CHAPTER 3

HEALTH CARE FINANCING IN VIETNAM

3.1 The Framework of Health Care Financing in Vietnam

The structure of Health care financing in Vietnam are includes 4 components : government budget, foreign aid, health insurance premium and treatment fees. The first three components are controlled by the public health sector, the last, treatment fees paid by patients involve both : public sector and private sector.

During the period of economic reform, the proportion of the national government budget for current expenditures spent on health increased from 2.76 % in 1986 to 4% in 1990 and after that remained roughly around this percentage up to now (see the Table 3.1).

Table 3.1: Vietnam National Health Budget 1991-1995
(billion dong)

	1991	1992	1993	1994	1995
National Budget	12,081	22,815	38,080	48,270	60,200
Health Budget	716	1,020	1,468	2,220	2,817
%	5.9	4.47	3.85	4.6	4.7

Source : Ministry of Planning and Investment, Vietnam

It is now recognized that in the face of problems, the health budget from government is insufficient. The 1994 assessment of the Vietnamese National Assembly stated that it covers about 60 % of total health care need, only enough for normal running cost. It means that a lot of "need" can not be satisfied, such as purchasing new and modern health machines, constructing and decorating new buildings for hospitals which had been built a long time ago, using new drugs and facilities for treatment and diagnosis.

From 1989, a system of user fees for district, provincial and national level hospitals has been established in order to increase resources for health, but as we can see in Table 3.2, it covers only around 5-7% comparing with government expenditures for health, and improvement of health care financing through user fees has not been forthcoming due to the many exemptions that are granted and the reduction in the attendance at public health care facilities.

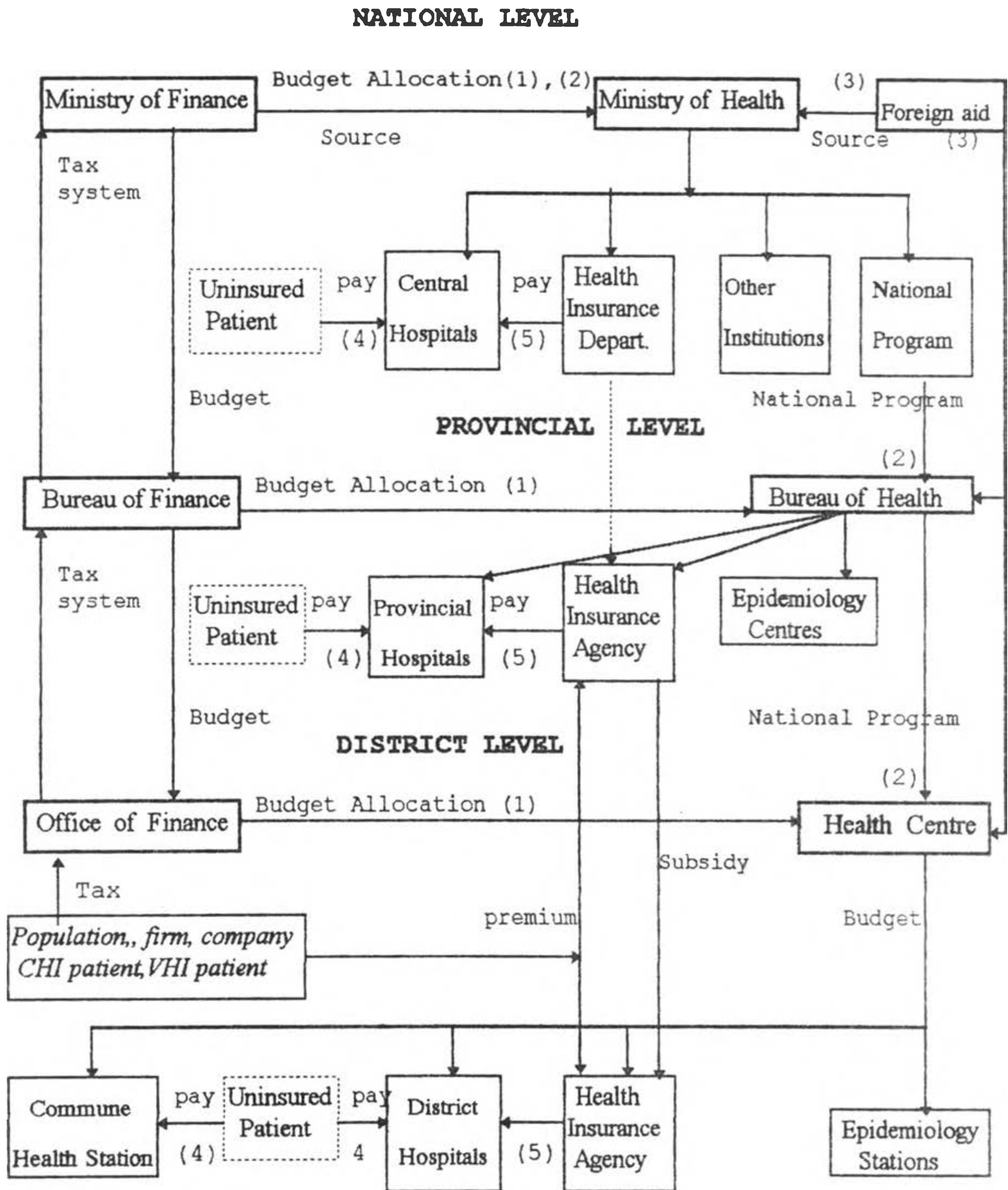
Table 3.2: User Fee Compared to Government Expenditure
(billion dong)

