
Overview of Selected Documents on Health Financing Related to PLHIV, the Poor and Near Poor in Vietnam, Including Useful Examples from the Region

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ABBREVIATIONS

ADB	Asian Development Bank
AP	Atlantic Philanthropies
ART	Antiretroviral Therapy
ARV	Antiretroviral
AusAID	Australian Agency for International Development
CDC	Centers for Disease Control and Prevention
CEA	Cost Effectiveness Analysis
CHC	Commune Health Center
CI	Confidence Interval
COI	Cost of Illness
DAART	Direct Administration Antiretroviral Therapy
FHI360	Family Health International
GDP	Gross Domestic Product
HAPSAT	HIV/AIDS Program Sustainability Analysis Tool
HCFP	Health Care Fund for the Poor
HEF	Health Equity Fund
HI	Health Insurance
HID	Health Insurance Department
HMU	Hanoi Medical University
HSPI	Health Strategy and Policy Institute
HSUS	HSUS – HIV/AIDS Services Users Survey
HTC	HIV Testing and Counseling
INR	Indian Rupees
IDU	Injecting Drug User
IHEA	International Health Economics Association
Jahr	Joint Annual Health Review
	Vietnam-USA Collaboration Project on HIV Prevention and Care
LIFE-GAP	in Vietnam
LOS	Length of Stay
MCNV	Medical Committee Netherlands-Vietnam
MMT	Methadone Maintenance Treatment
MOH	Ministry of Health
NHA	National Health Accounts
OI	Opportunistic Infection
OOP	Out-Of-Pocket
OPM	Oxford Policy Management
OR	Odds Ratio
PEPFAR	[United States] President's Emergency Plan for AIDS Relief
PLHIV	People Living with HIV
PMTCT	Preventing Mother-to-Child Transmission [of HIV]
PMU	Project Management Unit
PPP	Public-Private Partnership

QUALY	Quality Adjusted Life Year
SHI	Social Health Insurance
SIDA	Swedish International Development Cooperation agency
UCS	Universal Care Scheme (Thailand)
UHC	Universal Health Coverage
UNAIDS	Joint United Nations Program on HIV/AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNITAID	Drug procurement facility partially financed by airline levies
	United States Agency for International Development/Health
USAID/HPI	Policy Initiative
VAAC	Vietnam Administration of HIV/AIDS Control
VCT	Voluntary Counseling and Testing
VLSS	Vietnam Living Standard Survey
VSS	Vietnamese Social Security
WB	World Bank
WHO	World Health Organization
WTP	Willingness-To-Pay

INTRODUCTION:

Since the Doi Moi (“renovation”) reforms of the 1980s, Vietnam has made important achievements in the economic and health sectors. Poverty has dropped significantly, from 64% in 1995 to 21% in 2008¹, and most of the Millennium Development Goals – particularly in health – have been achieved or are within reach². The Government of Vietnam has prioritized universal health care coverage (UHC) with the establishment of the government managed social health insurance law (SHI) in 2008. To date, UHC has achieved a population coverage rate of around 60%³. While the goal is to ensure universal coverage by 2014, further health financing mechanisms will need to be evaluated to offset the high costs associated with providing comprehensive care to most-at-risk populations (MARP) and people living with or affected by HIV/AIDS (PLHIV). Even with UHC, out of pocket payments (OOP) and indirect costs, such as transportation and medicinal costs, remain significant barriers and directly impact the availability and affordability of health services. Many agencies, both national and international, are involved in exploring options for diversifying funding sources, identifying efficient programs and prioritizing interventions. A growing body of academic and operational research documents this effort.

The United States Agency for International Development Health Policy Initiative (USAID/HPI) has researched and developed this overview of articles, both specifically on Vietnam as well as relevant recent studies in the Southeast Asia region, in order to understand and inform future activities related to the financing of HIV/AIDS prevention, care and treatment.

The USAID/HPI is a US \$10 million, five-year project (2008-2013) funded by the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) and implemented by Abt Associates Inc., in partnership with the Government of Vietnam. The project supports the government, civil society, and other stakeholders to facilitate the development of evidence-based and best-practice-driven laws, policies, plans, and programs for HIV/AIDS prevention, care, treatment, and impact mitigation.

Part 1 of this document is a tabular summary of 45 studies conducted between 2003 and 2012 and specifically related to health insurance and HIV/AIDS services for PLHIV, the poor and/or near poor in Vietnam.

Part 2 provides a snapshot of upcoming and planned research on HIV/AIDS services in Vietnam.

In Part 3 of the document, abstracts or summaries of abstracts from the 45 studies in Vietnam are provided with bibliographical references. They are arranged with the most recent first and the oldest at the end.

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1. DFID operational plan
 2. ibid
 3. WHO, 2011

Part 4 provides abstracts or a summary of 26 documents relating to studies in Southeast Asia from the period 2000 to 2012. The studies were selected based on their relevance to health insurance and HIV/AIDS services for PLHIV, the poor and near poor in the region.

Part 1

Summary of Objectives and Findings from Vietnamese Studies

No.	Title of Study	Topic	Research Objectives	Target population	Year	Findings	Partners	Contact person
1.	Expanding long term financing options for HIV in Vietnam	Social health insurance (SHI) Resource mobilization and allocation	<ul style="list-style-type: none"> Explore how the Government of Vietnam (GVN) can approach long term financing for HIV/AIDS prevention programs. Review various strategies for generating additional resources to fund HIV/AIDS programs in Vietnam. Examine the efficiency of Vietnam's AIDS response and ways to save funding and resources. Highlight priority challenges related to services that will require strategic solutions as donor funding decreases. Set out a 'road map' for managing the transition from current to future financing strategies for HIV/AIDS prevention programs. 	PLHIV	2012	<ul style="list-style-type: none"> The resources needed for the 2012-2020 period are projected to increase from US\$120.9 million in 2012 to US\$313.6 million in 2020. According to baseline scenario figures, there was a financing gap of US\$55.6 million in 2012 which is expected to grow to US\$223.9 million by 2020. The financing gap for 2012/13 is projected to be equal 0.04% of GDP and to 0.07% of GDP in 2020. Social Health Insurance is a viable potential financing tool for HIV/AIDS that will increase access to outpatient and inpatient care, including the treatment of opportunistic infections (OI). Private sector contributions play an important role in fighting against the HIV/AIDS pandemic. Introducing an airline tax on international departures is one proposed solution for raising revenues. Priorities for HIV/AIDS programs: (1) carry out cost-benefit analyses across program areas and (2) discuss the results to establish relative priorities in current HIV/AIDS activities. 	Vietnam Agency for AIDS Control (VAAC) Oxford Policy Management (OPM) United States Agency for International Development (USAID)	Duong Thuy Anh, VAAC Lane 135/3 Nui Truc Street, Ba Dinh District, Hanoi Tel: +84 989088818 Email: thuyanhvaac@gmail.com Or: OPM www.opml.co.uk
2.	Review of HIV/AIDS related cost and service packages for PLHIV	SHI Costing	<ul style="list-style-type: none"> Estimate HIV-related costs and service packages that should be covered by the HI (health insurance) system. 	PLHIV	2012	<ul style="list-style-type: none"> An average annual unit cost per pre-antiretroviral therapy (ART) adult is VND2,833,166 (US\$137.5); VND7,594,995 (US\$369) per adult first line ART patient (first year); and VND6,486,439 (US\$315) per adult first line ART patient (in the following years); VND27,803,065 (US\$1,350) per adult second line ART patient; and VND4,904,772 (\$238) per adult inpatient episode. An average unit cost per pre-ART child patient is VND3,992,693 (US\$193.8) and VND9,374,699 (US\$ 455) for first line ART child patient (first year); VND7,201,877 (US\$ 350) for first line child ART patient (in the following years); VND 18,824,748 (US\$ 914) for child second line patient; and VND5,124,154 (\$249) for an inpatient episode. The unit cost of HIV/AIDS care and treatment for children is approximately 15-30% higher than for adults (except for second line ART), mainly because of greater labor expenses and overhead costs of pediatric health facilities. 	World Bank (WB)	Kieu Huu Hanh Mediconsult Vietnam JV Co Ltd No. 66 Nguyen Ngoc Nai Str., Thanh Xuan, Hanoi E-mail: kieuhuuhanh@mediconsultvn.com.vn

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						<ul style="list-style-type: none"> Costs for patients starting ART when CD4 count is under 100 would be 15% more than those who start when their CD4 count is greater than 100. The results of this study are within the "normal" range of unit costs reported by studies in other countries. Vietnam's total budget for HIV/AIDS care and treatment in 2012 was VND1,484 billion and it is expected to increase annually by 15-20%. If SHI covers 100% of AIDS patients and PLHIV co-pay 20% of their total HIV/AIDS care and treatment costs, SHI still needs to cover VND 829 billion per year for HIV/AIDS care and treatment, with out of pocket payments of VND 207 billion. If SHI only covers 50% of PLHIV, SHI needs to cover VND 414 billion. 		
3.	Budget impact analysis of scaling up social health insurance for HIV/AIDS patients in Vietnam	SHI Costing Health care expenditure and utilization	<ul style="list-style-type: none"> Review and analyze HIV/AIDS care and treatment packages Examine how HIV/AIDS impacts the vulnerability and poverty of affected households. 	PLHIV	2012	<ul style="list-style-type: none"> The average annual cost of pre-ART, first line ART (first year), first line ART (following years), second line ART, and inpatient episode services per patient was US\$137.50, US\$369, US\$315, US\$1,350, and US\$238, respectively. The major cost driver was ARV drugs, which accounted for 32.6% - 43.8% of first line ART services and up to 88% of second line ART costs. Laboratory tests accounted for 17% of first line and 6% of second line ART costs. Services for insured inpatients cost 30% less than for non-insured patients, partly because of the cheaper drug costs for insured inpatients. On average, HIV/AIDS patients used health services 5.1 times per year (95% CI = 4.7 - 5.4); 25.7% used central level services, 25.1% used provincial and 46.2% used district. The frequency of inpatient and outpatient care was 0.3 and 4.8 times per year, respectively. Patients also went to ART clinics for regular check-ups and received medications once a month. Direct medical costs for inpatient care was US\$166.80, with 88% out of pocket (OOP) expenses and 6.4% covered by health insurance; while the average for outpatient care was US\$19.00, with 66% OOP payment and 3.6% covered by health insurance. 	VAAC	Tran Xuan Bach, HMU No 1, Ton That Tung, Hanoi Email: bach@hmu.edu.vn
4.	Enrollment and retention in HIV care and treatment services in Vietnam	Utilization of healthcare programs and services	<ul style="list-style-type: none"> Identify facilitators and barriers to accessing initial and subsequent care, treatment and other available services. 	PLHIV	2012	<ul style="list-style-type: none"> Stigma/discrimination, health worker attitudes, confidentiality, service quality, perception that being treated means you are sick, inadequate knowledge of HIV/AIDS care and treatment services, and frustrating registration procedures were common issues for patients both accessing 	Family Health International (FHI360)	Family Health International (FHI360) Vietnam Epidemiological Research, Surveillance and

No.	Title of Study	Topic	Research Objectives	Target population	Year	Findings	Partners	Contact person
						<p>and sustaining HIV/AIDS services.</p> <ul style="list-style-type: none"> Additional obstacles specifically related to patients continuing with their care included ART side effects and financial constraints due to missed work and transportation costs. Strong family support, involvement with PLHIV support groups and peer educators, positive clinic and health staff encounters, and no-cost treatment were major factors contributing to patients continuing with their treatment. 		<p>Evaluation, Hanoi, Vietnam</p> <p>7th floor, Hanoi Tourist Building 18 Ly Thuong Kiet Street, Hanoi</p> <p>Tel: (844) 3934-8560</p> <p>Email: Fhivn@fhi.org.vn</p>
5.	Mekong Health Regional Support Project: End of Project Evaluation Report	SHI Healthcare utilization and expenditure	<ul style="list-style-type: none"> Measure changes of project indicators from the baseline study to the final project report according to criteria defined by the WB and the project management unit (PMU). Provide an updated review of the project implementation from the baseline survey (4/2008) to the end-of project survey. Provide an independent review and analysis of the project's successes, limitations and outcomes. 	The poor and near poor	2012	<p>Findings related to SHI for the poor and near poor:</p> <ul style="list-style-type: none"> Nearly half of the insured people in the poor and near-poor groups (45% and 40%, respectively) used their SHI in the last 12 months, which is fairly high compared to 38.2% of the non-poor population. The poor and near poor also tend to use their SHI cards more frequently than the non-poor. Women were more likely to use their SHI cards than men across all economic groups. Commune health centers and district hospitals were the most popular places insured people went, especially the poor and near-poor. The HI fund paid 87.0% of all hospital fees for poor inpatients and the majority of hospital charges for near-poor and non-poor inpatients (76.6% and 76.3%, respectively). If near-poor inpatients had HI, the OOP expenses for hospitalization decreased considerably, though they were still required to spend at least 11.2 % of their income or 20% of their total non-food funding on hospitalization. 	WB	<p>Center for Community Health Research and Development No. 5 Block 15E, Trung Yen 15D Road, Trung Hoa, Cau Giay, Hanoi</p> <p>Tel: (844) 37832742</p> <p>Or:</p> <p>Dao Lan Huong World Bank Vietnam</p> <p>Email: hdao1@worldbank.org</p>
6.	Impact of health insurance on healthcare treatment and costs in Vietnam: A health capability approach to financial protection	HI Healthcare utilization and expenditure	<ul style="list-style-type: none"> Examine the impact of Vietnamese HI schemes on healthcare access, costs, and inpatient and outpatient outcomes. 	Inpatients and Outpatients	2012	<ul style="list-style-type: none"> Insured respondents had lower outpatient and inpatient treatment costs and longer hospital stays but fewer missed work or school days than the uninsured. Insurance reform reduced household vulnerability to high healthcare costs through the direct reduction of medical costs and indirect reduction of income lost to illness. From a normative perspective, OOP costs are still too high, and accessibility issues persist; a comprehensive insurance package and additional health system reforms are needed. 	n/a	<p>Jennifer Prah Ruger, PhD, Yale School of Public Health, Health Policy and Administration</p> <p>60 College Street, New Haven, CT 06510, USA</p>

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7.	Cost-effectiveness of integrating methadone maintenance and antiretroviral treatment for HIV-positive drug users in injection-driven HIV epidemics in Vietnam	CEA	<ul style="list-style-type: none"> Evaluate the cost-effectiveness of integrating MMT with ART for HIV-positive intravenous drug users (IDUs) in Vietnam 	PLHIV IDUs	2012	<ul style="list-style-type: none"> The cost-effectiveness ratio of ART, Direct Administration Antiretroviral Therapy (DAART)-MMT, and ART-MMT strategies was US\$1358.90, US\$1118.00 and US\$1327.10 per 1 QALY, equivalent to 1.22, 1.00, and 1.19 times per capita GDP. The incremental cost-effectiveness ratio for the DAART-MMT and ART-MMT versus ART strategy was US\$569.40 and US\$1227.80, approximately 0.51 and 1.10 times per capita GDP/QALY. At a willingness to pay (WTP) threshold three times the national per capita GDP, the DAART-MMT versus ART strategy probability of being cost-effective was 86.1%. These findings indicate that providing MMT along with ART for HIV-positive IDUs is a cost-effective intervention in Vietnam. 	VAAC	Tran Xuan Bach, Hanoi Medical University Email: bach@hmu.edu.vn
8.	The cost of providing voluntary HIV/AIDS counseling and testing (VCT) services in Vietnam	Costing	<ul style="list-style-type: none"> Cost estimates and analyses of HIV/ AIDS VCT services in Thai Nguyen province 	PLHIV	2012	<ul style="list-style-type: none"> The mean total annual financial costs of a facility-based and freestanding VCT unit in the study site were US\$15,673 and US\$42,237, respectively. The mean total annual economic costs of these services were US\$16,695 and US\$44,682, respectively. The cost per visit to the facility-based VCT unit was lower than for the freestanding facility (US\$28.40 vs. US\$36.80; economic costs US\$30.30 vs. US\$38.90). The same was true for the cost of complete VCT procedures (financial cost US \$34.70 vs. US\$38.0; economic cost US\$36.90 vs. US\$40.20). The cost per HIV case detected in the facility-based VCT unit was higher than at the freestanding VCT unit (financial cost US\$149.30 vs. US\$111.20; economic cost US\$159.00 vs. US\$117.60). 	Medical Committee Netherlands-Vietnam (MCNV)	Dr. Hoang Van Minh Hanoi Medical University HMU No 1, Ton That Tung, Hanoi Tel: +84 913392717 Email: hoangvanminh@hmu.edu.vn
9.	Cost-effectiveness of methadone maintenance treatment (MMT) for HIV-positive drug users in Vietnam	Cost Effectiveness Analysis (CEA)	<ul style="list-style-type: none"> Evaluate the incremental cost-effectiveness of MMT for HIV-positive drug users from the perspective of health service providers 	PLHIV	2012	<ul style="list-style-type: none"> Over a period of nine months, MMT substantially improved the quality-adjusted life years (QALYs) of HIV/AIDS patients (0.076 QALY [0.066-0.084]). The QALY improvements were large and stabilized in those patients undergoing ART and abstaining from using drugs. The MMT program would cost US\$3745.30 per QALY gained, approximately 3.2 times the Vietnamese per capita GDP in 2009. MMT intervention was very cost-effective against advanced HIV status or co-morbidity, e.g., TB 	VAAC	Tran Xuan Bach, Hanoi Medical University HMU No 1, Ton That Tung, Hanoi Email: bach@hmu.edu.vn

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						treatment, but it might not be cost-effective for patients who continue using drugs. This study's findings indicate that providing MMT for HIV-positive drug users is a cost-effective intervention in Vietnam and integrating MMT into HIV/AIDS care and treatment services would be beneficial for treating injection-driven HIV epidemics.		
10.	Health equity and financial protection report: Vietnam (based on VLSS data)	Health equity, financial protection	<ul style="list-style-type: none"> Examine inequalities in health outcomes and health behavior, as well as the use of healthcare services; analysis of benefits; financial protection; and the progressivity of health care financing 	General population	2012	<ul style="list-style-type: none"> Ill health is more concentrated among the poor in Vietnam. Selected maternal and child health interventions, childhood immunization, antenatal care, and births attended by skilled caregivers are more prevalent among the better off population, while the poor are slightly more likely to use contraception. Protection against impoverishment due to payments for catastrophic illness could potentially be increased with expanded access to SHI, which covered just over half the population in 2006. Health care financing in Vietnam in 2006 was fairly progressive, i.e. the better-off spent a larger fraction of their consumption on health care than the poor. 	World Bank	<p>Adam Wagstaff The World Bank, 1818 H Street NW, Washington, D.C. 20433, USA.</p> <p>Tel. (202) 473-0566.</p> <p>Fax: (202)-522 1153</p> <p>Email: awagstaff@worldbank.org</p>
11.	Private sector service utilization among PLHIV in Vietnam: Exploring changes between 2005 – 2010 (presentation at IHEA in Toronto 2011)	Healthcare utilization Private sector	<ul style="list-style-type: none"> Exploring providing services for PLHIV in Vietnam and how it has changed over time 	PLHIV	2011	<ul style="list-style-type: none"> The private sector plays a significant role in supplying condoms and syringes for PLHIV, and over-the-counter drugs (2010), but a negligible role in inpatient care. The role of the private sector in providing outpatient services for PLHIV is small and has decreased between 2005 and 2010, particularly compared to the major role played by the public sector. Private sector services are chosen by more patients with at least one health symptom. The main types of services provided by the private sector include exams, testing, drugs, and ART (2010). 	Multiple	<p>Abt Associates 4550 Montgomery Lane, Suite 800 North, Bethesda, MD 20814, USA</p> <p>Email: douglas.glandon@fhssp.org</p>
12.	Harmonizing HIV Resource Tracking and Sustainability Planning: Case study with the National Health Account (NHA) HIV sub-account and the HIV/AIDS	Resource tracking	<ul style="list-style-type: none"> Explore, understand, and articulate the benefits, challenges, and implications of "harmonizing" 	PLHIV	2011	<ul style="list-style-type: none"> Harmonizing NHA and HAPSAT could potentially realize significant benefits in terms of both producing and disseminating data. Harmonizing complementary analyses like NHA and HAPSAT can promote efforts to institutionalize the tools. HIV planners and policymakers would also benefit from having access to a web interface or database that integrates data on health and non-health HIV expenditures in the country categorized by key program or service area; key 	USAID	<p>Health Systems 20/20 Abt Associates Inc., 4550 Montgomery Lane, Suite 800 North, Bethesda, MD 20814, USA</p> <p>www.healthsystems2020.org</p>

