



Consultation Paper on Risk Equalisation in the Irish Private Health Insurance Market

June, 2010

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INTRODUCTION

The Health Insurance Authority

The Authority is a statutory regulator for the Irish private health insurance market. It was established in 2001 under the Health Insurance Acts 1994 to 2009. The principal functions of the Authority as provided for in the Health Insurance Acts include the following:

- to monitor the health insurance market and to advise the Minister (either at his or her request or on its own initiative) on matters relating to health insurance;
- to monitor the operation of the Health Insurance Acts and, where appropriate, to issue enforcement notices to enforce compliance with the Acts;
- to carry out certain functions in relation to health insurance stamp duty and age related tax credits and in relation to any risk equalisation scheme that may be introduced;
- to take such action as it considers appropriate to increase the awareness of members of the public of their rights as consumers of health insurance and of health insurance services available to them; and
- to maintain the “Register of Health Benefit Undertakings” and the “Register of Health Insurance Contracts”.

The Consultation Process

The Government announced on 27th May 2010 that it has decided to implement a new robust risk equalisation scheme to support the core policy of community rating in the private health insurance market. The Health Insurance Authority has been asked by the Minister for Health & Children (“The Minister”) to carry out a consultation process regarding a new robust risk equalisation scheme system to take effect in 2013 (including the transitional arrangements), as follows:

“In setting out on this consultation, it is important to make clear to the Authority that the Government has decided that the new risk equalisation scheme should be comprehensive and cover as much as possible in terms of the levels and indicators of risk which can and should, where practicable, be taken into account. While not wishing to prejudge the outcome of the consultation, the Government has decided that the key elements of age, gender and health status must form part of any proposals on the new risk equalisation scheme, and that as much as possible of this should be included in the transitional arrangements to be put in place in advance of the introduction of the risk equalisation scheme.

Accordingly, I would wish to hear from the Authority, following the consultations, your views on what range of measures can be taken to allow for health status to be effectively

incorporated into the new arrangements for the transitional scheme, for the risk equalisation scheme and your considered views on the mechanisms and any other observations on both schemes”.

It is Government policy that a regulatory impact analysis should be undertaken with regard to most primary and significant secondary legislation which is to be implemented. This analysis shall have regard to the principles of Necessity, Effectiveness, Proportionality, Transparency, Accountability and Consistency. The Authority would welcome submissions that have regard to these principles. In turn, the Authority’s advice to the Minister will have appropriate regard to the principles.

The Consultation Paper is structured as follows:

- Section 1 of this paper describes the market for private health insurance in Ireland.
- Section 2 sets out why a robust risk equalisation system is required.
- Section 3 summarises the risk factors used in other countries with risk equalisation systems.
- Section 4 considers what risk factors might be used in Ireland.
- Section 5 discusses the level of insurance benefits that should be included in any system.
- Section 6 consults in relation to the transitional system.
- Section 7 considers some other issues.

A number of questions are asked in this consultation paper and are summarised in Appendix 1. Stakeholders are invited to submit their views on these questions or on any other matters addressed in this consultation paper. Submissions should be submitted by post or by email to reach the Authority by 27th August, 2010.

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Please note that the Authority is a listed body under the Freedom of Information Acts 1997 to 2003 and proposes to make all responses to this consultation paper publicly available.

SECTION 1 – Private Health Insurance in Ireland

1.1 Regulation

The main legislative provisions for the regulation of the Irish private health insurance market are included in the Health Insurance Acts (1994 to 2009) and Regulations made thereunder. The **Principal Objective** of the Minister and of the Health Insurance Authority under this legislation includes the following statement:

“The principal objective of the Minister and the Authority in performing their respective functions under this Act is to ensure, in the interests of the common good, that access to health insurance cover is available to consumers of health services with no differentiation made between them, in particular as regards the costs of health services, based in whole or in part on the respective age range and general health status of the members of any particular generation (or part thereof)

The Irish private health insurance regulatory system is based on the key principles of **community rating, open enrolment, lifetime cover** and **minimum benefit**¹ and aims to ensure that private health insurance does not cost more for those who need it most. The system is unfunded, meaning that there is no fund built up over the lifetime of an insured person to cover their expected claims cost. Instead, the premium contributed by insured people is expected to cover the cost of claims and expenses in that year.

It is in this context that the concept of community rating and the principal objective of the legislation must be understood. Under community rating, everybody is charged the same premium for a particular plan, irrespective of age, gender and the current or likely future state of their health. The only exceptions to this rule relate to children less than 18 years of age, students in full time education and members of group schemes. Community rating therefore means that the level of risk that a particular consumer poses to an insurer does not directly affect the premium paid.

Open enrolment and lifetime cover mean that, except in limited circumstances specified in legislation, health insurers must accept all applicants for health insurance and all consumers are guaranteed the right to renew their policies regardless of their age or health status. An exception to these provisions is that they do not apply to certain “Restricted Membership Undertakings”. These undertakings mainly provide health insurance to certain vocational groups and their families and account for c. 4% of the health insurance market.

Under the current **Minimum Benefit Regulations**, all insurance products that provide cover for inpatient hospital treatment must provide a certain minimum level of benefits. It is considered necessary to regulate the minimum level of benefits in order to support

¹ These and all terms in bold are explained in Appendix 6 - Glossary

community rating and because of the complex and specialist nature of private health insurance products. The Minister has asked the Authority to carry out a consultation process on the level of Minimum Benefits. A separate consultation paper on this topic will be issued shortly by the Authority.

1.2 Measures to support Community Rating

1.2.1 Risk Equalisation

Risk equalisation is a process that aims to equitably neutralise differences in insurers' claim costs that arise due to variations in the health status of their members. Where it applies, risk equalisation involves transfer payments between health insurers to spread some of the claims costs of high-risk members amongst all the private health insurers in the market in proportion to their market share. Risk equalisation is a common mechanism in countries with community rated health insurance systems.

In 2003, the then Minister for Health and Children introduced a **Risk Equalisation Scheme** under the Health Insurance Acts (the "2003 Scheme"). Subsequently, on the advice of the Authority, the Minister decided to commence payments under this Scheme with effect from 1 January 2006. For a number of years there was a stay on transfer payments under this Scheme due to legal proceedings. Ultimately, in 2008, the Supreme Court quashed the Scheme.

The 2003 Scheme provided for risk equalisation of in-patient costs on the basis of age and gender, i.e. the factors used in assessing the risk of an insurers' population were age and gender. It also included provisions allowing the Authority (under certain circumstances) to include a measure of hospital utilisation in the calculation of risk equalisation payments. These provisions were never implemented.

The Health Insurance Acts continue to provide that the Minister may introduce a risk equalisation scheme. Under the current provisions, such a scheme would only apply to products that contain cover for inpatient hospital treatment and would not apply to restricted membership undertakings.

1.2.2 Interim Measures to support Community Rating

The Health Insurance (Miscellaneous Provisions) Act, 2009 introduced a system of age based tax credits as **Interim Measures** to support community rating. The Act provides that **Open Membership Insurers** receive higher premiums in respect of insuring older people, but that older people receive tax credits equal to the amount of the additional premium so that all people continue to pay the same amount for their health insurance. In this way community rating is maintained but insurers receive higher premiums in respect of older people to partly compensate for the higher level of claims. The tax credits in 2009 were €200 for those aged 50 to 59; €500 for those aged 60 to 69; €50 for those

aged 70 to 79 and €1,175 for those aged over 80. The tax credits started from the 2009 renewal date.

In order to fund the system, Open Membership Insurers pay a Community Rating Levy in respect of all individuals covered for health insurance. In 2009, this levy was €60 for adults and €53 for children.

The tax credits in respect of policies commencing in 2010 are €200 for those aged 50 to 59; €25 for those aged 60 to 69; €75 for those aged 70 to 79 and €1,250 for those aged over 80. The community rating levy for policies commencing in 2010 is €85 for adults and €55 for children.

The tax credits are currently set so as to compensate insurers for approximately 50% of the difference between the market average claim costs for older ages and the market average claim costs for the whole insured population.

The community rating levy and tax credits, like the existing tax relief at source of 20% of premium, are administered by the health insurance undertakings and the Revenue Commissioners.

The legislation provides that the interim measures will be in place for three years. In May 2010, the Minister for Health and Children stated that it is proposed that a new robust risk equalisation system would apply from 2013 and that a transitional system will apply from the end of the interim measures until the commencement of the robust system.

1.3 Government Statement

The Government, on 27th May 2010, announced a comprehensive strategy and set of actions for the health insurance market as follows:

“The Government’s strategy is designed so that

- the cost of health insurance for older and sicker people should be effectively supported by younger and healthier people and should be relatively affordable;
- individuals do not face premium increases from year to year solely because of their own age or medical history; and
- insurers compete on a level-playing field for customers in all age groups and can make reasonable profits.

The comprehensive set of actions include:

- the development of a full, robust new risk equalisation (RE) scheme to start in 2013;

- for 2010 and 2011, to continue the temporary interim tax relief/levy system, with payments to be set upon the annual recommendation of the Health Insurance Authority;
- the implementation of new transitional arrangements from 2012 that closely approximate the effect of the full RE scheme;
- making a substantial capital investment in the VHI in order to achieve its authorisation with urgency; with the actual amount to be determined between the Minister for Finance and the Minister for Health and Children in light of appropriate advices;
- the organisation of the sale of the VHI, with the appointment of financial advisers to advise on structuring and sequencing;
- in that context, the investigation of measures to achieve a more even balance of older customers among companies in the market;
- steps towards the introduction of primary care cover into required minimum benefits for health insurance policies;
- other actions to increase competition and choice in the market;
- the implementation of **Lifetime Community Rating**.

There will be appropriate consultation with stakeholders in the market, in particular, on the development of the new risk equalisation scheme and new minimum benefits. There will also be full engagement with the European Commission on key elements, including the new RE scheme and the injection of capital into the VHI in advance of sale.”

1.4 Market Statistics

1.4.1 Market Structure

Appendix 2 provides details of market shares, claim rates and other relevant statistics of the in-patient private health insurance market. Inter alia this Appendix shows the following:

- The market shares as of March 2010 are Vhi Healthcare - 62%, Quinn Healthcare – 23%, Aviva Health – 11% and **Restricted Membership Undertakings** – 4%.
- The rate of change in market shares between insurers has increased over the last two years.
- The change in market share between insurers has been much higher in the younger age groups than in the older age groups.
- Amongst the over 80’s, as of December 2009, Vhi Healthcare has a 94% market share of the open market insurers; Quinn Healthcare 4% and Aviva Health 2%. In the over 60’s Vhi Healthcare has an 83% market share of the open market insurers, Quinn Healthcare 13% and Aviva Health 4%.
- Three quarters of the insured population purchase a health insurance plan providing cover for a semi-private room in a private hospital.

- The claims cost increases sharply with age, for example, the claims cost for people aged 70 - 79 is over five times that of people aged 40 -49.
- The average claims cost per member of Vhi Healthcare is more than twice that of Quinn Healthcare and Aviva Health.
- Within age groups, Vhi Healthcare's members have on average a 50% higher number of hospital treatment days per customer than Quinn Healthcare or Aviva Health.

1.4.2 Trend in Market Size

As can be seen from Appendix 2, the health insurance market grew steadily for many years. The total market increased from 1,871,000 at the end of 2001, the year the Authority was established, to 2,299,000 at the end of 2008. In 2009, the total market size declined for the first time since the Authority started collecting market statistics and this decline has continued into 2010, so that at 31 March 2010 there are 2,246,000 insured persons. While the reduction to date is small in relative terms, the fact that the market has started to fall is significant and raises the question of whether the current economic downturn will result in a more substantial decline in the next few years. In a community rated market based on intergenerational solidarity, retention of existing profitable members and an influx of new younger members are key to market stability.

1.4.3 Market Segmentation

Between Insurers

In the first 10 years of a competitive market Vhi Healthcare experienced a relatively steady decline in market share of around 0.5 percentage points per quarter. The rate of decline in Vhi Healthcare's market share has increased in recent years and in the last 12 months Vhi Healthcare has lost market share at a rate of 0.8 percentage points per quarter.

Vhi Healthcare's losses in terms of market share are mainly in the younger age cohorts. By the end of 2009, Quinn Healthcare and Aviva Health, between them, had around 40% of the 30 to 39 age group, but only 6% of the over 80s. In addition, the Authority expects that, within age groups, there may also be significant variation in health status between insurers. The Authority is of this view in part because it considers that unhealthy people may be less likely to switch insurer due to the perceived risks involved.

Over the period since competition began, all insurers have been able to recruit a significant number of younger and healthier consumers. However, it is worth noting that, over much of this period, favourable economic conditions, including substantial employment and population growth, existed in Ireland. These favourable economic conditions assisted all insurers in recruiting younger customers. In 2009, the number of people insured under the age of 30 fell by more than 16,000.

Within Insurers

Because the interim age related tax credits currently only compensate for approximately 50% of market claim differences for different ages, it is profitable for insurers to recruit younger healthier consumers and avoid older less healthy ones. There is an incentive to sell different products to older and younger consumers in order to allow differential pricing. Despite community rating, there is evidence of this in the market place. What we have in the market at present, therefore, is a diluted form of community rating, which reflects the limited support to community rating provided by the interim tax credit / levy system.

Insurers have run special offers/marketing campaigns aimed at preferred segments of the market. These have involved one day sales on corporate plans, products aimed at group schemes offering more favourable terms and additional benefits that are aimed at younger customers. All insurers have better value plans, the full details and prices of which are not easily found on their websites. These plans are sold directly to lower risk corporate group schemes. Certain measures, for example prior notification of new products to the Authority, introduced by the Health Insurance (Miscellaneous Provisions) Act 2009 address some of these issues to an extent.

