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Is there a Role for Private Health Insurance in Developing Countries?

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Abstract

This paper discusses the role of private health insurance (PHI) in developing countries. Three major findings emerge from a comprehensive and systematic review of the performance of PHI in five regions of the developing world. First, PHI involving pre-payment and risk sharing currently only plays a marginal role in the developing world. Second, in many countries the importance of PHI to finance health care is on a rise due to growing dissatisfaction with public health care, liberalization of markets and increased international trade in the insurance industry, as well as higher and more diversified consumer demand stemming from rising incomes. Third, the development of PHI presents both opportunities and threats to the health care system of developing countries. If PHI is carefully managed and adapted to local needs and preferences, it can be a valuable tool to complement existing health-financing options. However, the introduction of PHI might also lead to cost escalation, a deterioration of public services, a reduction of the provision of preventive health care and a widening of the rich-poor divide in a country's medical system. Given these risks, the crucial challenge for policy makers is to develop a regulatory framework that is adapted to a country's institutional capacities and that, at the same time, sets the rules and standards in which PHI can efficiently operate and develop.

1. Introduction

Health care financing remains a critical challenge in most low- and middle-income countries. Despite various efforts to improve the health situation in the developing world, many countries are still far from achieving "universal health coverage". Worldwide, 1.3 billion people do not have access to effective and affordable health care, including drugs, surgeries, and other medical interventions (Preker et al., 2002: 22). As documented by the World Health Organization (WHO, 2000: 7), low- and middle-income countries bear 93 % of the world's disease burden, yet account for only 18 % of world income and 11 % of global health spending. Obviously, poor health drastically impedes the social and economic development of a country. Beyond directly affecting people's well-being, poor health also lowers the productivity of labor and burdens the entire economy (WHO, 2001): e.g. estimates for Botswana suggest that the economy will be between 33-40 % smaller in 2010 due to the impact of AIDS (HSRC, 2003).

As developing countries rarely have the institutional capacity to offer state-based health insurance and/or tax-financed health care, a large share of health costs are directly borne by patients. These so-called "out of pocket payments" (OOP) account for one third of total health expenditure in two thirds of all low-income countries (WHO, 2004). Catastrophic health costs (i.e. payments exceeding 40 % of a household's capacity to pay) are a common phenomenon in the developing world and drastically increase the risk of impoverishment, especially in light of the loss of productive capital associated with illness (Xu et al., 2003). In view of these perils, the current debate on health reform emphasizes the need "to move away from excessive reliance on out-of-pocket payment as a source of health financing" (Bennett/Gilson, 2001: 1).

Although PHI is becoming increasingly important to finance health care in low- and middle-income countries (Sekhri/Savedoff, 2005), little is known about its impact on health care coverage. In this paper, we analyze characteristics of private health insurance in the developing world and evaluate its significance for national health systems². The scope of our analysis goes beyond other re-

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According to Nitayarumphong and Mills (1998: 3), "universal coverage is defined as a situation where the whole population of a country has access to good quality services (core health services) according to needs and preferences, regardless of income level, social statues or residency".

From the perspective of developed countries, it would have been interesting to discuss market versus non-market processes in the health sector, i.e. questions around contract design, organizing patients interests, role of regulatory bodies and the appropriate involvement of the state. However, as we focus our analysis on developing countries with an enormous variation in their institutional capacity, we leave this important aspect for further country specific studies.

search in the field, as previous studies either focused on specific types of PHI (e.g., community-based programs: Preker/Carrin, 2004; Microinsurance: Dror/Jacquier, 1999) or restricted the analysis to countries where the insurance industry is already well established (e.g., Latin America: Barrientos/Lloyd-Sherlock, 2003; Iriart et al., 2001; South-East Asia: WHO, 2004b). Our paper tries to fill this gap, giving a systematic and comprehensive overview of PHI performance and discussing regulatory aspects as a response to possible incidences of market failure. The structure of the paper is as follows. We develop a typology of private health insurance and identify distinct features of PHI in low- and middle-income countries. We then give an overview of the health insurance industry in different regions of the world and develop an inventory of existing schemes. This part will equally consider trends of PHI development, cover issues of market performance, and consider instances of market failure. This last aspect will be especially important to derive policy implications and discuss prospects for PHI in the developing world. A final chapter concludes.

2. PHI in the Context of Low- and Middle Income Countries

Private health insurance has multiple facets in the developing world. We define PHI in the sense that financial resources are channeled directly to the risk-pooling institution with no or relatively little involvement of the state. This definition generally also includes community based insurance schemes (CHI), which have recently gained some significance especially in Sub-Saharan Africa. The main distinction between social and private health insurance is essentially the type of contract between the risk-pooling entity and the insured individual or group. Whereas social insurance relies on tax-like contributions, PHI rests on a private contract between the insurance provider and its clientele, setting the level of insurance premiums in exchange for a given benefit coverage. As participation in these schemes is rarely mandatory, PHI is often referred to as voluntary health insurance (VHI). In our analysis, we will nevertheless stick to the PHI-notation.

According to the Organization for Economic Cooperation and Development (OECD, 2004), health financing through insurance involves both prepayment and risk pooling. Following this general classification, there are nevertheless several possibilities how health care can be financed through private prepaid contributions. The spectrum of PHI in developing countries ranges from large commercial to small non-profit schemes, which can be run by private entities, Non-Governmental

Organizations (NGOs) or even communities (CHI). Furthermore, insurance programs may offer individual contracts or cover particular groups of people, which is often the case with employer-based schemes that rarely extend beyond the formal labor market.

Due to the diversity of existing schemes and the non-exclusivity of particular features it is impossible to derive a strict typology of private risk-sharing arrangements. A classification of schemes may nevertheless consider the type of supplier, the level of compulsion, the extent and type of risk pooling, as well as the form of insurance contract (i.e., community, group, or individual). Furthermore, PHI schemes may be distinguished by the degree of coverage, the type of insurance business (profit vs. non-profit), and whether or not schemes employ some sort of cost-sharing (i.e., copayments, deductibles, and coinsurance). Tab. 1 gives an overview of various dimensions of PHI.

Tab. 1: Typology of Private Health Insurance in Low- and Middle-Income Countries

Dimension			
Type of Supplier	Public	Parastatal	Private
Level of Compulsion	Mandatory	Mandatory, but choice be- tween packages	Voluntary
Extend of Risk Pooling	Large Pool	Small Pool	None
Type of Risk Pooling Arrangement	Community-Rated Premiums	Group-Specific Premiums	Risk-Rated Premiums
Form of Insurance Contract	Community	Group	Individual
Degree of Coverage	Comprehensive	Supplementary	Complementary
Type of Cost Sharing	Co-payments	Deductibles	Co-insurance
Type of Insurance Business	Profit	Non-Profit	Charity

Source: Own Compilation.

3. Empirical Evidence of PHI in Low- and Middle-Income Countries

Private risk-sharing markets still bear little significance in low- and middle-income countries. Collectively, all six regions that will be considered in our analysis merely account for 10 % of the global insurance premium income. This small share is particularly striking considering that these regions host more than 85 % of the world's population. It equally does not reflect the countries' economic potential as their share of global GDP amounts to around 23 %.

However, this picture may gradually change as insurance markets in developing countries are on a rise. Measured in terms of premium volume, the insurance industry in low- and middle-income countries grew more than twice as fast as in industrialized economies during the past ten years (10.4 % as compared to 3.4 % in the life insurance sector and 7.3 % as compared to 2.6 % in the

non-life insurance sector respectively³). This development has been particularly strong in Asia and Eastern Europe where the industry expanded by 10.5 % and 13 % between 1998 and 2003 (Swiss Re-Insurance Company, 2004a: 15). Even though growth rates have recently dropped below their long-term average, analyst still see a significant development potential for the insurance industry.

3.1 Private Health Insurance in Latin America

Latin America has experienced a tremendous growth of the private insurance industry in recent years. The volume of insurance premiums increased significantly, especially after regulatory changes and liberalization efforts in the 1990s, which introduced private and foreign insurers to the national markets. However, the high inflow of capital and the increased presence of foreign insurance providers have often not been met by an equally growing demand for these products. PHI plays a significant role in a number of Latin American countries and is particularly important in Uruguay, where over 60 % of the population is covered through private schemes. This exceptionally high significance of PHI can be explained by Uruguay's particular health care policy, which mandates coverage through private entities (Sekhri/Savedoff, 2005: 131). PHI is either offered through prepaid care associations, membership-based professional cooperatives, or non-profit health services (PAHO, 1999: 6). High coverage is also reached in Colombia where half of the population is estimated to have private health insurance (U.S. Department of Commerce, 2000: 43-7). Particularly noteworthy is Colombia's significant increase of coverage following health sector reforms in the early 1990s, especially amongst lower income groups (Jack, 2000: 14). Compared to 1993, insurance coverage had more than doubled in 1997 with 57.2 % of the population being formally insured. Due to special tax benefits for poor households, this increase was particularly pronounced among low income percentiles.