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	program sustainability-Analysis tool (HAPSAT) in Vietnam					HIV service coverage indicators; and planned HIV spending, all disaggregated to the specific development partner organization.		
13.	Pilot development model for delivering outpatient treatment services for HIV/AIDS patients under health insurance-based management of medical examinations and treatment (on site survey in Hai Phong and Thai Binh provinces)	SHI Healthcare services	<ul style="list-style-type: none"> Survey of the management, organization, and supply of outpatient healthcare services for adults infected with HIV/AIDS Assess survey findings on managing HIV/AIDS outpatients by comparing with the management of those who have SHI cards Propose recommendations for a model to provide treatment services for HIV/AIDS outpatients based on SHI 	PLHIV	2011	<ul style="list-style-type: none"> The number of people infected with HIV/AIDS has increased over the years. Data on the number of HIV/AIDS-infected people with SHI cards is not available from either Hai Phong or Thai Binh provinces, mainly because there is no linkage between the management of HIV/AIDS patients and of patients with SHI cards. Though many training courses have been held on SHI policies, only a few staff members have been trained. Outpatient clinic staff are mainly trained in care and treatment. Others are trained in managing pharmaceuticals under projects and programs, financial management and HIV/AIDS policies. They do not focus on SHI policies. SHI authorities only record statistics and manage the types of patients as regulated, not by groups of diseases. Therefore, SHI authorities do not obtain the SHI data and costs for HIV/AIDS patients with insurance cards. 	CDC/Life Gap	<p>Le Van Kham Vice Head of the Health Insurance Department (HID), Ministry of Health (MOH), 138 A Giang Vo Street, Hanoi</p> <p>Email: khamlevan@yahoo.com</p>
14.	Demand and budget forecasting for laboratory supplies used in diagnosis and treatment of HIV/AIDS in Vietnam, period 2011-2015	Modeling Lab costs	<ul style="list-style-type: none"> Develop lab needs and budget estimates for Vietnam for the 2011-2015 period based on 3 different scenarios and assumptions 	PLHIV	2011	<ul style="list-style-type: none"> Scenario 1: Key assumption: VAAC treatment targets would be met each year and the number of patients in care will grow at the same rate as the national population (1.25%). Total projected cost: estimated US\$28,972,247. Scenario 2: Key assumption: the current rate of program implementation would be met and treatment targets would grow at a rate of 640 patients per month. The patients in care would be calculated as the difference between the number of patients in treatment and the total number of HIV/AIDS patients. The rate of growth in the total number of HIV positive patients will match the rate of growth of the national population (1.25%). Total projected cost: estimated US\$26,156,357. Scenario 3: Key assumption: all HIV positive patients will receive two CD4 tests and two viral load tests per year. The growth of the total number of HIV positive patients will match the growth of the national population (1.25%). Total projected cost: estimated US\$53,396,800. 	The United States President's Emergency Plan for AIDS Relief (PEPFAR)	<p>Juanita Folmsbee SCMS Country Director 25 Bui Thi Xuan, Hanoi</p> <p>Tel: (844) 3945 4561 Fax: (884) 3945 4563</p> <p>jfolmsbee@vn.pfscm.org</p> <p>http://scms.pfscm.org</p>

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15.	A health financing review of Viet Nam with a focus on social health insurance	SHI review	<ul style="list-style-type: none"> Assess the current health financing system in Vietnam 	Health financing system	2011	<ul style="list-style-type: none"> Total per capita health expenditure in 2008 was US\$66.00, 6.4% of the national GDP and higher than in low income and middle income countries. As of 2012, HI coverage was 60%. More than 50% of the total health expenditure was OOP payments. Healthcare spending for SHI members was not equal among different groups. The existing payment mechanisms were inappropriate and had a negative impact on the Vietnam Social Security (VSS) fund. 	WHO	Tran Van Tien Vice head of HID/ MOH Tel: +84 903454155
16.	The impact of voluntary health insurance on health care utilization and out-of-pocket payment: new evidence for Vietnam	HI Healthcare services use and expenditure	<ul style="list-style-type: none"> Measure the impact of voluntary HI on the use of healthcare services and out-of-pocket payments (Based on VLSS data) 	General population	2011	<ul style="list-style-type: none"> Voluntary HI allows insured people to increase their annual outpatient and inpatient visits by around 45% and 70%, respectively. The effect of voluntary HI on OOP expenses for healthcare services is not statistically significant. 	n/a	Nguyen Viet Cuong Indochina Research and Consulting, Hanoi, Vietnam Email: c_nguyenviet@yahoo.com
17.	Joint Annual Health Review (JAHR) 2011: Strengthening management capacity and reforming health financing to implement the five-year health sector plan 2011–2015	SHI, Health financing	<ul style="list-style-type: none"> Update on the health sector including an assessment of progress in achieving the Millennium Development Goals (MDGs) and Vietnam's health development goals. Situation update for segment of the health sector, the implementation of tasks assigned by the Vietnamese Government, and JAHR recommendations from previous years. Analyze in-depth specific topics selected each year, in order to identify priorities and make recommendations for solutions. 	Health system	2011	<ul style="list-style-type: none"> SHI now covers 15.8 million poor and ethnic minority people in Vietnam, but only around 10% if the six million near poor people have HI (except for a few provinces that are supported by development projects). The approximately 34 million people that do not yet have SHI belong mainly to low participation groups including: the near poor (even though the state provides a partial subsidy, only 13.1% of those in this group are participating); farmers, workers' dependents, workers in cooperatives (33.4% coverage); and workers in non-state enterprises (53.4% coverage). Many patients with SHI are still required to pay the difference between official charges and those actually charged by health facilities. VSS focuses on controlling inputs and ensuring the health insurance fund is functioning; it has paid little attention to service quality and benefit for the insured. Only 30% of insured patients reported being satisfied with SHI services. The VSS system lacks a reliable database and which limits timely information for policy applications. 	World Health Organization (WHO) Atlantic Philanthropies (AP) Australian Agency for International Development (AusAID) USAID/PEPFAR	Planning and finance department, MOH 138 Giang Vo str. Hanoi Tel: (844) 3 823 1440 Fax: (844) 3 846 3056 Email: duongthuhang1412@gmail.com
18.	Strategic options for financing health system modernization	Health financing system	<ul style="list-style-type: none"> Highlight the main challenges facing financing the Vietnamese health system and draw on international literature to 	General population	2011	<ul style="list-style-type: none"> Vietnam's 6.4% expenditure on health in 2008 is high compared to countries of a similar socio-economic status. The proportion of OOP spending in Vietnam is high compared to public spending - 52% in 2008. 	n/a	Oxford Policy Management Limited 6 St Aldates

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	and development: what can Vietnam learn from international experiences?		make recommendations for how the country should respond to them			<ul style="list-style-type: none"> Progress has been slow in enrolling the 38% of the population that is not covered by SHI, including 5.6 million enterprise workers; 5.4 million near poor people; 6.8 million dependents; and 7.8 million informal workers. Poor service quality, including inadequate application of clinical guidelines; limited assessment of health technologies; and increasing drug prices are other challenges facing the health sector in Vietnam. Limited policies exist to effectively regulate private and public insurance providers. 		<p>Courtyard, 38 St Aldates, Oxford OX1 1BN, UK</p> <p>Tel: +44 (0)1865207300 Fax: +44 (0)1865207301 Email: admin@opml.co.uk Website: www.opml.co.uk</p>
19.	Feasibility study of universal healthcare coverage: <i>(Kết quả nghiên cứu khả năng thực hiện bảo hiểm y tế toàn dân)</i>	SHI	<ul style="list-style-type: none"> Describe the status of different insured groups Identify factors affecting the insured participants and the roadmap for universal healthcare coverage 	General population	2011	<ul style="list-style-type: none"> Insured status: as of 2010 about 50.8 million people in Vietnam had SHI, including 13.5 million poor, 33.3 million compulsory insurers and 3.9 million with voluntary insurance. Subjects that face challenges in accessing SHI include 1) near poor households 2) farming household 3) members of group business and individual household business 4) informal sector workers. Factors that affect participation in the SHI scheme 1) inadequate official guidelines for implementing the SHI law; 2) inefficient management of SHI; 3) inadequate implementation of HI; 4) lack of information on SHI benefits; 5) premiums too high for the majority of the population; and 6) the health care system does not meet public demand for care. 	MOH	<p>Tong Thi Song Huong Head of HID, MOH</p> <p>138 A Giang Vo Street, Hanoi</p> <p>Email: huongbhyt@yahoo.com</p>
20.	Evaluation of the pilot of per-case payment model: after 18 months of implementation	Healthcare service delivery Healthcare expenditure	<ul style="list-style-type: none"> Assess changes in the delivery of hospital services in relation to the cost of care after 18 months of implementation of the pilot project on case-based payment 	General population	2011	<ul style="list-style-type: none"> The average length of stay and mean costs were found to be lower for the groups enrolled in the case-based payment pilot program although the positive findings were not always consistent. The enrolled group with acute appendicitis showed lower means in terms of both length of stay and cost per case (4.26 vs 5.52; $p=0.03$ and VND2,779,624 vs VND3,417,472; $p < 0.001$). The spontaneous delivery cases had a lower average length of stay (2.49 vs 2.85; $p < 0.01$); but higher cost per case (VND918,012 vs VND742,157; $p < 0.001$). Lower costs for drugs and lab-tests were found for all case sub-groups enrolled in the pilot project. 	WHO	<p>Vu Van Chinh Vietnam Health Economics Association, MOH</p> <p>138A, Giang Vo, Ba Dinh, Ha Noi</p> <p>Email: chinhvuv@gmail.com</p>
21.	Measuring health service utilization and out-of-pocket spending among PLHIV	Health care expenditure	<ul style="list-style-type: none"> Describe PLHIV OOP expenditures and utilization of inpatient and outpatient care in Vietnam in 2010, in the context of the dramatic increase in donor funding 	PLHIV	2010	<ul style="list-style-type: none"> PLHIV used more HIV-related healthcare services than the general population used all health care products and services combined. Similarly, PLHIV also spent more per person on HIV-related healthcare than the general population spent per person on all health care 	USAID	<p>Health Systems 20/20 Abt Associates</p> <p>4550 Montgomery Lane, Suite 800</p>

No.	Title of Study	Topic	Research Objectives	Target population	Year	Findings	Partners	Contact person
	in Vietnam		for HIV/AIDS programs in Vietnam over the past five years			<p>services.</p> <ul style="list-style-type: none"> These observations raise questions about the impact of substantial increases in donor funding for HIV/AIDS programs in Vietnam (increasing from US\$18 million in 2004 to nearly US\$90 million in 2010) on reducing the financial burden of healthcare for PLHIV. 		<p>North, Bethesda, MD 20814, USA</p> <p>Email: douglas.glan_don@fhssp.org.fj</p>
22.	Situation analysis of Antiretroviral therapy in some provinces of Vietnam	Health service delivery	<ul style="list-style-type: none"> Assess the current situation of ART in Vietnam Identify factors affecting access to ART Provide recommendations to increase accessibility to ART and improve patients' adherence to ART 	PLHIV	2010	<ul style="list-style-type: none"> Positive changes have been made in providing ART services to PLHIV in Vietnamese provinces but they only meet a part of the actual need due to various constraints. Although ART shows positive results for AIDS patients in the provinces and access to ART for AIDS patients is increasing, it is still not enough to meet the actual need. Factors affecting access to ART include: <ul style="list-style-type: none"> Inconsistent service provision; shortage of human and financial resources; lack of incentives; current ART process not appropriate. AIDS patients' characteristics: inferiority complex; fear of being stigmatized; unstable residence and employment; financial difficulties; and lack of support from family and friends. 3) Socio-environmental factors: stigma, lack of appropriate policies and poor cooperation among offices, sectors and mass organizations. 	VAAC	<p>Nguyen Van Kinh VAAC, Lane 135/3 Nui Truc Street, Ba Dinh District, Hanoi,</p> <p>Or:</p> <p>Duong Thuy Anh VAAC, Lane 135/3 Nui Truc Street, Ba Dinh District, Hanoi</p> <p>Tel: +84 989088818</p> <p>Email: thuyanhvaac@gmail.com</p>
23.	Survey of PLHIV: Preliminary results on health service utilization and OOP expenditures	Health care utilization Health care expenditure	<ul style="list-style-type: none"> Explore how PLHIV seek healthcare services and the role of different HIV/AIDS service providers in informing financing and policy decisions for the National HIV/AIDS strategic plan for 2011-2015 	PLHIV	2010	<ul style="list-style-type: none"> HI coverage of PLHIV is lower than for the general population. Outpatient services and self-administered medication account for a much greater percentage of utilized services rather than hospitalization. HIV care and treatment is provided predominantly by public hospitals and health centers. Transportation costs account for a large share of OOP expenditure. PLHIV health expenses are higher for males, ARV patients, and those living in urban areas. Insured PLHIV have lower OOP expenditures, but the difference is small. Health care service utilities and expenses are much higher for PLHIV than for the general population 	USAID	<p>Nguyen Tuan Phong USAID/Health Policy Initiative Vietnam, Abt Associates</p> <p>72 Xuan Dieu, Floor 3, Tay Ho Hanoi</p> <p>Tel: (844) 3718 5716 ext 169</p> <p>Email: Phong@abtvn.com</p>
24.	The role of the private health sector in HIV/AIDS and related services in	Health service delivery	<ul style="list-style-type: none"> Highlight the existing and potential role the private health sector plays in delivering HIV/AIDS and related services in Vietnam Provide a background for 	PLHIV	2010	<ul style="list-style-type: none"> Vietnam's private health sector is a significant and rapidly growing source of care for all income levels. However, the prolific growth of the private health sector has surpassed the government oversight capacity. At present, medical associations and independent counsels do not 	USAID	<p>Angela Stene, Strengthening Health Outcomes through the Private Sector (SHOPS) Project, USAID</p>

No.	Title of Study	Topic	Research Objectives	Target population	Year	Findings	Partners	Contact person
	Vietnam: Current landscape, challenges and opportunities		the current landscape of private health sector challenges, opportunities and lessons learned to date			<p>have sufficient authority or resources to fill this role.</p> <ul style="list-style-type: none"> • Around 42% of Vietnam's population is covered by HI. The private sector potentially has a significant role to play in providing HIV/AIDS and related services. • Collaboration with pharmacists will most likely be an important factor in engaging the private health sector in HIV/AIDS and related services. 		Email: Angela_stene@abtassoc.com
25.	Impact of HIV/AIDS on household vulnerability and poverty in Viet Nam	Impact evaluation	<ul style="list-style-type: none"> • Obtain updated evidence on the socio-economic impact of HIV and AIDS in Vietnam, especially the most vulnerable households, to advocate for integrating HIV/AIDS activities and indicators into socio-economic development planning and policy-making 	PLHIV	2010	<ul style="list-style-type: none"> • HIV/AIDS affected households generally have lower incomes because of increased expenditures and lost income. However, non-affected households' total expenditures were higher than HIV/AIDS -affected households. • Most PLHIV were unemployed or had informal, part-time jobs. The proportion of civil servants (government officers) in non-affected households was 3.3 times greater than among non-infected people in HIV-affected households and five times higher than among PLHIV. • A much higher proportion of HIV/AIDS affected households experienced food shortages compared to non-affected households. • Vietnam's private health sector is a significant and rapidly growing source of care for all income levels. However, the prolific growth of the private health sector has surpassed the government oversight capacity. At present, medical associations and independent counsels do not have sufficient authority or resources to fill this role. • Around 42% of Vietnam's population is covered by HI. • The private sector potentially has a significant role to play in providing HIV/AIDS and related services. • Collaboration with pharmacists will most likely be an important factor in engaging the private health sector in HIV/AIDS and related services. 	UNDP	<p>UNDP UNDP Vietnam 25-29 Phan Boi Chau Street, Hanoi</p> <p>Tel: (844) 3942 1495</p> <p>Fax: (844) 3942 2267</p> <p>Email: registry.vn@undp.org</p>
26.	Estimating health insurance impacts under unobserved heterogeneity: the case of Vietnam's health care fund for the	SHI Health care expenditure	<ul style="list-style-type: none"> • Analyzes the impacts of the SHI scheme for the poor based on Vietnam Living Standard Survey (VLSS) data 	The poor	2010	<ul style="list-style-type: none"> • The Health care fund for the poor (HCFP) had no impact on the use of health care services. • The HCFP substantially reduced OOP health payments. 	World Bank	<p>Adam Wagstaff, The World Bank, 1818 H Street NW, Washington, D.C. 20433, USA.</p> <p>Tel: (202) 473-0566</p> <p>Email:</p>

