

# Kent Academic Repository

## Full text document (pdf)

### Citation for published version

Tapadar, Pradip and Thomas, R. Guy (2022) Improving insurance with some adverse selection. Inclusive insurance bulletin, 3 . pp. 11-13.

### DOI

### Link to record in KAR

<https://kar.kent.ac.uk/96931/>

### Document Version

Publisher pdf

#### Copyright & reuse

Content in the Kent Academic Repository is made available for research purposes. Unless otherwise stated all content is protected by copyright and in the absence of an open licence (eg Creative Commons), permissions for further reuse of content should be sought from the publisher, author or other copyright holder.

#### Versions of research

The version in the Kent Academic Repository may differ from the final published version.

Users are advised to check <http://kar.kent.ac.uk> for the status of the paper. **Users should always cite the published version of record.**

#### Enquiries

For any further enquiries regarding the licence status of this document, please contact:

[researchsupport@kent.ac.uk](mailto:researchsupport@kent.ac.uk)

If you believe this document infringes copyright then please contact the KAR admin team with the take-down information provided at <http://kar.kent.ac.uk/contact.html>



Institute  
and Faculty  
of Actuaries

**P**olicy &  
Public Affairs

# Inclusive insurance bulletin



## Tackling exclusion

Bulletin 3

The Future  
of Insurance

Informing the debate

August 2022

# Contents

Introduction by David Heath, Chair of the IFoA Policy Advisory Group..... 1

The poverty premium in insurance..... 2

How can we improve insurance inclusion? ..... 5

Closing the transparency gap..... 7

Creating an inclusive social care system ..... 8

Improving insurance with some adverse selection ..... 11

Private medical insurance – a personal view..... 14



**DISCLAIMER**

The views expressed in this publication are those of invited contributors and not necessarily those of the Institute and Faculty of Actuaries. The Institute and Faculty of Actuaries does not endorse any of the views stated, nor any claims or representations made in this publication and accepts no responsibility or liability to any person for loss or damage suffered as a consequence of their placing reliance upon any view, claim or representation made in this publication. The information and expressions of opinion contained in this publication are not intended to be a comprehensive study, nor to provide actuarial advice or advice of any nature and should not be treated as a substitute for specific advice concerning individual situations. On no account may any part of this publication be reproduced without the written permission of the Institute and Faculty of Actuaries.



# Introduction

David Heath, Chair of the IFoA Policy Advisory Group



Welcome to this, the third bulletin in our series on inclusive insurance. Given the prevailing cost of living crisis in the UK, much of this edition focuses on the poverty premium in insurance. The poverty premium – where those who are less well-off end up paying more for essential products and services than those who are better-off – is likely to increase in prominence as the cost-of-living crisis deepens. Insurance has become the biggest contributor to the poverty premium, and so tackling it will be essential in improving insurance inclusion. This is particularly important given the impact of exclusion on those on low incomes or in vulnerable circumstances, who are often in most need of insurance protection.

This bulletin builds on earlier IFoA work on the poverty premium and considers how it could be tackled from a range of perspectives to help improve insurance inclusion and ensure that everyone has access to necessary and affordable insurance and protection products. We consider how an holistic approach between differing stakeholders will be important; we also consider a successful intervention to improve inclusion in flood insurance, and ongoing parliamentary activity to build on this success.

One separate and longstanding challenge society has continued to grapple with is paying for care in later life. This bulletin includes an article considering how an inclusive approach to social care could make for a smoother care journey. A further article gives a thought-provoking perspective on the impact of adverse selection and how this need not be a bad thing, while the final article in the bulletin considers private medical insurance.

As with our first two bulletins, we have invited an eclectic range of contributions, actuarial and otherwise, to provide both complementary and varying perspectives on insurance inclusion in differing contexts. This includes parliamentary progress on tackling exclusion.

You can find out more about how we're working to ensure that the standards we set support a more equitable profession in our DEI Strategy at <https://ifoa.foleon.com/dei-strategy/ifoa-dei/actuarial-work/>.

We hope you enjoy this third bulletin in our series, and that it gives you useful food for thought. As before, we would be delighted to receive your feedback.

Insurance has become the biggest contributor to the poverty premium, and so tackling it will be essential in improving insurance inclusion.

