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Health insurance reform in Vietnam: a review of recent developments and future challenges

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Vietnam is undertaking health financing reform with a view to achieve universal coverage of health insurance within the coming years. To date, around half of the population is covered with some type of health insurance or prepayment. This review applies a conceptual framework of health financing to provide a coherent assessment of the reforms to date with respect to a set of key policy objectives of health financing, including financial sustainability, efficiency in service provision, and equity in health financing. Based on the assessment, the review discusses the main implications of the reforms focusing on achievements and remaining challenges, the nature of the Vietnamese reforms in an international perspective, and the role of the government. The main lessons from the Vietnamese experiences, from which other reforming countries may draw, are the need for sustained resource mobilization, comprehensive reform involving all functions of the health financing system, and to adopt a long-term view of health insurance reform. Future analysis should include continued evaluation of the reforms in terms of impacts on key outcomes and the political dimensions of health reform.

Keywords Health financing, health insurance, reform, Vietnam, review

KEY MESSAGES

- Health insurance reform in low-income and transitional economies involves changes across all functions of health financing: resource mobilization, pooling of funds and purchasing of services.
- Effective health insurance reform requires important trade-offs between the coverage of population groups, benefits packages and financial protection.
- Reforming countries need to ensure that implementation of reform initiatives are based on high-quality and context-specific evidence.
- All countries, including Vietnam, need to approach health insurance reform with a clear focus on the fundamental aspects of health financing, including incentives structures, implementation capacity and equity implications of reform.

Introduction

Like many other low-income and transitional countries, Vietnam is in the process of implementing health financing reform with a view to achieve universal coverage of health insurance within the coming years. The initial steps involved a series of local level pilot schemes and, in 1992, Vietnam initiated a process of introducing health insurance at the national level as a means to raise funds for health care and to provide a mechanism for financial risk protection.

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More recently, the health insurance policies have focused on, among other things, targeted subsidies, institutional and organizational reform, and alternative purchasing mechanisms. To date, around half of the population is covered by insurance and prepayment, including, among other population groups, the formally employed, the poor, students and children under 6 years of age. Although the reform efforts so far have met with some success as will be seen, they have not come easy and the continued reform process might prove even more challenging.

The early health insurance reform efforts of Vietnam are described in Ensor (1995) and Ron *et al*. (1998), which reviewed the government's approach to health insurance reform and discussed some of the challenges facing the country in its attempts to further expand coverage. Among other things, the review by Ensor (*ibid*.) discussed the role of voluntary insurance in that process, the need to find appropriate ways of paying providers, and finally, how insurance can play a role in reforming the overall health care system by, for example, contributing to making health service provision more efficient.

This paper reviews the continued health insurance reforms of Vietnam by looking at some salient features and policy objectives of health financing. The overall purpose of the review is to contribute, based on the available data and information, to the growing body of literature on health insurance reform in low-income and transitional countries with the associated objective of providing key lessons for other reforming countries.

To provide a coherent analysis of the Vietnamese reform process, the review adopts a conceptual framework for health financing that focuses on the key health financing functions of revenue collection, pooling of funds and purchasing of services (WHO 2000; Gottret and Schieber 2006; McIntyre 2007). Although variations of the framework are found in the literature, revenue collection generally refers to the sources of funds and how they are collected. Risk pooling looks at population coverage and the ability to share health-related risks across income groups and between the healthy and the sick, and finally, the purchasing function of the health financing system refers to the issues of benefit package and provider reimbursement.

Based on the functional description of the Vietnamese insurance system, the review then assesses the reforms focusing on a set of key policy objectives, namely financial sustainability, efficiency of service delivery, and equity impacts of health financing. The financial sustainability of the health financing system is of central concern to policy makers and depends on several factors, including the response of patients and providers to the introduction of health insurance. The health insurance system can affect the efficiency with which health care is provided, both in terms of technical efficiency and in terms of allocative efficiency. Lastly, depending on the configuration of the health financing functions, health insurance will have certain distributional effects, the outcome of which is of interest to policy makers. As will be noted, the Vietnamese health financing reforms provide useful lessons in all of these aspects of health financing.

The review is outlined as follows. In the next section, the recent socio-economic developments of Vietnam are described, including economic growth, poverty reduction, health spending and outcomes, and socio-economic inequalities, all of which have implications for health insurance reform. Section three applies the analytical framework and is the main part of the review. In addition to describing the insurance system by means of programmes and functions, the first part of this section also reviews the evidence with respect to impacts on central outcomes of the health insurance programmes. The second part of the section reviews the insurance reforms focusing on the policy objectives noted above. The main findings are discussed in section four and the final section provides some key policy conclusions.

Recent socio-economic developments in Vietnam

Over the past decades, Vietnam has made considerable progress in the economic and social well-being of the population. In addition to their intrinsic value, these achievements affect the scope for health financing reform both by enhancing the economic space for health prepayment and by affecting the demand for health care. In turn, the economic improvements are contributing to epidemiological changes with consequences also for health financing. This section reviews these developments with a view to provide a background description of the health insurance reform process.

Economic development and poverty reduction

Since the initiation of the economic and social reform programme (known as *Doi Moi* or 'renovation') in the mid-1980s, economic growth in Vietnam has been rapid and sustained by international standards, averaging around 7–8% per year. Given the low rates of population growth during the same period, per capita growth rates have been equally impressive. Annual gross national income (GNI) per capita now stands at US$620, which is well above the average for low-income countries (World Bank 2006a), and as a consequence, Vietnam is well under way to transition from a low-income country (LIC) to a middle-income country. While the reasons behind the success are many, key factors include the liberalization of the agricultural sector whereby farmers became entitled to sell their produce and retain the profits, a conscious redirection of production for export markets, and the protection of private property rights in legislation. [Glewwe *et al*. (2004) provide a comprehensive review of the economic reforms and their effects.]

