

Towards a generalised social protection: is compulsory health insurance the solution for universal cover ?

Mr David Dror, Senior Health Insurance Specialist, ILO, Switzerland

BIOGRAPHY

David Dror, who has a PhD from the University of Lyons I, is an economist by training and holder of many qualifications. Since 2000, he has been the instigator and director of the "Social Re" project (financed by the World Bank and ILO), the goal of which is to conceptualise, pilot and evaluate reinsurance for community-financed health care systems in the developing countries. Since January 1998, he has been a senior health insurance specialist within the Social Protection sector at the ILO, with a particular interest in micro-insurance. From 1989 to 1997, he was head of the Staff Health Insurance Fund at the ILO-ITU. Mr Dror has been an employee of the ILO since 1982, and before working at international level, he held several national-level positions. He is the author of many scientific publications and is a frequent speaker at international conferences.

- ABSTRACT..... 16
- 1. THE GEOGRAPHY OF UNIVERSAL COVERAGE: A BIRD’S EYE VIEW 16
- 2. TWO UNDERLYING CONDITIONS FOR UNIVERSAL COVERAGE 19
- 3. MAINSTREAM AND FRINGES: DOES ONE HAVE TO PAY THE PIPER TO CALL THE TUNE? 19
- 4. DO ALL PEOPLE HAVE THE SAME NEEDS? 21
- 5. SOLIDARITY SCHEMES IN LOW-INCOME COUNTRIES 23
- 6. MAINSTREAMING COMMUNITY HEALTH FINANCING SCHEMES 23
- 7. COMMUNITY RATING AND RISK ADJUSTMENT: LESSONS FROM EUROPEAN EXPERIENCE 25
- 8. IMPLEMENTING RISK ADJUSTMENT IN LOW-INCOME COUNTRIES 26
- 9. BACK TO THE FUTURE: MORE INSURERS, MORE INSURED..... 27
- 10. CONCLUSIONS 28

ABSTRACT

The actuarial assumption of universal coverage is that risk equalization is spread over the entire population, thereby limiting the exposure of each individual to no more than the average cost. This presupposes statistical dominance of the mean of society, with a relatively small atypical minority, and homogeneity in the needs of the majority. The dominance of the mean is linked to income distribution; the larger the group of the very rich or the very poor, the smaller the share of the population earning the mean income. In low-income countries, income inequality is more pronounced than in rich countries, and in addition, the very rich are allowed to opt out of mandatory health insurance. Also, disparities in needs (for health care and for insurance) are significant, linked to relative proportions of communicable and chronic diseases and injuries across regions, income groups and other parameters. Variance in terms of ability to pay and in terms of medical needs is much higher in low- and many middle-income countries. Countries experiencing large disparities are more challenged in implementing compulsory health insurance.

Western European experience has shown that obliging multiple health insurers to pool and adjust risk, and sometimes prescribing the benefit package, can extend coverage from partial to universal. This experience is relevant for small groups organizing as Microinsurance units (MIUs) in low-income countries, which run the risk of insolvency due to small group size, high cost-variance, low claim load, unstable income and expenditures, when operating in isolation from others. Pooling and adjusting the risks of MIUs can be achieved through social reinsurance. The reinsurance responds to a homogeneous need of every MIU to remain solvent, and it can be based on the mean of the entire pool, by applying community rated premiums. Social reinsurance has a double role: provide risk management, and strengthen the technical capacity of MIUs to act as first-line insurers. This extends its role beyond the habitual activities of commercial reinsurers.

The conclusion is that where compulsory coverage of individuals is impossible, one option for extension of health insurance is to attempt (compulsory) coverage of MIUs under social reinsurance. Achieving this objective avoids some of political hurdles in low-income countries, and allows other agencies than governments to contribute as well.

1. THE GEOGRAPHY OF UNIVERSAL COVERAGE: A BIRD'S EYE VIEW

Lord William Beveridge is no longer a household name in today's world. Yet much of the ideology of collectivist social insurance that brought about compulsory universal coverage under social security (including, but not limited to health insurance) is associated with his thoughts about the welfare state, published in December 1942, almost sixty years ago¹.

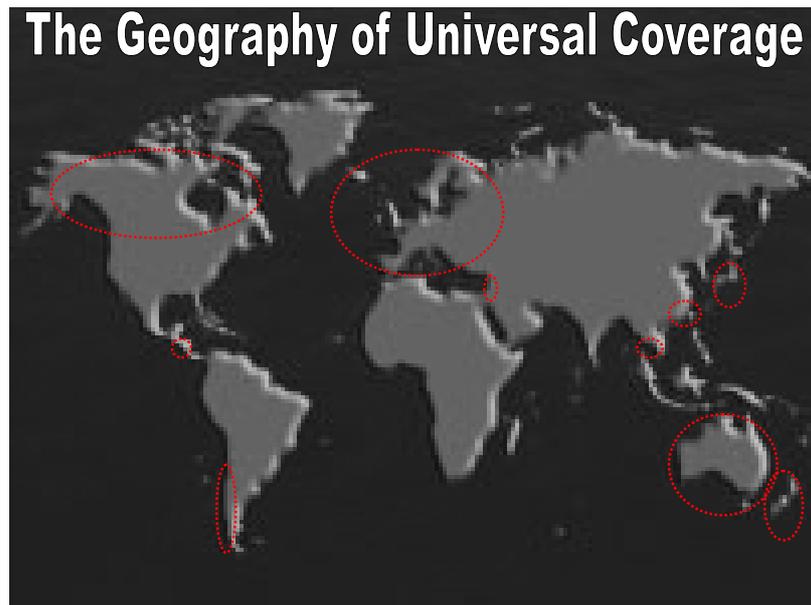
The Beveridge model of comprehensive social insurance was based on one fundamental principle – flat rate contributions and flat rate cash benefits: the same amount of contribution paid by everybody regardless of earnings or income, and the same amount of benefit for all entitled persons. Beveridge's concept for health insurance was that services “will be provided where needed without contribution conditions in any individual case”. This meant that health insurance was to be tax-financed in full. In today's world, this model has virtually disappeared in its pure form. An alternative universal system, which emerged originally from Germany (sometimes referred to as “the Bismarckian model”), linked equal entitlements to benefits with earnings-related contributions. Today, universal coverage is operated mainly in some OECD² member states³, and is financed by a combination of (tax financed)

¹ For an excellent review and analysis see Baldwin, 1992

² OECD= Organization for Economic Cooperation and Development; The OECD was created in 1961 (to replace the Organization for European Economic Co-operation [OEEC], originally formed after World War II to administer American and Canadian aid under the Marshall Plan for reconstruction of Europe). Its original members include Austria, Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States (all joined in 1961). The following four countries joined later: Australia (1971), Finland (1969), Japan (1964), New Zealand (1973). A third group of countries joined after the end of the “cold war”: Czech Republic (1995), Hungary (1996), Korea (1996), Mexico (1994), Poland (1996), Slovak Republic (2000). Today, the OECD is setting its analytical work to cover nearly the whole world, with particular leadership in health statistics. <http://www.oecd.org>

