Voluntary Rural Health Insurance in Thailand

Detlef Schwefel[1]

MEDIS - Institute for Medical Informatics and Health Systems Research of GSF, Munich,
and Free University of Berlin

Since 1983 an innovative prepaid voluntary health insurance scheme has been implemented in many provinces of Thailand. It covers by now about 5.6 % of the self-employed and rural poor as well as some parts of the urban (slum) population. Its basic aim is to mobilize local resources for an improved and cost-effective health care system. One especially important feature of the project is its linkage with local community development through the use of profits from local health card funds to avoid problems of adverse selection. As the prospects of large scale voluntary health insurances for the self-employed theoretically are rather slim it is quite interesting to evaluate this scheme which offers a host of challenging features.

1 Problems

Introduction: With a 9 percent increase of the gross national product per year, Thailand is today one of the fast developing countries in the South-East-Asian region. Social development lags behind in spite of relatively good indicators for infant mortality and life expectancy. Poverty - but not starvation - still prevails in larger segments of the population. Compared to the average income in Bangkok, people in the villages of the central region earn about 50%, in northern and southern villages 40% and in the north-eastern region 30% as much [26,ST62-]. The minimum wages range from 1.50 to 3.- US$ a day [27,190-]. The average household size is 4.2 persons; the respective figure for farm operators renting land is 4.9 [26,ST32].

Health status: Information exist that allow a rather detailed assessment of the Thai health and health care situation [3;22;34;35]. The registered death rate is at 5.1, the estimated one at 8.2. Life expectancy for males is 61 and for females 65 years. The infant mortality rate is at about 50 per 1000. Leading causes of death are still accidents, poisonings and violence; infectious disease death rates are rapidly declining; heart disease and cancer are now becoming the major killers. Morbidity indicators showed in September 1981:

Thailand	urban	rural
rate of illness per 1000:	83	64
rate of injury per 1000:	40	38
rate of hospitalisation per 1000:	4.2	4.2

Health behaviour: In case of illness, people turn to [34;48]:

	1970	1979	1985
self-treatment	51 %	42 %	29 %
public facilities	16 %	27 %	47 %
traditional healers	8 %	6 %	2 %

Decreasing self-help efforts and an increasing utilization of government facilities characterize the present trends in health seeking behaviour [48,6] in spite of very long waiting-times for the poor in public facilities

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[22,65]. According to some surveys, in special situations different use patterns exist; one survey found up to 70% of the population going to private providers.

Health care supply: Health services are mainly provided by the Ministry of Public Health (MOPH), but by far not exclusively:

> the Ministry of Interior (MOI) is responsible for some health services in provinces, districts, subdistricts and municipalities
> the Ministry of Defence provides care to military personnel and veterans
> the Ministry of Education is partly responsible for health education
> the State University Bureau runs universities and professional training centres
> the Ministry of Agriculture has to prevent and control zoonotic diseases
> the Office of the Prime Minister signs for the National Statistics Office (NSO), the National Economic and Social Development Board (NESDB) and the Department for Technical and Economic Cooperation (DTEC)
> the Ministry of Finance provides medical care to employees of state enterprises and runs some hospitals
> the Ministry of Communication runs hospitals of the State Railways and the Port Authority of Thailand
> the Thai Red Cross Society has a hospital, a nursing school and a vaccines and sera institute [3,101].

In terms of some major resources the relative share of different providers was in 1981 [48,8]:

	hospitals	beds	physicians	nurses
MOPH	64 %	67 %	43 %	44 %
other ministries	9 %	20 %	39 %	33 %
state enterprises	3 %	1 %	3 %	3 %
municipalities	1 %	2 %	5 %	8 %
private sector	22 %	10 %	11 %	13 %

This pattern has not changed considerably since. It has to be mentioned that doctors are allowed to work with different providers at the same time and to run their own private clinic, which essentially means selling drugs - not prescribing them. In terms of regional distribution, Bangkok Metropolitan Area (BMA), holding 13% of the national population, has got about 30% of all hospital beds, 50% of medical doctors and registered nurses, 60% of dentists and 80% of pharmacists [48,6]. There is also an abundance of computer tomographs in Bangkok [22,40]. To overcome this maldistribution and to bring health resources to the villages, over the last decade MOPH has recruited more than 520.000 Village Health Communicators (VHC) and more than 53.000 Village Health Volunteers (VHV) as MOPH agents in the villages; they provide a kind of non- or low paid voluntary neighbourhood assistance, which functionally surpasses the health sector [7,12]. The VHV take care of essential drugs at local drug funds initially provided by MOPH. Above that, there is the Health Centre (HC), usually staffed with two paramedics, serving an average of 4.243 population [17,32]. Further above are district hospitals and provincial hospitals. This pattern of public supply is complemented by a pluralistic supply from other sources: private drug sellers, private healers and doctors, charity organizations, etc.

Health care expenditures: The sources of financing health care are estimated to follow this pattern [48,16]:

a: about 30 % come from government spending tax-payers money
b: about 66 % are private out-of-the-pocket payments
c: the rest is given by foreign aid and other sources.

(a) MOPH contributes about 70% of the financing of public health services - in 1975 it was 64%, in 1979 73% [3,19]. Government spending for primary health care was calculated to be 39% of the whole budget in 1985 as compared to 30% in 1981 [48,21]; 56% of the 1985 budget went to rural areas [22,20]. Between 1970 and 1984 government expenditure per capita (at 1972 prices) for health services rose by 230%, private consumption expenditure for personal care and health by 157%.

(b) The monthly household expenditure in current Baht for personal care and medical services developed as follows [25,82-]:

	health	food	all private expenditure
1968/69	61	441	916
1975/76	128	923	2004
1981	186	1487	3374
1986	229	1537	4106

The 1981 breakdown of monthly medical care expenses of households in current Baht for regional and social disaggregations is given by the following figures [26,ST):

	total	drugs	medical services
whole Kingdom	113	36	77
Bangkok metropolitan area	170	39	131
northern region	94	30	64
north-eastern region	94	35	59
central region	136	44	92
southern region	98	36	62
municipal areas	142	32	110
sanitary districts	113	37	76
villages	100	37	63
farm workers	78	32	46
professionals	311	43	268

It should be taken into account that expenses for medical services contain expenses for drugs, as the providers charge almost exclusively for drugs and include in that their service charges. Urban households with reported illness spent 1981 13.9% and rural households 18.6% of their income for health care [48,62]. Health expenditures are rising faster than income [22,1]. Private households spend considerable amounts of additional money for transportation and meals of friends and relatives when visiting inpatients. A high income elasticity of demand for health care characterizes private health expenditure in Thailand.

(c) Expenditure for health in private companies is unknown. They probably do not spend more than 1% of overall health expenditure.

Health care subsidies: User charges in the private sectors represent market prices. Charges in government hospitals are according to fee schedules, given with maxima and minima for a long list of services. They probably do not cover costs. Drug prices include normally all other fees except surgical fees, delivery fees and some special investigations [48,50]. Government is supposed to cover between 70% and 85% of the costs [46]. For example, only 10% of the income of health centres is from revenues collected [3,94]; according to another source, health centres get 80% of their income from government, 14% from donations and 6% from drug sales [22,43]. One estimation for the public sector's revenue coming from private expenditures indicate a range between 10% and 40% [3,25]. Deficits and low profits are reported for private hospital beds [48,65]. Further details will be given below.