Measured in terms of total expenditure on health care, PHI is furthermore important in Chile and Brazil, largely due to insufficiencies of publicly financed insurance schemes. About one quarter of the population is covered through private health insurance in each country (U.S. Department of Commerce, 2000: 43-7). Similar observations apply to Argentina and Jamaica, where PHI spend-

In accordance to EU and OECD conventions, health and accident insurance are considered to belong to the non-life insurance segment, although some countries or insurance companies may employ a divergent classification (Swiss Re-Insurance Company, 2004: 28).

ing accounts for around 15 % of total health expenditure. Although not yet reflected in relative expenditure on private health insurance, PHI has recently also gained significance in Mexico where the industry is experiencing "vigorous growth" (Swiss Re-Insurance Company, 2002: 35). Still at comparatively low levels, spending on prepaid plans in Mexico increased by more than 50 % between 1998 and 2002 (WHO, 2005). However, PHI coverage is estimated at only 3 percent of the total population.

Social insurance provided the primary model of health insurance in Latin America before the insurance market was opened for private providers (Mesa-Lago, 1991). When PHI emerged in the 1990s (Chile 1981), most social security programs in the region had low coverage, coped with high administrative costs, suffered from inefficiency, corruption, and escalating health care expenses, and faced fiscal imbalances. The entry of private and especially international insurers led to an increased and often times predatory competition, which was characterized by hostile take-overs of local insurers as well as a number of mergers and acquisitions. Multilateral lending agencies and the World Bank in particular strongly supported the privatization of public services and the entry of foreign corporations. Countries that failed to implement market structures in the health sector according to structural adjustment programs were threatened with cutoffs or drastic reductions of loans, import credits, and food aid (Stocker et al., 1999).

This development has not yet materialized in more competitive products such as lower premiums. Even though market concentration recently decreased as some small start-up companies entered the market, the industry remains non-competitive and the level of premiums high. Consequently, private health insurance predominantly addresses to upper income percentiles; poor families remained in the existing social insurance schemes or are left without any insurance at all. Such inequities have been reported for Argentina, Chile, and Colombia (Barrientos and Lloyd-Sherlock, 2003), Brazil (Jack, 2000: 26), and Peru (Cruz-Saco, 2002: 17).

Frequently, PHI is faced with both the inherent problems of health insurance markets and "the administrative weakness and political conflicts present in the health sector in Latin America" (Barrientos and Lloyd-Sherlock, 2003: 189). Previous experiences raise concerns whether the introduction of private schemes will provide a solution for the apparent problems of health care financing in Latin America. In many countries, basically all relevant indicators of a successful health insurance system have not improved or even deteriorated from the time private schemes were in-

troduced. PHI has neither contained health costs nor promoted equity nor has it reduced vast disparities between coverage in urban and rural areas (ILO, 200).

Problems connected to the introduction of PHI have been reported for many countries. Due to insufficient regulatory arrangements and a lack of public oversight a large part of the wealthy population in Chile has opted out of the social insurance system, making public health care *de facto* an insurer of last resort (Barrientos, 2000). The Chilean government only gradually responded to these regulatory demands and established an official agency (the *Superintendencia de ISAPRE*) to supervise the private insurance scheme ten years after the initial reforms. Jack (2000) argues that the highly fragmented insurance market⁴ caused superfluous insurance for high income percentiles Furthermore, the stop-loss clause of many PHI contracts allows insurance companies to limit the extent of coverage in case of catastrophic health care costs. As health risks usually increase during a person's lifetime, old people are significantly underrepresented in private schemes; only 6.9 % of the people older than 65 years are members of an ISAPRE compared to 26.7 % in the 25-54 age-group (Jack, 2000: 28; Baeza, 1998: 18).

Despite a learning-process in Argentina and Colombia, even there the regulatory framework has not yet been completely established. In Argentina, the *Superintendencia de Servicios de Salud* started to operate in 1997 and initially only supervised public schemes. Naturally, this situation was extremely beneficial for private health insurers as it did not impose any regulatory requirements on them and at the same time weakened the monopolistic power of public providers. Similarly, the largest of the *Entidades de Promoción de Salud* in Colombia (competitively operating health insurance schemes) only started to participate in the risk-adjustment mechanisms in 1999. As reported by Jack (2000: 26), "regulation of the private insurance market was virtually non-existent until 1998" in Brazil—harming not only the performance of the private insurance industry in terms of equity and efficiency, but also causing a poor reputation of PHI. Even with an institutional framework in place, regulation is a critical issue as the implementation of adequate legislation is costly; i.e., regulation induced transactions costs are estimated to account for 30 % of the total premium revenue in Chile (Kumaranayake, 1998: 16).

Although PHI expenditure continues to increase in most Latin American countries, it is difficult to derive a clear development trend. The sustained expansion of the health insurance industry is

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⁴ In 1995, 35 private insurance companies offered close to 9,000 distinct insurance programs in Chile.

primarily due to escalating health care costs in the private sector and the consequent increase of PHI premiums. After the insurance industry flourished in the 1990s (Cruz-Saco, 2002), recent studies mainly indicate a slowdown of activity. One disadvantage of measuring the importance of private risk sharing programs in terms of financial flows clearly concerns the inability to derive general conclusions on the industry's performance. It consequently seems reasonable to assume that severe market failures still limit the extent to which PHI provides coverage to the Latin American population.

3.2 Private Health Insurance in the MENA Region

Private expenditure is an important financial source of health care systems in the MENA region. Nonetheless, PHI is a relatively new phenomenon in most of the countries. Private funds are predominantly used for out of pocket expenditure while only Morocco, Lebanon and Saudi Arabia have a sizeable private health insurance industry. Furthermore, a large share of private health expenditure is used for prepaid programs in Oman (48.6 %) and Saudi Arabia (40.1 %).

Some MENA countries have a surprisingly diversified health insurance market. Apart from public sources, health care coverage is offered by various private providers, including private non- and for-profit companies, mutual benefit societies, and mutual funds for private and public sector companies. The diversity of insurance programs is equally emphasized by the sheer number of insurance companies; e.g. in Lebanon, a country with less than 5 million inhabitants, 70 insurance firms provide PHI. Furthermore, insurers offer both comprehensive and supplementary coverage, while participation in these schemes predominantly depends on the extent of available public insurance: i.e. unlike Morocco where all insurance is voluntary, schemes are mostly a supplement to existing public coverage in Tunisia or Jordan.

PHI covers the largest share of the population (around 15 % or 4.5 million people) in Morocco, mostly due to the fact that no public insurance system is in place and people either have the choice to purchase voluntary schemes or remain without coverage. Half a million people (12.6 % of the population) are reported to have coverage in Lebanon, whereas in other places PHI is mainly restricted to foreigners (5 to 6 million expatriate workers in Saudi-Arabia) or high income individuals (around 250,000 in Tunisia and Jordan, which corresponds to 2.5 % and 5 % of each country's population).

Exclusion of high cost/low income individuals is reported for Lebanon, Morocco, Tunisia and Jordan. Furthermore, schemes are mostly concentrated to urban areas and often do not extend to the rural population. Some countries (e.g. Morocco, Saudi Arabia) have recently started to promote the development of PHI, either through the liberalization of insurance services or the extension of existing schemes to a wider population. Requiring private coverage for expatriate workers in Saudi Arabia, for example, is merely the first step towards more private involvement in the health care system. Driving factors for this development are increasing health care costs which can no longer be financed by the state, a growing and more diversified consumer demand, and overall economic growth.

Insurance markets in the MENA region often lack policy harmonization and institutional accountability. Experience from Jordan suggests that there is little co-ordination between the Ministry of Industry and Trade, which is responsible for PHI regulation, and the Ministry of Health. Similar observations apply to Lebanon, where each branch of the insurance industry is associated with a distinct supervising ministry. Evidently, these shared responsibilities impede public oversight, which may lead to market inefficiencies like overlapping health care coverage (reported for Jordan and Iran). Better coordination mechanisms between respective ministries could decrease uncertainty among the population about crucial coverage and, as a consequence, improve market outcomes. Similar objectives can be attained by clearly defining areas in which PHI may support, complement, or substitute other forms of health care coverage. Particularly important would be a clear distinction between private and public responsibilities in health care financing.

Without efficient regulatory instruments, it will be difficult to prevent cream skimming, cost and premium escalation, as well as fraud, which basically are reported for all countries in the MENA region. Equity targets will equally be put into jeopardy if the state does not accomplish sound administrative and regulatory capacities. In Lebanon, the lack of effective control mechanisms is seen to have contributed to the recent cost and premium escalation in the health care sector. As argued by the NHA report, moral hazard behavior led to over-supply of health care coverage and provision, which could partly explain the highly uneven distribution of health care costs. In Lebanon, low income individuals spend on average 20 % of their household income on health care while this share merely accounts for 8 % of household resources in the highest income group.

Insufficient public oversight and especially inappropriate incentive structures also cause inefficiencies in the allocation of resources. Reimbursement policies in Lebanon, for example, have channeled too many resources into the development and prescription of high-tech curative treatment. Primary and preventive care, on the other hand, have been neglected by health financing institutions including PHI. Apart from contributing to the general escalation of health care costs, the focus on curative care may also fail to meet the health care needs of the Lebanese population which might require preventive measures such as vaccination and immunization. In Morocco, too, PHI schemes appear to be maladjusted to local requirements. If PHI were to become a major pillar of the country's health financing system, schemes would need to take into account the specific situation of the poor. Their current design, which primarily covers minor health care risks, does not provide sufficient protection against impoverishment as catastrophic health care costs could still arise in the event of major treatment.

