

## 7 Risk-Equalisation

### 7.1 Overview

#### 7.1.1 Policy Relevance

During the 1990s the policy relevance of risk-adjustment mechanisms has increased as many countries seek to make their health insurance markets more competitive and to ensure high risk individuals and groups have access to cover. Countries that have taken this route include Belgium, Columbia, the Czech Republic, Germany, Ireland, Israel, the Netherlands, Poland, Russia, Switzerland and the United States. (van der Venn *et al*, March 1999).

South Africa is one of the only countries in the world with a community-rated open enrolment environment that lacks a system of risk-equalisation. This lack is however related more to the recent introduction of the introduction of community rating rather than a policy oversight. It is a policy reform therefore that must be placed high on the policy agenda.

#### 7.1.2 NHI Committee Recommendation

As noted earlier in this Report the NHI Committee recommended that a risk-equalisation mechanism be introduced as part of a system requiring the mandatory membership of medical schemes. It was also recommended that medical scheme contributions be income-based, thus resulting in an automatic income-based cross-subsidy, provided a risk-equalisation mechanism was in place. The risk-equalisation mechanism effectively creates a much larger risk pool out of a number of smaller independent risk pools. However, the NHI Committee proposals did not make technical recommendations on how to provide for an income-based cross-subsidy mechanism in the absence of mandating income-based contributions, if this proved not to be feasible in the short-term.

#### 7.1.3 Need for Review

As the medical schemes environment will remain a central feature of the health system, there is a need to ensure that key objectives of a national health system can be realised through the private system. These are:

- (a) Ensuring that the funding of essential health services are done on a pre-paid basis;
- (b) Preventing any groups or individuals from being excluded from access to essential health services;
- (c) Ensuring that risk pools are as large as possible;

- (d) Ensuring risk-related cross subsidies for essential health services are environment-wide (from healthy to sick);
- (e) Ensuring that income-based cross-subsidies for essential health services are environment-wide; and
- (f) As far as possible removing perverse incentives to drive up costs.

Whereas tax-based health systems provide very broad risk-sharing and income-based cross-subsidisation, individual medical schemes reduce the risk-pooling effects quite dramatically. The only approach capable of achieving the protection of key cross-subsidies between schemes involves the use of a risk-equalisation fund into which contributions are paid by below average risk schemes and from which funds are paid to above average risk schemes.

In the absence of risk-equalisation, certain schemes will obtain windfall gains from a below average risk pool, creating incentives to risk-select. As risk-selection ultimately results in the systematic exclusion from cover of vulnerable risk groups, this cannot serve the final objectives of the health system.

## **7.2 Purpose of Risk-equalisation**

Risk-equalisation is a mechanism for achieving equity and efficiency in regulated private insurance markets. Its purpose is to prevent competition from occurring on the basis of risk selection. In doing so it serves to foster competition on the basis of healthier criteria such as cost and quality of health care services.

There are a number of risk-equalisation models proposed and operating internationally. Each country has a unique system of delivery and consequently different forms of risk-equalisation are used that suit the country in question. These range from public sector formula-based resource allocation systems to risk-equalisation between competing health funds or insurers.

Within private markets mandatory community rating and open enrolment is usually required to protect cover within voluntary and mandatory contributory environments with multiple funds or insurers. However, these measures are unstable on their own and risk-equalisation is regarded as essential to protect the environment.

Risk-equalisation also become central to any government instituted income-based cross-subsidies. This is either offered as a direct subsidy or through the impact of mandating income-based contributions to health insurers. Which option is preferable would depend on the circumstances prevailing in any particular country.

Risk-equalisation should improve efficiency and reward those with lower costs. To achieve this risk-equalisation models must be based on objective risk factors or diagnostic information, not actual treatment, utilization or expenses incurred.

According to van den Ven *et al* (March 1999, p.3) risk-adjusted premiums are the norm, not the exception, in competitive markets, and in the absence of regulation, health plans will tend to charge premiums that differ across both observable risk factors and benefit packages designed to attract specific risk types.

“This raised the question: is this fair? ... risk-adjustment premiums can easily differ by a factor of ten or more for demographic risk factors such as age, and factors of 100 or more once health status is also taken into account. Almost universally, people agree that premiums which reflect such large differences are not fair, and that cross-subsidies are needed.” (van de Ven *et al*, March 1999, p.3)

Van de Ven *et al* (March 1999, p.13) raise the following problems with permitting cream skimming in voluntary open health insurance markets.