Health insurance schemes: A complete picture of the specific products of health insurance schemes and their potential markets in Thailand is still missing. Actually it is a multiple system with quite different sources of payment:

a. free medical care programme for the poor
b. health insurance for government officials and employees of state enterprises
c. workmen's compensation scheme
d. fringe benefit schemes of private companies
e. other schemes of privileges
f. private health insurance.

The overall coverage of these schemes is estimated to be at 30% [44] excluding the Health Card Programme. The real figure is probably higher according to the following information.

Government officials' scheme: Government officials and employees of state enterprises, their spouses and direct relatives, i.e. parents and children, are given free medical care if treated in public hospitals or, up to certain ceilings, in private hospitals [48,56]. The money comes from the Ministry of Finance. This scheme covers about 3% of the population according to one source [43], 13% according to another [44]. Teachers of private schools are treated like government officials in a special scheme supported by the Ministry of Education. Employer and employee pay 3% of the salary each, government is adding another 6%. The employee's 3% are a kind of enforced saving that is refunded afterwards.

Free medical services scheme: Since the midseventies, about 6% of public expenditure have been spent for free medical services to the poor in public facilities nearby - including university hospitals - and according to certain, not very strict referral requirements. Before that, the health facilities decided who was poor or not (and they still do so outside this scheme!). Today the income threshold is at about 1500 Baht per month per individual or 2000 Baht per household [38,27]. The local representatives of MOI grant this privilege, by applying face validity criteria, for a period of three years. One feature is "mismanagement and abuse in the distribution of free medical cards" [8,2], especially according to regions [3,26], indicating that many poor do not get a Low Income Card (LIC) [48,53]. One source says that only 60% of the LIC-holders are poor, whereas 17% are wealthy [2,50]. Some cardholders do not use the cards because they think that doctors will not treat them adequately [12,97]. Figures for this programme's coverage show a share of between 14% and 20% of the population [44;48,53;2,V]. A baseline survey in Chiang Mai found 35% of respondents with LIC, ranging in different villages from 8% to 76% [17,12]. At present, MOPH is spending about 800 million Baht per year for this programme.

Workmen’s' compensation scheme: In principle, permanent workers of companies with 20 and more permanent workers are covered by an compulsory scheme giving free care, up to a certain ceiling, in case of work-related illnesses and work accidents. Companies often tried to avoid the financial burdens of this scheme either by contracting workers temporarily or giving first aid, discouraging hospital admission and bargaining for LIC for the affected. This scheme is now to be extended

> to all workers, i.e. even to temporary ones, in order to prevent rather widespread abuses of the scheme by, e.g., firing workers every third month
> to workers in companies with only 10 or more workers
> to include the families of the workers and
> to include common illnesses, child delivery, etc.

These extensions are under review by the cabinet and are backed by leading parties. Until now the employers had to pay the premiums, there was no pay roll deduction. Under discussion are an equal sharing of the premiums by employer and employee at a level of 3% of the salary and the reduction of government subsidies after this reform. No strict referral rules are built in this scheme, and their are some incentives to use private providers first and public ones only after surpassing the ceilings. Today the scheme covers about 3% of the population. There are no valid estimations as to its potential coverage after extension.

Private health insurance: The market for private health insurance in Thailand is quite narrow. Government regulations are very tight, freezing for example the number of life insurances and rationing licences for health insurance. The existing six companies for health insurance are only growing slowly. Nine other companies combine health and life insurances. The health insurances are said to run deficits but seem to be investing into future markets. Fringe benefits of private companies sometimes include free or subsidized health care based on contracts with certain providers or on own facilities. Type of benefits and coverage are mostly unknown. Some universities are enforcing their students to participate in group insurances for treatment in private hospitals. Estimations regarding the coverage of private insurance schemes hint at about 0.5% of the population. This figure seems to be doubtful, too.

Other schemes: There are many other schemes and common practices in giving health care privileges to certain groups of the population:

> veterans after about 2 years in the army are given free medical care
> village health workers get free medical care, not seldom including their family members
> orphans are treated free of charge
> many facilities have considerable numbers of 'no-card-no-money' patients. 17% of Chiang Mai's provincial hospital patients belong to this group
> old age security schemes are being discussed now [11].

Policy issues: The present health insurance or benefit system is a multiple one with voluntary as well as compulsory elements and fringe benefits. This system will evolve step by step. Today, a comprehensive overall policy is difficult to imagine. Health insurance is not a topic alone for MOPH. The Department of Labour and the Department of Social Welfare of MOI are active in shaping policy options for the social security system. MOPH is apparently not looking for being the political discussion leader. It is favouring voluntary insurance options whereas MOI seems to be advocating compulsory options. The plan of having a new Ministry of Labour and Social Welfare, bringing together essential aspects of the social security system, is being debated now on request of the Prime Minister. Political parties and tripartite representatives are also active in the field. A national committee on health insurance with representatives of essential social, political and ministerial groups has been working quite impressively for about one year, starting with remarkable information deficits but producing some enlightening papers [44]. This committee is one important factor for bringing together social security policies, health insurance policies and public health policies, e.g., by means of introducing social and economic points of view as well as management, financing and planning aspects. Some conflicting policy issues need debate: primary health care versus doctor-oriented health system, free medical care for low income groups and the elderly according to the fifth Five Year Plan [3,12] versus cost sharing by consumers, unified health system versus scattered providers according to benefit schemes, the optimal mix of private and public facilities, the health and/or development orientation of innovative schemes such as the Health Card Programme (HCP) and - not to forget - the status and perspectives of this very Health Card Programme, which is a remarkable health (and community development) financing scheme "Made in Thailand".

2 The Health Card Scheme

Introduction: The Health Card Programme (HCP) started as a maternal and child health (MCH) development programme in 1983. Since MCH services without medical treatment are rather difficult to get accepted by the population, it was soon extended in scope to medical care services in general and was experimentally implemented in 18 villages of 7 provinces. Essentially it is a voluntary health insurance scheme linked with community development endeavours. Its main objectives are

> to provide health insurance
> to finance direct costs of health services
> to control health services
< to increase MCH-service acceptance
> to strengthen village organization
> to support community needs.

The HCP is part of the sixth Five Year Plan of Thailand.

Main features: Since its introduction the HCP has been modified rather frequently and adapted to local situations so that the main features are difficult to describe:

* Types: There are different cards for different risk constellations, i.e. for medical services for families (mostly called: green cards), for individuals (red cards) and for MCH services (blue cards). The MCH-Card covers antenatal care, child delivery and postnatal care as well as all immunizations. The other cards are for medical treatment with certain conditions and limitations. One household may have all three cards at once. The use of these cards follows this pattern [MOPH]:

	Thailand	Chiang Mai
family cards	88 %	93 %
individual cards	6 %	2 %
MCH cards	6 %	5 %

* Membership conditions: An individual or a family is entitled to join the scheme when 35% of all households of the village are participating in the introduction of the scheme. For continuation there are different regulations: 20% of the villagers or a certain minimum amount of premiums collected, e.g., 20.000 Baht, are sufficient. Joining the programme is possible only for a whole year and not after the programme has already started in a village. A later entry is accepted only in case of MCH cards.