3.3 Private Health Insurance in Eastern Europe and Central Asia

Despite a relatively developed non-life insurance market (per capita spending of USD 52.6, which is the highest rate of all regions analyzed in this study), private health insurance in Eastern Europe and Central Asia is still in its infancy. In many countries, PHI only recently entered the market as part of the general reform process toward market based economic systems. This development was often supported by health sector reforms and government driven PHI pilot programs that tried to establish PHI as a pillar of health care financing (e.g. Estonia, Hungary, and Moldova).

Except for Slovenia, which will not be considered in our analysis, PHI has nevertheless failed to become a significant channel of health care financing. Although expenditure on PHI has increased in many countries, there is very little evidence for a substantial and sustained expansion of the health insurance industry in Eastern Europe and Central Asia. Average per capita spending on PHI in all 11 countries with available data merely amounted to 7.16 international dollars in 2002—this is less than 1 % of THE in most countries of the region (WHO, 2005). Only the Russian Federation (6.5 %), Turkey (4.1 %), and Romania (1.9 %) surpass the 1 % threshold, but even there the extent of PHI remains limited; e.g. only 650,000 people (1 % of the population) are estimated to have private coverage in Turkey (Colombo/Tapay, 2004; Turkey, 2002).

The relative insignificance of PHI in Eastern Europe and Central Asia has multiple reasons. As documented in Dixon et al. (2004), many countries experienced severe difficulties when markets were opened for private health insurance; e.g. in Kazakhstan, most insurance companies went out of business shortly after their market entry. The authors identify a lack of public regulation as well as missing oversight of the companies' solvency as the main explanation for this failure. In other countries, privatization has not yet been accomplished thoroughly (e.g., government joint stock companies sell private health insurance in Uzbekistan) or is limited to certain sectors of the health insurance market (i.e. private insurance only covers co-payments under the public health insurance regime). Albania opened the market for private health insurance in 1994, but failed to attract suppliers of PHI. As of 1999, only one insurance company had entered the market, offering private insurance services mostly to people traveling abroad (Albania, 1999). The private insurance industry has still not consolidated while in fact the country's social health insurance scheme is on its way to becoming the primary purchaser of health care services (Albania, 2002).

Evidence of market exclusion of the poor is manifold. In Azerbaijan, private voluntary health insurance covers approximately 15,000 people, which is less than 0.1 % of the country's population. Insurance premiums vary from USD 600 for hospital treatment in insurance owned facilities to up to USD 17,000, depending on the specific insurance package (Azerbaijan, 2004). Considering that the average per capita income in Azerbaijan amounts to around USD 700, it is obvious why PHI does not cover a larger part of the population. In fact, insurance companies do not seem to believe "that there is a viable market among the general population" (ib.: 24). Such observations are confirmed for Belarus (Belarus, 1997), Estonia (Estonia, 2000), Georgia (Georgia, 2002), and the pro-profit market in Hungary (Hungary, 2004). As in Romania, PHI is often offered by large firms for their employees (primarily multinational organizations) or it is used by residents traveling abroad because such services are not covered through compulsory social insurance (Romania, 2000).

Apart from regulatory deficiencies, the lack of non- or low-profit insurance companies may also contribute to the relative insignificance of PHI. Except for Hungary, all countries with available data primarily rely on private commercial health insurance that is often unaffordable for a larger share of the population. Hungary, on the other hand, apparently succeeded in promoting the development of PHI through a mix of institutional reforms and public subsidies. It created the legal

framework for the establishment of non-profit private health insurance in 1993, primarily based on the model of the French *mutualité*. As reported by the European Observatory on Health Systems and Polices (Hungary, 2004: 46), the purchase of health insurance from mutual funds is subsidized with a 30 % tax rebate up to a certain limit. Between 1998 and 2002, the share of PHI relative to total health care spending increased from 0.1 to 0.4 %, which corresponds to a development of PHI spending from 0.39 to 4.18 international dollars (WHO, 2005).

The relatively dynamic development in Turkey has a different explanation (increase from 15,000 to 650,000 people insured between 1990 and 2002). Subscribers to private schemes primarily acquire higher quality service in addition to their public coverage. The significant increase of both, insurance companies offering and people having PHI was mostly due to the country's economic development that allowed diversified consumer demand. In fact, the initial increase of PHI had a self-reinforcing effect as it stimulated the growth of the private health care sector, which, in turn, made private health insurance more popular. Expenses to private health facilities are not covered under the public insurance plan. Although dissatisfaction about the quality and accessibility of public facilities have further raised the popularity of PHI, private risk-sharing programs still fail to constitute a major factor in the country's health financing system. High premiums, in particular, significantly reduced the demand for PHI; between 1994 and 2002, the average annual premium per person increased from USD 200 to USD 800. According to the European Observatory on Health Care Systems (Turkey, 2002), coverage was highest amongst employees of banks, insurance companies, chambers of commerce, and computer companies.

The experiences from Eastern European and Central Asian countries clearly underline that a successful implementation of PHI demands more than merely opening markets for private providers. Particularly important are sufficient political will and regulatory scrutiny, which is missing in many countries of the region. Even fairly developed economies like Turkey often lack strategic planning and policy co-ordination, which leaves the whole health care sector highly fragmented or fails to provide proper risk-sharing and risk-adjustment mechanisms (Colombo/Tapay, 2004: 43). Whether or not PHI should gain a more prominent role is above all a political decision. The determination to actively support the development of PHI varies largely across countries. Whereas the Ministry of Health in Belarus is "broadly in favor of the extension of voluntary [i.e. private] health insurance" (Belarus, 1997: 42), Estonia has renounced of all policy attempts "to increase the

share of private insurance" (Estonia, 2000: 18). Sometimes there even is a conflict between public and private financing mechanisms; e.g., Hungary does not allow private risk sharing programs to offer the same products that are covered under the public insurance regime. Equally deterring are policies that do not allow a compensation of private risk-sharing arrangements; e.g., buyers of PHI are not rewarded tax benefits in Moldova although they are less likely to use tax-paid public health care services (Moldova, 2002: 25).

Legislation that prevents the development of non- or low-profit schemes potentially impedes a wider outreach of PHI among the population. In this respect, Hungary's efforts to support complementary insurance schemes on a non-profit basis deserve special attention. This should not neglect that such policies are also problematic as they may generate rent-seeking behavior and market distortions. Alternatively, countries could also consider allowing innovative ways to sell and promote private health insurance; e.g., in Georgia, companies sell PHI as packages with other, more prominent and currently more profitable, insurance products (Georgia, 2002).

Public policies to initiate and support the development of PHI need to be counterbalanced with accompanying measures aiming at more equitable and less discriminatory access to health care coverage. Preliminary experiences from Latvia indicate that the gradually expansion of PHI could lead to a "two-tier system of health care provision in terms of access and quality of care" (Latvia, 2001: 37). Furthermore, many countries fail to offer sufficient information about the pros and cons of private health insurance and do not communicate potential needs to privately insure against health care costs in cases where the state cannot offer coverage. The move toward market structures and the reorganization of public services and responsibilities has occasionally evoked confusion and uncertainty among the population. As a result of the reform process, many people may currently no longer be aware of the extent of public health care provision and coverage. Experiences from Latvia suggest that private insurers have used the public confusion for their own benefit. Such situation would be extremely harmful for the future development of PHI. Not only would providers realize a larger producer surplus and block the access to PHI for low-income individuals, thus creating market inefficiencies and a higher level of segregation in health care coverage. More importantly, insufficient regulation could undermine the still fragile trust in private suppliers that is only gradually developing after the region's shift towards market structures.

3.4 Private Health Insurance in Sub-Saharan Africa

Similar to the whole insurance industry, private commercial health insurance is hardly developed in Sub-Saharan Africa. Nevertheless, private prepaid schemes are a significant source of total health financing in a couple of countries. The health insurance market is particularly well established in South Africa, where 46.2 % of all expenditure on health care was channeled through a private health insurance intermediary in 2002 (WHO, 2005). Relative to total health expenditure, PHI also plays a significant role in Namibia and Zimbabwe (the latter being the only low-income country in which PHI spending exceeds 10 % of THE). As in the case of South Africa, the importance of private insurance might predominantly be explained by the countries' severe income inequalities. While South Africa (0.59) and Zimbabwe (0.57) depict Gini coefficients from the first quarter of worldwide inequality, Namibia even tops the list with a value of 0.71. Since private health insurance is almost exclusively reserved for high income individuals, the large share of PHI spending is not reflected in equally significant coverage rates; e.g. only 8 % of the population in Zimbabwe is estimated to have private health insurance (Campbell et al., 2000: 2) although PHI expenditure accounts for 19 % of the country's total health expenditure.

However, innovative approaches have recently started to increase the significance of PHI in other African countries as well. The increasing emergence of community-based health insurance (CHI) during the past couple of years has been particularly strong in Sub-Saharan Africa (Jütting, 2004). New schemes were recently implemented in Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Ghana, Guinea, Mali, Nigeria, Senegal, Tanzania, Togo, and Uganda (ILO, 2000). Due to the non-or low-profit nature of CHI, premiums are relatively moderate, which may explain the low level of expenditure on private prepaid programs. Box 1 discusses further insights into CHI which will potentially play a prominent role in future health care financing.