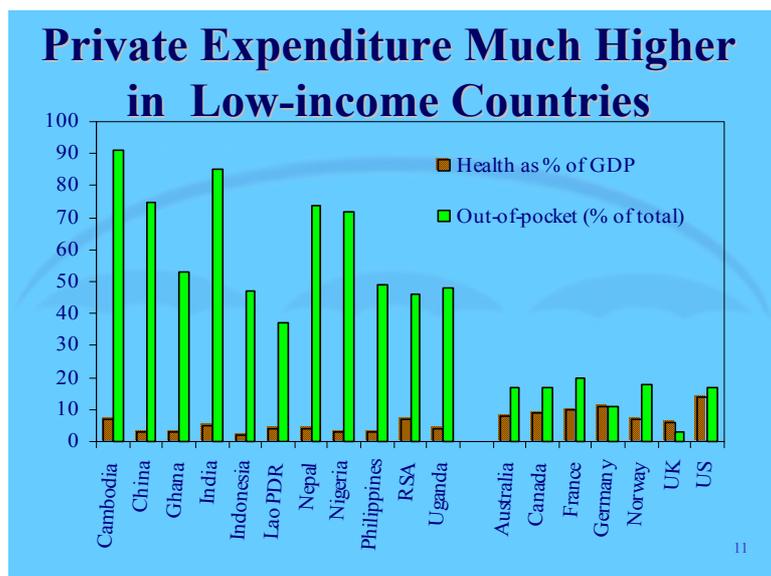
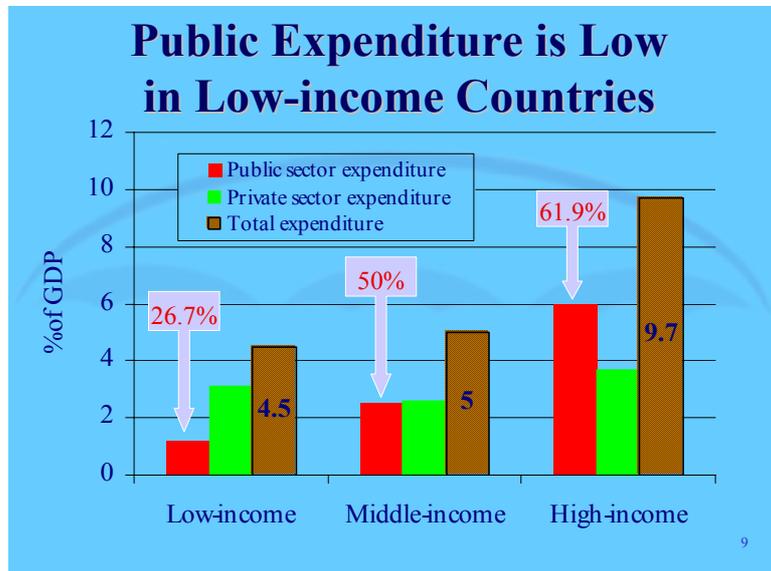
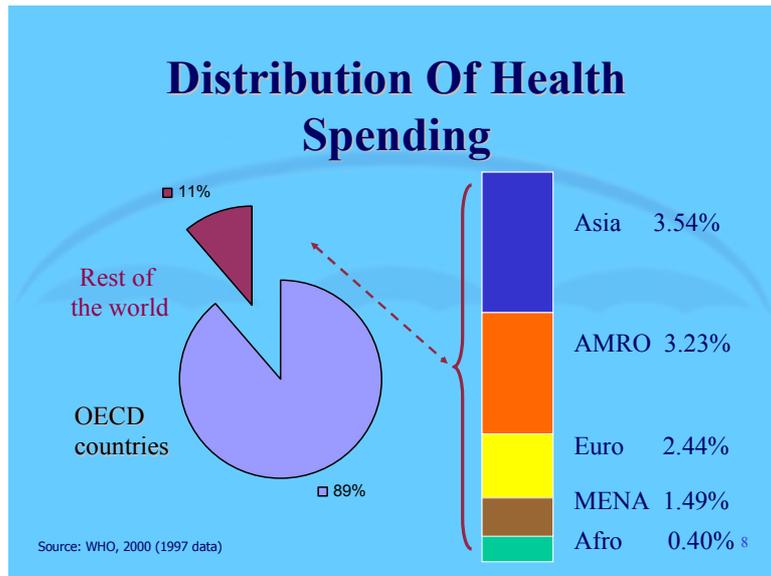
³ The reference here is to the member states who joined in the 1960's and 1970's, except Turkey and USA

subsidies, contributions and private spending. The share of these three financing sources varies greatly between countries, and the weaker the public share the weaker the universality of coverage.



For instance, former Soviet Union and Eastern European countries used to offer 100% tax-based compulsory and universal coverage; since the demise of the Soviet Union, most of these countries introduced contribution-based health insurance, and the share of tax-based resources has dropped to the point that private expenditures and private provision of healthcare are the major motors in the healthcare system. In S. Korea, universal coverage has been implemented by imposing an inordinately high share of private expenditure (though deductibles, co-pay, and exclusions of benefits etc.). Thailand offers an interesting example of a gradual move toward universal coverage despite relatively high income disparity. In 1991 health insurance was introduced for private sector workers (first in establishments employing 20 employees or more, then 10 employees, and since last year for all private establishments); in parallel, rural workers were also offered coverage, through a subsidized scheme of voluntary health cards, supplemented later with health cards for the poor. When about 60% of the population was covered, the “30 Baht plan” has been introduced, which is supposed to bring the universal coverage. Another Asian country, Philippines, has enacted in 1995 a law for gradual implementation of universal coverage, without however providing the enabling resources to realize this objective.

And then, there are all other countries, representing the majority of the global population, which never had universal coverage. No Sub-Saharan country provides universal health insurance; only very few countries in Latin America espouse this system; in Asia, most non-OECD countries, notably the two most populated, China and India, are unable to implement compulsory universal coverage under health insurance. Last but not least in this bird’s eye view of the geography of universal coverage is the USA, the world’s richest country, with the highest expenditure on healthcare. Yet, one in five members of American families lack health insurance for a year or more at some point in their lives—a total of some 58 million people—with the consequent threat to the financial stability of entire households (Marwick, 2002). The USA represents a different political choice to abstain from compulsory and universal health insurance coverage for all than the one made by low-income countries.



Yet, the topic of this session (*Is compulsory health insurance the solution for universal coverage?*) begs examination whether universal coverage is an achievable goal in today's world; some retrospection on the fundamentals may help.

2. TWO UNDERLYING CONDITIONS FOR UNIVERSAL COVERAGE

The actuarial assumption of universal coverage⁴ is that risk equalization is spread over the entire population, thereby limiting the exposure of each individual to no more than the average cost. The statistical abstraction of averages (and thus a reference to l'homme type⁵) can become the benchmark against which deviations are measurable. This presupposes statistical (and other) dominance of the mean of society, with a relatively small atypical minority, and homogeneity in the needs of the majority.

One of the novelties in the UK model of social citizenship launched after WW2 was that it looked at the entire population of one country as essentially homogeneous, and this seemed valid at a time when most members of society were structured in households whose head was gainfully employed full-time, where most transactions were monetary, and where the very poor and the very rich were considerably fewer than the share of the middle class (Baldwin, 1992). Risk pooling and equalization over such a large group having a relatively small deviation from mean could work, and was the actuary's dream-come-true.

