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Health Insurance in Viet Nam towards universal coverage: The case of the workers of the informal sector

Paulette Castel,
Tran Mai Oanh,
Tran Ngo Thi Minh Tam
Vu Hoang Dat

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Executive summary

The Vietnam Health Insurance Law of 2008 promulgated universal mandatory participation in health insurance by 2014. Obtaining full compliance, and achieving universal health insurance coverage in the coming years represents a challenging task. In 2009, 58.4% of the total population had health insurance, meaning that 35.7 million people were not covered. The expansion of the subsidized programmes and the use of institutional networks to launch information and enforcement campaigns should help significantly expand coverage. However, workers in the informal sector, who have in the past been particularly reluctant to buy health insurance, might remain difficult to reach. Therefore, understanding the obstacles that explain the low participation of these workers and eliminating them is also part of the strategy to expand health insurance coverage. This study looks at these two particular issues.

After a review of the legal framework and the socio-economic context in which voluntary participation in health insurance has developed since 2003, this study uses the GSO households surveys of 2006 and 2008 to identify statistical evidence which reveal the motivations and the deterrents of those persons of the informal sector to participate in health insurance. The group under study includes the workers and the inactive that do not (and probably will not) receive any direct (subsidies) or indirect (as dependents of formal employees) financial support to participate in health insurance. It is composed of persons who are not students, not poor or near poor and who do not have direct relatives employed in the enterprise sector. In 2008, about 23 million people could be classified in this category, of those, only 11.1% had health insurance.

The ***two principal findings*** of the study are:

First, it could be ***easier to expand coverage through business and employees registration*** than simply at individual levels: 64.4% of the workers covered by this study earn their income from a single activity: 31.1% are farmers, 17.8% are self-employed and, 15.5% are wage-employed. These persons are not casual workers and not particularly low-income earners.

However, small household units, farmers and employees might not be at ease with the registration of their businesses, as enrolling themselves, their family and/or employees in health insurance might imply. Farmers and self-employed will likely be worried that, once registered, their production units will have to pay higher taxes, receive inspectors, and comply with all sets of rules that they can avoid if they don't register. Policymakers need to help this transition (through tax exemption or possible payments of lump sum taxes, simplified procedures regarding the compliance of other regulations, etc.), so that the cost for these production units to move to the formal sector is not excessively high. Similarly, the owners of small business units will be worried that once their workers are registered to social security they will have to contribute not only to health insurance but also to the other social insurance funds. Some flexibility is also needed in these cases, otherwise both employers and employees could search for ways to escape registration.

Second, the analysis (by region) of participation in health insurance by those in the informal sector indicates that these ***individuals are more inclined to participate in those regions where the implementation of health insurance has been more client oriented***. The result of such an approach is particularly perceptible in the South Central Coast region, where the coverage rate among those covered by the study is at its highest. In that region:

- Insured were more likely to be registered at hospitals
- Insured were less likely to pay additional fees at the facility where they seek medical care with their health insurance card
- Non-insured bought more health insurance between 2006 and 2008 than in other regions.

At the same time, the insured did not seem more likely to seek medical care (there was no sign of higher adverse selection problems).

These findings suggest that policies that support, rather than limit, the use of health care services (particularly at hospitals) by the insured have far more chance of increasing the willingness of workers in the informal sector to buy health insurance than information campaigns about the importance of having health insurance.

However, expanding client approaches, such as easing direct registration at hospitals and facilitating the use of higher levels of health care services by workers of the informal sector, requires identifying and implementing measures that reduce the problems of adverse selection. Otherwise, only the sick are more likely to join, and the imbalance between the number of healthy and unwell participants would deteriorate the financial balance of health insurance. In that respect, the 2008 elimination of the obligation of enrolling by groups (of sick and non-sick persons) has increased the issue of adverse selection and hindered, for fear of the financial consequences, any further efforts to encourage major participation by workers of the informal sector.

Therefore, reinstating the practice of enrollment by groups and researching how the most successful regions, like the South Central Coast, have managed in the past to increase client satisfaction while avoiding strong deterioration of health insurance finances are the most promising ways to encourage participation by workers of the informal sector and help achieve the Government goal of universal coverage in 2014.

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The views expressed in this paper are those of the authors and do not necessarily represent those of the United Nations, including UNDP, or their Member States.

Comments and Questions

Please address any comments or questions to Paulette Castel castelpaulette@gmail.com or Tran Ngo Thi Minh Tam minhtam2104@gmail.com.

1. Introduction

Viet Nam's development success since the mid 1980s has also been a success of its health sector. With health outcomes in many respects similar to those of high-middle income and advanced countries, improvements in health standards during the past two decades have been instrumental in enabling Vietnamese people to enjoy a better, healthier and longer life, and, more generally, improving human development standards in Viet Nam.

Recently, the Government has announced its intention of achieving universal health insurance coverage by 2014. This decision is part of a concerted effort aimed at strengthening the Vietnamese healthcare system, by extending the provision of healthcare services to all Vietnamese citizens, and improving the quality and content of healthcare packages offered by healthcare providers in Viet Nam to the insured.

Currently, most people working in the formal enterprise and state sectors are covered under the existing compulsory health insurance scheme. In addition, specific groups of the population (the poor, children under six years of age, veterans, etc.) benefit from free or subsidized health insurance through various targeted programmes and social protection schemes. According to the Law on Health Insurance 2008, beyond these specific groups of the population, coverage will be gradually expanded to the rest of the population until reaching universal coverage in 2014, first to all students, then the near poor, and finally to all workers in the informal sector.

However, in the current context, moving towards universal health insurance constitutes a challenging task. In 2009, 58.4% of the total population was covered: meaning 50 million people participated in health insurance[1] while 35.7 million[2] did not have health insurance.

The Government and local authorities have already started implementing measures that significantly reduce the problems of affordability for low-income households and more generally use institutional networks to increase awareness of the importance of health insurance in the population. Subsidies encourage the participation of pupils and students and enrolment through schools and universities help achieve high enrolment rates among students. Achieving high coverage by the remaining population is more challenging. Subsidies are also being offered to the near poor, but the implementation of such a policy is much more difficult. The lack of verification methods on income and living standards makes the task of screening eligible households particularly demanding. This task drains important budget and staff resources. Integrating the remaining workers and those inactive in health insurance is also difficult, particularly in the case of workers in the informal sector. Until now, these populations have shown little interest in health insurance and they do not benefit from any financial support for enrolment. From a practical point of view, inspecting and enrolling all these persons will also be a difficult and expensive task. For example, the effort developed in 1950s USA to expand social security (pension) coverage to farmers and domestic workers illustrates how difficult this task is and how demanding it can be in terms of resources. It was "one of the toughest things that [the U.S.A.] Social Security ever undertook" (Ball, 2001). During this period, the Social Security Administration had to more than double its staff from 12,000 to 25,000.

Therefore, understanding and eliminating the obstacles that explain the low participation of workers in the informal sector must also be part of the strategy to expand health insurance coverage.

This report presents the finding of a study that investigated the participation in health insurance by the non-student workers and the inactive[3] of the informal sector. The study used the results of the Vietnam Household Living Standard Surveys of 2008 and 2006 and focused on the persons that, in the coming years, won't receive any financial support to participate in health insurance, either directly from the

[1] VSS administrative figures

[2] For a total GSO Population Census of 85.790 million persons

[3] The inactive persons group includes any adult that is not working or is not actively looking for a job.

government or indirectly as dependents of public sector employees or employees of formal private enterprises. The general consensus is that, among the workers of the informal sector, only sick people or those who know that they are likely to face high health expenditures voluntarily participate in health insurance (a problem usually entitled 'adverse selection'). For this reason, social security has been worried about encouraging enrolment in voluntary health insurance by workers of the informal sector. The review of the evidence of 2006 and 2008 indicates that if adverse selection is an important issue, the implementation of health insurance across the country led to different results in participation. The motivations for participating in health insurance are more complex.

This report is in three parts. The first part (section 2) presents the institutional features and the dynamics of health insurance participation of non-student voluntary insured since the inception of the voluntary health insurance scheme. The second part (section 3) provides statistical evidence on the profile of the workers and the inactive of the informal sector that are unlikely to receive any direct or indirect financial support to participate in health insurance in 2014. The third part (section 4) summarizes the findings and suggests some policy implications.

2. Regulations, trends, findings and opinions about compliance and willingness to participate

2.1. Regulations and trends

2.1.1. Regulations

The first part of this section presents the successive regulations that have governed enrolment in health insurance by non-student voluntary participants. Although, the rules have changed with the introduction of the Health Insurance Law of 2008, it is important to be aware of these rules to understand the context in which voluntary participation in health insurance has developed and to envisage how it can develop further.

