Lifetime Community Rating Consultation Paper
Society of Actuaries in Ireland Submission

Question 1 : Should the documentation issued to new insured lives be amended (and if so, how) to make it clearer how the LCR loading might be lowered if the insurer was provided with details of previous eligible cover?

In general, the Society is supportive of measures to improve the transparency and clarity of financial products to individual consumers. However, the implementation of such measures needs to take care to ensure the revised documentation does not in practice become excessively lengthy or potentially confusing for consumers.

Question 2 : Should there be a change in legislation so that an exemption from LCR loadings applies along Australian lines for people moving to / returning to Ireland?

The Society does not have a particular view on this question.

The Society does note a general concern that granting exemptions from LCR loadings creates a risk the balance of the Irish community rated health insurance market may have to subsidise the economic cost of those exemptions.

Question 3 : Should these terms be defined in the legislation and, if so, in what manner should they be defined?

The Society does not have a particular view on this question.

Question 4 : Should the LCR legislation be amended in respect of the Defence Forces and if so, in what manner should it be amended?

The Society notes the unique circumstances and characteristics of the Defence Forces. Accordingly, any favourable amendments to the LCR legislation in relation to the Defence Forces should not be regarded as an automatic precedent for other public or private sector occupations.

The Society also notes, as per the response to Question 2, a general concern that granting exemptions from LCR loadings creates a risk the balance of the Irish community rated health insurance market may have to subsidise the economic cost of those exemptions.

Question 5 : Should the period of time that LCR loadings apply be changed and if so in what manner should they be changed?

Overall, the Society believes there is justification for the period of time that LCR loadings apply to be reduced from its current lifetime level. However, the Society does not support a reduction to a maximum period of 10 years (i.e. in line with the current Australian LCR system). Instead, reducing the maximum LCR payment period to 20 years does look justifiable.

Analysis of Lifetime LCR Basis

To help illustrate the Society's viewpoint, a simplified analysis has been carried out that compares the discounted cost of the LCR loadings to the discounted savings people could be expected to make by delaying their take-up of health insurance. If the costs of the LCR loadings are shown to be materially higher than the savings from delaying taking up health insurance then there is justification for the application period of the LCR loadings to be lowered from its current lifetime basis.

The basic construction of the analysis set out below is as follows:

- It considers ages from 35 to 75 inclusive for first taking up health insurance.
- For each age, it shows the value of all projected future LCR loadings (over the person's expected lifespan) discounted back to the time insurance was first taken out. The discounted loadings are expressed as a percentage of the first year's premium.
- For each age, it also shows the value of all projected prior savings - expected to be made from delaying taking up health insurance - accumulated up to the time insurance was taken out. Again, the accumulated savings are expressed as a percentage of the first year's premium.
- Finally, it shows the difference between the discounted LCR loadings and the accumulated premium savings – again expressed as a percentage of the first year's premium.

Age At Entry	Applicable LCR Loading %	Expected Lifespan (years)	Discounted LCR Loadings	Accumulated Premium Savings	Net Cost
35	2%	47	196%	60%	135%
36	4%	46	376%	119%	257%
37	6%	45	542%	176%	367%
38	8%	44	695%	231%	464%
39	10%	43	834%	285%	549%
40	12%	42	961%	337%	624%
41	14%	41	1076%	387%	688%
42	16%	40	1179%	436%	742%
43	18%	39	1271%	484%	787%
44	20%	38	1352%	530%	822%
45	22%	37	1424%	575%	849%
46	24%	36	1486%	619%	868%
47	26%	35	1539%	661%	878%
48	28%	34	1583%	702%	881%
49	30%	33	1619%	742%	877%
50	32%	32	1647%	781%	866%

51	34%	31	1667%	798%	869%
52	36%	30	1680%	814%	865%
53	38%	30	1773%	830%	943%
54	40%	29	1775%	846%	929%
55	42%	28	1770%	861%	908%
56	44%	27	1759%	856%	903%
57	46%	26	1742%	851%	891%
58	48%	25	1719%	846%	873%
59	50%	24	1692%	841%	851%
60	52%	23	1659%	837%	823%
61	54%	23	1723%	832%	891%
62	56%	22	1682%	788%	894%
63	58%	21	1636%	746%	891%
64	60%	20	1587%	705%	882%
65	62%	19	1533%	665%	869%
66	64%	18	1476%	560%	916%
67	66%	18	1522%	458%	1064%
68	68%	17	1458%	359%	1099%
69	70%	16	1391%	262%	1128%
70	70%	15	1284%	169%	1115%
71	70%	14	1180%	14%	1165%
72	70%	14	1180%	-136%	1315%
73	70%	13	1079%	-282%	1360%
74	70%	12	980%	-423%	1404%
75	70%	12	980%	-561%	1541%

The key assumptions used to construct this analysis are shown in Appendix A.