But are these two assumptions valid in low- and middle-income countries today? Can one assert firstly that the political and economic mean of society is sufficiently large and the fringes sufficiently small to uphold the notion of risk equalization over the entire population in these countries? Secondly, can aggregation of entire populations in low-income countries confirm a homogeneous structure of needs for all to be on a similar footing, as is assumed by universal coverage?

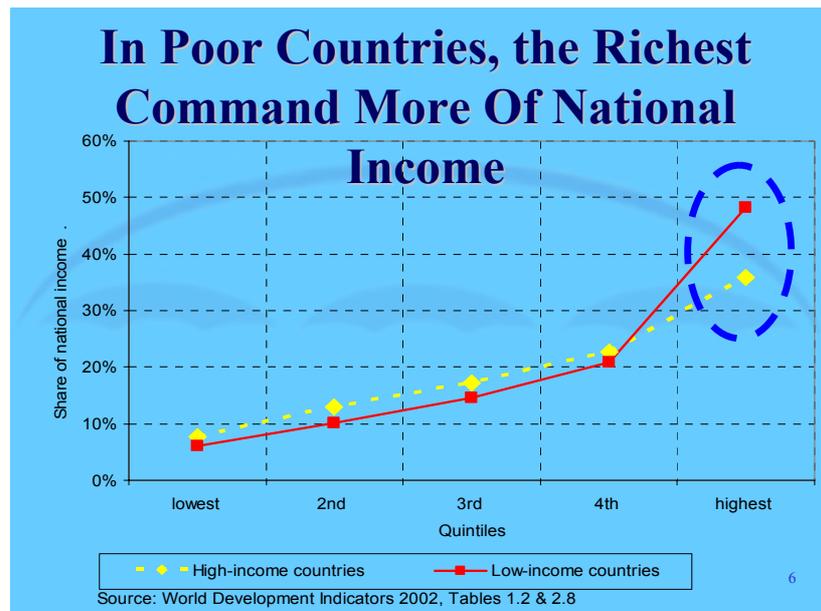
3. MAINSTREAM AND FRINGES: DOES ONE HAVE TO PAY THE PIPER TO CALL THE TUNE?

The economic disparities between the richest and the poorest quintiles of the population are more pronounced in most countries that do not operate universal and compulsory health insurance than in those that do. These disparities are shown in the Figure below. The data (reflecting an average income distribution by quintiles of 19 high- and 20 low-income countries) illustrates that the gap between income quintiles in rich and poor countries is apparent when the highest quintile is compared: in high-income countries, the highest income quintile is 4.8 fold that of the lowest quintile, whereas in low-income countries this gap doubles, and stands at 9.8 fold.

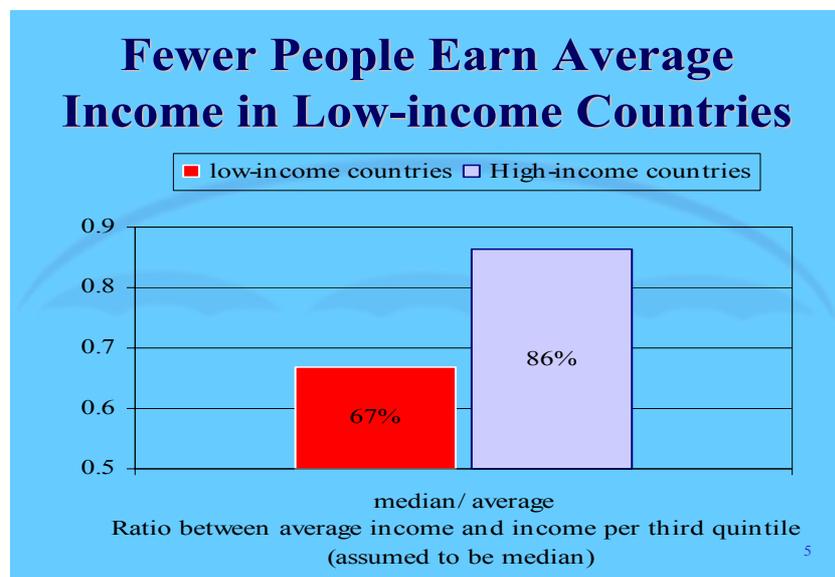
The data does not provide a reply why countries with a large income gap usually refrain from implementing universal coverage. However, we should recall that universal coverage is often paired with income-rated contributions (often with a ceiling). Under such rating, the highest quintile would be required to pay contributions almost 10 times higher than the lowest quintile. The population as a whole would draw an advantage from the contribution of the rich quintile (holding 52% of the total income in low-income countries, compared to only 37% in high-income countries); but will the richest also draw utility from national health insurance? Risk-rated private insurance might be cheaper for them, compared to the high cost of income rating. And considering that the rich often prefer to seek treatment abroad for serious illnesses, it seems that the richest would have a strong incentive to opt out of universal coverage. It is a fact that the rich are allowed to opt out in most low-income countries, even though the social health insurance scheme loses half its total revenues through this. This analysis suggests that a relatively small atypical minority of rich, rather than the mean of society, dominates political and economic decisions related to implementing health insurance in low-income countries. Is this a case of "the quintile that does not pay the piper nevertheless calls the tune"?

⁴ Universal coverage through mandatory health insurance or through tax-financed National Health Service may differ in terms of the distributional consequences, depending on insurance contribution schedules and overall distribution of the tax burden (both direct and indirect). Also, from the coverage side, health insurance coverage is never 100% as it is conditioned on contributions paid.

⁵ First used by Lambert Adolphe Jacques Quételet (1796 – 1874), Belgian mathematician, considered to be the inventor of modern statistics. http://www.statbel.fgov.be/info/quetelet_fr.asp



In statistical terms, the larger the gap between the very rich and the very poor, the more pronounced the fringes and the smaller the share of the population earning the mean income. The figure below suggests that this phenomenon is indeed observable in low-income countries: the median reaches only 67 percent of the mean, compared to 86 percent of the average in high-income countries. With a lower percentage of a lower mean, low income countries can hope to mobilize much less money to finance universal coverage than high-income countries who can tap into a higher percentage of a higher mean income.



Additionally, the problem of low-income countries is not limited to low earners, but extends further to large segments of the population that are active in the informal sector⁶ who are exposed to cyclical

⁶ According to ILO, "The term 'informal economy' has come to be widely used [instead of "informal sector"] to encompass the expanding and increasingly diverse group of workers and enterprises in both rural and urban areas operating informally" (p.2). "These different groups have been termed "informal" because they share one important characteristic: *they are not recognized or protected under the legal and regulatory frameworks*. This is not, however, the only defining feature of informality. *Informal workers and entrepreneurs are characterized by a high degree of vulnerability*. They are not recognized under the law and therefore receive little or no legal or social protection and are unable to enforce contracts or have security of property rights. They are rarely able to organize for effective representation and have little or no voice to make their work recognized and protected." (p. 3) (ILO, 2002). For estimates of size, see ILO: Key Indicators of the Labour Market, 2002, Table 7.

and unpredictable income fluctuations preventing them from making payments toward health insurance on a regular periodicity. The consequence of an informal economy functioning side-by-side with a formal one is that two sets of social protection institutions develop, each one adapted to its environment and to the needs of the target population. To date, there is no single example of a country that has succeeded to operate a harmonious transfer between the two sets of social protection institutions. Even a conceptual framework for this is fraught with difficulties at best, impossible at worst.