Box 1. Community-Based Health Insurance in Sub-Saharan Africa

Community-Based Health Insurance (CHI) is established through "local initiatives of rather small size ... with voluntary membership" (Wiesmann/Jütting, 2000: 195). Programs have either been initiated by health care providers (e.g., hospitals), Non-Governmental-Organizations, or local associations (Atim, 1998; Criel, 1998). Schemes are generally limited to a specific region or community and thus only reach a small number of people. Moreover, insurance packages are not comprehensive, but only offer supplementary coverage for certain medical treatments.

Despite these limitations, CHI is a promising approach to extend health care coverage to otherwise excluded individuals. Specifically, MHI has the potential to integrate a large part of the rural population in Sub-Saharan Africa which would otherwise be left with no or very little health care coverage. Although the scope of each individual scheme is very restricted, CHI could potentially cover many individuals depending on the number of schemes available. A recent survey of health insurance systems in 11 francophone West and Central African countries (La Concertation, 2004) reveals that 324 PHI schemes currently exist; this is almost 90 % of all 366 registered insurance programs that are considered

operational. CHI density is very different across countries, reaching from approximately eight schemes per one Million people in Senegal to just over 0.5 schemes per one Million people in Chad. Apart from Senegal, CHI is also relatively significant relative to population size in Benin and Guinea.

CHI generally operates on a non- or low-profit basis. Besides offering moderate premiums to their clients, CHI can generally better adapt to the specific needs of their clientele and adjust programs accordingly. Although health coverage through CHI will typically remain low, recent empirical findings (e.g., Jütting, 2005) suggest that schemes can indeed increase accessibility to health care and improve financial protection of households. In this respect, CHI can serves as an important tool to reduce periodic expense shocks that would otherwise be induced by unanticipated OOP. Other studies (e.g., Wiesmann/Jütting, 2000) indicate that, in order to serve the health needs of the poor, CHI should primarily try to keep participation high by adjusting insurance premiums and benefits to the specific needs of individuals. The specific design of schemes depends on a case-by-case analysis.

Tab. 2: Types and Characteristics of Health Insurance in Western and Central Africa

Country	Pop. (Mio.)	# of PHI	# of CHI rela- tive to # of PHI	Estimated # of Beneficiaries	Beneficiaries relative to Population	Only local out- reach (rural or urban)	Regional and/ or national outreach
Benin	7.5	43	93.0 %	43,387	0.58 %	72.1 %	27.9 %
Burkina Faso	13.6	36	77.8 %	14,580	0.11 %	88.9 %	11.1 %
Cameroon	16.1	22	68.2 %	10,098	0.06 %	59.1 %	40.9 %
Chad	9.5	7	85.7 %	2,072	0.02 %	57.1 %	42.9 %
Côte d'Ivoire	17.4	36	88.9 %	858,348	4.93 %	75.0 %	25.0 %
Guinea	9.3	55	100.0 %	96,635	1.04 %	98.1 %	1.9 %
Mali	12.0	56	69.6 %	499,856	4.17 %	62.5 %	37.5 %
Mauretania	3.0	3	100.0 %	13,056	0.44 %	100.0 %	0.0 %
Niger	11.4	12	91.7 %	84,372	0.74 %	16.7 %	83.3 %
Senegal	10.9	87	100.0 %	294,060	2.70 %	74.7 %	25.3 %
Togo	5.6	9	88.9 %	22,500	0.40 %	88.9 %	11.1 %
Total/Average	116.1	366	88.5 %	1,938,964	1.67 %	74.8 %	25.2 %

Source: La Concertation (2004).

Tab. 3: Target Groups* of CHI in Western and Central African Countries

Target Group of CHI	# of CHI	Relative to Total #	Cumulative
< 1,000	52	14.2 %	14.2 %
1,000-3,000	43	11.7 %	26.0 %
3,000-5,000	32	8.7 %	34.7 %
5,000-10,000	61	16.7 %	51.4 %
10,000-30,000	74	20.2 %	71.6 %
30,000-50,000	17	4.6 %	76.2 %
50,000-100,000	20	5.5 %	81.7 %
>100,000	31	8.5 %	90.2 %
Unknown	36	9.8 %	100.0 %
Total	366	100.0 %	

* according to a micro-survey of African insurance providers (own perception of target group) Source: La Concertation (2004: 23).

Very few schemes in Sub-Saharan African countries operate on a regional or even national level (comp. Tab. 2). About 75 % of all health insurance programs in Central and Western Africa are either restricted exclusively to a rural or urban environment. The relatively small risk-pool of PHI is

also emphasized in Tab. 3. More than 70 % of all insurance schemes describe their target group to be smaller than 30,000 people.

One advantage of CHI could also be problematic for its future development. While their small size ensures schemes sufficient flexibility to adapt to local conditions, it also deprives them of financial stability and consolidation (La Concertation, 2004: 79). 8 out of 10 cover less than 1000 people while half of them even cover less than 650 individuals. Although preferable from an organizational and participatory point of view, this situation will hardly be sustainable in the future. More co-operation and possibly partnerships between existing schemes therefore seem advisable as well as the targeting of more constituents in the development of new programs. Only the expansion of the financial base will ensure growth and long-term stability of mutual schemes in Sub-Saharan Africa. The UMASIDA health insurance schemes in Tanzania (Mutual Society for Health Care in the Informal Sector) gives an illustrative example of this process as it resulted from the regrouping of five associations of the informal sector (Kiwara, 1999: 131). Public policies could support this process of consolidation which essentially needs to be based on a collective effort of the communities operating the schemes.

For the same reason, CHI needs to start operating in a more professional fashion. Currently, schemes are limited in both the services they offer and the number of people they cover. They can neither rely on a large risk-pool nor do they dispose of security mechanisms like guarantees or re-insurance funds. Professionalization would also include a gradual move from very low insurance premiums to contributions that allow both financial stability and a true insurance-based health care coverage. Today, most of the schemes only cover small risks and fundamentally rely on co-payments; expenses for specialists or hospital treatment are rarely included. This situation is particularly regrettable, because the true problem of health care financing often occurs as a result of catastrophic costs for major treatment. Public policies could accompany this process of professionalization by requiring adequate financial standards and security mechanisms.

Considering the institutional weakness of many Sub-Saharan African countries and the limited financial resources of the African people (46.5 % of the population live on less than one international dollar a day), PHI will mainly evolve in the non-profit, community-based insurance segment. Adding to the existing 366 schemes in francophone countries, another 142 are currently being implemented while 77 are planned for the near future. The regional focus of CHI lies on Senegal,

Guinea, Burkina Faso, and Togo. Given the limited capacity and restricted outreach of schemes, the development of CHI is obviously not an end in itself. But it can serve as a building block for the future development of health insurance in Sub-Saharan Africa.

3.5 Private Health Insurance in East Asia and the Pacific

PHI in East Asia and the Pacific clearly plays a secondary role in health care financing. This may partly be due to the role of the state in Asian health financing systems, which offers and generally requires public health insurance. Given the region's high rate of out of pocket spending, PHI could nevertheless become an important source of future health care financing if resources for direct payments can be channeled to prepaid schemes. Furthermore, high levels of household saving might help to underpin the growth of the insurance market (Swiss Re-Insurance Company, 2004b:

Some countries have recently started to encourage the development of private risk-sharing programs. Reforms largely occurred as a response to increasing health costs that overburdened existing social security systems. The largest development of private health insurance has probably occurred in Thailand where the government sponsored Health Card Program already attracted 28.2 % of the Thai population (WHO, 2004b: 179). Apart from the fact that half of the insurance premiums are paid from public subsidies, the large expansion of the health card program may also be due to an extensive TV and radio advertising campaign. Given its relative success, the card program could pave the way to universal coverage. So far, the initiative is not yet self-sustainable (i.e., despite subsidies, costs per person exceed revenues) and potentially runs the risk of attracting too many bad-risk patients. Since high individual health risks are not reflected in the premiums, such situation could undermine the base of the program.

Similarly, Vietnam currently investigates the possibilities of expanding private commercial and community-based health insurance (ADB, 2002). Health insurance is also being re-organized in Indonesia, where large parts of the population are not covered under social insurance. As a response, the government is considering various forms of private health insurance, including managed care and community insurance. However, their contribution to universal coverage remains limited as regards the number of people insured (500,000 people are estimated to be member of a

managed care organization) and services covered under the schemes (low premiums but also low coverage through community schemes, WHO, 2004b).

In the near future, China is predicted to become a dynamic market for insurance providers (Swiss Re-Insurance Company, 2004a). Following massive reforms in 1998 (urban areas) and 2002 (rural areas), the Chinese health care system is currently being re-organized after coverage rates had dropped significantly in the 1980s and 1990s (i.e., 64 % of the Chinese population in rural and 15 % in urban areas did not have health or accident insurance at the end of the 1990s; Swiss Re-Insurance Company, 1998: 21). Particularly challenging are escalating health care costs that have increased tremendously after trade liberalization and open-market policies in the 1980s. In the process of reform, "China has carried out some of the most interesting experiments with new forms of health insurance financing" (van Ginneken, 1999: 18). At the same time, the government's role in providing medical insurance is declining so as to make room for an increased private involvement (Swiss Re-Insurance Company, 2003: 24).