Year / Item	1990	1991	1992	1993	1994	1995
Gov't exp.	427	716	1,020	1,468	2,220	2,817
User fees	20	45	72	102	110	150
%	4.68	6.28	7.06	6.95	4.95	5.32

Source : Ministry of Finance, Vietnam.

In Figure 3.1, the framework of health care financing for public section in Vietnam is presented.

Figure 3.1: The Framework of Health Care Financing in Vietnam



Note: (1)..(5) are financial sources of Health budget.

——→ flow of tax system, foreign aid, budget allocation, hospital fee payment, and health insurance premium contribution.

·········→ policy making, guidance and general reserved fund kept for special subsidizing from Vietnamese HI Department to sub-department

3.2 **Health Insurance in Vietnam**

As part of the efforts to bring more resources into the health sector, the Health Insurance program has been advocated for a number of years. The severance scheme has been operating since 1989 but mostly as a pilot program at the provincial or district level. In 1992, the government approved the principle of health insurance at the national level. Civil servants and factory workers were insured on a compulsory basis. Other citizens could join on a voluntary basis. The initial emphasis was also on health insurance coverage of the cost of hospital services. In practice, this law is expected to imply the gradual implementation of health insurance for most of the population. Indeed, due to different socioeconomic conditions, this implementation is likely to be carried out at a different pace in the various regions. Moreover, much will have to be assimilated and improved about the functioning and management of health insurance. One has to realize that even though the scheme now is four or six years old, it is still in a very early stage of development.

