Health Insurance Premiums for Seniors

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Introduction

This paper looks at health insurance premiums for seniors (older ages generally not just those aged above 65). The current pricing approaches used in the market are summarised and reviewed against some characteristics that may be thought to be desirable – satisfying regulatory requirements, affordability, and a couple of technical pricing matters.

Reviewed against these characteristics it appears the regulatory requirements are met. However for affordability and some technical pricing matters (volatility and sustainability), there are advantages and disadvantages to the various methods and parameters currently used with no single method used superior to other methods.

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Current pricing approaches

Health insurance in New Zealand has premiums rated by attained age. The premium rates may change from time to time, typically annually.

Most insurers have single year or 5 year age bands for all adult age groups up to a certain age and then a community rated age band. The table below summarises for the largest health insurers with unrestricted membership.

Insurer	Adult age bands	Community rated
Southern Cross	1 year to age 64	65+
Tower	1 year to age 84	85+
Sovereign	1 year to age 69	70+
Unimed	5 years to age 79	80+
Accuro	1 year to age 79	80+
AIG	5 years to age 64	65+
ING	1 year to age 81	82+

Human Rights Act 1993

The main legislation covering premium rates for seniors is the Human Rights Act 1993. Discrimination by age, gender and disability is disallowed (amongst others), and this covers premiums, coverage and any other terms and conditions. However, section 48 provides an exemption for insurers to allow certain discrimination that would otherwise be illegal, provided it is based on reasonable data or opinion. Note the section 48 exemption applies only to age, gender and disability and not to any of the other unlawful grounds of discrimination (eg ethnicity, religion, family status, sexual orientation, employment status, etc).

The wording is rather vague and open to multiple interpretations, and so the New Zealand Society of Actuaries has issued Guidance Note 3A "Health Insurance Premiums" to assist actuaries involved in pricing health insurance.

Under the legislation both community rating (charging the same premium for all within an age category) and attained age pricing are allowed. However, for attained age pricing the "shape" of premium rates by age must be able to be justified with regard to reasonable data and opinion. For both community rating and attained age pricing the allocation of expenses, cost of capital and profit margins must also be able to be justified.

An overview of human rights requirements for health insurance and a more recent update of insurance guidelines (for all types of insurance) is found on the Human Rights Commission website. The industry body, Health Funds Association of NZ, has also issued a guidance note on Human Rights Act requirements for health insurers.

So both main approaches used in the market are allowed under the Human Rights legislation and guidelines.

Issues to consider when comparing pricing methods for seniors

As the rate of claims varies significantly by age, single or 5 year age bands more closely match the underlying claims curve than a wide community rated age band.

Community rated age bands use more claims data than single or 5 year age bands, thus have lower volatility in claims experience which assists stability in pricing over time.

Single or 5 year age bands also require greater smoothing of the claim curve, and thus a given premium rate card will also be more subjective than a community rated premium rate.

At the oldest ages (say age 80 and above) the level of claims is highly uncertain. This is in part due to limited numbers of insured people, and in part due to a material frequency of large claims, relative to premiums (ie claims of $10,000 to $50,000). For single or 5 year age bands this requires more subjectivity in setting premiums. For community rating, with sufficiently low age threshold, the uncertainty in the level of claims is greatly reduced as the community rated rate is dominated by younger ages within the age range. The younger the age the more certain the level of claims.

The underlying claim curve decreases at the very highest ages (around age 85). The extent of the decrease is, however, uncertain due to the issues in the previous paragraph. How should this be allowed for in pricing? With single or 5 year ages the premium rates probably should decrease at the very oldest ages. With community rating, and a suitable selection of age threshold, the community rated premium is below the claims curve at the highest ages and thus the decrease poses no issue.

Within a given age range, using single or 5 year age bands results in a lower premium than community rated at lower ages and a higher premium at higher ages. Thus single or 5 year age bands assists affordability at lower ages, while community rated assists affordability at higher ages.

Single or 5 year age bands by definition have periodic age-related increases, whereas community rated age band does not. Thus an advantage of community rating is it is easier to find a suitable affordable plan and remain on it, compared with single or 5 year age bands where there is a tendency to reduce cover with increasing age to keep the health insurance affordable.

Due to underwriting of existing conditions it is difficult for older people to switch health insurers to reduce their premium. Reductions in cover may take the form of a higher excess or co-pay; or excluding specialists, imaging and tests other than in conjunction with surgery; or dropping health insurance.

Arguably affordability at older ages is more important because if someone can afford health insurance aged 80 they probably can also afford it at age 70, 60, etc. Whereas someone who could afford health insurance at age 60 may be forced to reduce or cancel their cover by age 80, thus shifting care from the private sector back to the public sector at an age when generally more health care is needed.

However, community rated premium rates may be unsustainable if the membership in the wide age band is ageing significantly over time.

The above factors are addressed in the following sections.