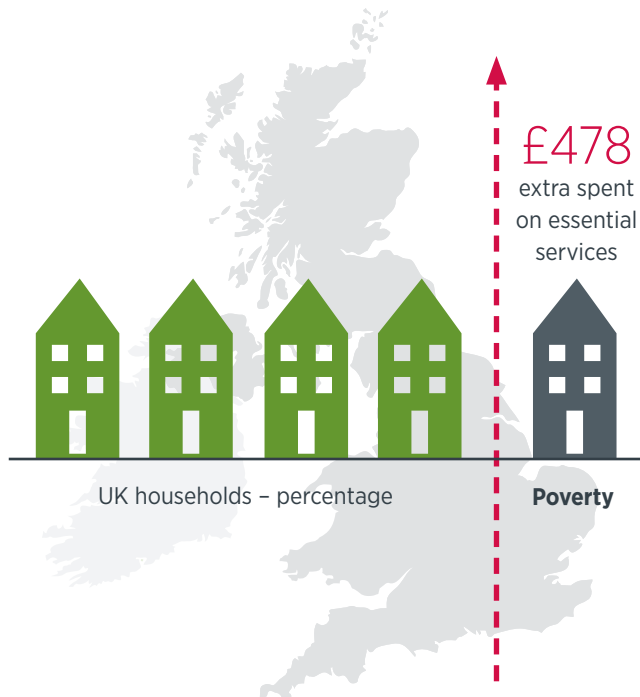


# The poverty premium in insurance

Martin Coppack, Director of Fair By Design

In the UK it costs more to be poor. Essential services such as energy, credit and insurance are needed by everyone, but these markets have been designed in such a way that many poorer people are treated less fairly. They will pay more for products and services than those who are better off. This is known as the poverty premium.

Approximately 1 in 5 people in the UK live in poverty.<sup>1</sup> A study commissioned by Fair By Design of 1,000 low-income households accessing the services of national poverty charity Turn2us<sup>2</sup> found that, on average, these households were spending an extra £478 – the equivalent of 14 weeks of food shopping<sup>3</sup> – just to access the same essential services as people who were better off.



## Why does the poverty premium exist?

There are a number of reasons:

- **The myth of a 'super' consumer.** Essential products and services are designed for 'super consumers'. These are people who never get ill, always have a steady income, are able to understand complex terms and conditions, and always have the time and technology to easily find the best deal. This is not a reality for everyone.
- **A disconnect** between policymakers/regulators and people's everyday experiences of poverty and exclusion means that policies and regulations don't meet the needs of 'people like us'.
- **A belief that competition can meet all consumer needs** and that choice exists for everybody. In practice, firms compete for the most profitable and engaged consumers.
- **A lack of ownership of, and responsibility for, poverty and exclusion issues** among regulators and government, with no clear, transparent way to address these issues.
- **A lack of a joined-up approach** between different regulators and relevant government departments.

## The poverty premium in insurance

We live in a world where we are all encouraged to take responsibility for our own financial health, such as saving for a rainy day or for retirement. Increasingly, we are also encouraged to protect ourselves and our families from future risks – not to rely on the state, but to look to the market for our protection needs.

1 | Households below average income (HBAI) statistics: Statistics on the number and percentage of people living in low-income households in the UK for financial years ending 1995 to 2020. Calculated as 60% of median household income after housing costs.

2 | The poverty premium: A customer perspective, University of Bristol (2020)

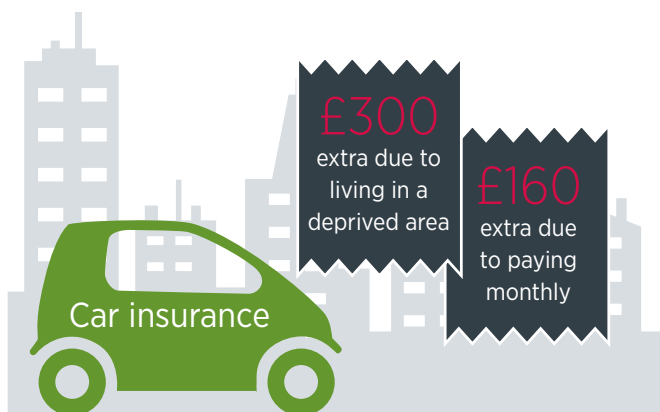
3 | Research by Turn2us found that the average weekly spend on food and non-alcoholic drinks in the lowest 10% income group was £32.80.