It seems to the Society that the construction of the LCR loading system should have one of the two following policy intentions:

- To fairly and reasonably compensate the Irish community rated health insurance market from those people who do not join - and implicitly subsidise – the market when they are young but then take out and maintain cover throughout their older years when they are implicitly being financially subsidised by the community rated system.
- To go beyond fair and reasonable compensation and incorporate an additional punitive element. The intent here is more to act as a deterrent so people join the market before any LCR loading is applied.

The above analysis suggests the current LCR system is very much aimed at the second potential policy objective. Indeed the scale of the net cost (expressed as a percentage of the first year's premium) look to be highly punitive for many ages – e.g. over 8 times the year one premium for all new entrants aged 44 and over.

This analysis suggests there is scope to reduce the LCR term from its current lifetime term whilst still meeting both of the above potential policy intentions.

Alternative Assumptions

The Society is conscious the above analysis is very dependent on the key assumptions underlying the projection basis. The two most critical assumptions are:

- The 'gap' between the assumed premium inflation rate and the assumed general inflation rate (3.0% in the above analysis)
- The reduction factor applied to the nominal HIA claims statistics data (33% in the above analysis)

In order to highlight the relative sensitivity of these two critical assumptions, Appendix B shows the impact on the 'Net Cost' column for ages 35, 45, 55 & 65 if both assumptions are flexed to varying degrees.

Broader Concerns on Lifetime LCR Basis

Separate to the above analysis, the Society notes it does have broader reservations whether people genuinely appreciate the long-term cost implications of LCR loadings that apply for their full lifetime. Taking account of the key assumptions set out in Appendix A:

- They may not realise that it's plausible for future years' health insurance premiums to increase at the assumed 5.0% p.a. rate and the long-term compounding effect that goes with that – e.g. a person joining aged 35 would have a projected nominal premium of 9.4 times their original premium when they reach the end of their projected life span.
- Linked to the above point, people may not appreciate the full extent of their expected life span.
- In financial economics, there is a well-understood phenomenon of 'hyperbolic discounting': i.e. people in practice apply very high implicit discount factors when assessing long-term financial costs. The above analysis applied a 2.0% p.a. discount rate to arrive at a reasonable and rational current money value of the projected future LCR loadings. It is likely many people would apply implicit discount factors multiple times higher than 2.0% p.a. when considering their own circumstances. Under that mental approach, the underlying punitive element of the current lifetime LCR loading approach may not be apparent to many people.