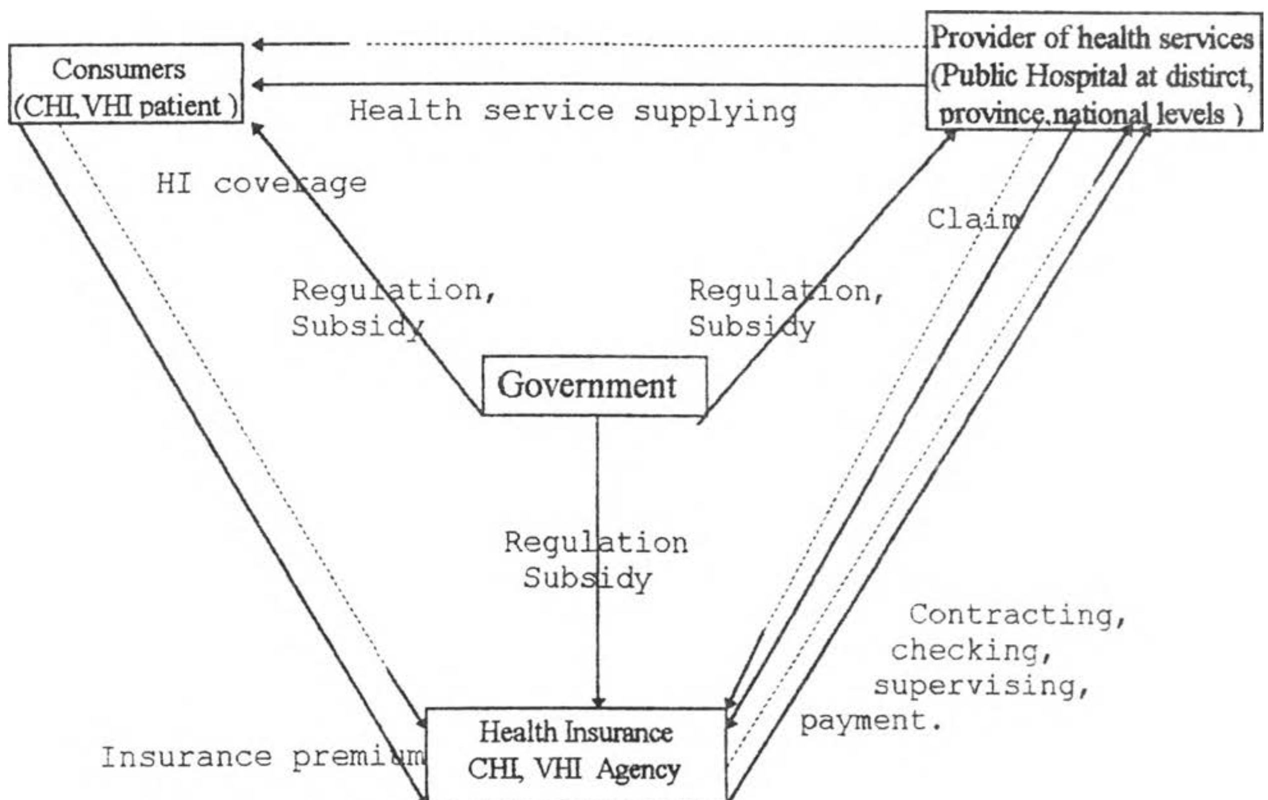
The feasibility of health insurance should be investigated at all administrative levels, including the commune level. Note, for instance, that the communes are now required to supplement the funds from the government health budget by their own initiatives to raise funds among the commune's population. Hence, health insurance could well be a potential source of funds at the commune level.

Existing health insurance schemes in Vietnam are the public system, organized and managed by governmental organization; at the national level it is called Vietnamese Health Insurance Department with responsibility for policy making, management guidance and general reserve fund keeper. There is a sub-department of health insurance for each province. The sub-department has the right to do autonomous, independent accounting and manage the district-health-insurance agencies which belong to it (see Figure 3.1). Among total revenue from insurance premiums, it can use a maximum of 8% for administration, and in case of the compulsory health insurance (CHI) program, it contributes 2% to the central department for the general reserve fund, the rest has to be used for paying health care service benefits of insured patients.

i). **Financial Mechanism of Health Insurance in Vietnam**

The *main characters* of this mechanism is that the health insurance agency is the public, non-profit organization. Insured persons pay nothing when they use health care services from providers inside the insured scope, while hospital costs are reimbursed by third-party-payment directly to the hospital after checking and under supervision of health insurance officers. Consumers, providers and insurers get benefit from government subsidy through health budget allocation for public hospitals. Figure 3.2 demonstrates the mechanism's actions as a part of the Vietnamese health care financing framework, where providers are district, provincial and central hospitals, consumers are CHI and VHI patients and the health insurance agency is the provincial health insurance sub-department with district agencies belonging to it.

Figure 3.2: Diagram of Financial Mechanism of Health Insurance in Vietnam



Source : *Modified from WHO Technical Report Series. No.829 "Evaluation of Recent Changes in the Financing of Health Services". WHO 1993.*

Note: ———→ CHI action.

..........→ VHI action.

ii). **The Structure of Health Insurance in Vietnam**

The structure of health insurance scheme in Vietnam mainly are compulsory, voluntary and free health card for disabled and handicapped. The details of each scheme are as follows :

(1) **Compulsory Health Insurance** (CHI) is applied to government servants and industry workers with premium occupying 3% percent of salary, in that, government or employers contribute 2%, government servants and employees pay 1%. This program insures for both in-patient and out-patient department in terms of recurrent expenditures and a part of capital cost of health care services, by paying directly for the hospitals which signed the contracts with health insurance sub-departments (see Figure 3.2). The target of population which the CHI program intends to cover is 5 millions, including 1.5 million government servants, 2 million industrial workers and 1.5 million retired persons.