# Insurance has become the biggest contributor to the poverty premium.

But what happens when a person is not seen as 'desirable' by the market due to past ill health? Or if a person can't afford to move to a different postcode – one that is deemed less risky by their car or household insurer? And what happens if a person is not able to find employment that provides a sufficient income to pay for protection?

These are major problems that will only get worse as we move from a pooled risk approach to one of individualised risk. As technology evolves so does the ability of firms to calculate risk – creating a market that works ever more efficiently for the healthy and wealthy among us. The irony being that those who arguably need insurance the most are the ones least able to obtain it.

Insurance has become the biggest contributor to the poverty premium, with some people paying nearly £300 a year more for car insurance because they live in a deprived area. And if you can't afford to pay all in one go, you could pay an extra £160 to pay monthly – meaning you could pay a total poverty premium of nearly £500 just for this one insurance product.<sup>4</sup>



As our recent report with the Institute and Faculty of Actuaries documents,<sup>5</sup> those on low incomes and in vulnerable circumstances often fit into the 'non-standard', high risk, pre-existing conditions box that moves them into higher premiums. From our work with charity Toynbee Hall, we know that many people with lived experience of poverty feel discriminated against, especially when they are charged more for things

outside their control, such as where they can afford to live, or past health conditions. This is particularly the case when, for example, trying to buy a compulsory insurance product (such as car insurance) and being told that an insurer will not even offer you insurance because of your postcode. Paying more to pay monthly can also be viewed as unfair because it penalises people for being on a low or irregular income, such as a zero-hours contract.

At the same time, consumers are unable to understand or challenge insurers on price because insurers won't disclose how they make their decisions, on the grounds that this information is 'commercially sensitive'. As our joint report explains, this has started to lead to big unanswered questions around how or whether insurers are adhering to the Equality Act.

## The poverty premium and protected characteristics

Another study commissioned by Fair By Design found that certain protected characteristics are not only linked to an increased likelihood of poverty, but also mean someone is more likely to be exposed to some poverty premiums, even when compared to low-income households as a whole. Intersectionality plays a large role. This means that the more protected characteristics a person has, the more likely they are to be in poverty – and to be paying a poverty premium.

The findings from the University of Bristol suggest that the UK marketplace is discriminating against certain groups of people, albeit indirectly. For example, Bangladeshi, Pakistani and Black people are disproportionately more likely to live in deprived areas, which in turn affects the cost of insurance premiums. The research also found that people from Black, Asian and other minoritised community households, lone parents, and people with disabilities were less likely to hold any insurance.

This 'going without' is often the alternative to paying the poverty premium, thereby excluding someone from the market. It effectively establishes a latent poverty premium, where many have no choice other than to go without or to use costlier solutions such as credit, or expensive alternatives, for example going to a launderette because they cannot afford to replace a washing machine.<sup>6,7</sup>

4 | The poverty premium: A customer perspective, University of Bristol (2020)

5 | <https://fairbydesign.com/insurance-poverty-premium/>

6 | Financial Inclusion Commission, Improving access to household insurance (2017)

7 | 60% of households earning £15,000 or less per annum have no contents cover. WPI Economics for Barrow Cadbury Trust, *Insurance and the Poverty Premium: What's known and the policy implications* (2019)

# The FCA should investigate the underwriting practices of insurers to determine whether they are fair and reasonable.

## Life happens

We know that life events such as illness or job loss are major reasons why people get into problem debt. Seven out of 10 people who experience debt do so due to a life shock. And we know that around 23 million people experience a life shock in their household in a two-year period.<sup>8</sup>

Millions of pounds are spent on debt advice, bankruptcy, debt write-offs and government benefits as a result of income shocks. Wouldn't it be better to tackle these issues upstream with affordable, appropriate protection available for all?

## So what needs to be done?

Conversations on risk-based pricing are not new. Because it is a market-wide problem, if one insurer were to diverge from this trend and go back to pooled risk, it wouldn't be profitable for them and they would not survive. We need a market-wide solution.

This issue requires a mixture of social and regulatory policy intervention. Fair By Design and other consumer groups are constantly shuttled between government departments and regulators, each pointing to the other as the organisation responsible.

There are a number of recommendations in our joint report with the IFoA.<sup>9</sup> Of particular importance are:

- The FCA should investigate the underwriting practices of insurers to determine whether they are fair and reasonable. In particular, to look at whether these practices discriminate unnecessarily against protected characteristics of the Equality Act, as well as against other factors that affect low-income consumers, such as where a person lives.
- With this insight, the government should work with industry to develop more appropriate social-policy interventions, such as investigating whether the successful Flood Re model could be employed to provide cover for those living on low incomes or in vulnerable circumstances who are excluded from other forms of insurance.

