

procurement law and regulations, only a few of them have prior experience in management of procurement for World Bank-financed projects. They also have limited experience in management of large contracts based on international terms and conditions.

130. The assessment identified several procurement risks that could arise in the proposed project: (a) possible delays in procurement activities, particularly with regard to the procurement of skill labs which are a specialized equipment to be provided for most of the participating universities; and (b) possible non-compliance with World Bank procedures (including governance and corruption issues). Procurement delays could occur at all stages of the procurement cycle, including planning, preparation of procurement documents, bid evaluation, approval of bid evaluation reports, award recommendation, and contract management.

131. The envisaged international competitive bidding packages will be neither very high in value nor very complex in nature and no large civil works are anticipated. Yet, given the relative weak capacity and inexperience of the CPMU in World Bank operations, the procurement risk for the proposed project is rated as "**Substantial**".

132. **Risk Mitigation Measures.** To mitigate the risks and build up capacity, the World Bank team has discussed and agreed with MOH that the following key measures shall be taken:

(a) MOH shall apppoint adequately qualified officers to be in charge of procurement of the project at CPMU;

(b) CPMU shall engage qualified procurement consultants to support procurement officers;

(c) CPMU shall mobilize adequate technical expertise (in house and/or external consultants) to prepare technical specifications and provide assistance throughout procurement process and contract execution;

(d) MOH shall prepare a hands-on procurement manual (covering clear rules, procedures and division of responsibilities, sample documents and evaluation report for small procurements, etc.) as part of the POM;

(e) Staff of CPMU and universities/colleges who are involved in procurement implementation should receive intensive training on the World Bank procurement procedures prior to the start-up of the project and throughout the project implementation; and

(f) CPMU shall provide coordinating role and help desk support to universities/colleges in procurement implementation.

It is expected that after these measures are implemented, the Residual Risk will become **Moderate**.

133. **Procurement Arrangements.** Procurement for the proposed project will be carried out in accordance with the World Bank's "Guidelines: Procurement of Goods, Works and Non-consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011 ("Procurement Guidelines"), and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated

January 2011 ("Consultant Guidelines"), as well as the relevant provisions in the Financing Agreement. The specific procurement methods, their application thresholds, and the thresholds for the World Bank's Prior Review to be applied for each of the contract under the proposed project are indicated in the Table below. These thresholds will be reflected in the Procurement Plan and may be updated from time-to-time during project implementation.

Table 3.2: Summary of Procurement Arrangements

Expenditure Category	Contract Value (US$)	Procurement Method	World Bank Prior Review (*)
Goods	>=$1,000,000	ICB	All the ICB contracts
	<$1,000,000	NCB (***)	First contract for each implementing agency
	<$100,000	Shopping	N/A
	NA	DC	All DC contracts
Works	>=$10,000,00	ICB (**)	All the ICB contracts
	<$10,000,000	NCB (***)	First contract for each implementing agency
	<$200,000	Shopping	N/A
	NA	DC	All DC contracts
Consultant Services (****)	>=$300,000	QCBS, QBS, FBS, LCS	Firms: All contracts >= $300,000 for firms; first contract for each method regardless of value; SSS contract >=$50,000 Individuals: only in exceptional cases for competitive selection; SSS contract >= $20,000 Audit contracts: all
	<$300,000	QCBS, QBS, FBS, LCS or CQS	
	NA	SSS	
	NA	IC	

Notes:
ICB – International Competitive Bidding
NCB – National Competitive Bidding
DC – Direct Contracting
QCBS – Quality and Cost Based Selection
QBS – Quality Based Selection
FBS – Fixed Budget Selection
LCS – Least Cost Selection
CQS – Selection Based on Consultants' Qualification
SSS – Single (or Sole) Source Selection
IC – Individual Consultant selection procedure
NA – Not Applicable

* Contracts below these Prior Review thresholds shall be subject to Post Review on an annual basis. The rate of post review will be initially 20%. This rate may be adjusted during project implementation based on the procurement performance.
** The applicability of ICB for Works has not been identified at the project appraisal stage.
*** The applicability of NCB for Works has not been identified at the project appraisal stage.
***Where goods are not normally available within Vietnam, the method of procurement will be ICB even if the contract value is less than US$1 million/contract.
***The NCB procedures shall be those set forth in Vietnam's procurement laws and regulations, but subject to modifications, waivers, and exceptions as set forth in the "NCB Annex" to the Financing Agreement.
**** Shortlists for contracts below US$0.3 million/contract may comprise entirely national consultants.

134. The planned demarcation of responsibility for procurement actitivies under the proposed project is as follows. Detailed arrangements will be reflected in the Procurement Plans and POM.

135. *Component 1 (Improve the quality of health professionals education):* With regard to subcomponent 1.1, MOH CPMU will be responsible for recruiting experts to work on the accreditation and examination task force and other procurement activities. With regard to subcomponent 1.2, while the subcomponent is designed as a grant to the participating universities, it has been agreed that CPMU will be responsible for the procurement of high value equipment commonly needed by the universities, notably the skill labs, in a centralized manner based on proposals from universities, to ensure the economy of scale in procurement and the standardized quality of equipment. As for minor sized procurement of equipment and teaching materials, building renovation works and consulting services under subcomponent 1.2, the procurement activities will be carried out by the universities.

136. *Component 2 (Strengthen management competencies in the health sector):* Procurement of necessary facilities and resources for improving capacity of the Hanoi School of Public Health and HCMC Institute of Hygiene and Public Health will be carried out by these two training institutions. The two training institutions are also expected to deliver the management training courses under output-based financing mechanism, where payment will be made on the basis of number of managers trained, under an MOU with MOH/CPMU. As the training is considered a "non-procurement" activity, it will not be included in the Procurement Plan. Instead, a detailed training plan should be developed annually or as needed.

137. *Component 3 (Improve competencies of Primary Health Care Teams at grass-roots level):* The training activities under subcomponent 3.1 will be implemented through an output-based-financing mechansim, under which payment to training institutions will be made based on predetermined unit rate(s) according to the curriculum agreed with MOH and as certified by an independent verification agency. Due to the nature of the training curriculum which covers both lecturing, hands-on and worksite-based training, local universities/colleagues will be appointed by MOH, based on pre-agreed criteria, to carry out training activities in respective provinces.This is considered a "non-procurement" activity and will not be included in the Procurement Plan. Instead, detailed training plans should be developed annually or as needed at the provincial level.

138. As for the procurement of medical equipment for CHSs and clinical training sites under subcomponent 3.2, procurement will be aggregated and carried out by CPMU based on the needs assessment consolidated from beneficiary Provincial Departments of Health.

139. *Component 4 (Project Implementation Support and Coordination):* All procurement activities under this compoment will be handled by the CPMU.