The larger the predictable profits resulting from cream skimming, the greater the disincentive to for health plans to respond to the preferences of high-risk consumers.

The larger the predictable profits arising from cream skimming, the greater the chance that cream skimming will be more profitable than improving efficiency. At least in the short-run, when a health plan has limited resources available to invest in cost-reducing activities, it may prefer to invest in cream skimming rather than in improving efficiency. Efficient health plans who do not cream skim applicants, may lose market share to inefficient health plans who do, resulting in a welfare loss to society.

While an individual health plan can gain by cream skimming, for society as a whole, cream skimming gains nothing. Thus any resources used for cream skimming represent a welfare loss to society.

Therefore, according to van de Ven *et al* (March 1999, p.14) regulations that are intended to increase access to coverage for high-risk individuals may instead induce selection efforts with the following unintended effects:

- (a) Problems with financial access to coverage for high-risk individuals;
- (b) Reductions in the quality of certain kinds of care;

- (c) Reductions of allocative efficiency and efficiency in the production of care.
- (d) "Given a system of imperfectly risk-adjusted subsidies, there is a *trade-off between access to coverage and the adverse effects of selection*. A relevant question therefore is How can we prevent selection?" (van de Ven *et al*, March 1999, p.14).

### 7.3 Definition of Risk-Adjustment

"Risk-adjustment" can be used to mean different things in different contexts. There is therefore a need for a definition. Van de Ven *et al* (1999) define risk-adjustment to mean "*the use of information to calculate the expected health expenditures of individual consumers over a fixed interval of time (e.g. month, quarter, or year) and set subsidies to consumers or health plans to improve efficiency and equity.*"

Risk-equalisation is a zero sum game and it is important that stakeholders recognise this: there will be some winners and some losers. As such the initial implementation of a risk-adjustment model needs a carefully planned transition. It is essential that stakeholders have a clear understanding of the objectives and structure of the model.

### 7.4 International Review of Risk-Equalisation Mechanisms

#### 7.4.1 Criteria for the Selection of an Appropriate Risk-Equalisation Mechanism

The criteria for the selection of an appropriate risk-equalisation mechanism from the Briefing Paper on Health Insurance Regulatory Framework in Ireland published by the Department of Health in July 1994 are as follows:

- (a) *Equalisation of Risk Profiles*: The system should provide a stable environment for community rating and open enrolment, and should eliminate the incentives for health insurers to select preferred risks, by ensuring that each health insurer must bear the cost of a risk profile equal to the risk profile of all insured lives.
- (b) *Equity*: The system should be perceived to be equitable between health insurers and should not result in any health insurer having to share profits which it has made as a result of its own efficiencies and cost controls.
- (c) *Cost Containment*: The system should not contain any inherent disincentives for health insurers to seek to maximise efficiency and control costs.
- (d) *Non-equalisation of benefit levels*: The system should not equalise different levels of benefit paid by different health insurance schemes
- (e) *Practicality*: The system should be understandable and practical to operate
- (f) *Predictability*: The System should produce results which are as predictable as possible, in order to allow health insurers to cost their policies appropriately.

The adjustment procedure should also be reliable (minimum error) and not vulnerable to manipulation. It should further not compromise the right for privacy of insurers and the insureds

#### 7.4.2 Criteria Used to Establish Risk-Equalisation

In developing or implementing risk-adjustment it must be decided how the information will be collected and used. Payments that are calculated at the beginning of the prediction period will use only prior information. Prospective systems estimate risk premiums for each insurer's portfolio, based on risk factors or on prior utilisation for that insurer's portfolio. (Ellis *et al*, March 1999).

Advantages for Prospective system (Society of Actuaries, June 1995):

- o Greater degree of certainty for health insurers
- o Cash flow problems removed for those insurers with poor risk profiles

Disadvantages (van Vliet *et al*, 1992)

- o Significant problems with devising a satisfactory set of risk adjusters. Global risk adjusters such as age and sex are, on their own, poor predictors of future health care costs for any one individual. Data may be difficult to obtain to use other predictors.