Even it is a compulsory system, it is difficult to cover all of the target population. The covered percentage was only 45% in the first year operating and has risen to 82% now, with the number of covered insured around 4 million. In terms of financing and expenditure, Table 3.3 shows that the program's revenue and cost increased parallel nearly 3 times over 4 years, and the revenue was enough to cover the total cost of the program.

Table 3.3: Situation of Compulsory Health Insurance in Vietnam.

million dong

Index	1992	1993	1994	1995
Target population covered	5,000,000	5,000,000	5,000,000	5,000,000
No.of actual insured	2,228,000	3,722,237	3,946,220	4,100,000
% covered	45	64	79	82
Total CHI Revenue (million dong)	69,945	121,362	167,441	183,126
Total CHI cost	59,274	64,366	106,538	161,965
Transfer to next year	10,671	56,996	60,903	21,161

Source : Department of Vietnamese Health Insurance.

(2) **Free Health Card** program have been implemented since 1993 in several provinces. Those programs subsidized by local governments and insure only the disabled, handicapped and old persons who are alone and very poor with the standard used for assessment that his or her income is not enough to buy 20 kilograms of rice per month; that equals 50,000 dong. The number of free health cards distributed was only around 20,000, compared to 2 million population of this group. The main reason is the limited health budgets of local governments.

(3) **Voluntary Health Insurance** (VHI)

Among 73 million of population, VHI programs intend to cover about 40 millions outside the scope of the compulsory health insurance scheme and other groups which can use public health care services free of charge. The numbers of people for each group are 15 million children under 6 years old, 9 million minorities and about 2 million very poor with certificate card allocated by local social affairs offices (see the Table 3.4). The first pilot of the VHI program was opened in 1990, 2 years before the CHI scheme was established officially, mainly in Haiphong.

Table 3.4 : Number of VHI Persons in Vietnam

(1,000 person)

Year / Item	1990	1991	1992	1993	1994	1995
-Target pop.	35,353	36,091	36,813	37,550	38,295	39,000
- Insured	108	216	310	534	610	650
- % covered	0.3	0.6	0.84	1.42	1.6	1.7

Source : Department of Vietnamese Health Insurance.

Now the *problem* of the VHI program in Vietnam is the existing gap between the target and the actual number of insured persons of VHI programs in the whole country. Corresponding to that problem, the *objective* of this study is, through the case study on economic analysis of VHI premium in Haiphong, to identify methods to extend the number of insured persons for VHI programs in Vietnam.

In the common scene of the health insurance issue in Vietnam, Haiphong is an active location where the

first province operated VHI program began in Vietnam. After 6 years operation, the VHI program in Haiphong has a lot of advantage and of course, faces problems.

3.3 **Health Care Financing and Health Insurance in Haiphong**

3.3.1 **Health Care Financing**

Similarly to other provinces, the provincial health budget in Haiphong receives contributions from 4 sources: local government budget, foreign aid, hospital fees and health insurance reimbursed from health insurance office. Beside that, it can receive an assistant budget from national programs for social disease protective activities at certain locations.

Even it is limited by the budget, the Haiphong government pays attention to the health sector by allocating around 11-12 % of its annual budget for health, but analyzing data in Table 3.5, we find that even it gets the advantage, such as increasing 320% within 6 years, the health budget per capita in Haiphong is still very low, in 1995 this index is equal to 3.8 USD per capita. This budget can provide enough for low-standard-operating costs of hospitals, but of course it is not enough for capital costs such as renewal of health machines or buildings. In the short run, during the time of improvement of the economic condition of Haiphong and incomes of population are better, the health sector can not improve immediately the quality of health care services in order to increase demand for health care. The proportion of government subsidy, including the sources from national programs, compared to the total health budget of Haiphong is around 65-70%, while the percentage of foreign aid declines year by year, from 19% percent in 1990 down to 5.9% in 1994 and 6.5% in 1995; one of the reasons is the increasing local sources for health in Haiphong. The hospital fees proportion increased nearly by double within 6 years, from 6.85% in 1990 to 10.78% in 1995; in parallel with it, the financial source from health insurance year by year becomes more important, contributing 10.86% of the total health budget in 1995 compared with 2.27% in 1990, it takes 16% if compared with the financial sources from government. Even though it just covers about 20% of the population there, health insurance finances the same amount of budget for health compared with hospital fees. In the long run, when the health insurance scheme with a large number of insured

persons will be implemented, health insurance will become the main financial source for the health budget in Haiphong.