140. Engagement of Government owned universities and professors. All universities and colleges to be engaged for the implementation of training activities under subcomponent 3.1 and the two training institutions to be tasked for management training under subcomponent 2 as described above will be Government owned institutions, belonging to either MOH, MOET, or Provincial People's Committees. These are the only institutions in Vietnam that will have the functions and capabilities to deliver the training required under the project; hence, they are

considered to be uniquely qualified (as per para. 1.13 (c) of the Consultants Guidelines) for the proposed assignments and their participation is critical and essential to the project implementation. The universities and colleges will carry out tasks that are incremental to their statutory activities. On the same basis, certain professors from universities and research institutes might need to be hired to work on the accreditation and examination task force and other activities under the project. Any request for hiring a professor from Government owned university and research institute will be justified and reviewed on a case by case basis in accordance with the provisions of the Consultant Guidelines especially regarding eligibility and conflict of intetest.

141. For each contract under the project to be financed by the IDA Credit, the procurement methods, estimated costs, prior review requirements, and time frame will be reflected in the procurement Plan. The MOH has developed the draft Procurement Plan for the first 18 months of the proposed project's implementation.. The draft plan has been reviewed by the World Bank and needs to be revised along comments given by the World Bank team.

142. The above mentioned Procurement Plan shall be updated throughout the duration of the project as needed or at least annually. The updated Procurement Plan should retain all the contracts previously awarded to present a full picture on procurement under the project. All procurement plans, their updates or modifications shall be subject to World Bank's prior review and no-objection. The World Bank shall arrange after project negotiations the publication on the World Bank's external website of the agreed initial Procurement Plan and all subsequent updates. The CPMU shall arrange the publication of all the procurement plans on the Vietnam Public Procurement Review (both paper and online version).

Environmental and Social (including safeguards)

143. Under the scope of investment, the project will finance: (a) minor building renovation for some of the 26 medical/nursing schools under sub-component 1.2; and the 2 training centers under sub-component 2.1; and (b) medical equipment for the clinical training sites and a number of CHS at 15 participating provinces under Component 3. The building renovations are minor (e.g., painting, internet connection, etc.) and/or any other related investments that will be done in the same existing buildings, are within the same footprint, and will not require any extension of the building. The biomedical equipment to be financed in this project will include only simple equipment that does not generate hazardous healthcare waste. In addition, the established field practice laboratories and equipment procured for medical/nursing skill laboratories eligible for financing under Component 1 only include mannequins and simulators, which will not generate hazardous healthcare waste.

144. On the positive side, the project will help to raise awareness on environmental protection as it is proposed to include a training module for health workforce on healthcare waste management. On the other hand, the minor building renovation activities may cause potential impacts relating to generation of dust, noise, solid waste, waste water and labor safety during implementation. There is a potential risk with respect to the stabilization and safety of the existing buildings as a result of possible changes in the internal layout during renovation. In addition, and in relation to the biomedical equipment financing, it is necessary to ensure the proper healthcare waste management at the CHC that will be supported by this operation. The

potential negative impacts are assessed to be small, localized and could be managed through good management practice. The project therefore triggers OP/BP 4.01 and is classified as a category B. An ESMF has been developed by the Client to address potential adverse environmental impacts arising from and in line with implementation of project activities. The ESMF comprises: (a) an Environment Code of Practice for minor building renovation work to be included in renovation contract; and (b) a brief waste management plan to be followed by CHSs during implementation. In addition, the ESMF lays out the procedures for safeguard implementation, monitoring and reporting as well as institutional arrangement, training and cost for safeguard implementation.

145. The MOH will have the overall responsibility for ensuring safeguard compliance during project implementation. The project will provide necessary training to strengthen the capacity of health workforce in safeguard implementation.

146. During preparation, relevant stakeholders including the identified participating schools and CHS were consulted on the content of the ESMF and their feedback was taken into consideration in the final version of the ESMF. The ESMF in Vietnamese has been disclosed locally at the MOH office/website, and at the Vietnam Information Development Center in Hanoi. In addition, the ESMF has been disclosed in English in the Infoshop in Washington DC.

147. The project is expected to have no adverse impacts on ethnic minority groups who live in some of the disadvantaged districts that are targeted by the Project. It is expected that the project will help to improve the quality of health professionals education and the competencies and of PHC Teams, especially in disadvantaged areas. In line with OP 4.10, a Social Assessment has been done to identify and characterize key stakeholders in terms of their importance to and influence over the project objectives and implementation; to identify potential barriers (cultural, institutional, financial, language etc.) for ethnic minority health staff in the project area to access the project benefits and services; and to document the 'broad community support' toward the project's activities and define the processes for ensuring the consultation and participation of these stakeholders (especially ethnic minority health staff) in project design, implementation, and monitoring and feedback. An EMDP has been developed for the project. The mechanisms for ensuring culturally appropriate intervention and equal access to the project's benefits are addressed in the POM and in the EMDP. Implementing agencies will develop appropriate monitoring and evaluation tools with data of beneficiaries disaggregated by gender and ethnic group.

Monitoring and Evaluation

148. The Monitoring and Evaluation framework for the project follows the results framework and monitoring outlined in Annex 1. Intermediate indicators will be measured regularly in order to monitor progress towards the PDO. To the extent possible, the project will rely on existing MOH and MOET data collection mechanisms. The project will also utilize special independent data collection (such as direct observation and facility-based surveys).

149. The CPMU will be responsible for monitoring project implementation and project results. A qualified monitoring and evaluation staff will be assigned in the CPMU to produce the necessary progress reports. The monitoring and evaluation staff will coordinate with the universities and the provincial authorities to produce semi-annual progress reports which will inform World Bank missions, annual reports, and inputs to mid-term and final project evaluation. The CPMU will develop required data collection instruments and a data recording and reporting system. The project will finance an independent agency to assess whether the unified curriculum used by training institutions is implemented as planned and whether trained staff exhibits the competencies and skills to deliver health care. To the extent possible, all data will be disaggregated by gender.

150. As noted in Annex 1, baseline data are needed only to measure quality improvements in health professionals' schools. Therefore, as part of the granting of funds to health professionals programs, they will include baseline data on teaching methods, library, etc. as detailed in Annex 1.