With the breakdown of collective economic structures the once "successful" (WHO, 2004b: 60) health care system in China, which—at its peak in the 1970s—covered up to 98 % of villages is still adapting to new market structures. Although the government has started to encourage people to privately insure against health risks, PHI does not yet play a major role. According to NHA data, only 3.6 % of private (or 0.3 % of total) spending on health care was channeled to PHI in 2002 (WHO, 2004b: 33). Challenges for the private health insurance industry originate from large informal sectors in rural areas and information deficits on a person's current health status, which make an actuarial calculation and pricing of insurance products difficult. Even though some progress has been achieved in recent years, a large part of the Chinese population still remains without health care coverage and the government's aim to achieve universal coverage by 2010 seems overly ambitious.

Despite some regional variation in East Asian countries, PHI is overall a new phenomenon with significant development potential. As regards policy recommendations, all countries face a trade-off between promoting a new industry with supportive policies on the one hand while similarly ensuring ample regulation and consumer protection on the other. As noted by Sekhri et al. (2004: 4), measures to increase competition among insurers may encourage innovation, efficiency, and responsiveness of private schemes; at the same time, such policies may also "lead to higher admin-

istrative costs, small risk pools that are not economically viable and aggressive pricing practices that can create market instability and insolvency". Regulation strategies must therefore find a balanced mix between support and sufficient regulation. Experiences from Latin America may serve as a negative example of how open-market policies can induce too much competition that does not necessarily materialize in better products.

Given the large low-income and mostly informal sector in many East Asian countries, regulation will have to cope with equity issues at some point of the industry's development. It is very doubtful if the private commercial insurance industry will extend to marginalized individuals without accompanying public regulation. As low-income individuals and high-cost patients are rarely covered through private entities, regulation could simply mandate the admission of marginalized individuals or influence the composition of the insured through financial incentives. Specifically, coverage of high-risk and/or low-income patients could be subsidized with public funds or low-risk individuals could be encouraged to join private schemes by granting tax-benefits. Such policies would increase the risk pool of PHI, which would ideally allow some cross-subsidization among the insured. However, whether or not public subsidies do indeed provide a cost-effective way to improve health care coverage depends on a case-to-case analysis.

3.6 Private Health Insurance in South Asia

Of all regions studied in our analysis, South Asia represents the smallest and least significant insurance market. Its share of the world's total insurance premium income only accounted for a mere 0.6 % in 2003. This is particularly noteworthy as the region houses 22.7 % of the world's population and contributes 2.1 % of the world's GDP. WHO data only indicate spending on private health insurance in three countries: Bangladesh, India, and Sri Lanka. All other countries either did not have PHI by the time the data were collected or spending on private programs was too small to be recorded in national statistics. In fact, even Bangladesh, India, and Sri Lanka are basically negligible as regards per capita expenditure on PHI (between 0.01 and 0.17 international dollars in 2002). Yet, these statistics might not reflect the more current developments in South Asian insurance markets that now leave more room for private companies to expand.

The insurance industry was largely marginalized during a period of nationalization in the 20th century. It has now started to regain some of its vigor and vitality as countries begin to re-open their

markets for private insurance companies. However, other obstacles like severe "poverty, lack of awareness, and, perhaps, strong belief in fatalism" (Pereira, 2005) still prevent the development of private health insurance. To some extent, the low significance of South Asia's insurance industry may also be explained by the region's colonial history. Unlike the East Asia region, the influence of the United Kingdom with a long tradition of public health care may have prevented the expansion of PHI. India as a relatively developed economy with a strong middle class population (roughly 300 million people) certainly offers the most promising environment for PHI to evolve. Already, it is estimated to have the largest PHI market covering 33 million people or 3.3% of its population (Sekhri/Savedoff, 2005: 130).

Box 2. PHI in India

The private health insurance industry in India is still in its infancy. However, PHI can be expected to grow in the near future, especially after legislative reforms have recently introduced the "last phase in the move towards the privatisation of the insurance sector" (Mahal, 2002: 412). It is certainly still too early to discuss market indicators of the private health insurance industry and present possible evidence of market failure. Nevertheless, an analysis of the current regulatory framework allows some projections about the future performance of PHI in terms of cost and quality of care as well as its influence on equity related issues.

Mahal (2002: 436) argues that the introduction of PHI will not have cost-increasing effects in the Indian health sector. Similarly, it would equally be unlikely that PHI will deteriorate the quality of health care, which is not to say that it would necessarily lead to improvements either. According to Mahal's analysis, the regulatory framework in India is already sufficiently established or existing gaps could be filled with appropriate legislation to enforce quality and cost standards.

Given the relatively weak legislation on consumer protection and especially the poor enforcement mechanisms in India, Mahal nevertheless believes that the expansion of PHI could have an equity-worsening effect. This could even be amplified if, as Mahal expects, the insurance market remained small for a certain period of time. The establishment of a well-functioning PHI sub-sector typically requires several years of refining and fine-tuning the system.

Such equity concerns are shared by the WHO (2004b: 97ff). According to their analysis the private sector currently "continues to operate in an almost unhindered manner". In order to gradually advance towards universal coverage, policy makers would thus have to implement adequate licensing and regulatory requirements. As PHI will primarily target India's middle and upper class population, the state would also need to find new and innovative ways to provide health care coverage for the poor.

With the exception of India, private health insurance will hardly play an important role in South Asian health systems in the near future. Without further reforms and a continued political determination to establish a sizeable PHI market—but also economic development and a considerable reduction of poverty—private health insurance will remain a niche-product for very few privileged individuals.

4. Lessons Learned - How to Integrate PHI Into a Health System?

PHI is gradually gaining importance in low- and middle-income countries, but still at very low levels in absolute spending on private insurance. The previous discussion from different countries and regions has illustrated that private risk-sharing markets rarely function perfectly. Especially the large inequalities in access and coverage of care are worrisome from a development point of view. Market failures can occur at various stages of the exchange process and can involve the supply as well as the demand side. Furthermore, failures have different dimensions including total exclusion or discrimination of individual patients, financial imbalances of suppliers, premium escalation, and a lack of competition. In order to offer competitive prices, insurers will discriminate against high-risk patients or try to reduce administrative costs by predominantly focusing on formal sector employees where premium collection is relatively inexpensive. At the same time, moral hazard behavior induces cost escalation (i.e., more insurance offered or more services required than needed) or adverse selection pushes low-risk patients out of private schemes.

How to respond to these market failures and inefficiencies is ultimately a political question. Its answer will in part depend on people's preferences on how to weigh efficiency and equity as well as the general needs and circumstances in each country. It is nevertheless unlikely that an insurance system can completely renounce of control mechanisms to supervise the performance of PHI. The need for regulation is not only fueled by potentially negative outcomes of the private insurance industry; regulation may be equally important as the introduction of PHI will affect other forms of health care financing. Specifically, PHI may only leave bad-risk patients for public coverage or it may indirectly affect public provision of health care by raising health care costs. Policy makers should thus take into consideration the whole impact of allowing private risk-sharing arrangements into the market. The state needs to be able to respond to the manifold challenges that will arise when PHI is introduced into a health care system. Furthermore, the state should ensure transparency of the system and be clear about public and private responsibilities. This will not only be important for potential beneficiaries of PHI as it allows them to adjust their health expenditure. It also enables providers of PHI to offer adequate insurance packages that take account of the specific needs of their clientele.

An efficient regulatory framework is especially important in low- and middle-income countries as private risk-sharing arrangements may be the only form of health insurance available. At the same

time, efficient regulation is often very difficult to achieve as these countries rarely have sufficient experience and expertise in dealing with insurance markets. Furthermore, they sometimes lack the institutional capacity to build and maintain a regulatory framework. Establishing efficient institutions is not exhausted by setting up a government agency to monitor the insurance sector. Effective supervision has multiple layers and involves many different tasks, various public entities, and requires qualified specialists. Institutional capacity will extend from insurance legislation and licensing requirements to monitoring strategies and corrective control mechanisms.

Due to the issue's complexity as well as the large array of possible risk-sharing arrangements and corresponding market-failure/policy-response patterns we will only focus on selected key issues of PHI in the developing world. In particular, we discuss the desired structure of schemes as well as various price setting mechanisms by comparing pros and cons of commercial vs. non-profit schemes. We also analyze aspects of premium collection and discuss advantages of group programs as regards individual contracts. Finally, we present advantages and disadvantages of opening insurance markets for international providers. Obviously, such analysis is bounded by a high level of aggregation and generalization. Nevertheless, we believe that our discussion offers some important lessons that have already been learned in dealing with private health insurance in low- and middle-income countries.

4.1 Structure of the Schemes – Comprehensive vs. Supplementary Coverage

Health insurance can be classified according to the extent of coverage it offers, particularly as regards other forms of health care financing. In general, PHI may have a substitutive, complementary, or supplementary role in a country's health care system. As a substitute to other forms of health care financing, PHI offers comprehensive coverage in place of another entity or financial source. Complementary and supplementary coverage, on the other hand, close gaps of other forms of health care financing; the former providing cover for services excluded or not fully covered otherwise, the latter providing cover for faster access, better quality, and higher consumer choice (Thomson/Mossialos, 2004).