No.	Title of Study	Topic	Research Objectives	Target population	Year	Findings	Partners	Contact person
	poor							awagstaff@worldbank.org
27.	Health financing for the poor produces promising short-term effects on utilization and out-of-pocket expenditure: evidence from Vietnam	Health care utilization Health care expenditure	<ul style="list-style-type: none"> Evaluate the program's short-term impact to determine if pro-poor financing programs can have an immediate effect on the use of healthcare services and OOP expenditures 	The poor	2009	<ul style="list-style-type: none"> The program had a small, positive impact on the overall use of healthcare services. Two substitution effects were noted: from private to public providers and from primary to secondary and tertiary level care. The study found a strong negative impact on out-of-pocket health expenditure. 		Henrik Axelson Health Economics and Management, Institute of Economic Research, Lund University, Sweden Email: axelsonh@who.int
28.	Social HI in Vietnam: Current issues and policy recommendations	SHI	<ul style="list-style-type: none"> Provide an overview of Vietnam's SHI scheme, including its historical development and progress, the challenges it faces and some policy recommendations 	General Population	2008	<ul style="list-style-type: none"> In 2006, 30.5 million people in Vietnam were covered by SHI (about 37% of the population), of whom 11.2 million were poor. The health sector faces urgent administrative and financial challenges, which means addressing issues such as labor mobility, widening inequality, increasing poverty and the impact of an ageing population in the future. It must also cope with the need to cover workers in the private sector and in rural areas, the latter representing 70% of the national population. Most health sector spending currently relies on the government budget and user fees so it is important to reform the present payment mechanisms. The health system also needs to be integrated into comprehensive national social and economic policies and strategies. 	International Labor Organization (ILO)	Giang Thanh Long Deputy Director, Institute of Public Policy and Management (IPPM) Suite 4.4, Building 10, National Economics University (NEU), Hanoi Email: giang.long@ippm.edu.vn Personal URL: http://www.runsystem.net/long/index.html
29.	User fees and health service utilization in Vietnam: how to protect the poor?	Health care utilization	<ul style="list-style-type: none"> Present user fees and the use of healthcare services in Vietnam during the critical period of economic transition in the 1990s (based on VLSS data) 	The poor	2008	<ul style="list-style-type: none"> User fees contribute to providing health resources and help relieve the Government's financial burden.. Comparisons of concentration indices for hospital stays and community health center visits show that user fees can drive people deeper into poverty, widen the gap between rich and the poor, and increase the inequality of health outcomes. 	N/A	Le QV Department of Economic, Albers School of Business and Economics, Seattle University, WA, USA Email: lequ@seattleu.edu
30.	Choice of healthcare provider following reform in	Healthcare seeking behavior	<ul style="list-style-type: none"> Examine the choice of medical providers and household healthcare expenditures for different 	General population	2008	<ul style="list-style-type: none"> The use of private healthcare providers and self-treatment are quite common for both illness episodes and health related expenditures. The poor tend to use self-treatment more 		Nguyen TB Thuan Planning and Financing Department, MOH, Hanoi,

No.	Title of Study	Topic	Research Objectives	Target population	Year	Findings	Partners	Contact person
	Vietnam		providers in a rural district of Vietnam following healthcare reforms			<p>frequently than wealthier members of the community.</p> <ul style="list-style-type: none"> All patients in this study preferred to use private healthcare services before public ones. The poor use less public care and less upper level care than the rich do. 		Email: ntbthuan2007@gmail.com
31	Scaling up HIV treatment, care and support for injecting drug users in Vietnam	Health service delivery	<ul style="list-style-type: none"> Identify and understand, from the perspective of PLHIV, challenges and opportunities for improving access to HIV treatment, care and support in Vietnam 	PLHIV	2007	<ul style="list-style-type: none"> Against a backdrop of punitive government policies, including mandatory detention of IDUs and sex workers, and widespread stigma and discrimination, many PLHIV lived with the fear of discovery and the threat of abandonment. Lack of confidentiality, limited financial resources and restricted access to essential medications provided powerful disincentives to health service utilization. 	n/a	<p>L. Maher University of New South Wales, Sydney, Australia</p> <p>Email: Lmaher@nchechr.unsw.edu.au</p>
32.	Factors associated with the failure to seek HIV care and treatment among HIV-positive women in a northern province of Vietnam.	Healthcare utilization	<ul style="list-style-type: none"> Examine how HIV-positive women in the province utilize HIV/AIDS care and treatment services and describe factors that influence their failure to seek out those services 	PLHIV	2007	<ul style="list-style-type: none"> About 26.3% of the study participants had never accessed HIV/AIDS care and treatment services. The reasons given for not seeking out the services included: not being registered with the provincial AIDS center (odds ratio [OR]: 3.0; 95% confidence interval [CI]: 1.4-6.4); they did not know their family member was HIV-positive (OR: 3.2; 95% CI: 1.2-8.3), they had not disclosed their HIV status (OR: 4.0; 95% CI: 2.0-8.1); and other factors associated with the testing process. Women in general were tested by chance had a 4.0 times increased OR (95% CI: 1.4-11.7) and women who were tested in relation to antenatal care or delivery had 3.0 times increased OR (95% CI: 1.1-8.5) for failure to seek HIV care compared to women who had been tested because their husbands/partners were sick or had died. 	Individual	<p>Nguyen Thu Nam Health Strategy and Policy Institute, No. 138 Giang Vo, Ba Dinh, Hanoi</p> <p>Tel: (844) 38234167</p> <p>Email: namnguyenthu@yahoo.com</p>
33.	Health Insurance for the poor: Initial impacts of Vietnam's Health Care Fund for the Poor	SHI	<ul style="list-style-type: none"> Evaluate the impacts of the SHI scheme on the poor.(based on VLSS data) 	The poor	2007	<ul style="list-style-type: none"> The HCFP was very well targeted for the Vietnam's poor (the poorest 20% of the population account for 50% of HCFP beneficiaries), but the program did not cover all the intended groups (15%). The program increased the use of services and reduced the risk of catastrophic OOP spending. Even with HCFP coverage, poor households still spent a large share of their income on OOP health expenses. The impact of service utilization is far greater for inpatient care than outpatient care. The impacts of utilization are greater among the better off; among the poorest decile are rarely significant. 	World Bank	<p>Adam Wagstaff, The World Bank, 1818 H Street NW, Washington, D.C. 20433, USA.</p> <p>Tel. (202) 473-0566. Fax (202)-522 1153.</p> <p>Email: awagstaff@worldbank.org</p>
34.	Case study on health care for	HI	<ul style="list-style-type: none"> Describe the evidence and process that led to the 	The poor	2007	<ul style="list-style-type: none"> In 1989, the Vietnamese Government introduced user fees for public healthcare facilities, thereby 	WHO	Dang Boi Huong Vietnam Ministry of

No.	Title of Study	Topic	Research Objectives	Target population	Year	Findings	Partners	Contact person
	the poor in Vietnam: How evidence and politics came together	Healthcare utilization	Prime Minister's Decision No. 139/2002/QD-TTg on healthcare for the poor in Vietnam			<p>unintentionally making access to healthcare often unaffordable for the poor.</p> <ul style="list-style-type: none"> To mitigate the impact of user fees, the Government has introduced several policies to partly exempt the poor from paying for health services. However the effectiveness and coverage of the exemptions was very limited due to insufficient funding and lack of strong political commitment from local government authorities. 		<p>Health Policy Unit, 138 A Giang Vo, Hanoi</p> <p>Email: huongvietnam1964@yahoo.com</p>
35.	The early impact of Decision 139 in Vietnam: An application of propensity score matching	Healthcare utilization and expenditure	<ul style="list-style-type: none"> Present the methodology used and summarize results for an impact evaluation of the health care policy for the poor, issued under the Prime Minister's Decision No. 139 in October 2002, hereafter referred to as Decision 139 	The poor	2007	<ul style="list-style-type: none"> There was no statistically significant difference in the total number of outpatient visits or inpatient admissions between the group with a card indicating they were eligible for benefits and the matched group without SHI cards. People with a free health care card had significantly lower OOP spending on health care than matched eligible people without a card. Decision 139 reduced beneficiary OOP spending significantly without significantly changing the overall level of healthcare utilization. 	<p>Swedish International Development Cooperation Agency (Sida)</p> <p>Asian Development Bank (ADB)</p> <p>MOH</p>	<p>Sarah Bales Independent Consultant, Health Policy Unit, Ministry of Health, Bangkok</p>
36.	The influence of health insurance on hospital admission and length of stay-the case of Vietnam	HI Healthcare expenditure	<ul style="list-style-type: none"> Assess the influence of Vietnam's HI schemes on both hospital admissions and lengths of stay (LOS)(based on VLSS data) 	General population	2006	<ul style="list-style-type: none"> The compulsory insurance scheme and the insurance scheme for the poor increase the expected LOS, while the voluntary insurance has minimal effect on the expected LOS. Insurance increases the likelihood of hospital admission far more for compulsory members than for members of the other two insurance schemes. The positive influence of insurance on hospital admissions and LOS also varies depending on income quintiles, regions and types of health facilities. 	n/a	<p>Dr Ardeshir Sepehri, Department of Economics, University of Manitoba, Winnipeg, Canada, R3T 5V5. Tel: +1 204 474 6241 Email: sepehri@cc.umanitoba.ca</p>
37.	Fostering Public-Private partnership (PPP) in HIV prevention, care and treatment in Vietnam	Health service delivery	<ul style="list-style-type: none"> Obtain data on existing public and private sexually transmitted infection (STI) and HIV/AIDS services Assess the private sector potential for future HIV/AIDS service capacity Identify PPP models to improve effective prevention, care and treatment of STI, HIV/AIDS 	PLHIV	2006	<ul style="list-style-type: none"> Perceptions of PPP: public stakeholders are concerned about "lack of financial resources and a suitable administrative mechanism for PPP"; private providers fear "complicated administrative procedures", "being under too much state management," and "time consuming" obstacles. Private sector wants as much public sector support as possible, but does not want to be over-managed by the public sector; time spent on developing a PPP will be costly. Possible PPP models: <u>Non-contractual model</u>: no new legal, commercial contracts or initiatives from the public sector or donors; strategies: technical assistance for capacity building, tax incentives. <u>Contractual model</u>: commercial contracts; the 	PEPFAR	<p>Le Ngoc Bao Pathfinder International, Vietnam</p> <p>Weblink: http://shopsproject.org/sites/default/files/resources/3073_file_B3_Isreal.pdf</p>

No.	Title of Study	Topic	Research Objectives	Target population	Year	Findings	Partners	Contact person
						public sector provides financial support to existing or newly established entities; strategies: new official referral system set up for specialized medical establishments.		
38.	Does non-profit health insurance reduce financial burden? Evidence from the Vietnam Living Standards Survey panel	HI Health care expenditure	<ul style="list-style-type: none"> Estimate the effect of insurance on OOP health expenditure(based on VLSS data) 	The poor	2006	<ul style="list-style-type: none"> HI was found to reduce OOP expenditure between 16% and 18%; the reduction in expenditure was greater for individuals with lower incomes. For average incomes, HI to reduced health expenditures between 28 and 35%. 	n/a	Dr Ardeshir Sepehri, Department of Economics, University of Manitoba, Winnipeg, Canada, R3T 5V5. Tel: +1 204 474 6241; Fax: +1 204 474 7681 Email sepehri@cc.umanitoba.ca
39.	HI impacts on health and nonmedical consumption in a developing country	HI Health care utilization and expenditure	<ul style="list-style-type: none"> Examine the effects of Vietnam's HI program on health outcomes, health care utilization, and non-medical household consumption 	Poor/ Non-poor	2005	<ul style="list-style-type: none"> HI increased the use of primary care facilities for young children and reduced relying on pharmacists as a main source of advice and non-prescription medicines, instead utilizing them as the supplier of medicine prescribed by a health professional. For older children and adults, HI resulted in a marked increase in the use of hospital inpatient and outpatient departments. HI also reduced annual OOP expenditures on health and increased spending on non-medical household consumption, including food consumption, but mainly non-food items. 	WB	Adam Wagstaff, The World Bank, 1818 H Street NW, Washington, D.C. 20433, USA. Tel. (202) 473-0566. Fax (202)-522 1153. Email: awagstaff@worldbank.org
40.	The socioeconomic impact of HIV/AIDS in the Socialist Republic of Vietnam	Impact evaluation Healthcare expenditure	<ul style="list-style-type: none"> Assess the socio-economic impact of HIV/AIDS in Vietnam 	PLHIV	2005	<ul style="list-style-type: none"> Social and economic impact: HIV/ AIDS affects social and economic development at many levels including individual, household, community, business, governmental, and macroeconomic. When a person becomes sick with AIDS, his or her family faces increased expenditures for care and often has to sell productive assets to pay for them. Other family members may need to stay home from school or work to provide care. When the person dies, the resulting loss of income can push non-poor families into poverty. Substantial macroeconomic effects could occur if the epidemic becomes much worse. Deaths of productive workers and increased costs for health care, recruitment, and training could seriously erode profits and reduce international 	USAID	POLICY Project Weblink: http://www.policyproject.com/pubs/countryreports/VIET_SEI.pdf

No.	Title of Study	Topic	Research Objectives	Target population	Year	Findings	Partners	Contact person
						competitiveness; however, these effects may be lessened if the epidemic can be contained. The gap between funding from all sources in 2003 and those needed for a comprehensive prevention, care, and treatment program in 2007 is estimated to be as high as US\$178 million.		
41.	Impact of HIV/AIDS on household vulnerability and poverty in Vietnam (Report by UNDP-AusAID supported Project – VIE/98/006)	Impact evaluation	<ul style="list-style-type: none"> Evaluate the impact of HIV/AIDS on household vulnerability and poverty in Vietnam 	PLHIV	2005	<p>Micro-level impacts:</p> <ul style="list-style-type: none"> Healthcare costs are extraordinarily high. Total healthcare expenditure of PLHIV households was 13 times higher than that of the general population. The funeral costs of HIV/AIDS patients also add to the burden. Hospital care and treatment for HIV/AIDS patients are poor and severely limited by resource constraints in the health system. Most HIV/AIDS-related care and treatment costs are borne by households. Healthcare-seeking behavior by PLHIV is strongly influenced by stigma and discrimination; PLHIV tend not to seek care at hospitals for fear of exposing their HIV/AIDS status. <p>Macro-level impacts:</p> <ul style="list-style-type: none"> Most households with PLHIV, except for the richest 20 percent, fall below the poverty line. The poorest 40 percent of households with PLHIV also fall below the food poverty line as a result of their added expenditures and effects of HIV/AIDS on their incomes. HIV/AIDS significantly reduces the country's gains made in poverty reduction as it drives households into poverty for the first time and the already poor, more deeply into poverty. 	United Nations Development Programme (UNDP)	<p>UNDP 25-29 Phan Boi Chau Street, Hanoi</p> <p>Tel: (844) 9421495</p> <p>Email: registry.vn@undp.org</p> <p>www.undp.org.vn</p>
42.	The impact of public voluntary health insurance on private health expenditures in Vietnam	HI Healthcare utilization and expenditure	<ul style="list-style-type: none"> Compare OOP health expenditures amongst insured and uninsured patients, during their most recent contact with a health-professional 	The poor/non-poor	2003	<ul style="list-style-type: none"> HI reduces average OOP expenditures by approximately 20%. Health expenditures were found to be significantly influenced by an individual's level of income, regardless of insurance status. Despite this, insurance reduces expenditures significantly more for the poor than for the rich. 	n/a	<p>Matthew Jowett: Department of Health Sciences, University of York, UK</p> <p>Email: mj14@york.ac.uk</p>
43.	Catastrophe and impoverishment in paying for health care: with applications to Vietnam 1993-1998	Healthcare expenditure	<ul style="list-style-type: none"> Measure catastrophic consequences and impoverishment caused by healthcare expenses (based on VLSS data) 	The poor	2003	<ul style="list-style-type: none"> The incidence and intensity of 'catastrophic' payments - both in terms of pre-payment income and ability to pay - were reduced between 1993 and 1998, and both the incidence and intensity of 'catastrophes' became less concentrated among the poor. The incidence and intensity of OOP payments diminished over the period in question. The poverty impact of OOP payments is primarily 	World Bank	<p>Adam Wagstaff, The World Bank, 1818 H Street NW, Washington, D.C. 20433, USA.</p> <p>Tel. (202) 473-0566. Fax (202)-522 1153</p>

No.	Title of Study	Topic	Research Objectives	Target population	Year	Findings	Partners	Contact person
						due to poor people becoming even poorer rather than the non-poor being made poor, and non-hospital expenditures increasing poverty rather than inpatient expenses.		Email: awagstaff@worldbank.org
44.	Primary health concept revisited: where do people seek health care in a rural area of Vietnam?	Healthcare seeking behavior Healthcare expenditure	<ul style="list-style-type: none"> Investigate aspects of access and utilization of health care of rural people 	Rural residents	2002	<ul style="list-style-type: none"> Self-treatment is common practice and private providers are an important source of health services for both better off and poor households. Healthcare costs are substantial for households, and lower income groups spent a significantly higher proportion of their income on healthcare than the rich. The poor are deterred from seeking healthcare more often than the rich for financial reasons. The poor relied much more on borrowing money to pay for their healthcare needs, while those who were better off relied mostly on household savings. The burden of high costs for treatment implies a high risk for families to fall into a 'medical poverty trap.' 	n/a	Nguyen Duy Khue MCH/FP Department, Ministry of Health, Vietnam. No.138 Giang Vo, Hanoi Email: nguyenduykhe2002@yahoo.com
45.	Household utilization and expenditure on private and public health services in Vietnam	Healthcare expenditure and utilization	<ul style="list-style-type: none"> Assess the role of private healthcare providers by examining patterns and financial burdens of households using private rather than public services 	General population	2002	<ul style="list-style-type: none"> The private sector provided 60% of all outpatient contact in Vietnam, with no notable difference in patient education, sex or place of residence. Although there was evidence suggesting that wealthier people used private care more often than the poor, this finding was not consistent across all income groups. The private sector particularly served young children. People in households with several members sick at the same time relied more on private than public care, while those with severe illnesses tended to use more public rather than private care. The financial burden of private healthcare services on households was roughly a half that imposed by public providers. Expenditure on drugs accounted for a substantial percentage of household expenses in general and healthcare expenditure in particular. 	n/a	Nguyen Thi Hong Ha The Population Council, Hanoi Tel: (844) 38512467 Email: hnguyen2000@post.harvard.edu

Part 2

Current or Planned Studies in Vietnam

Title of Study	Topic	Research Objectives	Target population	Year	Findings	Partners	Contact person
Assessment of the extent of standardization of PLHIV's outpatient clinic service delivery to health care system of Vietnam	SHI	<ul style="list-style-type: none"> Determine the number of PLHIV with SHI cards according to group, e.g. the poor, near poor and other groups 	PLHIV	June-Dec, 2012	Centers for Disease Control and Prevention (CDC)	VAAC	Duong Thuy Anh VAAC, MOH. Tel: +84 989088818 Email: thuyanhvaac@gmail.com
Barriers to use of SHI by PLHIV	SHI	<ul style="list-style-type: none"> Identify barriers to PLHIV using SHI in two non PEPFAR provinces 	PLHIV	Oct 2012 – May 2013	USAID	USAID/HPI	Son Phan USAID/HPI son@abtvn.com
Implementing SHI for PLHIV and financial solutions to mobilize resources for HIV/AIDS care and treatment in Vietnam, 2012-2020 -Phase 1 (2012-2015): 10 hotspot, high epidemic provinces -Phase 2 (2016-2020) expand to remaining provinces	SHI Financial mobilization	<ul style="list-style-type: none"> Make sure 100% of PLHIV receive full services from the SHI fund for HIV/AIDS care and treatment by 2020. Make sure 80% of HIV/AIDS care and treatment facilities meet SHI fund requirements by 2020 	PLHIV	2012-2020	CDC	VAAC	Duong Thuy Anh VAAC, MOH. Tel: +84 989088818 Email: thuyanhvaac@gmail.com .
Financial burden of healthcare for HIV/AIDS patients in Vietnam	Healthcare expenditure	<ul style="list-style-type: none"> Assess utilization of healthcare services by PLHIV. Estimate OOP health expenses for PLHIV and identify associated factors 	PLHIV	Jan- Dec, 2012	VAAC	Individual	Tran Xuan Bach, HMU, No 1, Ton That Tung, HN. Email: bach@hmu.edu.vn
Study of SHI cardholder utilization of and payment for hi-tech and high cost health services	SHI Healthcare utilization and expenditure	<ul style="list-style-type: none"> Assess the status of SHI cardholders using hi-tech and high cost health services Measure SHI financial protection for people using hi-tech and high cost health services 	The poor/ near poor	2012-2013	WHO	HSPI	Phuong Nguyen Khanh Tel: +84 912213838 email: nguyenkhanhphuong@hspi.org.vn
Evaluation of the health insurance law	SHI	<ul style="list-style-type: none"> Assess the implementation of the health insurance law at different levels Evaluate challenges and shortcomings of the health insurance law 	General population	2012-2013	MOH	HSPI	Phuong Nguyen Khanh Tel: +84 912213838 email: nguyenkhanhphuong@hspi.org.vn