Annex 4: Operational Risk Assessment Framework (ORAF)

Vietnam: Health Professionals Education and Training for Health System Reforms Project

Stage: Board

<table>
<tr><th>Project Stakeholder Risks</th><th>Rating</th><th colspan="3">Moderate</th></tr>
<tr><td rowspan="3">Description:
Lack of close coordination between government agencies and key stakeholders involved in the project at various levels, for example, between MOH and MOET, between related departments at the MOH, provincial health authorities, and among schools and universities. Although a medical and nursing association exists, they have little influence on policy making. Poor coordination among government agencies could impact the efficiency and quality of project implementation.</td><td colspan="4">Risk Management:
Project design includes specific measures and activities to support interagency cooperation. The project will include a Steering Committee which will be comprised of representatives from MOH, MOET, and provincial authorities. In addition, as colleges and universities will benefit from the project, they are expected to closely collaborate with the MOH/MOET/ provincial authorities. Project preparation had included consultations with various stakeholders.</td></tr>
<tr><td>Resp: Client, World Bank</td><td>Stage: Preparation,</td><td>Due Date: Ongoing</td><td>Status:</td></tr>
<tr><td>Resp: Client, World Bank</td><td>Stage: Preparation, Implementation</td><td>Due Date : Ongoing</td><td>Status: On going</td></tr>
</table>

<table>
<tr><th colspan="5">Implementing Agency Risks (including fiduciary)</th></tr>
<tr><td>Capacity</td><td>Rating:</td><td colspan="3">Substantial</td></tr>
<tr><td rowspan="2">Description:
There is a strong ownership of the project with ASTT who has been leading project preparation and who will be in charge of implementation. The CPMU will be part of ASTT and its director will be the director of ASTT. However, this is the ASTT’s first major operation funded by the World Bank so it does not have experience with executing World Bank-financed projects. Staff assigned to the CPMU may not have adequate capacity and awareness of Government and Bank procedures.

Universities and colleges who are implementing agencies may not have the capacity to implement.

There is uneven capacity among the universities in developing good quality proposals.

Output-based financing is a new instrument for the MOH, the provincial authorities, and the colleges and universities involved in implementing this operation.

Bureaucracy in review/appraisal/approval procedures by MOH and universities for work plans and the Procurement Plan may potentially delay the implementation and procurement process.</td><td colspan="4">Risk Management:
The project design has been simplified to ensure that MOH/ASTT is not implementing all activities under this project. Their role will be limited to a large extent to MOU/contract management. A clear Project Operation Manual is being prepared and will be ready prior to project launch.

The World Bank has conducted capacity assessments during project preparation and has agreed on measures to strengthen capacity, including arranging guidance and supervision by the central level as needed.

Guidelines for proposal development have been prepared to provide clear guidance on proposal development. They include ways to assist weaker universities, for example, through partnership with local or international institutions (twining).

Payment to universities will be output-based, and the effectiveness of the program will be monitored and evaluated through direct observation by an independent agency recruited for that purpose.

Intensive procurement training (on a routine and/or ad-hoc basis) will be done for ASTT, colleges and universities, as needed.

Qualified financial and procurement specialists should be on board at the CPMU before project launch.</td></tr>
<tr><td>Resp: Client, World Bank</td><td>Stage: Implementation</td><td>Due Date: Ongoing</td><td>Status: On going</td></tr>
</table>

<table>
<tr><td>Governance</td><td>Rating:</td><td colspan="3">Substantial</td></tr>
<tr><td rowspan="2">Description:
MOH/ASTT will manage several MOUs and grants to be implemented by training institutions or central and provincial hospitals. There is a governance risk in that such institutions may not spend the funds allocated in an effective and efficient way either because of too much or inadequate controls.

The Higher Education Law that came into effect in January 2013 provides training institutions with autonomy to set the legal framework on educational accreditation. However, implementation guidelines and detailed regulations are still being developed.

There is a risk that staff who have newly acquired skills may not be given the mandate to apply them at the CHS.</td><td colspan="4">Risk Management:
Procurement and financial management capacity of implementing agencies has been assessed as part of project preparation and remedial actions will be taken as needed. Most universities under sub-component 1.1 of this project have experience with grants from a previous higher education project. Grant proposals are expected to include a clear description of roles and responsibilities with remedial action in case of non-compliance.

MOUs in Components 2 and 3 are designed so that payment is output-based. Unit costs have been determined on the basis of experience and extensive consultations with universities/colleges and provincial authorities; the number of potential trainees has also been estimated. Outputs will be verified by the external auditor. The project design also includes an evaluation of the quality of the training.

The risk will be mitigated by the establishment of a Quality Assurance Council within the MOH, and the development of a peer review assessment system which will prepare the ground for accreditation.

In addition to this operation, the Government is implementing a number of reforms for the health sector including changes in the delivery of services, health financing and payment mechanisms. Moreover, the Government has demonstrated its willingness to remove such barriers in those CHS’s where staff has completed the training.</td></tr>
<tr><td>Resp: Client</td><td>Stage: Preparation, Implementation</td><td>Due Date: Ongoing</td><td>Status: In progress</td></tr>
</table>

<table>
<tr><td colspan="2">Project Risks</td></tr>
<tr><td>Design</td><td>Rating: Substantial</td></tr>
<tr><td>Description:
There is a risk that key stakeholders are resistant to adopting the recommended approach developed by the MOH's Quality Assurance Unit. On the same note, the medical schools, particularly the weaker ones, may feel threatened by the standardized national competency based examination as a high failure rate may negatively affect the school's reputation.

The project is grounded on an underlying assumption that training leads to improved provider competency that leads to delivery of better services. Recent studies cast some doubts on that premise and raise the question of whether knowledge and competencies necessarily translate into practice or effort by health providers

The PHC team training may widen the gap of quality of care between developed and less developed provinces and between urban and rural areas if provincial selection and candidate selection criteria are in favor of advanced provinces and of candidates from urban areas.</td><td>Risk Management:
The risk will be mitigated by the Quality Assurance Council established by MOH Decision. In addition, the Task Forces will be composed of representatives of various stakeholders, who will work on the Peer Review Assessment process and a standardized exam. Regulation to establish the Council and adopt a national examination system is being developed prior to the project launch.

Experience of similar projects of limited scope in Vietnam, such as the one in Hue province, shows that the risk is minimized when training is modular, is conducted partly on-the-job, and is accompanied by close supervision, clear accountability – including perceptions of consequence of poor performance and improved organization of care.

The project will target less developed provinces and candidate selection criteria will ensure equal opportunity for interested candidates to enroll into the program.

Resp: Client/World Bank | Stage: Preparation, implementation | Due Date: by preparation and implementation | Status: Not yet due</td></tr>
<tr><td>Social & Environmental</td><td>Rating: Low</td></tr>
<tr><td>Description:
Inadequate waste management in the CHS.

Physicians from ethnic minority groups may have less chance to enroll in training program.</td><td>Risk Management:
The MOH has developed and disclosed a simple Environmental Social Management Framework. Each CHS will prepare a simple healthcare waste management plan. Healthcare waste management will be included in the training program for PHC team.