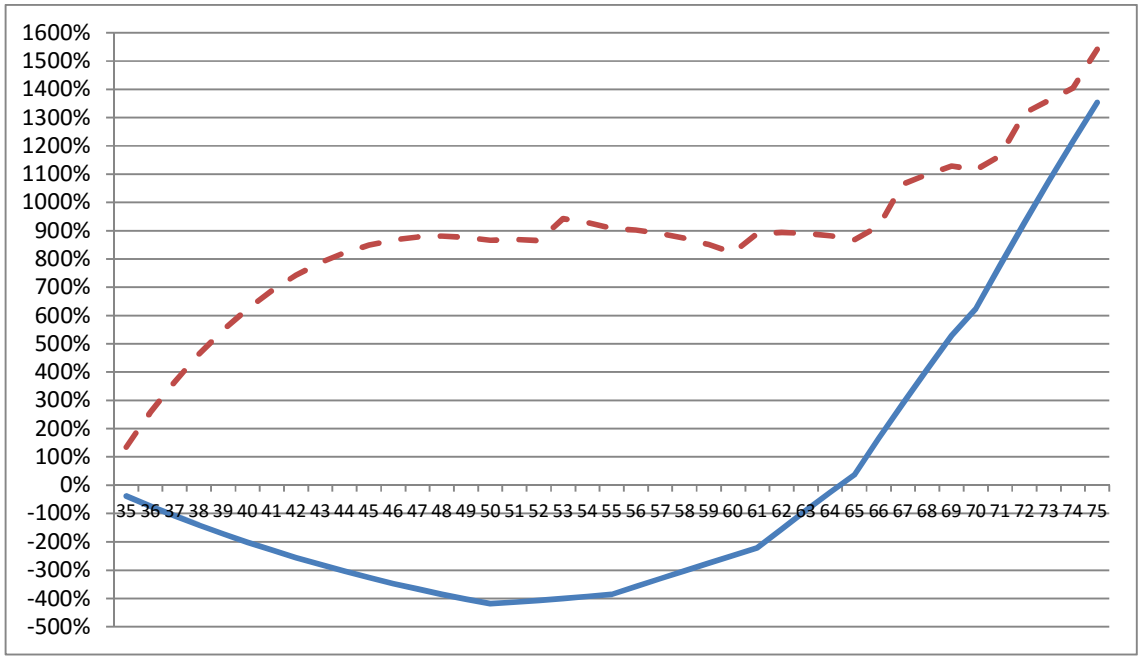
In addition, the introduction of LCR in 2015 was accompanied by significant promotional effort and parallel media interest. Those were relatively benign circumstances for new entrants over age 35 to better appreciate the long-term nature of the LCR loadings they were signing up to – and for younger adults to take up cover before age 35. As LCR becomes a regular background feature of the Irish health insurance market, there is a risk the underlying punitive element of the current LCR loading approach becomes less appreciated amongst the general population – so undermining the deterrent intent of the system.

Importantly, the Australian experience of having 13.8% of people with health insurance currently paying a LCR loading highlights that a sizable minority of Irish insured lives may eventually end up paying a LCR loading. If it becomes the case a substantial number of these people did not initially appreciate the long-term implications of the current LCR loading approach they signed up to, it has the potential to erode confidence in the broader community rating premium system.

The Society believes the above concerns support reducing the LCR application timeframe from its current lifetime basis to a shorter, fixed period of years.

Impact of Alternative 10 Year LCR Basis

The continuous line in the following graph shows the impact on the 'Net Cost' column (for ages at entry from 35 to 75 inclusive) shown in the table above if the LCR payment term is reduced from a lifetime duration to a maximum 10 years' duration. As a reference, the broken line shows the 'Net Cost' column for the current lifetime duration.



As can be seen, moving to a maximum 10 years' duration produces a very different outcome. In particular, the net cost is now projected to be negative until age 65 – and for several years in the early to mid 50's implies 'undercharging' late new entrants up to the discounted equivalent of 4 times their first year's premium. It is only from the late 60's onwards does it resemble the outcome of the current LCR system (driven by the expected life span at those ages starting to reduce to a level of 10 years).

The Society judges a change to a maximum 10 year payment term – on the basis of this analysis and associated key assumptions - is unlikely to meet either potential LCR policy objective discussed above. Accordingly, the Society would not recommend the LCR payment term be reduced to a maximum of 10 years.

Again, the Society is conscious this analysis of moving to a maximum 10 years' duration is dependent on the key assumptions underlying the projection basis. Similar to Appendix B, Appendix C shows the impact on the 'Net Cost' column for ages 35, 45, 55 & 65 if the two most critical assumptions are flexed to varying degrees. This exercise validates the Society's recommendation not to reduce the LCR payment term to a maximum of 10 years.