Table 1: Regulations on Enrolment in non-student Voluntary Health Insurance

	Circular 77 (7/8/2003)	**Circular 22** (24/8/2005)	**Circular 06** (30/3/2007)	**Circular 14** (10/12/2007)	**HI Law 2008** (1/7/2009)
Enrolment fees (VND thousand/year)					
Urban areas	80 to 140	100 to 160	160 to 320	320	4.5 to 6% of minimum wage
Rural areas	60 to 100	70 to 120	120 to 240	240	4.5 to 6% of minimum wage
Participants					
Mass organizations	10% of members	At least 30% of members	Not mentioned	Not mentioned	Not mentioned
Individuals and households	Not open	▪ 100% of household's members ▪ At least 10% of commune's households	▪ 100% of household's members ▪ At least 10% of commune's households	Individual	Individual
Dependents of	Not open	100% of	Not	Not	Not

mandatory insured		household's members; registration at the same place as the primary insured.	mentioned	mentioned	mentioned
Discount on enrolment fees per additional member	5%	None	10% for member #3, 20% if above.	None	None
Co-payments (only for non-student voluntary insured; as % of the health insurance claim)	▪ 0% if claim less than VND 20,000 ▪ 20% if above	▪ 0% if claim under VND 7 million ▪ 40% if above ▪ amount reimbursed capped to VND 20 million	▪ 0% if less than VND 100,000 ▪ 20% if above ▪ amount reimbursed capped to VND 20 million	▪ 0% if less than VND 100,000 ▪ 20% if above ▪ amount reimbursed capped to VND 20 million	▪ 20% ▪ amount reimbursed capped to 40 times the minimum wage
Waiting period after first registration		1 month	▪ 1 month for normal care ▪ 180 days for high-tech services ▪ 270 days for child birth services		1 month
Privileges for long period of enrolment: 3 years of insurance			▪ 50% reimburse-ment of cancer treatment medicines or ▪ immuno-suppressants	▪ 50% reimburse-ment of cancer treatment medicines or ▪ immuno-suppressants	
Registration	Commune	Commune	Commune	Commune	Commune
Primary provider	Commune health care centre or district hospital	Commune health care centre or district hospital	Commune health care centre or district hospital	Commune health care centre or district hospital	Commune health care centre or district hospital

Error! Reference source not found. reproduces the main features of these successive regulations. Voluntary health insurance was introduced in 1993. At that time it was mostly offered to students and was proposed to other groups only in pilot cases. Voluntary insurance was extended to the whole population in 2003 with the approval of Circular 77/2003/TTLT-BTC-BYT. Since then, voluntary participants enjoy the same benefit package as those under the mandatory scheme. In 2003, however, the voluntary insured had to co-pay 20% of the spending claimed from insurance by health care providers. The request for co-payments is intended to limit "inappropriate or unnecessary" medical

care[4]. At the same time, reduced enrolment fees (5% lower) were applied for other family members who were also voluntarily enrolling in health insurance.

However, with the expansion of its coverage the finances of the voluntary health insurance fund gradually deteriorated. In 2005, the fund began to be unbalanced, and by 2006 it recorded a deficit of VND 162 billion (Vietnam National Health Report 2006).

In an attempt to avoid continuous deficits, new regulations were issued in 2005 (Circular 21/2005/TTLT-BYT-BTC and Circular 22/2005/TTLT-BYT-BT) with regard to the implementation of Decree 63/2005/ND-CP. In order to reduce problems of adverse selection[5] and to increase coverage of healthy people, health insurance participation only became possible under the following conditions:

1. In the case of a single applicant:
   (a) The applicant can only be insured if at least 10% of the population of the commune where he/she resides also enrol in the voluntary health insurance scheme.
   (b) All the applicant's household members must also participate in health insurance, either in the voluntary or the mandatory scheme.

2. Individual members of mass organizations (for instance the Women's Union) could directly enrol through their organization if these organizations manage to enrol at least 30% or more of their members at commune level (after excluding those members already enrolled in the mandatory scheme) with no obligation to also enrol their family members.

3. Workers enrolled in the mandatory scheme could expand coverage to their dependents as long as all members of the households participate in health insurance.

Another important change in 2005 was that co-payments were eliminated, except in the case of very expensive procedures. At the same time, a waiting period of one month was introduced during which health insurance would not reimburse any claim to the newly insured. This waiting period was intended to reduce the 'freeloading' behavior of those people who might only decide to take out insurance when they realize that they are in imminent need of medical care.

Regulations changed again in 2007 with the adoption of Circular 06 and Circular 14. In reaction to continuing growth in health expenditure and running deficits in the voluntary health insurance scheme, health insurance enrolment fees were significantly increased.

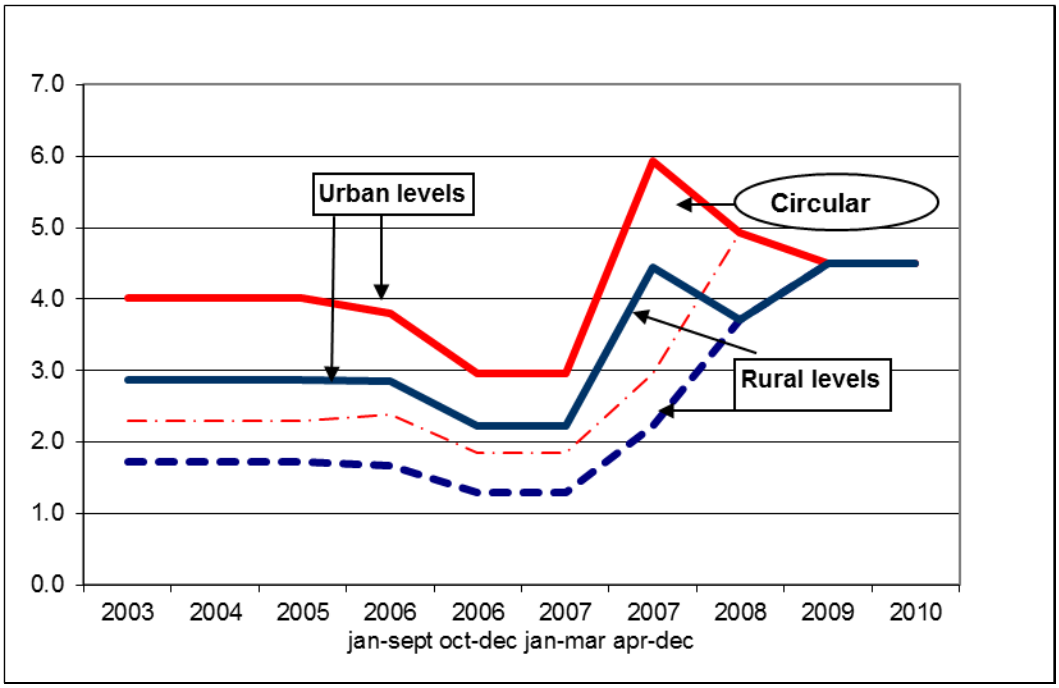
Figure 1 reproduces the upper and lower levels of the health insurance enrolment fees applied to common households in urban and rural areas since 2003. The levels are expressed as a percentage of

[4] There is strong statistical evidence that cost-sharing reduces this type of demand but it also reduces "appropriate or needed" medical care. See RAND Health Insurance Experiment (RAND HIE) 1974-1982.

[5] Adverse selection arises from the fact that only those people who are more likely to face high health expenditures are most likely to take out insurance (the implications of this are explained in section 2.2.1). By expanding coverage to all members of the family and by requiring a minimum rate of coverage of residents in the same commune, this regulation is intended to attract more healthy people, who are likely to face low health expenditures, into health insurance.

the minimum wage of the same period (on a yearly basis[6]). At the end of March 2007, fees jumped from minimum and maximum levels of 1.3% and 3.0% to 2.2% and 5.9% respectively of the minimum wage.

Figure 1: Health Insurance Enrolment Fees as % of minimum wage



Source: Authors' calculations

Circular 14 raised fees again in January 2008 but at a lower level than that of the increase of the minimum wage implemented by the Government at the same time. As a result, the cost of buying health insurance decreased slightly in relative terms. In fact, the health insurance fees introduced by the 2008 Law (between 3% and 6% of the minimum wage) resulted in a lesser financial burden than the fees that had been introduced in 2007. Currently, health insurance fees are equal to 4.5% of the minimum wage.

Another important change introduced in 2007 was the reintroduction of co-payments for any claim over VND 100 000, and the application of more stringent waiting periods for expensive health care treatment or services.

Finally, at the end of 2007, in a transition to the Health Insurance Law of 2008, the conditions of enrolment by group were eliminated. As a result, buying health insurance is now an individual decision.

The Health Insurance Law of 2008 merged the mandatory and voluntary health insurance funds into one unique fund. Co-payments of 20% have been expanded to all participants, except for the poor, pensioners, recipients of social allowances and some other privileged groups who must pay 5% of their

[6] Annual health insurance enrolment fees are compared to the sum of 12 months of minimum wage.

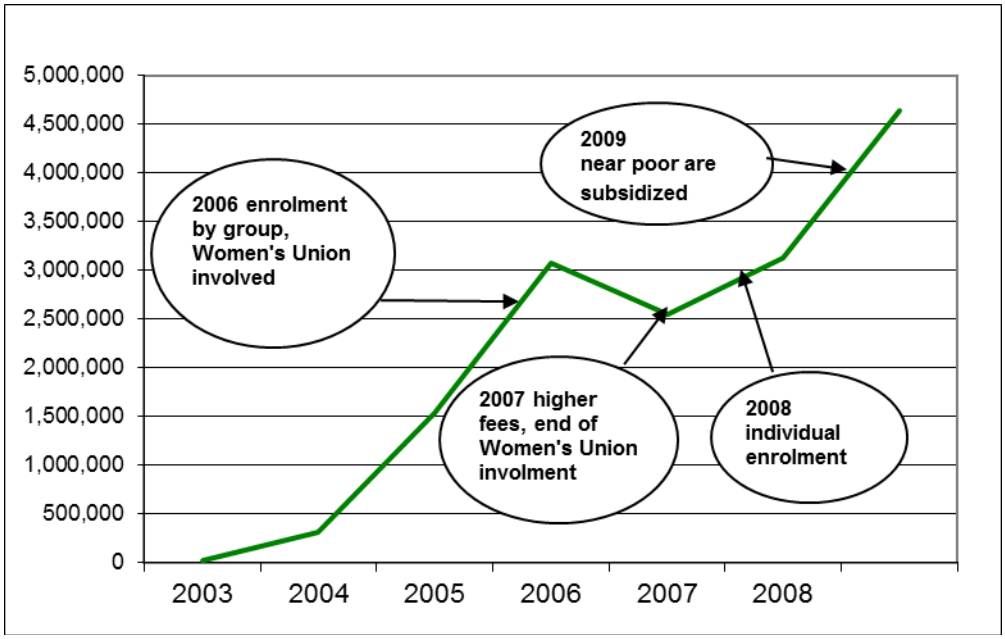
health insurance claim. Those insured from the army and the police and children under-six are totally exempt of co-payments.