Table 3.5: Local Health Budget of Haiphong 1991-1995

(million dong)

Item / Year	1990	1991	1992	1993	1994	1995
1. Gov't Budget	12,308	17,050	26,350	37,100	40,131	42,018
% of Total	*64,17*	*68.25*	*62.32*	*66.98*	*68.24*	*68.36*
2. National Program	626	903	1,370	1,883	1,938	2,140
% of Total	*3.26*	*3.62*	*3.24*	*3.40*	*3.30*	*3.48*
3. Foreign Aid	4,942	4,749	6,088	5,219	3,462	4,009
% of Total	*25.77*	*19.01*	*14.40*	*9.42*	*5.89*	*6.52*
4. Hospital fees	929	1,712	3,168	4,714	6,093	6,625
% of Total	*4.84*	*6.85*	*9.86*	*10.32*	*11.74*	*10.78*
5. Health Insurance	375	567	4,303	5,470	6,372	6,675
% of Total	*1.96*	*2.27*	*10.18*	*9.88*	*10.83*	*10.86*
6. Total Budget	19,180	24,981	42,279	55,386	58,806	61,467
% of Total	*100*	*100*	*100*	*100*	*100*	*100*
7. # of Population (000'person)	1,460	1,490	1,516	1,542	1,565	1,588
8. H.B per Capita (dong)	13,140	16,770	27,900	35,920	37,580	38,707

Sources : MOH, MOF, Vietnam; Bureau of Health of Haiphong.

Note : The items 1,2,3,4,5 of this table correspond with the marks (1),(2),(3),(4),(5) in the Framework of Figure 3.1 that showing the financial sources of the health budget in Vietnam and Haiphong.

The average budget spending for one hospital bed per year and per day can be calculated by using the public allocated budget including foreign aid managed by government for curative care at hospitals, divided by the number of hospital beds in the whole province (see Table 3.6). This data can be used to analyze the government subsidy for one bed per day, both for non-insured and insured patients, including voluntary health insurance.

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Table 3.6 : Average Budget Subsidized from Government for One Bed per Year and per Day in Haiphong, 1990-1995

Year / item	1990	1991	1992	1993	1994	1995
1.Hospital Budget (million dong)	13,050	17,528	29,203	38,343	40,710	42,555
2. Total beds	2,900	2,900	2,900	3.000	3,000	3,000
3. Budget for bed per year (million)	4.500	6.044	10.070	12.781	13.570	14.185
4. Budget for bed per day (dong)	12,330	16,560	27,590	35,020	37.180	38,860

Source : Bureau of Health of Haiphong

For one patient staying one day in the hospital in 1995, local government subsidizes about 38,800 dong, paying to the hospital by direct way as user fee or indirect way as health insurance premium.

3.3.2 **Health Insurance in Haiphong**

Haiphong is the earliest province for establishing the health insurance scheme for the whole province, represented by the Health Insurance Office of Haiphong, which signed the contracts with 23 hospitals of the province on hospitalization care service supply for Haiphong's insured patients. The same structure of health insurance scheme operates in the whole country, health insurance in Haiphong includes Compulsory Health Insurance (CHI) program, Free Health Card and Voluntary Health Insurance (VHI) program; and in addition they organize an Insurance program for school children.

i). **Compulsory Health Insurance in Haiphong**

CHI program in Haiphong started in 1992 at the same time with other provinces in Vietnam. The *target population* is civil servants and industrial workers, without their dependents. The number of the target population is over 200,000 persons, including 25,000 civil servants, 150,000 industry workers and 35,000 retired persons, it is around 13.2-13.5% of the population there. The covered percentage between actual and target populations increased from 58% in 1992 to