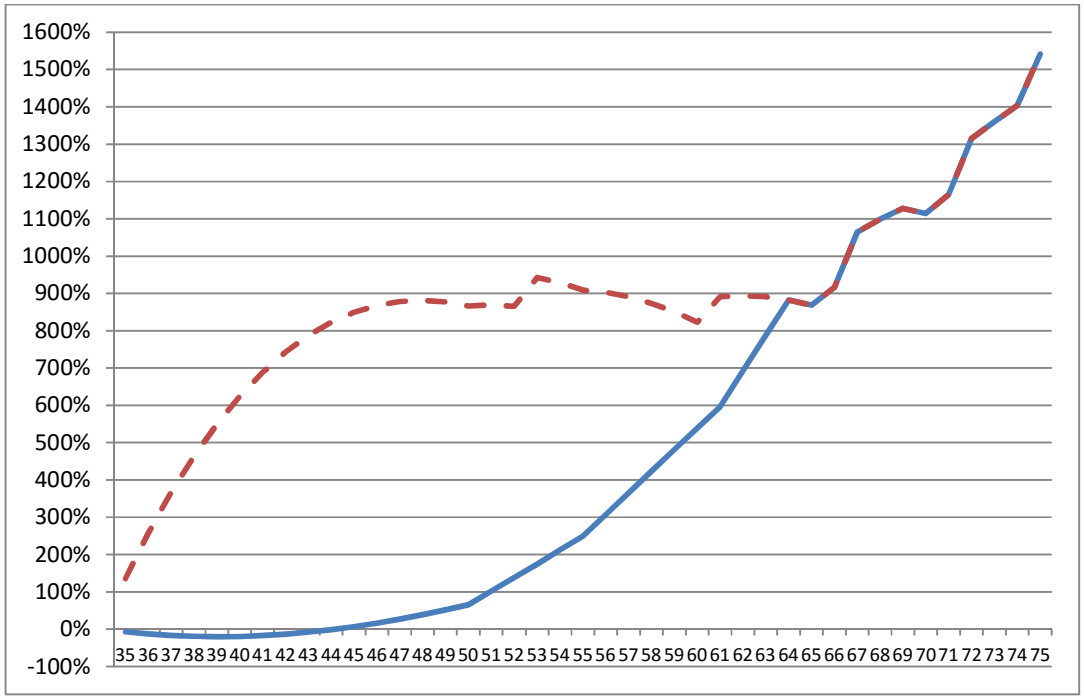
Also, the Society notes the Australian policy of an LCR payment term of 10 years is not directly applicable to the circumstances of the Irish LCR system. In particular:

- The Australian LCR system starts to apply from age 30 instead of from age 35 in the Irish LCR system. As an example, an Australian person who first takes out cover aged 35 will pay an LCR rate of 12% a year whereas an LCR rate of just 2% a year applies under the current Irish system.
- Australians who do not take out health insurance cover face a potential income tax surcharge. No equivalent potential income tax surcharge applies in Ireland.

The combined effect of these two differences allows the Australian LCR system to offer a lower payment term than Ireland but at the same time maintaining an equivalent level of deterrence to those people considering deferring their take-up of health insurance into their older years.

Impact of Alternative 20 Year LCR Basis

The continuous line in the following graph shows the impact on the 'Net Cost' column (again for ages at entry from 35 to 75 inclusive) shown in the table above if the LCR payment term is reduced from a lifetime duration to a maximum 20 years' duration. Again, the broken line shows the 'Net Cost' column for the current lifetime duration.



As can be seen, this produces a reasonably acceptable outcome. Up to the mid 40's, the cost of the LCR loadings and the premium savings are more or less in balance so meeting the first potential policy objective. From that point onwards, an increasingly large punitive outcome is observed which fits in with the second potential policy objective. In particular, it effectively merges with the current lifetime payment duration from the mid 60's onwards.

Accordingly, the Society believes reducing the LCR payment term to a maximum of 20 years is justifiable.

In the Society's view, reducing the maximum LCR payment term materially below 20 years would require a parallel increase in the current 2.0% loading multiple and/or a parallel reduction in the current age 34 starting point so the resulting LCR system continues to meet its policy objectives.

Question 6 : Are there any other issues relating to Lifetime Community Rating that you wish to bring to the Authority's attention?

The Society notes this review is taking place around two years after the LCR's introduction. Accordingly, only limited operational experience of the current LCR system is available. Therefore, not all the underlying issues with the LCR may currently be evident and a further review several years from now could well be a productive exercise.

The Society believes the Authority should give consideration to publishing more detailed market statistics to allow for a more informed public understanding of the impact and effectiveness of the LCR system. For instance:

- The HIA's current practice for health insurance take-up statistics is to publish only a single 10 year band for ages 30-39. A more granular breakdown of take-up in this age band would better inform the relative impact of the LCR system – e.g. is there a discontinuity in take-up from age 34 to age 35 and, if so, what is the scale of that discontinuity?
- A potential weakness of the current LCR system is that someone aged 34 could purchase an inpatient private health insurance plan with weak benefits and a relatively low premium. Such a person could then upgrade their plan when they are much older for more comprehensive benefits and a higher premium. Under current LCR rules: this person would not pay an LCR loading, would make a minimal contribution to the community rated system in their younger years and would receive significant subsidisation from the community rated system after they upgrade to the more comprehensive plan. To test whether such behaviour is occurring in meaningful terms, it would be worth publishing on an ongoing basis the rates of take-up of relatively low priced plans for people in their early to mid 30's.