Financial mechanism for basic "Healthcare packages" following a Universal Health Care orientation	SHI Healthcare packages	<ul style="list-style-type: none"> Evaluate the financial mechanisms, capacity and achievements of primary healthcare providers Identify basic healthcare packages based on appropriate forecasting Develop and propose a core financial mechanism to strengthen basic healthcare packages at primary levels (district and commune) 	General population	2012-2015	MOH	MOH Department of Planning and Finance,	Vu Van Chinh Department of Planning and Finance, MOH 138 A Giang Vo, Hanoi Tel: +84 988654057 Email: chinhvuv@gmail.com
Cost of delivering healthcare services	Costing	<ul style="list-style-type: none"> Estimate costs of healthcare services for healthcare providers Identify appropriate costs for each healthcare package 	Healthcare providers	2012-2013	WB	HID, MOH	Tran Van Tien Vice Head of HID, MOH Tel: +84 903454155 Email: tien.tranvan@yahoo.com
Cost-benefit analysis of different HIV prevention packages	Costing	<ul style="list-style-type: none"> Identify prevention package costs Estimate return costs of each prevention package 	PLHIV	Jan 2012-Sept 2012	WB	Individual	Pham Duy Quang HCM Pasteur Institute Email: pdquang@kirby.unsw.edu.au (PhD training program)
Promote research and evaluation of HIV/AIDS and other public health issues through development of a national coordination body for HIV/AIDS research at Hanoi Medical University (HMU)	Costing CEA	<ul style="list-style-type: none"> Estimate costs of rapid HIV tests and VCT Estimate cost effectiveness ratio for VCT models 	PLHIV	2012-2017	CDC	HMU	Associate Professor Hoang Van Minh, HMU, No 1, Ton That Tung, HN. Tel: +84 913392717 Email: hoangvanminh@hmu.edu.vn
Plan to conduct several health economics evaluations e.g. costing and cost-effectiveness analysis of some PLHIV intervention models.	Costing CEA	<ul style="list-style-type: none"> Estimate costs of different HIV/AIDS intervention models Estimate cost effectiveness ratios of different HIV/AIDS intervention models 	PLHIV	2012-2016	UNFPA	Local organizations (open bidding)	Duong Van Dat UNFPA Vietnam Representative Office. Tenancy A1, Golden Westlake Executive Residences 151 Thuy Khue Street, Tay Ho District, Hanoi Tel: (844) 3823 6632 Email: dat@unfpa.org

Part 3

Abstracts and Summaries of Selected Studies in Vietnam

The following are selected abstracts and summaries of abstracts. USAID/HPI has edited these abstracts for consistency, however all content remains the work of the original authors.

1. Robin, T., Humphrey E., L. Tomas, and T. T. N. Nguyen. "Expanding long term financing options for HIV in Vietnam." Oxford Policy Management (unpublished report), 2012.

Vietnam has achieved considerable success in scaling up its programs to address the HIV/AIDS pandemic in recent years. However while public agencies and civil society organizations have played a key role in this success, 74% of total resources for the programs have come from development partners. Donor funding is expected to decline over the next few years as a result of the global financial crisis and current fiscal austerity in many developed countries. This creates significant challenges for policy makers in Vietnam to ensure the level and quality of HIV/AIDS services are maintained and expanded. In response to these challenges, this report explores a number of domestic financing options for HIV/AIDS responses and assesses their potential contributions to the country's present and projected future HIV/AIDS needs. Annual resources required are projected to increase from US\$120.9 million in 2012 to US\$313.6 million in 2020. A number of additional domestic funding sources could be explored to help fill some of this gap, including increasing public sector mainstreaming and private sector contributions, introducing airline and airtime taxes, raising general taxes, and promoting better program efficiency.

Social health insurance (SHI) is a potential tool for financing HIV/AIDS programs and increasing access to outpatient and inpatient care for people living with HIV (PLHIV), including treatment for opportunistic infections (OI). Vietnam is looking at SHI as a potential source of funding to close the gap between actual need and available funds. The move towards universal coverage will see increased numbers of PLHIV enrolled in the SHI scheme and, in the absence of other funding for antiretroviral therapy (ART), the Vietnamese Social Security (VSS) system should be explored to determine if it would be able to cover ART. It is estimated that VSS could potentially contribute around US\$284 million towards the costs of ART from 2012 to 2020. International experience highlights the role public sector mainstreaming plays in contributing resources to HIV/AIDS programs. While a number of ministries in Vietnam have undertaken HIV/AIDS activities, there is little interest in pursuing mainstreaming any further at this time. The main reason for this is that it would require changing the Budget Law that specifies which other ministries can incur 'health, population and family planning' related expenses.

Private sector contributions play an important role in the fight against the HIV/AIDS pandemic. They can be motivated by a sense of corporate citizenship or by the direct effect that HIV/AIDS has or could have on a business and there is scope for increasing private sector contributions in Vietnam. Based on crude estimations, it is estimated that US\$34 million could be collected by 2020 to fund private sector workplace programs.

The Vietnamese government has increased its borrowing in recent years to counteract the impact of the global financial crisis. While it may be possible in the short term to raise resources for HIV and AIDS programs through additional borrowing, this report does not consider the option in-depth and the projections exclude any potential resources from new borrowing. The report points out the importance of saving resources by prioritizing and improving efficiency where additional resources are not forthcoming.

Based the additional sources described above, it is possible to assess the total resources available for HIV/AIDS programs in Vietnam, with an airline tax generating the largest revenue and representing 70% of the alternative funding sources. When all the above

additional funding sources are added to the baseline resources, the article concludes that the expected financing gap can be covered.

2. Kieu, H.H. “Review of HIV/AIDS related costs and service packages for PLHIV.” World Bank (working paper), 2012.

The best indicator of national costs is an average of the unit costs for the 21 sites weighted by the number of clients served at each facility. Weighting produces an average unit cost of VND 2,833,166 (US\$137.5) per adult pre-ART patient; VND7,594,995 (US\$ 369) per adult ART first line patient (first year); VND6,486,439 (US\$315) per adult first line ART patient (in following years); VND27,803,065 (US\$1,350) per adult second line patient; and VND4,904,772 (\$238) per adult inpatient episode. The average unit cost per pre-ART child patient is VND3,992,693 (US\$193.80); VND9,374,699 (US\$455) for ART first line child patients (first year); VND7,201,877 (US\$350) for first line ART child patients in the following years; VND18,824,748 (US\$914) for second line child patients; and VND5,124,154 (\$249) per inpatient episode. Further detailed information is provided for pediatric cases.

Vietnam’s total budget for HIV/AIDS care and treatment in 2012 was VND1,484 billion, which is expected to require an increase of about 15-20% annually. If Social Health Insurance (SHI) covers 100% of AIDS patient costs and PLHIV co-pay 20% of their total HIV/AIDS related costs, the Vietnamese SHI scheme needs VND829 billion per year to cover HIV/AIDS care and treatment, and out of pocket payments will reach 207 billion VND. If SHI only covers 50% of PLHIV costs, it will need to provide VND414 billion.

3. Bach, T.X. “Budget impact analysis of scaling up social health insurance for HIV/AIDS patients in Vietnam.” World Bank (working paper), 2012.

This report comprises three studies, including systematic reviews, secondary analyses and economic modeling from a societal perspective.

The first study reviews and analyzes the costs of HIV/AIDS care and treatment packages and associated services from a provider’s perspective, using data extracted from the National ART Cost Analysis (NACA) study. The NACA surveyed 21 ART clinics nationwide using both top-down and bottom-up costing approaches. Results show that in 2009 the average annual services cost for pre-ART, first line ART (first year), first line ART (later years), second line ART, and inpatient episodes was US\$137.50, US\$369.00, US\$315.00, US\$1,350.00, and US\$238.00 respectively. The major cost driver was antiretroviral (ARV) drugs, which accounted for 32.6% to 43.8% for first line ART, and up to 88% for second line ART costs. Laboratory tests accounted for 17% of first line ART costs and 6% of second line costs. Costs for services to insured inpatients were 30% lower than for non-insured inpatients, partly due to cheaper drug costs for insured patients.

The second study examines the burden of HIV/AIDS on affected households’ vulnerability and poverty, and explores potential financial mechanisms to protect HIV/AIDS patients and ensure the sustainability of ART programs. An initial analytical review was conducted of existing evidence on out-of-pocket (OOP) payments for HIV/AIDS care and treatment and estimated cost-of-illness (COI) associated with HIV/AIDS.

The third study assesses the political feasibility of expanding health insurance services and explores the perspectives of beneficiaries, health managers, social insurers, and other policy

actors. An analytical review of legal documents and guidelines was conducted, followed by a rapid assessment of SHI coverage at the field sites. The author identifies barriers to expanding SHI coverage at different levels and suggests pathways for developing an implementation plan.

4. **Le, T.T.C., Q. C. Nguyen, N. T. Do, L. T. T. Doan, D. D. Bui, V.T.H. Pham, et al. "Enrollment and retention in HIV care and treatment services in Vietnam." Presentation at the XIX International AIDS Conference, July 22-27, 2012, Washington, .D.C., USA. 2012. Accessed Aug. 20, 2012 <<http://paq.aids2012.org/Abstracts.aspx?AID=10608>>.**

Data from Vietnam highlight two key issues regarding HIV/AIDS care and treatment program utilization and retention: 1) around 40%-60% of PLHIV who know their status do not enroll in care; and 2) PLHIV who do begin treatment have low attrition rates. The study's objective was to identify factors that facilitate and obstruct initial access to care and subsequent continuation of treatment. A qualitative descriptive study using in-depth interviews was conducted in Hai Phong and Can Tho provinces among 76 PLHIV, including those who had not yet accessed pre-ART or ART services; those who were currently lost to follow up (LTFU) through study outreach worker interviews; and those who were continuing to utilize services. In addition, 22 caregivers/family members of PLHIV and 47 care providers were also interviewed.

Results of the study were that stigma and/or discrimination, health worker attitudes, confidentiality concerns, perception that only the sick need treatment, lack of or poor knowledge about HIV care and treatment services, and frustration with procedures and service quality were common barriers to both accessing and continuing HIV care services. Additional obstacles specifically related to remaining in care included side effects of ART, financial constraints due to missed work, and transportation costs. Strong family support, involvement with peer educators and PLHIV support groups, positive encounters with clinic and healthcare staff, and free treatment were major factors contributing to PLHIV staying with care programs.

5. **Center for Community Health Research and Development (CCRD), "Mekong health regional support project: End of project evaluation report". World Bank, 2012 (working report).**

This report shows findings related to SHI for the poor and near poor in the Mekong River Delta region of southern Vietnam. SHI coverage for the poor in this region at the time of the end line survey (2011) was 94.4%, higher than the baseline survey (85.4%) and exceeding the project's expected result of 90%. The coverage of men and women was similar. Social health insurance for the poor and near poor account for a major proportion of total SHI coverage in the region, although these groups only account for about 20% of the total population. Even though the project target was achieved, health insurance coverage in the Mekong River Delta region is not better than the national average, especially for the poorest group which has an even lower rate than the national average. Overall, nearly half the insured poor and near-poor used their health insurance in the last 12 months (45% and 40%, respectively), which is fairly high compared to 38.2% of the non-poor population. The poor and near poor also tend to use their SHI card more frequently than the non-poor. Almost all the sick poor and near poor people used their health insurance for treatment, which

indicates that the poor have good access to health insurance funds and healthcare services. Women are more likely to use their SHI card than males across all poverty levels. Data suggest that commune health stations and district hospitals are the most popular facilities for insured people to receive healthcare services, especially the poor and near-poor. Household data also reveal that about 4% of all insured sick people went to Ho Chi Minh City for treatment. Social Health insurance covered 87% of the total hospital charges for poor inpatients and the majority of total hospital charges for near-poor and non-poor inpatients (76.6% and 76.3%, respectively). If the near-poor inpatient used their SHI cards, their out-of-pocket (OOP) payment for hospitalization decreased considerably, although they still had to spend at least 11.2% of their income or 20% of their total non-food expenditure on hospitalization fees.

6. Nguyen, K.T., et al. "Impact of health insurance on healthcare treatment and cost in Vietnam: A health capability approach to financial protection." American Journal of Public Health, Vol. 102, No. 8: 1450–1461, Aug. 2012.

An alternative conceptual framework was applied for analyzing health insurance and financial protection based on the health capability paradigm. An initial survey of 706 households in Dai Dong, Vietnam examined the impact of SHI on inpatient and outpatient healthcare access, costs, and outcomes using bivariate and multivariable regression analyses. Insured respondents had lower costs for outpatient and inpatient treatment and longer hospital stays but fewer days of missed work or school than the uninsured. Insurance reform lowered household vulnerability to high healthcare costs by directly reducing medical costs and indirectly reducing lost income due to illness. However, from a normative perspective, OOP costs are still too high, and accessibility issues persist; a comprehensive insurance package and additional health system reforms are needed.

7. Tran, B.X., et al. "Cost-effectiveness of integrating methadone maintenance and antiretroviral treatment for HIV-positive drug users in Vietnam's injection-driven HIV epidemics." Drug Alcohol Dependency, 2012.

Drug use negatively affects adherence to and outcomes of ART. This study evaluates the cost-effectiveness of integrating MMT with ART for HIV-positive injecting drug users (IDUs) in Vietnam. A decision analytical model was developed to compare the costs and consequences of three HIV/AIDS treatment strategies for IDUs: (1) ART alone, (2) providing ART and MMT at separate sites (ART-MMT), and (3) direct administration ART and MMT (DAART-MMT). The base-case analysis showed that the cost-effectiveness ratio of ART, DAART-MMT, and ART-MMT strategies was US\$1358.90, US\$1118.00, and US\$1327.10 per QALY, respectively. This is equivalent to 1.22, 1.00, and 1.19 times per capita GDP. The incremental cost-effectiveness ratio for DAART-MMT and ART-MMT versus only ART strategy was 569.4 and 1227.8, respectively, which is approximately 0.51 and 1.10 times per capita GDP/QALY. At a willingness to pay (WTP) threshold of three times per capita GDP, the probability of DAART-MMT versus ART being cost effective is 86.1%. These findings indicate that providing MMT along with ART for HIV-positive IDUs is a cost-effective intervention in Vietnam. Integrating MMT and ART services could facilitate the use of directly observed therapy that supports adherence to treatment and brings about clinically important improvements in health outcomes. This approach is also incrementally cost-effective for a large scale injection-driven HIV epidemic.

8. Minh, H.V., et al. "The cost of providing HIV/AIDS counseling and testing services in Vietnam." Value in Health Regional Issues, 2012. (Issue I): 36-40.

This article aims to estimate and analyze the cost of providing voluntary counseling and testing (VCT) services for HIV/AIDS in a province of northern Vietnam. This facility-based costing study was conducted in Thai Nguyen province. Cost data were collected in six facility-based and two freestanding VCT units by using an ingredient approach and estimating both the financial and economic costs of providing VCT services for HIV/AIDS patients. The mean total annual financial costs of facility-based and freestanding VCT units in the study site were US\$15,673 and US\$42,237, respectively. The mean total annual economic costs of these services were US\$16,695 and US\$44,682, respectively. The cost per visit to the facility-based VCT unit was lower than for the freestanding facility (financial cost - US\$28.40 vs. US\$36.80; economic cost - US\$30.30 vs. US\$38.90). The same was true for the cost per complete set of VCT procedures (financial cost - US\$34.70 vs. US\$38.00; economic cost - US\$36.90 vs. US\$40.20). The cost per HIV-positive case detected in facility-based VCT units was higher than that at the freestanding VCT unit (financial cost - US\$149.30 vs. US\$111.20; economic cost - US\$159.00 vs. US\$117.60).

The results presented in the study offer preliminary evidence of the economics of providing VCT services in Vietnam. The findings from this study can serve as a basis for further studies as well as for developing programs and policies.

9. Tran, B.X., et al. "Cost-effectiveness of methadone maintenance treatment for HIV-positive drug users in Vietnam." AIDS Care, 2012. 24(3): 283-90.

Methadone maintenance treatment (MMT) is efficacious in reducing drug use, which may improve HIV/AIDS care and treatment outcomes. This study evaluates the incremental cost-effectiveness of MMT for HIV-positive drug users from the perspective of health service providers. A sample of 370 HIV-positive drug users undergoing MMT at multiple sites was assessed for a baseline and at three, six and nine month intervals. The cost of MMT services was analyzed. Quality-adjusted life years (QALYs) were modeled from changes in the health-related quality of life of patients using the modified World Health Organization Quality of Life - Brief Version (WHOQOL-BREF). Over nine months, MMT substantially improved the QALY of HIV/AIDS patients (0.076 QALY [0.066-0.084]). The increments in QALY were large and stabilized in those patients undergoing ART and abstaining from drug use. For each QALY gained, the MMT program costs US\$3,745.30, approximately 3.2 times the Vietnamese per capita GDP in 2009. The cost-effectiveness of MMT intervention is robustly cost-effective against advanced status HIV or co-morbidity, e.g. TB treatment, but it might not be cost-effective for patients who continue using drugs. Study findings indicate that providing MMT for HIV-positive drug users is a cost-effective intervention in Vietnam, and integrating MMT into HIV/AIDS care and treatment services would be beneficial for injection-driven HIV epidemics.

10. Caryn, B., et al. "Health equity and financial protection report: Vietnam." World Bank, 2012. Accessed Aug. 20, 2012
<<http://documents.worldbank.org/curated/en/2012/01/16514607/vietnam-health-equity-financial-protection-report>>.

This report analyses equity and financial protection in the Vietnamese health sector. It particularly examines inequalities in health outcomes, health behavior and healthcare

utilization, financial protection and health care financing. Study data are drawn from multiple sources from 1992 through 2008 including the VLSS, the Vietnam Household and Living Standards Surveys (VHLSS), and others.

Generally speaking, ill health is more concentrated among the poor in Vietnam, particularly regarding child and infant mortality, diarrhea, fevers, and malaria. While diarrhea appears to be slightly more prevalent among the better-off, the results of this study show the prevalence of acute respiratory infection (ARI) may indicate the poor may bear a larger burden of disease; however, this is not statistically significant.

The poor use almost all types of health services less than the rich. The wealthy record a higher average number of inpatient and outpatient visits, are more likely to visit both public and private hospitals, and are generally more likely to have had public or private health care of any kind. Public health centers, however, are used more by the poor.

The distribution of government spending on health is decidedly pro-rich. Although government spending on communal outpatient health centers (CHCs) is significantly pro-poor, total government subsidies to CHCs account for only a small fraction of total government health expenditure. Government spending on hospital services appears to be pro-rich. Overall, total subsidies devoted to health care in Vietnam significantly benefit the well-off, regardless of the assumptions used for the analysis.