We hope that if these recommendations are followed, we can begin to see the eradication of the poverty premium and a society where everyone can access the insurance products they need at a price they can afford.

8 | <https://www.stepchange.org/Portals/0/assets/pdf/life-happens-safety-nets-stepchange-debt-charity.pdf>

9 | <https://fairbydesign.com/insurance-poverty-premium/>

# How can we improve insurance inclusion?

Emma Hardy, MP for Kingston upon Hull West and Hessle

As discussed in the previous article, people who are less well-off can often end up paying more for essential products and services than those who are better-off: a scenario known as the poverty premium. It's an issue that is relevant not just to my own constituency of Hull West and Hessle, but one that is also being suffered by individuals right across the UK. And although the poverty premium is not especially well known, it's an issue likely to grow in prominence as the current cost-of-living crisis deepens.

The poverty premium impacts a range of services, including credit and fuel costs, but it is particularly prevalent in insurance. For example, individuals living in areas of greater deprivation can end up paying more for their home, contents, car or life insurance because they are deemed to be 'higher risk'. One factor behind the poverty premium is the growth in the digital technology, data availability and processing capability available to insurers, which allow for more precise insurance risk assessment and premium setting. However, the downside of this increased precision can be a higher insurance premium for risks deemed 'less attractive'.

A higher motor insurance premium may well reflect the increased cost of car insurance in a deprived area, but to the individual concerned they are effectively being penalised due to their lack of financial resources. This lack of available means can also make moving to a less deprived area challenging, reducing the scope for individuals to take action to reduce their exposure to the poverty premium. It's a grim irony that insurance, which is all about providing financial protection and peace of mind, can be more expensive – or even unaffordable – to those who may need it most. This is not inclusive insurance and nor is it fair.

So what can be done to improve insurance inclusion and help ensure that everyone has access to necessary and affordable insurance and protection products? By charging a premium that reflects the underlying risk, aren't insurers acting in a rational manner? One welcome step in tackling inclusion – or the lack of it – is the increasing focus from regulators on end outcomes for consumers, and whether financial services products are putting consumers' needs first. Such an assessment should extend to whether insurance products are meeting certain consumers' needs at all.

Improving insurance and wider financial inclusion will require a holistic approach from HM Treasury, the Financial Conduct Authority and other key stakeholders. Corporate diversity and inclusion will also have a role to play. In assessing whether current or future insurance products meet consumer needs, considering actual consumer experience of the poverty premium and its impact should provide insurers, regulators and HM Treasury with powerful insight into any consumer 'needs gap'; it could also flag opportunities for innovation in addressing such gaps.

HM Treasury could also take a lead in tackling financial inclusion by introducing an explicit 'have regards' requirement with respect to inclusion, added to financial regulator objectives. This would fit neatly with the developing regulatory focus on end outcomes for consumers, and financial services generally.

To that end, the House of Commons Treasury Select Committee – of which I am a member – recommends that the FCA should consider the impact of its regulatory requirements on those who might be prevented from accessing financial services, or accessing them on inferior terms. The Committee also recommends that the FCA should report to Parliament on an annual basis on the state of financial inclusion, including recommending additional measures to support inclusion.

Improving insurance and wider financial inclusion will require a holistic approach from HM Treasury, the Financial Conduct Authority and other key stakeholders.



Whether from a high-level focus on consumer needs, tweaking regulatory objectives or a specific innovation in a given insurance market segment, intervention to tackle the poverty premium has never been more important, given the unfolding cost-of-living crisis. It is in nobody's interest for consumers to sacrifice existing protection due to increasing financial pressures. Instead, we should be improving access and affordability of insurance products, not just for those currently with protection but also extending it to those without it.

### **Sustainable flood insurance**

One specific and successful intervention that has improved inclusion in the context of flood insurance was the introduction of Flood Re in 2016. Flood Re is a joint initiative between the government and the insurance industry, with the aim of making flood insurance cover more available and affordable for homes at the highest risk of flooding.

Flooding is now inevitable, and climate change means that it is going to worsen, both in terms of frequency and impact. As with the poverty premium, flooding is also highly relevant to my own constituency: the Humber has the second largest area of floodplain in the UK, and Hull tops the list of local authorities with the largest number of homes classified as 'at high risk of flooding'.