An important dimension of the nature of the Vietnamese economic growth has been its inclusiveness; as a direct consequence of the economic progress, income poverty in Vietnam has been substantially reduced. Although estimates and definitions of poverty vary, regardless of whether one looks at the national poverty line or at those defined according to international standards, Vietnam has seen its rates of absolute poverty fall. Accordingly, absolute poverty rates may now be as low as 18% compared with around 75% in the mid-1980s, 58% in 1993 and 37% in 1998 (Glewwe *et al*. 2004; World Bank 2006b). Consequently, Vietnam has already achieved one of the Millennium Development Goals (MDGs) of halving poverty during the period 1990 to 2015.

The rapid and sustained economic growth and subsequent drops in income poverty have two important consequences for the health financing reforms. The first effect is that the government is becoming increasingly more able to financially sustain the expansion of health insurance to formerly uncovered groups (Knowles *et al*. 2003; Heller 2006). Although difficult priorities will have to be made, continued economic growth will facilitate the future reform process from a fiscal perspective. A related issue is the fall in absolute poverty, which, subject to changes of the national poverty line, will lead to fewer households being eligible for special benefits through targeted programmes that subsidize health care and other social services for the poor.

The second important consequence is the income effect on the demand for health care. Much empirical evidence suggests that as people become more affluent, they will demand more care of higher quality and cost (McPake *et al*. 2002; Folland *et al*. 2004). It is thus likely that Vietnam will spend a higher share of its resources on health care in the future, and from an efficiency and equity perspective, it would be advisable if more of this spending is channelled through health insurance and prepayment (see, for example, Knowles *et al*. 2005, for a review of the demand for health care in Vietnam).

The downside of the rapid economic growth over the past decades is an increase in economic inequalities. The difference between the top income quintile and the poorest one-fifth of the population is now larger than it has been historically. Moreover, income poverty is increasingly concentrated among the rural population and the ethnic minorities (World Bank 2006b). These developments have a direct bearing on the government's health financing policies, as will be discussed below.

Recent health sector developments

As discussed at length in several recent reviews of Vietnam's socio-economic development, the health sector was by no means left untouched by the economic reforms (World Bank 2001; Glewwe *et al*. 2004). On the contrary, the sector witnessed a series of profound policy shifts during the late 1980s and early 1990s. Central among these were the liberalization of the health care and pharmaceuticals markets, the introduction of official user fees at public health facilities, and, in 1994, the take-over by the central government of the responsibility for paying salaries to the public health staff at the commune level. The last issue is a direct consequence of perhaps the most fundamental of the changes of the Vietnamese economy during the early reform period, namely the dismantling of the rural production brigades. These brigades were charged with, among other things, the provision of basic health care free of charge through the brigade nurses at the village level. In the absence of viable alternatives, this led to severe difficulties for health care delivery in Vietnam, particularly in rural areas (World Bank 2001).

Health services in Vietnam are delivered by both public and private providers. Most curative care at higher referral levels is provided by public hospitals with relatively few private hospitals operating in urban areas, mostly for specialized care. Traditional medicine is a recognized part of the Vietnamese health service system and such providers operate within both the public and the private sectors. In addition, most pharmaceuticals are purchased, with or without a prescription, from private vendors.

Little is known about the quality and efficiency of private provision compared with public facilities. A recent study that looked at differences in quality between private and public providers in one province found, among other things, that quality of services—measured by resource availability and clinical knowledge, which may have introduced a bias favouring public providers as many private providers operate at a small scale—was low for both types of providers, although significantly worse in the private sector (Tuan *et al*. 2005). How the quality of the Vietnamese health system fares in comparison with other countries is not known and anecdotal evidence seems to vary.

In terms of health financing, the available data suggest that Vietnam spends around US$30 per capita annually on health care (at current exchange rate, equivalent to around 5% of GDP), around two-thirds of which is private spending mostly out-of-pocket. Compared with most other low-income countries, Vietnam has relied only marginally on development assistance in health (DAH). Recent estimates put grant DAH at less than 3% of all health spending, most of which is directed to cover the costs for the national disease priority programmes (WHO 2007a).

Looking at trends in health spending over the past decade, the recent national health accounts data show that overall health spending has remained largely unchanged at around 5% of GDP in the period 1996 to 2005 (WHO 2007a). With respect to the composition of health spending, the government's share of total spending has gone down from around 32% in 1996 to some 22% in 2005, with consequential increases in private spending. However, during this period of health insurance reform, the share of social health insurance spending increased from less than 10% of public spending on health care to over 20%. As to private spending during the past decade, the data show that out-of-pocket payments as a share of total private spending have been gradually reduced from around 95% to around 88%. Due to the currently limited supply of private health insurance in Vietnam, the private prepaid share of total private health spending does not show a parallel upward trend. Rather this share is reported to have remained at around 3% during this period.

By most comparisons, Vietnam has done exceptionally well in terms of key health and population outcomes. Life expectancy at birth is around 70 years for both men and women (compared with an average of 59 years for the group of low-income countries) and fertility rates have dropped to around replacement level (WHO 2007b). Health service coverage rates are high compared with other low-income countries: immunization of children is around 97% (LIC average, 63%); almost 90% (41%) of births are attended by a skilled health worker; and a significantly higher share of the population in Vietnam has access to improved water and sanitation facilities than in most other low-income countries. Through the implementation of a number of national target programmes, the country has managed to either effectively eradicate (polio, leprosy) or drastically reduce (malaria, TB) the incidence of many communicable diseases. Specifically, the national target programmes

cover malaria, TB, leprosy, polio, EPI, dengue fever, HIV/AIDS, nutrition, mental health, food safety and hygiene, and reproductive and school health programmes.