Out-of-pocket payments had a moderate impact on household financial well-being. Protection against impoverishment and catastrophic payments could potentially be increased with expanded access to health insurance, which covered just over half the population in 2006. Overall, healthcare financing in Vietnam in 2006 was fairly progressive, i.e. the better off spent a larger fraction of their consumption funds on healthcare than the poor did. The financing sources that contribute to the overall progression of healthcare financing are general taxation, which funds 27% of domestic health spending, and OOP payments, which finance 55% of spending. The most progressive source of health financing is actually SHI contributions, however, SHI contributions finance just 13 percent of all health spending. Voluntary insurance is mildly regressive, but it finances an even smaller share of total health spending.

11. Nguyen, H., D. Glandon, and B. Quyen. "Private sector service utilization among people living with HIV/AIDS (PLHIV) in Vietnam: Exploring the changes between 2005 – 2010." Abt Associates Inc., July 2011. Accessed Aug. 20, 2012 <http://www.shopsproject.org/sites/default/files/resources/1C_Nguyen.pdf>.

Access to ART in Vietnam more than quadrupled between 2006 and 2009 and most treatment was provided within public facilities with donor funded support. The private sector (PS) in Vietnam is large and growing, but its role in providing services for PLHIV is still unclear. This study aims to explore the role the PS plays in providing services for PLHIV in Vietnam and how it has changed over time. An independent cross-sectional survey of PLHIV in 2005 and 2010 was conducted by Abt Associates Inc.

Results from this study show that the PS plays a significant role in supplying condoms and syringes for PLHIV, as well as over-the-counter drugs (2010), but only a negligible role in inpatient care. Its role in outpatient services for PLHIV is small and has decreased between 2005 and 2010, especially when compared to the high level of public services. It is

noteworthy that more patients with at least one symptom choose PS services over public services. The PS provides mainly examinations, testing, drugs, and ART (2010).

- 12. Glandon, D., N. Ha, and S. Nakhimovsky. "Harmonizing HIV resource tracking and sustainability planning." *Health Systems* 20/20, 2011. Accessed Aug. 20, 2012 <<http://www.abtassociates.com/CMSPages/GetFile.aspx?guid=dc44e0a5-c406-4d31-8b24-c3102bb726ee>>.**

This study aims to explore, understand, and articulate the benefits, challenges, and implications of "harmonizing" (coordinating data collection, analysis, and dissemination) resource tracking and sustainability planning for a national HIV/AIDS program. It reports results from both the National Health Account (NHA) HIV sub-account for expenditure tracking and the HIV/AIDS Program Sustainability Analysis Tool (HAPSAT) for sustainability planning. The initial desk review identifies multiple potential benefits related to harmonization, and subsequently field tested in Vietnam with stakeholders. A final review and analysis explores how this experience might inform future efforts to harmonize HIV resource tracking and sustainability planning; how harmonization might affect institutionalizing the tools and integrating them into a country's health information system; and how these results can contribute to a broader discussion on the value of linking retrospective resource tracking with prospective sustainability planning.

The study results indicate that harmonization can benefit all stakeholders by increasing production efficiency, strengthening estimation and analytical capabilities, and contributing to the demand for and institutionalization of the tools. Harmonization analyses such as the NHA and HAPSAT, which are requested and produced by different stakeholders, also provide an opportunity for coordination between separate but related government departments. Furthermore, it can become a mechanism for developing a country's health information system and widening the spectrum of evidence upon which a country's health policy is based.

- 13. Vietnam Ministry of Health, "Pilot development of the model for delivery of outpatient treatment services for HIV/AIDS patients under the pattern of health insurance-based management of medical examination and treatment in Hai Phong and Thai Binh." Vietnam Ministry of Health (working paper), 2011.**

There are currently no official statistics on HIV/AIDS-infected people taking part in SHI schemes and SHI cardholders undergoing treatment for HIV/AIDS. To ensure the sustainability of HIV/AIDS services, maximize the efficiency of funding sources, meet management requirements, and accommodate the actual healthcare situation, policies, and HIV/AIDS treatments, the Health Insurance Department has cooperated with the Department for HIV/AIDS Prevention and Control to develop a pilot model for providing SHI managed outpatient services for HIV/AIDS patients. This was developed with the support of the US Centers for Disease Control and Prevention and the LIFE-GAP project. The first stage of the project was implemented at the adult outpatient clinic of Viet Tiep Hospital in Hai Phong and the Thai Binh General Hospital outpatient clinic. The second stage was implemented at Hai Phong Pediatric Hospital clinic and the Thai Binh provincial hospital pediatric outpatient clinic.

The results of the two stages show that the number of PLHIV has increased over the years. HIV/AIDS outpatients consume 11-12 times more treatment than other outpatients. No

comprehensive data on the number of PLHIV that have SHI cards are available from either Hai Phong or Thai Binh province. This is mainly because there is no connection between the management of HIV/AIDS patients and patients with SHI cards. Although many training courses have been held on SHI policies, only a few members of staff have been properly trained in health insurance at either site. Outpatient clinic staff are primarily trained to provide direct care and treatment, while others are trained to manage medicines, finances and issues related to HIV/AIDS policies. SHI policies are not effectively communicated to everyone. SHI authorities only record statistics and manage types of patients as regulated, rather than grouping them by diseases. Therefore, the SHI authority does not have the data and costs of health insurance for HIV/AIDS patients with SHI cards.

14. Duong, B.D. and R. Burn. “Demand and budget forecasting for laboratory supplies used in diagnosis and treatment of HIV/AIDS in Vietnam, 2011-2015.” SCMS Project, 2011.

The objective of this study was to estimate the budget and needs for HIV/AIDS laboratories in Vietnam for the 2011-2015 period, based on different scenarios and assumptions.

Scenario 1: Key assumption – the Vietnam Administration of HIV/AIDS Control (VAAC) treatment targets will be met each year and the number of patients in care will grow at the same rate as the national population, which is 1.25%. The total projected cost for this scenario is estimated at US\$28,972,247.

Scenario 2: Key assumption – programs will continue to be implemented at the current rate and treatment targets will increase by 640 patients each month. The number of patients under care is calculated by subtracting the number of patients in treatment from the total number of HIV/AIDS patients. The number of HIV positive patients will grow at the same rate as the national population, which is 1.25%. The total projected cost for this scenario is estimated at US\$26,156,357.

Scenario 3: Key assumption - all HIV positive patients will receive two CD4 tests and two viral load tests per year. The number of HIV positive patients will grow at the same rate as the national population, which is 1.25%. The total projected cost for this scenario is estimated at US\$53,396,800.

15. Tien, T.V., et al., “A health financing review of Viet Nam with a focus on social health insurance.” WHO, Aug 2011. Accessed Aug. 20, 2012
<http://www.who.int/health_financing/documents/oasis_f_11-vietnam.pdf>.

Total national health expenditure in Vietnam was 6.4% of GDP in 2008, higher than that of most low income and middle income countries. Per capita health expenditure was US\$66. As of 2012, SHI coverage was 60% and more than 50% of the total health expenditure was OOP payments. Health financing payments (tax and SHI) were regressive. Healthcare spending for SHI members was unequal in different groups and the existing payment mechanisms were inappropriate, which had a negative impact on the Vietnamese Social Security (VSS) fund.

- 16. Nguyen, C.V. “The impact of voluntary health insurance on healthcare utilization and out-of-pocket payments: new evidence for Vietnam.” Health Economics, 2012. 21(8): 946-66.**

Vietnam aims to achieve full national SHI coverage by 2015. The voluntary elements of SHI have received an increasing amount of attention in Vietnam however although there have been many studies on implementing voluntary health insurance in the country, little is known of its causal impact. This paper assesses the impact of voluntary health insurance on healthcare utilization and OOP payments based on the 2004 and 2006 Vietnam Living Standard Surveys (VLSS). Results show that voluntary health insurance allows those insured to increase their annual outpatient and inpatient visits by around 45% and 70%, respectively. However, the effect of voluntary health insurance on OOP healthcare expenses is not statistically significant.

- 17. “Joint annual health review 2011: Strengthening management capacity and reforming health financing to implement the five-year health sector plan 2011–2015.” Vietnam Ministry of Health and Health Partnership Group, Dec. 2011. Accessed Aug. 20, 2012**

http://jahr.org.vn/downloads/JAHR2011/JAHR2011_Fullversion_English.pdf.

In 2011, SHI in Vietnam covers 15.8 million poor people and ethnic minorities, but only 10% of the six million near poor people have SHI cards (except for a few provinces that receive support from development projects). There are 12 million laborers in enterprises but only 6.36 million (53.4%) of them are covered and hold SHI cards.

The total state budget allocated to subsidize SHI doubled between 2009 and 2010. The poor and children under the age of six (42.7% of those covered by SHI) are fully subsidized by the state. Only about half the formal business enterprises in the country participate in the SHI program. The approximately 34 million people not yet covered by SHI are primarily the near poor, farmers, workers' dependents, workers in cooperatives and employees of non-state enterprises.

Many patients who hold SHI cards are still required to pay the difference between officially set charges and charges required by the healthcare facility, and managers find it difficult to know how much more patients are paying. Regulations for paying healthcare costs via insurance also exhibit some shortcomings. For example, the VSS caps health insurance payments to healthcare facilities at 90% of the health insurance fund, depending on the total number of cards registered at the referring primary facility. This leads to a limiting of patient benefits and to medical practitioners refraining from transferring patients to higher level facilities for cost reasons.

The convenience and user-friendliness of public health services also does not meet patient expectations. The VSS capacity to implement SHI policies is limited. Professionalism and specialization is low, especially in the control of healthcare and related services. Staff shortages and unqualified claims processors sometimes adversely affect the rights of insured patients and cause difficulties for the VSS and healthcare facilities in settling accounts. The VSS mainly focuses on controlling inputs and managing the fund, and pays little attention to quality and benefits for the insured. Therefore only 30% of insured patients

reported being satisfied with health insurance services. In addition, the VSS lacks a reliable database, which also limits its advisory role in producing timely policies.

18. Thompson, R., S. Witter, and N.T.T. Nga. “Strategic options for financing health system modernization and development: what can Vietnam learn from international experiences?” Oxford Policy Management, July 2011.

This report aims to highlight some of the main healthcare financing challenges facing Vietnam and to draw on international literature to produce recommendations for how the country should respond to them. The study was conducted between January and July 2011, based on a review of literature on healthcare financing and delivery in Vietnam and selected neighboring and comparable countries, as well as secondary data from Vietnam, key informant visits and one field trip to Vinh Phuc province. It is structured according to the four key functions related to healthcare financing and delivery – i) revenue collection, ii) risk pooling, iii) purchasing, and iv) service provision.

The results of the study show that Total health expenditure in 2008 was over 6% of GDP and is projected to reach 8-9% by 2015. Social health insurance contributes 17% of overall expenditure, but the bulk of the SHI contribution (75%) comes from public subsidies. The government contributes 43% and household OOP payments contribute 52% of total health expenditures.

The authors argue that Vietnam should aim to reduce household OOP contributions to below 30-40% of total health expenditures. However, increasing public contributions must be combined with measures to reduce cost escalation. Furthermore, increased SHI coverage will raise the demand for services, which in other countries has increased the need for investment in infrastructure and staff. Since provinces in Vietnam have a high degree of autonomy in planning, this may prove a challenge to a coherent overall strategy.

19. Huong, T.T.S., et al., “Feasibility study of universal health care coverage” (Vietnamese version- Kết quả nghiên cứu khả năng thực hiện bảo hiểm y tế toàn dân). Vietnam Ministry of Health, 2011.

As of 2010, nearly 50.8 million people have SHI in Vietnam, including 13.5 million categorized as poor, 33.3 million members of the compulsory insurance program and 3.9 million voluntarily insured. However, a number of groups are difficult to reach with SHI 1) members of near poor households, 2) farming households, 3) members of individual household and group businesses, and 4) workers in the informal sector. Factors that affect participation in SHI include 1) inadequate official guidelines for implementing the health insurance law; 2) insufficient SHI management; 3) inadequate implementation of SHI; 4) lack of communication about SHI; 5) premiums that are too high for the majority of the population; and 6) an inadequate healthcare system that doesn't meet the needs of the insured.

20. Chinh, V.V. “Evaluation of the pilot of per-case payment model: after 18 months of implementation.” Department of Planning and Finance, Vietnam Ministry of Health, 2011.

The Vietnamese healthcare sector as a whole is struggling to implement challenging reforms with strategic objectives that include a more efficient use of resources to sustainably contain rising costs. In the context of a transitional healthcare environment, the mechanism for paying healthcare providers is an important tool for working towards these objectives. Fundamental incentives incorporated within provider payment models, and per-case payments are appropriate reform elements with which to proceed.

A pilot model for per-case payment, based on costed care pathways for four types of high-volume cases (spontaneous delivery, acute appendicitis, and child and adult pneumonia), was conducted at Thanh Nhan and Ba Vi hospitals in Hanoi in December 2009. This pilot project was an innovative experiment in the Vietnamese healthcare environment, where providers are predominantly paid fees for service rendered. This evaluation aimed to assess the changes in delivering hospital services, in relation to the costs of care, after 18 months of implementing the pilot project on per-case payment.

The findings support per-case payment as an effective way to contain costs by controlling the average cost per-case. The key advantages include (i) more efficient use of resources with significant reductions in average length of stay (LOS), cost per-case and drug costs per-case; (ii) better management of care through improved planning and better functioning internal and external audits; and (iii) administrative advantages, i.e. reduced workload for claim processing at both hospitals and health insurance funds. The LOS and mean costs were found to be lower among the three groups of cases enrolled in the per-case payment pilot, although the positive findings were not always consistent. Lower drug and lab-test costs were found for all sub-groups enrolled in the pilot.

Besides desirable outcomes regarding more efficient use of resources and better overall management, per-case payments have some drawbacks. Poor understanding of policy objectives may result in inadequate comprehensive care management and cost control, rather than making the best use of the system by picking up on anomalies that have little to do with economic efficiency or poor medical practice. Health purchasing remains weak, and basic institutional structure, regulatory frameworks and significant capacity building are top priorities for implementing and expanding the new payment model. The simple contractual arrangement between purchasers (health insurance funds) and hospitals also requires fundamental changes. The key technical issues highlighted in the evaluation include: (i) M&E programs should be strengthened to provide information on identify fraud. (ii) a process must be in place to regularly and timely update the system rate components (recalibration) to account for changes in medical practices, technology, and the range within the groups of cases (“case complexity”). Otherwise, hospitals might have to recover costs and/or raise revenue by increasing admissions, re-admissions, and charges for patients paying OOP, and the payment system might lead to cost shifting rather than cost saving.

The pilot shows that a per-case payment model should be among the desirable options for provider payment in the actual context of the healthcare service system. It offers useful insights for reforming the health sector’s operational and financing mechanisms in the future.

- 21. Glandon, D. “Measuring health service utilization and out-of-pocket spending among people living with HIV/AIDS in Vietnam. June 2011. Accessed Aug. 20, 2012 <<http://www.healthsystems2020.org/content/resource/detail/2903/>>.**

This article describes the level of out-of-pocket (OOP) expenditures of PLHIV in Vietnam, and their utilization of inpatient and outpatient care in 2010, in the context of dramatic increases in donor funding for HIV/AIDS over the past five or more years.

Methods: A survey of 1,200 PLHIV representing 17 estimated and projected package clusters was conducted. Within each cluster, one province was selected with probability proportional to size. A random sampling of participants was selected from provincial AIDS committee lists using systematic sampling. Analysis was adjusted for sampling weights.

Results and Conclusions: (1) PLHIV utilized more HIV-related healthcare services than the general population utilized all healthcare products and services. PLHIV also spent more per person on HIV-related healthcare than the general population spent per person on all healthcare services. (2) These observations raise questions about the impact of substantial recent increases in donor funding for HIV/AIDS in Vietnam (from US\$18 million in 2004 to nearly US\$90 million in 2010) in terms of reducing the financial burden of healthcare for PLHIV in the country.

- 22. Kinh, N.V., “Situation analysis of antiretroviral therapy in some provinces of Vietnam.” Presentation at the 4th National Scientific Conference on HIV/AIDS, Hanoi, Vietnam, 2010.**

Positive changes have been made in the supply of ART for AIDS patients in the provinces, but only a part of the actual need has been met due to various constraints. Access to ART for AIDS patients is becoming easier, although it is still inadequate compared to the actual need for treatment, and ART for AIDS patients in the provinces and cities is progressing.

Factors affecting access to ART include multiple models of service provision, a shortage of human and financial resources, lack of incentives, and inappropriate ART procedures. AIDS patients also often feel inferior and fear being stigmatized, have unstable residences and employment, face financial difficulties and lack support from their families and friends. This is in addition to dealing with socio-environmental factors such as negative perception from others, inadequate policies, and little cooperation among offices, sectors and mass organizations.

- 23. Phong, N.T., H. Nguyen and N. D. Tung. “Survey of PLHIV: Preliminary results on health service utilization and OOP expenditures.” Presentation at the 4th National Scientific Conference on HIV/AIDS, Hanoi, Vietnam, December 3, 2010. Accessed Aug. 20, 2012 <<http://www.healthsystems2020.org/content/resource/detail/2772/>>.**

Insurance coverage for PLHIV is lower than for the general population. Outpatient treatment and self-medication account for much more of the services used than hospitalization. Public hospitals and medical centers are the predominant providers of HIV care and treatment. Transportation also accounts for a large share of OOP expenditure. Health expenses are higher for males, ART patients, and urban dwellers. Insured PLHIV have lower OOP expenses, but the difference is small compared to the uninsured. PLHIV use more services and spend more on healthcare than the general population.

24. Stene, A. “The role of the private health sector in HIV/AIDS and related services in Vietnam: Current landscape, challenges and opportunities.” Strengthening Health Outcomes through the Private Sector (SHOPS) Project, 2010 (unpublished report).

This report highlights the existing and potential role of the private health sector in delivering HIV/AIDS and related services in Vietnam. It also aims to provide a preliminary background to the current landscape of private health sector challenges, opportunities and lessons learned to date. The literature review is primarily based on information that is publicly available on the web, though some supplementary information was directly provided by implementing partners. In particular, Chemonics, Pathfinder, and Mary Stopes International provided the SHOPS project with additional information that was not publicly available.

The results show that: i) Vietnam’s private health sector is a significant and rapidly growing source of care for people at all income levels. ii) The prolific growth of the private health sector has surpassed the capacity of adequate government oversight and, at present, medical associations and independent counsels do not have sufficient authority or resources to fill this role. iii) The 2006 Pathfinder assessment, primarily focused on private health practitioners and pharmacists, revealed a lack of skills and willingness to provide HIV/AIDS related services. iv) The high burden of OOP expenses for PLHIV and the depletion of the national health insurance programs indicate disturbing trends in health financing. v) Social health insurance (SHI) covers 42% of Vietnam’s population. vi) There is a potential role for the Private Health Sector in HIV/AIDS and related service provision. vii) Collaboration with pharmacists is likely to be an important factor in engaging the private health sector in providing HIV/AIDS and related services.

The report concludes that the private health sector is flourishing, although there is insufficient collaboration and oversight to ensure quality. Models of public and private health sector engagement are currently being piloted, but the experience is still rather new. Training is needed for the private sector, in addition to further research on how Vietnam’s most at risk groups seek out healthcare services.