Flood Re has been a success but there is room to build on this foundation. In late 2021 I tabled a Private Members Bill with the aims of widening the scope of Flood Re and encouraging robust property flood resilience. If enacted, the Bill would:

- Extend Flood Re to include new build housing post 2009 with appropriate flood resilience measures. The current Flood Re framework includes a 2009 new build cut-off, which was included to disincentivise further building on flood plains. However, in many parts of the country, including my own constituency, there is no option but to build on a flood plain. Recognising this reality but incorporating, and hence encouraging, flood resilience measures would help increase inclusion while managing the associated increased flood risk.

- Extend Flood Re to include small and medium-sized enterprises (SMEs). SMEs were excluded from Flood Re due to the differing nature of residential and commercial property insurance. However, the structural aspect of an SME commercial property is often similar to that of a residential building.
- Encourage flood resilience by setting national minimum requirements for flood mitigation/protection measures in new-build properties, enforced by local planning authorities. In parallel with this, a certification scheme would confirm properties had met minimum requirements for flood prevention/mitigation.
- Lead to insurers taking due account, and hence credit for, flood prevention/mitigation measures applied to a property when setting the flood insurance premium. As we read above, in the context of the poverty premium, insurers can increasingly make precise risk assessments before setting the premium for insurance cover. Where appropriate flood risk management measures have been installed, this should hopefully make flood insurance more affordable, and available, with a consequent reduction in exclusion.

We cannot prevent flooding but, if implemented, the measures in my Private Members Bill would help reduce the impact of flooding and place future property development/improvements on a more sustainable footing. The Bill – hopefully now as a series of amendments to the Levelling-up and Regeneration Bill – would also help level the Flood Re 'playing field' and by doing so improve inclusion and financial resilience for many home and SME owners. Although the cost-of-living crisis will hopefully dissipate, climate change suggests we need to manage flood risk for the long term.

# Closing the transparency gap

Duncan Minty, Independent adviser on insurance and ethics

Insurance is now the biggest contributor to the poverty premium – the extra cost incurred by low-income families just because they are on low incomes. That’s the stark finding of a recent report by the IFoA and Fair By Design (*The hidden risks of being poor: the poverty premium in insurance*), and it caught the eye of the *Financial Times*, whose subsequent article highlighted many of the ethical issues involved.

Such attention is no longer rare. That’s because the poverty premium has numerous social and political implications for business, which is newsworthy. So what are the main conclusions of the poverty premium report, and how can actuaries engage with them?

The overarching finding highlighted by the report relates to transparency. There’s a clear gap between what is confirmed in this research and what insurers are acknowledging. Low-income families experience the poverty premium, but neither they nor consumer advocates are able to find out about the data or assessments driving those extra costs. Is ‘commercial sensitivity’ a realistic response from insurers? It doesn’t seem sustainable, given how regulators and consumer groups are increasingly building their own digital capabilities ‘to get inside those models’.

Around what issues are those digital capabilities likely to be concentrated? It seems inevitable that discrimination, indirect or otherwise, in insurance pricing will be at the top of the list, given that the Treasury Committee told the regulator to address this back in 2019. The report acknowledges the sector’s reassurances that they comply with equalities legislation, but times are changing. ‘Tell me’ has become ‘show me’, which is turning into ‘prove to me’. So actuaries need to be prepared to ‘show their workings’, if for no other reason than to evidence the distance between themselves and any unethical practices that might emerge from a sector-wide review.

While the fairness of pricing may seem like a closed issue now that the ‘loyalty penalty’ review is over, in reality it is more like the ‘end of the beginning’. The implications for low-income families from the widespread use of credit scores, postcode profiles and individualised pricing in insurance remain unaddressed. To be fair, some insurers are recognising the need for change in relation to credit scores; their challenge, however, is to make that break with tradition. Real leadership is needed on this, to ensure that ‘the talk is walked’.

Tradition is something that is often reinvented to meet the times. After all, the real disruption in insurance will not be in relation to technology, but in relation to ‘the way we’ve always done things’. When considering how to evolve our traditions, input from a variety of audiences will be invaluable. For example, data scientists can help explore the possible and impossible, while social scientists can help explore the wider landscape in which our markets operate. The poverty premium is not a new issue; joined up thinking will help tackle it.