* Prices: The MCH card costs 100 Baht (about 4.- US$), the individual card 200 Baht and the family card 300 Baht per year. Lower prices are given to special populations, e.g. hill tribes. There are some sponsors buying cards and distributing them at lower prices to their clientele.

* Premium collection: Village headmen, health card fund committee members or village health workers are responsible for collecting the premiums, mostly within a three months selling period. Quite often 2, 3 or 4 instalments within 3 or 6 months are allowed [8,15].

* Card validity: The card is valid for one year starting according to local circumstances. Most card-years start after the money collection has been completed, which often will be after harvest; however sometimes already after the first instalments been paid or just after the headman's commitment the card will be used. Others start according to administrative or managerial conditions in the village. In one district the validities started in different villages as follows: one in January, three in February, one in March, two in April and May, one in June and July and two in November, and at quite different days in these months.

* Renewability: During the first years of HCP, unused card could be renewed without new payment or a payment at a lower price. This practice has been discontinued almost everywhere by now. In some provinces unused cards are valid for one additional physical and one dental check up.

* Family members covered: Family cards are valid for up to five persons of a household including children under 15 years. In some hill tribe areas more family members are covered as some villagers have more than one wife.

* Illness episodes: A family can use the card for up to six illness episodes per year. Till 1987 it had been eight episodes. The individual card is valid for up to 4 illness episodes. A precise definition of illness episodes and of emergencies is missing.

* Types of illness: Chronic diseases are usually not covered as for example hypertension, diabetes, tuberculosis and cancer. Local variations of HCP, nevertheless, allow to a certain extent for free treatment of such diseases. In one area a one-month treatment of a chronic disease is considered to be one illness episode. Chronic disease treatment is included in the individual card. Originally "avoidable" diseases such as veneral and alcohol related diseases were excluded from the scheme for the sake of stimulating healthy behaviour. This regulation seems to be outdated now everywhere.

* Referral requirement: To get the benefits of HCP the patient has to follow a rather strict referral procedure starting at the subdistrict health centre via the district hospital to the provincial hospital. Bypassing this regulation is discouraged by the rule that it is only once accepted but not twice. Depending on local circumstances or geographic particularities and in case of emergencies, the referral ways may be abbreviated or a choice of different hospitals may be given to the insured. University hospitals and private hospitals have so far not been included.

* Service privileges: Health card holders were promised to get a shorter waiting-time and a "smiling service", called "green channel" or "express service". The green channel privileges are enforced quite differently in different regions and institutions. They are justified by the previous screening at the referral ladder and the time lost thereby.

* Cost ceilings: Per illness episode up to 2000 Baht are insured. In principle, surpassing costs are demanded to be paid by the patient. In case of major costs of one illness several illness episodes may be spent instead of cash. If each episode of illness is valued 2000 Baht, in case of a 4300 Baht bill the patient can decide whether he will use 2 episodes of illness plus paying the 300 Baht in cash. Accidents are mostly treated up to a ceiling of ten times the price of the card. In some areas no strict ceilings are used.

* Discounts: Health card holders are entitled to a 10% discount on all prices for drugs or medical treatments not covered by the card.

* Providers reimbursement: Allocation formula have been developed for providers reimbursement. These formula changed over the years [38,5]. At present, in Chiang Mai 85% of the premiums collected are to be reimbursed to the public health providers, i.e.
  > 75% to government health facilities: 30% to provincial, 30% to district and 15% to subdistrict health centres
  > 10% as compensation to government health personnel: 2% at provincial, 3% at district and 5% at subdistrict level.

  The remaining 15% can be kept in the village for operating expenses of the health card fund and be used, e.g., 5% as commission for health card sellers, 7% for expenses of funds and committees, and 3% as premium paid back to non-users of the card.

* Village funds: Premiums collected can be used during one year by the village funds since reimbursements have to be made only after the end of the health card year. Part of the premiums collected remains in the village for revolving capital of the health card fund. The village is free to decide on the use of such funds; it may use them e.g., for soft loans to members as a kind of incentive to join the programme while still being healthy, or for investment in development projects of the community. Investment rather than non-productive consumption is encouraged as a way to use these funds.

Potential coverage: Potentially, this scheme may be applicable for the majority of agricultural households as well as for all households involved, on their own account, in non-agricultural activities, including unpaid family workers; that means that about 86% of the employed labour force in agriculture and 39% of the employed labour force in non-agricultural activities could potentially be covered by this scheme [confer 16,2].

Actual coverage: The actual target group of HCP are the rural self-employed, constituting about 65% of the Thai population. Actually, the coverage by the end of June 1988 was as follows [MOPH]:

	all	HCP	%
provinces	72	72	100.0
districts	715	654	91.5
subdistricts	6.405	4.987	63.8
villages	58.438	17.605	30.1
population	47.035.821	11.182.060	
members		2.522.648	5.4
population in implementation areas			22.6

These figures differ considerably between areas as a decentralized expansion of HCP has been underway for two years. The population coverage of implementation areas varies between 10% and 39%. The highest coverage figures are not to be found in the pilot area of Chiang Mai province [MOPH]. The data in Chiang Mai province are given by MOPH: covered by the programme are all 21 districts as well as 84 of 187 subdistricts, 250 of 1517 villages and 61.328 person out of a population of 1.285.662. The figures given in other internal sources are higher; they indicate a population coverage of 53.2% in the implementation areas and an overall population coverage of 8.7%. Within Chiang Mai, coverage is highest in Mae Rim with about 44% [17,13]. Analyzing these figures in districts provides a closer look at realities: In Chompong, e.g., 4566 card holders compare with a population of 11.117, a 41.1% coverage; within Chompong the coverage figures range between 23% and 99%. Coverages went down during the last years for various reasons, including a modification of the card's benefits and less aggressive marketing strategies. In Chiang Mai province, 129 villages dropped out of the scheme during the last years, while new ones started. Some of the dropped out villages started later again. In many villages household coverage decreased. . In Chiang Mai province 19 villages have been participating in the programme for 4 years, 26 for 3, 82 for 2 and 119 for one year. Development as well as relative and absolute coverage figures need a detailed analysis and a (case control) evaluation including a review of current practices to calculate such coverage figures. Sometimes double accounting occurs as some families may have more than only one card. In cases, coverage figures relate to first installment payments and not to definite card receivers. Many other distortions, typical for health information systems, may also occur. Coverage data are, therefore, quite doubtful [44,2]. One very

rough estimation hints at a coverage of 8.7% in Chiang Mai province until June 1988, another - comparing different internal sources - at 4.8%. The Chiang Mai figures should be taken as valid and most reliable.