The project is targeting minority areas. The volunteer doctors will be serving the most disadvantaged areas. In addition, gender equity in access to training will be closely monitored. The MOH has developed and disclosed an Ethnic Minority Development Framework.</td></tr>
</table>

	Resp: Client	**Stage:** Preparation	**Due Date :** by appraisal	**Status:** Not yet due
Program & Donor	**Rating:**	**Low**		
Description: Failure to synergize World Bank, Asian Development Bank, and other donor's assistance to MOH in HRH development will result in inefficiencies and conflicting HRH policies.	**Risk Management:** During project preparation, the team has had regular consultations with the Asian Development Bank and the Global Fund regarding project design as well as project implementation and management issues. The EU is committing to co-finance subcomponent 3.1 and will contribute to financing of supervision.			
	Resp: World Bank	**Stage:** Preparation	**Due Date :** Ongoing	**Status:** Not yet due
Delivery Monitoring & Sustainability	**Rating:**	**Substantial**		
Description: Sustaining the presence of PHC team at the CHS will require PHC reform to reposition the function of the CHS in the health service delivery system, addressing the scope of service, staffing qualifications, financing system under the universal coverage scheme, infrastructure support, and the referral system. This will be difficult to attain if MOH prefers to focus the project on input support and is less committed to developing the PHC reform model.	**Risk Management:** Discussion of Component 3 with MOH has been framed within the context of PHC reform - endorsing analytical work and technical assistance to support policy development, while at the same time conducting staff training, and procurement of equipment and drugs as a part of the reform agenda.			
	Resp: World Bank	**Stage:** Preparation	**Due Date :** Ongoing	**Status:** Not yet due
	Risk Management :			
	Resp:	**Stage:**	**Due Date :**	**Status:**
Overall Risk Following Review: Substantial				
	Implementation Risk Rating: Substantial			
Comments:	**Comments:** The overall implementation risk is rated "substantial" as the project bears substantial design and fiduciary risk associated with the project complexity and the country fiduciary environment.			

Annex 5: Economic and Financial Analysis

Vietnam: Health Professionals Education and Training for Health System Reforms Project

Project Rationale

151. The Health Professionals Education and Training for Health System Reforms Project fits naturally into the development vision of Vietnam's health sector for the next decade, which is laid out in the National Five-year Health Sector Development Plan (2011-2015). The key tasks expressed in the Plan include prioritizing investment in training and teaching facilities to improve training quality for health professionals, and consolidating the health care delivery network especially at the grass-roots (primary care) level. These are precisely the areas targeted by the project through investments in: (a) improving the quality of health professionals education; (b) strengthening the capacity to manage the health sector; and (c) enhancing the competencies of PHC teams, especially in disadvantaged areas.

152. The implicit need in Vietnam for the proposed component activities is high since there is significant scope to raise the training quality among Vietnam's health professionals. Key challenges facing the current health professionals education and training include:

(a) **There is no quality assurance instrument in place to assure that new health professionals are adequately educated to meet the emerging health needs of the population**. There has never been a systematic assessment of whether the curricula used by various health professional institutions are adequate to develop the competencies required to address the changing disease pattern in Vietnam, particularly the increase in NCDs. The absence of a quality assurance instrument for health professionals education has resulted in a wide variation in training quality across education programs. In addition, at the completion of training, there is no standardized examination conducted at each individual school, limiting the opportunity for an objective assessment of students' competencies to ensure their readiness for practice.

(b) **Investment in health professionals' training institutions is insufficient to support the increasing cost for quality training.** The country has been progressing in producing HRH over the last 10 years. Though total state budget earmarked for training in institutions affiliated with the health sector increased over time, its share in total budget for health decreased over time (1.6% in 2005, but only 0.6% in 2010) (Table 5.1). Overall standards of training are considered poor, with few qualified staff, and little support for staff to participate in training. Given the increasing training costs, more budget allocation for training is needed to support health professionals' training and to ensure training quality[9].

[9] Situational Analysis of Health Professionals Education in Vietnam. 2012. Vietnam.

Table 5.1: State budget for training in health sector, 2005-2010

Year	2005	2007	2008	2009	2010
Total state health-care budget (billion VND)	18,976	31,481	43,048	60,135	72,028
Total training budget (billion VND)	295	383	484	348	406
Percentage (%)	1.6	1.2	1.1	0.6	0.6

Source: Vietnam Health Statistical Yearbook 2005-2010.

(c) **There is a wide disparity in qualifications of health professionals between central and grass-roots levels.** Most of the skilled health professionals, especially physicians, are concentrated in cities. Rural population represents 72.6% of the national population, but only has 5% of post graduates and 45.2% of university graduates working at district and commune levels. In general, the training for medical school students is hospital-based and there is little preparation for work at the primary care level. New medical graduates are not confident to work independently at the CHS without close technical supervision and support. The severe shortage of qualified health workers and low competencies of existing health workers have resulted in poor service quality at commune and district levels.

(d) **Lack of competencies of PHC teams at grass-roots level has caused inefficiencies in service utilization.** Hospitals are widely used for conditions that can be treated more cost-effectively at lower levels of the system. These include the prevention and early treatment of most NCDs such as hypertension, diabetes, chronic respiratory infection, and others. However, the existing PHC teams lack competencies to properly diagnose and treat these conditions. The perceived low quality of services at grass-roots level is probably the main reason why people continue to bypass the CHS and seek care directly at the district and/or even provincial hospitals, causing serious overcrowding problems. According to the MOH (2010), about 76% and 70% of provincial and district hospitals respectively suffered from overcrowding. Overcrowding has placed an increasing economic burden on the hospitals, leading to increasing OOP spending, inefficiencies and poor quality of care.

153. In light of these issues, increased financing is needed to improve the quality of health professionals in Vietnam. This project, financed by IDA, the EU and the counterpart will be implemented upholding the objective to improve the quality of health professionals education, to strengthen the management capacity, and to improve the competency of primary health care team, especially at the grass roots level.

Rationale for Public Financing and Bank Value-added

154. Health professionals education and training is universally regarded as a public good, with significant externalities. Public investment in the project is justified principally for the public goods nature of the quality assurance assessment and training activities and for the positive externalities associated with improved population health outcomes. As non-rival public goods, the provision of a quality-related PRA scheme and training of health professionals does not reduce the availability of such services to others. The public good nature of project activities can further address the information asymmetry in the current healthcare market. In such a market, patients cannot assess the quality of health professionals

and would need the Government to play a role of making sure that they are trained appropriately and are qualified to provide health services.

155. Government intervention is also justified to shift care from hospitals to grass-roots level facilities. If implemented properly, the public provision of training for existing health professionals at commune level targets better access and use of care which combines treatment and public health programs for rural and poor population, and ensures sustainability of universal health coverage.

156. Though the private sector has been engaged in providing some medical and nursing education and training programs in Vietnam, the training quality of these programs is considered poor due to lack of appropriate QA. Without clear revenue possibilities of investing in QA programs, it is highly unlikely that the private sector will invest in such activities to a degree that is socially optimal. Also, given the current lack of consumer familiarity with medical school PRA in Vietnam, as well as generally low levels of health knowledge in the population, the private sector's financing of such activities may be unlikely. Therefore, the Government should be supporting activities in this area.