2.1.2. Trends in enrolment

From 2003 until 2008, actions to expand participation in voluntary health insurance principally targeted students. In 2009, 15.3 million people were voluntarily insured, of which 70% were pupils or students. Significant efforts have now been developed to enrol the near poor. Their number is estimated at roughly 0.9 million. Despite generous financial incentives, the take up rate has been relatively low, even in regions where local or donors' additional financing made participation almost free. In fact, since 2003, health insurance participation by workers in the informal sector has been rather low.

Unlike the active participation of students, participation by non-students in voluntary health insurance has not been steady (see Figure 2). Participation did increase steadily until 2006. Remarkably, implementation of the 2005 requirement of enrolment by group did not impose significant administrative delays sufficient to stop that dynamic. On the contrary, the possibility that everyone could enrol (under certain conditions), the strong involvement of the Women's Union as well as the possibility that those insured in the mandatory scheme could cover dependents strongly stimulated enrolments. As a result, the number of voluntary insured doubled between 2005 and 2006. Indeed, in their analysis of the change in health insurance status between 2004 and 2006 using VHLSS panel data, Nguyen and Leung (2010) found that the non-student voluntary scheme showed the highest rise in this period (see section 2.2).

Figure 2: Voluntary Health Insurance: Number of participants (other than students)



Source: VSS

However, the rise in the level of health insurance enrolment fees, the more restrictive rules for enrolment and the removal of the possibility to enrol as a member of the Women's Union put a stop to this momentum. In 2007, the number of participants (other than students) dropped from 3 million to 2.5 million. Relatively lower enrolment costs and the possibility to enrol as an individual explain the higher number of enrolments again in 2008, but this was only a return to the same number of participants as was achieved in 2006. A strong growth rate of enrolments returned in 2009. The introduction of new subsidies to support the enrolment of the near poor explains part of this new

impulse: 1.5 million additional non-students voluntarily enrolled in 2009 of which about 900 000 were near poor.[7]

2.2. Findings and opinions about compliance and willingness to participate

After briefly presenting the general determinants of the willingness to participate in health insurance, this section describes the main findings in Vietnam.

2.2.1. Willingness to participate in health insurance

According to relevant literature[8], the determinants of health insurance participation can be related to three groups of topics. **The first group** is related to the **basic principles of insurance**. Theoretically, a household will be willing to buy insurance if the level of well-being it can attain with the insurance is higher than the level it can attain without it. The basic relationship that influences participation is, therefore, the relation between the level of health insurance enrolment fees and the benefits that each person expects from health insurance. A first implication is that the willingness to participate varies across individual characteristics along several dimensions: each individual's perception on the probability of health 'shocks' and each individual's 'taste' for risk[9]. Most of the reasons found in the studies made in Vietnam and reviewed below belong to this group. On the one hand, wealthy and more educated people are more likely to be insured. On the other hand, healthy people with low risk of health shocks, as well as those who do not perceive the risk (or are less averse to risk), are less likely to be insured.

However, the economics of health insurance is more complex, particularly because of the problems of adverse selection and moral hazard. **The second group** is related to **factors that generate the increase in health insurance premiums and the resulting drop in people's willingness to participate**.

Adverse selection arises from the fact that only those people who are more likely to face high health expenditures are most likely to take out insurance. Because of adverse selection, insurers ask for higher than average premiums (the average price that would have been required if people with low risk bought insurance as much as those people with high risk). As a result, insurance premiums (or health insurance enrolment fees) are not fair for people with low risk and those people (with low risk) are, therefore, less inclined to participate. Adverse selection introduces, therefore, a vicious circle that affects participation. If people with low risk are less inclined to participate than normal, then insurers must determine higher prices than they would have determined in the first place. This reduces even more the willingness of those people with low risk to take out insurance. As the review below shows, many studies in Vietnam have pointed to the problem of adverse selection. Those with poor health are more likely to insure themselves. However, there is no evidence that adverse selection has led Vietnam Social Security (VSS)to set "actuarially" higher health enrolment fees in Vietnam. Policymakers have rather sought to combine the expansion of coverage to sick and less sick people through enrolment by group. They have also sought to reduce insured health care spending through the introduction of co-payments. There is also anecdotal evidence that referrals to access higher levels of health care have been difficult to obtain for those registered at commune health care facilities; people with disabilities

[7] VSS figures

[8] This section offers a brief overview of general aspects of health insurance from presentations as explained in Gruber, 1997, 2008; Orzag, 2008; Monheit & Primoff-Vistnes, 2006; Levy & DeLeire, 2003; Fairlie, 2008.

[9] Risk-averse individuals will always choose to insure valuable assets, even though the probability of such a loss may be small http://www.econport.org/econport/request?page=man_ru_applications_insurance

have complained that while only central hospitals can provide some of the specific treatment/services they need, they have been unable to obtain the necessary referrals from their primary provider[10].

Moral hazard arises from the fact that those people with health insurance have less incentive to care about their spending on health care goods and services. Once they have bought health insurance, people become less careful in controlling health insurance expenditures and they end up spending more than they would have expected to spend before buying it. Insurers, who are aware of such behaviour, must determine health insurance premiums higher than the price which people judge to be fair when deciding whether to buy insurance or not. Because people do not take this change of behavior into consideration, the higher insurance premiums set by insurers reduce their willingness to participate. As in the case of adverse selection, even if such change in behavior is most probably also observed in Vietnam, there is no evidence that it has translated into the way VSS and policymakers have determined enrolment fees in Vietnam. Policymakers have rather preferred to exclude from reimbursement treatments for self-inflicted injuries or injuries by people responsible for traffic accidents[11].

Finally, **the third group** is related to **behavior economics**. Although it is not a rational behavior, researchers have demonstrated that people's choice in the short-term is not always consistent with people's desire in the long-term. In the case of health insurance, for example, even people who are conscious of their high risk of serious health incidents can prefer short-term consumption over health insurance. Peer pressure and a preference for the status quo also appear to be important factors that prevent people from changing behaviors. Other factors appear to be rooted in cultural norms: for example, after controlling income and all the indicators related to insurance and health insurance economics, Latin American people are still less likely to have regular health check up than the rest of the population in the USA.

2.2.2. Current evidence in Vietnam

A number of studies have attempted to explain why people do not participate in health insurance in Viet Nam. According to these, affordability is cited as the most common/significant factor for non-coverage (Lieberman & Wagstaff, 2009; Nguyen & Leung, 2010; Jowett & Thompson, 1999; Dam et al., 2005, 2010).

The next reason identified for non-participation relates to the quality of the existing scheme. People complain about delays in delivering health insurance cards, cards with incorrect reported information, the low quality of care, poor information and no feedback mechanisms (Jowett & Thompson, 1999; Dam et al., 2005, 2010). Similarly, the studies conducted by HSPI in 2006 generalize the shortcomings of the health facilities, including (i) long waiting times and complicated procedures; (ii) poor quality of public health services provided to insured patients because of health insurance ceilings, particularly in health facilities at lower levels; (iii) poor quality of public health services at lower levels because of a lack of well-trained staff and equipment; (iv) poor attitude, and sometimes discrimination, from health care providers towards insured patients. Giang (2008) also points out that congested and overcrowded health care facilities are another one of the reasons that have dissuaded eligible people from accessing health care services.

Yet another cause of non-participation is the lack of understanding about health risks and the value of sharing health insurance risks among the population. Specifically, healthy people do not want to 'waste' money on health insurance because they feel they will not use it. Meanwhile, rich people want to choose better health facilities themselves rather than buying public health insurance. As a result, the

[10] From UNICEF's focus groups with children with disabilities.

[11] Health Insurance Law (Art. 26 point 13). This regulation has a negative spill-over on many persons who suffer traffic accidents, particularly when urgent care is required, because insured people must prove they are not responsible for any wrongdoing (with a police certificate, etc.) to be reimbursed by health insurance (MoLISA workshop, 2010).

decision to buy health insurance is an individual-oriented rather than a community-oriented decision (Nguyen & Leung, 2010).

Anecdotal evidence also indicates that enrolling in voluntary health insurance involves complicated procedures and lacks payment flexibility, particularly in relation to the harvest cycle. In addition, VSS's strategy in disseminating information on voluntary health insurance has not been appropriate.
Furthermore, there is evidence of adverse selection in voluntary health insurance. In 2006, individuals who purchased non-student voluntary health insurance were significantly more likely (100% higher) to suffer from chronic disease than uninsured. Individuals living in households with a higher share of ill members were more likely to have voluntary insurance (Nguyen & Leung, 2010). Of the uninsured in this year, the most common reason for not buying health insurance was that people had considered themselves healthy and thus not needed health insurance (Lieberman & Wagstaff, 2009).

3. Statistical Evidence

There is common agreement in Vietnam that enrolling the workers of the informal sector and their family members (inactive) in health insurance could be particularly difficult, particularly for those who, in the coming years, are unlikely to receive any financial aid to participate, either directly from the Government or indirectly as dependents of public sector employees or employees of formal private enterprises.

For these reasons the statistical analysis that supports this study focused on these populations in particular. The general consensus that emerges from the review of the previous studies made in Vietnam is that, firstly, the likelihood of facing high health expenditures has been the principal motivation to participate in voluntary health insurance and that, secondly, the most important factors that have prevented higher voluntary participation have been affordability and lack of awareness. The strategies that have been developed since the new law has passed are based on these findings. However, their impact on the willingness of workers of the informal sector to participate has been relatively low. New approaches are needed. The analysis in this section aims to identify the relative importance of other factors that might help figure out the design of new strategies.

The analysis is based on the results obtained from the Vietnam Household Living Standard Surveys conducted by GSO in 2006 and 2008. The analysis looks specifically at workers of the informal sector and the inactive who ***are not near poor*** and that ***cannot benefit from health insurance as a dependent of a worker of the formal sector***. Section 3.1 describes in detail the way these persons are selected in the survey (the scope of the study). Section 3.2 presents an estimate of the size of these populations of the informal sector. Section 3.3 looks at their structure of employment and some other general characteristics. Section 3.4 reviews the reasons given by the non-insured for not buying insurance, while section 3.5 examines the specific implementation of health insurance in the South Central Coast region.