There are currently c. 200 private health insurance plans available in Ireland. Many of them offer similar benefits at significantly different prices. This differential pricing can reflect differences in the risk profile of the people sold each product.

1.5 The effect on the market of the changed economic conditions

The differences that changed economic conditions appear to have made to the market are firstly that consumer's price sensitivity appears to have increased and that there may now be greater price competition for younger and healthier people. Secondly, younger people in particular appear to be less likely to take out health insurance and more likely to allow their policies to lapse or to switch to a lower cost product or provider. An insurer with a younger age profile may be in a financial position to offer discounted insurance plans, which are likely to be targeted at younger people. An insurer with an older age profile may endeavour to further segment its risks so that more expensive products are sold to older and less healthy customers while other products are designed to appeal to younger people and to compete with the products of its competitors. Products marketed to younger and healthier people can be deliberately designed with features to discourage older and less healthy people from purchasing them.

Furthermore, the absence of a robust risk equalisation system may have a negative impact on the financial and competitive position of an insurer with a worse risk profile. In the changed economic conditions a number of effects may have combined to accentuate market trends, viz;

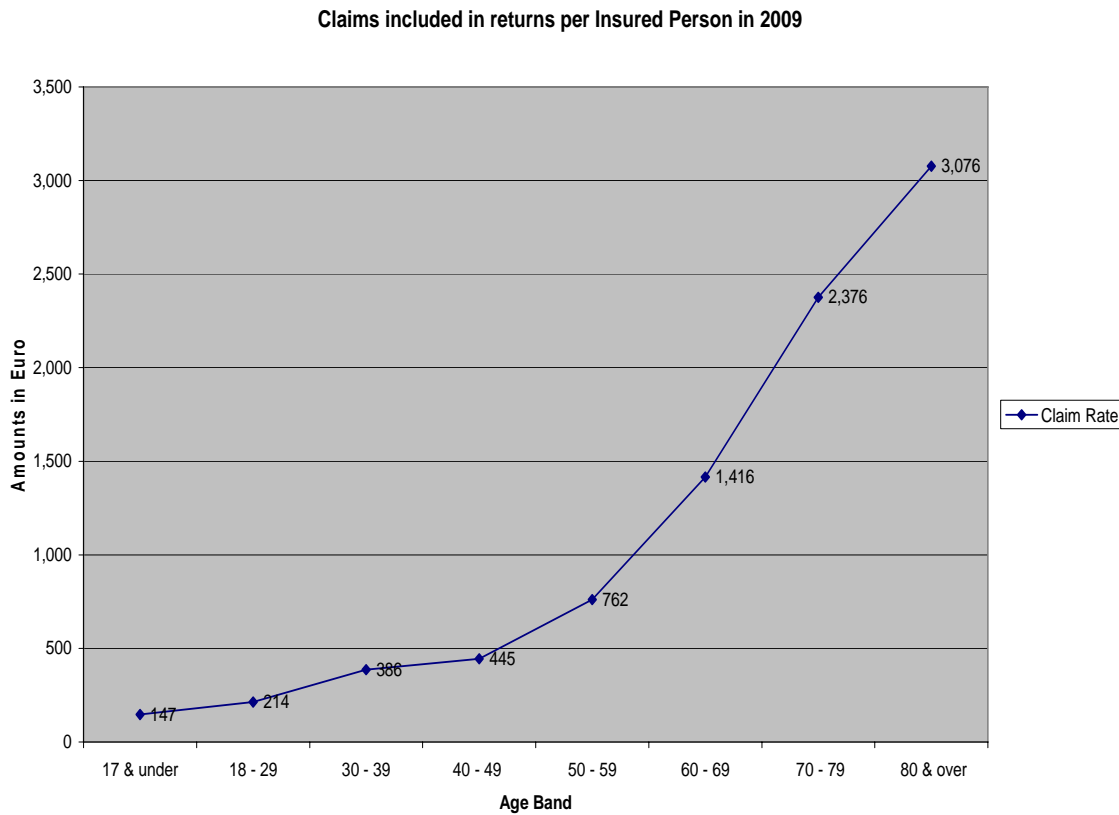
- a) In view of the fact that the interim measures to protect community rating do not equate to a robust risk equalisation scheme, insurers with a better risk profile are in a position to offer cheaper policies targeted at younger consumers. Consequently, an insurer with a worse risk profile might be expected to experience an increased rate of lapsing with negative consequences for its premium income, but without a similar reduction in its claims.
- b) The economic environment may have led to a reduction in the inflow of young first time health insurance consumers.
- c) In the absence of a robust risk equalisation system, insurers may have a strong commercial incentive not to sell insurance to older less healthy consumers.
- d) The current participants in the market are now all well established with the result that relative risk profile advantages and disadvantages may now be a more significant issue.

In this context, it is possible that an insurer with a less advantageous risk profile would lose market share in the younger age cohorts more rapidly, encouraging it to sell different products to older and younger consumers in order to allow differential pricing. Alternatively it might be forced to apply higher price increases or incur increasing financial deficits.

SECTION 2 - The Need for a Robust Risk Equalisation System

While the interim measures support the operation of community rating, they do not equate to a robust risk equalisation system. In a community rated market without a robust risk equalisation system, older and unhealthy consumers tend to be extremely unprofitable on average.

The following chart illustrates how market claims increase with the age of the insured person.²



In the absence of a robust risk equalisation system to support community rating, the chart shows that younger and healthier customers will be profitable while older and less healthy customers will be unprofitable. As a result the following consequences are likely (in point of fact, the market has, in the opinion of the Authority, been exhibiting these effects for some time already):

- Insurers will attempt to segment their risks so that older and unhealthy customers are sold products that cost more or include a lower level of benefits so that their custom is less likely to be unprofitable.
- Insurers will design and market products that are attractive to the better risks.

² Source of data: Information Returns for the first and second half of 2009

- Insurers with more favourable risk profiles are protected from real competition from insurers with less favourable risk profiles. Product promotion will feature risk selection and marketing spend in preference to product quality and service.
- The most profitable insurers will be those that can best use marketing strategies to attract healthy lives and avoid unhealthy lives. not necessarily those that provide the best service
- Insurers with worse risk profiles are obliged to charge higher premiums or incur losses. Switching of younger customers may exacerbate their problems.

Certain measures, for example prior notification of new products and minimum time periods of 31 days for any special offer, introduced by the Health Insurance (Miscellaneous Provisions) Act 2009 have addressed some of these issues to an extent. However the Minister and the Authority are of the view that the only method of properly protecting community rating is to introduce a robust risk equalisation system that sufficiently reduces the financial incentive to avoid insuring old and unhealthy lives.

2.1 Likely market developments in the absence of a robust risk equalisation scheme

In a community-rated market without robust risk equalisation, insurers with lower risk profiles will tend to be more profitable, other things being equal. Also, while insurers that meet the needs of healthier consumers would be expected to benefit from the profitable custom of healthier consumers, insurers that attract less healthy consumers by meeting their needs would be penalised by incurring claim costs that are higher than the community rated premium. As a result, in the absence of a robust risk equalisation system, insurers will be incentivised to design products so that they are not attractive to older and less healthy consumers. On the other hand, both consumers and efficient insurers would benefit from a properly functioning competitive market. Consumers would benefit from price and product competition. Insurers that design, sell and administer products in a cost effective manner that are attractive to the market would be profitable. This is not the case in the current community rated health insurance market which does not have a robust risk equalisation system.

2.1.1 Impact on consumers

Risk selection and segmentation are vital to the commercial success or failure of health insurance providers in a community rated market without a robust risk equalisation system. In order to compete in such a market, it would be expected that insurers would focus their commercial activity on improving their risk profiles rather than, for example, on improving their efficiency. As younger and healthier consumers are more likely to be profitable, insurers would actively seek them out as customers and these customers would be likely to benefit, in the short to medium term. As older less healthy consumers are not as profitable, insurers may make their products less attractive to them. Insurers may market themselves in a manner so that older and less healthy consumers are less likely to

be aware of new more competitive plans aimed at younger healthier consumers. This could be done by introducing new more competitive products aimed at new customers while the existing customers are left on older products that offer less competitive terms. Despite the rules regarding community rating and open enrolment, a range of tactics are open to insurers to assist them in risk selection and risk segmentation and the Authority would expect insurers to increasingly adopt such tactics in the absence of a robust risk equalisation system. The result will be that older and less healthy people will increasingly pay more for health insurance than younger and healthier consumers. This is contrary to the principal objective of the Minister and the Authority under the Health Insurance Act, 1994.

In the absence of a robust risk equalisation system the marketing of health insurance will be dominated by risk selection and segmentation. Insurance companies will comply with the law in relation to community rating and open enrolment but, in the absence of a robust risk equalisation system, the legislation will incentivise marketing and sales behaviour that will undermine these principles.

2.1.2 Impact on the market

A systemic issue arises for the market because risks are created for the long term viability of insurers with less favourable risk profiles and consequently for the stability of the health insurance market as a whole. Regardless of its level of efficiency, an insurer with a less favourable risk profile at a product level will be obliged to either have higher premiums than the market or incur significant losses. If its premiums are higher than the market it is more likely to lose younger than older customers and its worsening risk profile may oblige it to increase premiums further, resulting in a cycle. It is important to note that, because competition is distorted, an insurer would incur such difficulties regardless of its level of efficiency or the attractiveness of its products; such difficulties would result directly from its risk profile in the absence of a robust risk equalisation system.

2.1.3 Wider impact

As noted above, insurers will have a strong incentive not to market health insurance to older and less healthy consumers and to sell products that do not cover treatments used by older people. If insurance products do not cover treatments required by older or less healthy people or if a significant number of these people allow their insurance to lapse then there will be a significant reduction in demand for private hospital services and a corresponding increase in demand for public hospital services.

2.2 The need to include factors other than age and gender

The Minister and the Authority are of the view that the full benefits for consumers of a community rated market will not be achieved in the absence of a robust risk equalisation system that sufficiently addresses **health status** differences as well as age and gender differences. In the absence of a robust risk equalisation system, the Authority is of the

view that insurers do not have an incentive to meet the needs of less healthy people. Insurers are likely to aim to select better risks and segment their risks so that less healthy people pay more for insurance. Competition is therefore distorted so that success in the market is determined more by risk selection than by providing services and value.

SECTION 3 – Summary of Risk Equalisation Systems in Other Jurisdictions

This section sets out a summary of risk equalisation systems in Australia, Belgium, Netherlands, Israel, South Africa and US Medicare which are described in detail in Appendix 3. It is recognised that health insurance systems vary significantly between countries which makes it difficult to compare risk equalisation systems. Australia and South Africa, like Ireland, have voluntary private health insurance markets, though the South African market has yet to introduce payments under its risk equalisation system. Belgium, Israel and the Netherlands have systems that involve near universal compulsory health insurance. US Medicare provides health insurance for those over the age of 65 and those under the age of 65 with certain disabilities.

The table below summarises the **risk factors** used in the jurisdictions that the Authority has researched. Age is used in all of the systems reviewed. Gender is used in Belgium, the Netherlands and the United States. All of the systems reviewed also include other measures of risk status and each of them pools expenditure rates (to some extent) when calculating risk equalisation / compensation rates. Pooling expenditure in this way, in effect, includes expenditure as a risk factor. Further details of these systems can be found in Appendix 3.

Country	Age	Gender	Other risk factors	Further details on page number
Australia	Yes	No	Claims exceeding AUS \$50,000 (currently approx equal to €30,000)	37
Belgium	Yes	Yes	-In receipt of benefit from specific disability -Address of insured person -In receipt of welfare benefits -Mortality in the time period -Home nursing care	38
Israel	Yes	No	Diagnosis in respect of 5 “severe diseases”	40
Netherlands	Yes	Yes	-Address of insured person -Employment status -Prescription drug group -Diagnosed with specific conditions -Claims exceeding	42

			€12,500	
South Africa	Yes	No	-Diagnosed with specific conditions -Maternity	45
US Medicare prior to recent reforms	Yes	Yes	-In receipt of benefit from specific disability -Disability/welfare status -Institutional status -Diagnosis with a specific condition	48

This review of international systems shows it is the norm in other jurisdictions to include measures of **health status** other than age and gender in a risk equalisation / loss compensation system.

These additional risk factors might be categorised under three main headings:

- **Underlying risk factors**
- **Diagnosis related risk factors**
- **Resource usage factors**

Underlying risk factors are factors for which there is an objective classification method over which the insurer has no or limited effective means of controlling or interpreting but which is expected to be correlated to the claims cost of an individual. Examples might be age, gender, disability status, address, occupation status, occupation, welfare support, mortality, living alone or maternity.

Diagnosis related factors relate to medical conditions that are medically certified or are being investigated in an insured life which might be expected to be correlated to the claims cost of an individual. Examples might be specific conditions or groups of conditions.

Resource usage factors are factors that are directly related to the claims experience of insurers. Examples might be expenditure incurred or hospital bed utilisation.

Appendix 3 describes the features of the international schemes in more detail. Some of these schemes are prospective or include prospective elements. An advantage of prospective schemes is that it is possible to devise prospective schemes that result in a lower level of random fluctuation / seasonality and greater predictability of payments. However, such schemes involve predicting some of the parameters that influence the calculation of transfers in advance and, insofar as these predicted parameters will differ from experience, the amount transferred will differ from the amount that would have been transferred if the calculations were based on actual experience. In this context, the

Authority, on balance, favours the use of a retrospective scheme as we consider that its greater accuracy is preferable to the greater predictability of a prospective scheme. In addition, the features of a retrospective system can be designed in such a way as to reduce random fluctuation and increase predictability. Consequently, the examples included in this paper are examples of retrospective calculations.