In many low- and middle-income countries, private health insurance is the only available form of risk-pooling. More often than in developed countries, private schemes therefore offer comprehensive coverage. Nevertheless, there are only few examples where private comprehensive health

insurance covers a larger percentage of people (e.g., Lebanon, with 8 % of the population covered in 1998; NHA Lebanon, 2000). Typically, comprehensive coverage can only be afforded by the highest income groups in a country. Supplementary insurance, on the other hand, can be a valuable tool to extend coverage too otherwise excluded individuals. Experiences from Ghana illustrate that PHI may well be suited for low income groups when the respective schemes are adjusted to local conditions (Okello/Feeley, 2004). In Ghana, the poor were persuaded by information campaigns to only purchase relatively cheap premiums covering inpatient health care. Hospital services are rarely needed, yet pose a severe risk of impoverishment when they occur.

Such rationale obviously faces a trade-off with other health risks. Specifically, supplementary coverage that is limited to high cost/low frequency events may not be the best option when local conditions demand large scale preventive care (e.g., immunization and vaccination campaigns). As in the case of CHI in Sub-Saharan Africa, limited coverage furthermore runs the risk of impeding the long-run development of PHI (La Concertation, 2004: 79). Private schemes will only become a true alternative to other forms of health financing if they are able to expand their services and offer a wider range of coverage. In many African countries, CHI faces a trade-off between offering an attractive product and offering affordable premiums. Although low cost/low coverage programs may facilitate the initiation of a scheme, CHI eventually needs to develop beyond this stage if it wants to attract larger parts of the population.

Moreover, supplementary insurance is frequently designed to cover additional or superior treatment, which obviously restricts its outreach to a relatively small group of people who are willing and able to pay for such services. Although supplementary schemes will consequently increase the scope of health care coverage for their beneficiaries (and in this respect promise a welfare gain), they will not necessarily facilitate the move towards universal health coverage.

In general, private health insurance in the developing world is often too expensive or the schemes are ill adjusted to local circumstances to reach out to a larger share of the population; at least such assessment seems valid for private commercial schemes (Dror/Jacquier, 1999). When discussing PHI in the context of low- and middle-income countries, it is therefore equally important to carefully distinguish between profit and non-profit schemes.

4.2 Price Setting Mechanisms – Profit vs. Non-Profit Schemes

In general, health insurance through private commercial providers is restricted to upper income groups who can afford the high premiums (Musgrove et al., 2002); in fact, "no country [...] uses voluntary private insurance to cover the poor or the elderly" (Sekhri et al., 2004: 8). Low family income is commonly associated with an increased rate of illness and disease, which seriously impedes any efforts to induce insurance companies to offer PHI in poor communities (Sbarbaro, 2000: 5). As documented for many countries, commercial schemes therefore rarely extend beyond formally employed workers in urban areas.

PHI's narrow focus on a few privileged persons could only be justified if other health financing intermediaries are compensated for the opting-out of good-risk patients which will likely occur when the array of available health insurance is widened. In theory, this could be achieved through financial transfers between public and private suppliers or a clear separation of either domain of coverage. Given the limited institutional and regulatory capacity of many low- and middle-income countries, commercial PHI might, however, compromise rather than support the goal of universal coverage.

The literature offers many examples and possible explanations for the failure of PHI to include low-income individuals. In Thailand, insufficient public oversight is seen to have raised PHI premiums beyond levels that are affordable for informal workers (Supakankunti, 2000). For the case of Sub-Saharan Africa, Bennett et al. (1998: 54) describe the revenue generating potential of health insurance providers as too limited. In order to reach people outside formal sector employment, the authors therefore propose to focus on non-profit or highly subsidized schemes serving as a supplement to publicly funded health programs. Similar conclusions are reached by the International Labor Organization that makes out significant discrepancies between private health coverage in urban and rural areas in Latin America (ILO, 2000).

Dror and Jacquier (1999) argue that a mismatch between supply and demand for PHI excludes large parts of the population. Insufficient financial means and large geographic spreads prevent suppliers of PHI to interact efficiently with the demand side. In order to ensure broader health coverage, the authors propose micro-insurance programs, which essentially are "voluntary group self-help schemes for social insurance" (ib.: 6). A key advantage of such programs is their capability to harmonize accumulated reserves with community-specific risk- and benefit-priorities. Since

commercial providers modify benefit packages primarily to increase profit, they are less flexible to respond to particular needs and preferences. Given the narrow outreach of commercial PHI, it therefore seems advisable that policy makers and especially the international donor community ensure ample regulation of PHI or concentrate efforts on the development of non-profit schemes. Non-profit programs have a wide array of possible structures; they include schemes that are operated by NGOs, communities, voluntary associations, hospitals, large firms or even financial intermediaries like private banks.

The role of NGOs in administering private non-profit health insurance is manifold. Ron (1999) reports NGO involvement as an intermediary between health providers and a community health insurance scheme in Guatemala (the *Association por Salud de Barillas*). NGOs often also run and manage insurance programs; i.e., community schemes were set up by the *Organisation for Educational Resources and Technological Training* (ORT) in the Philippines and other developing countries. All ORT schemes try to be self-sustainable while at the same time offering affordable premiums to the target population. NGO involvement in community schemes is also reported for India (Gumber, 2001), Lesotho (DeRoeck/Levin, 1998), and Cambodia (GTZ, 2003), where NGOs are a "leading force in health insurance provision for the informal sector" (ib.: 29).

Small insurance schemes are occasionally also offered by health care providers including hospitals and local medical centers. Such programs have the advantage of bringing insurance closer to the target population, even though evidence from Zaire seems to indicate that they, too, fail to integrate the chronic poor into their coverage (Jütting, 2004; Criel et al., 1999); a perception that is confirmed for the hospital-based Lacor Health Plan in Uganda (Okello/Feeley, 2004). Yet, analyzing a hospital-based scheme in Ghana, the same study also reveals that the poor can be encouraged to join risk-sharing programs through information campaigns, marketing efforts, and insurance packages that are appropriate for the specific needs of low-income groups.

In some cases, even profit-maximizing behavior can lead to the development of low- or non-profit health insurance schemes, as is indicated by the Grameen Bank health insurance program in Bangladesh. The WHO (2004b) reports that around 140,000 people are covered under this scheme, which was initiated in order to reduce defaults of the bank's micro-credit loan program (Desmet et al, 1999). Similarly, large companies in Jordan offer health insurance to their employees not necessarily as an additional source of revenue, but in order to protect the health condition

of their workforce. At the end of the 1990s, almost 100,000 people were reported to have coverage directly through their employer (NHA Jordan, 2000).

4.3 Premium Collection – Individual vs. Group Coverage

Private health insurance can offer both individual and group coverage whereby the latter primarily occurs through employer- or community-based schemes. Group affiliation has traditionally been the basis on which small private risk-sharing schemes developed in many OECD countries (Sekhri/Savedoff, 2005). As they usually charge the same premiums for all members of a particular group—that is, regardless of age, income, or health status—they lack the customization of an individual scheme.

Group insurance offers both weaknesses and benefits. On the negative side, schemes are prone to moral hazard behavior as individual misuse (i.e. excessive insurance claims) can hardly be controlled (e.g. Cutler/Zeckhauser, 1997). Similarly, the uniform structure of the schemes generates adverse selection. Especially for good-risk patients with small health needs, group premiums are often less attractive than individual contracts as schemes will always involve some sort of cross-subsidization of bad-risk patients. In order to include good-risks, group insurance consequently needs pro-active policies: e.g. mandated membership for all individuals of a particular firm, association, or community. Participation can equally be encouraged through information and advertising campaigns. In small groups, finally, peer-pressure can alleviate the adverse selection problem.

On the other hand, group insurance may greatly reduce administrative costs and—especially in large groups—reinforce the bargaining position of insurance companies' vis-à-vis health care suppliers which may increase efficiency. Specifically, insurance providers do not need to calculate premiums for each individual according to risk-structure while premiums can easily be collected through the management of a firm, the chairman of an association, or the head of a community. In this way, group insurance may contain health care costs and improve a country's health care coverage.

Most importantly, though, group insurance may often be the only feasible alternative to implement an insurance-based health care system in low- and middle-income countries. Due to information gaps on either side of the market exchange, suppliers will often not be able to offer customized insurance packages while buyers may not have sufficient oversight to establish a clear pricebenefit structure. Implementing group insurance schemes and focusing efforts on the development of better and more efficient ways to collect insurance premiums can thus be an initial step to promoting the development of PHI. At a later stage, experiences and information from the performance of group insurance can be used to derive more personalized insurance products.

4.4 Trade and PHI – International vs. Domestic Provider

With the introduction of PHI into national health care systems, low- and middle-income countries become markets for foreign providers. Bilateral trade agreements and the expansion of free-trade to the area of services have expanded opportunities for international exchange in PHI. Furthermore, multinational firms operating abroad increasingly demand a healthy workforce and either promote the local insurance and health care industry or import respective facilities from abroad. In general, this is a positive development as low- and middle-income countries can import know-how and institutional capacity through increased international exchange. International providers of PHI contribute to the establishment of a functioning insurance market in low- and middle-income countries and possibly activate local providers to start operating in this line of business. They increase competition in the insurance market that ideally will lead to better services and the development of adequate insurance packages. In the long-run, international providers can therefore help lay the foundation of a functioning insurance system and contribute to establishing an indispensable information base.