157. The project will build on the regional and global experience from the previous Bank-supported investment activities in similar issues. After having worked with the country for many years in the health sector, the Bank brings a wealth of valuable lessons and has developed in-house expertise in policy dialogue and project design. The project also complements the other two Bank-financed projects in the health sector in order to jointly address the broader issues facing the health system in Vietnam.

Economic Analysis

158. A quantitative cost-benefit analysis is not very meaningful for Component 1. Not only is it difficult to assign a monetary value to expected improvements in health outcomes, it is also difficult to reliably estimate the impact of the project's investments in health professionals education on health outcomes. Instead of doing a full cost-benefit analysis, the approach taken here is to establish the economic case by presenting the mechanism through which potential benefits will be achieved by Component 1 activities. The analysis reviews some empirical evidence to support the causal linkages between QA of education and better quality of care. The analysis for Component 2 and 3 quantifies one expected benefit of the project (increased allocative efficiency and cost containment in the health sector), and provides an illustrative cost-benefit analysis. It doesn't quantify many of the other expected benefits such as improvements in health outcomes, improvements in financial protection, reduction in travel, and indirect costs of seeking care at grass-roots level.

159. Component 1 activities will focus on developing a QA instrument of health professionals education, starting initially with medical and nursing education. The instrument will include a PRA and a standardized qualifying examination. Significant resources will be used to finance grants to universities to meet the standards of accreditation for health professionals education.

160. Quality assurance of health professionals education programs is becoming increasingly prevalent worldwide, and the ultimate purpose is to improve the quality of service delivery and thus the population health outcomes. Overall, the empirical evidences from both developed countries and developing countries on this issue are scarce. Although there is no guarantee that the quality assurance necessarily leads to an improvement in the

quality of care that the community receives, a sustained improvement in care quality can only happen if the health professional are properly trained. QA of education is seen as a first step towards achieving this goal.

161. In the United States, Kassebaum et al (1997) claims that following an accreditation visit that reveals shortcomings in meeting the set standards, many schools are able to take steps toward institutional change and improve education quality[10]. The finding indicates that a well-developed QA system can lead to improved education quality and greater knowledge gains among entering cohorts of practitioners. Clark et al (1998) directly link provider education to better child health outcomes in an intervention focused on child asthma[11]. The study shows that a supplementary education intervention to physicians significantly reduced symptoms and follow-up office visits, emergency department visits and hospitalizations. In a related study, Ross et al (1999) find that a failure of education or training is responsible for 20% of all adverse events observed in the Quality in Australian Health Care Study[12].

162. Moving to the developing country context, a study conducted in Mexico and Philippines (2012) shows an association between QA instrument (accreditation of medical education programs) and student performance (examination scores)[13]. In general, students attending accredited medical schools outperformed those attending non-accredited schools. In a study in Indonesia, Barber et al (2009) argue that lower-quality care in Indonesia is, to a large extent, a manifestation of education quality. They conclude that improving training quality is an important strategy to use when quality deficiencies result from lack of skills[14].

163. Though a quantitative cost-benefit analysis is not feasible for Component 1, the analysis suggests that there is still considerable potential to improve health outcomes in Vietnam and therefore to obtain positive net present benefits from the component activities. Improved health outcomes generate indirect economic benefits, which can be reflected by: (a) gained productivity as a result of reduced morbidity or mortality; (b) reduced OOP spending due to more accurate diagnosis and appropriate treatment; and (c) reduced public expenditure in the health sector.

164. Project investment in launching the young physician volunteer program will improve the distribution of HRH in the disadvantaged areas. Since the young physicians are incentivized to work in disadvantaged districts for two years, continuation of this program will have a sustainable impact on strengthening the health workforce in these areas and increasing the health utilization in district hospitals. Given Component 3 activities of enhancing the competencies of PHC teams at grass-roots level, the project is expected to improve efficiency in utilization and generate significant cost savings by shifting inpatient utilization from provincial and central level to the district level, and by shifting outpatient utilization to the commune level. Individuals or households who choose provincial and central level hospitals usually end up paying higher user fees and transport costs. The project

[10] Kassebaum, D.G., E.R. Cutler and R.H. Eaglen. 1997. "The influence of accreditation on educational change in U.S. medical schools". Acad Med, 72(12):1127-33.

[11] Clark, N.M., M. Gong, M.A. Schork, D. Evans, D. Roloff, M. Hurwitz, L. Maiman, R.B. Mellins.1998. "Impact of Education for Physicians on Patient Outcomes". Pediatrics, l0l (5): 83 1-836.

[12] Ross, M.W., B.T. Harrison, R.W. Gibberd and J.D. Hamilton. 1999. "An analysis of the causes of adverse events from the Quality in Australian Health Care Study". Medical Journal of Australia, 170: 41 1-415.

[13] Van Zanten, M., D. McKinley, I. Durante Montiel and C. V. Pijano. 2012. "Medical education accreditation in Mexico and the Philippines: impact on student outcomes". Medical Education, 46: 586–592.

[14] Barber, S.L., P.J. Gertler and P. Harimurti. 2007. "Difference in access to high-quality outpatient care in Indonesia". Health Affairs, 26(3): w352-w366.

is likely to reduce OOP spending as patients will increase confidence in the PHC team for outpatient care and district level hospitals for inpatient care. From a broader health sector perspective, seeking care at the lower levels of the system is more cost-effective, and associated with greater allocative efficiency.

165. The cost-benefit analysis focuses on this expected cost savings in the health sector and illustrates the possible gains from the project. The estimation of project benefits is based on the following assumptions:

(a) In the absence of the project, medical expenditures on outpatient and inpatient care in the health sector will grow at an annual rate of approximately 35%. This is based on the growth rate of outpatient and inpatient expenditures during 2006-2011.

(b) The analysis assumes that without the project, there will be 1% annual increase in both outpatient visits and inpatient admissions at all levels of facilities in project sites between 2014 and 2019.

(c) Project will see a 5% increase in outpatient visits at CHS from the second year of intervention. Those outpatient visits will shift from the high level to the commune level facilities.

(d) Project will see a 5% increase in inpatient admissions at district hospitals from the second year of intervention. Those inpatient visits will shift from central and provincial level facilities.

The Net Benefit is therefore the cost saving achieved relative to the no intervention scenario.

166. On the basis of these assumptions and using a discount rate of 5%, the total net present benefit is estimated at US$260 million, yielding a gross benefit-cost ratio of 15.2 (Table 5.2). Even with the very conservative assumptions and only a partial accounting of all possible benefits, the anticipated net benefits from component activities are substantial. The results strongly support investment activities in the project.