SECTION 4 – Consideration of Different Risk Factors

As stated in Section 2, the Authority considers that, unless a risk equalisation / loss compensation system allows for additional risk factors other than age and gender, insurers will be incentivised to engage in risk selection and segmentation with significant negative consequences for less healthy people. Also, if risk factors other than age and gender are not included in a risk equalisation system, insurers of less healthy individuals will be at a competitive disadvantage.

4.1 Underlying risk factors:

Underlying risk factors are factors for which there is an objective classification method which the insurer has no or limited effective means of controlling or interpreting but which may be expected to be correlated to the claims cost of an individual. Examples might be age, gender, disability status, address, occupation status, occupation, welfare support, mortality, living alone or maternity.

A significant benefit of using underlying risk factors in a risk equalisation system is that they have no or limited impact on incentives for insurers to control costs or resource usage.

With regard to the underlying risk factors listed above, some of them are proxies for socio – economic group. On average, members of the lowest income socio-economic groups are less healthy than members of higher income socio-economic groups. Proxies for socio economic group are, therefore, particularly relevant in risk equalisation systems applicable in compulsory private health insurance markets, where all groups are insured. In Ireland, only c. 9% of the insured population is from the two lowest income socio-economic groups. As such, there may be less benefit in including these proxies for socio economic class as risk factors.

Address of the insured person may be related to claim rates for other reasons. In particular proximity to more expensive healthcare facilities may influence the cost of claims. For example, insured persons in Dublin may be more likely to use private or higher cost private hospitals because there are a larger number of such hospitals in Dublin, while insured persons in rural areas may be more likely to use a public hospital due to the absence of conveniently located private hospitals. The absence of a comprehensive postcode system in Ireland might raise issues in respect of using address of the insured person as a risk factor. Also, the Principal Objective of the Minister and the Authority set out in the legislation refers only to the need to avoid risk selection on the grounds of age or general health status. Other issues that influence claim rates are not included in the Objective.

Another risk factor, which is used in Belgium, is being in receipt of benefit from a specific disability. It may be that disability status would be correlated with claim rates and it is difficult to see that including disability status as a risk factor in a risk

equalisation scheme would result in material perverse incentives. An issue arises as to how disability status would be defined and verified. One option might be to include “in receipt of a disability pension” as a risk factor, although consideration would need to be given as to how this data could be obtained and verified.

Q4.1 What are your views on using underlying risk factors in a risk equalisation scheme?

Q4.2 What underlying risk factors should be used?

Q4.3 What data should be collected from undertakings in respect of underlying risk factors?

Q4.4 Should underlying risk factors be fully or partially equalised?

Q4.5 What are your views on the difficulties in collecting and auditing data and how can these issues best be tackled?

Q4.6 How can confidence be established that the data returned is provided on a consistent basis by each of the insurers? What are the costs of establishing such confidence?

Q4.7 Would a risk equalisation system based on underlying risk factors (in addition to age and gender) be sufficiently effective in supporting community rating?

4.2 Diagnosis Related Factors

Diagnosis Related Factors relate to illnesses that are medically certified or are being investigated and might be expected to be correlated to the claims cost of an individual. Examples might be **Diagnostic Related Groups** or specific illnesses.

Many risk equalisation schemes use medical diagnosis as a measure of health status. The main difficulty with this approach is obtaining and verifying consistent data from each insurer. A number of schemes confine this measure to a small number of chronic illnesses, thereby reducing the complexity of the scheme. However, it is unclear how effective this approach would be in Ireland because much of the expenditure on chronic illnesses is paid by the public rather than the private health system. Issues would include whether a small number of conditions (for instance asthma, high blood pressure etc) are responsible for a significant proportion of private healthcare expenditure and whether it would be possible to obtain consistent and verifiable data on the diagnoses of these conditions from each insurer.

Another approach would be to use **Diagnosis Related Groups (DRGs)** as a classification basis for a risk equalisation system. There are many versions of DRG classifications. Most include a large number of DRGs (c. 650 in the HSE Casemix system). Coding and verifying that the coding is accurate and consistent between insurers might be a complicated and expensive process. It might also involve additional workload for hospitals. Issues may arise in the extent to which the insurers use DRG coding, whether it is used consistently between insurers and how DRG returns could be satisfactorily verified. Any system would also have to be cognisant of the phenomenon of DRG drift

whereby, when coders receive compensation for more complex or costly DRGs, there is an incentive to upcode the complexity of the DRG codes.

It should be noted that DRGs used by the HSE relate only to episodes of hospital care. It might therefore be beneficial to adjust any DRG approach used in order to avoid a bias towards hospitalisation where effective treatments outside of hospital are available and to allow for the rewarding of appropriate use of preventative medicine / treatments including the management of chronic diseases.

Q4.8 What are your views on using diagnosis related risk factors in a risk equalisation scheme?

Q4.9 What diagnosis related factors should be used?

Q 4.10 What data should be collected from undertakings in respect of diagnosis related factors?

Q4.11 What are your views on the difficulties in collecting and auditing data and how can these issues best be tackled?

Q4.12 Do issues arise for private and public hospitals?

Q4.13 How can confidence be established that the data returned is provided on a consistent basis by each of the insurers? What are the costs of establishing such confidence?

Q4.14 Should the differences in costs between different diagnosis risk factors be fully or partially equalised?

Q4.15 Would a risk equalisation system based on diagnosis related risk factors be sufficiently effective in supporting community rating in the best interests of consumers?

If you favour using DRGs:

Q4.16 Should insurers provide the data at a DRG level or at a DRG Category level?

Q4.17 How would you adjust the DRG approach in order to avoid a bias towards hospitalisation where effective treatments outside of hospital are available and to allow for the rewarding of appropriate use of preventative medicine / treatments?

Further detail on how a diagnosis based risk equalisation system might work in practice is set out in Appendix 4.

4.3 Resource Usage

Resource usage factors are factors that are directly related to the claims experience of insurers. Examples might be expenditure incurred, **hospital bed utilisation** or **pharmaceutical cost groups**.

Risk equalisation systems in many jurisdictions use resource usage as a proxy for **health status** risk factors. This has the advantage that the data is readily available and easier to verify. A disadvantage of including resource usage in a risk equalisation system is that

insurers receive compensation when their insured persons use healthcare resources. This reduces the incentive for insurers to control the use of valuable healthcare resources, which can impact health insurance premium inflation.

A further complication in Ireland is that different products provide different levels of cover. For instance some products only provide cover for semi private rooms in a public hospital while other products cover private rooms in all private hospitals. Therefore, in part, expenditure differences will relate to product differences rather than health status differences. This issue might be mitigated by excluding higher levels of cover from the system or by only partially equalising differences in expenditure per insured person, as for instance in the Australian system.

In order to reduce the impact of different products, a factor such as the number of treatment days could be used instead of the level of expenditure. However it does not separate out all differences in the way insurers conduct business or all differences in the level of cover.

The reliability of the average treatment days per member also relies on the assumption that the “value” (in terms of the underlying healthcare cost) of each treatment day is the same for each member and for each insurer. The cost of treatment days could vary with the type of treatment (for example if expensive drugs or medical devices are used) and, therefore, using treatment days per member may not fully capture differences in the risk profiles of insurers.

This issue might be partly mitigated by incorporating pharmaceutical cost factors in the calculations.

Regardless of whether risk equalisation / loss compensation uses expenditure, treatment days or pharmaceutical costs, including resource usage factors in a system reduces the incentive for insurers to control these resources. It may therefore be appropriate that resource usage factors should not be fully equalised. Instead they might only be partially equalised in order to ensure that sufficient incentive remains for insurers to control the usage of resources.

Q4.18 What are your views on using resource usage related risk factors in a risk equalisation scheme?

Q4.19 What resource usage factors should be used?

Q4.20 What data should be collected from undertakings in respect of resource usage factors?

Q4.21 Should the differences in costs between different resource usage risk factors be fully or partially equalised?

Q4.22 Would a risk equalisation system based on resource usage related risk factors be sufficiently effective in supporting community rating?

Further detail on how a resource usage risk equalisation system might work in practice is set out in Appendix 5.

4.4 Proxies for Health Status

This paper discusses a number of different methods of measuring health status that could be used in a risk equalisation system. None of these proxies are functions of health status alone but also, depending on the factor chosen, may be influenced by differences in products, differences in claims management, prevention measures or differences in coding.

Q4.23 This consultation paper has suggested some possible measures of health status (underlying risk factors DRGs, hospital utilisation etc) that could be used in addition to age and gender. Are there other measures that might be adopted?

Q4.24 Is it necessary to use more than one health status measure in a risk equalisation system, in order to ensure that it is effective in supporting community rating?

SECTION 5 – Benefits to be included

Open market insurers that provide cover for inpatient treatment are obliged to make half yearly information returns to the Authority in relation to the claim paid in that half year. Statutory Instrument No 294 of 2009 sets out the rules that apply to undertakings in making these half yearly information returns. These rules are set so that claims cost included in returns are based on the benefits that are provided in the majority of health insurance contracts but exclude the “luxury” element of claims cost and exclude benefits paid that do not relate to a hospital stay. Schedule 1 of this Statutory Instrument sets out the maximum amount of claims cost to be included in returns. These are summarised below.

Benefit	Current Maximum
In patient / day patient in publicly funded hospital	Amount charged
In patient / day patient private hospital	Lower of €50 per day or 100% of actual charge (less €100 for each day in a private room)
In patient private psychiatric hospital	Lower of €20 per day or 100% actual charge
Childbirth normal delivery	€1,000 or actual charge if lower
Fixed price procedures - private hospitals	90% of amount paid
In Patient hospital consultant charges	Amount charged

A number of issues arise with respect to the benefits included in returns, including the following:

- The monetary amounts are based on amounts set in 2003 when introducing the Risk Equalisation Regulations. These amounts are now far less than the costs incurred in providing treatment.
- The amounts included in returns in respect of treatment in private hospitals, other than treatment provided under a fixed price procedure, is much less than if the treatment were provided in a public hospital because the monetary limit does not apply in respect of public hospitals.
- The exclusion of primary care and care in the community from returns may impact on relative incentives between such care and hospitalisation.
- The different treatment of fixed price procedures and other procedures may impact on relative incentives for insurers in negotiating contract terms with providers.

The Authority would welcome the submissions of stakeholders in relation to the benefits to be included in a robust risk equalisation system.

Q 5.1 To what extent should costs incurred in providing primary care, preventative treatment / care and care in the community be included in the system?

Q 5.2 How should the limits be set so as to exclude what may be regarded as luxury benefits? How should these limits be updated / kept under review?

Q 5.3 Should fixed price procedures be subject to different limits than other forms of treatment? How should fixed price procedures be defined?

Section 6 - Transition Arrangements

The Minister has also asked that the Authority consult in relation to the structure of a transitional scheme to apply in the Health Insurance market in 2012. While it is appreciated that the form of any transitional scheme will be impacted by the structure of the robust risk equalisation system in 2013, the Authority wishes to take this opportunity to request submissions from stakeholders in relation to the broad features of a transitional risk equalisation system.

The transitional scheme is to apply following the termination of the current interim system and until the implementation of the robust risk equalisation system.

One option is to continue with a tax based loss compensation system, such as the interim scheme. The current interim measures mainly rely on age and gender data. As a consequence, in order to ensure that the level of compensation for insuring older people is not disproportionate it is necessary to have regard to the claims profile of each insurer. The difference in claim costs between younger and older people varies for each insurer. It can be argued that the level of compensation for insuring older people should not exceed the difference between the claim costs for older and younger people for the insurer with sufficient credible data for which this difference is the lowest. The argument would be that higher differences in claim costs with other insurers may be due to efficiency or product differences that should not be compensated. However, it might be possible to enhance the current interim system by requiring that more detailed data be provided to the Authority, such that the Authority could use this data to assess whether differences in claim costs between insurers are due to the health status of the insured lives, rather than efficiency or product differences. If the Authority were satisfied that the differences in claim costs between insurers were due to health status, then it may be possible to establish different levels of compensation under a tax based loss compensation system.

In addition, the transitional scheme could also address the issues relating to the benefits included in risk equalisation that are set out in Section 5.

Q6.1 What are the views of stakeholders in relation to this approach?

Q6.2 What type of data would be necessary under this approach in order to assess the extent to which differences in claim costs for each age group between insurers arise from health status differences or from other causes?

Q6.3 Would it be possible to adapt this kind of approach when designing a robust system? How would this be done?

Section 7 – Other Issues

7.1 New Entrants to the market

There are three open market insurers that provide in-patient benefits in the Irish private health insurance market. There have been changes of ownership within these insurers and there is currently the likelihood of further changes in ownership. The level of competition could improve if additional insurers entered the market. In this context it is important that any new risk equalisation system takes account of the position of new entrants.

Q7.1 Should the system include special provisions for new entrants? How should these provisions be framed?

7.2 Lifetime Community Rating

The Government announced on 27th May 2010 its intention to implement lifetime community rating so that there is an incentive for people to take up health insurance earlier in their adult lives, rather than later. This will allow insurers to charge extra premiums where the insured person is over a certain age when they take out health insurance for the first time.

Q7.2 Should the risk equalisation transfers take into account the amount of lifetime community rating loadings that an insurer receives and if so, how should the transfers incorporate these loadings?

7.3 Minimum Benefit Regulations

The Government announced on 27th May that it would be asking the Authority to consult on a new set of minimum benefit regulations for health insurance, so that the emphasis on acute hospital care should be removed, and that Minimum Benefits should emphasise the trend towards primary care, care in the community and measures to promote health, including chronic disease management. The Authority is planning to shortly issue a separate consultation paper on minimum benefits.