Notwithstanding these achievements, several challenges remain and new ones have emerged. For instance, HIV/AIDS is posing a problem in some areas and malnutrition is still relatively common in large parts of the country. Moreover, non-communicable diseases and injuries and accidents are on the rise suggesting that Vietnam is going through an epidemiological transition that will affect also the need and scope for health insurance in the country.

As noted previously, inequalities have increased in Vietnam, also with respect to health. From a general perspective, there are income-related inequalities in access to and utilization of health care and in health outcomes (World Bank 2003; Ministry of Health 2007). More specifically, inequalities in health (and in other social domains) are increasingly concentrated in some geographic areas and among the ethnic minorities. For example, while an overwhelming majority of births is attended by a skilled birth attendant (SBA), less than 20% of births by ethnic minority women are attended by a SBA. Consequently, these population groups experience the worst health outcomes, in particular in terms of nutrition and the health of mothers and children (Gwatkin *et al*. 2007).

Health insurance reform in Vietnam

This section provides a descriptive analysis of the recent reforms of the Vietnamese health insurance system. The first part of the section describes the main insurance programmes by focusing on the main health financing functions of revenue collection, pooling of resources, and purchasing of services. All of the programmes, except for the policy on free health care for children under 6, have been evaluated with respect to their impacts on key health system outputs, including utilization of care and out-of-pocket payments. Based on this evidence, this part also discusses some of the main reported impacts of the programmes. The second part of the section analyzes the insurance system with respect to three key inter-related general policy objectives of health financing reform: financial sustainability, efficiency in the delivery of care, and the equity impacts of health financing.

Overview of insurance system by programmes and functions

The general structure of the Vietnamese health insurance system is outlined in a recent government policy document (Government of Vietnam 2005). This document sets out the overall organization of health insurance, identifies eligible population groups, and defines the benefits. In particular, the current health insurance system consists of two parts, compulsory health insurance (CHI) and voluntary health insurance (VHI). In turn, CHI formally consists of two separate programmes, one social health insurance (SHI) scheme for the formally employed and one targeted programme for the poor, the health care funds for the poor (HCFP). In addition, children under the age of 6 are provided with free health care. Table 1 provides a summary overview of the Vietnamese health insurance system by programme, coverage and reported impacts.

The table shows that overall around half of the population benefits from some form of health insurance or prepayment. The compulsory part of the system covers some 41% of the population, including the formally employed (around 9%), the poor (18%), and children under 6 (11%). In addition, around 3% of the population is covered by special provisions in the health insurance regulation, including retirees, dependents of military and policy officers, and meritorious people. The VHI programme covers some 11% of the population most of which are students and school children. Below is a discussion of these programmes by coverage and financing.

Table 1 Summary of Vietnam health insurance system, 2007

Programme	Population coverage	Target group(s)	Financing	Reported impacts
Social health insurance (SHI)*	9%	Formally employed, retirees, disabled, meritorious people	3% payroll tax (2% employers and 1% employees)	– Increased utilization – Reduced out-of-pocket payments – Improved risk protection
Health care funds for the poor (HCFP)*	18%	The poor, ethnic minorities in mountainous areas, inhabitants in disadvantaged communities	General government revenues (75%) and Provincial resources (25%)	– Increased utilization – Reduced out-of-pocket payments – Reduced risk of catastrophic payments
Programme of free health care for children under 6 years of age	11%	All children under 6 years of age	General government revenues	No reported impacts
Voluntary health insurance (VHI)	11%	Self-employed, informal sector workers, dependents of CHI-members, students and school children	Private premium contributions based on ability to pay	– Increased utilization – Reduced out-of-pocket payments
Total	49%			

Source: Vietnam Social Security (VSS) 2007.

*Formally part of Compulsory Health Insurance (CHI).

Compulsory health insurance (CHI)

The compulsory part of the health insurance system consists of effectively three separate programmes: SHI, the HCFP, and free health care for children under 6. The SHI programme is an employment-based scheme for those working in the public and private formal sectors. This is the oldest of the insurance programmes, but the population coverage rate of this programme has remained at around 9% throughout the reform period, which is only around half of the target group. The programme is financed by a payroll tax of 3%, to which the employer contributes 2% and 1% is paid by the employee.

In addition to the formally employed, other population groups are also covered by SHI, including retirees, the disabled and meritorious people. The contributions of these groups are 3% of pensions, or alternatively, 3% of the minimum government salary in the case of recipients of social benefits.

The results from recent analyses using quantitative techniques on individual-level data suggest that SHI in Vietnam has had beneficial effects on health care utilization, household spending on care, and on health outcomes. For example, health insurance in Vietnam has had a positive impact on the nutritional status of both children and adults (Wagstaff and Pradhan 2005). In terms of household spending and financial protection, health insurance has been found to reduce out-of-pocket payments by around one-fifth (Sepehri *et al*. 2006) and to protect against adverse health shocks (Wagstaff 2005). And finally, health insurance has been reported to reduce self-medication and to increase utilization of health services (Chang and Trivedi 2003). The results of these studies provide strong evidence that the SHI programme in Vietnam is contributing to the provision of affordable health care for its members.

The second CHI programme is the HCFP programme, introduced in 2003 through a special government decision (referred to as 'Decision 139 on Health Care Funds for the Poor', October, 2002). As of 2005, through Decree 63, the HCFP is part of the CHI system and beneficiaries enjoy the same benefit package as those covered by SHI (more on which below). This programme covers some 18% of the population, including the poor, ethnic minorities in mountainous areas, and people in particularly difficult circumstances. The HCFP programme effectively replaces the old programme of providing the poor with a special health card, a programme that met with little success largely due to inadequate funding and associated implementation difficulties (World Bank 2003; Nguyen 2004).