Such positive effects are, however, dependent upon the careful integration of foreign providers into local markets. Apart from general rules and regulations in the insurance market, adequate legislation has to ensure that international insurance companies neither exploit a given market nor prevent the development of domestic competitors. Large international co-operations can contribute significantly to the development of a functioning insurance market by offering expertise and institutional capacity. On the other hand, each health care system requires that insurance products are carefully adjusted to local needs and conditions. In this respect, international providers can also learn from local entities. There is some indication that international providers have not always been sufficiently flexibility. For the case of Latin America, the literature emphasizes that foreign insurance schemes have not been well adapted to local circumstances. Specifically, the

gradual implementation of U.S. type HMOs arguably reflects ideological believes on the inevitability of managed care rather than actual needs of the health care system (Iriart et al., 2001, Stocker et al., 1999).

5. Conclusions and Outlook

Private health insurance is gradually gaining importance in low- and middle-income countries. As documented above, prospects of the introduction of PHI are promising in a number of countries, particularly in the sector's non- or low-profit segment. We believe that mainly five factors justify our optimistic outlook: (i) many countries have difficulties with traditional ways of health care financing and look for alternative ways to achieve universal coverage; (ii) economic growth leads to higher income and diversified consumer demand; (iii) public entities frequently lack people's trust and confidence—as PHI is generally associated with private health care providers it often enjoys wider popularity; (iv) globalization and economic opening-up will lead to more trade in the health care sector, which will boost the development of PHI in low- and middle-income countries; (v) PHI does not require a strong service infrastructure (Sbarbaro, 2000: 3) and may thus develop despite a country's institutional weaknesses.

Nevertheless, the introduction of PHI is not an end in itself and demands a careful consideration of its impact on a country's health care system. It will neither cure all shortcomings of the previous system nor remain free of possibly negative consequences on existing structures. Private risk-sharing programs are an alternative way to finance health care; as such, they expand a country's options to cover health care costs and/or lay the foundation for further development towards universal coverage. In this regard, it is particularly important that a country have a clear concept as to what role PHI should play in the existing health care system or how it should develop to better serve future health care needs.

As documented above, the immediate effects of allowing PHI to enter a national health care system may occasionally prove disappointing. Potential inequities and discrimination caused by the emergence of PHI are of particular concern. First, PHI directly affects the extent to which people have access to health care as not everybody will be able to afford its services. Case studies indicate that access to the commercial PHI sector in particular will often be limited to high income individuals. Second, PHI could deteriorate the quality of public health care by increasing health care

costs, taking qualified health care personnel away from public institutions, and leaving only bad risk patients to public facilities. In this way, the introduction of PHI may have a detrimental effect even on people who have remained within existing structures. From a development point of view, a sufficient regulatory framework is therefore fundamental to prevent the gulf between the privileged und underprivileged within a country from widening.

In low- and middle-income countries that are prone to epidemics and infectious diseases it is equally important to consider the overall effects of PHI on a country's health indicators. Private risk-sharing programs arguably represent "a threat to the control of, and care for, [the] WHO's ten basic community diseases" (Sbarbaro, 2000: 14). Shifting resources from public to private entities may consequently pose additional risks if people are deprived of sufficient preventive health care such as vaccination and immunization (Khaleghian, 2004; Scott-Herridge, 2002). The state must either continue to provide such services or persuade people through information campaigns to include preventive measures in their private health care coverage. As argued by Sbarbaro (2000, 12), the introduction of PHI may even detract from development potentials as "public health services have the greater effect on a community's economic development". Sustainable economic development could consequently prove more difficult to attain the more a country relies on private insurance.

Despite these risks, the potential of introducing PHI into a country's health care system should not be disregarded. Private risk-sharing arrangements may well contribute to improving health care coverage in low- and middle-income countries. Wisely managed and carefully adapted to local needs and circumstance, they can be an important tool to eventually reach the "ultimate objective" (Carrin et al., 2001: 131) of universal coverage. Furthermore, regulation needs to be in place to correct for possible unintended consequences. The existence of PHI consequently does not discharge the state of responsibilities. On the contrary, it leaves an active role for governments to ensure the optimal performance of insurance markets and the entire health financing system. As illustrated by the case of Brazil, public regulation is not only vital to correct for market failures of PHI (e.g., cream-skimming, social exclusion, premium escalation). It can equally serve the insurance industry by establishing reputation and creating trust among the population (Jack, 2000: 26). PHI is certainly not the only alternative and ultimate solution to address alarming health care challenges in the developing world. But it is an option that warrants—and already receives—growing

consideration by policy makers around the globe. Thus, the question is not if this tool will be used in the future, but whether it is applied to the best of its potential to serve the needs of a country's health care system.

References

- ADB (2002): Making Health Care More Affordable to the Poor, Technical Assistance Report, TAR 36007, June 2002, Asian Development Bank.
- Albania (2002): Health Care Systems in Transition Albania, European Observatory on Health Care Systems, Vol. 4(6), Brussels: EOHCS.
- Albania (1999): Health Care Systems in Transition Albania, European Observatory on Health Care Systems, Brussels: EOHCS.
- Atim, Chris (1998): Contribution of Mutual Health Organizations to Financing, Delivery and Access to Health Care Synthesis of Research in Nine West and Central African Countries, Technical Report No.18. Partnerships for Health Reform Project, Bethesda: PHR.
- Azerbaijan (2004): Health Care Systems in Transition Azerbaijan, European Observatory on Health Care Systems, Brussels: EOHCS.
- Baeza, Christian (1998): "Tacking stock of Health Reform in Latin America", Latin American Center for Health Systems Research, Santiago de Chile.
- Barrientos, Armando and Peter Lloyd-Sherlock (2003): "Health Insurance Reforms in Latin America Cream Skimming, Equity and Cost Containment", in: Louise Haagh and Camilla T. Helgo (eds.): Social Policy Reform and Market Governance in Latin America, MacMillan: London, pp. 183-199.
- Barrientos, Armando (2000): "Getting Better After Neo-Liberalism Shifts and Challenges of Health Policy in Chile", in: Peter Lloyd-Sherlock (ed.): Healthcare Reform and Poverty in Latin America, ILAS: London, pp. 94-111.
- Belarus (1997): Health Care Systems in Transition Belarus, European Observatory on Health Care Systems, Brussels: EOHCS.
- Bennett, Sara and Lucy Gilson (2001): Health Financing Designing and Implementing Pro-Poor Policies, British Government's Department for International Development, Health Systems Resource Centre, London: DFID.
- Bennett, Sara, Andrew Creese, Roeland Monasch (1998): Health Insurance Schemes for People
 Outside Formal Sector Employment, ARA Paper 16, Geneva: WHO.

- Campbell, Paul, Karen Quigley, Pano Yeracaris, MacDonald Chaora (2000): Applying Managed
 Care Concepts and Tools to Middle and Lower Income Countries The Case of Medical
 Aid Societies in Zimbabwe, Data for Decision Making Project, Harvard School of Public
 Health, Publication No. 84.
- Carrin, Guy, Maarten Desmet, Robert Basaza (2001): "Social Health Insurance Development in Low-Income Developing Countries New Roles for Government and Non-Profit Health Insurance Organizations", in: Building Social Security The Challenge for Privatization. Geneva: International Social Security Association, pp. 125-156.
- Colombo, Francesca and Nicole Tapay (2004): "Private Health Insurance in OECD Countries –

 The Benefits and Costs for Individuals and Health Systems", OECD Health Working Papers

 No. 15, Paris: OECD.
- Criel, Bart (1998): District-Based Health Insurance in Sub-Saharan Africa. Part II: Case-studies.

 Studies in Health Services Organization and Policy, Vol. 10, Antwerp: ITG Press.
- Cruz-Saco, Maria Amparo (2002): Global Insurance Companies and the Privatisation of Pensions and Health Care in Latin America The Case of Peru, paper presented at the Globalism and Social Policy Programme (GASPP) Seminar No. 5, 26-28 September 2002, Dubrovnik.
- Cutler, David M. and Richard J. Zeckhauser (1997): Adverse Selection in Health Insurance, NBER Working Paper No. 6107, July 1997.
- DeRoeck, Denise and Ann Levin (1998): Review of Financing of Immunization Programs in Developing and Transitional Countries, Special Initiatives Report No. 12, Partnerships for Health Reform, Bethesda: PHR.
- Desmet, Maarten, A.Q. Chowdhury, Md.K. Islam (1999): "The Potential for social Mobilisation in Bangladesh The Organisation and Functioning of Two Health Insurance Schemes", in: Social Science and Medicine, Vol. 48, pp. 925-938.
- Dixon, Anna, Jack Lagenbrunner, Elias Mossialos (2004): "Facing the Challenges of Health Care Financing", in: Health Systems in Transition Learning From Experience, European Observatory on Health Systems and Policies, Copenhagen: WHO.