3.1.The scope of the study

As mentioned above, the study focused in particular on the populations of the informal sector, that, in the coming years, are unlikely to receive any financial aid to participate, either directly from the Government or indirectly as dependents of public sector employees or employees of formal private enterprises. This section explains how these groups were determined.

In the VHLSSs, respondents can easily be divided into four groups regarding their health insurance status: those with (1) mandatory scheme, (2) voluntary scheme, (3) commercial scheme, and (4) those without health insurance.
Table 1 below shows how these four groups relate to the classification of the population (25 sub-groups) in the Health Insurance Law 2008.

Table 1: Classification of the population and health insurance enrolment, 2006 and 2008

Compulsory insurance Children under 6 (group 17) Poor (group 14) Recipients of social allowances and privileged social groups (groups 9,10,11,13,15,18) Private and public employees, civil servants, members of the National Assembly and People's Committees, overseas students (groups 1,12,19) Police and army officers and their dependents (groups 2,16) Pensioners, unemployed, retired local authorities (groups 3,4,5,6,7,8)	**Voluntary insurance** Pupils & students Other voluntary (groups 21 to 25 as listed under "not insured") **Not insured** Pupils & students (group 21) Other voluntary Near poor (group 20) Workers in the agriculture, forestry, fisheries sector, and production of salt (group 22) Relatives of employees (group 23) Members of cooperatives and self-employed (group 24) Others (group 25)
Commercial private insurance	

Note: the groups under the Health Insurance Law 2008 are mentioned in parenthesis.

The study is narrowed to the persons that will more likely bear the whole cost of buying health insurance. It excludes therefore all the groups that today receive or in the coming years are likely to receive direct or indirect financial help: the near poor, pupils, students and the relatives of waged employees and civil servants who were mandatorily insured in 2006 or 2008 and will eventually receive some discount for enrolling their dependents.

The remaining persons are all working-age people and the elderly that (a) were not enrolled in the mandatory health insurance in 2008 (or 2006 depending on which year's statistics are used), (b) were not living in households with wage-employed members enrolled in health insurance, (c) were not beneficiaries of social assistance, and (d) were not near poor. The latter was defined as not belonging to the lowest quintile of per capita expenditure. The persons that are potentially recipients of social assistance allowances, like severely disabled persons and the elderly of 85 years old and above, were also excluded. Similarly, the study assumed that, although the law does not oblige short-term employees in large and medium enterprises to buy health insurance, these persons will, one way or another, be progressively covered. As a result, all workers employed in the public and the FDI and enterprise sectors and their relatives were excluded from the scope of the study. For similar reasons, those with jobs related to the Party or the management of mass organizations were also excluded.

According to these criteria, roughly 23 million workers and inactive belong to the group of informal workers in 2008 and 2006 (details of the sample are presented in Annex 1). Table 2 indicates in detail the scope of the study.

Table 2: Scope of the study

Categories under Health Insurance Law 2008	Defined in VHLSSs as	Included in the study (defined as)
20. Poor and near poor[12]	▪ The poor: ○ all registered poor ○ GSO food poor ○ rural households with ethnic minority as household head. ▪ The near poor: households in the first quintile of per capita household expenditure.	No
21. Pupils and students[13]	All pupils and students.	No

12 The poor include the registered poor, households that live in very poor communes and in remote and mountainous areas. The definition of the near poor varies depending on the city or the province; usually between 1.3 and 1.5 times MoLISA's income threshold for poverty.

22. Relatives of employees[14]	All members of wage employees' households insured in 2006 (or 2008).	No
23. Workers in agricultural, forestry, fisheries sector and salt-making households 24. Other members of cooperatives and individual business households 25. Others	Those that are not included in the categories above, and are insured in 2006 (2008) active and inactive.	Yes ("the insured")
	Those that are not included in the categories above, and are **not** insured in 2006 (2008) active and inactive.	Yes ("the not insured" or "the non-insured")

3.2. The size of the uninsured population

If the policies put in place to encourage health insurance participation effectively attract all the vulnerable groups, i.e. the near poor, pupils and students, dependents of civil servants and of the employees of large and medium enterprises, health insurance coverage will significantly increase in the coming years. However, if as in the past, only a small share of the workers of the informal sector and the inactive (as defined in section 3.1) enrol, almost 24 percent of the population could remain without coverage in 2014. Even in the most optimistic scenario regarding the coverage of other sectors of society, health insurance could only reach 76% of the population in 2014. As the figures in Table 4 indicate, this would mean that about 20.7 million people would be without health insurance. Given the importance of the informal sector in employment in Vietnam, coverage would be lower among those aged between 30 and 64: only 61.5% of this age group would have health insurance in 2014.

Table 3: Health insurance coverage in 2014

	Persons	Percent
Situation in 2008		
With health insurance in 2008		
Mandatory insured	30,682,798	35.55
Voluntary insured	17,148,210	19.87
Privately insured	401,102	0.46
Health insurance coverage in 2008		**55.88**
Expansion of health insurance 2008 - 2014		
Additional persons potentially covered in 2014	17,351,459	20.10
Health insurance coverage in 2014 if all the groups in society (except the workers of the informal sector and the inactive) are covered		**75.98**
Workers of the informal sector and inactive (as defined in section 3.2) likely to be without insurance coverage	20,728,688	24.02
Total population	86,312,257	100.0

Source: Authors' calculations based on VHLSS2008

In summary, having exhausted the possibility of expanding health insurance, with financial incentives and enforcement and information campaigns, in 2014:

- Roughly 24 percent of the population could remain without insurance coverage.

13 Receive state subsidies and are registered at educational institutions.

[14] Relatives of public and private employees and persons working for the State, representatives, local authorities, etc.

- Roughly 60 percent of the population aged 30 to 64 could be without insurance coverage.

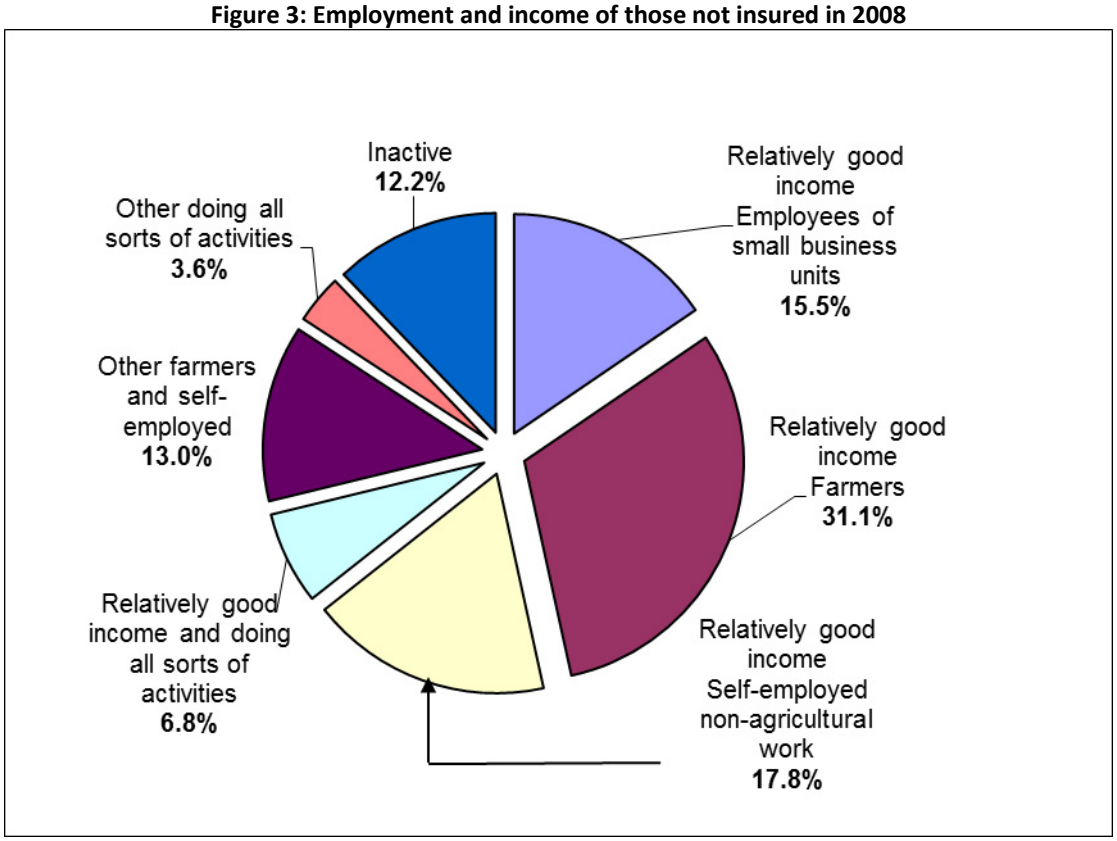
3.3. Employment profile and general characteristics

This section describes the general characteristics of the population of the informal sector, most reluctant to buy health insurance. It looks first at the employment and income status of those people who did not have health insurance in 2008. It follows with some comparisons between the general characteristics of the insured and the non-insured.

Common wisdom often depicts workers of the informal sector as those who hardly manage to make reasonable earnings in all sorts of activities.

In order to assess the relevancy of this assertion, the study sought to get a sense of the activities and income of the workers of the informal sector. Workers were first classified according to their ability to earn a relatively good individual income from one source of income only[15]. Three categories were defined: wage employed in small businesses, self-employed in non-agriculture sectors, and farmers. As illustrated in Figure 3, workers who earn a relatively good income from just one type of activity represent 64.4% of the group: farmers represent 31.1%, self-employed represent 17.8% and wage–employed represent 15.5%.