In summary, in low-income countries, lower overall income levels, higher polarization of income, opting out of the rich, and exclusion of a large segment of the population belonging to the informal economy are prevalent conditions. When cumulated, they oppose the premise that the mean dominates society and that the fringes are composed of a relatively small and atypical minority. Ergo, *exit l'homme type*.

4. DO ALL PEOPLE HAVE THE SAME NEEDS?

Needs for health insurance are linked to needs for healthcare, and these can be gleaned through the analysis of illness patterns by characteristics of person, space, and time, studied in epidemiology. The structure of needs has been grouped into four stages of the epidemiological transition⁷, composed of the age of pestilence and famine; the age of receding epidemics; the age of degenerative and man-made diseases; and the age of delayed degenerative diseases⁸.

Stated simply, in the early stages of the epidemiological transition, the main risk factors for contagious diseases are the presence of infectious agents, the inferior quality of water and sanitation facilities, lack of immunization coverage and safe sex practices. These risk factors also include maternal and perinatal conditions and lack of family planning services.

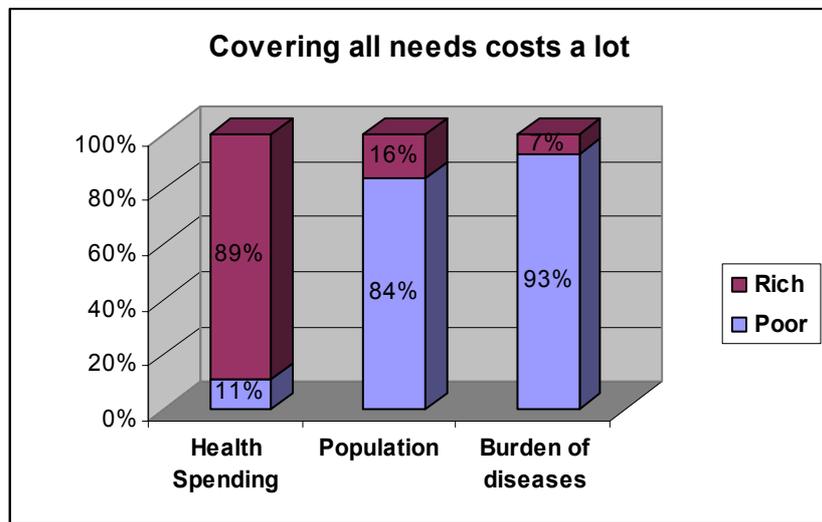
The risk factors of greatest concern to the emergence of degenerative and chronic diseases are exposure to pollutants and certain lifestyle choices. An example for exposure to pollutants is cigarette smoking, which accounts for more than 80 percent of all occurrences of cancer, 70 percent of chronic obstructive lung disease, and 35 percent of deaths from heart disease. Children exposed to second-hand smoke are more than twice as likely to have respiratory infections and ear infections. An example for certain lifestyle choices is unsafe sex. Other major causes include overeating which

⁷ Epidemiological transition is the term used to describe the major epidemiological trends observed over the last two centuries (Omran 1971).

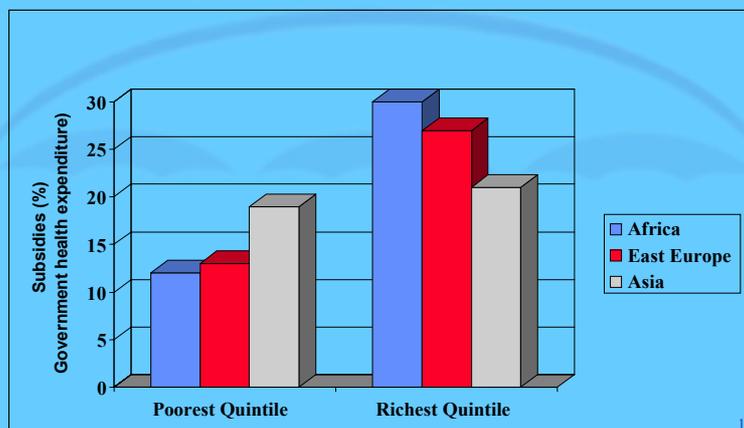
⁸ Haggerty (2002) describes the stages of this transition as follows: The first stage within the epidemiological transition (the age of pestilence and famine) is typical of agrarian societies where recurring epidemics of infectious disease such as typhoid, tuberculosis, cholera, measles and meningitis are superimposed on high endemic rates of less dramatic infections such as gastrointestinal infections and pneumonia. The picture is of a high mortality rate in both children and adults, with cyclic troughs and peaks in death rates corresponding to different epidemics. The low life expectancy at birth reflects a high mortality in children aged less than five years, but the population remains susceptible to infectious diseases through adulthood. Mortality is high and morbidity is low due to the high lethality of diseases. During the stage of pestilence, the occurrence (or incidence) of disease is very high; illnesses are acute and rapidly progress to death. The most important interventions to improve the health situation are improvements in water and sanitation, mass vaccinations, spraying, and vector control. Timeliness is of the essence in preventing subsequent complications or death. A preponderance of these illnesses, if diagnosed early, can be treated cost-effectively in ambulatory services. The second stage in the epidemiological transition is the age of receding epidemics. Epidemics become less frequent and, although contagious diseases continue to occur frequently, survival rates are better. Life expectancy increases dramatically as a larger proportion of the population survives childhood. More survivors will die of other causes, resulting in an increased prevalence of chronic and degenerative disease. The third stage is the age of degenerative and man-made diseases. Epidemics and communicable diseases are no longer a threat to mortality, and a large proportion of the population survives into adulthood where they succumb to accumulated risks that lead to chronic diseases or the diseases of affluence: cardiovascular conditions, diabetes, and certain types of cancer. A further stage in this transition has been called the age of delayed degenerative diseases. The aging population lives longer with these diseases and a substantial proportion has more than one condition. In the United States, Medicare data show that 65 percent of individuals aged 65 years and over have two or more chronic conditions, and that the mean per capita health expenditures increase almost exponentially—not additively—with each additional chronic condition (Starfield 2001).

causes obesity, and problem drinking, affecting the risk of accidents and injuries (Haggerty, 2002). The risk of degenerative and chronic diseases often worsens with advancing age, when most cumulative and genetic effects linked with these conditions come into play. Therefore, a reduction in contagious diseases has often brought about increases in chronic and degenerative diseases.

With this background, it is now possible to explore the second assumption underlying universal coverage: homogeneous needs of the entire population. Following the clue of relative proportions of communicable and non-contagious diseases and injuries, it can be stated that homogeneity would exist when these proportions are essentially identical. In most low-income countries however, different segments of the population are at different phases of the epidemiological transition. This situation translates into highly variable prevalence of illnesses, and hence in healthcare needs between regions within one and the same country, income groups, and sometimes even between different ethnic or social groups (e.g. variations by caste in India). Therefore, the only way to draw a common denominator that reflects homogeneity of needs would be to provide cradle-to-grave services for all epidemiological phases. Such ambitious goal is unaffordable for most countries. Hence, a limited package of services, even if uniform, cannot constitute an adequate and equitable response to the needs of all, even if the services are accessible to all (which is rarely the case). The WHO's Commission on Macroeconomics and Health reached a similar conclusion, in stating that "public spending should be better targeted to the poor, with priorities set on the basis of epidemiological and economic evidence" (CMH, 2001, p.6).