25. UNDP, “Impact of HIV/AIDS on household vulnerability and poverty in Viet Nam.” UNDP, Aug 16, 2010 Accessed Aug 20, 2012
<http://www.undp.org.vn/detail/publications/publication-details/?contentId=3683&languageId=1>.

The difference in income between HIV/AIDS affected and non-affected households was greater among the poorest and second poorest groups of the population. This is probably because of the greater vulnerability of poorer groups and fewer coping strategies available to them. It is also evident that HIV affected families have a lower income from all sources. PLHIV need others to care for them, especially if they have progressed to full blown AIDS and have to stop working. At the same time, caregivers have to take care of the patient instead of working, which also affects income. The income for HIV affected households is lower because of increased expenditures as well as income lost from not working. Total expenditures by non-affected households were greater than HIV-affected households. Most PLHIV tended to be unemployed or had jobs in the informal sector. The proportion of civil servants (government officers) from non-affected households was 3.3 times higher than among non-infected people from HIV-affected households and five times higher than among PLHIV. When households are faced with increased expenditures and decreasing income,

they must find coping strategies to keep the family going. The data indicate a much higher proportion of HIV affected households experience food shortages compared to non-affected households. However, there was little difference in the frequency of using protein or staple foods; the differences were mainly in the quantity and quality of the food consumed by the family.

26. Wagstaff, A. "Estimating health insurance impacts under unobserved heterogeneity: the case of Vietnam's health care fund for the poor." Health Economics, 2010. 19(2): 189-208.

Vietnam's health care fund for the poor (HCFP), which was started in 2003, uses government revenues to finance healthcare for the poor, as well as ethnic minorities living in selected mountainous provinces and all households in communes officially designated as highly disadvantaged. As of 2006, the program covered around 60% of those who were eligible. The groups that were covered (about 20% of the population) were disproportionately poor, and around 80% of them were eligible. Estimates of the program's impact were obtained using a method that requires minimal assumptions and takes into account unobserved heterogeneity – including unobserved idiosyncratic returns. The analysis only provides an estimate of the program's impact on those covered by it and therefore it does not indicate how those who are currently uncovered will fare when they are eventually covered. The results suggest that the HCFP has had no impact on service utilization, but has substantially reduced OOP expenditures.

27. Axelson, H., et al. "Health financing for the poor produces promising short-term effects on utilization and out-of-pocket expenditure: evidence from Vietnam." International Journal of Equity in Health, 2009. 8: 20.

Vietnam introduced its HCFP in 2002 to increase access to healthcare and reduce the financial burden of health expenditures faced by the poor and ethnic minorities. This study evaluates the short-term impact of the program to determine if pro-poor financing programs can have immediate effects on healthcare utilization and OOP expenditures.

Considering that the program is a non-random policy initiative rolled out nationally, propensity score matching with both single and double differences was applied to data from the VLSS 2002 (pre-program data) and 2004 (first post-program data).

The study results revealed a small, positive impact on overall healthcare utilization. Evidence was found of two substitution effects: from private to public providers and from primary to secondary and tertiary level care. There was also a strong negative impact on OOP health expenditures.

The study concludes that results indicate the HCFP is meeting its objectives of increasing healthcare service utilization and reducing OOP expenses for the program's target population, despite numerous administrative problems that resulted in delayed and only partial implementation in most provinces. The main lessons low and middle income countries can learn from Vietnam's early experiences with the HCFP are that positive outcomes can be achieved in a short period of time. Adequate and sustained funding must be ensured for targeted programs, including marginal administrative costs. Effective targeting mechanisms and systems for informing beneficiaries and providers about the program should be developed. Preparations must be made to respond to the increased demand for healthcare

generated by the program. Indirect costs of healthcare utilization need to be addressed, and routine systematic monitoring and evaluation mechanisms must be established and maintained.

28. Long, G.T. “Social HI in Vietnam: Current issues and policy recommendations.” ILO Sub-regional Office for East Asia, 2008. Accessed Aug. 20, 2012

<http://www.ilo.org/public/english/region/asro/bangkok/events/sis/download/paper33.pdf>.

This paper provides an overview of the SHI scheme in Vietnam, including its historical development and progress, the challenges it faces, and some policy recommendations. Vietnam’s health sector has made remarkable achievements and offers a widespread network for the delivery of healthcare services, an increasing number of qualified workers, and an expanding national public health program. In 2006, 30.5 million people (about 37% of the population) were covered by SHI, 11.2 million of whom were poor. However, the MOH and VSS must deal urgently with administrative and financial challenges. This implies addressing issues such as labor mobility, widening inequality, increasing poverty and an ageing population, as well as coping with insuring private sector workers and rural workers (70% of the national population). Most health sector spending in 2006 was based on the government budget and user fees, making payment mechanism reform essential. The health system would also benefit from integration with comprehensive social and economic policies and strategies.

29. Dao, H.T., H. Waters, and Q.V. Le. “User fees and health service utilization in Vietnam: how to protect the poor?” Public Health, 2008. 122(10): 1068-78.

Vietnam started its health reforms two decades ago, initiated by economic reform in 1986 which rapidly changed the socio-economic environment with the transition from a centrally planned economy to a market-oriented economy. Health reform has been associated with the introduction of user fees, legalizing private medical practices, and commercializing the pharmaceutical industry. This paper presents the user fees and health service utilization patterns in Vietnam during a critical period of economic transition in the 1990s. The study is based on the VLSS from 1992-1993 and 1997-1998. The concentration index and related concentration curve were used to measure the differences in health service utilization as health outcome indicators for a range of income quintiles, ranking from the poorest to the richest.

Results show that user fees contribute to health resources and help relieve the financial burden on the Government. However comparisons of concentration indices for hospital stays and community health center visits show that user fees can drive people deeper into poverty, widen the gap between the rich and the poor, and increase inequality of health outcomes. The authors conclude that an effective social protection and targeting system could protect the poor from the negative impact of user fees, increase equity and improve the quality of healthcare services. This cannot be done without measures to improve the quality of care and promote ethical standards in healthcare, including eliminating unofficial payments.

30. Thuan, N.T., et al. "Choice of healthcare providers following reform in Vietnam." Bio Med Central Health Services Research, July 2008. 8: 162.

Health sector reforms in Vietnam since 1989 have led to a rapid increase in OOP healthcare expenses. This paper examines the choice of medical provider and household expenditure for different providers in a rural district of Vietnam following healthcare reform. The heads of 621 randomly selected households that were part of the FilaBavi project sample under the Health System Research Project were interviewed once a month from July 2001 to June 2002.

Private health providers and self-treatment are quite common (60% and 23% of all illness episodes respectively) and this reflects in healthcare expenditure (60% and 12.8% respectively). The poor tend to use self-treatment more frequently than wealthier members of the community (31% vs. 14.5%) and all patients in the study used private more often than public services. The poor use less public care and less higher-level care than the rich. The educational level of patients significantly affects healthcare decisions; those with higher education tend to choose healthcare providers rather than self-treatment. Women tend to use drugs and healthcare services more often than men, and patients in the two highest quintiles use health services more than those in the lowest quintile. Seriously ill patients also use drugs, public care and healthcare services more frequently than those with less severe illnesses.

31. Maher, L., H. Coupland, and R. Musson. "Scaling up HIV treatment, care and support for injecting drug users in Vietnam." International Journal on Drug Policy, 2007. 18(4): 296-305.

People living with HIV/AIDS (PLHIV) in developing countries are rarely consulted about promoting their health and well-being. This study sought to identify and understand, from the perspective of PLHIV, the challenges and opportunities for improving access to HIV treatment, care and support in Vietnam, especially since there are limited resources to deal with an epidemic driven by injected drug use.

Results show that there are considerable barriers to scaling up in this context. Against a backdrop of punitive government policies, including mandatory detention of IDUs and sex workers, and widespread stigmatization and discrimination, many PLHIV live in fear of discovery and the threat of abandonment. Lack of confidentiality, limited financial resources and restricted access to essential medications are all powerful disincentives to utilizing health services.

The article concludes that opportunities for scaling up services begin with first expanding access to confidential HIV counseling and testing. However, in the absence of affordable quality care and access to ART, IDUs are unlikely to see testing as worthwhile. Efforts to scale up must also address structural barriers including stigmatization and discrimination, poverty and institutional capacity. Finally, PLHIV in Vietnam are a significant but underutilized resource, and barriers should be overcome in order to build confidence and capacity within communities affected by HIV/AIDS.

- 32. Nguyen, N.T., et al., “Factors associated with the failure to seek HIV care and treatment among HIV-positive women in a northern province of Vietnam.” AIDS Patient Care and STDs, 2010. 24(5): 325-32.**

This cross-sectional survey examines the utilization of HIV care and treatment services among HIV-positive women in Vietnam and describes factors associated with failure to seek such services. From May to November 2007, structured interviews were conducted with 353 HIV-positive women living in the northern Vietnamese province of Hai Phong. The women were recruited via a network of PLHIV (HPN+), with snowball sampling, and through the local government HIV registration system of the Provincial AIDS Centre (PAC).

Approximately 26.3% of the study participants had never utilized HIV care and treatment services. Failure to seek these services was attributed to not being registered with the PAC (odds ratio [OR]: 3.0; 95% confidence interval [CI]: 1.4-6.4), having no known HIV-positive family members (OR: 3.2; 95% CI: 1.2-8.3), and undisclosed HIV status (OR: 4.0; 95% CI: 2.0-8.1), as well as factors related to testing. Women who were randomly tested had an OR four times greater (95% CI: 1.4-11.7) for failure to seek care, and women who were tested in relation to antenatal care or childbirth had a triple increase of OR (95% CI: 1.1-8.5) compared to women tested because their husbands or partners were sick or had died of AIDS. It is recommended that post-testing counseling and referral services for HIV care and treatment be improved. An alternative system for including those that do not want to be part of the official system might also help approach these women at risk.

- 33. Wagstaff, A. “Health Insurance for the Poor: Initial Impacts of Vietnam’s Health Care Fund for the Poor.” World Bank. WPS4134, Feb. 01, 2007. Accessed Aug. 20, 2012**

http://econ.worldbank.org/external/default/main?pagePK=64165259&theSitePK=469372&piPK=64165421&menuPK=64166093&entityID=000016406_20070205110453.

Vietnam’s Health Care Fund for the Poor (HCFP) uses government revenue to finance healthcare for the poor, ethnic minorities living in selected mountainous provinces, and all households living in communes officially designated as highly disadvantaged. As of 2004, the program (which started in 2003) did not include all these groups, but those who were included (about 15% of the population) were disproportionately poor. Estimates of the program’s impact - obtained using single differences and propensity score matching on a trimmed sample - suggest that the HCFP substantially increased service utilization, especially inpatient care, and reduced the risk of catastrophic spending. It has not, however, reduced average OOP spending and appears to have had negligible impact on healthcare utilization among the poorest segment of the population.

- 34. Long, N.H., et al. “Case study on health care for the poor in Vietnam: How evidence and politics came together.” Meeting on Evidence-Informed Policy and Action to Promote Health Equity, Phnom Penh, Oct. 16-18, 2007. Accessed Aug. 20, 2012**

http://www.wpro.who.int/topics/equity_health/ehgHighLevelMeetingonPromotingHealthEquityEvidencePolicyandAction.pdf.

This paper describes the evidence for and process that led to the Prime Minister’s Decision No. 139/2002/QD-TTg on healthcare for the poor in Vietnam, issued on October 15, 2002. According to “Decision 139”, all people identified as poor (based on the national poverty

line), are entitled to free healthcare at public health facilities. The cost for this is to be covered by the HCFP, which is established in every province and/or city and financed by the state budget. Vietnam faces a shortage of funding for its healthcare system and in 1989 the Government began introducing user fees at public healthcare facilities, thereby unintentionally making access to healthcare often unaffordable for the poor. To mitigate the impact of user fees, the Government implemented several policies to partially exempt the poor from payments for health services. However the effectiveness and coverage of the exemptions was very limited due to insufficient funding and lack of strong political commitment from local authorities. During 2001 and 2002, studies were conducted on utilization and household expenditure on healthcare, equity of access to healthcare services, and health outcomes. This evidence was well documented and presented via a series of national workshops and forums, which helped consolidate political commitment among high level government offices, the National Assembly, and the finance sector to support the poor in paying for healthcare. At the same time, the grassroots healthcare system was being strengthened, the national SHI program was growing, and economic growth provided additional revenues. All these factors created a synergy that helped influence the highest levels of government and led to “Decision 139”.

Since the HCFP began in 2003, a number of studies have been conducted to monitor and evaluate the impacts of the program and give feedback to government policy making bodies. To further maximize the program’s benefits for the poor, in 2005 the Government decided to include all the poor in a compulsory national SHI program, with premiums fully subsidized from the central budget.

35. Bales, S., et al. “The early impact of Decision 139 in Vietnam: An application of propensity score matching.” Vietnam Ministry of Health, 2007.

An impact evaluation of the Health Care Policy for the Poor (“Decision 139”) was conducted. No statistically significant difference was found in the number of outpatient visits or inpatient admissions between the eligible group with SHI cards and the matched group without cards. Those with the free SHI card had significantly lower OOP household spending on healthcare than matched eligible people without cards. The report concludes that “Decision 139” reduced beneficiary OOP spending significantly without changing the overall level of healthcare utilization.

36. Sepehri, A., W. Simpson, and S. Sarma. “The influence of health insurance on hospital admissions and lengths of stay--the case of Vietnam. Social Science and Medicine, 2006. 63(7): 1757-70.

This paper provides an empirical assessment of the influence of Vietnam's SHI scheme categories on both hospital admission and length of stay (LOS), using the 2001-2002 Vietnam National Health Survey and an appropriate count data regression model. The findings suggest that the influence of SHI on hospital admissions and LOS varies across category. Compulsory insurance and insurance for the poor increase LOS by factors of 1.18 and 1.39, respectively, while voluntary insurance has a minimal effect on expected LOS. Insurance also increases the likelihood of hospital admission far more for those covered by compulsory insurance than for those covered by the other two categories. The positive influence of insurance on hospital admissions and LOS also varies across income quintiles, regions and types of health facilities. While compulsory and voluntary schemes increase the

likelihood of hospital admissions for lower and middle income individuals, compulsory insurance influenced the expected LOS more for middle income patients. Insurance influences LOS more in the north than in the south and for patients in provincial rather than district hospitals.

- 37. Bao, L.N., L. Wendeen and P.M. Hai. "Fostering public-private partnership in HIV prevention, care and treatment in Vietnam." Presentation at the 33rd Annual Conference on Global Health, Washington, D.C., June 2, 2006. Accessed Aug. 20, 2012 <http://shopsproject.org/sites/default/files/resources/3073_file_B3_Isreal.pdf>.**

The three objectives of the study were to obtain data on existing public and private services for sexually transmitted infections (STI) and HIV/AIDS; assess potential future service capacity of the private sector; and identify private-public partnership (PPP) models to improve the effective prevention, care and treatment of STIs, HIV and AIDS.

Both qualitative and quantitative assessments were conducted on private providers (doctors and their assistants, pharmacists, drug sellers), key officials from the healthcare sector and related agencies, STI clients and PLHIV in five of the ten provinces in Vietnam that are most affected by HIV/AIDS.

Results showed that about 75% of medical clinics do not have enough capacity to provide STI-related services and 87% do not have staff that can handle HIV/AIDS cases. Just over 15% of private clinics surveyed provide STI services and 3.3% offer limited HIV/AIDS services; 92.5% of private providers of STI services see about 30 STI clients per month each, while 96.3% of private providers offering HIV/AIDS related services each see approximately five HIV/AIDS clients per month.

Perceptions of PPP are varied. Public stakeholders indicate concern about the "lack of financial resources and a suitable administrative mechanism for PPPs". Private providers fear "complicated administrative procedures", "too much state management", and "time consuming" obstacles. The private sector wants as much support from the public sector as possible, but does not want to be over-managed. It is also felt that time spent developing PPPs would be costly.

Two possible PPP models discussed are 1) the non-contractual model which requires no new legal regulations, no commercial contracts and encourages initiatives from the public sector and donors. This model could be supported through a strategy of technical assistance for capacity building and providing tax incentives. 2) A contractual model based on commercial contracts where the public sector provides financial support to existing or newly established private entities. This model could be supported by the creation of an official referral system to set up new specialized medical establishments.

- 38. Sepehri, A., S. Sarma, and W. Simpson. "Does non-profit health insurance reduce financial burden? Evidence from the Vietnam Living Standards Survey Panel." *Health Economics*, 2006. 15(6): 603-16.**

Many low-income countries are implementing non-profit medical insurance to increase access to healthcare services, especially among low-income households, and to raise additional revenue for financing public health services. This paper estimates the effect of insurance on OOP health expenditures using the VLSS data for 1993 and 1998 and appropriate models for panel data. The findings suggest that health insurance reduces

health expenditures when unobserved heterogeneity is accounted for. Failure to capture unobserved heterogeneity produces contrary results that are consistent with previous cross-sectional studies in the literature. Health insurance is found to reduce OOP expenditures by between 16 and 18%, with the reduction in expenditure being more pronounced for lower income individuals. At a mean income, health insurance reduced health expenditures between 28 and 35%.

- 39. Wagstaff, A. and M. Pradhan. "Health Insurance impacts on health and nonmedical consumption in a developing country." World Bank, Apr. 1, 2005. WPS3563. Accessed Aug. 20, 2012**

http://econ.worldbank.org/external/default/main?pagePK=64165259&theSitePK=477916&piPK=64165421&menuPK=64166093&entityID=000012009_20050419132636>.

This study examines the effects of the introduction of Vietnam's SHI program on health outcomes, healthcare service utilization, and non-medical household consumption. The use of panel data collected before and after the insurance program was introduced allowed for the elimination of any confounding effects on time-invariant unobservables due to selection, and coupling propensity score matching with a double-difference estimator reduced the risk of biases due to inappropriate specification of the outcome regression model. The results suggest that Vietnam's SHI program impacted favorably on height- and weight-for-age of young school children, and on body mass index among adults. The results also indicate that SHI targeted at young children increases their use of primary care facilities and reduces the use of pharmacists as a source of advice and non-prescribed medicines while turning towards using them as suppliers of medicines prescribed by a health professional. The introduction of SHI promoted a marked increase in the use of hospital inpatient and outpatient departments among older children and adults. There is also evidence that SHI in Vietnam led to a reduction in annual OOP healthcare expenditures and an increase in non-medical household consumption, including food, but mostly non-food consumables.

- 40. "The Socioeconomic Impact of HIV/AIDS in the Socialist Republic of Viet Nam." POLICY Project, June 2003. Accessed Aug. 20, 2012**

http://www.policyproject.com/pubs/countryreports/VIET_SEI.pdf>.

HIV/AIDS affects social and economic development at many levels including individual, household, community, business, governmental, and macroeconomic. When a person becomes sick with AIDS, their family faces increased expenditures for care and often has to sell productive assets. Other family members may need to stay home from school or work to provide care. When the person dies, the resulting loss of income can push non-poor families into poverty. Substantial macroeconomic effects could occur if the epidemic becomes much worse. Deaths of productive workers and increased costs of healthcare, recruitment, and training could seriously erode profits and reduce international competitiveness; however, these effects may not be substantial if the epidemic can be effectively contained. The gap between available funds from all sources in 2003 and those needed to establish a comprehensive prevention, care, and treatment program by 2007 was estimated to be as much as US\$178 million.