Volatility of age banded premium rates

As the largest component of premium, the main factor that contributes to volatility in premium rates is the underlying claims volatility. Claims inflation at older ages is typically significant, and normally in excess of consumer price inflation (due to new technologies, increased demand for healthcare induced by increased availability, etc). However, superimposed on the inflation is considerable volatility in claims.

Volatility in the claims curve is important for pricing due to Human Rights Act guidelines that require premiums to be reasonable at all ages including the progression from age to age. Volatility over time is also an important consideration.

For the purpose of this paper, volatility has been measured as follows:

- Take five years of monthly claims data for individuals, by plan and age
- Inflation-adjust the claims
- Calculate four years of rolling 12 month inflation adjusted claims
- Restate as a % of the average figure for each plan and age group
- Consider the range about 100% in the time series, and halve it

For example, a volatility figure of ± 10% means the data is within about 90% to 110% of the average rolling 12 month inflation adjusted claims.

Results for 2 particular Southern Cross plans with significant numbers of older members are shown.

- Regular*Care* covers surgery, specialists, imaging & tests, as well as day to day medical care (GP and prescriptions); and has a significant co-pay on some surgical claims. There are 19,000 Regular*Care* members aged over 65.
- Hospital & Specialist*Care* covers surgery, specialists, imaging & tests. There is no cover for day to day medical care, and generally there is no co-pay. There are 14,000 members aged over 65 on this plan.

Age Band	Hospital & Specialist*Care*	Regular*Care*
51-55	± 10%	± 6%
56-60	± 15%	± 3%
61-65	± 15%	± 8%
66-70	± 15%	± 10%
71-75	± 20%	± 7%
76-80	± 45%	± 5%
81-85	± 75%	± 8%
86-90	± 150%	± 10%

Plans like Regular*Care* (classified as comprehensive cover) have lower claim volatility than surgery plans (classified as major medical). The main reason is due to the high volume day to day medical claims, although there is also a modest impact from higher numbers of insureds.

On surgery cover, claims above age 75 have high variability as there are relatively larger numbers of high cost claims. The effect is dampened on comprehensive plans due to the more stable and low cost per claim arising from day to day claims.

There are various techniques used to smooth the claims volatility for pricing purposes, however it remains that the oldest ages have high claim volatility on surgery cover when 5 year age bands are used. This volatility makes pricing more difficult and introduces more subjectivity in the process.

Volatility of community rated rates

Compared with volatility of claims in 5 year age bands, a community rated 65+ age band has much reduced volatility of claims. For comprehensive plans the volatility is low for all age thresholds for community rating. For major medical plans, age thresholds for community rating of 75 or higher have significant volatility, albeit lower than using 5 year age bands.

Hospital&Specialist*Care*

Age Band	5 year age rate	Age Band	community rate
66-70	± 15%	65+	± 15%
71-75	± 20%	70+	± 17%
76-80	± 45%	75+	± 40%
81-85	± 75%	80+	± 60%
86-90	± 150%	-	-

Regular*Care*

Age Band	5 year age rate	Age Band	community rate
66-70	± 10%	65+	± 6%
71-75	± 7%	70+	± 5%
76-80	± 5%	75+	± 4%
81-85	± 8%	80+	± 5%
86-90	± 10%	-	-

The difference in claims volatility between age banded and community rated is naturally greatest for low age thresholds for community rated. For example if community rating applies from age 70 the volatility is ± 17%, compared with volatility for an alternative of 5 year age bands starting at ± 20% for ages 71 to 75 and increasing to ± 150% for ages 86 to 90.

For each age threshold for community rating, the volatility of the community rated claims rate is lower than the volatility of the 5 year age band at the age threshold. For example if community rating applies from age 70 the Hospital&Specialist*Care* volatility is ± 17% which compares with ± 20% for ages 71 to 75.

Stability of community rating

Community rated premiums do not have age-related increases, however may increase by more than inflation if the membership within the community rated pool is ageing.

The net ageing of a community rated pool depends on the age profile of existing members, and rates of new business and cancellations.

From Southern Cross and HFANZ data, there is a significant tapering off in number of insureds above about age 55. On a wide range of assumptions this leads to a cohort effect.

Modelling shows the average age above various threshold ages is stable for a long time. Even after more than 20 years, the projected average age of insureds above various age thresholds from 55 to 90 is very close to the current average. There is a small decline in average age over the next several years followed by a slow rise. For small insurance portfolios there is more scope for the average age within community rating for seniors to vary over time, but this doesn't necessarily mean an increasing average age.

In all the scenarios investigated the change in average age was around 0.1 years per year or less. This equates to less than 0.5% of claims. which is much smaller than the variation in claims inflation. Thus community rating for seniors is stable, at least in the medium term.

Choice of community rated age threshold

The age threshold at which community rating commences ranges from 65 to 85. Various age thresholds are assessed using claims data for the 9 Southern Cross plans with the highest numbers of insureds above age 55.