3 March 2017

Appendix A – Key Assumptions for LCR Analysis

The key assumptions made for the discounted cost of the LCR loadings are as follows:

- It assumes future years' premiums increase at a rate of 5.0% p.a. This overall increase rate is made up of three components: general inflation (discussed in the next point below), specific medical inflation arising from the additional cost of future medical advances and increases in community rated health insurance premiums arising from projected demographic ageing of the Irish population. For reference, the Society of Actuaries recently produced several projections for demographic related health insurance premium inflation over the 2016-2046 period: the 'baseline' projection scenario implied 1.3% p.a. of premium inflation over the 2016-2046 period. This assumption also implies people do not downgrade or upgrade their levels of cover in future years.
- It assumes future general inflation (as measured by the CPI) will be 2.0% p.a. This is used to discount all LCR loadings on projected future years' premiums back to the value of money at the time the person first takes out their policy. These discounted future LCR loadings are then summed and expressed as a percentage of the first year's premium level.
- Very importantly, the reasonableness of above two assumptions should be considered together - not in isolation. In particular, it is the gap between the premium inflation and general inflation assumptions (i.e. 5% p.a. - 2% p.a. = 3% p.a. gap) that is pivotal in assessing the discounted cost of the LCR loadings. For instance, premium inflation of 4% p.a. and general inflation of 1% p.a. (i.e. the same 'gap' of 3% p.a.) will produce a near identical mathematical outcome as the two assumptions chosen above. The Society notes that average health insurance premiums have increased by 7.6% p.a. over the period 2006-2015 while CPI inflation has averaged 0.9% p.a. over the same time (i.e. a gap of 6.7% p.a.). This indicates that the above two assumptions imply a moderation in future years - versus recent experience - of the rate of premium inflation less general inflation.
- It assumes people maintain health insurance coverage for the duration of their expected remaining lifespan (at the time they first took up health insurance cover). The expected lifespan is based on the most recent CSO published mortality table for the Irish population (ILT16 2010-2012) and is the average of the male and female lifespans. No allowance has been made for future longevity improvements.
- No coverage lapse rate is assumed. This is appropriate for the purposes of this particular projection. LCR is only really concerned with people who only take up community rated health insurance cover after their younger years have passed and (critically) do not subsequently leave the market - instead maintaining coverage throughout their older years. In addition, anyone who leaves the health insurance market by their mid 50's has on average been a net financial supporter of the Irish community rated system (regardless of how late they first took up their cover).

The key assumptions made for the accumulated savings people could make out of the LCR loadings are as follows:

- The savings are assumed to occur only in respect of prior years when the person's age is above 34 – i.e. according to the logic of the current LCR system, not having health insurance for ages younger than 35 is not deemed to be taking unreasonable advantage of the community rating premium system.
- It assumes prior years' premiums decrease at a rate of 5.0% p.a.
- It assumes prior general inflation (as measured by the CPI) will be 2.0% p.a. This is used to accumulate all projected savings on prior years' foregone premiums forward to the value of money relevant at the time the person first takes out their policy. These accumulated prior years' savings are then summed and expressed as a percentage of the first year's premium level.
- As per assessing the discounted cost of the LCR loadings, the above two assumptions also produce a 'gap' of 3.0% p.a.
- The premium savings themselves are derived from HIA published data showing age-banded claims data and implied average market premium levels. For instance, if HIA statistics show a particular age could expect 54% of the paid insurance premium to go on claims then the nominal saving for having deferred taking up health insurance for that year is assumed to be 46% of the insurance premium.
- It assumes a key motivation for people delaying taking up of health insurance is that their health status is relatively good. This assumption is supported by the fact the LCR system is only concerned with people who do not take out cover in their younger years but do end up doing so in their older years – i.e. this sub-set of people currently without health insurance cover is less likely to be determined by their ability to pay for cover or whether they are comfortable with relying on the public health system throughout their life. It follows from this that their state of health should, on average, be appreciably better than the lives of the same age who have taken up health insurance. Furthermore, it could plausibly be assumed this favourable state of health will persist right up to the time they eventually decide to take up cover. For the purposes of this exercise, it is assumed the nominal HIA claims statistics data are reduced by an overall average of 33%.