3 Implementation of the Health Card Programme

Support: At the beginning of HCP, the permanent secretary of MOPH was the motor and the heart of the programme. He initiated the idea, and his staff backed it deliberately. This powerful drive dwindled down in the meantime. Observers as NESDB recognize a slow and relatively weak support of the programme by MOPH. At the moment, there is apparently no unified approach to HCP within MOPH. However, supportive actions change with personalities in power. To some professionals concerned, HCP is nothing but an additional task without personal benefits. Energetic marketing at various levels is generally missing. There are some villages, subdistricts, districts and provinces like Nam and Ratchaburi, where matters seem to have developed remarkably well without external support; this still needs to be analysed in detail. One indicator of political support is the containment of the number of low income cards distributed [8,9]. In some areas a rather problematic ceiling of 20% is pushed through all areas regardless whether they are poorer or richer. In other areas no containment is being considered at all. Support from bureaucracies and its staff is not sufficient. What is missing is a powerful drive from parties, religious leaders, trade unions, the senate and the like. An active political powerplay behind the health card idea should be tried out in the future. Some powerful advocates are ready to be called. Quality assurance policies instead of expansion politics would be needed to strengthen this support. The same line of argument holds true at local levels. Intersectoral cooperation and backing is generally missing in spite of remarkable examples of good performance to that effect. Villagers are often confronted with many different and uncoordinated funds from various agencies and institutions which apply quite different regulations and thus hamper integration.

Budgets and manpower: At the national level, only 6 staff members of MOPH work exclusively for HCP: one statistician, two nurses, one typist and two librarians. They would need regular and proper counselling and advice. The budget of the last fiscal year amounted to 2.55 million Baht, mainly for per diems, leaflets, forms and stationery. This year, the budget is reduced in favour of health education. In the regions, no specific budget or manpower is earmarked for HCP, except in Chiang Mai where one specialist in social medicine spends about 60% of her time for HCP, 6 of her staff between 40 to 60% and others about 10% when participating in data collection. In other provinces and at subprovincial levels, money and manpower are taken from other budget items. This shows that involvement in HCP is, to quite a few health workers, an additional burden without proper incentives.

Management and monitoring: Management and monitoring is not provided by MOPH - only registration without reinforcement or refeeding aggregate figures to original data providers. Even data quality checks, other than internal plausibility controls, could be improved considerably. Interprovincial exchange of experiences should be given support in the future. Within the pilot area - Chiang Mai province - a rather good management information system is available through routine reporting and surveying. A better linkage with other information systems would generally improve the handling of information in public health care. A stronger link between data collection and data analysis should also be supported. Detailed supervision plans are another element of managerial support in the pilot area. The overall management structure of Chiang Mai HCP may be taken as an model to be adopted in other provinces. Some aspects, of course, may be improved: the feed back of information and advice to lower levels, the further development of an early warning system for problems of fund management and other affairs, and a special supporting programme for villages which discontinued or are about to discontinue HCP soon. Nevertheless, considerable managerial capacities were built up in Chiang Mai. This is a good backbone for continuing and strengthening the programme.

4 Evaluation of the Health Card Programme

The routine data collection of MOPH and its lower level agencies as well as some special surveys allow a first approximation towards evaluating the programme. Evaluations and studies on HCP include:

> a remarkably good empirical study of Mahidol University in three provinces - Ratchaburi, Ubon Ratchathani and Nakhon Srithammarat, i.e. not including Chiang Mai, with data from 1985 [8]

> a master-of-economics thesis at Thammasat University, based on an empirical case study in Ratchaburi province, 1985 [33]
> another master-of-economics thesis at Thammasat University with empirical data of 1987 from three villages in Sakolnakhon province [12]
> a rather explorative and narrative evaluation in Chiang Mai province 1988 by Payab University [38]
> a master-of-community-health dissertation for Liverpool School of Tropical Medicine drafted in 1988 [2]
> a secondary analysis of health care financing in Thailand including HCP, in 1985
> another health care financing assessment from insiders of MOPH, 1987 [48]
> a health sector assessment including a short assessment of HCP as early as 1983 [3]
> intensive baseline surveys including interviews with villagers, volunteers and workers in the health field by the Thai-German pilot project team at Chiang Mai [17].

Further sources for this article are intensive screening of documents, discussions with project staff and independent observers, and - not least - field visits in Chiang Mai region during a two weeks' stay in Thailand.

4.1 Medical aspects

The health card programme tries to treat illnesses at the most cost-effective level of care. This is why it is implementing a referral system. Compliance with the requirements of the referral slip, however, presupposes adequate service quality at all levels.

Illness screening: A study from 1979 showed 9 incidences of illness per rural family per year, another from 1981 5.1 illnesses per adult couple [22,121]. Health card holders in Chiang Mai use the card for 2.6 episodes per year, i.e. for 1.12 health center visits, for 1.26 district hospital visits and for 0.22 visits to the provincial hospital. These results show that card holders probably do not use the card for all illness episodes; instead, they appear to save their illness episode privileges for more serious diseases or for diseases occuring shortly before the expiry date of the card. The Mahidol study shows that, in the case of mild illnesses, health card holders rely less on government facilities, but in the case of moderate illnesses they are using them more frequently than non-card holders [8,21]. This is a first step of illness screening within the lay system. Further steps are in the hands of the formal health system. Health centres have to refer the patient to the district hospitals which in turn may give referral slips for treatment in the provincial hospital. The first level, the village health volunteer, is usually or almost automatically bypassed. The health center - staffed by two paramedics - also refers frequently to higher levels [38,25]. Even minor illnesses are usually not kept in the health center [33,4] whereas, according to one study in Ratchaburi province, doctors said that about 80% of the cases referred from health centers could have been treated there [33,73]. This means that a screening-out of minor diseases at lower levels is possible but not commonly used. It means also that there seems to be no blocking of patients at lower levels, when patients prefer to go to the hospitals and to physicians. District hospitals are quite permissive in accepting patients without a proper referral slip from health centers [8,11]. High health center and low district hospital bypassing rates were found by the Mahidol study. The preference pattern of the patients is doctor oriented [8,30]. The MOPH/GTZ baseline study in Chiang Mai found out that 57% of the HCP patients - and only 4.3% of other patients - were referred properly [17,8]. The other side of the coin is that nearly half of the patients were referred improperly. Nevertheless, implementing a referral system is a good measure to try to allocate illnesses rationally at the most cost-effective levels of care. The HCP is doing a long step in the right direction. It would be to hard to say that "the referral system does not fulfil its object" [12,121], but it is right to ask for an enforcement of it. Enforcement would include rethinking of whether university hospitals should not be used by health card holders, too. This seems to be a privilege given only to low income card holders.

Service quality: The performance of village health workers is considered to be relatively doubtful [7]. A health centre staff survey showed that only 42% of the staff had sufficient knowledge of child's pneumonia and of how to treat febrile convulsion, only 9% had sufficient knowledge about pregnancy at risk [17,36-]. In one health center visited, only two deliveries occurred during the last 5 years. Based on such findings, realistic recommendations have to be worked out on how and where to treat patients properly [29,62-]. Until a major upgrading of the health centres' service quality takes place, one should not insist in a too rigid referral system. Quality assurance measures supported by regular supervision should be enforced in health

centres by the district hospitals. In several places, district hospitals are regularly checking the quality of referrals from the health centres. One of the positive impacts of HCP is that the community and the card holders have a kind of control over government facilities. Cost-sharing may be an incentive to try to get better services not only in terms of friendliness or velocity in the "green channel" or in the "express service" - this is what health card holders are expecting quite frequently - but also in terms of medical quality. The HCP in Chiang Mai has introduced a yearly refresher course for health centre personnel with five days of theoretical and five days of practical training. It has developed a manual for this course which also includes basic management training and applied epidemiology. Still the effects remained behind expectations and a training of the trainers seems to be necessary. Regular baseline surveys checking the service qualities are a very important component of HCP management.