A further issue that we are likely to see aired relates to data poverty. If insurance pricing now relies so heavily on a stream of robust data about us, what does this mean for low-income families? The overlap between data poverty and the poverty premium has implications for a range of issues, but especially fairness and identity. Are low-income families being fairly represented in insurer databases? To what extent is data poverty down to a lack of data, or the cost of collecting more?

These are some of the hard questions that the wider insurance sector is going to find itself having to address. While much of that response will be reassuring for the public, a grim reality still remains: insurance is the biggest contributor to the poverty premium. The public instinctively feel that there’s something wrong there, and the actuarial profession will increasingly be called upon to find out why.

While the fairness of pricing may seem like a closed issue now that the ‘loyalty penalty’ review is over, in reality it is more like the ‘end of the beginning’.

# Creating an inclusive social care system

Rob Yuille, Head of Long-term Savings Policy at the Association of British Insurers

The interaction between the state and the insurance industry is central to questions about the inclusiveness of insurance. In any market, what the public sector provides is subject to political choices, and what the private sector provides is subject to commercial choices. Insurance is often a social good, so controversies and debates arise when there are gaps between public and private provision.

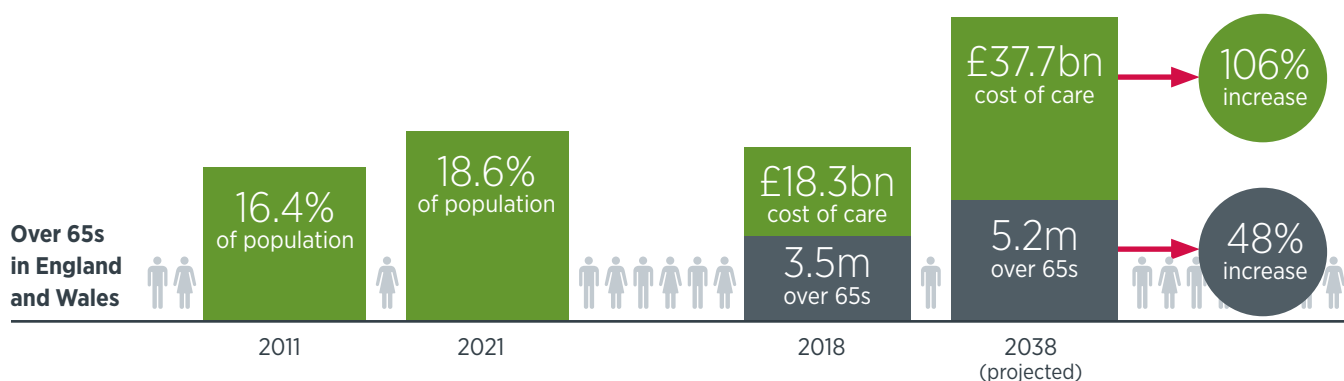
Paying for care in later life, one of the challenges of our time, is a classic example of this in the insurance and long-term savings industry.<sup>1</sup> When care needs arise, it is often a stressful time for the individual and their family. An inclusive approach to social care would mean ensuring everyone has a smooth care journey built around independence, choice and control. In a system that works well for everybody, paying for care is just one aspect of that – albeit a critical one.

There will always need to be a mixture of public and private funding for adult social care. In its 2019 report, the House of Lords Economic Affairs Committee said: ‘No country relies primarily on private insurance to fund adult social care costs... Private insurance cannot provide the amount of funding required by the social care system.’<sup>2</sup> On the other hand, governments have struggled for decades to reach a settlement that they can sell to the public without accusations

of a ‘dementia tax’ or ‘death tax’. A consequence of an ageing society is that it needs investment: the 2021 census results for England and Wales show that the proportion of the population over 65 is higher than ever before – now 18.6%, up from 16.4% in 2011.<sup>3</sup> The number of over 65s needing help with one or more daily living tasks is projected to increase by 48% over 20 years, from 3.5 million in 2018 to 5.2 million in 2038;<sup>4</sup> over the same period<sup>5</sup> the total costs of care are projected to rise by 106% for adults aged 65 and over, from £18.3 billion to £37.7 billion.

Debate around the UK government’s current proposals for social care funding reform in England has centred on how generous state provision should be, and who it should benefit, with two key questions:

- At what thresholds should the state cover all costs? Inevitably, the state must pick up the care costs of those who don’t have sufficient income or assets, but there is a political choice about how far to extend this provision.
- How far should the state go to protect people from catastrophic care costs? This clearly benefits the wealthy, but the idea that someone could lose all of their wealth, and have to sell the family home in a crisis, resonates politically.