Q7.3 How should the new risk equalisation scheme take account of changes in minimum benefit regulations?

7.4 Publication of results

The calculations of the Authority under the Risk Equalisation Scheme, 2003 were not published to protect confidentiality of insurers' data. Publishing the results would increase the transparency of the health insurance market and the need for risk

equalisation. It would also make it easier for a prospective new entrant to enter the market as it would have summary claims information of the existing insurers.

Q7.4 Should the risk equalisation calculations of the Health Insurance Authority be published?

APPENDIX 1 – Questions asked in Consultation Paper

Q4.1 What are your views on using underlying risk factors in a risk equalisation scheme?

Q4.2 What underlying risk factors should be used?

Q4.3 What data should be collected from undertakings in respect of underlying risk factors?

Q4.4 Should underlying risk factors be fully or partially equalised?

Q4.5 What are your views on the difficulties in collecting and auditing data and how can these issues best be tackled?

Q4.6 How can confidence be established that the data returned is provided on a consistent basis by each of the insurers? What are the costs of establishing such confidence?

Q4.7 Would a risk equalisation system based on underlying risk factors (in addition to age and gender) be sufficiently effective in supporting community rating?

Q4.8 What are your views on using diagnosis related risk factors in a risk equalisation scheme?

Q4.9 What diagnosis related factors should be used?

Q 4.10 What data should be collected from undertakings in respect of diagnosis related factors?

Q4.11 What are your views on the difficulties in collecting and auditing data and how can these issues best be tackled?

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Q4.23 This consultation paper has suggested some possible measures of health status (underlying risk factors DRGs, hospital utilisation etc) that could be used in addition to age and gender. Are there other measures that might be adopted?

Q4.24 Is it necessary to use more than one health status measure in a risk equalisation system, in order to ensure that it is effective in supporting community rating?

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Q7.1 Should the system include special provisions for new entrants? How should these provisions be framed?

Q7.2 Should the risk equalisation transfers take into account the amount of lifetime community rating loadings that an insurer receives and if so, how should the transfers incorporate these loadings?

Q7.3 How should the new risk equalisation scheme take account of changes in minimum benefit regulations?

Q7.4 Should the risk equalisation calculations of the Health Insurance Authority be published?

APPENDIX 2 – Relevant Statistical Analyses

This Appendix contains details in relation to market shares and claim costs that are relevant to this consultation paper. The data source is normally from the half yearly data returns provided by insurers to the Authority.

The following table shows the trend in market size since the establishment of the Authority.

	Market Size	Change in Period	Percentage of Population with health insurance
December 2001	1,871,000		48%
December 2002	1,941,000	70,000	49%
December 2003	2,000,000	59,000	50%
December 2004	2,054,000	54,000	50%
December 2005	2,115,000	61,000	51%
December 2006	2,174,000	59,000	51%
December 2007	2,245,000	71,000	51%
December 2008	2,299,000	54,000	52%
December 2009	2,262,000	(37,000)	51%
March 2010	2,246,000	(16,000)	50%

(i) Market Shares

The following table shows how market shares have changed since the establishment of the Authority.

Average for year	Vhi Healthcare	Quinn Healthcare*	AVIVA Health**	Restricted Membership Undertakings***
	%	%	%	%
2001	83	12	-	5
2002	81	14	-	5
2003	78	17	-	5
2004	76	19	-	5
2005	74	21	1	5
2006	72	21	3	4
2007	70	21	5	4
2008	67	21	7	4
2009	64	22	10	4
March 2010	62	23	11	4

* In respect of 2006 and earlier years the data relates to BUPA Ireland.

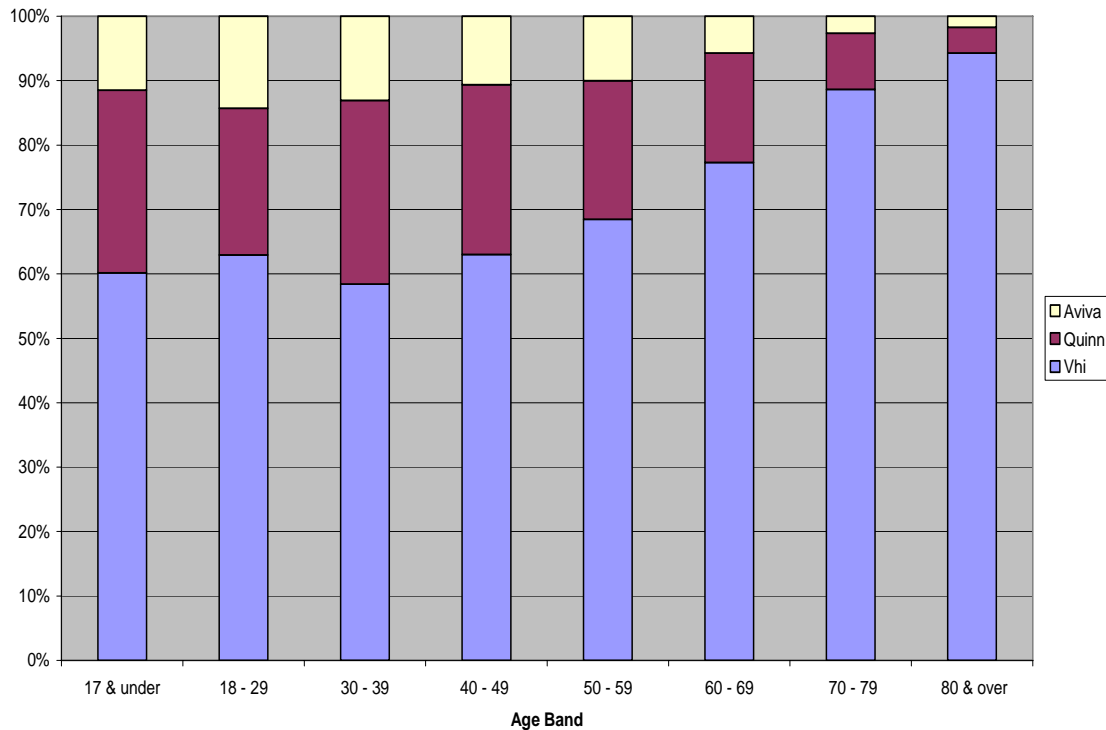
** In respect of 2007 and earlier years the data relates to VIVAS Health

*** Mainly, the Garda, ESB and Prison Officer Schemes

Vhi Healthcare has experienced a relatively steady decline in market share of c. 2 percentage points each year from when BUPA entered the market in 1996. Aviva entered the market in 2004. In 2009 Vhi Healthcare's market share decreased by 3 percentage points. Health insurance market shares are based on the number of insured persons per quarterly levy returns to the Health Insurance Authority.

When looking at market shares in the health insurance market, it is important to consider market shares within age bands. This is because it is much more beneficial to insurers to have high market shares in younger age groups, where claims are generally lower. The following chart describes the market shares of each of the open membership undertakings within age bands based on half yearly risk equalisation returns.

Market Shares by Age Group - 1 Jan, 2010



Quinn Healthcare’s market share varies from 4% of the over 80 age group to 29% of the 30-39 age group. Aviva Health’s market share varies from 2% of the over 80 age group to 14% of the 18-29 age group.

Insurers’ Age Profiles

It is almost inevitable that different insurers would have significantly different age profiles of customers and therefore have significantly different average level of claims per customer. With community rating, normal insurance company commercial activity is very unlikely to eliminate differences in customer age profiles between insurers. In practice in the Irish health insurance market, new entrants would mostly recruit younger customers because they are easier to recruit and in the absence of a robust risk equalisation system are much more profitable.

The table below summarises the current (1 Jan 2010) age profiles of insurers, that is, the percentage of each insurer’s membership that falls in each age band.

Age Group	Aviva Health %	Quinn Healthcare %	Vhi Healthcare %
0-29	46	43	37
30-59	48	49	43
60-69	5	7	11
70+	1	2	9

Recent changes in insurers' age profiles

The table below shows the change in membership of each insurer from the 1st Jan 2009 to 1st January 2010 by age range. The capture of young customers by Aviva Health and Quinn Healthcare has been a continuing trend of the marketplace over the last number of years. It should be noted that the increase in customers of age 60+ is considered to be due to ageing of the market's existing customer base.

	Aviva Health	Quinn Healthcare	Vhi Healthcare	Total
Up to age 29	23,713	9,931	(49,686)	(16,042)
30 - 59	30,644	13,191	(53,472)	(9,637)
60+	7,500	5,257	(7,846)	4,911
Total change in membership	61,857	28,379	(111,004)	(20,768)

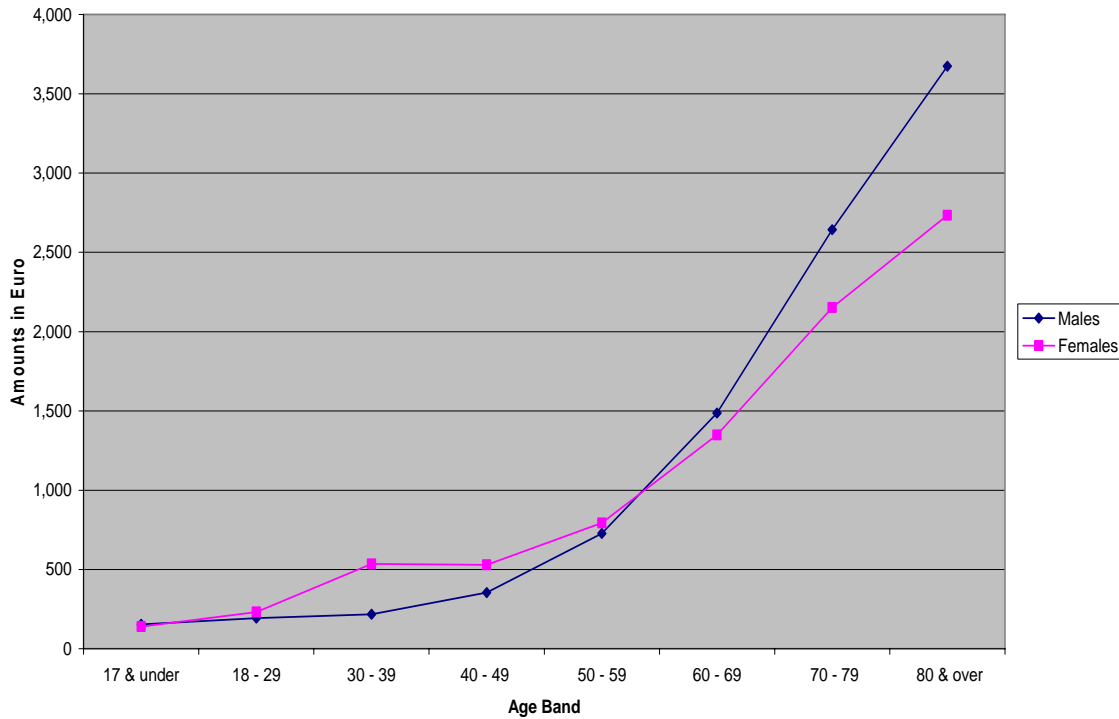
(ii) Claims

Claims variation by age

As health insurance in Ireland is community rated, premiums for a product do not vary by age or sex. However, the underlying claims paid by insurance companies vary considerably in accordance with the age and sex of the insured person. The following chart illustrates how claims vary with age and sex of the insured person³.

³ Data for the chart is taken from data returns provided to the Authority for January to June 2009 and July to December 2009 in accordance with Health Insurance Act 1994 (Information Returns) Regulations 2009. Claims data is only for the approximately 80% of claims paid in the market that are included in the returns.

Claims included in returns per Insured Person in 2009



The graph shows that the claim costs increase with age and are higher for females than males between the ages of 18 and 50, while claim costs are higher for males over age 60. In a fully risk rated market (i.e. one that does not operate community rating or open enrolment), the premiums for each age group would reflect the level of claims paid plus a margin for expenses and profit for that age group. Premiums would be expected to increase steeply at older ages, where medical evidence would be required for quotations. The above chart indicates that a 70-79 year old costs an insurer more than five times a 40-49 year old (excluding administrative expenses).

Variation in Claim Costs by Insurer

As noted previously, Vhi Healthcare's percentage of elderly customers is far higher than the corresponding figures for Aviva Health and Quinn Healthcare (9% over 70 as compared to 1%/ 2% for each of the other insurers). As the average claims cost of insurers is driven by the proportion of elderly customers, it is not surprising that the average claims cost of Vhi Healthcare in 2009 is significantly higher than for Quinn Healthcare or Aviva Health as the following table shows.