Figure 3: Employment and income of those not insured in 2008



Source: Authors' calculations based on VHLSS2008

Workers that were able to achieve a relatively good level of individual income from various sources rather than one main source were classified apart. They represent 6.8% of the group. The remaining

[15] The income obtained from the primary source at individual level (after distribution of household income among active members) must be in the highest 3 quintiles of income per capita (in the corresponding category). In order to avoid excessive classification of workers into the category of wage employed, two additional conditions were added in the case of employees. First, they had to work full time in wage paid employment or 50% or more of their individual income must be obtained from wages. Second, to avoid any confusion with owners, only workers who reported working for household units or private enterprises were kept in this category. Full-time was defined as working at least 8 hours per day, 20 days per month and 10 months per year.

workers that could only achieve a limited individual income were divided into two categories. Workers that do not have wage income represent 13.0% while workers that have some wage paid occupation represent 3.6% of the group. Finally, the inactive, composed mostly of elderly people, represent 12.2% of the group.

Some policymakers might be surprised by the relatively high share of wage employed in this group because under the social security law employees, unless they have short-term labour contracts, must register with Social Security. These findings are, however, consistent with the results obtained from other surveys in Vietnam. For example, the results of the GSO Household Business and Informal Sector Survey in Hanoi (2007) indicate that 19.7% of the persons employed in non-registered household businesses are wage earners (IRD, 2008).

The reason for this is that most households units in Vietnam are exempt from business registration. Only establishments with 10 employees or more or several business premises are regulated under the Enterprise Law of 2005. Small businesses are regulated under Decree 88/2006/ND-CP (August, 2006). According to these regulations, units with turnover lower than a certain locally defined income threshold are exempt from business registration. Others, above that income threshold, must register at the district Business Registration Office, and must undertake the procedures to obtain a Tax Registration Certificate with a tax code (Cling et al., 2009). Even if local authorities are aware of small businesses operating in their area, the lack of proper accounting books makes the task of the tax authority (General Department of Taxation of Vietnam), to determine which ones should register, extremely difficult. As a result, most of the small businesses employing wage earners are not registered. Although there is no legal link between tax registration and employee registration, it is highly unlikely that units not registered for tax purpose will undertake the procedures to register and pay social taxes for their employees.

In summary, contrary to common wisdom, persons reluctant to buy health insurance:

- **are not principally low income earners**: 71.2% earn relatively good individual incomes. Affordability is, therefore, not the most important issue to explain why these people do not buy health insurance.
- **do not make their living from a variety of activities**: 64.4% earn relatively good individual incomes from just one type of activity. The businesses in which these people are involved are more likely to be integrated in the economy than just small casual businesses. Therefore, health insurance could be easier to enforce at business level rather than at individual level.
- **are not only farmers and self-employed**: 15.5% earn relatively good individual incomes from wage paid jobs. Again, health insurance coverage could be easier to enforce through their employers rather than at individual level.

Enforcing health insurance coverage at business and employer level might be more promising than expanding coverage at the individual level. However, it might face some resistance if, for the small business or the enterprise, the cost of becoming formal, besides complying with just the health insurance law, is higher than the cost of remaining informal. This point is further discussed in the last section of this report (section 4) on policy implications.

The analysis of the characteristics of the insured indicates that they are more likely to be women, older and wealthier than the non-insured. They are more likely to live in urban areas and be more educated. Table 5 shows that 24% of the insured are inactive. This result seems reasonable given that health care needs increase with age and this group is mostly composed of the elderly. These results, and more comparisons between the insured and the non-insured, are presented in section 3.6 in the comments of the probit analysis.

Table 4: Employment characteristics, 2008

	Persons reluctant to buy health insurance		Reference group: those that bought voluntary health insurance	
	Number	Percent	Number	Percent
Employees of small business units *	3,209,574	15.48	246,166	9.48
Farmers *	6,443,043	31.08	687,203	26.47
Self-employed (non-agricultural) work *	3,688,983	17.8	512,291	19.74
Relatively high income and doing various activities	1,417,250	6.84	117,791	4.54
Other farmers and self-employed	2,697,574	13.01	365,233	14.07
Others doing various activities	746,378	3.6	40,515	1.56
Inactive	2,525,886	12.19	626,474	24.14
Total	20,728,688	100	2,595,673	100

*Note: * with relatively good income*
Source: Authors' calculations based on VHLSS 2008

3.4. Why the "non-insured" did not buy health insurance?

In this and the following sections, the study used the rich database of the GSO households' survey of 2006 on health insurance enrolment to analyze the relative importance of the factors that influence voluntary participation in health insurance in Vietnam.

This section addresses the answers of the non-insured (as defined in section 3.2) about the reasons that they mention for not buying health insurance. Table 5 reports these responses.

Table 5: Reason for not buying voluntary health insurance, 2006

Reason given	percent
No need: in good health, did not use it when had before	36.7
Issue with cost: too expensive, can't afford	20.7
Issue with access:	24.1

don't know where to buy it, is not provided in my commune, don't know about it	
Issue with benefits: not satisfied with health care quality	10.4
Other: lost when became unemployed, other	8.1

Source: Authors' calculations based on VHLSS 2006

When asked about the reason for not having health insurance, 36.7% of the "non-insured" indicated that they had no need for it. This finding is not surprising. As VSS and many studies both in and outside of Vietnam have already observed, voluntary participation in health insurance faces serious problems of self-selection. People that plan to seek health care services are more likely to buy health insurance. Effectively, as the results in Table 6 indicate, those who bought insurance in 2008 are much more likely to seek in-patient care than those who did not buy health insurance: 12.0% of the newly insured and 17.4% of the insured in both periods sought in-patient care while only 4.3% of those non-insured in both periods and 6.8% of those who dropped out sought in-patient care. Those insured are also more likely to seek out-patient care. But it would not be true to say that all those who bought health insurance in 2008 did so to access health care. Only 52.4% of the newly insured and 48.3% of the insured in both periods actually sought care.

Table 6: Health insurance enrolment and use of health insurance cards, 2006-2008

	Out-patient care		In-patient care	
Persons in the informal sector under study	Share of people who seek care	Of those who seek care, share who used their health insurance card	Share of people who seek care	Of those who seek care, share who used their health insurance card
Newly insured in 2008	52.4	59.3	12.0	65.6
Insured in 2006 and 2008	48.3	74.7	17.4	70.0
Not insured in 2006 and 2008	33.2		4.3	
Dropped insurance in 2008	31.0		6.8	

Source: Author's analysis of panel data VHLSS 2006-2008; on 3735 representative individuals (after exclusion of the individuals with conflicting records on age and gender between 2006 and 2008).

The second reason most often reported is that households cannot afford to buy health insurance or that it was too expensive.

In fact, in 2006, health insurance enrolment fees were pretty low. They range from 1.7% to 3.8% of the minimum wage (for non student adults, see figure 1 in section 2). Enrolment fees varied according to the locality, the group chosen to join (the commune or the Women's Union), and local policies on subsidies. Buying health insurance was, however, more expensive that simply paying for individual enrolment fees because, under Circular 22 of August 2005 (see section 2), voluntary enrolment in health insurance required that all members of the household should be insured, unless health insurance was obtained as a member of a mass organization, like the Women's Union. Any temporary members of a household could join or not according to their wishes. Finally, the fees were 5% lower for all the additional members of the family that bought health insurance at the same time.

According to these rules, the study simulated the cost of buying health insurance to all the households under study. Table 7 reports this cost as a percentage of each household's total consumption in the year. On average, households who voluntarily enrolled in health insurance in 2006 used 1.1% of their consumption budget to buy it; by comparison, households who did not voluntary enrol in health insurance but chose to buy it would have used on average 1.6% of their consumption budget if they had bought health insurance. The sample here includes all the households that have at least one member (as defined in section 3.1) enrolled in voluntary health insurance in 2006 and all the households that have at least one member in the category of non-insured persons (also as defined in section 3.1). So it can be said that the relative cost of buying health insurance for the families that did not buy health insurance was, effectively, higher than for the households that bought health insurance. However, as already mentioned above, the relative financial burden of health insurance enrolment fees was relatively small in 2006, even at household level. Given that the groups of non-insured persons selected in this study are not particularly low-income earners, the respondents who chose that answer presumably had little knowledge of the health insurance requirements for enrolment or other reasons for not participating.

Table 7: Average cost of buying voluntary health insurance
(as a percentage of total household consumption)

		Confidence Interval	
	Average	Lower bound	Upper bound
Households voluntarily insured in 2006	1.1	1.02	1.17
Households with members with no HI mentioning that buying HI is too expensive [1/] [2/]			
Estimated cost in 2006 [3/]	1.6	1.58	1.70

Note: 1/ Too expensive or can't afford.

2/ Estimation based on fees and discount applied in 2006, reported number and characteristics of non-insured in the household with children, limitation on the number of enrollees to five per household.

3/ For the same number of participants, and health insurance enrolment fees of 4.5% of the minimum wage in the year per person.

Source: Author's calculations based on VHLSS 2006

A rather large share of those not insured, 24.1%, mentioned reasons that show either a lack of knowledge (they don't know about health insurance or how to participate) or a lack of possibility to buy health insurance (at the time of the interview enrolment was not possible in their commune of residence).

The elimination of the requirement to enrol by group has reduced some of these obstacles. Effectively, the coverage rate of the populations selected for this study has increased between 2006 and 2008, from 8.2% to 11.1%. However, the increase appears relatively small, especially in comparison to the size of the group that mentioned these reasons in 2006. Information campaigns or the reintroduction of the use of intermediaries (like the Women's or the Farmers' Union) to attract people to health insurance could help to reduce these problems. The low take up rate may again suggest additional issues.

Finally, 10.4% of those not insured consider that health care provision is not of sufficient quality. These people are less likely to be willing to enrol in health insurance. Asked if they would be prepared to enrol if health insurance fees were as low as VND 80 000 per person (equivalent to 1.9% of the minimum wage in a year), only 14.9% of this group would agree. This result suggests that those in this group have little knowledge about health insurance or face other types of obstacles.