1 | The focus here is on later life – the state picks up the vast majority of care costs for working age adults, though there is clearly a role for income protection in some circumstances.

2 | <https://publications.parliament.uk/pa/ld201719/ldselect/ldeconaf/392/39202.htm>

3 | <https://www.gov.uk/government/publications/census-2021-first-results-england-and-wales/population-and-household-estimates-england-and-wales-census-2021>

4 | <https://www.scie-socialcareonline.org.uk/projections-of-adult-social-care-demand-and-expenditure-2018-to-2038/r/a116f0000UuaNgAAJ>

5 | <https://www.nao.org.uk/wp-content/uploads/2021/03/The-adult-social-care-market-in-England.pdf>

# There is clearly a large gap that can only be filled by people making their own provision. How can the government and industry work together to help make this happen?

There are good questions to be asked about whether the government's proposed plan for social care is the right system and whether it's fair. Those questions are not addressed in this article, but the government's proposal for higher means-test thresholds and a cap on lifetime care costs is a step forward, as it provides some more certainty for consumers.

Social care is also an area where the UK nations have tested how far devolution can take them, with the Northern Ireland Executive consulting on proposals for reform and Scottish and Welsh governments diverging from England. Free personal care is provided in Scotland, while the Welsh government has chosen a more straightforward single threshold for care-funding eligibility, with a weekly cap on the cost of care at home. In both cases, individuals must still cover some costs, especially if they choose more expensive care. Independent reviews in both nations highlighted the need for more funding.<sup>6,7</sup>

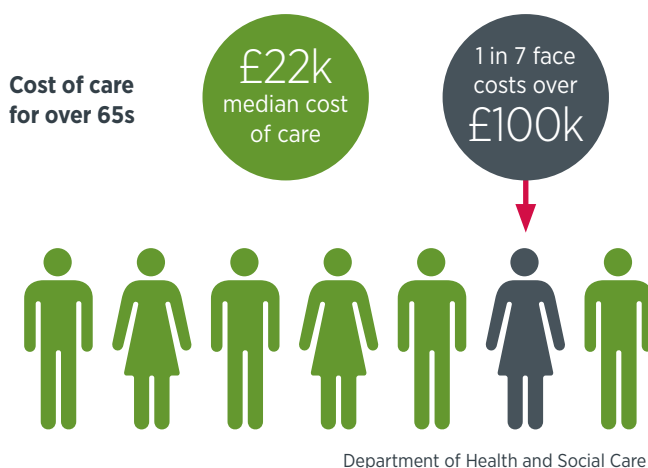
There is clearly a large gap that can only be filled by people making their own provision. How can the government and industry work together to help make this happen? It may be instructive to look at other areas where governments have intervened to support a market. Other than the state insuring citizens directly itself, as with the NHS, a government can take action to make sure that risks are covered by:

- Providing a backstop through guarantees or reinsurance if a provider takes on some less attractive risk; these are funded by the taxpayer, for example mortgage guarantee schemes, or by industry, as with Flood Re.
- Providing insurance in exceptional circumstances, such as the Designated Settings Indemnity Support scheme where care providers took Covid-19 patients from the NHS to address gaps in insurance where public liability and/or employers' liability cover wasn't commercially available.
- Imposing a universal service obligation on firms, as with privatised utilities; or creating an organisation with such an obligation, for example NEST for workplace pensions.
- Imposing obligations on customers, as with motor insurance; or others, such as employers in automatic enrolment.

- Creating incentives, as with the Lifetime ISA or Help to Save.
- Promoting engagement, raising awareness, and ensuring information, advice and guidance are available, as with pensions outside of automatic enrolment.

None of these work perfectly and all can be contested. Most have been considered as a solution for social care at some point. Functioning care markets overseas – such as in Germany – have a compulsory element, but also a central role for employers, and a history and culture of social insurance, which the UK does not.<sup>8</sup>

Short of compulsion, the above interventions all rely on demand that has always been lacking for a number of reasons – not least because needing care in later life is a risk that is neither easy nor pleasant to plan for. The chances of requiring care are high, and the costs potentially large: before the new system was proposed, privately funded care was projected to increase by 113% in the period from 2018 to 2038.<sup>9</sup> According to the Department of Health and Social Care, the median lifetime cost of care for over 65s (excluding 'hotel' and accommodation costs) is £22,000, and 1 in 7 face costs of over £100,000.<sup>10</sup> There are also many factors affecting a person's risk of needing care – social, economic, medical, political, personal – that are likely to change over a period of decades.