Insurer	Average claims cost paid *
Aviva Health**	€386
Quinn Healthcare	€409
Vhi Healthcare	€852

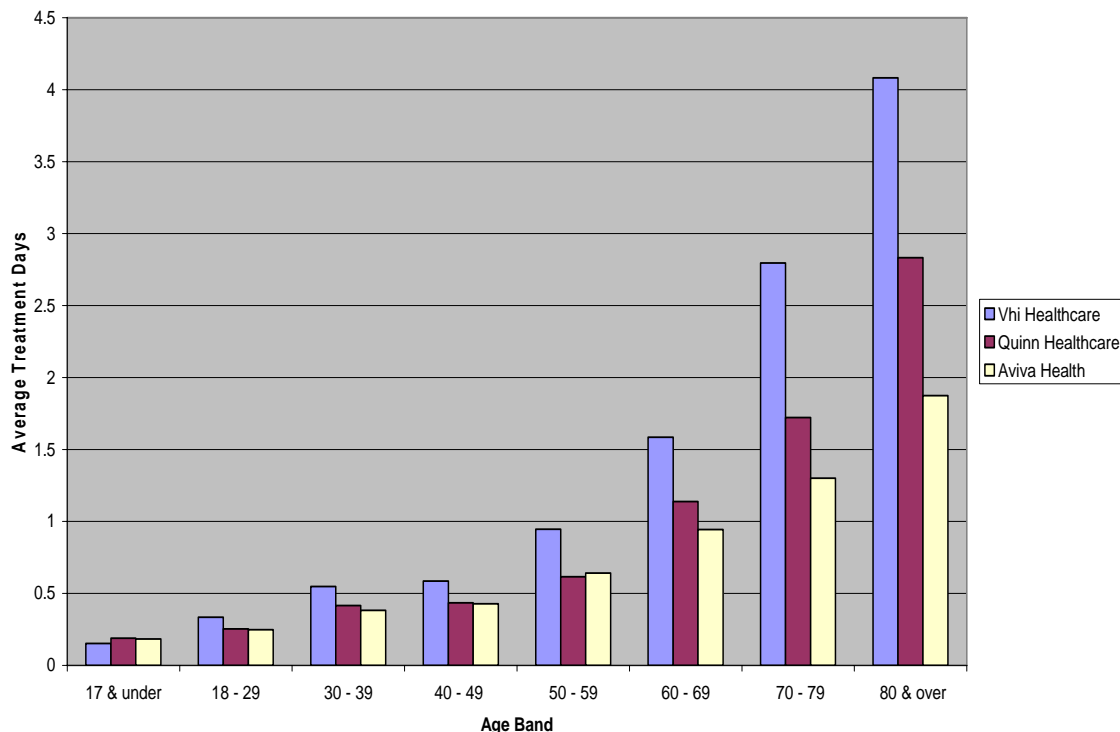
*These claims costs are based on prescribed benefits in data returns provided to the Authority in accordance with the Health Insurance Act 1994 (Information Returns) Regulations 2009. For this purpose number of insured members under age 18 has been divided by three to allow for their not being charged a full premium. The benefits included in returns as a % of total benefits paid are 83% for Aviva Health; 72% for Quinn Healthcare and 80% for Vhi Healthcare

**Aviva's claims cost is also influenced by its more recent entry to the market and its growth in numbers insured.

Variation of hospital utilisation within age-groups by insurer

As the following chart shows, Vhi Healthcare had the highest number of treatment days per insured person for all age groups, apart from the youngest age group. Quinn Healthcare had a higher number of treatment days per insured person for all those aged 60 and over compared to Aviva Health.⁴

Average Treatment Days by Age Band in 2009



⁴ Source: Information Returns for the first and second half of 2009

(iii) Breakdown of Health Insurance Market by Level of Cover

When people choose to buy health insurance, the main question they will ask themselves is what type of hospital accommodation they want to be covered for. The plan that the majority of the market choose is coverage for semi-private room and private room in public hospitals, along with cover for semi-private room in private hospitals, of 74%.⁵

Hospital Accommodation	Percentage of Market
Cover in Public Hospitals	16%
Semi-Private Room, Private Hospitals	74%
Private Room, Private Hospitals	5%
Full cover in Hi-tech Hospitals (semi-private or private room)	5%

(iv) Breakdown of the Health Insurance Market by Socio-economic Group

According to Health Insurance Authority research, the breakdown of the insured population by socio economic group is as follows:⁶

Socio-economic Group	% of health insurance market	% of Total Population
AB C1	55%	41%
C2 DE	35%	50%
Farmers	10%	9%

⁵ Source: Levy Returns submitted to the HIA for December 2009

⁶ Source: HIA Consumer Research for May 2010

APPENDIX 3 – Details of Risk Equalisation / Loss Compensation Systems in other jurisdictions

The summaries in this appendix have largely been based on documents publicly available on the internet. The Authority considers that these summaries provide a reasonable description of the risk equalisation systems adopted in the countries considered. However, the Authority does not make any assurance about the accuracy of the summaries or whether they reflect recent changes.

Australia

A new risk equalisation scheme was implemented in April 2007 and replaced the old reinsurance system. However, although the risk equalisation scheme made some changes to the detail of the calculations, the principles remained unchanged. Risk equalisation acts to average out the cost of hospital stays across the private health insurance industry. Insurers are required to participate in risk equalisation in all states where they have persons covered.

Risk equalisation consists of an age-based pool and a high-cost claimant's pool.

Age-based pool (ABP)

Pooling is based on summing a proportion of applicable benefits from each five-year age cohort from age 55. Applicable benefits include benefits paid for hospital and hospital substitute, and medical benefits associated with those hospital services, as well as eligible benefits paid for chronic disease management programs. The amount to be notionally allocated to the ABP at the end of each quarter is to be calculated in accordance with the formula $p \times C$, where:

- **p** is the percentage, taken from the table below, of the eligible benefit paid having regard to the age cohort into which the insured person falls and
- **C** is the gross benefit in the current quarter for the age cohort

Age cohorts	Age % of eligible benefits included in pool
0-54	0.0%
55-59	15.0%
60-64	42.5%
65-69	60.0%
70-74	70.0%
75-79	76.0%
80-84	78.0%
85+	82.0%

High-cost claimants pool (HCCP)

The HCCP deals with applicable benefits not equalised by the ABP. Pooling is based on applicable benefits accumulated by a claimant for the current and preceding three quarters, in excess of a threshold (currently \$50,000) after age-based pooling. The percentage of the benefits pooled is 82%.

Transfer between insurers

The ABP and HCCP allocations for each insurer in the state are then divided by the total number of lives for that insurer. The average for the state is then calculated by combining all the insurers in the state. An insurer whose average allocation is less than the state average will be required to pay an amount equal to the difference multiplied by the insurer's membership. Similarly an insurer that paid more than the state average will receive an amount equal to the difference. The calculation ensures that the amount paid into the pool equals the amount paid out.

Previous Scheme

The "reinsurance" scheme that operated until March 2007 was, in principle, similar to the current risk equalisation system, although there are significant differences in the detail. In particular, under the reinsurance system there were only two age groups: under and over age 65, instead of the eight groups described in the table above. The percentage of benefits included in the cost sharing pool was 79% for the over 65s, and nil for the under 65s. The larger number of age groups now adopted should in theory mean that there can be more exact equalisation for the effects of age.

In addition, under reinsurance, there was no HCCP. Instead, there was a provision for sharing 79% of the costs of hospital treatment for members under age 65 in respect of each day of hospitalisation in excess of 35 in a rolling 12-month period.

Belgium

The healthcare system in Belgium was significantly reformed with effect from 1995. At that time a system of risk equalisation was introduced. Currently, healthcare provision has two main elements:

- Compulsory insurance, covering a broad range of benefits, and
- Supplementary, non-compulsory, insurance designed to cover areas not included in the compulsory insurance

The compulsory insurance applies to the whole Belgian population, although before 2008 certain "minor" benefits (such as ambulatory and dental care) did not need to be insured for the self-employed. The self-employed can take out supplementary insurance in respect of these minor benefits. This summary concentrates on the compulsory

insurance, although some element of risk-adjustment has now been introduced into the market for supplementary insurance.

Compulsory insurance is provided by around 80 non-profit and non-government local sickness funds, each with up to about 500,000 members. In practice, these local funds are grouped into six national associations of sickness funds, including one fund operated by the public sector. These associations (which for the purpose of this paper are called “sickness funds”) bear the financial responsibility of their constituent local funds. The market is quite concentrated with around 75% of the overall membership being covered by two sickness funds.

The benefits covered under the compulsory insurance are set by the Government and are thus the same across all funds. Members are able to choose a sickness fund of their choice. However, funds are not obliged to accept every application for membership, although a fund would come under significant political pressure if it were seen to be openly discriminating as to which members could join. The public fund acts as an “insurer of last resort” for those individuals who cannot find cover elsewhere.

Policyholders can be required to pay a flat-rate premium to the sickness fund. This premium is community-rated, and must be the same for all members of a particular sickness fund. However, at present, these premiums are very small and so are not material in the choice of sickness fund. Funds therefore compete in terms of quality of service. In addition, the policyholder and his or her employer (if any) are required to pay income-related social contributions, collected by the Government.

Financing of health insurance

There are two main sources of finance for the healthcare system: income-related social contributions paid by members and collected by the Government, and Government subsidies met from tax revenue. Social contributions are paid by employees on their gross wages. The self employed and pensioners with higher income levels also pay these contributions, although those for the self-employed are only payable up to an earnings ceiling. These contributions are collected as part of the overall package of social security contributions and there is no attempt to earmark a specific level of contributions for healthcare.

Each year the Government determines the overall budget for healthcare provision, based on, amongst other things, previous years’ budgets and the expected change in the insured population. Based on this, the Government will provide a subsidy in addition to the social security contributions such that the total amount available equals the intended total healthcare budget.

The social contributions and any Government subsidy are paid in accordance with the risk equalisation system. Certain hospital costs are not met by the sickness funds and these are instead directly financed by the Government. A further source of income is the

flat rate premiums paid by members of sickness funds, but these amounts are currently very small.

Calculation of risk equalisation payments

This system is partly prospective and partly retrospective, i.e. the risk adjusted payment received by each fund is partly dependent on the expected healthcare cost of the fund based on the risk characteristics of its membership and partly dependent on the actual expenditure. The current weighting is 30% prospective and 70% retrospective. For example, the risk factors currently used for the prospective element include the following:

Age - five year age bands
Gender
Disability claim
Address
Welfare support
Mortality
Nursing care required

Calculations are carried out separately for employees and the self-employed.

At the end of each year a comparison is made between the risk equalisation payments received by the fund and the fund's actual expenditure. Funds that have expenditure higher than the payment received receive a further amount to partially offset that "loss". Similarly, funds that show a "profit" are required to relinquish part of that profit.

Israel

Healthcare provision in Israel has two main elements:

- Compulsory insurance, covering a broad range of benefits, and
- Supplementary, non-compulsory, insurance designed to cover areas not included in the compulsory insurance

Compulsory insurance applies to the whole resident Israeli population and is provided by sickness funds, which are required to accept all applicants (open enrolment). Members can choose a sickness fund of their choice. There are currently four, non-profit, sickness funds. The largest of the funds covers nearly 60% of the market. No premiums are paid directly to the funds.

The benefits covered by compulsory insurance are specified by the Government. In broad terms, the benefits cover primary, secondary and tertiary care, but excluding treatment relating to road accidents, maternity care and geriatric nursing services, all of which are financed separately.

Each sickness fund may provide the medical care under compulsory insurance through its own hospitals and clinics or by buying services from independent providers. Most hospital beds in Israel are operated by the Government, which sets the charging rates for use of their facilities. It is possible for the sickness funds to enter into preferred provider agreements, although they need the approval of the Ministry of Health.

Supplementary insurance might cover a higher standard of hospital accommodation, or treatments unavailable under the compulsory insurance. This insurance is provided by sickness funds and by commercial private insurers. Premiums are community-rated. Supplementary insurance is quite common, with over half (in the late 1990s) having such insurance, in most cases purchased from the sickness fund the individual has chosen for compulsory insurance.

Financing of Health Insurance

There are three main sources of finance for the healthcare system:

- Income-related social contributions paid by individuals and collected by the Government
- Government subsidies met from tax revenue
- Co-payments levied on individual members in certain circumstances

Every resident of Israel is required to pay health insurance contributions to the National Insurance Institute (NII). In addition the Government makes a contribution to the NII, which is financed out of taxation and which is deemed to include a contribution from employers

Individuals must make co-payments in order to receive certain treatments, for example for medicines, out-patient care and specialist consultations. Low income groups are exempted from making these payments. These co-payments are paid directly to the sickness fund and their level is chosen by each sickness fund, which means they are an aspect of competition between the funds. The money paid into the NII by individuals and the Government is then divided up between the sickness funds in accordance with the risk equalisation system.

Calculation of risk equalisation payments

In the Israeli system, monies are allocated to the sickness funds by the NII in accordance with a risk equalisation system. The system is prospective, although, in addition, there is provision for risk sharing and extra subsidies from the Government.

There are three elements to consider:

- The mean normative cost level (“the mean premium”)
- The risk adjustment scale
- Risk sharing payments for “severe” diseases

Each of these is discussed in turn below.

The mean premium

Each year the Government determines the normative cost of providing the benefits covered by compulsory insurance. In effect, it defines the total health budget available before allowance for any additional subsidies. The normative cost is updated each year. Therefore, this happens in the context of the Government's desired allocation of resources across different priorities. In theory, this process involves taking into account factors such as the level of health price inflation, changes in population and a "technological" factor (which acts to increase costs).

Risk adjustment scale

Currently, the only risk adjustment factor is age with the weightings for the 9 age ranges set in advance.

Risk sharing payments

The prospective risk adjusted payments discussed above are intended to exclude the cost of treating certain "severe" diseases. Instead, the fund receives a fixed payment each year for each member that is diagnosed with having one of the specified diseases. There are 5 such diseases (end stage renal failure requiring dialysis, gaucher's disease, thalassaemia, haemophilia and AIDS). Although these payments are termed "risk sharing", they do not attempt to reimburse the funds for the actual cost of treating these individuals.

In 2002, the total payments made under the risk sharing scheme amounted to around 5% of the funds' total risk adjustment revenues. When the risk sharing mechanism was introduced, there was a significant increase (of about 40% from 1995 to 1998) in the number of cases reported as having one these severe diseases.

Netherlands

The Netherlands has a system of near universal, compulsory health insurance, which is purchased from approximately 20 different sickness funds. The insurance is paid for by a mixture of community rated premiums and payments received from the Government which are in turn financed by social insurance contributions paid by employees, employers and the self employed and possibly by a Government subsidy.