Van Vliet *et al* (1992) suggest that the following risk adjusters should be included in a percapita risk-adjustment formula:

- o Age and sex;
- o Level of insurance coverage;
- o Region;
- o Employment status;
- o Family size;
- o Socio-economic status;
- o Height/weight ration (BMI);
- o Degree of urbanisation;
- o Supply of health care facilities;
- o Chronic conditions;
- o Physical impairments; and
- o Self-rated general health status.

Other factors can, of course, be included: family history, lifestyle factors (smoker, non-smoker status, sporting activity, race). However there is a trade off between an improved prediction and

complexity. The greater the complexity, the higher the administration costs, and possibly a difficulty in understanding the process. (Wilson *et al*, Summer 1998).

It is not necessary to predict all the variation in costs for a medical scheme. A majority of the cost-variation is random and unpredictable (hence not a basis for risk selection). Thus the adjustment procedure must be such that the marginal benefit to the insurer of identifying individuals to risk select is less than the marginal cost of obtaining the necessary information. (Wilson *et al*, Summer 1998).

Payments can be calculated retrospectively, at the end of the period using information that becomes known during that period. Such a retrospective system involves the redistribution of the observed risk in terms of the actual claims costs experienced by insurers over the relevant period. Prior utilisation patterns will be a key factor in the process. Retrospective and prospective systems can however also be used in combination.

Age and gender provide a good starting point for risk-equalisation but are insufficient as much scope for risk selection remains. To improve on age and sex, prior utilization could be considered as a risk factor. This, however, tends to reward past spending and will undermine efficiency.

A further type of model is a Health status model, which is based on indicators of the insured's health, depending primarily on medical records and past history. This, of course, might raise privacy questions. The rationale for diagnosis-based risk-adjustment models is that certain diagnoses predict future health care expenditures.

Health Status models are better predictors of costs than pure demographic models. Examples include:

- o The Diagnostic Cost Group (DCG) model. The DCG models use information recorded on medical claims to classify individuals into categories based on their clinical similarity.
- o Other well known diagnostic based models include the Ambulatory Care Group (ACG) system, and the Disability Payment System (DPS).

A further approach is to consider "self-reported measures" from surveys. The advantages of this route are the information is not dependent on medical providers; no history of claims is needed; and socio-economic variables (lifestyle, taste, employment) can be taken into account. However these surveys are often costly, response rates can be low, and there are confidentiality and accuracy concerns. The most common type of information collected in this manner is perceived health status. (NERA, 1995).

Mortality has been suggested as a risk adjuster because of the high health care expenditures prior to death. Views differ on its importance. One argument raised is that the excess costs associated with the high costs of dying are unpredictable. Another view suggests that a dummy variable indicating death during the observation period should be included in any subsidy formula. Here health plans should be retrospectively compensated with a prospectively determined payment per death. Belgium currently uses death as a retrospective adjuster based on the average number of deaths per 1000 enrollees in prior years at the health plan level. (van de Venn *et al*, March 1999, p.31).

Disability and functional health status are also good predictors of future health expenditures. Indicators of functional health status reflect someone's ability to perform various activities of daily living and the degree of infirmity. Disabled and functionally impaired persons appear to have around twice the health care expenditures of those who are unimpaired. (van de Venn *et al*, March 1999, p.31).

#### **7.4.3 Countries with Risk-Equalisation**

**Table 7.1** provides a list of 10 countries with risk-equalisation funds excluding the United States which has a further 10. In addition to the 10, Australia has a risk-equalisation system operated by its health regulatory authority. There is relatively significant variation in the institutional set up between each of these countries. Local conditions are therefore important in establishing the ultimate shape and form of such a mechanism.

The Netherlands have a very well developed risk-equalisation system initiated in 1991. It incorporates both risk and income cross-subsidies. **Figure 7.1** provides an illustration the various inter-relationships.