4.2 Social aspects

"Notable and significant variations in price, coverage and benefits" [23,5] as are shown in chapter 2, impede any straightforward analysis of behavioural patterns under the HCP; they also cause significant differences in the perception of the HCP by consumers and providers.

Behavioural aspects: The health seeking behaviour of health card holders can be described (and differs from that of other consumers) in the following terms:

> Health card holders are men in middle or higher ages [38,20].
> Most frequent occupations of health card holders are farmers of irrigated rice and labourers [38,20].
> The average number of members per family card is 5.02 [MOPH].
> Many families have not only the health card but also the low income card [12,69], according to one study as many as 35% [2,49].
> Less than 50% of the holders used the card (when renewability was possible) [8,29;33,66].
> Health cards are used 3.3 times a year [12,13]. In Chiang Mai 2.77 illness episodes were used per used card in 1984. Taking all cards, i.e. used and unused, this figure was 0.959.
> Health card holders are using government facilities more than non-card holders [8,23].
> The outpatient load at provincial hospitals is decreasing due to HCP [8,36].
> There is an overutilization of medical services "especially shortly before the card expired" [12,105].
> Generally, there is a patient load increase after HCP implementation [8,31].
> Health cards do not reduce hospital utilization but increase it, due to consumers expectations and referrals by health centres [12,96].
> An increase of utilization by 46% in health centres and of 651% in hospitals was found by one study [12,88].
> In Chiang Mai's provincial hospital, 13% of the outpatients and 9% inpatients are HCP-patients whereas LIC-holders stand for 57% of the inpatients and 11% of the outpatients.

A detailed analysis of such sometimes contradictory differences and doubtful figures should be supported soon to understand the dynamics behind them.

Perceptions of consumers: There are several studies exploring with different methodologies the motives for the purchase of a health card (in %):

motive	[8]			[12,84]	[2,52]
	village A	village B	village C		
free treatment	59	53	62	49	83
quality of services	40	33	72		
drug discount					44
waiting-time benefit				4	75
loan availability					16
request, persuaded	19	33	8	44	

These figures demonstrate large differences in the arguments village headmen, health workers or other card salesmen use when marketing the programme. A basic knowledge of HCP is found in 56% of Chiang Mai population, ranging from 28% to 78% for different districts [17,12], but even health card holders do not

know all of the specific features of the programme [38,25]. Quite a few of the insured ask for longer validity of the card, larger loans [38,69], for the inclusion of private and university hospitals and of choices between hospitals in the benefits, the inclusion of more family members and more illness episodes, more "smiling services", easier referral and better heeding to all treatment expectations. Most of these demands are probably not major concerns [8,4]. The most important perception gap is certainly that most of the insured do not understand the linkage between individual medical benefits and socioeconomic benefits for the community [12,122;38,19]. Many consumers only see the medical benefits, which results in a low attractivity of HCP for healthier people and leads to an adverse selection of HCP clientele. Therefore, the other benefits of the programme, e.g. availability of soft loans, subsidized prices for fertilizers bought at wholesale prices by the village committees, etc. are not seen as an incentive to buy the card [2,VI]. This perception gap is challenging the insurance idea behind HCP to attract ill as well as healthy people for risk sharing.

Perception of providers: Local health workers have no incentives in marketing the card if they are forced to buy the card themselves, since they get free medical treatment even without a card. They may perceive the programme differently if they had a commission for selling the card and if HCP were considered to be a valued policy issue in the village concerned. Tambon council members know very little about HCP [17,27-]. A low understanding of the programme at middle levels of health cadres was also found [38,18]. Hospital staff do not like the waiting-time and other "smiling services" privileges [38,49]. Political opinion leaders sometimes discourage special privileges given to HCP clientele over the very poor low income card holders or patients paying out of the pocket for the services. These findings show that leadership development, including hospital staff sensibilization, and a reconsideration of some of the privileges given by HCP are necessary.

4.3 Economic aspects

HCP is a kind of health insurance. It gives certain incentives to consumers to behave rationally and risk conscious. It assumes that health expenditures of consumers go down and at the same time, cost recovery at public health services is better off than before. Some of the essential economic aspects of this scheme are the following:

Insurance: Insuring means to prefer a certain small loss to an uncertain high loss. The small loss is the regular paying of a premium, the high loss is the expenditure for illnesses. The ceilings of 2000 Baht per illness episode prevent this scheme from being an insurance in the proper sense of the word, since the higher risks are given back to the insured and not covered by the community of the insured. Another point is that the premiums are not calculated according to the probabilities of falling sick and to the real costs of health care. They are based, instead, on rather soft considerations as to the purchasing power or affordability and to an politically acceptable level of subsidies to be maintained in public health services.

Affordability: The relative low prices for health cards seem to be affordable for the majority of Thai population. A first, very rough analysis of the affordability of the MCH card raised some doubts and asked for careful evaluation [3,109]. When the family health cards' price still was 200 Baht, Myers checked the affordability of the health card quite intensively according to four criteria

> price problems reported by salesmen
> usual household expenditures for health care
> willingness to pay the premiums
> capacity to pay according to occupations.

All the criteria showed that health cards were really a bargain [22,111-]. Only 1 to 2 percent of the population were considered to be not able to pay the cards [23,62]. Still today, with prices at 300 Baht for the family card, the general affordability is rarely questioned. National Economic and Social Planning Board did not report price problems of the health card [22,111]. According to the last Chiang Mai baseline survey, the cards are not too expensive for 70% of the interviewed [17,15]. This figure corresponds to another one, indicating that 32% of the non-card holders consider the price as too high [2,53]. Taking into account, however, the problems of premium collection reported from some villages or the reasons why some villages dropped out of the programme or the fact that about 32% of the labourers get less than the minimum wages

[16,46] - all this stimulates one to reconsider the prices, to think about means tested premiums, and to try to integrate LIC and HCP.

Family expenditures: Affordability is emphasized when comparing the expenditures of health card holders and non-holders. According to one of the studies, a household with a card spends only 67% of what non-card holders spend for health care [33,61]. Such figures may be questioned by findings of another study indicating higher health care spending of HCP members, but such results may be due to some confounding variables not controlled for in this study [12,71]. It may be assumed that on average health cards reduce family expenditures for health. The rising prices for health care may be taken into account [48,48;22,11]. Some sources deny an over-average increase of the consumer price index for health and personal care [27,154]. This average picture changes when considering family expenditures beyond the ceilings. In Chiang Mai provincial hospital 39 of 178 recent inpatient cases surpassed the 2000 Baht ceiling:

> 139 cases were charged 2000 Baht or less
> 24 cases were between 2001 and 4000 Baht
> 10 cases costed between 4001 and 6000 Baht
> 3 cases were priced between 6001 and 8000 Baht
> 1 case was between 8001 and 10.000 Baht and
> 1 illness episode costed about 18.000 Baht.