Table 5.2: Estimated costs and benefits (Currency: US$ Million)

Year	Total outpatient expenditure without project	Total inpatient expenditure without project	Total outpatient expenditure with project	Total inpatient expenditures with project	Net Benefits	Component Costs[15]
2014	323	352	323	352	0	7.8
2015	440	480	432	468	20	7.8
2016	600	654	577	623	54	7.8
2017	819	892	769	826	116	7.8
2018	1,116	1,216	1,024	1,094	214	7.8
2019	1,522	1,658	1,362	1,446	372	7.8
Total	4,820	5,252	4,486	4,808	776	47
NPV (5%)					605	40
Benefit-cost ratio:			**15.2**			

167. Historically, public sector investments in primary and preventive care have led to reductions in mortality and morbidity in Vietnam as a whole. As the country faces large regional and socioeconomic inequalities in outcomes and access to care, infant and maternal mortality rates are significantly higher in the most difficult regions targeted by this project, compared with national averages (Table 5.3). Given the relatively low initial level of health outcomes, the marginal impact of additional investments on improved health outcomes are likely to be higher in the project sites than in other parts of the country.

Table 5.3: Infant and Under-5 mortality rate by socio-economic region in 2011

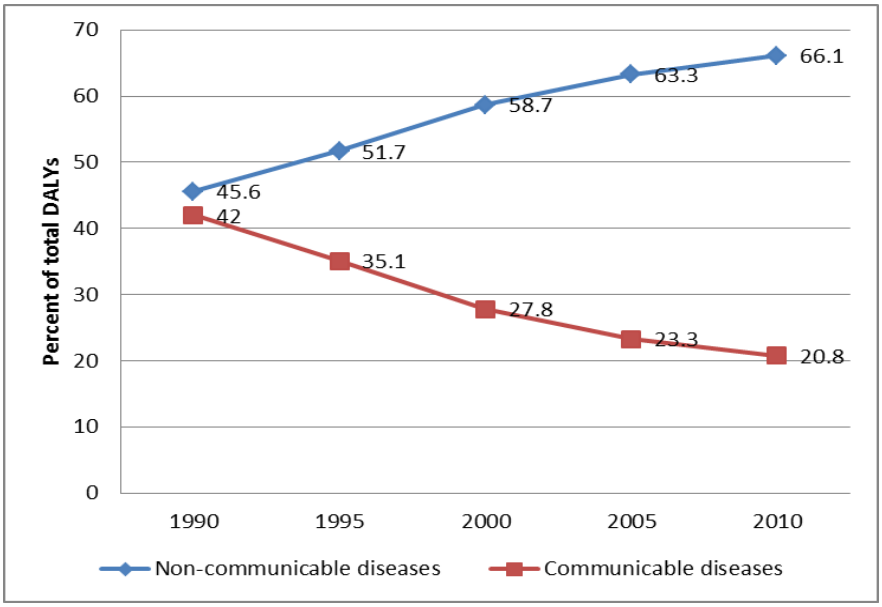
	Infant mortality rate	Under-5 mortality rate
Overall	15.5	23.3
Urban	8.5	12.8
Rural	18.1	27.2
Northern Midlands and Mountains	**23.0**	**34.9**
Central Highlands	**24.3**	**37.0**
North Central and Coast	**17.1**	**25.8**

168. The training activity based on the general practitioner/family medicine model is expected to strengthen the capacity of PHC teams in response to the growing need of managing NCDs. Chronic diseases have been major causes of morbidity and mortality in Vietnam. The proportion of disability-adjusted life-years lost (DALYs) due to chronic conditions increased from in 46% 1990 to 66% in 2010 (Figure 1). Early diagnosis and effective prevention at the grass-roots level can reduce hospitalization at public hospitals and lessen the financial burdens caused by chronic diseases for the poor. However, most of the lower-level health workers do not receive adequate training on these diseases, resulting in under-diagnosis, delay of treatment and associated higher healthcare costs. Such delays undermine the use of less-costly prevention and health promotion services and put rural patients at high risk of missing the optimal period of health intervention. A study assessing the household financial burden associated with NCDs in a rural district of Vietnam has shown that when a household member has a chronic illness, the household has to spend more of its

[15] Component costs include Sub-component 2.2 costs (US$6 million) and Component 3 costs (US$41 million).

OOP money on health care and the catastrophic health expenditure is higher (Table 5.4)[16]. As more chronic cases can be managed at the commune level, the project is very likely to reduce unnecessary hospitalizations, and reduce health expenditure related to chronic diseases.

Figure 1: Non-communicable disease share of total DALYs in Vietnam



Source: Institute for Health Metrics and Evaluation.

Table 5.4: Pattern of Utilization, OOP Spending and Catastrophic Health Expenditure in a Rural District of Vietnam

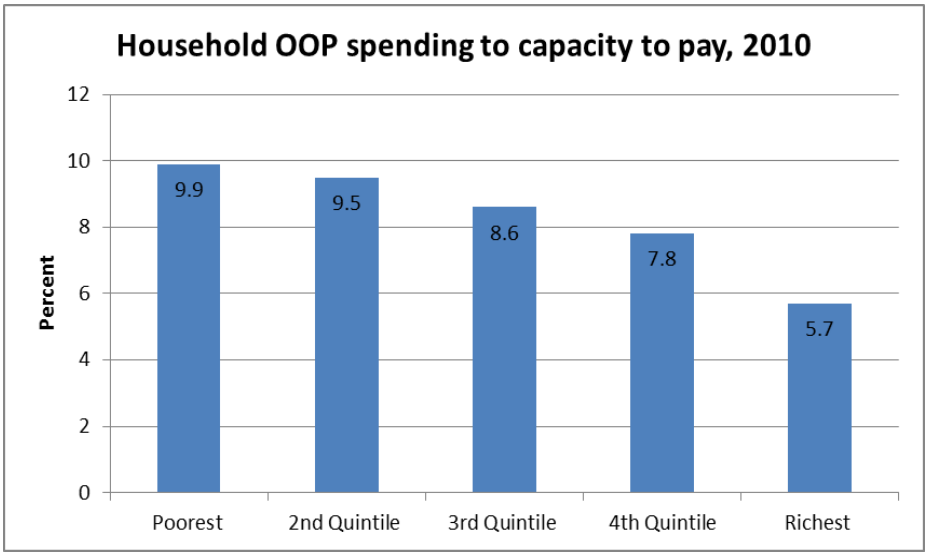
	Household with at least one member with a chronic disease	Household with no member with a chronic disease
Mean out-of-pocket payment for inpatient care during last 12 months (1,000 VND)	5,760	2,472
Mean out-of-pocket payment for outpatient care during last 4 weeks (1,000 VND)	78.3	32.6
Catastrophic health expenditure (%)	14.6	4.2

Source: Minh and Tran, 2012.

[16] Hoang Van Minh and Bach Xuan Tran. 2012. "Assessing the household financial burden associated with the chronic non-communicable diseases in a rural district of Vietnam." Glob Health Action: 5: 18892.

169. Project investments will also have a positive impact on health equity and poverty reduction in target disadvantaged areas. A study shows that the financial burden of household OOP spending on both households' capacity to pay and household expenditure are higher among households in rural areas, indicating that the poor are more likely to encounter catastrophic expenditure and impoverishment problems (Figure 2)[17]. Since the poor, especially those from more remote areas will have greater incentive to use the nearby health facilities due to lower transport costs and timely treatment, Component 3 activities will help promote equity and provide better financial protection.