- 41. UNDP, “Impact of HIV/AIDS on household vulnerability and poverty in Vietnam.” UNDP and AusAID, Aug. 2005. Accessed Aug. 20, 2012**
<http://www.undp.org.vn/digitalAssets/2/2930_hiv.pdf>.

The report discusses both micro and macro level impacts of HIV/AIDS on household vulnerability and poverty in Vietnam. On a micro level, healthcare costs in Vietnam are extraordinarily high and the total amount PLHIV households spend on healthcare is 13 times higher than that of the general population. Funeral costs for HIV/AIDS patients also add to the burden. The loss of income by both PLHIV and their caregivers is significant. The reported annualized loss of income was about VND7.5 million (US\$500 at 2005 exchange rates), which is equal to consumption expenditure of households from the poorest 20 percent of the population. Most of the burden of care falls on women. Coping with this situation in reality means struggling, e.g. the elderly doing menial work to earn income, borrowing money at high interest rates, reducing food and healthcare consumption, and selling assets. Investment in education is lost because new HIV infections are appearing more often among young people. Hospital care and treatment for HIV/AIDS are inadequate and severely limited due to constraints on resources in the health system. Most HIV/AIDS-related care and treatment costs are borne by individual households. PLHIV healthcare-seeking behavior is strongly influenced by stigmatization and discrimination; PLHIV tend to not seek care at hospitals for fear of revealing their HIV/AIDS status.

In terms of macro-level impact, the report concludes that except for the richest 20 percent, most households with a PLHIV fall below the poverty line. The poorest 40 percent of households with a PLHIV also fall below the food poverty line as a result of HIV/AIDS related expenditures and the impact on income. HIV/AIDS significantly reduces gains made in poverty reduction, as it often drives households into poverty for the first time or pushes the already poor more deeply into poverty.

- 42. Jowett, M., P. Contoyannis and N.D. Vinh. “The impact of public voluntary health insurance on private health expenditures in Vietnam.” Social Science and Medicine. 2003. 56(2): 333-42.**

As a financing mechanism with the potential to raise additional funds for health services whilst improving access to services for the poor, non-profit health insurance has become increasingly attractive to health policy-makers. Using data from a household survey in Vietnam, OOP healthcare expenditures are compared between members of the government-implemented SHI scheme and eligible non-members. Expenditures are analyzed for individuals who sought care during their most recent illness. Using an endogenous dummy variable model to control for bias resulting from self-selection into the scheme, results show that health insurance reduces average OOP expenditures by approximately 200%. While incomes remain inelastic, health expenditures are found to be significantly influenced by the individual's level of income, regardless of insurance status. Despite this, insurance reduces expenditures more significantly for the poor than for the rich.

- 43. Wagstaff, A. and E. van Doorslaer. "Catastrophe and impoverishment in paying for healthcare: with applications to Vietnam 1993-1998." Health Economics, 2003. 12(11): 921-34.**

This paper presents and compares two threshold approaches to measuring the fairness of health care payments, one that requires payments which do not exceed a pre-specified proportion of pre-payment income, and another that specifies payments which must not drive households into poverty. Indices were developed for 'catastrophe' that define the intensity of the catastrophe as well as its incidence and also allow the analyst to determine the degree to which catastrophic payments occur disproportionately among poor households. Measurements of poverty impact presenting both intensity and incidence were also developed. The arguments and methods are empirically illustrated with 1993 and 1998 data on OOP payments in Vietnam. This is an interesting application given that 80% of health spending in Vietnam was paid out-of-pocket in 1998. The incidence and intensity of 'catastrophic' payments - both in terms of pre-payment income as well as ability to pay - declined between 1993 and 1998, and both the incidence and intensity of 'catastrophe' became less concentrated among the poor. The incidence and intensity of OOP payment impact on poverty also diminished over the period in question. Finally, the OOP payment impact on poverty was primarily due to poor people becoming even poorer rather than the non-poor being made poor. Non-hospital expenditures increased poverty rather than expenses associated with inpatient care.

- 44. Khe, N.D., et al. "Primary health concept revisited: where do people seek health care in a rural area of Vietnam?" Health Policy, 2002. 61(1): 95-109.**

The Vietnamese government is committed to promoting and securing equal access to healthcare for all Vietnamese citizens, but the ongoing rapid change towards a market economy may challenge the government's wish to maintain equity, especially for low income and vulnerable groups. This study investigates access to and utilization of healthcare for rural people. The study includes a structured survey of a random sample of 1075 out of the 11,547 households in the Bavi district field laboratory in northern Vietnam. The results indicate that self-treatment is common practice and private providers are an important source of healthcare services for both better off and poor households. Healthcare costs are substantial for households, and lower income groups spend a significantly higher proportion of their income on healthcare than the rich do. The poor are deterred from seeking healthcare more often than the rich, mainly for financial reasons. Regarding sources for payments, the poor rely more on borrowing money to pay for their healthcare, while the better off rely primarily on household savings. The burden of high costs for treatment implies the risk of families falling into a 'medical poverty trap'. The findings suggest a need for risk-sharing schemes (co-payment, pre-payment and insurance programs), and the appropriate allocation of scarce public resources. It is recommended that the private healthcare sector needs both support and further regulations to improve the quality and access to healthcare by the poor.

45. Ha, N.T., P. Berman, and U. Larsen. "Household utilization and expenditure on private and public health services in Vietnam." Health Policy and Planning, 2002. 17(1): 61-70.

This paper assesses the role of private healthcare providers by comparing household utilization patterns and financial burdens related to both private and public healthcare services. The study reveals that the private sector provides 60% of all outpatient contact in Vietnam (in 2002) and there was no difference in terms of education, sex or place of residence regarding the use of private ambulatory healthcare. Although there is evidence suggesting that the rich use private care more than the poor, this was not consistent across all income groups. The private sector serves young children in particular. Also, people in households with several sick members at the same time rely more on private than public care, while those with severe illnesses tend to use more public care. The financial burden households bear from private healthcare was roughly half that from utilizing public services. Drug costs account for a substantial percentage of general household expenditures, particularly healthcare expenses. The findings indicate the private sector should be recognized as a key player in Vietnam's health system and health policies should mobilize positive private sector contributions to achieve the goals of the health system where possible and reduce potential negative effects of developing private healthcare provision.

Part 4

Abstracts and Summaries of Selected Regional Studies

The following are selected abstracts and summaries of abstracts. USAID/HPI has edited these abstracts for consistency, however all content remains the work of the original authors.

1. **Over, M., et al., “The economics of effective AIDS treatment in Thailand.” AIDS, 2007; 21 Supplement 4: S105-16. E-publication Sept. 25, 2007.**

Thailand has scaled up the public provision of antiretroviral therapy (ART) with unprecedented speed, listing more than 80,000 individuals receiving treatment (as of the end of 2006) through Thailand's National Access to Antiretroviral Program for People Living with HIV/AIDS (NAPHA). This paper projects NAPHA's cost effectiveness, affordability and future fiscal burden on the Thai government according to several different scenarios until 2025.

An economic/epidemiological model of ART accessibility was constructed and calibrated to the economic and epidemiological data from Thailand and other countries.

The results show that, using 2005 prices, NAPHA will save life-years at a cost of approximately US\$736.00 per life-year with first-line drugs alone, and approximately US\$2145.00 per life-year if second-line drugs are included. Enhancing NAPHA with policies to recruit patients as soon as they are eligible for ART or to enhance adherence to the treatment program will raise the cost per life-year saved, but the cost increase is minimal and therefore justifiable. The fiscal burden of a policy including first and second line drugs would be substantial, rising to 23% of the total health budget by 2014, but the study authors deem this cost to be affordable given Thailand's strong overall economic performance. The paper estimates that a 90% reduction in the future cost of second-line therapy by Thailand's World Trade Organization exercising its authority to issue compulsory licenses would save the government approximately US\$3.2 billion up to 2025, and reduce the cost of NAPHA per life-year from US\$2145.00 to approximately US\$940.00.

2. **Kitajima, T., et al. “Access to antiretroviral therapy among HIV/AIDS patients in Khon Kaen province, Thailand.” AIDS Care, 2005. 17(3): 359-66.**

This article reports on a study which attempts to identify the factors associated with access to ART among HIV/AIDS patients in Khon Kaen province, Thailand. Medical and socio-demographic data were collected from the medical charts of adult patients living in the province who received medical services at the two provincial public hospitals. The study was conducted from December 1, 2001 to February 28, 2002. A total of 593 outpatients were included in the analysis, 146 (24.6%) of whom received ART. A logistical regression analysis was conducted to identify factors associated with the use of ART. Patients covered by the Civil Servant Medical Benefit Scheme are significantly more likely to receive ART than those covered by the Universal Coverage Scheme (UC) publicly-funded medical insurance (OR = 12.43; 95% CI = 6.03-25.62). The results of this study indicate that there are inequalities in access to and use of ART among HIV/AIDS patients based on their health insurance status. The current government has announced it will include ART in the UC benefits package and this policy should be monitored to see how it will improve access to ART for HIV/AIDS patients.

3. **Riyarto, S., et al. “The financial burden of HIV care, including antiretroviral therapy, on patients in three sites in Indonesia.” Health Policy and Planning, 2010. 25(4):272-82. E-publication Feb. 17, 2010.**

This paper assesses the extent of the financial burden due to OOP healthcare payments incurred by PLHIV and the effect of this burden on their financial capacity. Data were collected in a cross-sectional survey of 353 PLHIV from three cities in Indonesia (Jakarta,

Jogjakarta and Merauke). Respondents in Jakarta were sampled from one hospital and one non-governmental organization working with PLHIV. In Jogjakarta and Merauke, all HIV patients on ART who came to selected hospitals during the interview period were asked to participate in the survey. The survey collected data on the frequency and extent of payments for HIV-related care, with answers cross-checked against medical records. Results show that PLHIV had different burdens of payments in the different geographical areas. On average, respondents in Jogjakarta spent 68% of their monthly expenditures on HIV-related care, while PLHIV in Jakarta spent 96%, indicating the treatment posed a substantial financial burden for many ART patients. These patients depended on several sources of finance to cover the costs of their care, with donations from immediate family being the most common, followed by selling assets and personal income in Jakarta and Jogjakarta, respectively. Most PLHIV in these two areas did not have insurance. In Merauke, there were little observed OOP payments because the government covers medical costs through the local budget and health insurance for the poor. The results of this study confirm previous findings that providing subsidized ART drugs alone does not ensure financial accessibility to HIV care. Thus, the Indonesian government at central and local levels should consider covering HIV care in addition to providing antiretroviral drugs free of charge. Social health insurance programs should also be encouraged.

4. **Beauliere, A., et al. “Access to antiretroviral treatment in developing countries: Which financing strategies are possible?” Revue Epidémiologique de Santé Publique. 2010. 58(3): 171-9.**

Access to combination ART in low and middle income countries for all PLHIV is a major public health challenge. This paper aims to provide an overview of the different financing modalities for HIV/AIDS care at the microeconomic level and analyze their advantages and limitations.

Published literature in English and French from the Medline and Science Direct databases for the 1990-2008 period was reviewed to explore different financing strategies for providing access to combination ART using specific case studies from the Ivory Coast, Uganda, Senegal, and Rwanda in sub-Saharan Africa; Brazil and Haiti in Latin America/Caribbean; and Thailand in Asia.

In these settings, direct payment for care through user fees is the most frequent financing mechanism for HIV/AIDS treatment, including combination ART. Other mechanisms are also being implemented to improve access to treatment, such as public-private partnerships and community-based health insurance schemes offering free care for the poor and for vulnerable households. The authors conclude that the appropriate model for financing HIV/AIDS care and treatment depends on the context. Direct payment through user fees limits access to care and does not enable program sustainability. Therefore national and donor agencies are introducing alternative strategies such as community financing systems (mutual health organizations, micro insurance, community health funds) and public-private partnerships. Finally, access to combination ART has improved in settings with limited resources, although alternative financial mechanisms still need to be introduced to ensure long-term equitable and universal access to treatment and care, including combination ART.

5. **Langenbrunner, J.C. and A. Somanathan. “Financing health care in East Asia and the Pacific: Best practices and remaining challenges.” World Bank, 2011. Accessed Aug. 21, 2012**
<<https://openknowledge.worldbank.org/handle/10986/2321>>.

There are wide variations in sources of healthcare financing in the East Asia and Pacific region, including pooling funds purchasing services, and the extent to which these policy instruments and programs provide social protection. Existing healthcare financing in the region is under increasing pressure from the continued prevalence of communicable diseases, the emergence of non-communicable diseases, and a rapidly aging population. Large inequalities in access to healthcare funding between the poor and the prosperous can be reformed and strengthened to improve outcomes — especially for the poor. Financing healthcare in East Asia and the Pacific emphasizes the need for high quality, well-funded health systems that generate sustainable financing to ensure optimal health outcomes and guarantee financial protection. Adequate funding, however, will not be enough. Systems will need to manage and spend funds wisely. This document reviews best practices and remaining challenges related to every function of health financing, both within individual countries and across the East Asia and Pacific region. It will be of particular interest to government leaders, policy makers, health economists, donors, and health service researchers.

6. **Tangcharoensathien, V., et al. “Health-financing reforms in southeast Asia: challenges in achieving universal coverage.” Lancet, 2011. 377(9768):863-73. E-publication Jan. 29, 2011.**

This is the sixth paper in a series reviewing health-financing reforms in seven Southeast Asian countries that have sought to reduce dependence on OOP payments, increase pooled health finances, and expand service utilization as steps towards universal coverage. Laos and Cambodia, both resource-poor countries, have relied mainly on donor-supported health equity funds to reach the poor. Reliable funding and appropriate identification of eligible poor are two major challenges for nationwide expansion. For Thailand, the Philippines, Indonesia, and Vietnam, SHI financed by a payroll tax is commonly used for formal sector employees, with varying outcomes in terms of financial protection. Alternative payment methods have different implications for provider behavior and financial protection. Two approaches for financially protecting the non-poor outside the formal sector have emerged: contributory arrangements and tax-financed schemes. Each has a different capability to achieve rapid coverage of a high percentage of the population. Fiscal space and payroll contribution mobilization are both important in accelerating financial protection. Expanding coverage of good-quality services and ensuring adequate human resources are also important in achieving universal coverage. Health financing reform is complex, and the capacity of institutions to generate evidence and inform policy is essential and therefore should be strengthened.

7. **Selvaraj, S. and A. K. Karan. “Why publicly-financed health insurance schemes are ineffective in providing financial risk protection.” Economic & Political Weekly, 2012. Vol - XLVII No. 11: 60 - 68.**

This paper provides early and robust evidence for the impact of publicly financed health insurance schemes on financial risk protection in India's health sector. It conclusively demonstrates that the poorer sections of households in the intervention districts of the

Rashtriya Swasthya Bima Yojna, Rajiv Aarogyasri of Andhra Pradesh, and Tamil Nadu health Insurance schemes experienced a rise in real per-capita healthcare expenditure, particularly for hospitalization, and an increase in catastrophic headcount. This is conclusive proof that RSBY and other state government-based interventions failed to provide adequate financial risk protection. Therefore, a policy is needed to achieve UHC for the population, moving away from the current piecemeal, fragmented approaches, to providing impetus for primary health care.

8. **Xu, K., D. B. Evans, K. Kawabata, R. Zeramdini, J. Klavus, and C. J. Murray. "Household catastrophic health expenditure: a multi-country analysis." *Lancet*, 2003. 362(9378):111-7. E-publication, July 18, 2003.**

Health policy makers have long been concerned with protecting people from the possibility that ill health will lead to catastrophic financial payments and subsequent impoverishment. Yet catastrophic expenditure is not rare. This study investigates the extent of catastrophic health expenditure as a first step to developing appropriate policy responses.

A cross-country analysis was designed and data from household surveys in 59 countries were used to explore variables associated with catastrophic health expenditure using regression analysis. Expenditure was defined as catastrophic if a household's financial contributions to the health system exceed 40% of its income after subsistence needs have been met.

The proportion of households facing catastrophic payments from OOP healthcare expenses varies widely between countries. Catastrophic spending is highest in countries in transition and in certain Latin American countries. Three key preconditions for catastrophic payments are identified: health services requiring payment, low ability to pay, and a lack of prepayment or health insurance programs. People, particularly in poor households, can be protected from catastrophic health expenditures by reducing a health system's reliance on OOP payments and providing more financial risk protection. Increasing the availability of healthcare services is critical to improving health in poor countries, but this approach could also raise the proportion of households facing catastrophic expenditure. Risk protection policies are especially important in this situation.

9. **Gertler P. and O. Solon. "Who benefits from social health insurance in developing countries?" University of California Berkeley (working paper), 2000. Accessed Aug. 21, 2012.**
<<http://www.cepr.org/meets/wkcn/6/672/papers/gertler.pdf>>.

A popular approach to healthcare reform in many developing countries is compulsory social health insurance (SHI). The movement towards SHI has been motivated not only by the desire to expand insurance coverage, but also by fiscal pressure to shift the burden of delivering and financing healthcare from the public sector to the private. This paper shows that SHI fails to expand insurance coverage or shift the burden to the private sector because providers capture SI benefits as rent by raising price-cost margins for insured patients. As a result, OOP costs for the insured are the same as for the uninsured. Empirical results from the Philippines indicate that hospitals extract 86% of SHI benefits through price discrimination. This report also shows that expanding SHI actually increases the burden on the public sector rather than relieving it.

10. **Wagstaff, A. and M. Lindelow. "Can insurance increase financial risk? The curious case of health insurance in China." Journal of Health Economics, 2008. 27(4): 990-1005.**

This study analyzes the effect of insurance on the probability of an individual incurring 'high' annual health expenses using data from three household surveys. All the surveys were conducted in China, where providers are paid fee-for-service according to a schedule that is only lightly regulated and encourages over-provision of high-tech care. Annual spending is considered 'high' if it exceeds a threshold of the average local income and as 'catastrophic' if it exceeds a threshold of the household's per capita income. The study's estimates allow for different thresholds and for the possible endogeneity of health insurance using instrumental variables and fixed effects. The main results of all three surveys indicate that health insurance increases the risk of high and catastrophic spending. Further analysis suggests that this is due to insurance encouraging people to seek care more often when sick and to use higher-level providers.

11. **Van Doorslaer, E., O. O'Donnell, R. P. Rannan-Eliya, A. Somanathan, S. R. Adhikari, C. C. Garg, et al. "Catastrophic payments for health care in Asia." Health Economics. 2007.16(11):1159-84. E-publication Feb. 22, 2007.**

Out-of-pocket payments are the principal means of financing healthcare throughout much of Asia. This study estimates the magnitude and distribution of OOP payments for healthcare in 14 countries and territories, accounting for 81% of the Asian population. The focus is on catastrophic payments that severely disrupt household living standards. Bangladesh, China, India, Nepal and Vietnam rely most heavily on OOP for healthcare financing and have the highest incidence of catastrophic payments. Sri Lanka, Thailand and Malaysia stand out as low to middle income countries that have constrained both the OOP share of health financing and the catastrophic impact of direct payments. In most low/middle-income countries, the better-off are more likely to spend a large fraction of their total household resources on healthcare. This may reflect the poorest of the poor's inability to divert resources from other basic needs and possibly the protection of the poor from user charges offered in some countries. Catastrophic payments are more likely to be incurred in China, Kyrgyz and Vietnam, where the poor are not exempt from charges.