Table 8 reports this result alongside the share of those who would agree to participate (based on the other reasons given for not participating in health insurance (Table 6)). Those most willing to participate are the people who mentioned institutional difficulties or lack of knowledge. The low share of people

ready to participate among those who mentioned problems of affordability suggests that subsidies may have a relatively low impact on enrolment.

Table 8: Health insurance enrolment if premium was set at VND 80 000

	Percent	Percent who would enrol
No need	36.7	25.3
Can't afford	20.7	27.8
Not possible to join, don't know where to buy	24.1	71.6
Unsatisfied with health care quality	10.4	14.9
Other reasons	8.1	42.9
Total	100.0	

Source: Author's calculations based on VHLSS 2006

In summary:

- Almost half (47%) of people in this group mention that they do not need health insurance. They are the most difficult group of people to convince to buy health insurance. For them, the cost of buying health insurance is lower than the benefits they expect from it (the expected value of reimbursed health care spendings and related advantages).
- Just under a quarter (24.1%) lack appropriate knowledge and enrolment procedures were mentioned as the most important factors preventing participation. Large information campaigns should help increase coverage among people in this group. However, given that enrolment is now an individual decision, the current low coverage of these populations suggest other barriers.
- A smaller share (20.7%) mention reasons related to the cost of buying health insurance. However, more than a quarter of them (27.8%) say they would agree to participate if health insurance enrolment fees per person were as low as 2% of the minimum wage in a year. These results, and the fact that the non-insured selected in this study are not particularly low income earners, suggest that they have limited knowledge of the health insurance requirements for enrolment, or that other issues prevent them from participating.
- Consequently, while roughly half of the non-insured are not convinced of the relative cost-benefits, the other half are more likely to be not well aware of health insurance and how to obtain it.

These results suggest that institutional factors matter. Socio-economic conditions, as well as local governance and health insurance management, probably have a strong influence on health insurance participation. The study sought evidence of such importance by comparing the coverage rates of the study populations across the regions. Table 9 presents these rates. Leaving aside the North West region, in 2008, coverage rates vary from 6.5% in the Central Highlands to 15.8% in the South Central Coast.

Table 9: Coverage rates (%) by region, 2006 and 2008

	2006	2008
Red River Delta	6.6	8.6
North East	12.5	13.5
North West	27.0	17.2
North Central Coast	9.3	11.5
South Central Coast	11.6	15.8
Central Highlands	5.9	6.5
South East	7.3	11.7
Mekong River Delta	7.9	11.5
Total	8.2	11.1

Source: Author's calculations based on VHLSS 2006 and 2008

Is the approach to voluntary health insurance in these two regions really so different? Or are the regulations implemented in more or less the same way across all regions of the nation? In which case, are differences in coverage only due to socio-economic differences?

3.5. Was the implementation of health insurance in the South Central Coast particular?

The data suggest that the answer is yes. Effectively, implementation of health insurance regulations has not been uniform across the country. This section analyses these differences through the answers given by the insured in 2006 about the place where they registered and the use of their health insurance cards.

In the South Central Coast, 18.0% of the insured were registered at the commune health care centre. This share is particularly low when compared to both the country's average (32%) and the Mekong River Delta, where almost half of the insured (47.7%) were registered at the commune level (see Table 10).

Also in the South Central Coast, 39.4% of the insured used their health insurance cards. This share is also relatively low when compared to the country's average (47.9%) and the level observed in the Mekong River Delta where 60.8% of the insured effectively sought care and used their health insurance cards (see

Table 11).

These results suggest that the higher participation in health insurance in the South Central Coast and the higher registration rate of the insured in this region, particularly at hospitals, has not worsened the issue of adverse selection in that region. The insured could on average register at more expensive health care facilities (hospitals) but on average they used that opportunity less than workers of other places.

Furthermore, in the South Central Coast only a very small share (8.8%) of those who have used their health insurance cards report having paid additional fees at the facility in which they sought medical care. By contrast, in the Central Highlands (the region with particularly low participation) 27.2% have had to pay additional fees (see Table 12).

Table 10: Primary health care provider, 2008

Provider	Red River Delta	North East	North Central Coast	**South Central Coast**	**Central Highlands**	South East	Mekong River Delta	Total
Commune	25.2	28.6	33.8	**18.0**	28.3	26.6	**47.7**	32.0
Health centre	4.3	4.5	4.8	8.3	0.0	4.9	10.6	6.7
District hospital	57.8	41.7	51.6	49.5	44.1	48.7	24.9	43.1
Province hospital	12.1	24.0	3.5	20.1	27.6	18.8	15.7	16.2
Central hospital	0.0	0.0	0.0	1.2	0.0	0.0	0.8	0.4

Other state hospital	0.0	1.2	3.1	0.5	0.0	1.1	0.0	0.7
Private hospital	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Other hospital	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.2
Other	0.0	0.0	1.6	0.0	0.0	0.0	0.4	0.4
No idea	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Author's calculations based on VHLSS 2008

Table 11: Use of Health Insurance Card, 2008

	Red River Delta	North East	North Central Coast	South Central Coast	Central Highlands	South East	Mekong River Delta	Total
Yes	38.9	50.1	55.0	**39.4**	44.2	37.4	**60.8**	47.9
No	30.7	22.1	15.5	29.6	31.2	36.9	20.6	25.9
No visits	30.4	27.8	29.6	**31.0**	24.6	25.7	18.6	26.3
Total	100	100	100	100	100	100	100	100

Source: Author's calculations based on VHLSS 2008

Table 12: Payment of Additional fees

	Red River Delta	North East	North Central Coast	South Central Coast	Central Highlands	South East	Mekong River Delta	Total
Yes	21.46	15.34	8.61	**8.78**	**27.18**	20.45	5.11	11.86
No	73.84	84.66	86.04	84.44	72.82	79.55	94.89	85.96
Don't know	4.7	0	5.35	6.78	0	0	0	2.18
Total	100	100	100	100	100	100	100	100

Source: Author's calculations based on VHLSS 2008

It is perhaps surprising that some insured who had bought health insurance on a voluntary basis did not use it systematically each time they sought health care goods or services. The reasons they mention for not using their health insurance cards offer some interesting highlights of regional differences in the way health insurance has been implemented.

Again, there is a contrast between the answers of the insured in the South Central Coast and the answers of the insured in the Central Highlands (see

Table 13). In the Central Highlands, a very high percentage (57.9%) report that using health insurance cards implies cumbersome procedures and a relatively high share (compared to the national average) mention that they cannot use their health insurance cards at the places where they seek care. These

two issues appear much less important in the South Central Coast. Although, the survey does not give more details, it seems likely that the cumbersome procedures of using the health insurance card and the inability to use the insurance card at the place where the person seeks health care reflect the difficulties that insured people in communes face when obtaining referrals to access higher levels of care at district and provincial facilities and the decision of many insured to seek care anyway at district or provincial hospitals. It is impressive that the region that has achieved one of the highest coverage rates (the South Central Coast) is the region in which fewer people report these two problems.

As was observed in section 2.1.1, health insurance finances have continued to deteriorate. In such a context, besides the introduction of new regulations (see section 2) on enrolment and co-payments, it is likely that social security authorities have also sought to place some quantitative constraints. In some localities, referrals could have been discouraged and under-provided in an attempt to reduce the growth of local health expenditures to be reimbursed, and possibly as an attempt to reduce the problems of overcrowded local hospitals. That these constraints appear to have been less important in the region that achieved the highest coverage rate suggests that there is probably a trade-off between installing excessive barriers to people seeking health care and the willingness of people to participate in health insurance.

Table 13: Reasons for not using Health Insurance Card, 2008

	Red River Delta	North East	North Central Coast	South Central Coast	Central Highlands	South East	Mekong River Delta	Total
Not possible at that place	24.0	9.1	5.6	**9.1**	25.1	18.1	3.7	13.6
Lower quality services when used	11.2	16.7	0.0	**9.3**	0.0	15.0	21.1	13.2
Cumbersome	20.7	14.6	15.9	22.7	57.9	19.2	29.6	23.3
Don't have it when necessary	18.9	27.6	19.5	20.9	12.8	29.7	26.5	23.6
Other	25.2	32.0	59.1	**38.0**	4.2	18.1	19.2	26.3
Total	100	100	100	100	100	100	100	100

Source: Author's calculations based on VHLSS 2008

Finally, the South Central Coast is the region that has attracted relatively more new insured between 2006 and 2008. As the results in Table 14 show, while 10.38% of those in the informal sector live in the South Central Coast region, 20% of the newly insured (a share twice as high) are from that region.

Table 14: Dynamics in Health Insurance Participation by region, 2006-2008 (%)

	Red River Delta	North East	North Central Coast	South Central Coast	Central High-lands	South East	Mekong River Delta	Total
Newly insured in 2008	22.81	7.27	7.89	**20.04**	2.29	13.36	26.18	100
Insured in 2006 and 2008	21.52	10.18	9.53	11.63	1.6	18.52	26.04	100
Not insured in 2006 and 2008	25.84	4.6	11.38	9.37	4.11	15.92	28.56	100
Dropped insurance in 2008	23.23	9.08	14.76	10.83	4.92	15.21	21.38	100

Total	25.14	5.55	11.44	**10.38**	3.96	15.77	27.46	100

Note: sample is of 3735 individuals

Source: Author's calculations based on panel data of VHLSS 2006 and VHLSS 2008;
(after exclusion of individuals with conflicting records on age and gender between 2006 and 2008).

In summary: The region that achieved the highest coverage, the South Central Coast, appears to have adopted a more "client oriented" approach than the other regions. In this region, the insured are **less** likely to:

- register at commune level, their primary health care provider is *more* likely to be a hospital
- pay additional fees at the facility where they seek medical care
- report limitations in their access to those health care facilities they want to visit.

Simultaneously, this region does not appear to be facing more problems of self-selection than the other regions.