Appendix B – Sensitivity of Critical Assumptions (Lifetime)

The following table shows the impact on the 'Net Cost' outcome for age 35 in the main table (i.e. for the current LCR lifetime payment approach) in the response to Question 5 if the two critical underlying assumptions are flexed. The column headings represent the 'gap' between the assumed premium inflation rate and the assumed general inflation rate (3.0% in the original analysis). The row headings show the reduction factor applied to the nominal HIA claims statistics data (33% in the original analysis). For reference, the original analysis produced a 'Net Cost' of 135% and this outcome is highlighted in black in the table below.

	0%	**1%**	**2%**	**3%**	**4%**
100%	-8%	17%	52%	98%	160%
67%	11%	36%	70%	116%	179%
50%	21%	46%	80%	126%	188%
33%	31%	56%	90%	135%	198%
0%	50%	75%	108%	154%	216%

It is apparent that flexing the 'gap' assumption produces the larger change in outcome – but flexing the 'reduction factor' assumption also has a material impact. The following tables follow the same type of flexing analysis but for ages 45, 55 and 65:

Age 45

	0%	**1%**	**2%**	**3%**	**4%**
100%	-305%	-82%	177%	487%	862%
67%	-93%	117%	366%	665%	1031%
50%	16%	220%	463%	757%	1118%
33%	125%	323%	560%	849%	1205%
0%	336%	523%	749%	1028%	1374%

Age 55

	0%	**1%**	**2%**	**3%**	**4%**
100%	-956%	-576%	-193%	204%	626%
67%	-499%	-161%	186%	551%	945%
50%	-264%	53%	381%	730%	1110%
33%	-29%	267%	576%	908%	1274%
0%	429%	682%	955%	1255%	1593%

Age 65

	0%	**1%**	**2%**	**3%**	**4%**
100%	-1964%	-1413%	-932%	-503%	-108%
67%	-1029%	-581%	-185%	173%	507%
50%	-546%	-152%	199%	521%	823%
33%	-64%	277%	584%	869%	1140%
0%	872%	1110%	1331%	1544%	1755%

Appendix C – Sensitivity of Critical Assumptions (10 Years)

The following table shows the impact on the 'Net Cost' outcome for age 35 in the response to Question 5 (assuming the LCR payment term is reduced to a maximum of 10 years' duration) if the two critical underlying assumptions are flexed. The column headings represent the 'gap' between the assumed premium inflation rate and the assumed general inflation rate (3.0% in the original analysis). The row headings show the reduction factor applied to the nominal HIA claims statistics data (33% in the original analysis). For reference, the original analysis produced a 'Net Cost' of -38% and this outcome is highlighted in black in the table below.

	0%	**1%**	**2%**	**3%**	**4%**
100%	-81%	-79%	-77%	-75%	-73%
67%	-62%	-60%	-59%	-57%	-55%
50%	-52%	-51%	-49%	-47%	-46%
33%	-42%	-41%	-39%	-38%	-36%
0%	-23%	-22%	-20%	-19%	-18%

In this scenario, flexing the 'reduction factor' assumption produces the larger change in outcome – flexing the 'gap factor' assumption has a more moderate impact. The following tables follow the same type of flexing analysis but for ages 45, 55 and 65:

Age 45

	0%	**1%**	**2%**	**3%**	**4%**
100%	-893%	-821%	-753%	-688%	-628%
67%	-682%	-621%	-564%	-510%	-459%
50%	-573%	-518%	-467%	-418%	-371%
33%	-464%	-415%	-369%	-326%	-284%
0%	-252%	-216%	-181%	-147%	-115%

Age 55

	0%	**1%**	**2%**	**3%**	**4%**
100%	-1705%	-1474%	-1270%	-1090%	-930%
67%	-1248%	-1059%	-892%	-743%	-610%
50%	-1013%	-845%	-697%	-565%	-446%
33%	-777%	-631%	-502%	-386%	-282%
0%	-320%	-216%	-123%	-39%	38%

Age 65

	0%	**1%**	**2%**	**3%**	**4%**
100%	-2517%	-2047%	-1659%	-1334%	-1059%
67%	-1581%	-1214%	-911%	-659%	-445%
50%	-1099%	-785%	-527%	-311%	-128%
33%	-617%	-356%	-142%	37%	189%
0%	319%	477%	605%	713%	804%