Figure 7.1: Illustration of the Netherlands Risk-Equalisation Fund

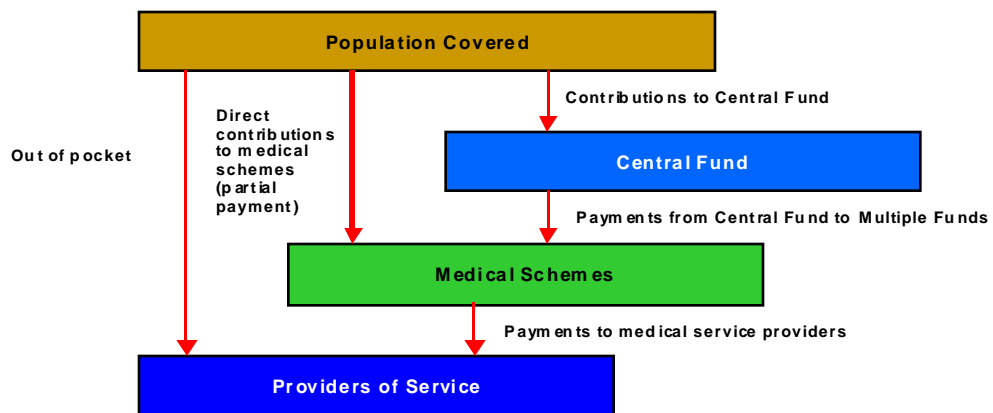


Table 7.1: Risk-adjustment systems in 10 countries

	Belgium	Columbia	Czech Republic	Germany	Ireland	Israel	Netherlands	Russia	Switzerland	United Kingdom
<b>Risk adjusters</b>	age/gender region disability unemployment mortality	age/gender	age	age/gender disability	age/gender hospitalisation both weighted with current expenses	age	age/gender region disability	many different regional experiments	age/gender region	age/gender prior utilisation local factors
<b>Restrictions on premium contributions</b>	Community rating	Zero premium contribution	Community rating	Community rating	Community rating	Zero premium contribution	Community rating	Zero premium contribution	Community rating per region	Zero premium contribution
<b>Risk-sharing</b>	Proportional risk sharing, at least 85%	no	no	no	See risk adjusters above	Severe diseases (6% of expenses)	Outlier risk sharing and proportional risk sharing	Many different regional experiments	no	Outlier risk sharing
<b>Number of Health Plans</b>	6	24	26	1,200	2 (until 1997:1)	4	25	100s	166	2,500 (early 1996)
<b>Modality A or B</b>	A	B	B	B	B	A	A	A	B	A
<b>Open entry for new health plans? (subject to certain conditions)</b>	No	Yes	yes	yes	yes	yes	yes	yes	yes	Yes
<b>Open enrolment every month/.../year</b>	quarter	year	year	year	year	half year	year	year	half year	no open enrolment guarantee
<b>Is long-term care included in benefits package</b>	yes	no	no	no	no	no	no	no	no	no
<b>Mandatory or voluntary membership</b>	M	V	M	M	V	M	M	M	M	V
<b>Year of implementation</b>	1995	1994	1993	1994	1996	1995	1991	1993	1993	1991

Source van de Ven *et al*, 31 March 1999

Table 7.2: The practice of risk-adjustment in the United States

	Medicare programme, HMOs in 1997	Medicare, proposed for HMOs in year 2000	Federal Employees Health Benefits' Programme (FEHBP)	New York State	Health Insurance Plan of California (HIPC)	Minnesota Buyers Health Care Action Group	Washington Health Care Authority
<b>Risk adjusters</b>	Age/gender region (county) institutional status welfare status	Age/gender region (county) Welfare status Principal Inpatient Diagnostic Cost Groups (PIPDCDGs)	No risk-adjusters Each consumer's subsidy is based on 60% of the average premium of the six largest plans	Age/gender region	Gender Number of children 120 marker diagnoses  risk-adjustment only applies if plan scores deviate from one by around 5%	ACGs	Age, gender employee status since 1989 DCGs Announced for 2000
<b>Restrictions on premium contributions</b>	Community rating	Community rating	Community rating	Community rating	Premium contribution depends on age, region and family/single within a rate band (! 10%)	Premium contributions set by competitive bidding	Premium contributions set by competitive bids
<b>Risk-sharing</b>	no	no	no	Condition-specific risk sharing	no	Stop loss for catastrophic individuals	yes
<b>Number of Health Plans</b>	100s	100s	100s	?	28	15	3
<b>Modality A or B</b>	A	A	A	B	B	A	A
<b>Open entry for new health plans? (subject to certain conditions)</b>	yes	yes	yes	yes	yes	yes	yes
<b>Open enrolment every month/.../year</b>	month	Month, with proposed transition to year	year	?	year	year	Year
<b>Is long-term care included in benefits package</b>	no	no	no	no	no	no	no
<b>Mandatory or voluntary membership</b>	V	V	V	V	V	V	V
<b>Year of implementation</b>	1972	2000	1960	1993	1992	1997	1989

Source van de Ven *et al*, 31 March 1999

#### 7.4.4 Review of Recommendations and Comments

Advisory Group on the Risk-Equalisation Scheme which evaluated risk-selection and the need for risk-equalisation within Ireland provides the most recent formal review internationally. Various of the comments from their Report are provided below.