3.6. Probit analysis

The study conducted a probit analysis to measure the relative importance of all the factors mentioned above. The results are presented in Table 15.

Because health care needs differ among genders and increase with age, the relationship includes five age groups (15 to 29 years – 30 to 44 years – 45 to 59 years – 60 to 74 years – 75 and over). Only the coefficients associated with the four older groups appear in Table 15. The reason for this is that the relationship measures how much the probability of being insured changes with age in comparison to the youngest group. Similarly, the coefficients on gender and urban populations measure how men in the group under study are less likely to be insured than women, and how urban populations are more likely to be insured.

The probability of insurance increases with a household's welfare ranking (measured by quintiles of expenditure per capita) but it also decreases with the financial burden that buying health insurance represents in the household's budget. While in the case of the insured, the survey informs of the amount the household has paid to buy voluntary health insurance, in the case of the non-insured the study estimated this indicator (see section 3.4). The estimate takes into account the individual health insurance fees applied in 2006 and the requirement that all non-insured members of households be insured. Health insurance enrolment is effectively very sensitive to this relative cost. A higher financial burden decreases the probability of enrolment.

The coefficient associated to the financial burden of health insurance captures both the impact of having many members to enrol and the relative wealth of the household because voluntary health insurance enrolment fees are flat and, as a result, the financial burden of buying health insurance decreases as household wealth increases. Consequently, it is not disturbing that the coefficient associated to the indicator of a household's welfare rank (quintile of expenditure per capita) is lower for those respondents who are in the upper quintile because the coefficient on the financial burden of health insurance has already captured the effect that respondents from the higher quintiles are more likely to already have voluntary health insurance. The coefficient associated to a household's welfare rank shows that, although it is easier for them to buy health insurance, the respondents from the higher quintiles value having health insurance less than other persons.

In order to take into account the importance of adverse selection, the relationship includes two variables: one indicates if the person has a chronic disease; the other indicates if the person has been sick or injured in the last 4 weeks and could not go to work or conduct usual activities for at least 7 days. *A priori* there should not be any relationship between this latter variable and health insurance enrolment in the last 12 months. The assumption of the study is that this variable is a kind of proxy of

some weak general health status of the respondent. The coefficients associated with these two variables indicate effectively that these persons are more likely to be insured.

That people with chronic illness are more likely to be insured does not mean that most people with chronic illness and/or a bad health status are effectively insured. In fact, most people with chronic illness and difficult health conditions are not insured. In our sample, about 74.6% (between 64.8% and 84.3%) of those with chronic illness who had to interrupt their working activities for at least 7 days in the last 4 weeks were not insured.

Among the other individual characteristics, people with higher levels of education are more likely to be insured. Because some cities have implemented subsidies that support the enrolment of the near poor, people who do not have a primary source of income are more likely to be insured[16].

All the other variables that have been tested are regional indicators.

The study first sought to check that the amount of out-of-pocket expenses paid for by the insured is lower than the amount paid by the non-insured. The study tested this assumption by introducing a variable that reflects in each region the relative importance of the gap between the average amount of out-of-pocket expenses paid by the non-insured and the insured in the case of in-patient visits[17]. The gap is calculated for each region and is expressed as a percentage of each respondent's household expenditures. As expected, people are more likely enrolled in health insurance in the regions where this gap is higher (in the regions where sick people spend relatively less on being insured participation is higher).

Finally, in order to check the relative importance of the reasons cited in Table 8 and in

Table 13 to explain respondents' lack of insurance or lack of use of their health insurance cards the study introduced regional variables that reflect the average percentage of respondents for each answer at regional level. The results show that people are less likely to be enrolled when the following percentages are relatively high in the region:

- those who report not having any need for health insurance
- those who did not know how to enroll
- those who did not use their insurance card when seeking health care
- those who report that using health insurance cards is cumbersome
- those that are not satisfied with the quality of health care.

In addition, many other factors influence health insurance enrolment, as the negative coefficient associated with the share of persons who did not buy health insurance for other reasons suggests.

These results confirm that even if the decision to buy health insurance is an individual one it is largely influenced by the institutional context in which health insurance has been implemented (how many information campaigns have been organized, how easy is it for people to go to hospitals, etc.).

One perhaps surprising result is that while not registering when feeling "no need" seems to be an individual choice, the percentage of respondents in such a category at the regional level also has an impact on the willingness to participate. This result suggests that participation in health insurance is also subject to social behaviors and the status quo. The attitude of one person may reinforce the attitude of others.

Table 15: The profile of the insured vs. non insured: Probit analysis 1/ – VHLSS 2006

[16] Across cities and regions, income screening procedures are difficult; it could be that some of the households in the sample have benefited from such policies.

[17] The amount is the amount reported in question 11 about how much the person paid at the facility (not included in that amount are tips and rewards paid to the staff, and medication bought outside the facility).

Dependent variable: insured or not insured ***Sample***: reluctant persons and the persons of the reference group defined as in section 3.1, 10534 observations.	Coef.[2/]	5% confidence interval around 0	
Age from 30 to 44 years	0.0331*	0.0175	0.0486
Age from 45 to 59 years	0.0613*	0.0403	0.0823
Age from 60 to 74 years	0.1328*	0.0872	0.1783
Age from 75 years & over	0.1211*	0.0505	0.1917
Men	-0.0212*	-0.0318	-0.0107
Urban	0.0563*	0.0409	0.0718
Log of the cost of health insurance for all non-insured members in total household's expenditures	-0.1288*	-0.1411	-0.1165
In 2nd quintile	0.0988*	0.0677	0.1299
In 3rd quintile	0.0724*	0.0494	0.0954
In 4th quintile	0.0458*	0.0278	0.0638
Has a chronic illness	0.0343*	0.0164	0.0522
Has not been able to work for 7 days in the last 4 weeks	0.0499*	0.0116	0.0882
The person is the head of the household	0.0015	-0.0098	0.0129
The head of the household is from an ethnic minority	-0.0041	-0.0426	0.0343
Household's dependency ratio (number of children and elderly divided by the total number of members in the household)	-0.0078	-0.0299	0.0143
Number of years of education	0.0019*	0.0003	0.0036
Reports being active	0.0082	-0.0063	0.0228
Self-employed and farmers (relatively low income in the group and without a primary source of income)	0.0115***	-0.0024	0.0254
Self-employed, farmers and wage employed (relatively low income in the group and without a primary source of income)	0.0237***	-0.0030	0.0505
Gap in amount of out of pocket expenses for inpatient care expressed as % of household's total expenditures	1.1175*	0.6123	1.6228
% of people in a region that could not use their health insurance cards at the place where they sought health care	-0.9836*	-1.3192	-0.6481
% of people in a region that did not use their health insurance cards because it implies cumbersome procedures	-0.5141**	-0.9902	-0.0380
% of people in a region that did not buy health insurance because they do not feel they need it	-1.1022*	-1.6937	-0.5107
% of people in a region that did not buy health insurance because they do not have access; they were not proposed or they do not know how to access	-1.8943*	-2.6931	-1.0954
% of people in a region that did not buy health insurance because they are not satisfied with the quality of health care they can obtain with it	-0.4995*	-0.9468	-0.0521
% of people in a region that did not buy health insurance for other reasons not mentioned (excluding people who claimed that it was too expensive for them to buy)	-2.1974*	-2.9695	-1.4252
1/ 8.3% of the respondents in the sample have voluntary health insurance, predicted 5.7%. Pseudo-R2 adjusted = 0.1705 *2/ (*) coefficients significantly different from zero at 1%;(**) at 5%; ***at 10%.*			

In summary, the econometric analysis confirms, in the decision to buy health insurance, the importance of:

(a) Individual characteristics:

- Older people, women, wealthier and more educated persons living in urban areas are more likely to be enrolled.
- People who are more likely to face health expenditure are also more inclined to buy health insurance but, in the informal sector, more people with weak health conditions are not insured than insured.
- People with relatively lower income appear to value health insurance more than wealthy people.

(b) The cost-benefit relationship:

- On the one hand, the probability of enrolment decreases when the relative importance of health insurance fees increases in the applicant's household budget.
- On the other hand, higher benefits, like the expectation of lower amounts of out-of-pocket payments when seeking in-patient care, increases the probability of enrolment.

(c) Regional approaches in the implementation of health insurance regulations:

- Those living in a region where people are more likely to report quantitative barriers to accessing higher levels of care are less likely to participate in health insurance.
- Those living in a region where people are more likely to report lack of knowledge of health insurance are less likely to participate in it.

(d) Social behaviors:

Some individuals explain that they did not buy health insurance because they "don't need it". This behavior also has a regional dimension. People living in regions where more people do not feel the need to be insured are less likely to be enrolled in health insurance.

4. Policy implications

According to the Health Insurance Law of 2008 universal coverage should be reached in 2014.

Achieving this goal represents a significant challenge. According to VSS figures, in 2009 only 58.4% of the total population had health insurance, meaning that 35.7 million people were not covered. This study estimates that even if subsidized programmes are expanded and institutional networks are used to launch information and enforcement campaigns, while they could help significantly expand coverage in the coming years, about 24% of the population could still remain uncovered by 2014.

This group is made up of people of working age in the informal sector and elderly who don't benefit from any financial aid to buy health insurance. They are not poor or near poor. They cannot get health insurance as dependents of persons employed in the public sector or in formal private enterprises.

The particularly low take up rates of voluntary insurance in the past reveal the low willingness to participate in health insurance of these population groups. The study estimates that out of a **total of 23.3 million people** only 2.3 million had bought voluntary insurance in 2008 (a take up rate of 11.1%). Although buying health insurance will be mandatory in 2014, this study argues that the Government will face difficulties simply trying to enforce participation among these population groups given that probably a lot of resources will have to be devoted to expand health insurance coverage for other groups of society.

Understanding the characteristics of these population groups and implementing policies that help change their attitude toward health insurance must, therefore, be part of the strategy to expand health insurance coverage.