- Dror, David M. and Christian Jacquier (1999): Micro-Insurance Extending Health Insurance to the Excluded, International Social Security Review, Vol. 52(1), January-March 1999, pp. 71-97.
- Estonia (2000): Health Care Systems in Transition Estonia, European Observatory on Health Care Systems, Brussels: EOHCS.
- Georgia (2002): Health Care Systems in Transition Georgia, European Observatory on Health Care Systems, Brussels: EOHCS.
- Ginneken, Wouter van (1999): "Overcoming Social Exclusion", in: Wouter van Ginneken (ed.):

 Social Security for the Excluded Majority Cased Studies of Developing Countries, Geneva: ILO, pp. 1-36.
- GTZ (2003): Developing Health Insurance in Cambodia Report of the Appraisal Mission, Gesell-schaft für Technische Zusammenarbeit, Eshborn: GTZ.
- Gumber, Anil (2001): Hedging the Health for the Poor The Case for Community Financing in India, Health Nutrition and Population Discussion Paper, September 2001, Washington: World Bank.
- HSRC (2003): Botswana, Human Science Research Council of South Africa, Pretoria: HSCR.
- Hungary (2004): Health Care Systems in Transition Hungary, European Observatory on Health Care Systems, Brussels: EOHCS.
- ILO (2000): "Health Care The Key to Decent Work?", World Labor Report 2000, International Labor Organization, Geneva: ILO.
- Iriart, Celia, Emerson Elías Merhy, Howard Waitzkin (2001): "Managed Care in Latin America –
 The New Common Sense in Health Policy Reform", in: Social Science and Medicine, Vol.
 52(8), pp. 1243-1253.
- Jack, William (2000): The Evolution of Health Insurance Institutions Four Examples from Latin America, Development Economics Research Group, Washington: World Bank.
- Jütting, Johannes P. (2005): Health Insurance for the Poor in Developing Countries, Burlington: Ashgate.

- Jütting, Johannes P. (2004): "Do community based health insurance schemes improve poor people's access to health care? Evidence from rural Senegal", in: World Development, Vol. 32(2), pp. 273 288.
- Khaleghian, Peyvand (2004): Decentralization and Public Services The Case of Immunization, Social Science & Medicine, Volume 59(1), pp. 163-183.
- Kiwara, Angwar Denis (1999): "Health Insurance for the Informal Sector in the Republic of Tanzania", in: Wouter van Ginneken (ed.): Social Security for the Excluded Majority Cased Studies of Developing Countries, Geneva: ILO, pp. 117-144.
- Kumaranayake, Lilani (1998): "Effective Regulation of Private Sector Health Service Providers",

 World Bank Working Paper, prepared for the World Bank Mediterranean Development Forum II, Marrakech, 3-6 September 1998.
- La Concertation (2004): Inventaire des système d'assurance maladie en Afrique Synthèse des travaux de recherche dans 11 pays, La Concertation, Senegal : Dakar.
- Latvia (2001): Health Care Systems in Transition Latvia, European Observatory on Health Care Systems, Brussels: EOHCS.
- Mahal, Ajay (2002): "Health Policy Challenges for India Private Health Insurance and Lessons from the International Experience", in: Srinivasan, T.N., (ed.): Trade, Finance and Investment in South Asia, Social Science Press, New Delhi, pp. 417-476.
- Mesa-Lago, Carmelo (1991): "Social Security in Latin America and the Caribbean A Comparative Assessment," in: Ehtisham Ahmad, Jean Dreze, John Hills and Amartya Sen (eds.):

 Social Security in Developing Countries, Oxford University Press.
- Moldova (2002): Health Care Systems in Transition Republic of Moldova, European Observatory on Health Care Systems, Brussels: EOHCS.
- Musgrove, Philip, Riadh Zeramdini, Guy Carrin (2002): Basic Patterns in National Health Expenditure, Special Theme Commission on Macroeconomics and Health, Bulletin of the WHO 2002, Vol. 80(2).
- NHA Jordan (2000): Jordan National Health Accounts, Partnerships for Health Reform (PHR) Project, Technical Paper No. 49, various authors, Bethesda: PHR.

- NHA Lebanon (2000): Lebanon National Health Accounts, World Health Organization / Jordan Ministry of Health / World Bank, various authors, Geneva: WHO.
- OECD (2004): Proposal for a Taxonomy of Health Insurance, OECD Study on Private Health Insurance, June 2004.
- Okello, Francis and Frank Feeley (2004): Socioeconomic Characteristics of Enrollees in Community Health Insurance Schemes in Africa, Commercial Market Strategies, CMS Country Research Series, No. 15, March 2004, Washington: CMS.
- PAHO (1999): Uruguay Profile of Health Service System, Pan American Health Organization, 30. August 1999, Washington: PAHO.
- Pereira, Joseph Michael (2005): "Booming South Asian Insurance Market", in: DAWN Newspaper, electronically published at: http://www.dawn.com/2005/03/21/ebr9.htm, March 21, 2005.
- Preker, Alexander S. and Guy Carrin (2004): Health Financing for Poor People Resource Mobilization and Risk Sharing, Washington: World Bank.
- Preker, Alexander S., Jack Langenbrunner, Melitta Jakab (2002): "Rich-Poor Differences in Health Care Financing", in: Dror/Preker (eds.): Social Re-Insurance A New Approach to Sustainable Community Health Care Financing, Washington: World Bank.
- Romania (2000): Health Care Systems in Transition Romania, European Observatory on Health Care Systems, Brussels: EOHCS.
- Ron, Aviva (1999): "NGOs in Community Health Insurance Schemes Examples From Guatemala and the Philippines", in: Social Science and Medicine, Vol. 48, pp. 939-950.
- Sbarbaro, John A. (2000): "Trade Liberalization in Health Insurance Opportunities and Challenges The Potential Impact of Introducing or Expanding the Availability of Private Health Insurance within Low and Middle Income Countries", CHH Working Paper No. WG 4:6, Commission on Macroeconomics and Health, Geneva: WHO.
- Scott-Herridge, Richard (2002): Decentralisation- Does it Deliver Good Governance and Improved Services? The Experience of Uganda, African Studies Centre, Occasional Paper Series No. 10.

- Sekhri, Neelam and William Savedoff (2005): Private Health Insurance Implications for Developing Countries, Bulletin of the World Health Organization, Vol. 83(2), February 2005, pp. 127-138.
- Sekhri, Neelam, William Savedoff, Shivani Tripathi (2004): Regulating Private Insurance to Serve the Public Interest Policy Issues for Developing Countries, paper presented at the ERF 11th Annual Conference in Beirut, 14-16 December, Economic Research Forum.
- Stocker, Karen, Howard Waitzkin, Celia Iriart (1999): "The Exportation of Managed Care to Latin America", in: The New England Journal of Medicine, Vol. 340(14), April 1999, pp. 1131-1136.
- Supakankunti, Siripen (2000): "Future Prospects of Voluntary Health Insurance in Thailand", in: Health Policy and Planning, Vol. 15(1), pp. 85-94.
- Swiss Re-Insurance Company (2004): Life and Health Insurance in the Emerging Markets Assessment, Reforms, and Perspectives, Sigma No. 1, 1998.
- Swiss Re-Insurance Company (2004a): Exploiting the Growth Potential of Emerging Insurance

 Markets China and India in the Spotlight, Sigma No. 5, 2004.
- Swiss Re-Insurance Company (2003): Asia's Non-Life Insurance Markets Recent Developments and the Evolving Corporate Landscape, Sigma No. 6, 2003Swiss Re-Insurance Company (2002): Insurance in Latin America Growth Opportunities and the Challenge to Increase Profitability, Sigma No. 2, 2002.
- Swiss Re-Insurance Company (1998): Life and Health Insurance in the Emerging Markets Assessment, Reforms, and Perspectives, Sigma No. 1, 1998.
- Thomson, Sarah and Elias Mossialos (2004): "Private Health Insurance and Access to Health Care in the European Union", in: Euro Observer, Newsletter of the European Observatory on Health Systems and Policies, Vol. 6(1), pp. 1-4.
- Turkey (2002): Health Care Systems in Transition Turkey, European Observatory on Health Care Systems, Brussels: EOHCS.
- U.S. Department of Commerce (2000): "Health and Medical Services", Chapter 43 of the 2000U.S. Industry and Trade Outlook, Washington: DoC.

- WHO (2005): World Health Report 2005, Statistical Annex, Table 5: Selected National Health Accounts Indicators Measured Levels of Expenditure on Health, 1998–2002, Geneva: WHO.
- WHO (2004): World Health Report 2003, Statistical Annex, Table 5: Selected National Health Accounts Indicators Measured Levels of Expenditure on Health, 1997–2001, Geneva: WHO.
- WHO (2004a): Regional Overview of Social Health Insurance in South East Asia, WHO: New Delhi.
- WHO (2001): Report of Commission on Macroeconomic and Health on Investing in Health for Economic Development, Geneva: WHO.
- WHO (2000): World Health Report 2000, Geneva: WHO.
- Wiesmann, Doris and Johannes Jütting (2000): "The Emerging Movement of Community Based Health Insurance in Sub-Saharan Africa Experiences and Lessons Learned", in: Afrika Spektrum, Vol. 35(2), pp. 193-210.
- Xu, Ke, David Evans, Kei Kawabata, Riadh Zeramdini, Jan Klavus, Christopher Murray (2003):
 "Household Catastrophic Health Expenditure A Multicountry Analysis", The Lancet. Volume 362, Issue 9378, pp. 111-117.