In this case the families could choose if they wanted to get several illness episode privileges discounted at once or if they paid fractions of the total amount in cash or in installments. For some families the household expenditure burden beyond the ceilings was quite considerable, even taking into account the 10% discount they get for services beyond the card's direct privileges. Another category of family expenditure are the increased indirect costs for transportation due to referral obligations [22,110-] as well as the high costs for meals and transportation of friends and relatives for visiting inpatients. If the additional personal time and transportation costs are balanced out by reduced waiting-time - which was identified in one study [8,13] - because of the express service promised to card holders, has to remain an open question here.

Service charges: Health facilities in the pilot area of Chiang Mai have to report the direct or material costs (variable costs) of the treatment they have been giving. In one of the health centres visited the average charges were at 20 Baht per visit, ranging between 5 and 35 Baht. Some health centres report averages of 90 Baht per visit, others 50 Baht - service fees differ from centre to centre [12,86]. For hospitals there is a fee schedule with minimum and maximum charges. The average prices for herniorrhaphy is 210 Baht, for appendectomy 270 Baht and for nephrectomy 370 Baht [MOPH]. The seven years old fee schedule, still valid today, is under review now. According to MOPH these are the average (potential) charges or material costs (in Baht) per case:

level of health care	outpatient visit	inpatient visit
provincial hospital	50	973
district hospitals	67	341
health centres	26	----

In one of the district hospitals - Chompong - the following costs were calculated per case between November 1987 and August 1988:

type of card	outpatient visit	inpatient visit
family card	78	871
individual card	122	568
MCH card	21	765

All these charges and/or cost estimates - for 1980 see [33] - are quite probably below market prices and not taking into account the full social opportunity costs. No reliable unit cost estimates for health facilities have so far been made. A cost study had been started recently by MOPH with assistance of Thammasat University. Realistic unit costing is missing and to be promoted.

Providers incomes: Public providers get the budgets from public sources. Chiang Mai hospital gets 58.7% of its budget from the government. Additional income sources of the health centres are from drug selling, including drugs which are given free of charge from international organizations. Income from health card

funds are low. The reimbursement delay of mostly more than one year [8,15] and the reimbursement difficulties of some village funds may partially explain this fact. Another reason is that the reimbursement formula adopted by HCP are not shaped according to services or utilization patterns but according to a more or less schematic approach, described above. Health centres incomes increased during HCP.

Cost recovery: There is a negative balance between incomes of hospitals from health card holders and costs [33,87]. The target is only to cover the material costs of the facilities by the premiums [22,129]. A full cost recovery was not the prime concern for HCP, rather to cover 100% of the direct treatment costs, which make up for about 30% of the total costs. This differs of course between health centres and hospitals. In health centres, the averages of material costs are 16%, ranging between 10% and 77%, and in hospitals they were calculated with 47% in 1984 and with 39% in 1985. Some recent cost recovery estimates hint at values between 33% to 37%. National cost recovery estimates calculated 42% for central hospitals and 12% for mental hospitals [48,C]. Hospitals usually gain from outpatient visits but loose in the case of inpatients. Reliable cost recovery calculations are a task for the near future. They require valid cost estimations, which are on the research agenda of MOPH now. Cost recovery from the individual point of view is uncertain: one study shows that card holders use the card for getting services valued 471 Baht for a card price of 300 Baht [12,98], whereas other estimates hint at 249 Baht medical treatment value for a 300 Baht premium [MOPH]. The latter figure is based on the following calculations:

facilities/concept	services	costs	visits	cost per year
provincial hospital	outpatient	52.62	0.08	4.21 Baht
	inpatient	724.99	0.04	28.96 Baht
district hospital	outpatient	66.12	1.70	112.40 Baht
	inpatient	364.15	0.08	29.13 Baht
health centre	outpatient	23.85	3.11	74.87 Baht
total (according to source (!))				248.87 Baht
price of the card				300.00 Baht
contribution to village fund				45.00 Baht
surplus				6.13 Baht

Cost recovery is not the target but cost-sharing is a means to stimulate rational health seeking behaviour and to reduce, if slightly, the subsidies paid by tax money. In terms of real cost recovery, the card is too cheap [12,123] and the card holders' cost recovery is lower than for those without card [33,85].

Incentives: The card is full of incentives for certain kinds of health seeking behaviour. Some examples:

> to use the card at the beginning of validity and to save a few episodes until shortly before expiry for cases of more serious illnesses
> not to waste illness episodes in health centres
> not to use the card if renewability is possible or premiums are paid for non-used cards
> to exploit the card to a maximum if no counterincentives are given
> to use the card not in case of minor illnesses.

Some of these behaviours are not desired. A full-scale analysis of such incentives and possible counterincentives should be a task for the future; so is a full scale economic analysis of the health card programme.

4.4 Community aspects

One of the most interesting features of HCP is the linking of individual health insurance with community development. On the other hand, HCP is just adding another fund to many existing ones in the villages.

Village funds: There are many different funds in the villages in rural Thailand [29,23;38,38-;22,69-;3,107-]:

> essential drug fund
> nutrition fund
> sanitation (and clear water) fund
> dental health fund
> toothbrush fund

> rice bank fund
> cattle or buffalo fund
> housewife fund
> saving fund
> funeral expenses fund.

The most successful of these funds seems to be the drug fund, run by village health workers with an initial payment of MOPH and with share holders in the village to sell essential drugs at subsidized prices [22,88]. The health card funds add just another fund.

The health card fund: The collected premiums remain in the villages for about one year to be used by the community. Not all of that money has to be spend for reimbursement of providers; 15% of it is used for stocking the fund or for paying per diems and travel expenses, connected with fund management and other health card related activities. The fund's profit may be spend for health as well as other purposes according to the priorities of the villages. These are some uses [38,59-;30;8,15;33,56;37,64]:

> supporting the drug cooperative
> reducing the price of health cards
> transportation of sick people
> training of village health workers
> organizing rabies vaccination
> paying latrine construction
> buying a rain water keeping tank
> buying water filtration tanks
> supporting public facilities
> building up a general consumer cooperative store
> wholesale fertilizer buying
> purchasing of pigs and cattle
> loaning for general purposes
> paying study tours to other villages
> gaining interest payments from feeding the money into a bank account.

Most prominent is private lending under locally differing conditions: sometimes the interest rate is just 2% per month as compared to 8% in the general market; one study discovered that loans were given only to committee members [8,15]. Time and again, the fund is used for the purchase of fertilizers and for the support of cooperative stores supported. This pattern of uses shows clearly that the health card fund is used for community development in a rather broad perspective and not only for medical purposes. This is the very innovative aspect of this voluntary health insurance scheme, an aspect which is not always understood by potential consumers of the health card and actual providers of health care.