This compulsory insurance covers the majority of medical treatments, including those delivered by general practitioners, medical specialists, clinical psychologists and midwives. Insurers are obliged to accept anyone who seeks cover. Policyholders (except those under the age of 18) are required to pay a nominal premium to the insurer. The

medical care that must be provided and the circumstances in which it must be provided is set out in legislation.

The income related contributions are deposited in the Health Insurance Fund (HIF) together with a State contribution equal to the nominal premium that would have been paid by those under age 18. Insurers receive payments from the HIF in accordance with the risk equalisation system. The insurers' costs are split into four separate sub headings:

- Fixed hospital costs
- Variable hospital costs
- Specialist medical care costs
- Other medical Costs

Different rules are applied to the calculation of risk equalisation payments in respect of each heading.

Prospective element

Before 1st October each year, the Government determines the risk adjusted capitation payments to be paid to each insurer for the following year, consistent with the total projected cost for healthcare. These payments are based on an assessment of the expected market membership for the following year, split according to the various risk factors. The current risk factors are as follows:

- Age – 19 age groups e.g. 0- 4; 5-9 etc
- Gender,
- Urbanisation – based on post codes the country is split into ten risk groups
- Employee status – e.g. unemployed, employed, pensioner
- 20 Pharmaceutical cost groups for illnesses such as epilepsy, Parkinson's disease, diabetes etc
- 13 Diagnostic cost groups based on prior hospital admission for osteoarthritis, angina pectoris etc

For each customer, the insurer receives a risk equalisation payment equal to the risk adjusted payment minus an allowance for the nominal premiums received by the insurers. The objective is that the total nominal payments equal the income related contributions payable).

Retrospective Element

The prospective payments are based on estimates, made in advance, of the size of the membership of each insurer and how it is broken down according to the various risk factors. In practice, it is unlikely that these estimates will reflect the actual membership of the insurers and therefore a retrospective adjustment is applied in order to recalculate the payments based on the actual membership numbers and characteristics.

In addition, there are four specific adjustments to the prospective risk equalisation payments: retrospective correction of total costs, compensation for high costs, retrospective equalisation and retrospective compensation. Finally, there is a “safety net” adjustment where the insurer’s costs diverge by more than a specified amount from the expected cost including the other retrospective adjustments.

However, it is the government’s aim to phase out the retrospective adjustments, apart from the adjustment for actual membership and the correction for total costs.

Retrospective correction of total costs

The aim of this is to compensate for the difference between the total costs as estimated under the risk equalisation system and the actual total costs, in each case, for the insurers as a whole. This calculation applies across all sub-budgets put together. Where total actual costs exceed the estimated costs, the risk equalisation payments to each insurer would be increased. Conversely, where total actual costs are less than the estimated costs, the risk equalisation payments would be reduced.

Compensation for high costs

This is designed to help equalise the costs arising from very high individual claims. A percentage of each individual claim exceeding a certain threshold is shared equally among the membership of each insurer. Currently the threshold is set at €12,500 and the percentage is set at 90%.

This element is not applied to fixed hospital outlays. The compensation for high costs is budget neutral and will not require additional Government subsidies.

Retrospective equalisation

Under this element of risk equalisation, a specified percentage of the difference between the risk adjusted capitation payment and the actual expenditure for each member is shared equally among the membership of each insurer. Therefore, those insurers whose costs in excess of the risk equalisation payments are more than the average will receive a payment from the HIF, while those whose costs are less than the average will make a payment to the HIF. This is budget neutral and involves no additional government subsidy. This payment is only applied to variable hospital costs and specialist medical care costs and the specified percentage is currently set at 30%.

Retrospective compensation

Retrospective compensation provides that each insurer receives from the HIF a specified percentage of their “loss” for each individual member. Similarly, the insurer pays the same percentage of any “profits” to the HIF. For this purpose, a profit is defined as the difference between the risk-adjusted capitation payments less the actual individual

healthcare expenditure. Retrospective compensation is not budget neutral and so may require additional subsidies from the Government.

This element of risk equalisation is applied to the fixed hospital outlays, with a specified percentage of 100%, and to variable hospital costs and specialist medical care costs, each with a specified percentage of 35%. With the percentage set at 100%, all of the insurer's costs are compensated for and there is no incentive to control these costs. The specified percentage has generally been reduced in order to increase the financial risk to insurers and thereby encourage more competition. However, it was felt that insurers were less able to influence fixed hospital costs and therefore the percentage for these costs was kept high.

South Africa

The provision of healthcare in South Africa is currently split between the State and private-sector medical schemes (in effect medical insurers). The State system provides healthcare to about 85% of the population, and this consists of a range of basic services, including primary care and hospital services. This system is financed by tax revenue, although it is generally regarded as being severely resource-constrained.

The remaining 15% of the population, generally the higher income groups, receive healthcare through insurance contracts taken out with a medical scheme. There were 110 medical schemes in operation in January 2009, of which 32 were open schemes and 78 were restricted membership schemes (generally schemes set up for a particular employer). The total membership of the schemes was about 8 million.

Legislation specifies the minimum level of benefits (the "Prescribed Minimum Benefits", or PMBs) that must be provided under the insurance contracts taken out with the medical schemes. Legislation also provides that these minimum benefits must be financed in full, without co-payments or deductibles, under all benefit options offered by the medical scheme. In practice, the PMBs represent less than half of the total benefits paid out by the medical schemes.

It is not currently compulsory for any individuals to take out insurance with a medical scheme. However, schemes are required to accept all applications for insurance (open enrolment). Premiums payable (including those for benefits in excess of the prescribed minimum) are subject to community-rating, except that the premium is allowed to depend on income and the number of dependants covered under the policy.

The medical schemes purchase care from independent providers, e.g. general practitioners, specialists and hospitals, and the schemes are permitted to enter into preferred provider arrangements. The Government would like to encourage greater use of public hospitals for the provision of healthcare, although in 2006 public hospitals represented less than 2% of the medical schemes' expenditure on hospital services.

It is the Government's long-term aim to establish a form of social health insurance, under which the population will be required to take out health insurance with a medical scheme. However, it is recognised that there will need to be significant reductions in the cost of healthcare insurance before it will be a practical option for the lower income groups. It is therefore anticipated that the reforms will focus initially on three areas:

- Introduction of a risk equalisation fund
- Reform of the tax subsidy for health insurance, currently paid to insured members
- Mandatory health insurance for the middle and higher income groups

The medical schemes purchase care from independent providers, e.g. general practitioners, specialists and hospitals, and the schemes are permitted to enter into preferred provider arrangements. The Government would like to encourage greater use of public hospitals for the provision of healthcare, although in 2006 public hospitals represented less than 2% of the medical schemes' expenditure on hospital services.

Risk equalisation has not yet been introduced, but "shadow" risk equalisation returns have been collected since January 2005 in order to allow the schemes and the regulator (the Council for Medical Schemes) the opportunity to prepare the systems needed to operate the risk equalisation scheme.

Financing of Health Insurance

The principal source of income for medical schemes is the premium paid by individual members. Some premiums can attract tax-relief. The medical schemes set the level of the premiums they charge, subject to community rating, although premiums can vary according to income and the number of dependants covered.

During the year, medical schemes will pay or receive contributions to or from the Risk Equalisation Fund (REF), based on how the risk profile of the scheme's membership compares with the industry average.

Calculation of risk equalisation payments

The proposed South African system of risk equalisation is structured in a prospective way, although many of the parameters underlying the payments are calculated retrospectively. In principle, the medical schemes receive payments from, or make payments to, the REF depending on how their risk profile differs from the industry average. Only medical benefits relating to the PMBs are taken into account for risk equalisation.

The medical schemes will provide data to the REF Registry on a monthly basis, showing the number of insured persons for each month in the quarter, broken down by the risk factors (e.g. age) in the REF Contribution Table. This table in effect shows the cost of treatment for a member split according to the risk factors. The Registry will then collate

the information provided by the schemes and create the REF Grids. These grids are used to determine the payments to and from the REF.

The following risk factors are proposed:

- Age
- Presence of a specified chronic disease
- Presence of multiple numbers of specified chronic diseases
- Maternity

It should be noted, in particular, that gender is not a risk factor, since it was considered that the maternity factor adequately allows for the cost difference between men and women. The specified chronic diseases are based on the diseases that must be covered under the PMBs, and include, for example, Asthma, Cardiac Failure and Cardiomyopathy, Chronic Renal Disease, Diabetes Mellitus (Type 1 and 2), Hypertension, Multiple Sclerosis, Schizophrenia and HIV/AIDS.

There has been comment on possible inconsistency of the categorisation of the chronic diseases between different medical schemes. A substantial amount of effort has been put into this area. For example, to help ensure that schemes consistently define chronic disease cases, guidelines have been developed, requiring proof of diagnosis (including classification based on the tenth international classification of disease (ICD-10)) and proof of treatment.

The REF Contribution Table is based on data collected from the schemes, showing this cost of providing the PMBs. In practice, this data would not be required every year, but only when more fundamental changes to the Contribution Table were being considered.

The data is analysed in order to establish the “raw price” of an insured person in each risk category (i.e. each age, disease, maternity group as discussed above). A number of adjustments may then be applied in order to convert the raw prices into the REF Contribution Table.

The adjustments are to allow for the following factors:

- Any material difference between the population on which the raw prices were based and the overall population to which the REF Contribution Table will be applied (e.g. because of expected changes in the take up of medical insurance); this does not affect the Contribution Table itself (which are costs per head) but it can significantly affect the calculation of the Industry Community Rate (see below).
- Inflation from the year of data underlying the raw prices to the year for which the REF Contribution Table will apply.
- The difference between the raw price costs and the “most reasonably achievable efficient cost”; initially this adjustment took the form of a factor of 80% applied to the raw prices. However, it now appears that this factor has been removed (i.e. it is set to 100%) since it is not considered that material efficiency improvements can be made, in the short-term at least.

- “Policy overlay”, which might reflect specific policy issues, e.g. to adjust for a perception of an unnecessarily large proportion of caesarean births in the private sector medical care.

The payment received by each scheme from the REF is then calculated as:

- a. the total standardised cost obtained by applying the per capita costs in the REF Contribution Table to the scheme’s membership numbers in each risk factor category, less
- b. the risk adjusted cost for the scheme calculated as the scheme’s total membership multiplied by the industry standardised average cost; the industry standardised average cost is calculated by applying the per capita costs in the REF Contribution Table to the membership numbers in each risk category for all schemes, and then dividing by the total membership for all schemes.

Where this is a negative amount, the scheme will make a payment to the REF.

United States Medicare

Healthcare in the USA is currently generally paid by insurance under one of the following arrangements:

- Employer-sponsored health care insurance
- Individually-purchased health care insurance
- Medicare which covers retired people age 65 and over, and some disabled.
- Medicaid which covers individuals with low income.

Public funding (federal, state, and local programs) made up about 47% of all US health care spending in 2007, with private funding providing the rest .

Medicare and Medicaid are both publicly funded. Medicare is a statutory, federally funded program, covering over 40 million eligible enrollees with annual expenditure over \$400 billion in 2007. It provides health insurance for people age 65 or older, those under age 65 with certain disabilities, and any age with End-Stage Renal Disease. Most eligible individuals get Part A cover automatically (see below).

Medicare has several parts viz.

- Part A (Hospital Insurance) - helps cover inpatient care in hospitals, skilled nursing facilities, hospice care, and some home health care.
- Part B (Medical Insurance) - helps cover medically-necessary services like doctors’ services and outpatient care, other medical services that Part A doesn’t cover (like physical and occupational therapists), and some home health and preventative services. Some “gaps” in Medicare can be covered privately.

- Part C (Medicare Advantage Plans) - provided by private insurers like HMOs and PPOs. They provide Part A, Part B, and sometimes Part D coverage.
- Part D (Medicare prescription drug coverage) - helps cover prescription drug costs.

Individuals can choose between Original Medicare (Parts A & B - managed by the federal government) or Medicare Advantage Plans (Part C). Medicare Advantage Plans must cover at least all of the medically-necessary services in the Original Medicare Plan, but they can charge different copayments, coinsurance, and deductibles. They may also provide extra benefits like Part D. The main types of Part C plan are Preferred Provider Organisation (PPO) Plans, Medicare Health Maintenance Organisation (HMO) Plans – private companies approved by Medicare and Private Fee-for-service (PFFS) Plans. All must offer plans and options approved by Medicare.

Medicare Advantage Plans (Part C) can compete on benefits or premiums but Part C plans may not compete or discriminate based on other factors (e.g. age or sex). They also receive capitation payments from Medicare. These payments have incorporated various measures of risk equalisation over the years (discussed later).

This note focuses on risk equalisation in Medicare Advantage Plans (Part C).

History of risk equalisation in Medicare

Parts A & B

Medicare began to risk-adjust payments to hospitals (Part A) as long ago as 1983, using a prospective payment system for inpatient services. This was designed to break the link between utilisation and reimbursement so that hospitals would have financial incentives to control their costs. The prospective payment was varied according to the risk that the cost of caring for a particular patient would be higher or lower than the cost of caring for the average patient. This form of risk adjustment applied to provider payments is sometimes called case-mix adjustment.

Part B covers a wide range of medical services: from Ambulance Services to Urgent (but non-emergency) Care. It is understood that many of these are procured under fee for service (FFS) contracts. In the coming years, these will be procured from new contract entities called Medicare Administrative Contractors (MACs), the bulk of which will cover the majority of Part A and Part B services. There is already competitive bidding for part D drugs.