Bad Targeting = Rich Get More Government Subsidies Than the Poor



5. SOLIDARITY SCHEMES IN LOW-INCOME COUNTRIES

In contrast to the weakness of the mean and the heterogeneity of needs when entire populations are looked at in low-income countries, it is possible to validate the two assumptions (dominance of the mean, and homogeneity of needs) within smaller groups of people, composed of individuals selected for their homogeneity at the point of entry into the group. In low income countries these groups are often referred to as community based health schemes⁹, and they are of particular interest when they operate a prepayment system replacing user fees and other out-of-pocket expenditures, which have been labelled microinsurance units (MIUs) (Dror & Jacquier, 1999).

Community schemes seek to reduce the exposure of their members to excessive risk, and rely on group dynamics (also known as “social capital”) to adjust coverage and contributions quite flexibly, and also to deal with classical insurance market failure (such as moral hazard). There is growing evidence that these groups play a positive role in reducing the problem of access to health care. For instance, Jütting (2001) reports that in rural Senegal, the local health “mutuelles” reach otherwise excluded populations, that members have a higher probability of using hospitalization services compared to non-members, and that members pay substantially less when they need care. Ranson (2002) has assessed the Self Employed Women’s Association’s Medical Insurance Fund in Gujarat (India) in terms of coverage according to income groups, protection of claimants from costs of hospitalization, time between discharge and reimbursement and frequency of use. He concludes that community-based health insurance schemes in India reduce both the risk of high medical expenses and their uncertainty. Beneficiaries of the insurance include poor households, notably those below the poverty line. This disproves the impression that the poor are uninsurable. However, based on the data he analysed, Ranson makes the point that a trade off exists between maintaining the scheme’s financial viability and protecting members against catastrophic expenditures. Therefore, widening the outreach of pro-poor community health insurance schemes requires that the schemes be assisted in improving the complex technical skills of insurance, including benefit-package design, claims processing and financial monitoring and evaluation. Comparable findings were also reported from Philippines (Flavier, Soriano, and Nicolay, 2002); these authors state that some poor people are culturally averse to prepayment schemes, and would rather deal with local institutions than with larger but more distant and anonymous national institutions. As mentioned by Ranson, this survey also repeats the finding that most community schemes need considerable help (both technical and financial) to adjust to a more regulated and rigorous environment. However, despite their managerial weaknesses, community schemes have demonstrated their essential role in responding to economic and social demand, and their common-sense approach to problem solving. A third recent study that confirms the same findings is a Synthesis Report on the Role of Communities in Resource Mobilization and Risk Sharing (CMH, 2001, Working Group 3, Report 12), which concludes that community financing arrangements make a positive contribution to the financing of health care at low income levels. Such arrangements improve people’s access to drugs, primary care, and even to hospital care. MIUs allow rural and low-income populations to raise more resources with which to pay for health care than would otherwise have been available. But there are great variations in the ability of such schemes to raise the money needed to pay for their benefit packages. The principal constraint to revenue generation is the low income of the contributing population. This is particularly true where most of the members of a community scheme are already below the poverty line (Preker et al. 2002). All studies also point out to some shortcomings, in the technical mastery of insurance operations and in the financial solidity of the schemes to manage large risks.

6. MAINSTREAMING COMMUNITY HEALTH FINANCING SCHEMES

Community health schemes do not function in a vacuum; they can be strengthened and assisted, or on the contrary weakened and denigrated. For years, macroeconomic policies could hardly accommodate the notion that community health financing schemes can make a contribution in the

⁹ The community can be area-based, trade-based, faith-based, income-based, ethnicity based or gender based.

large scheme of things. The focus was on offering a solution simultaneously to growth, poverty reduction and to the problem of equitable distribution of social spending across entire populations¹⁰.

However, ideas have evolved: in 2002, the World Bank devoted its World Development Report to the need to improve institutions, notably close-to-client and informal ones, in order to improve people's economic interactions and growth prospects. This report makes the case that "in many poor regions of the world, and particularly for many poor people, informal institutions such as community networks are the only ones that are relevant, because access to formal ones is relatively scarce ... Informal institutions can be superior to formal ones, either because they are more efficient at achieving the objective or because they embody features that formal institutions are unable to provide" (World Bank, 2002, p.179).

More specific focus on the value and role of community health schemes has come from the WHO and from the ILO recently. The International Labour Organization's Conference adopted in June 2001 a new consensus on social security, which will shape ILO's future work in social protection. The Conclusions include the following passages: "There is no single right model of social security ... Each society must determine how best to ensure income security and access to health care ... The State has a priority role in the facilitation, promotion and extension of coverage of social security" (Paragraph 4 of the Conclusions). "Of highest priority are policies and initiatives which can bring social security to those who are not covered by existing systems ... When coverage cannot be immediately provided to these groups, insurance — where appropriate on a voluntary basis ... could be introduced and extended and integrated into the social security system at a later stage when ... it is economically sustainable to do so. Certain groups have different needs and some have very low contributory capacity. The successful extension of social security requires that these differences be taken into account. The potential of microinsurance should also be rigorously explored: even if it cannot be the basis of a comprehensive social security system, it could be a useful first step, particularly in responding to people's urgent need for improved access to health care"... (Paragraph 5 of the Conclusions) (ILO, 2001).

The WHO's Commission on Macroeconomics and Health (CMH) took the argument a step further in recommending "that out-of-pocket expenditures in poor communities should increasingly be channelled into 'community financing' schemes ... [through] an incentive scheme, in which each \$1 that the community raises for pre-paid health coverage would be augmented, at some rate of co-financing, by the national government (backed by donor assistance) ... This method would offer a degree of risk spreading, so that households would not face financial catastrophe in the event of an adverse health shock to household income..." (CMH, 2001, p.60-61).

The policy statements of the international development agencies' provide the indication that the tide has turned, and that small and informal community health schemes need to be recognized today as relevant to the populations they serve more than the often-absent national institutions (WB); that these schemes are particularly relevant where they offer insurance and where a single compulsory scheme is inappropriate, because voluntary insurance is better than no insurance (ILO); that the microinsurer must recognize the low contributory capacity and the specific needs of some groups (ILO); that in the short term, governments should provide subsidies to such microinsurers (CMH) to offset the low income and to encourage voluntary affiliation of the poor into insurance; and that in the longer term, when it is economically feasible to do so, these units should be integrated into a comprehensive social security system (ILO).

¹⁰ In a nutshell, for years it was assumed that economic growth can reduce poverty and improve equity, in that the positive effects of growth reach the rich first, but then trickle down to the poor. This hypothesis can explain why much of the investment in health has been directed to centers of excellence located mainly in large cities. If the trickle down effect were to be an effective anti-poverty regulator, there should be much less poverty in countries that have registered high growth rates, such as China. Unfortunately, much poverty continues to exist there despite years of high growth. More recent analysis suggests that growth trickles down to all segments of the population. Hence, it is impossible to conclude that economic growth alone can resolve distributional equity at *any* level of overall spending. Kakwani, Prakash and Son (2000) conclude that economic growth tends to neither increase inequality nor decrease it. Therefore, simple reliance on the trickle down effect of growth policies is likely to reduce poverty less rapidly than deliberate pro-poor policies.