Figure 2: Household OOP spending to capacity to pay [(%)]



Source: Minh et al, 2012.

Financial sustainability

170. The financial sustainability of the project relies on the ability of the government budget to meet the incremental recurrent costs associated with the project investments. At current growth projections, Vietnam could expect additional fiscal resources for health of roughly 0.8 percentage point of GDP between 2010 and 2017.

171. Growth in Vietnam has slowed in the past couple of years as a result of the global economic crisis and the slowing pace of structural reforms: GDP growth fell from 8.5% in 2007 to 6.3% in 2008, following the reverberating consequences of the global economic crisis. Growth rates recovered to 6.4% in 2010 thanks to monetary stimulus, but delayed withdrawal of the stimulus package led to overheating with inflation rising to 18 percent at the end of 2011. This prompted stabilization measures, which have brought inflation down but also contributed to a slowing economy.

172. GDP growth is expected to remain relatively flat in the 5.3-5.5 percent range through to 2017. This is in part due to the effects of the global economic slowdown but also due to

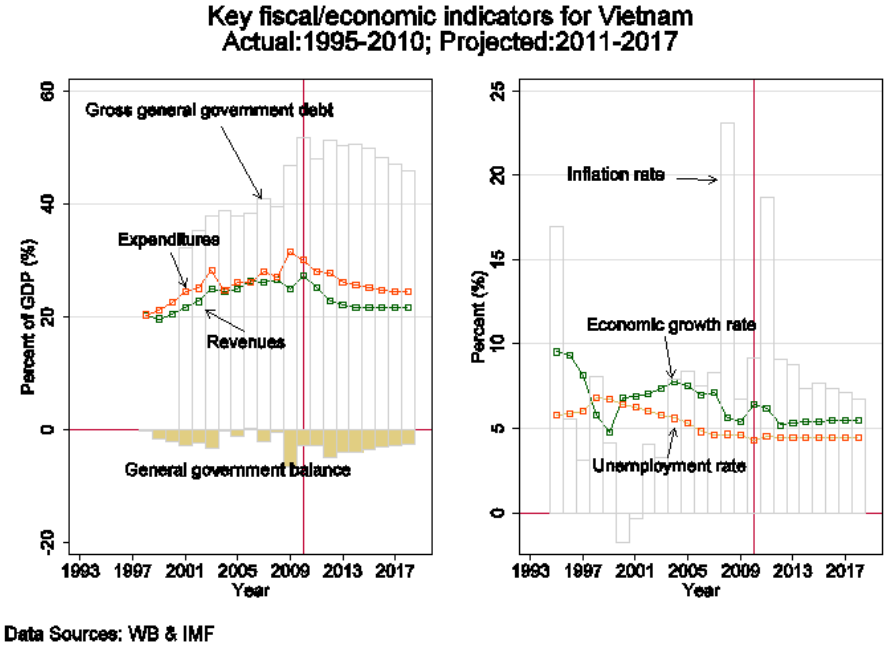
[17] Hoang Van Minh et al. 2012. "Financial burden of household out-of-pocket health expenditure in Viet Nam: Findings from the National Living Standard Survey 2002-2010." Social Science & Medicine.

slow progress on the restructuring of the banking sector and State Owned Enterprises. Inflation is projected to stabilize at around 5 percent per annum (Figure 3).

173. The government is facing fiscal challenges due to the negative impacts of the slowing economy on government revenue. The deficit has gone from an average of 2.9 percent of GDP in the last three years to 5.5 percent of GDP in 2013 and expected to increase to 6.4 percent in 2014 (based on Government Finance Statistics accounting). Public debt in Vietnam has been historically low, though has started to rise in recent years in light of the government's response to the global economic crisis in 2008 and a slowing economy. To address slowing revenue, the government is working on strengthening tax administration, but also looking at revenue policy reforms such as raising of selected excise tariffs, adjusting import tariffs on petroleum, clearer requirements for SOEs to pay dividends to the State Budget.

174. On the expenditure side, the government is consolidating capital spending to enhance public investment efficiency. Total capital spending (including off-budget) is estimated to have fallen from around 11.6 percent of GDP in 2010 to an estimated 7.8 percent in 2013. The growth in recurrent spending has fallen in 2012-2013, though recurrent spending on the social sectors has remained a priority in the State Budget, which as a share of GDP has steadily risen since 2010 from 8.4 percent to an estimated 9.4 percent in 2013.

Figure 3



175. Vietnam's Government health expenditure has increased in recent years due to Government's commitment to expand social protection for vulnerable groups. The Government health expenditure as share of total Government spending has increased from 8.7% in 2008 to 10.9% in 2010.[18] Health appears to have been accorded a high priority by

[18] Ministry of Health, 2008-2010. Vietnam Health Statistical Yearbook.

the Government. In 2008, the National Assembly took a crucial step to increase the Government budget allocation for health by passing Resolution No. 18/2008/NQ-QH12. According to Article 2 of the Resolution, the Government will commit to increase the health share of the annual state budget and ensure that the growth rate of health spending is greater than the growth rate of overall spending through the state budget. Following the resolution, the budgetary allocations to health have generally exceeded the average growth of the total Government budget since 2009.[19]

176. In the current macro-fiscal environment in Vietnam, it is assumed that public spending on health will grow more slowly over the medium-term compared to the last few years. Vietnam could nonetheless expect government spending on health to be about 3.3 percent of GDP by 2017, all other things constant. This would represent an increase of around 0.8 percentage point of GDP from 2010 (Table 5.5).

Table 5.5: Projections of Government Health Spending Based on Economic Growth (2010-17)

Year	2010	2011	2012	2013	2014	2015	2016	2017
Real GDP growth (%)	6.4	6.2	5.2	5.3	5.4	5.5	5.5	5.5
Government health spending(% of GDP)	2.5	2.8	2.9	3.0	3.1	3.2	3.2	3.3

Source: Authors' estimates.
Note: Elasticity-based projections 2011-17.

177. The project will incur incremental operating and maintenance cost. The expenditure for this category is estimated at US$2 million per year, and the fiscal impact is relatively low at around 0.06% of total Government health budget.

178. The project investments will result in an increase in salary budget due to the intake of young medical doctors by the health system and training of physician assistants to physicians. The fiscal impact will depend on how easily the increased salary budget can be absorbed. Based on the experience of previous Bank financed health projects for other regions, this figure is estimated to be 1% of the region's health budget.

179. The increase in utilization of primary health care as a result of improved quality of health workers at CHS will result in recurrent curative costs to the PHC sector. However, as the economic analysis shows, we expect increases in direct costs to be averted in the public health sector as a result of lower utilization rates in hospitals which would lessen the budgetary burden significantly.