78.57% in 1995. The *insured scope* is to insure for both in-patients and out-patients in terms of recurrent expenditure and a part of capital cost of health care services. Except for the emergent cases, in-patients go to hospital following the regulated levels, the first is commune health station, the second is district hospital, and the last is provincial hospital (see Figure 3.3). The out-patient can get health care services at clinic, district or provincial hospitals, depending on the degree of illness and consultation from physician. The *CHI premium* is collected based on 3% salary of the insured; 1% paid by insured person, 2% paid by government for civil servants and employers for employees. Normally, it is higher than VHI premium by about 70-90%. During the first 4 year operation (1992-1995) CHI program, total revenue was always greater than the total expenditure, with the surplus accumulated being 3,963 million dong (see Table 3.8). This amount of money was proposed to be used for improving health facilities, such as renew machines, equipment, and decorating, initially at provincial hospitals. Health insurance office reimburses hospital costs by paying directly for the 23 hospitals who had signed the contracts with them, after checking the documentation and accounting.

ii) **Free Health Card in Haiphong**

This program, implemented from 1994, follows several provinces who generated the idea of helping disabled, handicapped and very poor old person who are alone and does not have enough income to spend for buying 20 kilograms of rice per month, that equals 50,000 dong. The source is used to buy free health card subsidized by the Bureau of Labor and Social Affairs of Haiphong, with limited numbers of cards issued : 2,288 cards in 1994 and 2,170 cards in 1995. The insured benefits of this card are the same as the VHI card in Haiphong, which will be described as below.

iii) **School Children's Insurance Program in Haiphong**

This program insures for primary health care, dental care at school, and hospital care for accident and sickness. The advantage of this program is it covers almost 200,000 school children in Haiphong, that means 13.4% of population there.

iv) **Voluntary Health Insurance in Haiphong**

The VHI program has been carried out in Haiphong since 1990 up to now. With its experience and problems, an economic analysis of this program can be useful not only for Haiphong, but also for other localities in Vietnam which are operating Voluntary Health Insurance programs.

As with the CHI scheme, the *characters* of the VHI program are operated by public organization and partly subsidized by local government budget. The target of it is to insure all informal, daily and agriculture workers. The analysis on government subsidy for VHI patients in Table 3.7 can be done by using the data in Table 3.6 and Table 3.8 and statistical data that shows the average length of stay at hospital for Haiphong's VHI patients is around 7 days. This index has remained for 6 years.

Table 3.7 : Average Amount of Money Government Subsidized for One VHI Patient in Haiphong.

(000' dong)

Item / Year	1990	1991	1992	1993	1994	1995
1.Average costs of one VHI patient paid by VHI Office to hospitals	130.7	163.6	202.0	271.0	270.0	289.0
2. Gov't subsidy more for one patient	86.3	116.0	193.1	245.1	260.3	272.0
% (2) : (1)	66%	70%	96%	90%	96.5%	94%