7. COMMUNITY RATING AND RISK ADJUSTMENT: LESSONS FROM EUROPEAN EXPERIENCE

The policy shift described in the previous paragraph has some implications on way insurance is operated. Simply put, the method of calculating contribution can be seen as having shifted from Beveridge's model of "national rating" under universal coverage (either through a uniform contribution schedule associated with pay-as-you-go financing, or under tax financing of universal coverage) to *community rating*. Since one of the requirements that micro health insurers should satisfy is to respond to different needs and to different levels of ability to pay, it follows that community rating insurers (CRI) may differ from one another in the benefit package they offer or in the premium they charge. In this, they are distinguishable from a universal and compulsory scheme that offers a single package and an identical premium schedule to all. CRI are however obliged to apply the same method for premium calculations to all individuals who enroll in the same health plan. In this, they are inherently distinguishable from private for-profit insurers who set the premiums purely on individual risk rating.

Because CRI function in a competitive market, they may seek to improve their profit by attracting low risks and discouraging high risks from joining them. This situation is known as preferred risk selection or "cream skimming"¹¹. The phenomenon is well known from certain European countries, including Belgium, Germany, The Netherlands and Switzerland, who wanted to maintain competition among health insurers, when they introduced a regime of mandatory coverage in a market that was segmented by corporatist characteristics. One lesson from the experience of these countries is that cream skimming can exist even under compulsory health insurance, because the CRI's incentive to practice cream skimming remains keen for as long as they can compete with each other, regardless of the size of the market¹².

These Western European countries have devised rules to reduce the detrimental potential of cream skimming for clients of insurance, to safeguard against insolvency and to regulate fairer competition. The most prevalent corrective measure has been to oblige CRI to join a risk adjustment scheme. These schemes establish the expected cost based on certain parameters, and then pay to or collect from each health CRI the difference between actual premium income and the expected cost (van de Ven & Ellis, 2000). In theory this should remove the incentive to select risk. However, risk adjustment schemes rely on few parameters, mainly age and gender, leaving out other health related indicators¹³, so that the potential for gains due to cream skimming can still be high¹⁴ (Kifmann, 2002). The second prevalent measure to reduce cream skimming in European market economies has been to specify (through regulations) benefits that insurers must offer, with special relevance to high risks.

¹¹ Preferred risk selection ("cream skimming") is an exercise whereby an insurer selects only a part ("preferred risks") of a larger heterogeneous risk group, in which all individuals pay an identical risk-adjusted premium. According to Pauly (1984) cream skimming is an imperfection of regulation, not of the market, because it occurs when insurers operate in a competitive health insurance market with a regulated premium structure. When the insurer reduces its loss ratio compared to the expected average cost which determined the premium, the insurer can retain a profit. This profit depends on the insurer's ability to distinguish several subgroups with different expected costs within the larger group, and to predict the (lower) future healthcare expenditure of individuals in the preferred group. According to the law of large numbers, when the number of individuals included in the group increases, the predicted average expenditure becomes more reliable.

¹² Reducing cream skimming: Van de Ven and Van Vliet (1992, p. 40) claim that enhancing the pro-competitive regulation to limit market fragmentation and segmentation through differential packaging of benefits can counteract cream skimming. Also, taking account of more risk-adjusters into the capitation formula can reduce this situation.

¹³ Predicting future expected cost: Van de Ven and Van Vliet (1992, p. 34-36) claim that sociodemographic characteristics (such as age, gender, income, education, family size, employment status and region) explain only up to 3 percent of the variance of individual healthcare expenditures, and are therefore relatively poor predictors. On the other hand, Van Vliet and Van de Ven (1990) suggest that prior utilization, prior expenditures and health status (e.g. chronic medical conditions) are better predictors of future individual expenditures.

¹⁴ Reinsurance and cream skimming: it has been claimed that a transfer of bad risks from insurers to a central fund (or a reinsurer) can mitigate the motivation for cream skimming. Van de Ven and Van Vliet (1992, p.41) challenge this reasoning, by pointing out that when the reinsurance premium is risk-related, bad risks will continue to be more expensive even when reinsured.

In low-income countries, despite high fragmentation of the market, competition between microinsurers is very rare, and so far there is no single report in the literature of microinsurers exercising cream skimming. However, a single microinsurer operating in one community may be exposed to adverse selection, which can occur when more bad risks than good ones sign up. The net effect of adverse selection is similar to cream skimming when it is not abated through risk adjustment controls. One antidote to adverse selection is to affiliate all members of the community, which is not easy to implement. Yet even if all members of a community were to affiliate, there is no certitude that adverse selection can be eliminated completely, if that community is composed of a generalized high risk population, due to a specific epidemiological or ecological profile.

Consequently, micro health insurers need solutions to reduce their exposure to adverse selection, to enlarge their unbiased claim experience, and to move each small group from statistical uncertainty to a situation of certainty existing when the law of large numbers applies¹⁵. The question that begs a reply is whether the problems that microinsurers experience can be solved by solutions similar to those that have become commonplace in Western European countries, such as mandatory linkage to a risk adjustment scheme and, in some cases, prescribed composition of the benefit package?

8. IMPLEMENTING RISK ADJUSTMENT IN LOW-INCOME COUNTRIES

In countries that do not have compulsory universal coverage, individuals and communities who buy health insurance (including through microinsurance) naturally expect the insurer to remain solvent and to pay all obligations. However, governments in low-income countries offer fewer guarantees to clients against the risk of insurers' insolvency or bankruptcy, and are politically less bound to do so as they do not impose compulsory coverage either. Such guarantees are virtually inexistent in the case of informal risk pooling arrangements such as microinsurance units. That authorities view MIUs as "informal" arrangements can be gathered from the fact that MIUs are not required to obtain a license to sell insurance or to maintain reserves (often they are not registered or regulated at all). Yet, MIUs are exposed to financial risk inherent to insurance, due to income-side and expenditure-side vulnerabilities (Dror, 2001). Short of obtaining open-ended deficit financing¹⁶, MIUs cannot cure their financial susceptibilities on their own, for the same reasons that cause these vulnerabilities in the first place, namely small group size, low income, high variance in claim load and insufficient information on the risk and expected cost. Furthermore, it has been shown that even if small MIUs charge sufficiently high premiums to cover the expected average cost of their claims, they nevertheless incur a 40 per cent chance of insolvency due to the high statistical variability of the actual number of claims incurred. (Dror & Duru, 2001); therefore, one cannot argue that the solution lies simply in raising contributions. The only model that shows how the solvency of MIUs can be guaranteed is based on reinsurance, in which MIUs cede all risk above the average, and limit their risk exposure to the average cost (Bonnevay et al, 2002).

This construct seems consistent with the approach espoused by the World Bank, the ILO and the WHO/CMH, to recognize informal institutions, strengthen insurance operations and offer subsidies, and in the longer term link MIUs into a large pool. The question is how this design fits with the two fundamental conditions of universal coverage. This will be examined next.

Earlier on, it was argued that the first underlying condition of compulsory universal coverage – homogeneity of needs – was not satisfied, in that rationing of benefits did not allow meeting the medical needs of all individuals. However, now we are looking at MIUs, and we claim that all share one fundamental need: to remain solvent. Take solvency away, and the MIUs fold, regardless of size, benefit package composition or premium levels. If only it were possible to offer the same solution to this identical problem, that would satisfy the first underlying condition for compulsory coverage. Dror (2001), Bonnevey et al. (2002) and Dror & Preker (2002) claim that this solution is social reinsurance.