“The Advisory Group concludes, based on its own deliberations and on the basis of the arguments made and evidence presented to it, that risk-equalisation is essential to underpin community rating” (Advisory Group on the Risk-equalisation Scheme, 1998, p.30)

“The Advisory Group agrees, therefore, that a Risk-equalisation Scheme is a necessary feature of the private health insurance market. It has arrived at this conclusion because of:

- o The very high public policy priority given to preserving the stability of community rating; and
- o The fact that the facilitation of competition is to be subject to the preservation of the stability of community rating.” (Advisory Group on the Risk-equalisation Scheme, 1998, p.30)

“Without risk-adjustment methods, rating structures being considered in state and national reform proposals are likely to provide incentives to carriers to avoid high-risk individuals in order to maintain the most competitive premiums, and individuals will continue to face premium or contribution choices that reflect risk selection rather than medical and administrative efficiency. The Academy considers risk-adjustment a necessity if rating restrictions do not allow up-front matching of premiums or contributions with the relative risk factors of the purchasers” (American Academy of Actuaries, May 1993).

“... if a government imposes community rating on a competitive industry (health insurance or otherwise), it has an obligation to support community rating by some form of equalisation.” (Walter Neuhaus, Laboratory of Actuarial Mathematics, University of Copenhagen. In Advisory Group on the Risk-equalisation Scheme, 1998, p.30).

“... an effective prevention of cream skimming is a necessary condition in order to reap the fruits of a competitive health insurance market with a regulated premium structure.” (Prof. van de Ven, Department of Health Policy and management, Erasmus University, The Netherlands In Advisory Group on the Risk-equalisation Scheme, 1998, p.30).

“As a precondition between the sickness funds it was found necessary to implement a risk structure compensation. By that financial equalisation the different kinds of funds should get equal opportunities in the coming competition. In addition, cream skimming by selecting good risks should be prevented.” (Dr Doris Pfeiffer of Verband der Angestellten Krankenkassen of health care reforms in Germany.

“Recommendation: A central fund, or re-insurance scheme, should be set up to provide the insurance funds with a risk-adjustment service ... Even if funds are not allowed to risk-select, but are required to accept all comers, the distribution of high- and low-cost individuals ... will be uneven across funds. The function of the central fund is therefore to compensate funds with a large proportion of high-cost individuals by transferring money to them from funds with a low proportion of high-cost individuals.” (National Economic Research Associates, “The Economics of Health Care Reform: A Prototype”, May 1993. in Advisory Group on the Risk-equalisation Scheme, 1998, p.30).

“The Advisory Group’s initial consideration, therefore, was whether a Risk-equalisation Scheme is necessary. The overwhelming majority of respondents felt that some form of Risk-equalisation was necessary to underpin community rating. The Society of Actuaries in Ireland and the Department of Health and Children, in particular, produced an impressive range of technical support for this view.

“The Society is firmly of the view that risk-equalisation is fundamentally necessary where health insurance is community-rated. Where community rating and competition co-exist, community rating may be undermined if some or all insurers in the market practice preferred risk selection (sometimes referred to as ‘cherry-picking’ or ‘cream-skimming’). (The Society of Actuaries in Ireland” in Advisory Group on the Risk-equalisation Scheme, 1998, p.32)

“A risk-equalisation mechanism is necessary to protect insurers who are required to operate in the community rated open enrolment environment from the potentially catastrophic effects of acquiring a portfolio of disproportionately poor risks. The risk-equalisation mechanism reduces the incentive for insurers to practice preferred risk selection (this incentive is, in fact, significantly greater for community rated than for risk rated insurance, since a portfolio of good risks does not necessarily imply any reduction in premium revenues).” (VHI in Advisory Group on the Risk-equalisation Scheme, 1998, p.30).