Part C

More relevant for present purposes is risk adjustment in Medicare's managed care option: Medicare Advantage (Part C). This is the system by which private, Medicare-participating plans enroll Medicare beneficiaries and provide Medicare-covered benefits. This can be seen as a form of publicly-subsidised health insurance. Risk adjustment lifts or lowers the capitation payment that Medicare pays to the plan, according to patient characteristics that research has shown to affect the risk that the enrollee will have greater

or lesser health needs than average. Initially, the adjustment accounted only for demographic differences, but there has been a gradual shift (including some false starts) to more sophisticated adjustments.

The monthly capitation payments which Medicare makes to Medicare Advantage Plans are in lieu of the public expenditure which would otherwise be incurred by the Original Medicare, if enrollees (some 21% of the total in 2008) had not opted instead for a Medicare Advantage Plan. A 25% increase in Medicare managed care enrolment in 2006 led to a dramatic 48% increase in Medicare managed care spending (to \$72 billion in 2006), and a decline in traditional fee-for-service enrolment.

From 1985 until 1998, the capitation rates were set at 95 percent of the adjusted average per capita cost (AAPCC). This is a formula intended to estimate the costs that enrollees would have incurred, had they remained in fee-for-service (or original) Medicare. The adjustment was based on the average demographic cost factor for the actual enrollees in the county, divided by the average demographic cost factor for the county population. The original demographic adjusters were age, sex, Medicaid status (indicating poverty), and institutional status (for nursing home residents). Working-aged status was added in 1995.

Beginning in 1998, the capitation payments ceased to be recalculated annually from actual fee-for-service expenditure. Instead, they became based on a blend of national and local rates based on the 1997 AAPCC rates projected forward using national growth trends. Plans would receive the maximum of the blended rate, a minimum floor rate, or a 2 percent increase over the previous year's rate. The blended rate was intended to be phased in between 1998 and 2003, but the blended rate was only actually implemented in 2000. This was because of a budget neutrality constraint, stipulating that total payments could not exceed the amount applicable if payments were based wholly on county rates.

The Balanced Budget Act 1997 also mandated that capitation payments should become risk adjusted to account for differences in beneficiary health status. Beginning in 2000, 10% of the payment rate was risk adjusted using the Principal Inpatient Diagnostic Cost Group (PIP-DCG), with the remaining 90% demographically adjusted as under the old system.

The Balanced Budget Reform Act 1999 introduced bonus payments to induce Medicare Advantage Plans to start up in areas without plans. It also slowed down the introduction of PIP-DCG risk adjustment. Consequently, the PIP-DCG risk adjustment weighting remained at 10% from 2001 to 2003. It was subsequently replaced by a different method in 2004.

Beginning in 2004, there was a new method of risk adjustment, introduced by the Benefits Improvement and Protection Act of 2000. The aim is to use a risk adjuster that considers the "disease burden" of enrollees, further refined by including diagnostic information from multiple care sites, including outpatient and other ambulatory data. This version of the Hierarchical Condition Category model is known as Centers for

Medicare & Medicaid Services CMS-HCC model (Pope et al 2004). The 2000 Act also modified the calculation of the local area AAPCC-based rates in several ways.

The CMS-HCC risk adjustment method was phased in so that it would apply to a gradually larger percentage of the capitation payment, while the demographic only method applies to the declining remaining portion. Generally speaking, the CMS-HCC risk adjustment method applied to 30% of the capitation payment in 2004, 50% in 2005, 75% in 2006, and 100% from 2007 onwards.

Beginning in 2006, further changes were introduced by the Medicare Prescription Drug, Improvement, and Modernisation Act 2003. In particular, payments for local Medicare Advantage plans are based on competitive bids rather than administered pricing. CMS negotiates with providers on the basis of their expected local costs for the national average beneficiary. The CMS-HCC methodology is used to determine a plan benchmark. For a plan with a bid equal to or above its benchmark, CMS pays the plan benchmark, adjusted by individual enrollees' risk factors. For a plan with a bid below its benchmark, CMS pays an additional rebate of broadly three-quarters of the difference. The government retains the other 25%.

Health care Reform

On March 23, 2010, a comprehensive health reform act was signed into law. The main areas that will affect the financing of Medicare Advantage plans include the following⁷:

- > Payments to Medicare Advantage plans for 2011 will be frozen at 2010 levels
- > Reducing overall payments to Medicare Advantage plans so that they are more in line with costs under original Medicare; in practice, the benchmark cost for a plan will be linked to the original Medicare fee for service rates in the county and this would come into effect fully in 2017
- > Linking payments to a plan's quality rating
- > Reducing and modifying the rebate system with rebates allocated based on a plan's quality rating
- > Requiring plans to remit partial payments to the government if the plan spends less than 85% of income on medical benefits; furthermore, plan enrolment would be suspended for 3 years if the plan spent less than 85% for 2 consecutive years and the plan would be terminated if it was less than 85% for 5 consecutive years.

⁷ For example, see www.morganlewis.com/pubs/WashGRPP_PrescriptionDrugPrgm_LF_09apr10.pdf

APPENDIX 4 – How a Diagnosis Based Risk Equalisation System Might Work

(i) Data

The 2003 Risk Equalisation Scheme provided the Authority with data returns on the age / gender profile of insurers and on the level of hospital utilisation / claim costs broken down by age and gender. As discussed in the Consultation Paper, an alternative to using utilisation measures is to use diagnosis based measures. For such a system, rather than receiving data on hospital utilisation broken down by age and gender, the Authority would receive data on diagnoses broken down by age and gender.

One option for recording and returning data on diagnoses is to use Diagnosis Related Groups (DRGs). DRGs are widely used in health systems throughout the world. Each episode of in-patient medical treatment is coded as being in a group on the basis of the primary diagnosis for which treatment was received. DRG coding systems vary in complexity by user. The current system used by the Health Service Executive (HSE) has c. 650 codes, the current German (and proposed new HSE) system has 1,100 DRGs and other systems use up to 5,500 DRGs.

For a risk equalisation system, it would be necessary to ensure that the data submitted by the insurers is consistent so each insurer would need to make returns based on the same classification system. In addition a robust validation system would be required for the returns. The current data returns require an independent accountant's report certifying that the returns are in accordance with the regulations in all material respects, the material assumptions are appropriate, consistently applied and adequately disclosed and that the returns are in accordance with the underlying books and records.

Due to the potential for different judgments to be made in relation to the classification of DRGs, it might be necessary to have a more detailed audit of returns applying in respect of data returns to the Authority than currently.

For the purposes of risk equalisation calculations, it may not be necessary to receive data in respect of each DRG. It could be sufficient to group DRGs by cost to a smaller number of cost groups, for example very low cost diagnoses, low cost diagnoses, medium cost diagnoses, high cost diagnoses and very high cost diagnoses. In the balance of this Appendix, we refer to these groups of DRGs as DRG Categories.

It might be possible to define DRG Categories by reference to the severity index produced by the HSE. However, this approach assumes that the relative severity of DRGs is similar between private and public hospitals, which may not be the case. Instead it might be necessary to receive returns from insurers that are broken down by age / gender and all DRGs. The Authority could then use this data to establish a severity index for insured persons and this index could be used to define which DRGs fall into which DRG Category. Because costs of DRGs vary by age and over time, some medical conditions could be in different DRG categories for different ages and the categorisation of DRGs would change over time.

At present, insurers provide summary data to the Health Insurance Authority of prescribed benefits paid broken down by age and gender. Under a DRG system, the data required from insurers would require to be broken down by age, gender and DRG Category (or perhaps by DRG). As a result the volume of data would increase in line with the number of categories chosen (or by the number of DRGs). The submission by the insurers of this data on an ongoing basis becomes a more significant and costly process especially as DRGs will change over time with medical advances etc. It will also be a much more significant task for the Authority to audit and use the increased data.

A lead in period of collection of sample data might be beneficial before the final structure of such a system was finalised. This would enable the resolution of data problems before payments commenced.

(ii) Defining DRG costs

A further issue is whether payments to / from the Risk Equalisation Fund are based on the average claims cost of the market, the claims cost of the paying insurer or a view of the most efficient method of treating a particular DRG. In the 2003 Risk Equalisation Scheme, the payments would have been based on the average claims cost of the paying insurers. Another simplified approach might be to use the HSE standard costs.

In the following example, we assume that the calculations for an insurer paying into the fund are based on its own claim costs for each DRG category.

(iii) Sample formula for diagnosis based system

Under the 2003 Risk Equalisation Scheme, for each insurer, the Authority would calculate the amount that the insurer would have paid in claims if it had the market age and gender profile but its own claim payment rates in each age and gender cell. A DRG based system would calculate the amount of claims an insurer would pay if it had the market age and gender profile, the market frequency of occurrences of each DRG category within each age and gender cell, and its own claim costs within each age/ gender / DRG Category cell. This would be done as follows:

- The Authority would receive data returns from insurers that break down the number of insured persons and the number of diagnoses in each DRG category by age and gender. The returns would also break down the amount of benefit paid by the insurer by age, gender and DRG category.
- The Authority would calculate each insurer's claim costs for each DRG Category and age and gender cell.
- The Authority would calculate the market age and gender profile.
- The Authority would calculate the number of occurrences of each DRG Category per insured person in each age and gender cell for the market as a whole. This would be a measure of the market's health status.

The Amount an insurer actually pays in claims is represented by the following:

$$\text{Size of insurer} \times \text{Insurer's Age and Gender Profile} \times \text{Insurer's frequency of each DRG Category within age and gender cells} \times \text{Insurer's claim costs per DRG Category within age and gender cells}$$

Under the 2003 Risk Equalisation Scheme (ignoring the 80% P factor), the amount that an insurer would have paid in claims plus the amount paid to the Risk Equalisation Fund is represented by the following:

$$\text{Size of insurer} \times \text{Market's Age and Gender Profile} \times \text{Insurer's frequency of each DRG Category within age and gender cells} \times \text{Insurer's claim costs per DRG Category within age and gender cells}$$

So, under the 2003 Risk Equalisation Scheme, the insurer's age and gender profile was replaced with the market's age and gender profile. Each contributing insurer continued to use its own claim costs, which is a function of the number of diagnoses and the cost of treating the diagnoses. The net beneficiaries under the system received payments equal to the amounts paid in by the contributing insurers so the net recipients' figures were based on the net contributor's claim costs.

Under a diagnosis based risk equalisation system, the amount that an insurer would pay in claims plus the amount that would be paid to the risk equalisation fund would be represented by the following:

$$\text{Size of insurer} \times \text{Market's Age and Gender Profile} \times \text{Market's frequency of each DRG Category within age and gender cells} \times \text{Insurer's claim costs per DRG Category within age and gender cells}$$

By substituting each insurer's own age and gender profile with the market's age and gender profile, we equalise age and gender. By substituting each insurer's own frequency of DRG Category with the market frequency, we allow for differences in health status. By using the insurer's own claim rates, we allow the insurer to keep lower costs arising from efficiency and product differences.

A numerical example of the calculations under a diagnosis based risk equalisation system is set out at the end of this Appendix.

(iv) Partially equalising DRGs

It has been argued that diagnosis based risk equalisation systems reduce the incentives for insurers to reduce claim costs through screening and preventative measures. In order to reduce this effect, the system might only partially equalise differences in DRGs. This could be done by taking a weighted average of the payments calculated on an age and gender only basis and the payments on an age / gender and DRG basis.

(v) Issues to be considered in relation to DRG based risk equalisation

This Appendix sets out a possible structure for a DRG based risk equalisation system. However, there are a wide variety of different structures that could be put in place. As noted earlier the Authority is interested in the views of stakeholders in relation to how a DRG based risk equalisation scheme could best be put in place.

DRG EXAMPLE											
Age Only Risk Equalisation					Age and DRG Risk Equalisation						
Insurer A					Insurer B						
Age Cell	Number insured	% of insured's population	Insurer's average claim cost per person	Claims cost pre adjustment	Claims cost post age adjustment	No with no DRG	DRG Cost	No with high DRG cost	High DRG Cost	High DRG proportion pre adjust	Claims cost and DRG adjustment
			€000's	€000's						%	€000's
0-17	176,000	22.0	150	26,400	27,720 = 800,000 X 23.1% X 150	167,200	0	8,800	3,000	5.0	26,400
18-29	128,000	16.0	225	28,800	30,240	121,600	0	6,400	4,600	5.0	28,800
30-39	128,000	16.0	400	51,200	53,760	117,760	0	10,240	5,000	8.0	51,200
40-49	120,000	15.0	450	54,000	54,000	109,200	0	10,800	5,000	9.0	54,000
50-59	96,000	12.0	800	76,800	74,240	80,640	0	15,360	5,000	16.0	76,800
60-69	80,000	10.0	1,450	116,000	104,400	57,600	0	22,400	5,179	28.0	116,000
70-79	48,000	6.0	2,300	110,400	96,880	26,400	0	21,600	5,111	45.0	110,400
80+	24,000	3.0	3,000	72,000	80,000	9,600	0	14,400	5,000	60.0	72,000
Total	800,000	100.0	670	535,600	500,040	690,000	0	110,000	4,889	535,600	482,259
Insurer B											
0-17	55,000	27.5	125	6,875	5,775 = 200,000 X 23.1% X 125	52,525	0	2,475	2,778	4.5	6,875
18-29	40,000	20.0	150	6,000	5,040	38,600	0	1,400	4,286	3.5	6,000
30-39	40,000	20.0	300	12,000	10,080	37,400	0	2,600	4,615	6.5	12,000
40-49	30,000	15.0	325	9,750	9,750	27,900	0	2,100	4,643	7.0	9,750
50-59	20,000	10.0	500	10,000	11,600	17,800	0	2,200	4,545	11.0	10,000
60-69	10,000	5.0	950	9,500	17,100	8,000	0	2,000	4,750	20.0	9,500
70-79	4,000	2.0	1,500	6,000	15,600	2,720	0	1,280	4,888	32.0	6,000
80+	1,000	0.5	2,000	2,000	10,000	580	0	420	4,762	42.0	2,000
Total	200,000	100.0	311	62,125	84,945	185,525	0	14,475	4,292	62,125	111,488
Market											
0-17	231,000	23.1	144	33,275		219,725		11,275	2,951	4.88	33,275
18-29	168,000	16.8	207	34,600		160,200		7,600	4,462	4.64	34,600
30-39	168,000	16.8	376	63,200		158,160		12,840	4,922	7.64	63,200
40-49	150,000	15.0	425	63,750		137,100		12,900	4,942	8.60	63,750
50-59	116,000	11.6	748	86,800		98,440		17,560	4,943	15.14	86,800
60-69	90,000	9.0	1,394	125,500		66,600		24,400	5,143	27.11	125,500
70-79	52,000	5.2	2,238	116,400		29,120		22,860	5,087	44.00	116,400
80+	25,000	2.5	2,960	74,000		10,180		14,620	4,993	59.28	74,000
Total	1,000,000	100.0	598	597,725		875,525		124,475	4,802	597,725	
Age Equalisation											
To equalise claims on an age basis, Insurer B pays a net amount into the fund of 84,945 less 62,125 = 22,820											
For Insurer A to be fully equalised on an age basis it requires a payment from the fund of 535,600 less 500,400 = 35,600											
The difference is due to Insurer B having a lower claims cost for each age than Insurer A											
Age and DRG equalisation											
To equalise claims on an age and DRG basis Insurer B pays a net amount into the fund of 111,488 less 62,125 = 49,363											
For Insurer B to be fully equalised on an age and DRG basis it requires a payment from the fund of 535,600 less 482,259 = 53,341											
The difference is due to Insurer B having a lower claims cost than Insurer A for each age and DRG category											