Three measures for consideration in the choice of community rated age threshold are:

- the level of the community rate – higher is less affordable
- the jump from age banded to community rate – a higher jump results in more cancellations or downgraded cover
- the ratio of community rate to the lowest age banded rate within the community-rated age band (eg the ratio of the 65+ rate to the 65 to 69 age rate) – a higher ratio means greater cross-subsidies

Note all these measures are calculated on claims data not premiums to strip out any effects of pricing decisions on various factors that may have an uneven impact by age (eg fixed expense loading).

The highest community rates occur with an age threshold of 80. This is consistent with the highest age banded rates occurring at about age 80 to 85. An age threshold of 55 or 60 results in a significantly lower community rate than an age threshold of 65 or higher.

The lower the age threshold the higher the jump from age banded to community rated. At age 55 the jump is over 100% except for comprehensive plans (ie include day to day medical cover).

An age threshold of 55 results in a community rate that is 50 to 100% higher than the 55 to 59 age rate. An age threshold of 65 results in a community rate that is 15 to 25% above the 65 to 69 rate. An age threshold of 70 results in a community rate that is 5 to 15% above the 70 to 74 rate. Of course in every case, by definition, there is a positive subsidy at higher ages, where the community rate is lower than the age banded rate.

Overall it seems an age threshold of between 60 and 75 provides a reasonable compromise between affordability (level of community rate), viability (size of jump from age banded to community rate) and cross-subsidies. A number of insurers currently have community rated age thresholds above age 75, with the main impact being on the affordability measure.

Affordability

For older people health insurance premiums are a significant expense. Few seniors have their insurance subsidised through employer schemes. Premiums are highest at the oldest ages ($4,000 per annum for some plans), and incomes are generally not very high. Thus both the level of premiums, and the increases in premiums over time, are of concern.

This table shows Stats NZ 2006 gross taxable income for 65+ year olds.

Income band	Number of people	Cumulative % of people
$59,710 and over	8,500	1.7%
$44,340 to $59,709	8,800	3.5%
$35,260 to $44,339	8,500	5.2%
$27,180 to $35,259	9,700	7.1%
$19,450 to $27,179	15,100	10.2%
$15,530 to $19,449	123,500	35.1%
$11,930 to $15,529	83,500	52.0%
$10,150 to $11,929	187,400	89.8%
$4,800 to $10,149	30,900	96.0%
Up to $4,799	19,800	100.0%
	495,700	

The maximum proportion of income used on health insurance can be estimated using some assumptions.

There are 133,000 over 65 year olds with health insurance. Thus a typical annual gross taxable income of $15,000 to $20,000 is inferred. This ignores non-taxable income and the use of wealth to help support living costs. Both these factors may be significant for many over 65 year olds with health insurance and thus the calculated proportions overstate the unaffordability as measured from the ratio of premiums to income.

For Southern Cross, the most popular plan for over 65 year olds is Regular*care* which provides for surgical cover with a substantial co-pay, and also day to day medical cover. A typical current premium rate for 65+ is $1,744 per annum, which is 9 to 12% of the typical gross income. Another common plan for over 65 year olds is Kiwi*care* Budget which is like Regular*Care* but without the day to day medical cover and with $100 excess. A typical current annual premium rate of $1,129 is 5.5 to 7.5% of the typical gross income.

For other health insurers with higher age thresholds for community rating, typically premium rates are slightly lower for age 65 to 69 and significantly higher at the oldest ages. The maximum premiums on a typical major medical plan are 20 to 95% higher than the premiums at age 64, with generally lower figures for insurers with a low community rated age threshold and generally higher figures for insurers with a high community rated age threshold.

Reducing the increases in premiums due to ageing (on top of normal inflationary increases) is the main reason for offering community rating for health insurance premiums for seniors. Age-related premium increases, at ages when most people are on relatively low and fixed incomes, must be a factor in the observed low proportions of people with health insurance at very high ages (22% of population with health insurance for ages 75 to 79 compared with 38% for ages 65 to 69).

This coincides with a difficulty in switching health insurers as very few will have any underwriting concessions offered (eg through subsidised group schemes) and thus face a significant loss of cover if they switch insurer. This is unfortunate, as health insurance provides the most benefits at older ages when people have greatest health needs.

Summary

Health insurance premiums for seniors is set using attained ages on either 5 year age bands or community rating. Both methods are allowable under Human Rights Act legislation and guidelines, although age banded premiums need to be justified.

Claim rates are volatile for seniors, even when grouping many years of age and looking at claim rates on the largest plans. The volatility of claim rates in 5 year age bands becomes excessive above about age 75 on major medical plans. For small portfolios in particular, the rates at even higher ages with few insureds must be very subjective. Community rating significantly dampens this volatility and provides for more credible, less subjective, pricing.

Community rating potentially adds to inflationary pressure on rates with an increasing weighted-average age. However in practice this is not significant. Currently the average age is actually decreasing slowly.

The choice of community rating age threshold is ultimately a commercial one, balancing several trade-offs. There is a variety of practices in the market.

Affordability is a particular problem for seniors and 1 or 5 year age bands only provide temporary relief. However, even with community rating there is still a big issue for insurers to manage affordability – if claims continue to rise much faster than incomes for seniors then eventually there will be less seniors insured.