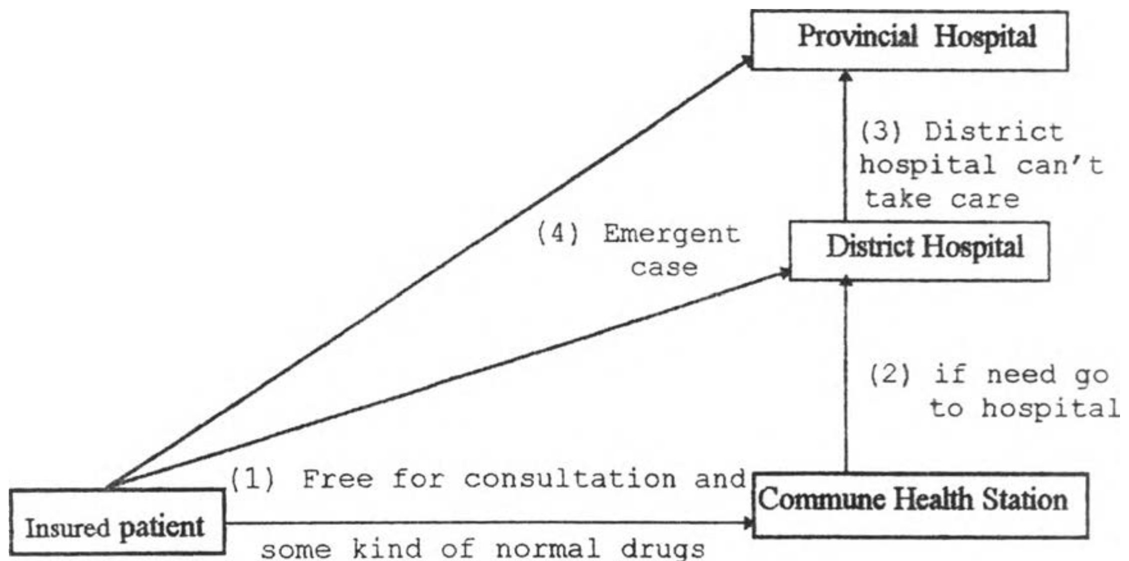
Source : Bureau of Health of Haiphong

Table 3.7 shows us that the tendency of average amount of money Haiphong's government subsidized for one patient compared to average costs of one VHI patient paid for hospitals by VHI agency is nearly the same, it is an important condition for the near future when the VHI program finds out the solution to extend the membership, the government has capacity to subsidize for increased number of VHI patients, *that means the supply side of VHI program is constant with an extended number of VHI patients*, because local health budget increases year by year, even it is low, but it covers enough for recurrent costs of hospitals, and average occupation rate of

hospitals in Haiphong now is only 70% at provincial level and 55-60% at district level.

In terms of *insured scope,* the program now insures mainly for in-patient curative services at hospital, firstly in district hospital, such as diagnosis, drugs, blood transfusion, X-ray, and curative care. Other kind of recurrent costs and capital costs are still subsidized by the health budget of Haiphong's government. Figure 3.3 presents the *procedure for seeking health care services* of VHI patients. The first step is coming to the commune health station when he feels sick, at that place they can get out-patient care services free of charge except drugs; after examination if patient situation needs to get treatment at a district hospital, the health staff will send him there. In case a district hospital can not take care of that patient, he will be sent to the provincial hospital, and in emergent cases patients can go directly to district or provincial hospitals.

Figure 3.3 : **The Procedure of Insured Patient's Seeking for Health Care Services**



Source : M.O.H of Vietnam

The VHI program in Haiphong reimburses directly for hospitals in Haiphong's area where the insured patients take health care services, under the surveillance of VHI medical doctors and VHI officers present in each hospital from district level to provincial level, and physicians who work there can get allowances when they are taking care of VHI patients. The

total amount of allowance is constrained. It is not more than 10% of the total amount of money reimbursed from VHI office to the hospitals which signed the contract with VHI office.

For analysis and conclusion, Table 3.8 shows the data presenting the situation of VHI Program in Haiphong. The target population covered by the VHI program in Haiphong is about 1 million, it takes 65% of the population there. After 6 years operating, the actual percentage covered compared to target, increasing from 5 to 10%. But the absolute number of the gap between them is bigger, from 887,600 to 955,000 people. In the years 1994 and 1995, the number of VHI persons were constant. The gap between actual and target populations is the *problem* of the VHI program in Haiphong and also in other provinces, and how to increase the number of VHI persons in Haiphong is the *primary question* of this study. Base on that question, increasing the number of insured persons for VHI program in Haiphong is the *general objective* of this study.

The premium of the VHI program is regulated by Haiphong's government, based on the household selling and uniform price per insured person. Between 1990-1995, the premium changed from 8,000 to 15,000 dong per card. Compared to income of daily workers in urban areas and agriculture in rural areas which varies between 300,000 dong and 700,000 dong per month (about 30 to 70 USD), enough only for poor food and essential expenditure, households with 4 persons or 6 persons can not easily to spend 60,000 dong or 90,000 to buy VHI cards for the whole family, so if VHI program suggests a lower premium level which still contributes enough for the program's revenue, it can increase demand for VHI in Haiphong. This suggestion is valuable when we see that from starting year 1990 to now, the revenue of VHI program has always covered enough for expenditure, specially in the two years of 1994-1995, the surplus was a high percentage, that means in the short run, the program can adjust the premium to extend membership. So the *secondary question* for this study is "what is the optimal premium for VHI program in Haiphong, as one of the means to extend the membership of the program", and *corresponding specific objective* of this study is to "identify the method to select the optimal premium for the VHI program in Haiphong, as one of the means to extend the membership of this program".