APPENDIX 5 – How a resource usage based risk equalisation system might work

The 2003 Risk Equalisation Scheme provided that the Authority receive data returns with information on the number of insured lives and on the level of claim costs / hospital utilisation broken down by age and gender.

The 2003 Scheme provided for risk equalisation on the basis of age and gender only. It included provisions allowing the Authority to include a measure of hospital utilisation or Health Status Weight (HSW) in the calculation of risk equalisation payments if the Authority:

- Observed in its analysis of risk equalisation returns that there were material differences in claims experience within prescribed age and gender cells as between scheme undertakings and
- Had carried out an investigation into the reasons for such material differences and
- As a result of the investigations had concluded that the material differences were wholly or substantially attributable to variations between scheme undertakings in the health status of covered persons rather than in the respective efficiency levels of those undertakings and
- Considered that the making of such a determination was in the best overall interests of health insurance consumers.

Where the Authority made a decision to allow for hospital utilisation, it would determine the Health Status Weight (HSW). The HSW could lie in the range from 0 to 0.5: Using 0 would mean that no allowance is made for utilisation and using 0.5 meant that transfers between insurers would be based on the average of the calculations based on age and gender only and on age, gender and utilisation.

The Amount an insurer actually pays in claims is represented by the following:

Size of insurer	×	Insurer's Age and Gender Profile	×	Insurer's frequency of hospital utilisation within age and gender cell	×	Insurer's claim costs within age and gender cells for each day hospital bed is utilised
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Under the 2003 Risk Equalisation Scheme with HSW = 0 (ignoring the 80% P factor), the amount that an insurer would have paid in claims plus the amount paid to the Risk Equalisation Fund is represented by the following:

Size of insurer	×	Market's Age and Gender Profile	×	Insurer's frequency of hospital utilisation within age and gender cells	×	Insurer's claim costs within age and gender cells for each day hospital bed is utilised
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So, under the 2003 Risk Equalisation Scheme, the insurer's age and gender profile was replaced with the market's age and gender profile. Each insurer continued to use their own claim costs, which are a function of the frequency of their hospital utilisation and claim costs per hospital day. The amount a recipient insurer obtained under the system was based on the contributions of the paying insurers so recipients payments were not based on their claims costs.

If the risk equalisation system allowed for health status (through use of hospital bed utilisation), the amount that an insurer would pay in claims plus the amount that would be paid to the risk equalisation fund would be represented by the following:

Size of insurer	*	Market's Age and Gender Profile	*	Market's frequency of hospital utilisation within age and gender cells	*	Insurer's claim costs within age and gender cells each for day hospital bed is utilised.
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By substituting each insurer's own age and gender profile with the market's age and gender profile, we equalise age and gender. By substituting each insurer's own frequency of hospital utilisation with the market frequency, we allow for differences in health status. By using the insurer's own claim rates, we allow the insurer to keep lower costs arising from efficiency and product differences.

The above example sets out a possible structure for a resource usage based risk equalisation system along the lines of the 2003 Scheme using hospital bed utilisation as a resource usage factor. However there are a wide variety of different structures that could be put in place.

RESOURCE USAGE EXAMPLE									
Age Only Risk Equalisation					Age and Resource Usage Risk Equalisation				
Age Cell	Number insured	% of insured's population	Insurer's average claim cost per person	Insurer A Claims cost pre adjustment €000's	Insurer A Claims cost post age adjustment	Insurer B Claims cost pre adjustment €000's	Insurer B Claims cost post age adjustment	Market Claims cost pre adjustment €000's	Market Claims cost post age adjustment
0-17	176,000	22.0	150	26,400	27,720 = 800,000 X 23.1% X 150	29,920	882	26,400	27,332 = 800,000 X 23.1% X 882
18-29	126,000	16.0	225	28,800	30,240	44,800	643	28,800	29,211
30-39	126,000	16.0	400	51,200	55,760	76,800	867	51,200	51,200
40-49	120,000	15.0	450	54,000	54,000	79,000	692	54,000	51,175
50-59	96,000	12.0	800	74,240	74,240	96,000	800	76,800	70,400
60-69	80,000	10.0	1,450	116,000	104,400	136,000	863	116,000	100,988
70-79	48,000	6.0	2,300	110,400	95,680	144,000	767	110,400	93,472
80+	24,000	3.0	3,000	72,000	60,000	96,000	750	72,000	69,280
Total	800,000	100.0	670	535,600	500,040	701,520	769	535,600	483,059
Age Only Risk Equalisation					Age and Resource Usage Risk Equalisation				
0-17	55,000	27.5	125	6,875	5,775 = 200,000 X 23.1% X 125	8,800	781	6,875	6,050 = 200,000 X 23.1% X 781
18-29	40,000	20.0	150	6,000	5,040	12,000	500	6,000	5,680
30-39	40,000	20.0	300	12,000	10,080	19,200	625	12,000	12,000
40-49	30,000	15.0	325	9,750	9,750	14,400	677	9,750	12,513
50-59	20,000	10.0	500	10,000	11,600	14,000	714	10,000	15,714
60-69	10,000	5.0	960	9,600	17,100	12,000	792	9,600	23,433
70-79	4,000	2.0	1,500	6,000	15,600	8,400	714	6,000	21,771
80+	1,000	0.5	2,000	2,000	10,000	2,800	714	2,000	14,114
Total	200,000	100.0	311	62,125	84,945	91,600	678	62,125	111,276
Age Equalisation					Age and Resource Usage Risk Equalisation				
0-17	231,000	23.1	144	33,275	36,720	36,720	859	33,275	33,275
18-29	168,000	16.8	207	34,800	613	56,800	613	34,800	34,800
30-39	168,000	16.8	376	63,200	668	96,000	668	63,200	63,200
40-49	150,000	15.0	425	63,750	690	92,400	690	63,750	63,750
50-59	116,000	11.6	748	86,900	789	110,000	789	86,900	86,900
60-69	90,000	9.0	1,394	125,500	848	146,000	848	125,500	125,500
70-79	52,000	5.2	2,238	116,400	764	152,400	764	116,400	116,400
80+	25,000	2.5	2,960	74,000	749	98,800	749	74,000	74,000
Total	1,000,000	100.0	588	597,725	793,120	793,120	754	597,725	597,725

Age Equalisation

To equalise claims on an age basis, Insurer B pays a net amount into the fund of 84,945 less 62,125 = 22,820
 For Insurer A, to be fully equalised on an age basis it requires a payment from the fund of 535,600 less 500,400 = 35,660
 The difference is due to Insurer B having a lower claims cost for each age than Insurer A.

Age and resource usage equalisation

To equalise claims on an age and resource usage basis Insurer B pays a net amount into the fund of 111,276 less 62,125 = 49,151
 For Insurer A, to be fully equalised on an age and resource usage basis it requires a payment from the fund of 535,600 less 483,059 = 52,541
 The difference is due to Insurer B having a lower claims cost per day in hospital than Insurer A, for each age

APPENDIX 6 – Glossary

Community Rating means measures which, whether in whole or in part, apply towards the achievement of the Principal Objective of the Health Insurance Act, 199 -2009. This includes a system where a person's age or health does not determine the premium they pay for their private health insurance. Everybody is charged the same premium for a particular plan subject to a number of exceptions namely;

- Children where the premium must not be more than 50% of the adult premium.
- Full time dependent students under the age of 23, where the premiums may be reduced. The reduced premium may not be more than 50% of the adult premium.
- Members of group schemes where the premium may be reduced by up to 10%
- Pensioners of restricted schemes.

Diagnosis Related Groups (DRGs) are classifications used by hospitals, insurers and others to group episodes of health care based on the primary diagnosis.

Diagnosis Related Risk Factors are factors, linked to the diagnosis of medical conditions, which might be expected to be correlated to the claims cost of an individual.

Health Status Weight was a parameter used in the 2003 Risk Equalisation Scheme that enabled the Authority, in certain circumstances, to take account of differences in hospital bed utilisation in the calculation of risk equalisation transfers.

Hospital Bed Utilisation is the number of days for which an insurer's customers are admitted to hospital. A day patient stay is counted as 1 day.

Interim Measures: After the Supreme Court set aside the 2003 Risk Equalisation Scheme in 2008, the Health Insurance (Miscellaneous Provisions) Act, 2009 introduced a system of age based tax credits to support community rating. The Act provides that Open Membership Insurers receive higher premiums in respect of insuring older people, but that older people receive tax credits equal to the amount of the additional premium so that all people continue to pay the same amount for their health insurance. In this way community rating is supported but insurers receive higher premiums in respect of older people to partly compensate for the higher level of claims. The tax credits in 2009 were €200 for those aged 50 to 59; €500 for those aged 60 to 69; €950 for those aged 70 to 79 and €1,175 for those aged over 80. The tax credits started from the 2009 renewal date.

In order to fund the system, Open Membership Insurers pay a Community Rating Levy in respect of all individuals covered for health insurance. In 2009, this levy was €60 for adults and €3 for children.

The legislation envisages that the measures will be in place for three years in order to allow time for a robust risk equalisation system to be put in place.

Lifetime Community Rating is a proposed amendment to the community rating system where the premium charged would vary with the age that an insured person was when they first commenced private health insurance. It would mean that a seventy year old who commenced health insurance when they were thirty would pay the same premium as a 30 year old. However a seventy year old taking out health insurance for the first time would pay a higher premium.

Minimum Benefit Regulations (Statutory Instrument No 83/1996): Under these regulations, all insurance products that provide cover for inpatient hospital treatment must provide a certain minimum level of benefits.

Open Enrolment means that insurers must accept all applicants for insurance cover, regardless of their risk status, age or sex, subject to prescribed waiting periods.

Lifetime Cover guarantees all consumers the right to renew their policies irrespective of age, risk status or claims history.

Open Membership Insurers must provide private health insurance to everybody who requests it from them. Currently there are three such insurers operating in Ireland, namely Aviva Health, Quinn Healthcare and Vhi Healthcare.

Pharmaceutical Cost Group are classifications of episodes of care based on the drug that is prescribed.

Principal Objective

The principal objective of the Minister and of the Health Insurance Authority under the Health Insurance Acts (1994 to 2009) includes the following:

“The principal objective of the Minister and the Authority in performing their respective functions under this Act is to ensure, in the interests of the common good, that access to health insurance cover is available to consumers of health services with no differentiation made between them, in particular as regards the costs of health services, based in whole or in part on the respective age range and general health status of the members of any particular generation (or part thereof)”.

Resource Usage Factors are factors that are directly related to resources used in provision of healthcare in respect of the claims experience of insurers. Examples might be claims expenditure incurred by the insurer or hospital bed utilisation.

Risk Equalisation is a process that aims to neutralise in an equitable manner differences in insurers’ costs that arise due to variations in the health status of their members. Risk equalisation involves transfer payments between health insurers to spread some of the claims cost of high-risk members amongst all the private health insurers in the market in proportion to their market share. Risk equalisation is a common mechanism in countries with community rated health insurance systems.

Risk Equalisation Scheme 2003 (the “Scheme”) came into operation on 1 July 2003. The Scheme was amended a number of times and was set aside by the Supreme Court in 2008 without any payments having been made. The Authority published in March 2008 an Updated Guide to the Risk Equalisation Scheme 2003 that can be accessed on the Authority website at www.hia.ie/publication/risk-equalisation

Risk Factors are factors that are correlated to the claims incurred by insurers. Examples are age and gender.

Risk Segmentation is the provision (through marking or other means) of different health insurance products to groups with (on average) different risk profiles.

Risk Selection is the process (through marketing or other means) of seeking to provide insurance to healthy lives and avoid unhealthy lives.

Underlying Risk Factor is a factor for which there is an objective classification method which may be expected to be correlated to the level of expected claims for the individual. Such risk factors include age, gender, address, employment status, welfare status and disability status.