180. The counterpart funding commitments account for less than 5% of the total investment for the project. The capacity to meet these commitments will be a function of the overall government spending envelope. Under the fiscal space projections, the fiscal impact of recurrent expenditure and counterpart funding commitments on total Government health expenditure is minor, and therefore expected to be manageable.

[19] Van Tien, T, HT Phuong, I Mathauer, and NTK Phuong. 2011. "A Health Financing Review of Viet Nam with A Focus on Social Health Insurance". Geneva: World Health Organization.

Annex 6: Implementation Support Plan

Vietnam: Health Professionals Education and Training for Health System Reforms Project

A. Strategy and Approach for Implementation Support

181. The Implementation Support Plan describes how the Bank will support the implementation of the risk mitigation measures (identified in the ORAF) and provide the technical advice necessary to facilitate achieving the PDO (linked to results/outcomes identified in the result framework). The Plan also identifies the minimum requirements to meet the Bank's fiduciary obligations.

182. Implementation support is a core element of the proposed project, and will involve continuous World Bank engagement in partnering with the Government on two dimensions:

(a) *Sectoral and technical aspects*, including: (i) improving the QA system of health professionals education, through the setting up of (1) a QA unit; (2) a PRA of health professionals programs; and (3) a standardized examination; (ii) supportive measures to meet the standards of health professionals education, through financial assistance/grants to universities to scale-up performance and achieve required standards; (iii) improving health management competencies through (1) strengthening health management training; and (2) improving policy-making in HRH, and (iv) improving competencies of HRH to deliver integrated preventive, curative, and rehabilitative services through (1) training and continuing professional development; and (2) ensuring that trained PHC teams have access to basic equipment.

(b) Continuous *fiduciary oversight* both for regular fiduciary (FM) supervision, procurement, and safeguards.

183. The project will need sound supervision due to the cross-sectoral nature of the project and close coordination and collaboration between the MOH, the MOET, health professionals' schools and universities, and provincial authorities, as well as output-based mechanisms. The project will be co-financed by the European Union, which will also provide supervision budget for sub-component 3.1 of the project.

184. As per institutional requirements, formal missions will be carried out twice a year (with regular and detailed Implementation Status Report/Aide Memoire reporting), and supplemented on the ground by staff in the Country Office. The missions will focus on reform progress under the National Strategy for People's Health Care and Protection, and the Government's National Benchmarks for Commune Healthcare (2011-2010) that aims to ensure that an adequate number of CHS health workers are continuously trained. The missions will partner with other agencies as appropriate and will liaise closely with UN agencies, and the EU, and other partners as appropriate.

B. Implementation Support Plan

185. Table 6.1 below provides a basic timetable of implementation support in the first two years of the project.

Table 6.1: Implementation Support Plan – Basic Timetable

Time	Focus	Skills Needed	Bank Budget Resource Estimate (US$)
First 12 months	Internal assessment completed by schools and universities.	Health Professionals Education Spec.	150,000
	Establishment of the Quality Assurance Unit.	Lead Health Spec.	
	Establishment of the Project Steering Committee.	Lead Health Spec.	
	Set up of two task forces for the Peer Review Assessment System (PRA).	Lead Health Spec. Health Professionals Education Spec.	
	Training of assessors.	Health Professionals Education Spec.	
	Develop standardized examination.	Health Professionals' Education Spec.	
	Establish MOUs between MOH and School/Universities, coordinating with MOET.	FM and Procurement Spec.	
	Financial Management training and supervision.	FM Spec.	
	Procurement training and supervision.	Procurement Spec.	
	Environmental, Safeguards training and supervision: Environmental and Social Management Framework implementation.	Safeguards Spec.	
	Monitoring and Evaluation training and supervision: M&E framework for the project developed; Survey questionnaires established and validated.	Monitoring and Evaluation Spec.	

Time	Focus	Skills Needed	Bank Budget Resource Estimate
12-48 months	Establish MOUs between Universities and Provincial Authorities, coordinating with MOH. Review of curriculum development. Development of HRH Plans. Training of young volunteer medical doctors. TA on PHC training evaluation and PHC team performance monitoring. Data management capacity, analysis and reporting set-up; national database on HRH developed. Provision of minimum package of medical equipment. Recruitment of independent agency to carry out direct observation.	FM and Procurement Spec. Lead Health Spec. Health Professionals Education Spec. HRH Spec. Health Professional Education Spec. Monitoring and Evaluation Lead Health Spec.; IT Spec. Procurement Spec. Heath Spec.; Monitoring and Evaluation; Procurement Spec.	225,000

186. Table 6.2 outlines the skill mix needed for adequate project supervision.

Table 6.2: World Bank Implementation Support - Skills Mix & Inputs

Skills Needed	Number of Staff Weeks	Number of Trips
Lead Health Specialist	10	3
Health Professionals Education Specialist	4	2
HRH	8	2
Monitoring and Evaluation	4	2
Financial Management Specialist	2	0
Procurement Specialist	2	0
Environmental/Social Safeguards Specialists	2	0
IT Specialist	3	1

VIETNAM

HEALTH PROFESSIONAL EDUCATION AND TRAINING FOR HEALTH SYSTEM REFORM

PROJECT PROVINCES
PROVINCE CAPITALS
NATIONAL CAPITAL
PROVINCE BOUNDARIES
INTERNATIONAL BOUNDARIES

PROVINCES:

1 Lai Chau
2 Dien Bien
3 Lao Cai
4 Ha Giang
5 Cao Bang
6 Son La
7 Yen Bai
8 Tu Yen Quang
9 Bac Can
10 Lang Son
11 Phu Tho
12 Vinh Phuc
13 Thai Nguyen
14 Bac Giang
15 Quang Ninh
16 Ha Noi
17 Bac Ninh
18 Hung Yen
19 Hai Duong
20 Hai Phong
21 Hoa Binh
22 Ha Nam
23 Thai Binh
24 Ninh Binh
25 Nam Dinh
26 Thanh Hoa
27 Nghe An
28 Ha Tinh
29 Quang Binh
30 Quang Tri
31 Thua Thien Hue
32 Da Nang
33 Quang Nam
34 Quang Ngai
35 Kon Tum
36 Gia Lai
37 Binh Dinh
38 Phu Yen
39 Dac Lac
40 Dac Nong
41 Khanh Hoa
42 Binh Phuoc
43 Lam Dong
44 Ninh Thuan
45 Tay Ninh
46 Binh Duong
47 Dong Nai
48 Binh Thuan
49 T.P. Ho Chi Minh
50 Ba Ria-Vung Tau
51 Long An
52 Tien Giang
53 Dong Thap
54 Ben Tre
55 An Giang
56 Vinh Long
57 Tra Vinh
58 Kien Giang
59 Can Tho
60 Hau Giang
61 Soc Trang
62 Bac Lieu
63 Ca Mau

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