In contrast to the previous programme, the HCFP represents a substantial increase in the amount of resources allocated to health care for the socially excluded. The major part (75%) of the costs for the HCFP programme is covered by central government funds, which are transferred to the provinces where special management boards are in charge of purchasing health insurance cards from Vietnam Social Security (VSS) and for organizing the implementation of the programme at province level. The provinces are also obligated to fund the balance by means of their own resources or contributions. In particular, the programme initially specified an allocation of VND 70 000 (US$5; up from VND 30 000 compared with the previous scheme and recently revised upwards) per member. Given the nature of the financing arrangement, the HCFP represents a substantial cross-subsidization of care for the poor by the better-off segments of the population that contribute relatively more to the general revenues of the government.

As a result of the increased allocation of resources and the more consistent implementation of the HCFP, this programme has been found to increase utilization of health care, to reduce household out-of-pocket spending for the care obtained, and to reduce the risk of catastrophic health expenditures (Axelson *et al*. 2007; Bales *et al*. 2007; Wagstaff 2007a). In particular, using non-experimental analytical techniques (differencing with propensity score matching), these studies have shown that the HCFP programme has led to a substantial increase in the use of public hospitals for inpatient care; the difference between those covered by the programme and those in the matched control group was over 82% in favour of the beneficiaries. While the exact level seems to differ between these studies, there was a significant difference in the average level of out-of-pocket spending of around 20%, and, as a consequence, the beneficiaries of the programme had a significantly lower share of catastrophic health spending of slightly less than 20%. These results, although obtained after only a short period of implementation, are important indications that this policy may provide an effective and equitable way of improving access to health care for the poor in Vietnam.

The third compulsory programme covers some 11% of the population and is aimed at children below 6 years of age. The decision to cover this group was taken originally in 1991. However, due to lack of funding and subsequent difficulties in implementation, the policy is currently under revision (Government of Vietnam 2007; Ministry of Health 2007). As with the HCFP, this programme is financed by central government funds mobilized from general revenues. While no studies of its impact on relevant outcomes have yet been undertaken, there is cause for concern that this programme might be inequitable in the sense that it is mainly the more well-off households that will benefit due to having better physical access to health care facilities.

Voluntary health insurance (VHI)

The voluntary component of the public health insurance system was introduced in 1994 and focuses on the dependents of those covered by CHI and on farmers, the self-employed and students. As noted above, Ensor (1995) discussed the need for VHI to play a central role in terms of increasing prepayment coverage. However, to date, VHI has met with little success in Vietnam in terms of population coverage. It is estimated that around 11% of the population has purchased this insurance policy, the overwhelming majority of whom are students and school children. In addition, there are suggestions that this policy is marketed with some element of persuasion in schools, casting further doubt about the viability of VHI in Vietnam.

Nonetheless, in Decree 63, the government reaffirms its commitment to VHI as one important component of the insurance system to reach universal health insurance coverage. An important feature of the revised VHI regulation is the notion of group membership to avoid the possibility of mainly high-risk individuals joining the programme. Furthermore, to facilitate membership based on ability to pay, the premium rates for VHI range between VND 50 000 (US$3) for students in rural areas to VND 320 000 (US$21) for household members

in urban areas. After a 30-day waiting period (unless uninterrupted renewal of policy), the insured is entitled to the same benefit package with identical exemptions as those covered by the CHI programmes. Similarly, the programme makes provisions for covering health care expenses of a catastrophic nature up to the same limit as for the other groups.

The evidence of the impact of the Vietnamese VHI programme is weaker compared with the SHI and the HCFP programmes. However, the results of two studies suggest that this programme has also met with some success in terms of service utilization and subsequent out-of-pocket spending (Jowett *et al*. 2004; Jowett *et al*. 2005). In particular, these studies used a special survey to collect individual-level information on health care use and spending in three provinces in Vietnam in the late 1990s. Among other findings, the authors reported a 200% reduction in the average out-of-pocket spending for outpatient care. As to the effect on utilization, VHI in Vietnam was found to increase use of outpatient facilities and public providers, away from self-treatment and private providers, effects that were particularly strong at lower income levels. The limited scope of the survey in these two studies somewhat compromises the strength of the contribution to the evidence base, but nonetheless, they do suggest that the voluntary component of the Vietnamese government health insurance system has had a positive impact on relevant outcomes.

Pooling of revenues

The pooling function of the health financing system refers to the management of the revenues and the extent to which funds are utilized to cross-subsidize care between the rich and the poor and the healthy and the sick. The central health insurance pooling body in Vietnam is the VSS, the government agency responsible for the administration of the various social insurance programmes, including the collection of insurance premiums. VSS was formed in 2003 when its predecessor took over the responsibility of the SHI programme from the Ministry of Health. An important organizational reform measure was the decision to include also the other health insurance programmes under the management of VSS, which led to enhanced cohesion of the overall health insurance system.

In addition to collecting revenues, VSS's main responsibility is to issue health insurance cards and reimburse service providers. In the case of SHI, VSS collects the premiums and issues insurance cards to the employees, and in the case of HCFP, the province-level management boards purchase insurance cards from VSS. With regard to VHI, individuals, organizations and associations that fulfill the requirements noted above can purchase insurance cards from VSS.

Thus, the Vietnamese health insurance system consists of three insurance funds related to the SHI programme, the HCFP, and the VHI programme, respectively. Recent data suggest that the HCFP and the VHI fund are running at a deficit, partly compensated for by a surplus in the SHI fund (Ministry of Health 2007). However, while the fund pool of the Vietnamese system is becoming increasingly larger, it is important to recall from above that a majority of health funds are not pooled by any prepayment scheme, but rather paid out-of-pocket by the patient at the time of use of services and thereby this does not enable any risk sharing.