“The Advisory Group firstly considered whether a scheme of risk-equalisation based only on age and gender might be appropriate. ... It has the benefit of being totally objective, is very simple to

apply and requires minimal data (in the form of number of policyholders and claims costs analysed by age and gender) to be applied. If there are differences in the claims management efficiencies of different insurers, it ensures that no health insurer will have to share profits which it has made as a result of its own claims management efficiencies and cost controls with any other insurers. It would, therefore, provide significant encouragement to competition. However, the Advisory Group accepts that age and gender are not sufficient to account for differences in health risk, and recognises that there is a substantial level of actuarial research in existence demonstrating the limited extent to which age and gender alone can predict health care costs, when non-randomly selected populations are studied. (Advisory Group on the Risk-equalisation Scheme, 1998, p.36)

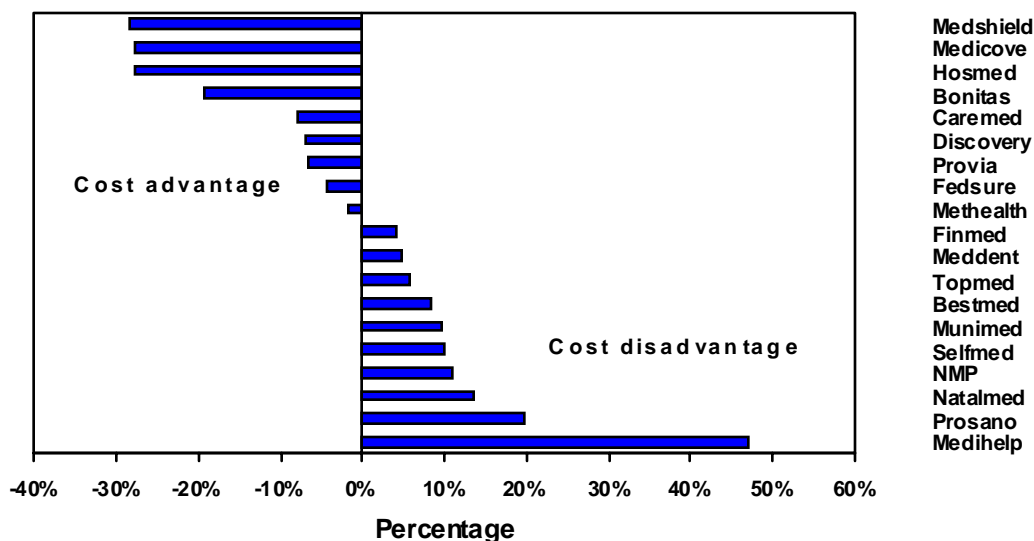
### **7.5 Evaluation of Residual Risk Selection in the South African Medical Schemes Environment**

**Figure 7.2** provides results of analysis carried out for the Committee which show substantial variation in risk pools within the open scheme environment in 1999 representing 90 percent of the total number of beneficiaries. The cost-weighted demographic profile of the individual medical schemes are compared with the cost-weighted profile of all open schemes, closed schemes, and all schemes (market). Initial indications are that the various risk profiles have not changed significantly in 2000.

The variation in risk profile implies substantial cost differences for schemes unrelated to their efficiency in managing costs. As this analysis only measures the age and sex cost variation more subtle measures such as chronic members by age could exacerbate the variations shown. Whether by chance or design, the South African medical scheme market indicates an unfair distribution of risk between schemes, which has implications for both equity and efficiency.

There is a clear advantage for open relative the closed medical scheme environment where a higher percentage of pensioners exist. Thus risk selection targeted at the closed scheme market will provide a profitable short-term strategy for commercially oriented open schemes. The advantage ends, however, once closed schemes have been eliminated.

**Figure 7.2: Price advantage/disadvantage for schemes representing 90 percent of the open scheme membership**



Source: analysis performed for the Committee of Inquiry based on the Statutory Returns of Registered Medical Schemes for the 1999 financial year

## 7.6 Assessment of a Risk-Equalisation System for South Africa

### 7.6.1 Introduction

Based on both international practice and the evidence available on the South African health market serious consideration has to be given to the implementation of a system of risk-equalisation amongst medical schemes. Without such a system inefficient schemes will be in a position to undermine efficient schemes. In order to assess the viability of such an option for South Africa some analysis was done for the purposes of this report. This cannot however be regarded as a complete assessment.