Health card fund management: The fund management is in the hands of the village, whatever that may mean. There is a health card committee sometimes consisting of up to 10 members including the village headman and the village health worker. The committee members are mostly responsible for collecting the premiums and for managing the fund. Similar committees are working at subdistrict level. The committee members get their activities rewarded. At times open discussions take place in the villages regarding health card matters. But decisions are often taken by the chairmen of the committees, mostly by village headmen [38,64] who are recognized and paid about 500 Baht a month by the Ministry of Interior. Sometimes conflicts were reported to exist between committee and village headman. Severe management problems were found in some evaluations [38,32-;8,15;45,59]. One essentially weak point is accounting and control over funds. There are no commonly accepted rules for securing the funds. Nobody knows who would be responsible for losses. Strengthening of village management was one of the key issues in the recent five year plan. But support and ideas on how to do it are missing. The Chiang Mai pilot project is giving training courses to villagers. This is a very good starting point to be reinforced by reasonable supervision and monitoring from other levels of health card management. The pilot project also developed some performance indicators for fund management, e.g., collected money, villages with more than 5% profit from the funds. According to such criteria, 5 out of 30 villages were considered to have an excellent fund management [38,53]. If one takes the relation between collected and expected income from card selling as an overall performance indicator, one would get a fund management score of 50%, according to MOPH. A particular managerial aspect is that the different funds at village level should be brought together to produce beneficial trade offs. Different regulations make this idea difficult to pursue, but its realization is necessary

because of the multiplicity of funds. In one of the villages visited, housing 101 families, 9 different funds were to be managed, and for the health card fund alone 9 villagers were active. An integration of some of the funds is a mandate to realize an improved management at the village level. Nevertheless, it should be reconsidered whether the village level is really the optimal one for local management of a HCP. Some strong arguments would possibly speak for a better management at (sub)district level.
Profits of health card funds: Some villages managed to get more than 25% profit from the funds and, according to unpublished information, many surpass 5%. Taking into account the possible interest differentials between a 0% loan to the village and about 10% interest gaining per month in the market, the potential profits are high and should be attractive to every manager. Especially lending is attractive as interest payment adds to the stock and obtaining a loan is an incentive to buy a new card [22,123]. The potential benefits for the village are rather good.

4.5 Political aspects

A political "input-output-analysis" of HCP concentrates on the balance between potential impacts of the programme and its feasibility.

Impacts of health insurance: HCP was considered a measure to involve the consumers in health care affairs. Cost sharing should bring about an interest in controlling the quality of services. The referral practice should allocate illnesses to the adequate levels of treatment. Rational allocation of illnesses to facilities should relieve the public health sector. Government subsidies were meant to give incentives to consumers not to spend their money for drugs on the private market - there is no effective prescription control in Thailand - but to get medical control over such expenditures in the sake of better health. Last but not least, HCP was meant to be a measure to stimulate development initiatives from below. Voluntary health insurance was also considered to be politically more appealing than compulsory measures or no measures. Many of these impacts are really to be expected from HCP. One possible impact which should be avoided by all means is the building up of different systems of health care supply for different insurance groups.

Feasibility of HCP: Modifications in HCP regulations made in late 1985 decreased the demand for health cards considerably. Lower political backing from MOPH did not maintain the needed level of commitment of health staff. A rather opportunistic policy of free medical card distribution for the poor was another constraint for HCP. Too rapid an expansion of HCP hindered proper quality assurance measures. The lack of well controlled demonstration projects for different sets of regulations as opposed to uncontrolled decentralization is rather weakening the political support for HCP than strengthening it. In spite of all such constraints, health insurance is and will be a key issue in political debates in the future. The difficulties in increasing demand for health cards diagnosed by several studies is challenging the principle of voluntary insurance [8,36]. The perception gap of consumers regarding the combination of health insurance with village development is contributing to the decreasing demand of health cards especially by the low risk population. The rather low quality of services at some health centres is adding another constraint on the active pursuit of HCP. HCP needs managerial and political support for several years to come.

4.6 Widening the functional coverage

HCP was predominantly considered a voluntary health insurance programme for the rural population. Nevertheless, it was tried out in urban populations as well, especially in slum area populations. In Chiang Mai town two urban health card communities were build up but suspended in the meantime by the organizers. Hongvivatana recently evaluated urban health card programmes in seven provinces.

Chances of an urban HCP: In one of the two urban health card areas 1800 people live in 224 families and 197 households. They are rickshaw drivers, barbers, street vendors, artists, handicraft workers and low paid officials. Only five households were reported to be interested in the card but incapable in buying it. Recently, the population was insured as follows:

> 10 families had health cards as well as low income cards
> 65 families had a low income card only
> 61 families had only a health card

* 16 had a renewed card
* 25 had a newly bought family card
* 10 MCH cards were issued

> 10 families got government officials' privileges
> 78 families had no insurance.

Reportedly it was not a problem of affordability that 78 families did not buy the health card; it was rather because it seemed to them too complicated, as the committee chairperson explained. Installments could be paid in three terms within six months. The scheme could have been extended but was withdrawn as the regulations were changed considerably: from 8 to 6 illness episodes, from 200 to 300 Baht, and from renewability to only one year's validity. The scheme was stopped to start an evaluation. The population would have liked its continuation in spite of many problems encountered. The municipality is ready to continue and to subsidize highly. "If one would not subsidize about 60%, one would have to subsidize 100%", explained the HCP representative of the municipality.

Constraints of an urban HCP: Hongvivatana's evaluation and some own findings come to rather pessimistic assumptions on the present status of urban HCP:

> many families joined the programme only to please authorities
> many consumers were upset by the poor quality of services
> a low risk-aversion attitude prevented many from joining the programme
> most people only regarded the health benefits as the core of the programme
> many question the referral practices when providers are so near
> private providers are preferred by some consumers to public ones
> irregular cash incomes raise difficulties in premium paying.

It is too early to conclude that these aspects may strangulate the idea to expand HCP to urban areas. A throughout evaluation is needed. In Chiang Mai province the Thai-German project team supports such an evaluation using routine data and survey data. Careful analysis of the data is a vital prerequisite for any resumption of the programme in urban slum areas.

Schemes for professions: Actually there is a growing demand for health insurance schemes beyond rural and poor urban areas. 400 to 500 employees of a department store in Chiang Mai, 400 employees in one industrial enterprise, and several thousands of students at a private university look for health insurance possibilities. As to the students, one is thinking of 100 Baht premium per year, covering up to four illnesses with a 1000 Baht ceiling. Such group insurances should be investigated further.

4.7 Preconditions

There are some important preconditions for a successful HCP implementation:

Leadership: The declared political will of Royal Thai Government is the support of this voluntary health insurance scheme as it corresponds to the key issues of the sixth national economic and social development plan: "Encourage private organizations, communities and families to take a greater role in preventing and solving social problems" [5,9]. The recent Prime Minister's report on government policies asks also for support of (voluntary) health insurance [6,1]. This background calls for a leadership development at higher echelons of decision making as well as at the levels of implementation. What is required most is a continuation of the political push with snow ball effects top down and bottom up. Sensibilization for health insurance issues in the broader context of social security and basic needs strategies should be supported. Political marketing of such issues is on the agenda.

Complementarity: The more low-income cards are issued, the lower is the health card programme's performance. This equation asks for reconsidering HCP in the context of other programmes. One could think on minimizing the free medical card programme as a kind of Medicare programme, tailoring it as a special programme for the really poorest parts of society. One could think of an integration of both programmes in terms of lower premiums for all or sliding premiums based on means testing. Thinking comprehensively in alternatives is another precondition for shaping the future of HCP. One problem is that many decision makers think only of giving free medical care to their own clientele - the elderly, the young, the poor - and that they do not care for comprehensive and complementary solutions.