Purchasing of services

The purchasing function of the health financing system is concerned with the identification of the type of care to which the members of the scheme are entitled, and with the way the providers of the services are reimbursed. With regard to the first question, the guiding policy document describes a relatively broad benefit package that is identical for all health insurance programmes. Specifically, the following services are covered: medical consultation; diagnosis and treatment; X-ray and laboratory tests, functional examination, imaging diagnosis; drugs listed by the Ministry of Health; blood and transfusion; surgery; antenatal examination and delivery; transportation cost in case of referral for the poor, persons entitled to social subsidy, and workers in remote areas. In addition to these items, the insurance also covers the cost, up to a certain limit, of especially costly care according to a defined list of high-technology treatments [including magnetic resonance imaging (MRI) and laser surgery among a total of 177 specified procedures].

Furthermore, the policy specifies the following exemptions, some of which are covered by the national target programmes noted above: leprosy, tuberculosis, malaria, schizophrenia, epilepsy, HIV/AIDS, STD, vaccination, convalescence, tests, early-detected pregnancy, medical check-up, family planning service and infertility treatment, prosthesis, aesthetic surgery; artificial arm, leg, tooth, glasses, hearing-aid machines; occupational diseases, war injuries, accidents at work place; treatment for suicide, self-inflicted injuries, drug addiction, or crimes; medical appraisal, forensic appraisal, mental examination; home care, rehabilitation and delivery.

From the above, it thus appears that the Vietnamese health insurance system provides the insured with a broad and relatively unspecified benefit package in terms of services and, at the same time, identifies a set of exemptions that includes both the type of services and specific diseases, some of which are covered by other forms of health care provision mechanisms.

In terms of paying providers, the most common mechanism in Vietnam is that of fee-for-service (FFS). This type of provider reimbursement is usually considered to present the providers of care with the incentive to produce large quantities of care. In Vietnam, FFS is used for both outpatient and inpatient care, and in a context of relatively weak regulatory oversight there is a risk that providers treat patients more than is clinically motivated. Partly to address this risk, recent health insurance policies have identified alternative reimbursement mechanisms (Government of Vietnam 2005), including capitation and case-based reimbursement schemes that shift the incentives presented to the providers.

Related to the issue of reimbursing providers is the recent government policy initiative to enhance the financial autonomy of public revenue raising entities, including public hospitals (referred to as 'Decree 10'). These are increasingly given the ability to retain some share of their revenues to invest in their production capacity and to compensate staff, further enhancing the incentives of hospitals to increase the provision of care to raise revenues.

Overall, the current health insurance system in Vietnam covers some 50% of the total population, including the formally employed, the poor, and children under 6. While the HCFP and the policy on free health care for children under 6 largely cover their respective target groups, the private sector share of the SHI programme and, in particular, the VHI programme fail to cover the majority of their intended target groups. Health insurance reform has encompassed all health financing functions, suggesting that Vietnam takes a comprehensive approach to insurance reform. Moreover, the introduction of health insurance has met with success in terms of immediate impacts by making health care in Vietnam more accessible and affordable. Of central concern to policy makers is the extent to which the system is financially sustainable and contributes to good quality health care in an equitable way.

Health insurance reform and key policy objectives

Financial sustainability

The policy objective of financial sustainability refers mainly to the long-term ability and potential for generating sufficient resources for health, on the one hand, and containing costs, on the other. The financial sustainability of a health insurance system depends on several factors, including the sources of financing and the health care related behaviours of patients and providers. In terms of the ability of the Vietnamese health financing system to mobilize sufficient revenues for health in a sustained manner, it would seem clear that continued economic growth is a necessary condition for the continued expansion of health insurance regardless of the possible options the government chooses.

Further targeted subsidization of health care by, for example, making the 'near-poor' eligible for HCFP will require the government to allocate additional resources either by raising tax revenues or by making adjustments in the overall public expenditure programme. The government has committed itself to keeping public revenues at or around 21% of GDP (IMF 2005), suggesting the need to reprioritize public expenditures or identify alternative sources of funding. As noted above, the health insurance fund is currently running at a deficit and the ability to raise further revenues from VHI premiums depends in part on the response of the target group.

With regard to the second aspect of financial sustainability of patient and provider responses to health insurance, there are, in principle, three issues to consider: moral hazard, adverse selection and supplier-induced demand. The question of moral hazard in this context refers to a situation where too much health care is demanded as a result of introducing insurance with associated cost increases (Folland *et al*. 2004). While at least one study on Vietnam has raised this concern (Jowett *et al*. 2004), there seems to be little compelling evidence that moral hazard would be a sufficiently large problem to cause the government to reconsider its approach to health financing. Moreover, the very point of introducing insurance in a context such as Vietnam, with many cases of unmet health care needs, is to increase utilization of health care, making any observed increases in utilization something to be welcomed rather than a cause of concern.

The question of adverse selection refers to a process where mainly individuals with a higher than average risk affiliate with the insurance programme, and is mostly of concern for VHI. If the scheme consists of mainly high-risk individuals, reimbursement claims will be higher than expected. This will prompt the scheme to increase premiums and thus risk seeing low-risk individuals leave the insurance pool, further increasing the relative share of high-risk individuals. This process may lead to the complete breakdown of the insurance market.

There is some evidence to suggest that VHI in Vietnam is indeed experiencing a process of adverse selection. Data from VSS show that spending per member has increased in the period 2003 to 2006. Consequently, the government's revised proposal for the implementation of the voluntary scheme makes special provisions to avoid adverse selection, by, for example, requiring that a certain share of a group of eligible persons joins the scheme. Conversely, authorities would need to prevent voluntary schemes from engaging in 'cream-skimming' where mainly the low-risk individuals are offered membership and those with higher health care demands are left uninsured.