This assessment looks at five areas central to a risk-equalisation process:

- (a) Risk criteria that could be applied in a South African context;
- (b) Options for income cross-subsidisation;
- (c) Legislative requirements;
- (d) Institutional requirements; and
- (e) Expected impact on the medical schemes environment

### 7.6.2 Risk Criteria Evaluated for South Africa

Based on international evidence the following criteria have been considered for the South African situation:

- (a) Age and sex;
- (b) Members with chronic conditions;
- (c) Benefit levels;
- (d) Mortality.

As the validity of using age, sex and chronic conditions is generally well accepted internationally the value of using death as a method of refining the calculation was assessed analytically.

The issue of benefit levels is also important, as these can vary by scheme. The risk-equalisation process must therefore create a rational link between the benefits to be subject to an equalisation process and those that can be excluded.

### 7.6.3 Options for income cross-subsidisation

The South African medical schemes environment is predominantly made up of open schemes. Open schemes typically charge flat-rate contributions, i.e. they are not income-based. There is therefore no income redistribution possible via the contribution. Although it can be mandated that schemes charge income-based contributions in South Africa, this will substantially destabilise the existing market.

Income-based cross-subsidies can however be achieved through allocations from an earmarked or general tax into a risk-equalisation fund. The risk-equalisation fund therefore allocates both the income- and the risk-based cross-subsidies. An earmarked tax for this fund is more appropriate than a general tax contribution, as it establishes a clear link between a shared risk-pool and the contributory environment.

Within the South African context this option should be considered in conjunction with the removal of the current tax subsidy. (See **section 6**). The following steps could be considered in converting from the existing subsidisation of the private sector to an approach more consistent with health policy:

- (a) *Remove the existing tax subsidy:* In removing the existing tax subsidy government revenue should rise.
- (b) *Reduce general taxes:* A reduction in general taxes should occur, equivalent to the revenue raised from removing the tax deduction.

- (c) *Implement an income-based earmarked tax:* A payroll tax equivalent to the value of the desired subsidy should be raised from all income earners. The funds should be paid into the risk-equalisation fund.
- (d) *Distribute the funds to scheme according to the risk-equalisation formula:* Both the funds raised for-risk-equalisation and the funds raised from the earmarked tax should be distributed according to the risk-adjustment formula.
- (e) *Non-medical scheme members should be subsidised for public hospital cover via a public hospital fund:* Non-medical scheme members, and their immediate family, forced to contribute should become entitled to free public hospital cover in a differential amenity.

#### **7.6.4 Legislative Requirements**

In many countries the regulator of the private medical scheme environment operates and runs the risk-equalisation fund. A separate statutory authority is also possible. However, due to the close relationship between the regulation of solvency, community rating, open enrolment and prescribed minimum benefits to the operational requirements of such a fund.

Legislation can be created separately or part of the Medical Schemes Act No. 131 of 1998 which establishes the governance structure and operational requirements of the fund. The legislation would therefore include the following:

- (a) The governance structure;
- (b) The mechanism and calculation according to which medical schemes pay in funds;
- (c) The mechanism via which earmarked tax contributions are made to the fund;
- (d) The mechanism and formula according to which general tax contributions are made to the fund;
- (e) The prospective or retrospective nature of the assessment of relative risk between schemes;
- (f) The formula according to which funds are to be distributed to individual medical schemes;
- (g) The formula and mechanism according to which funds are distributed to any public statutory fund for non-medical scheme contributors;
- (h) The timing of receipts and payments (e.g. quarterly or annually); and
- (i) Confidentiality requirements.