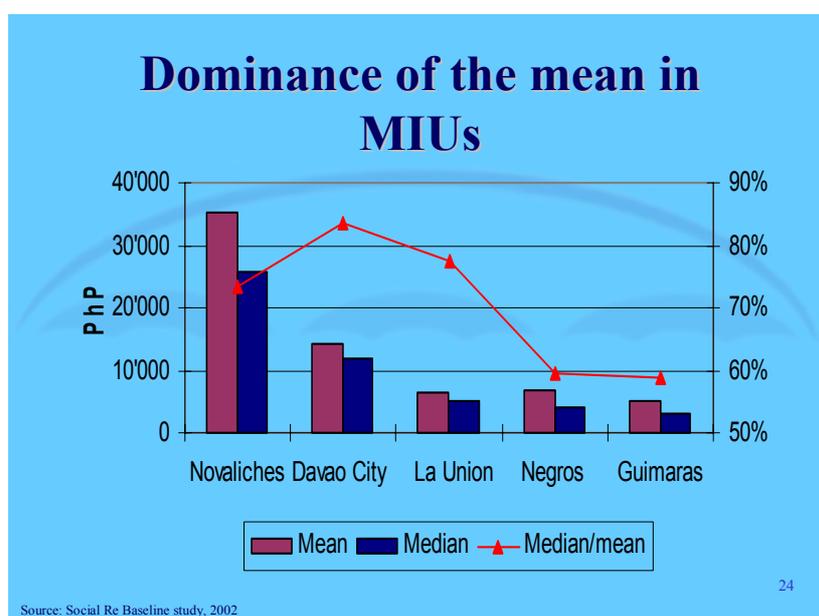
The second tenet of universal coverage is the dominance of the mean over the atypical outliers. In examining whether this tenet can be satisfied by the reinsurance of MIUs, the question is whether the

¹⁵ For a discussion of the impact of the law of large numbers please see Barr, 1998, p.111

¹⁶ The UK's Department for International Development (DfID) provided deficit financing to community based health schemes in Uganda during the first three years of operations (presumably on the assumption that the financial shortfall was a start-up problem). Unfortunately, once the deficit financing arrangement was stopped, many schemes folded. This experiment was abandoned.

premium payable for reinsurance can reflect the dominance of the mean. Admittedly, MIUs are likely to have different risk profiles, reflecting differences in size, in their benefit package and in their contribution schedules. The question is how the premium should be calculated: according to the risk each MIU cedes to the social reinsurer? According to the income each collects? Or maybe according to the average cost of the risk of the entire pool, prorated to the size of each MIU? Other methods are of course possible. The three methods represent, respectively and roughly, risk rating, income rating and community rating. Community rating, because it pools all MIUs together, includes a built-in risk adjustment mechanism, which also assumes the dominance of the mean over the entire pool.

It is now possible to conclude: low-income countries offer fewer options for regulated risk adjustment of informal insurance schemes. However, reinsurance can provide an effective mechanism to enhance the financial viability of MIUs as well as their solidarity. This reinsurance fits-in well with the conditions of compulsory coverage of MIUs, in that it responds to a homogeneous need of all MIUs, and in that it can calculate the premium in such a way that all MIUs would pay the mean cost of covering the entire pool, pro-rated to their membership size.



The conclusion is that where compulsory coverage of individuals is impossible, and where large segments of the population live and work in the informal economy, it may be more promising to attempt to achieve universal coverage of MIUs. Achieving this objective need not depend solely on action of low-income governments; all concerned can make a positive contribution, starting with MIUs and the communities in which they reside, on to international development agencies, single health insurers in high-income countries and finally, federative bodies like AIM¹⁷, ICMIF¹⁸ and other organizations that recognize the importance of extending and sustaining health insurance.

9. BACK TO THE FUTURE: MORE INSURERS, MORE INSURED

The approach proposed here is to extend coverage by sustaining local insurers. This approach focuses on social change just as much as on insurance technique. In professional quarters everyone understands that insurance, micro- or otherwise, is a capital-intensive activity which must be played within well defined accounting, statistics and actuarial rules, and with regulations to protect clients. However, introducing such a technical mindset to communities that rely on informal interactions implies a huge change in social norms.

Many communities engaging in informal insurance services are aware that they are very prone to insolvency when costs reach catastrophic dimensions. At the same time, they are less aware that a solution exists and is accessible to them, and that long-term viability cannot lie in easing or lowering

¹⁷ Association internationale de la Mutualité

¹⁸ International Cooperative and Mutual Insurance Federation

requirements or coming up with a set of “micro-standards”. To ensure that the risk is properly understood, evaluated and covered, Social reinsurance will need to help MIUs overcome the temptation to short-cut the solid technical and actuarial back-up.

Both sides must be willing to engage in mutual change of the classical business practices between insurer and reinsurer. We may share with the informal workers and the poor in low-income countries the wish to see more insurers and more insured. Our role as catalysts, triggering dialogue within the community about health insurance, is pivotal because the process is not intuitive. On the other hand, as outsiders who do not wish to foot the bill, we must accept the limits of our role, and allow the community to complete its internal collective acceptance that social reinsurance offers a solution to a real problem. Such process is dynamic, iterative, cyclical and relational (Figueroa, et al, 2002) and involves trust building among poor people toward a formal system, which to them is less transparent and less relevant compared to their normal informal interactions.

There are some indications that more players have ripened to this message. For instance, credit union associations in Asia had a “semiformal” reinsurance arrangement which they lost a few years ago. They have since been unable to find an alternative, notably because a reinsurer can do business only with a licensed insurance provider that meets government requirements. They are meeting next month to consider forming a “loss-and-gain pool” which would meet regulatory requirements on their behalf, and enable communities to continue providing microinsurance informally while the “loss-and-gain pool”, would allow them to cede some of their risk.

Another plan has been put forward to a donor consortium led by ADB¹⁹, to reinsure a large MIU serving informal-economy women in Gujarat, India. This plan has not yet obtained the necessary funding, but has followed a classical business plan approach, which has been discussed and adopted by the group. Several Indian MIUs, including SEWA (Gujarat), Accord and SHEPHERD (Tamil Nadu), are reducing their role from risk carriers to claims-processing agents, by purchasing group health insurance specially designed for the poor, from subsidiaries of the Government Insurance Company.

In Ghana, the government is talking about a national reinsurance fund for district schemes. The details are not yet worked out, but this might be a useful laboratory to develop the actual reinsurance policy language and administrative/actuarial mechanisms, and define the role of the government in supporting district and community health schemes.

And in Philippines, a business plan is being prepared for health insurance and reinsurance of a cooperative federation with about 1 million members, at the cooperative’s request. In parallel, preparations are underway to establish the first methodical survey, all the way down to households, to set the baseline against which the impact of reinsurance can be monitored and evaluated from inception.

These examples suggest that two insights are gaining ground: that MIUs can help in extending coverage of health insurance; and that MIUs need reinsurance in order to retain solvency and thus the trust of the poor.