The third question of supplier-induced demand—a process where providers treat patients for longer spells and with more expensive types of care than clinically necessary—is perhaps one of the most concerning factors with regard to managing costs and maintaining the financial sustainability of the health insurance system (McPake *et al*. 2002; Folland *et al*. 2004). In a context of weak quality assurance, increased financial autonomy on behalf of hospitals and little in the way of effective oversight, supplier-induced demand may lead to substantial cost escalations. Indeed, one study suggests that this type of provider behavioural change caused by the introduction of health insurance is a major problem in Vietnam due to the weak regulation capacity of the sector (World Bank 2001). On the other hand, much qualitative evidence in Vietnam has testified to the poorer services provided to patients covered by prepayment compared with those who pay out-of-pocket (World Bank 2003). Thus, the response of individuals and providers to the further introduction of health prepayment is an empirical issue worthy of closer examination.

As previously noted, the SHI and the targeted health insurance programmes of the CHI-system in Vietnam are financed differently. The financial sustainability of the SHI will depend on the extent to which the legislated contributions are collected and the ability to contain costs. While the ability of the government to raise the 3% payroll tax from the state-owned enterprises is relatively good, the situation with regard to the private companies is very different as less than 20% of eligible private firms contribute to the SHI-fund (Tien, undated).

The targeted programmes are financed from central government general revenues and the financial sustainability of these will partly depend on the continued ability of the government to effectively raise resources for health care, which, in turn, hinges on the continued economic growth of the country and the overall efficiency of the tax administration.

Efficiency of service delivery

The policy issue of efficient delivery of health care services involves two aspects of efficiency: technical efficiency and allocative efficiency. In the current context of health insurance reform,

the former relates to the extent to which the insurance system leads to the cost-effective production of health care, while the latter concerns the question of whether the right types of services are provided given the existing epidemiological situation of the country.

Although a detailed analysis of these issues is not possible due to lack of data and evidence, some important observations can be made. First, while the Vietnamese health system has undoubtedly contributed to the favourable health outcomes noted earlier, critical issues have recently been raised by the central authorities (Communist Party of Vietnam 2005). Among other things, Resolution 46 notes the inability of the health care system to adapt to economic and epidemiological changes, the failure to meet demand for quality health care, and lack of focus on preventive interventions. Importantly, the party resolution observes the general failure by the authorities to conduct and implement effective health policies.

Secondly, the general configuration of the Vietnamese health care system favours care at higher levels. Partly due to the influence of the former Eastern Bloc, with which Vietnam had close relations, and partly due to an aspiration to create a modern health care sector, Vietnam has a relatively large share of second and tertiary level health care providers (WHO 2007b). While changes are being implemented, the existing resource allocation system compounds the situation by allocating funds based on indicators such as the number of hospital beds (World Bank 2001; World Bank 2003).

And thirdly, an important aspect regarding the current health insurance reform is the fact that much of the benefit package and associated reimbursements are aimed at care provided by higher level providers. This provides an incentive to seek care at the hospital level as opposed to the primary health care level even when the latter would be more appropriate. The policy of also covering transportations to hospitals for the poor (Government of Vietnam 2005), although much needed, will most likely reinforce this process of seeking higher level care at the expense of more cost-effective primary health care.

Equity in health care financing: access and payment

Equity in health care financing refers to the distributional effects of resource mobilization and the extent to which access to and spending on care favours the poor. The Vietnamese government's emphasis on equity in health is evident from the various policy documents and reports on the Vietnamese health sector (World Bank 2003; Ministry of Health 2007). However, in reality, the Vietnamese health financing system has lead to both catastrophic effects and poverty impacts (Wagstaff and van Doorslaer 2003; van Doorslaer *et al*. 2006). Likewise, it is also clear that while the rich spend a relatively larger share of their income on health care than do the poor, this is largely due to the latter group's tendency to not seek care when needed and to rely on self-medication (World Bank 2006b). The contrast between the official proclamations and the reality is partly due to capacity constraints and partly an indication of the critical challenges that poor countries face in developing an effective and efficient health financing system.

The current health insurance reforms in Vietnam contain dimensions favourable to financial equity but also other aspects that may aggravate the situation. With respect to the former, it was noted above that with the introduction of the health care funds for the poor, a sizable share of the poorest households in Vietnam are now covered by a prepayment mechanism. Moreover, the way this programme is funded suggests that it is highly progressive as the poor contribute relatively less to the general taxation revenues of the government. With respect to the SHI programme, the flat rate payroll tax with which this programme is financed, with no contribution ceiling, suggests that this programme is largely proportional. However, the fact that many private companies do not contribute to its financing may indicate that the programme is regressive as the private sector tend to pay higher wages compared with the public sector.

The VHI programme is financed by means of a fee schedule seeking to reflect the ability of households to pay, making this programme progressive and thus conducive to equity in health financing. Moreover, the fact that the surplus of the SHI fund is used to cover the deficits of the HCFP and the VHI funds indicates that a certain amount of cross-subsidization is taking place from the relatively wealthier to the poorer groups. However, the fact that the Vietnamese insurance system specifies a uniform benefit package, for which different population groups pay different amounts, both in absolute terms and in relation to their income, does give cause for concern from the perspective of horizontal equity (Wagstaff 2007b).