### 7.6.5 Institutional Requirements

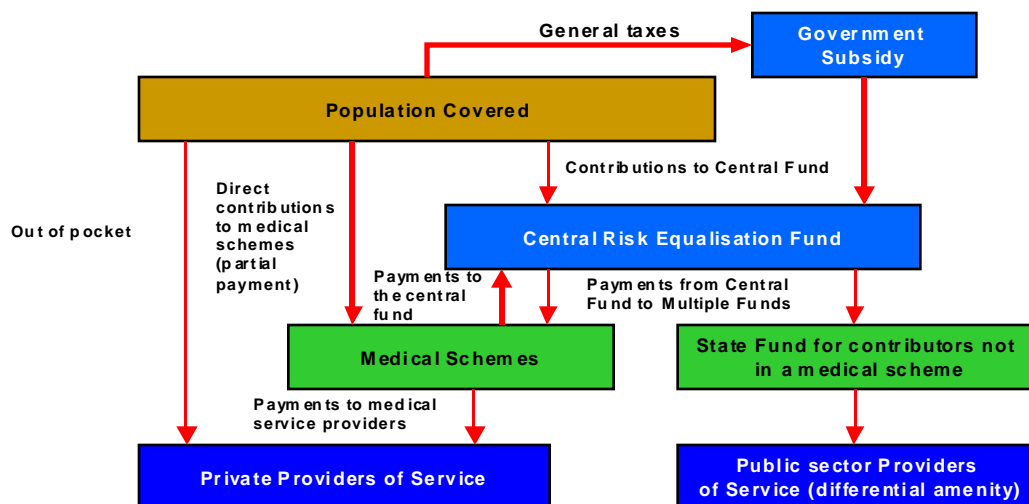
The central feature of any risk-adjustment system is a risk-adjusted premium subsidy from the risk-equalisation fund to each consumer or to high-risk consumers only. In most countries the risk-equalisation fund pays the subsidy directly to the consumer's health plan (medical scheme) and thereby lowers the consumer's premium contribution.

The institutional implications for a South African proposal require consideration of the following institutional issues:

- (a) A statutory organisation needs to be established which will receive and disburse funds according to established criteria.
- (b) There should be a board overseeing an executive who will directly administer the fund.
- (c) A chief executive officer will need to be appointed, answerable to the board, who will directly manage the fund and be the accounting officer.
- (d) The risk-equalisation fund will need to be able to manage the following in respect of contributions it receives:
  - a. A contributor database in respect of contributions received from medical schemes;
  - b. A beneficiary database in respect of medical scheme members;
  - c. A contributor and beneficiary database in respect of any earmarked tax (this will permit the differentiation of medical scheme from non-medical scheme contributors); and
  - d. The expertise required to formulate and manage a risk-equalisation formula.
- (e) The sources of finance will include:
  - a. Direct contributions from an earmarked tax contribution;
  - b. Contributions from individual medical schemes; and
  - c. A formula-based subsidy from general taxes. (This would be important initially during the development phase of the fund, prior to it receiving contributions directly from any earmarked contribution. This could be phased out over time, with its function reduced to that of short-term solvency support).

In its final form the risk-equalisation fund would look fairly similar to that of the Netherlands with some important differences. These differences include the possibility that: it will take some but not all contributions directly from the covered population; and that it may receive some subsidy initially from general taxes.

**Figure 7.3: Possible Institutional Framework for a Central Risk-Equalisation Fund for South Africa**



## 7.7 Implementation

The strategy adopted by the Washington State Health Care Authority (HCA) was initially adopted a demographic model based on age, gender and member status (main member, spouse, or dependent) in 1996. This was later refined to include health-status in 1998. In 2000, the HCA moved to a more complex health status model including more health-status factors. From the HCA's experience it is also suggested that roles and time lines are clearly defined, so that issues can be addressed early and continuously. The HCA's time line was as follows (Wilson *et al*, 1998):

- o Decide on the goal; assign roles and responsibilities, and develop guiding principles
- o Narrow efforts to a finite of risk assessment variables that are of interest;
- o Assess data availability and quality; develop data disclosure mechanisms;
- o Decide what type of risk assessment model is feasible;
- o Build the model;
- o Determine how data will be collected and processed;
- o Define specifics of adjustment process, including the mathematics;
- o Conduct a dry run;

- o Implement.

It is proposed that if a risk-equalisation fund is established in South Africa that a similar process be adopted. Criteria could initially be based on demographic information and be improved over time to include more information.

### **7.8 Priority for Implementation**

The longer the absence of a risk-equalisation mechanism the longer pricing instability will exist within the medical schemes environment. There are no reasons for delaying the implementation of this important instrument. It should therefore be prioritised for immediate development and implementation.