12. **World Bank, "Financing, Pricing, and Utilization of Pharmaceuticals in China: The Road to Reform." World Bank, 2010. Accessed Aug. 21, 2012**
<<http://siteresources.worldbank.org/HEALTHNUTRITIONANDPOPULATION/Resources/281627-1285186535266/FinancingPricingandUtilization.pdf>>.

This paper examines the financing, pricing, and utilization of pharmaceuticals in China and the Chinese pharmaceutical system as it has evolved, as well as some suggestions for improvements in the context of national health reforms. It builds upon earlier critical reviews and other papers published in the China Health Policy Notes series. The current version has been updated to reflect key steps in the evolution of a formal Essential Medicines System, especially those taken between 2005 and 2010, as a product of the major national health reforms formally launched in April 2009. A brief introduction is followed by substantive sections on the Chinese pharmaceutical market today, the national system of essential

medicines, and the ongoing struggle to contain constantly rising pharmaceutical costs. Several ideas for strengthening the reform process are discussed in the final section.

13. **Socorro, E. “Medicine prices: Making people sicker and poorer.” WHO Country Office in Vietnam, 2011. Accessed Aug. 21, 2012**
<<http://www2.wpro.who.int/vietnam/sites/dhs/medicines/>>.

Essential medicines save lives, but many people, especially the poor, cannot afford them. Medicines needed for highly burdensome diseases are expensive in Vietnam. In the public sector, patients pay 46.58 times the international reference prices (IRPs) for innovator brands and 11.41 times the IRP for lowest priced generics (LPGs). High medicine costs make people sicker because when prices are high, people may not be able to afford to buy them. Sometimes they buy only part of their prescription or nothing at all. Inadequate treatment causes illnesses to become more severe and prolonged or may even result in death. High prices for medication make people poorer; particularly in households of patients with chronic diseases. They also reduce government resources. High medicine prices are caused by many factors and can be reduced by combined strategies such as implementing a national generic drug policy, cost-containment measures, and ensuring good procurement practices. Other ways to reduce medicine prices include using TRIPs flexibilities, improving and publicizing information on prices, banning detailing of medical representatives to doctors, and expanding current technical committees for controlling drug prices to higher levels.

14. **Chua, H.T. and J. Cheah. “Financing universal coverage in Malaysia: a case study.” Bio Med Central Public Health, 2012. 12(Suppl 1): S7.**

One of the challenges to maintaining an agenda for UHC and an equitable health system is developing effective health financing structure and management. Global experiences with different health financing systems suggests that a strong public role in health financing is essential for health systems to effectively protect the poor. Health systems with the strongest state role are likely to be more equitable and achieve better aggregate health outcomes. Using Malaysia as a case study, this paper evaluates the progress and capacity of a middle income country in terms of health financing for universal coverage, and also highlights some of the key underlying challenges facing health systems.

The WHO Health Financing Strategy for the Asia Pacific Region (2010-2015) is used as a framework to evaluate the Malaysian healthcare financing system in terms of universal coverage for the population. The Malaysian National Health Accounts (2008) provided the latest Malaysian data on health spending. Measuring against the four target indicators, Malaysia fares quite well, with total health expenditure close to 5% of GDP (4.75%). Out-of-pocket payments are below 40% of total health expenditure (30.7%). Comprehensive social safety nets are in place for vulnerable populations and there is a tax-based financing system that is fundamentally a national risk-pooled scheme for the population. In Malaysia, the emigration of public health workers, particularly specialist doctors, remains an issue and financing strategies urgently need to incorporate comprehensive workforce compensation to improve the skill mix of the health workforce. Health expenditure information is systematically collated, but obtaining feedback from the private sector remains a challenge. It is necessary to enhance the financing capacity for service delivery in order to expand preventive care and better manage escalating healthcare costs associated with the increasing trend of non-communicable diseases. At the same time, health financing policies

need to incorporate the element of cost-effectiveness to better manage purchasing new medical supplies and equipment. Ultimately, good governance and leadership are needed to ensure adequate public spending on health, maintain focus on attaining universal coverage, and make healthcare financing more accountable to the public. This is particularly important in regards to inefficiencies and the use of public funds and resources.

- 15. Wagstaff, A. and W. Manachotphong. "The Health Effects of Universal Health Care: Evidence from Thailand." World Bank, 2012. Accessed Aug. 21, 2012**
<<http://elibrary.worldbank.org/content/workingpaper/10.1596/1813-9450-6119>>.

This paper examines the staggered rollout of Thailand's UHC scheme to estimate its impacts on individuals reporting themselves as too ill to work. The statistical strength of the study comes from an average of 62,000 individuals responding to the labor force survey on each survey date. There were no less than 68 survey dates, most of which were just one month apart. The analysis reveals that universal coverage reduces the likelihood of people reporting themselves to be too sick to work. The authors estimate the effect to be -0.004 one year after universal coverage and -0.007 three years after. The estimated effects are much greater among those aged 65 and over. Universal coverage has a much greater effect (about four times) on health than the Village Fund scheme, which provides free credit to rural households through a subsidized microcredit scheme and was rolled out around the same time as universal coverage.

- 16. Peter, L.A. and A. Shakil. "Institutional and operational barriers to strengthening universal coverage in Cambodia: options for policy development." Nossal Institute for Global Health, 2012. Accessed Aug. 21, 2012**
<<http://uhcforward.org/publications/institutional-and-operational-barriers-strengthening-universal-coverage-cambodia-option>>.

The government of Cambodia and its development partners have indicated that now is the right time to move towards greater integration in social health protection schemes, particularly health equity funds (HEFs) and community-based health insurance (CBHI), in order to provide health coverage for the poor and the informal labor sector. It is possible to establish a national agency for HEF, CBHI, voucher and other schemes as a step towards universal coverage. This would constitute one of the country's major social reforms of the past two decades. Health equity funds cover three-quarters of the nation's poor population with subsidized free access to government health facilities. Voluntary CBHI schemes, which aim to cover informal-sector workers who can afford to pay the premiums, are being implemented in many health operational districts. The government, MOH and development partners are preparing to scale up and move these schemes, which are currently administered mainly through nongovernmental agencies, to operate under national institutions or administration. This study identifies the key barriers to policy change and strengthening national institutions for implementing universal coverage, while also suggesting options for overcoming these barriers. The findings indicate that policy makers are generally in favor of establishing an interim social health protection agency for the informal sector, including both HEF and CBHI schemes. Representation of formal-sector workers is being arranged separately through the Ministry of Labor and Vocational Training and the Ministry of Social Affairs, Veterans and Youth Rehabilitation. Ideally, the HEF-CBHI agency would be autonomous, attached to, but independent of the MOH. Experiences from this arrangement would help in reformulating and implementing the broader Master Plan for

Social Health Protection (currently in draft form and under consideration within the government), which proposes a single national agency for all sectors and schemes. While there is as yet no clear, consistent strategic direction for establishing a national agency, carefully identifying policy and institutional barriers and working out an appropriate response through close, effective collaboration between the government, MOH and development partners is essential.

17. Thoresen, S.H. and A. Fielding. “Universal health care in Thailand: concerns among the health care workforce.” Health Policy, 2011. 99(1): 17-22.

This article reports on a study which investigates the impact of UHC policies from the perspective of Thai health care professionals. Semi-structured interviews were conducted with selected healthcare professionals and key informants. Healthcare professionals at public hospitals, particularly in rural areas, experience almost twice the number of outpatients every day, many with superficial symptoms. While improved access to health care is welcome, questions regarding the appropriateness of seeking medical advice have been raised. Concerns have also been expressed regarding equity between the UHC policy and two parallel public health coverage schemes; between rural and urban areas; and between the public and private sectors. There is potential for healthcare professionals to congregate in the private sector and urban areas where workloads are perceived to be less demanding.

The general perception of the interviewed healthcare professionals suggests that although increased access and health equity is welcome, this policy has shown undesirable effects and exacerbated rural-urban and public-private tensions. Universal coverage increases access to healthcare, however equity may be further enhanced by consolidating the three public health coverage programs into a single scheme and developing a parallel private income protection insurance scheme.

18. Yiengprugsawan, V., et al. “The first 10 years of the Universal Coverage Scheme in Thailand: review of its impact on health inequalities and lessons learnt for middle-income countries.” Australas epidemiol, 2010. 17(3): 24-26.

This study aims to assess the impacts of Thailand’s Universal Coverage Scheme (UCS) for health insurance on healthcare service use and financing over the past 10 years.

The impacts of the UCS on promoting preventive and general healthcare were reviewed, including dental care and reproductive health, as well as its effect on vulnerable population subgroups.

Three decades after the implementation of low income health insurance in the 1970s Thailand finally introduced a UCS in 2001, bringing 30% of the uninsured Thai population under its umbrella. Many empirical studies of expenditure on illness confirm that the Thai UCS substantially reduced the financial burden of healthcare among the poor. The Thai UCS mechanism boosts the use of primary healthcare facilities and has substantially reduced catastrophic medical payments and consequent impoverishment.

The UCS relies on a solid primary healthcare foundation. Continued investment in primary healthcare resources will help ensure the sustainable development of the UCS and reduce health inequity. The development of the UCS in Thailand can provide some valuable lessons for middle income countries pursuing equity in health and healthcare.

19. **Annear, P.L., M. Bigdeli, and B. Jacobs. "A functional model for monitoring equity and effectiveness in purchasing health insurance premiums for the poor: evidence from Cambodia and the Lao PDR." Health Policy, 2011. 102(2-3): 295-303.**

The model assesses the effectiveness and impact on equity of introducing targeted subsidies for the poor into existing voluntary health insurance schemes in low income countries, with special reference to cross-subsidization. A functional model was constructed, using collected routine financial data, to analyze changes in financial flows and resulting shifts in cross-subsidization between the poor and non-poor. Data were collected from two sites: the Kampot operational health district in Cambodia and Nambak district in the Lao People's Democratic Republic (PDR).

Six key variables determine financial flows between the subsidy and insurance schemes and with health providers: population coverage, premium rates, facility contact rates, capitation rate, treatment costs and changes in administration costs. Negative cross-subsidization was revealed where capitation was used as the payment mechanism and where utilization rates among the poor were significantly less than those of the non-poor. The same level of access for the poor could have been achieved with a lower Health Equity Fund (HEF) subsidy, if it was used as a direct reimbursement for user charges to the provider rather than through the CBHI scheme.

The paper concludes that purchasing premiums for the poor under these conditions and for the same level of service delivery is more costly than direct reimbursement to the provider. Negative cross-subsidization is a serious risk that must be managed appropriately and the benefits of a larger risk pool (cross-subsidization of the poor) are not evident. Benefits from combined coverage may accrue in the longer term with an expanded base of voluntary payers or when those with subsidized premiums are lifted out of poverty.

20. **Liu, G.G., et al. "Equity in health care access: assessing the urban health insurance reform in China." Social Science Medicine. 2002. 55(10): 1779-94.**

This study evaluates changes in access to healthcare in response to the pilots of urban health insurance reform in China. The pilots began in Zhenjiang and Jiujiang cities in 1994, followed by expansion to 57 other cities in 1996, and finally to a nationwide campaign at the end of 1998. This study specifically examines pre- and post-reform changes in the likelihood of obtaining various healthcare services across sub-population groups with varying socioeconomic status and health conditions, aiming to shed light on the impacts of reform on both vertical and horizontal equity measures of healthcare utilization. Empirical estimates were obtained with an econometric model, using data from annual surveys conducted in Zhenjiang from 1994 through 1996. Findings show that before the insurance reform, the likelihood of obtaining basic care at an outpatient facility was much greater for those with higher incomes, education, and job status. This indicates a significant measure of horizontal inequity compared to the lower socioeconomic groups. On the other hand, there was no evidence suggesting vertical inequity regarding people with chronic diseases obtaining healthcare access at various facilities. After the reforms, the new insurance plan led to a

significant increase in outpatient care utilization by lower socioeconomic groups, contributing to achieving horizontal equity in access to basic care. The new plan has also maintained vertical equity in the utilization of all types of care. Despite the reforms, the poor continue to be disadvantaged in accessing more expensive and advanced diagnostic technologies.

The reform model has demonstrated promising advantages over pre-reform insurance programs in many aspects, especially in improving equity in access to basic care at outpatient facilities. It also appears to be more efficient overall in allocating healthcare resources by substituting outpatient care for more expensive care at emergency or inpatient facilities.

21. Ravindran, T.S. “Universal access: making health systems work for women.” Bio Med Central Public Health, 2012. 12 (Supplement 1): S4.

Universal health coverage is one of the core obligations any legitimate government should fulfill for its citizens. However, UHC may not in itself ensure universal access to healthcare. Among the many challenges to ensuring universal coverage and access to healthcare are structural inequalities based on caste, race, ethnicity and gender. Based on a review of published literature and applying a gender-analysis framework, this paper highlights ways in which the policies aimed at promoting universal coverage may not benefit women to the same extent as men because of societal gender-based differentials and inequalities. It also explores how 'gender-blind' organization and delivery of healthcare services may deny universal access to women, even when universal coverage has been nominally achieved. The paper then makes recommendations for addressing these issues.

22. Limwattananon, S., et al. “Why has the Universal Coverage Scheme in Thailand achieved a pro-poor public subsidy for health care?” Bio Med Central Public Health, 2012. 12 (Supplement 1): S6.

Thailand has achieved UHC since 2002 through implementing the Universal Coverage Scheme (UCS) for 47 million citizens who were neither private sector nor government employees. A well performing UCS should achieve health equity goals in terms of health service utilization and distribution of government health subsidies. With these goals in mind, this paper assesses the magnitude and trend of the government health budget benefiting the poor as compared to rich UCS members.

The total government subsidy (net direct household payment) to public hospitals and health facilities for outpatient and inpatient services provided to UCS members increased from 30 billion Baht (US\$1 billion) in 2003 to 40-46 billion Baht between 2004 and 2009. For 23% of the poorest and 12% of the richest UCS members across the country in 2003, the share of public subsidies for OP service was 28% for the poorest and 7% for the richest quintiles, while for IP services the share was 27% and 6% for the poorest and richest quintiles, respectively. This reflects a pro-poor outcome for public healthcare subsidies, and outpatient and inpatient public subsidies have remained consistently pro-poor in subsequent years. The pro-poor benefit incidence is determined by the poorest quintile utilizing more services than the richest quintile, especially at health centers and district hospitals. The poorest UCS members paid less direct household payments for public health facilities, and paid them less often than their richest counterparts.

Higher utilization and better financial risk protection for poor UCS members are results of extensive geographical health service infrastructure coverage, especially at the district level, as well as adequately financed and functioning primary healthcare, comprehensive benefit packages and zero co-payments at points of service.

23. **Tang, S., J. Tao, and H. Bekedam. "Controlling cost escalation of healthcare: making universal health coverage sustainable in China." Bio Med Central Public Health, 2012. 12 (Supplement 1): S8.**

A growing number of low and middle income countries have developed and implemented national UHC policies for their citizens over the past decade. China has expanded health insurance coverage for its population from around 29.7% in 2003 to over 90% at the end of 2010. While both central and local Chinese governments have significantly increased financial input to the two newly established health insurance schemes (the new cooperative medical scheme for the rural population and urban resident basic health insurance), the cost of healthcare in China has been rising rapidly at an annual rate of 17.0%. Total health expenditure increased from CNY74.7 billion in 1990 to CNY1998 billion in 2010, while average health expenditure per capita reached CNY1490.1 in 2010, rising from CNY65.4 per person in 1990. The increased coverage by government supported health insurance schemes has stimulated an increasing use of healthcare services, and also greater pressure on cost control in China. There are many effective measures available for controlling supply and demand costs for healthcare. Over the past three decades, China has introduced numerous measures to control the demand for healthcare through a series of co-payment mechanisms. The paper introduces and discusses new initiatives and measures to control escalating healthcare costs in China, including alternative methods for paying healthcare providers, reforming drug procurement systems, and strengthening clinical standards for treating patients at hospitals. It analyzes the impacts of these initiatives and measures and concludes by proposing ways forward to make UHC in China more sustainable.

24. **Prinja, S., P. Bahuguna, et al. "The cost of universal health care in India: a model based estimate." PLoS One, Jan. 2012. 7 (1): e30362.**

As high OOP healthcare expenses pose heavy financial burdens on families, the government of India is considering a variety of financing and delivery options to universalize healthcare services. Therefore, an estimate for the cost of delivering UHC services is needed.

A model was developed to estimate recurrent and annual costs for providing health services through a mix of public and private providers in Chandigarh, northern India. The necessary health services required to deliver good quality care were defined by the Indian Public Health Standards, and National Sample Survey data were used to estimate the burden of illness. In addition, morbidity and treatment data were collected from two secondary and two tertiary care hospitals and the unit cost of treatment was estimated from published literature. Where data were not available on treatment costs for particular diseases, data on standard treatment protocols and cost of care were collected from local health providers.

The cost of delivering UHC through the existing mix of public and private health institutions is estimated at INR1713 (US\$38.00, 95%CI US\$18.00-73.00) per person per annum in India. This cost would be 24% higher if name-brand drugs were used. Extrapolating these costs to

the entire country indicates that the Indian government needs to spend 3.8% (2.1%-6.8%) of the national GDP on UHC services to make these available to all.

The cost of UHC delivered through a combination of public and private providers is estimated to be INR1713 (US\$38.00) per capita per year in India. Important issues such as developing strategies for delivery to ensure quality, reducing inequities in accessibility, and managing the growth of the demand for healthcare need be further explored.

25. **Nguyen, H.T., L. Hatt, M. Islam, N.L. Sloan, J. Chowdhury, J. O. Schmidt, A. Hossain, and H. Wang. "Encouraging maternal health service utilization: an evaluation of the Bangladesh voucher program." Social Science Medicine, April 2012. 74, 989-996.**

With the ultimate goal of reducing maternal and neonatal mortality, many countries have recently adopted innovative financing mechanisms to encourage the use of professional maternal healthcare services. This study evaluates one such initiative - a pilot voucher program in Bangladesh. The program provides poor women with cash incentives and free access to antenatal, delivery, and postnatal care, as well as cash incentives for healthcare providers to offer these services. A household survey of 2208 women who delivered a child in the six months prior to the survey was conducted in 2009 at 16 intervention and 16 matched comparison sub-districts. Probit and linear regressions are used to analyze the effects residing in voucher sub-districts had on the use of professional maternal healthcare services and associated OOP expenditures. Using information on birth history, women's reported births before and after the program's initiation in the intervention were compared, and then further compared to sub-districts. The study finds that the program significantly increased the use of antenatal, delivery, and postnatal care from qualified providers. Compared to women in matched comparison sub-districts, women in intervention areas had a 46.4 percent higher probability of using a qualified provider and 13.6 percent higher probability of institutional delivery. They also paid approximately 640 Taka (US\$9.43) less for maternal healthcare services, equivalent to 64% of the sample's average monthly per capita household expenditure. Vouchers showed no significant effect on the rate of Cesarean sections. The findings therefore support expanding the voucher program targeting the economically disadvantaged to improve their use of priority healthcare services. The Bangladesh voucher program is a useful example for other developing countries interested in improving the use of maternal healthcare services.

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