Discussion

The review by Ensor (1995) provided an analysis of the initial health insurance reforms of Vietnam. Since these initial attempts, the health insurance system has developed considerably in terms of coverage and types of programmes. The previous section described the current Vietnamese health insurance system and reviewed the various programmes in terms of the main health financing functions of revenue collection, risk pooling and purchasing of services. The implications of the configuration of these functions were analysed with respect to a set of key policy objectives, including financial sustainability, efficiency of health care delivery and equity in health financing. This section discusses the findings of the review focusing on achievements and remaining challenges, the Vietnamese reforms from an international perspective, the implications of the reforms for the role of the government, and some key lessons of the reforms that may be of value to other reforming countries.

Assessment of overall achievements and future challenges

It is clear from the review that Vietnam has made important progress in introducing health insurance and prepayment with a view to cover the whole population within the coming years. From a general perspective, the government has established the overall organization of health insurance and broadly described the approach to reaching the goal of universal coverage. In particular, the programme on health care funds for the poor (HCFP) represents a significant and judicious attempt by the government to provide the poor and ethnic minorities with

financial health protection. Compared with previous such attempts, the current approach of incorporating this programme into the general compulsory health insurance scheme will improve the scope for developing a coherent and comprehensive health insurance system. Likewise, by introducing changes in all three of the health financing functions, the Vietnamese reforms will be able to address the overall configuration of the health financing system in a relatively consistent way.

At the same time, the review has also identified some important challenges for the continued health insurance reform process. With respect to the mobilization of resources, data suggest that the health insurance fund is running at a deficit and alternative approaches to raising revenues need to be identified. One obvious measure is to make the collection of SHI fees more effective so that all potential resources are collected from the obliged companies. This also points at the need to look at health financing reform in a broader perspective to include macro-economic aspects and the overall capacity of the public sector. The current civil service reform will most likely contribute to the scope for effective health insurance reform in the long term.

A second issue and perhaps the biggest challenge of the health insurance reforms concerns the prospect of covering the currently uninsured population groups by means of voluntary health insurance. Much international evidence points to the difficulties of covering the rural and informal populations with voluntary insurance, whether for-profit or not-for-profit (Bennett *et al*. 1998; Ekman 2004; McIntyre 2007). While the overall design of the VHI system is generally sound (group-based membership, sliding premium scale and waiting periods), it remains to be seen whether sufficiently large groups of informal and self-employed households will join the scheme. Ultimately, this will depend on the attractiveness of the policy. In order to increase the demand for VHI, the government may want to consider altering the benefit package to make it more in line with the needs and wishes of the target groups. For example, the benefit package could cover mainly health conditions of a catastrophic nature and leave the high frequency but low risk conditions outside the package (see Knowles 2007, for a discussion of alternative options). Although a final decision is yet to be taken, an indication of the government's awareness that this will prove challenging is the fact that recent policy discussions have identified also those classified as 'near-poor' as eligible for inclusion in the HCFP programme.

A central problem when introducing health insurance is the challenge of containing health care costs. As discussed above, health insurance may affect the behaviour of both consumers and providers of care in ways that lead to cost escalation. This relates to the function of purchasing services and it was noted that two aspects are relevant: one, the scope of the benefit package and, two, the way in which providers are reimbursed. As to the benefit package, the Vietnamese health insurance system identifies a relatively broad and undefined benefit package that is uniform across all programmes. The questions here are what should be included in the benefit package and if this package should be the same across all programmes. Should Vietnam wish to address these issues, the first step would be to identify the criteria for priority setting, which would involve assessing the cost-effectiveness of the interventions, the epidemiological situation, and the socio-economic context across different parts of the country (Baltussen 2006).

Paying providers so as to present them with incentives to provide cost-effective care is an important part of health insurance reform. As discussed, Vietnam is in the process of developing alternative reimbursement schemes to fee-for-service and the effective implementation of these will be important for effective cost-containment. Again, the introduction of capitation and case-based reimbursement points to the need to look also at other dimensions of the health care system, including health information system and the regulation capacity of the authorities.

Health insurance reform and the role of the government

One implication of the expansion of health insurance and related changes concerns the role of the government, including the Ministry of Health and other relevant government agencies, in the management of the health sector. In the current context of increasing public-private mix in service provision, the assumption of responsibility of an independent state agency for managing the insurance system, the continued decentralization of the implementation of policies and programmes, and the effects of the further autonomization of public facilities, the health authorities at all levels are likely to need to assume a more clear-cut stewardship role (WHO 2000). In particular, such a role entails regulation and supervision of providers, quality assurance of services, and monitoring and evaluation of policies.

The human and other resource requirements to assume such a role will be different from the traditional role of financer and service provider. Among other things, the Ministry of Health would need to develop a high quality computerized health information system (HIS) at the national level to be able to effectively supervise service provision. To date no such system exists. Although various projects are currently being implemented at a province level, they may lead to the development of a fragmented information system of incompatible local initiatives. Related to the information system is the need to introduce an effective quality assurance mechanism which can enable the Ministry of Health to ascertain that contracted providers fulfill the necessary accreditation requirements for health service provision. As non-accredited providers have been found to deliver services of low quality (Government of Vietnam 2002; Tuan *et al*. 2005), the need to improve quality assurance has been suggested by analysts to be of high priority (Knowles *et al*. 2005), along with support to cost control mechanisms, such as capitation and DRG reimbursement.

A critical part of health policy development and reform is monitoring of implementation and evaluation of impacts of policies and programmes. The successful implementation of health insurance reform in Vietnam will require the further development and strengthening of the national analytical capacity of the relevant government agencies, including the Ministry of Health and VSS at central and provincial level, and independent policy analysts inside and outside academia.