Stability: Frequent changes of rules and regulations of HCP caused considerable acceptability problems. In the same regions regulations should be continued over several years. Given other stable sets of regulations in other areas, one would be able to test the comparative advantages or disadvantages of different features of HCP. But stability of outfit and stability of implementation is needed as well as stability of support from MOPH to avoid decreasing demand and dwindling compliance.

Management: Managerial efforts are lacking in many parts of the Thai health system, public or private, at the village level or otherwise. Strengthening and supporting management and monitoring with money and information is another vital precondition for HCP. One area of application is the enforcement of the referral system, another the support of village management of funds so to strengthen the development dynamics of local communities [8,16].

Service quality: The referral system as built-in in HCP attributes the role of a gate keeper to the health centre. Health centres are usually weak and dotted with low performance. Improving their quality or bypassing them on the way to qualitatively better services at hospitals are the two policy options available. The better way would be an upgrading of health centres; that is, however, difficult. Effective and qualitatively sound medical benefits are indeed a vital precondition for HCP [8,11].

Affordability: The low prices of the health cards and the high subsidies granted by MOPH render these cards affordable to wider parts of the population. The problem of irregular income, the particular conditions prevailing in hill tribe villages and other potential restrictions have, however, to be regularly assessed and reassessed in that respect.

5 Summary and valuation

HCP is a new and innovative idea on the world market of ideas regarding financing of health care. Linking prepaid and self-administered voluntary health insurance with local development efforts is a challenging idea indeed: the more difficult it proves to be, the more support it needs. This should be the guiding principle when summarizing and valuating.

Summary: Some recent evaluations challenge the previous enthusiasm for HCP. "The performance of the health card programme in both rural and urban areas has met with an undetermined degree of declining and uneven success" [6,1]. These are some of the reasons for a rather pessimistic outlook:

> the slowly growing demand for health cards is indicating a rather low felt need of the population
> the absence of risk-aversion attitudes is challenging a voluntary insurance concept
> the slow-down in marketing efforts made demand in some cases - not everywhere - decrease as well
> the opportunistic handling of free medical cards is heavily intervening in the marketing efforts
> committed leadership is missing
> the principle of HCP is not understood by many
> the medical services at the frontline are not providing the best services
> the major risks remain with the insured and not with the insurance
> a thorough, comprehensive and consolidated evaluation report which takes into account all relevant aspects is still missing .

"Complicated regulations, weak management at all levels, weak fund management in the villages, leaving the very poor out, weak health centre performances" are diagnosed by one author [44,3]. Other critical aspects should be taken from the previous chapters. But it should not be forgotten that HCP is performing quite well in many villages, subdistricts, districts and provinces according to the coverage figures given by MOPH. Despite several shortcomings HCP is a challenging approach towards shaping Thailand's health services of tomorrow, it is "a popular innovation in health care finance" [22,111].

Proposals for adjustment and support: There are many possibilities to improve the programme or to test the (dis)advantages of modifications:

1. demand studies: one should investigate the potential demand for health cards in other groups or segments of society, e.g., in professions, neighbourhoods, companies and institutions like universities or department stores, etc.

2. market studies: one should intensively research the market segments for future health insurances on a comprehensive scale, including all sources of privileges in the public health care sector
3. demonstration projects: one should rather support different carefully designed demonstration projects in the country - as the one on linking LIC and HCP in Burilang province undertaken by Mahidol University - instead of allowing the mushrooming of decentralized programmes out of control, or one should (at least retrospectively) try to evaluate the best and the worst experiences
4. other studies: one should support a "feasibility study and testing of models for an urban health insurance or voucher system" [22,143], for group insurances [40;62], for studies on deductibles for outpatient and coinsurance for inpatient services [8,37], on unit costs of facilities, on the pattern of incentives and disincentives inherent in HCP, etc.
5. interprovincial exchange of experiences: one should convene meetings of the provincial representatives of HCP in the various regions and provinces in Thailand
6. reconsideration of regulations: one should rethink some of the HCP regulations [8,38]:
   * the referral requirements from health centres
   * the VIP-services to health card holders
   * the incentives for not using the card
   * the implications of covering all illness episodes
   * the implications of covering all family members.

   Many other regulations could and should be rethought continuously:
7. validity extension: one could try to add "soft compulsory" elements to HCP by means of extending the cards validity up to five years; one could also extend the time of operation of the village funds as this might give stability to local organizations
8. levying the ceilings: one has to rethink the ceilings for illness episodes and try to find ways of implementing a real insurance which is not handing back the higher risks to the insured
9. local stability: one should try to give stability to local HCP regulations to avoid dissatisfaction of the consumers and misunderstandings regarding the programme
10. local flexibility: one should allow for flexibility in some of the regulations according to local circumstances
11. regional differences: one should allow for regional differences of health card regulations, provided a detailed comparative analysis is foreseen
12. improved service quality: one has urgently to improve the service quality of the lowest level public health facilities, especially of the health centers, e.g., by involving district hospitals in a tight supervision and training programme
13. fair reimbursement: one should reconsider the allocation formula for reimbursement of health facilities and take into consideration either capitation fees or reimbursement according to services
14. linkage of local funds: one should try to link several funds in the village in order to reduce bureaucracy and unnecessary paper work and to improve the basis for profit-making for the village
15. linkages with free card programme: one should look for possible linkages of low income cards and health cards, e.g., by means of sliding premium scales
16. local administration: one should consider whether the optimal level of management of local sick funds is, instead of the village, the subdistrict or district, and whether this could improve the local attractivity of funds
17. active surveillance: one should build up an emergency trouble-shooting team that monitors early warning indicators for villages about to drop out, for particular problems in fund management and for other problems which may affect the progress of HCP to avoid mini-catastrophes
18. interdisciplinary backstopping: one has to adopt a very broad view when implementing the programme and to get the intellectual backing of public health specialists as well as from social insurance specialists, health economists, medical sociologists, anthropologists, information experts, biostatisticians and the like. Medical expertise is certainly not sufficient alone
19. political backstopping: one should continue and heavily support interdisciplinary and interpolitical committees and conferences, where all societal parties involved and concerned have an opportunity to rationally discuss and debate problems of health insurance within the wider context of social insurance. Political leadership and development is urgently needed
20. smoothed expansion: one should carefully smooth down the expansion of HCP for the sake of investing more money, time and energy in upgrading the quality of the programme

21. designing alternatives: one should "systematically formulate detailed alternative health insurance models and implementation strategies" [6,1-], following the example of Myers, and simulate and test alternative models, first on paper and then in reality [22,143]
22. improved marketing: one should intensify the publicity of the programme and support more aggressive marketing strategies, e.g., by involving professional marketing specialists and by issuing newsletters for the consumers and their local HCP agents.

Some of these recommendations seem to be contradictory as, for example, the asking for more flexibility and for more stability at the same time. But there could be adequate solutions, e.g., by guaranteeing stability in the local applications and allowing for flexibility in interregional comparison. Nevertheless, dilemmas will remain. And it may be that many other recommendations will be needed to reshape HCP adequately. It would probably be a bargain.

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