10. CONCLUSIONS

Is compulsory health insurance of all individuals the solution for universal coverage worldwide? It has been argued that the two components of the demand side (ability to pay and homogeneity of needs) are too disparate to implement universal coverage based on rationed benefits. One needs to recognize that low-income countries are more heterogeneous in terms of epidemiological, income, gender, formal-informal economy and other disparities. When populations are fragmented further away from a statistical mean, segmentation of needs for medical care as well as for insurance is apparent. Judging by the political choice of many countries, the compulsory route is probably not the most promising one for universal coverage.

Governments continue to have a responsibility to improve the living conditions of citizens. When the classical conditions for implementation of health insurance through universal coverage are not satisfied, as is the case in many countries today, governments can nevertheless help the extension of

¹⁹ ADB= Asian Development Bank (with headquarters in Manila, Philippines).

coverage by strengthening and professionalizing fragmented health insurers, including informal insurers operating microinsurance units (MIUs).

All MIUs share the need to secure their solvency. A mechanism that can provide a solution to this homogeneous need is reinsurance. Commercial reinsurance has so far shown disinterest to do business with MIUs. Social reinsurers can step to provide this service, if they are designed as pro-poor, non-profit, community-rated reinsurance. This structure can guarantee risk adjustment across the MIUs and the dominance of the mean over the fringes, which in the long-term reflects the highest utility and fairest option for all. Social reinsurance would also have a major role in providing technical support in standardizing accounting, statistical and actuarial practices among informal insurers.

One thought how this social reinsurance could be operationalized would be for established mutual funds, such as many of AIM's members, to invest in this venture. Mutual health insurers know from their own experience how powerful the mutual concept can be at the level of single communities, regions and countries. Such engagement would introduce the mutual idea to low-income populations who are at present excluded from any health system. In a world preoccupied by globalization of trade in goods and in services, the mutual movement can play an exemplary role in promoting Beveridge's motto: "Freedom from Want" simply by doing what it does best: mutual health insurance.

Bibliography

Baldwin Peter, 1992: *Beveridge in the long durée*, (Geneva) International Social Security Review, Vol. 45, 1-2/92, pp. 53-72

Barr, Nicholas 1998: The Economics of the Welfare State (3rd Edition), Stanford University Press, Stanford California

Bonnevay Stéphane, Dror David M, Duru Gérard, Lamure Michel, 2002. *A Model of Microinsurance and Reinsurance* Chapter 7 in Dror DM, Preker AS (Editors), 2002: Social Reinsurance: A New Approach to Sustainable Community Health Financing, (Washington), World Bank & ILO, pp. 153-186

CMH (Commission on Macroeconomics and Health). 2001. Macroeconomics and Health: Investing in Health for Economic Development, Report of the Commission on Macroeconomics and Health (Geneva), World Health Organization, ISBN 92-4-154550-X, 202 pp.

Dror D, Jacquier Ch, 1999: *Micro-insurance: Extending Health Insurance to the Excluded*, International Social Security Review (Geneva), ISSA, Vol. 52 No. 1, January-March 1999, pp. 71-97.

Dror DM, Duru G. 2000: *Stabilizing Community Health financing through Re-Insurance* (with Gérard Duru), Social security in the Global Village, ISSA, The Year 2000 International Research Conference on Social Security, Helsinki, 25-27 September 2000
<http://www.issa.int/pdf/helsinki2000/topic4/2dror.pdf>

Dror David, 2001: *Reinsurance of Health Insurance for the Informal Sector*, Bulletin of the World Health Organisation, (Geneva), WHO, Vol. 79 No. 7, 672-678, July 2001

Dror DM, Preker AS (Editors) 2002: Social Reinsurance: A New Approach to Sustainable Community Health Financing, (Washington), World Bank & ILO

Flavier Jonathan, Soriano Elmer S., Nicolay Anne, 2002 *Social Health Insurance in the Philippines: A Review of the Context*, Chapter 17 in Dror DM, Preker AS (Editors), 2002: Social Reinsurance: A New Approach to Sustainable Community Health Financing, (Washington), World Bank & ILO, 327-352

Figueroa, ME, Kincaid, DL, Rani, M, Lewis, G (2002): *Communication for Social Change: An Integrated Model for Measuring the Process and Its Outcomes*, New York, Rockefeller Foundation and Johns Hopkins University, The Communication for Social Change Working Paper Series: No. 1, ISBN: 0-89184-065-6, 50 pp., <http://164.109.175.24/Documents/540/socialchange.pdf>

Haggerty, Jeannie, Reid, Tracey, 2002. *Epidemiological Data on Health Risks in the Philippines* Chapter 18 in Dror DM, Preker AS (Editors), 2002: Social Reinsurance: A New Approach to Sustainable Community Health Financing, (Washington), World Bank & ILO, pp. 353-376

ILO, 2001: A New Consensus on Social Security

ILO, 2002a: The Informal Economy, report to the 2002 International Labour Conference (Geneva), ILO

ILO, 2002b: Key Indicator of the Labour Market (Geneva), ILO

Jütting, Johannes, 2001: *The Impact of Health Insurance on the Access to Health Care and Financial Protection in Rural Developing Countries: The Example of Senegal*. World Bank Health Nutrition and Population Discussion Paper, September 2001, 22 pp., ISBN 1-932126-06-6

Kakwani, Nanak, Prakash Brahm and Son Hyun. 2000. *Growth, Inequality and Poverty: An Introduction*. Asian Development Review 18 (2): 1-21.

Kifmann, Mathias 2002: *Community rating in health insurance and different benefit packages*, Journal of Health Economics 21/5:719-737

Marwick Charles, 2002: *A total of 58 million Americans lack health insurance*, *News extra* BMJ 2002;325:678 (28 September)

Omran, A.R., 1971. *The Epidemiological Transition: A Theory of the Epidemiology of Population Change*. Milbank Memorial Fund Quarterly 49(4):509–38.

Pauly, M V, 1984: *Is cream skinning a problem for the competitive medical market?* Journal of Health Economics, 3, pp. 87-95

Preker AS, G Carrin, D Dror, M Jakab, W Hiao, and D Arhin-Tenkorang 2002: *Effectiveness of Community Health Financing in Meeting the Cost of Illness*. (Geneva), Bulletin of the World Health Organisation. February 2002. 80 (2):143-150. [http://www.who.int/bulletin/pdf/2002/bul-2-E-2002/80\(2\)143-150.pdf](http://www.who.int/bulletin/pdf/2002/bul-2-E-2002/80(2)143-150.pdf)

Ranson MK., 2002: *Reduction of catastrophic health care expenditures by a community-based health insurance scheme in Gujarat, India: current experiences and challenges*. (Geneva), Bulletin of the World Health Organisation. August 2002. 80 (8):613-21

Starfield, B. 2001. *The Value of Primary Care*. Plenary Presentation, North American Primary Care Research Group, Twenty-eighth Annual Meeting, Amelia Island, FL, November 14–17, 2001.

van de Ven & Ellis, 2000

Van de Ven W.P.M.M, van Vliet, R.C.J.A 1992: *How can we prevent cream skinning in a competitive health insurance market?* in Zweifel P and Frech III HE (eds.): Health Economics Worldwide, Kluwer, pp.23-46

van Vliet, R.C.J.A , van de Ven W.P.M.M, 1990: *Towards a budget formula for competing health insurers*, Social Science and Medicine

World Bank, 2002: World Development Report 2002: Building Institutions for Markets, (Washington), World Bank

World Bank, 2002: World Development Indicators