Furthermore, improving health care planning and management capacity at all levels is important for avoiding the

observed large variations in the implementation and effectiveness of the various programmes at provincial and district level (Ensor 1995; Government of Vietnam 2002). Compared with other countries in a similar situation, Vietnam is well placed to undertake the steps necessary to strengthen this capacity given the existence of high quality researchers and analysts. Nonetheless, there is scope for more comprehensive and deliberate initiatives in this regard. Moreover, the need for such analysts to devote sufficient time to key issues cannot be overestimated as limited analytical capacity in low-income countries has been found to be redirected to serve the needs of, among others, donor agencies that may not always share the focus of national policy development (Wight 2007). Developing the stewardship role of the government in the health sector will most likely determine the extent to which Vietnam will be able to harness the opportunities and overcome the challenges in reaching universal health insurance within the coming years. The current preparation of a special health insurance law will further enhance the scope for a clear organizational and institutional context for health insurance in Vietnam.

Vietnamese health insurance reform from an international perspective

In order to obtain a broad perspective of the Vietnamese health insurance reforms, it is useful to contrast the experiences of Vietnam with those of other countries. For example, in line with the ongoing health financing reforms in Mexico, the aim is to achieve universal coverage by 2010, or soon thereafter as described in Frenk *et al*. (2006) and Gakidou *et al*. (2006). Although the reforms in Mexico are considerably more comprehensive than in Vietnam, both countries are trying to reach universal coverage by means of multiple approaches, including SHI and targeted subsidies. When comparing the experiences of the two countries, at least four differences are of relevance. First, Mexico has consciously invested in capacity to analyse policy, including for monitoring and evaluation purposes, over the past few years. Indeed, Mexican technocrats have recently been described as 'exceptionally skilled' by one observer (*The Economist* 2005). Similar investments in Vietnam are underway, although the country would most likely benefit from more comprehensive and coherent efforts (Tuan and San 2005).

Secondly, Mexico has developed a high quality computerized health information system that has proved a valuable tool to the country in designing, implementing and monitoring the financing programmes in an efficient manner. As noted, Vietnam is also undertaking similar investments although these efforts have some way to go before the system can play its critical role in policy implementation and monitoring. Thirdly, through formal legislation, Mexico has defined an explicit benefit package consisting of some 249 interventions at the primary and secondary level of care and 17 others that are particularly costly. As discussed above, Vietnam has a broad but undefined benefit package and an extensive list of high-tech treatments, suggesting that it might want to revise its approach to purchasing services by identifying a more focused benefit package of affordable and cost-effective interventions. And finally, Mexico has made use of comparatively strategic implementation of the various programmes. In particular, the programme for reaching the poor with health insurance is partly being implemented in a randomized way to facilitate evaluation of the impact on key policy outcomes. No similar implementation is being tried in Vietnam where the impact evaluation of the reforms will need to make use of alternative non-experimental methods such as those noted above. Although the Mexican case sets a high standard in terms of its comprehensiveness and documentation, the experiences of Vietnam provide valuable lessons to other countries undertaking health insurance reforms.

Lessons learned

Other reforming countries can learn various lessons from the experience of the Vietnamese health insurance reforms. Based on the current review, three key lessons are identified. First, health insurance reform requires the mobilization of significant resources. Low-income countries that aspire to universal health insurance coverage will need to create the necessary fiscal space to do so in a sustainable and viable way (Heller 2006). The rapid and sustained economic growth of Vietnam over the past decades has provided a critical basis for undertaking wide-reaching health financing reforms.

Secondly, the Vietnamese experiences suggest that health insurance reform needs to be looked at comprehensively. Like Mexico and other countries, Vietnam is making use of multiple approaches to reach universal coverage, including social health insurance, targeted subsidies and voluntary health insurance. While the latter will prove challenging, it may be a relevant option given the current circumstances, provided that an attractive and affordable package can be identified. Furthermore, Vietnam's health financing reforms involve changes in all health financing functions, which most likely enables the process toward comprehensive coverage given the close linkages between the identified functions and their impact on policy objectives.

And thirdly, health insurance reform takes time. After considerable efforts and around 15 years of implementation, Vietnam has reached around half of its population with health insurance and prepayment, and it appears that the most difficult population groups are yet to be covered. Evidence from other countries also testifies to the need to look at health insurance reform from a long perspective. While the fastest country to achieve universal coverage is South Korea, which achieved it in around 26 years, other countries have taken considerably longer. Moreover, evidence suggests that covering the final share of the population takes longer than the initial population groups (Carrin and James 2005).

Conclusions

The review of the Vietnamese health insurance reforms over the past 10 years has shown that Vietnam has attained considerable achievements in developing a coherent and potentially comprehensive health insurance system that contributes to a sustainable, efficient and equitable health care sector. The results also suggest that considerable challenges remain, as covering perhaps half of the population with voluntary health insurance will not be easy.

By applying a coherent conceptual framework, the review has been able to contribute to the current body of evidence on health financing reform in low-income and transitional countries. The main lessons for other countries reforming their health insurance include the need to generate sufficient resources in a sustainable manner, to conduct comprehensive reforms involving all functions of health financing, and, not least importantly, to look at health insurance reform over the long haul. The review also discussed the issue of the role of the government in health financing, wherein it was noted that the skills and capacities of the regulating authorities need to adapt to the new circumstances. Of additional importance is the viability of the health financing system, which requires that citizens accept and trust the system to ensure access to high quality care at an affordable price.

The final issue of viability leads to the last conclusion of what further analysis and future research are needed during the continued reform process. The review has not discussed the political dimension of health reform. This is a key issue that most likely deserves much further analysis, particularly in a context of continued decentralization, further market liberalizations and widening socio-economic gaps. With regard to the insurance programmes, future research and analysis will need to continue to look at the impact of health insurance in terms of key outputs and outcomes, including utilization, spending and health status. Finally, the system-wide implications of health insurance are important to assess in view of the need to ensure that health insurance is able to play a constructive role in transforming the Vietnamese health system from a source of impoverishment to a tool for economic and social prosperity.

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