In that respect, the study presents two major findings:

- 64.4% of people in the informal sector (not poor or near poor and not dependents of formal employees in private and public enterprises or civil servants) earn relatively good incomes from a single activity of which 15.5% are wage-employed. **Expanding enrolment though business and employee registration could be easier than expanding at individual levels**.
- **Local institutions matter** and the way health insurance is implemented matters. The South Central Coast region, which has arguably the most "client-oriented" approach, has also achieved the highest coverage of people in the informal sector.

Some policy implications emerge from these two findings, including:

Contrary to common wisdom, besides the poor and the near poor, the populations of the informal sector who are not inclined to buy health insurance are not principally low income earners doing a variety of activities: 71.2% earn relatively good individual incomes and 64.4% of them earn that income from one unique source or activity; 31.1% as farmers, 17.8% as self-employed and 15.5% as wage employed in small businesses or household units. The businesses in which these people are involved are more likely to be integrated in the economy than small casual businesses. Enforcing health insurance coverage at the business level could, therefore, be easier than enforcing it at individual levels.

However, increasing registration of small businesses to the tax authorities and of workers and employees to Social Security could be challenging. First, for the tax authorities such a task will be cumbersome and it will bring little return because these small businesses will pay very little taxes. Second, policymakers will have to determine how the social insurance law should be applied to the waged employed of these small informal businesses. Should owners and employees share health insurance enrolment fees? Should health insurance enrolment fees be paid from employees' current wages? Should employees register in the pension fund and the other social insurance funds? These decisions will affect the cost of registration for both owners and employees. Therefore, these decisions will have an important impact on the willingness of wage paid employees to participate in health insurance and of owners to possibly try and evade registration.

The second set of policy implications refer to the cost-benefit relationship of health insurance.

The study used the rich database of the GSO households' survey on the population's health insurance status to highlight some of the reasons that contribute to or prevent people from participating in health insurance. Like previous studies, it found that for individuals facing health expenditure, knowing about health insurance, affordability, etc. are all important factors. What this study also highlights is that **the source of the problem is probably not simply at individual level**. Local institutions matter and the South Central Coast region, which has arguably the most "client-oriented" approach, has also achieved the highest coverage among people of the informal sector.

The approach of the South Central Coast is particularly perceptible as in that region:

- Insured were more likely to be registered at hospitals.
- Insured were less likely to pay additional fees at the facilities where they sought medical care with their health insurance card.
- Insured were more likely to be able to use their cards at the facilities where they sought medical care.
- Non-insured bought more health insurance between 2006 and 2008 than in other regions.

At the same time, the insured did not seek more medical care (thus, there was no sign of higher adverse selection problems).

These results suggest that in the South Central Coast workers of the informal sector have easier access to hospitals than in other regions. Issues relating to the desire of the population to seek medical care at higher levels have been reported in previous studies (Dam et al., 2005-2010; Dam et al., 2005; Jowett &

Thompson, 1999; Giang, 2008). The example of the South Central Coast shows that installing barriers or easing access to healthcare facilities has a strong impact on the willingness of workers of the informal sector to participate in health insurance.

Consequently, **policies that remove the barriers for the insured to use health care services (particularly at hospital level) have more chance of increasing people's willingness to buy health insurance than information campaigns about the importance of having health insurance**.

However, expanding more "client-friendly" approaches, such as easing direct registration at hospitals and facilitating the use of higher levels of health care services by workers of the informal sector, requires measures that reduce the problems of adverse selection: the sick are more inclined to join meaning that the imbalance between the number of healthy and unwell participants deteriorates the financial balance of health insurance. In that respect, the elimination in 2008 of the obligation of enrolling by groups (of sick and non-sick persons) has increased the issue of adverse selection and hindered any efforts to encourage major participation by the workers of the informal sector.

Reinstating the practice of enrolment by groups and researching how the most successful regions, like the South Central Coast, have managed, in the recent past, to increase client satisfaction while avoiding the deterioration of health insurance finances are the most promising avenues to find ways to encourage participation by workers of the informal sector and help achieve the Government goal of universal coverage in 2014.

5. Further research

Implementing policies that reduce the cost of moving to the formal sector and designing policies that satisfy workers' desire to access hospitals and protect health insurance finances requires the **collection of more information** and more **consensus building activities** between the various stakeholders: policymakers responsible for the expansion of health insurance coverage, public managers in charge of health insurance finances, health care providers at hospital levels, workers and heads of production units from the informal sector (farms and other households and small businesses).

In recent years, GSO has implemented several surveys on the informal sector, in particular on households' small business units. A first direction of research could be to use these results to understand what are the factors that prevent these units from registering and **estimate the cost that would imply being formal**. Based on these findings more qualitative research (e.g. in depth interviews, focus groups) could be organized to confirm the findings and collect proposals for possible solutions with the participation of workers and heads of production units from the informal sector (farms and other households and small businesses) and representatives of the different public agencies involved in the process.

The organization of several case studies that would allow for the comparison between different practices regarding the implementation of health insurance in the past would help design policies that satisfy workers' desire to access hospitals and yet protect health insurance finances. Focus groups that **collect proposals and research consensus meetings among hospital providers and workers from the informal sector about possible ways in which client satisfaction might be improved**, **while at the same time adverse selection issues can be reduced**, would also help policymakers design road maps towards universal coverage.

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ANNEXES

Annex 1: The scope of the study: number of respondents

According to these criteria, 9,495 respondents in the household survey of 2006 and 8,721 in the survey of 2008 belong to the group of the current "non-insured "persons. If these persons' attitude toward health insurance does not change in the coming years, it will be particularly difficult to integrate them in health insurance in 2014. 869 respondents in 2006 and 1,111 in 2008 belong to the group of the "insured". These persons share the same criteria but their attitude toward health insurance is positive. This group is rather small while the group of the non-insured is rather large. As **Error! Reference source not found.**1a and **Error! Reference source not found.**A1b show, the group of the "non-insured" represented 25.6 percent of the total population in 2006, and 24.0 percent in 2008. The group of the insured: 2.3 percent of the total population in 2006 and 3.0 percent in 2008.

Table A1a: The group under study and the reference group, 2006

	Number of respondents	Frequency	Percent in total
Number of persons, individual responses			
Reluctant (group under study)	9,495	21,081, 295	25.6
Voluntary insured (reference group)	869	1,882,458	2.3
Total		22,963,753	
Number of households with at least one member in the group of			
Reluctant	3,983	8,876,788	45.2
Voluntary insured	565	1,238,266	6.3
Total [1]		10,045,431	

Note: 1/ Voluntary insurance in 2006 required that all the members of the household should be insured. In the survey some persons in these households remain not insured (33 cases or 69,623 households). The reason is likely to be due to the difference in defining households in VHLSS and for health insurance. The former likely includes domestic workers or people living with the family while health insurance does not consider household members.

Source: Authors' calculations based on VHLSS 2006

Table A1b: The group under study and the reference group, 2008

	Number of respondents	Frequency	Percent in total
Number of persons, individual responses			
Reluctant (group under study)	8,721	20,728, 688	24.02
Voluntary insured (reference group)	1,111	2,595, 673	3.00
Total		23,324, 361	
Number of households with at least one member in the group of			
Reluctant	3,736	8,907, 063	42.50
Voluntary insured	688	1,603, 846	7.65
Total [1]		**10,510, 909**	

Source: Authors' calculations based on VHLSS2008

Annex 2: Coverage rate by categories achieved in 2014 if workers of the informal sector remain reluctant to buy health insurance.

Error! Reference source not found. presents estimates of health insurance coverage rates by categories that could be achieved in 2014.

Coverage will likely be similar and around 76% between women and men, rural and urban residents. Given the importance in Vietnam of the informal sector in employment, coverage will probably be lower among the persons between age 30 and 64; 61.5% of these persons could be in health insurance in 2014. Similarly, because most of the workers of the informal sector are not among the better-off in society, coverage would be lower in the second, third and fourth quintile than in the top quintile. Finally, because vulnerable groups and pensioners are covered and many elderly in the informal sector continue to work after reaching 65, coverage of the inactive will likely be rather high (85%).

Table A2: Coverage by categories in 2014 (estimates based on participation, 2008)

	Age group				
	Under 15 years	15 to 29 years	30 to 64 years	65 years and above	Total
Covered	100	77.76	61.45	76.77	75.98
Not covered	0	22.24	38.55	23.23	24.02
	Women	Men	Rural	Urban	Total
Covered	76.28	75.7	75.69	76.74	75.98
Not covered	23.72	24.3	24.31	23.26	24.02
Household's consumption ranking					
	Quint1	Quint 2	Quint3	Quint4	Quint 5	Total
Covered	100	65.35	64.31	70.57	78.13	75.98
Not covered	0	34.65	35.69	29.43	21.87	24.02
	Under working age		Active	Inactive	Total
Covered	100.0		63.33	85.01	75.98
Not covered	0.0		36.67	14.99	24.02

Source: Authors' calculations based on VHLSS2008

Reading: 38.55% (100-61.45) of the population between age 30 and 64 could likely be reluctant to buy health insurance in 2014.

Annex 3: Why did you not buy voluntary health insurance? Details of Table 6

Table A3: Reasons for not buying voluntary health insurance, 2006

First reason reported for not buying health insurance	percent	Regrouped answers	percent
In good health	34.1	No need (reasons 1,2)	36.7
Had before but not used	2.6	Too expensive (reasons 4,5)	20.7
Had before but unemployed	0.6	Issue with access (reasons 6,7,9,10)	24.1
Too expensive	4.6	Not satisfied with health care quality (reason 8)	10.4
Cannot afford	16.1	Other (reasons 3,11,12)	8.1
Don't know where to buy HI	12.6	total	100.0
Not available in my commune	6.7		
Health care services of good quality	10.4		
No idea of HI	2.9		
Waiting for the commune to start registering insured	1.9		
Other	4.8		
No idea	2.9		
Total	100		

Source: Authors' calculations based on VHLSS 2006