Table 3.8: Situation of Health Insurance Issues in Haiphong

Item / Year	1990	1991	1992	1993	1994	1995
Total population (million)	1.460	1.490	1.516	1.542	1.565	1.588
Among them						
A.Target to cover[a] by CHI	190,000	190,000	190,000	200,000	210,000	210,000
1.% compare to pop.	na	na	12.5	12.9	13.4	13.2
2.# of actual insured			110,547	144,942	157,825	165,000
3.% covered /target			58%	72.5%	75.15%	78.57%
4. Total revenue (million dong)			3,960	5,220	6,300	6,600
5.Total expenditure (million dong)			3,470	4,250	5,052	5,345
6. Surplus			490	970	1,248	1,255
B.Target to cover by VHI	934,700	953,400	972,500	992,000	1040,000	1060,000
1.% compare to pop.	64	64	64.15	64.3	66.5	66.75
2.# of actual insured	47,127	58,547	70,326	89,302	108,004	105,000
3.Gap between Target and annual insured	887.573	894,853	902,174	902,698	931,996	955,000
4.% covered /target	5.04	6.1	7.23	8.39	10.38	9.9
5.Premium (dong)	8,000	10,000	12,000	14,000	14,000	15,000
6.1990 price	8,000	7.270	6,634	5,767	5,157	5,164
7.Total revenue (million dong)	377	585	844	1,250	1,512	1,575
8.Total expenditure (million dong)	375	567	833	1,220	1,320	1,330
9. Surplus	2	18	11	30	198	245
10.# of VHI patient	2,870	3,466	4,126	4,500	4,890	4,600
C.Children under 6 year old[b]	66,000	67,000	68,500	70,000	71,500	73,000
D.School children[c]	208,000	212,000	216,000	220,000	225,000	230,000
E.Other group[d]	61,300	67,600	69,000	60,000	18,500	15,000

Source : Office of Haiphong Health Insurance .

a. In 1990, 1991 target population for CHI program was only planning index for future action.
b. Free of chart for hospital care services.
c. Almost school children under 16 years old join Insurance program for PHC, dental care at school, hospital care for accidence and sickness.
d. Non-immigration, illegal immigration ...

Explanation : In the item B6 of table 3.8, the formula

$$Pi = \frac{CP_i}{1+ r_{i-1}} x \frac{P_{i-1}}{CP_{i-1}}$$

was used to convert the value of premium from current price of item (B5) to 1990 price of item (B6),

where

CP_i is premium presented by current price at year i .
CP_{i-1} is premium presented by current price at year i-1
P_i is premium presented by 1990 price at year i .
P_{i-1} is premium presented by 1990 price at year i-1 .
r_{i-1} is inflation rate of year i-1, with r_{1990} = 37.55%, r_{1991} = 31.5%, r_{1992} = 34.2%, r_{1993} = 11.83%, r_{1994} = 7%. The sources of r were collected from MOF of Vietnam.

The conversion have to be done each year, because the inflation rate in Vietnam was not uniform year by year. It starts firstly from 1991 premium to 1990 price, after that, year by year it continues to convert 1992 premium to 1990 price, 1993 premium to 1990 price ... and finished by converting 1995 to 1990 price.

For example: If we want to convert the 1992 premium 12,000 dong (CPi) into 1990 price. Fisrt, we have got to convert to 1991 price (Cp_{i-1}) in order to get uniform price to compare in next step,

$CP_{1992}/(1+r_{1991})$ = 12,000/(1+ 0.315) = 9125.5 it is the value of 12,000 at 1991 price = $CPi/(1+r_{i-1})$.

Now we can compare : At 1991 price 10,000 dong (CP_{i-1}) equals to 7,270 dong (P_{i-1}) calculated by 1990 price in the last step, so how much for 9,125.5?

10,000 dong (1991 price) = 7,270 dong (1990 price)
9,125.5dong (1991 price) = P_i ?

Use "the rule of three" to calculate Pi :

Pi = 9,125.5 (x) 7,270 / 10,000 = 6,634 dong

$$= \frac{CP_i}{1+ r_{i-1}} x \frac{P_{i-1}}{CP_{i-1}}$$

This formula is being used in Vietnam now.