6 | <https://www.gov.scot/groups/independent-review-of-adult-social-care/>

7 | <https://research.senedd.wales/research-articles/how-should-we-pay-for-social-care-in-the-future/>

8 | <https://www.nuffieldtrust.org.uk/research/what-can-england-learn-from-the-long-term-care-system-in-germany#3-carefully-balance-cost-containment-with-individual-responsibility>

9 | <https://www.nao.org.uk/wp-content/uploads/2021/03/The-adult-social-care-market-in-England.pdf>

10 | [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1044903/adult-social-care-charging-reform-impact-assessment.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1044903/adult-social-care-charging-reform-impact-assessment.pdf)

A silver bullet solution of a single product has always been very unlikely, although the industry has an existing suite of products that can help people pay for care in later life.

Conversely, there is good reason for people to plan how they will pay for care. Private funding can help people achieve security for later life, providing a greater degree of independence, a higher quality of care, a stronger sense of wellbeing – all in turn supporting the government's objectives. Planning can also provide financial security and certainty in later life and the ability to pass money on. To enable people to plan, the Association of British Insurers (ABI) supports the introduction of market-based interventions, such as raising awareness and creating incentives. These will not be sufficient in themselves, but they are necessary to fill the funding gap, and desirable for individuals and for the state.

A silver bullet solution of a single product has always been very unlikely, although the industry has an existing suite of products that can help people pay for care in later life. This consists of a small market specific to meeting care costs, and a much larger market of products that self-funders can draw upon to fund care alongside other retirement income needs:

- **Immediate needs annuities**, a guaranteed income for life to cover care fees
- **Life insurance policies** which pay out on death, or if a care need arises before death
- **Pensions and investments**, to provide a lump sum or retirement income
- **Equity release**, to provide either a lump sum, a regular income, or both, which can be used to meet social care costs, especially at home.

At the ABI, we think the following actions are needed to help people plan, and to help the industry to respond.

First, make sure that the state offer is clear, and raise awareness of it. The details of the policy must be settled and the public needs to be helped to understand that they are likely to face some care costs. The proposed system for England comes with complexity and should be simplified, where possible.

Second, increase access to advice and guidance throughout the entire journey, from mid-life to the point of arranging a care place. This involves important roles for the Money and Pensions Service and local authorities, as well as specialist regulated financial advice.

Third, provide incentives to enable people to make their own provision, or at least remove disincentives to do so. Most obviously, payments from pensions could be made tax-free, or at a lower rate if paid to a care provider.<sup>11</sup> This would be an inclusive measure as its benefits would be widely distributed. The government should also ensure that the more generous means-test avoids the unintended consequence of inhibiting private provision.

Fourth, and arguably most difficult, make it last. The public needs confidence that making their own provision is worthwhile and will be durable.

The solutions to enable this market to grow will be different to those for other markets – it is a quite different risk profile to healthcare, pensions or income protection, with very different political and commercial choices.

Finally, to be inclusive, the insurance industry needs to offer its expertise not just in preventing and managing risks and supporting customers when they need it. It also needs to play a part in contributing to the debate on how to make the whole system work, recognising that society benefits from a social care system with wellbeing at its heart, and which provides a good quality of care for everyone.

11 | <https://www.pensionspolicyinstitute.org.uk/media/3212/20190625-care-in-later-life-incentives-to-use-assets-to-pay-for-care.pdf>



# Improving insurance with some adverse selection

Pradip Tapadar, Senior Lecturer, and Guy Thomas, Honorary Lecturer,  
University of Kent

Public policy on insurance risk classification is typically perceived as a trade-off between two types of argument. On the one hand, social arguments against discrimination suggest a need for limits on insurers' ability to use individual data in setting premiums. On the other hand, economic arguments under the rubric of 'adverse selection' or 'anti-selection' suggest that such limits make insurance markets work less well.

In this article we demonstrate that this trade-off is often illusory. Not all adverse selection is adverse, and public policy should not seek to eliminate all adverse selection. Limits on insurance discrimination that induce the right amount of adverse selection (but not too much) can lead to more risk being transferred, and more losses being compensated. This makes insurance work better for society as a whole.

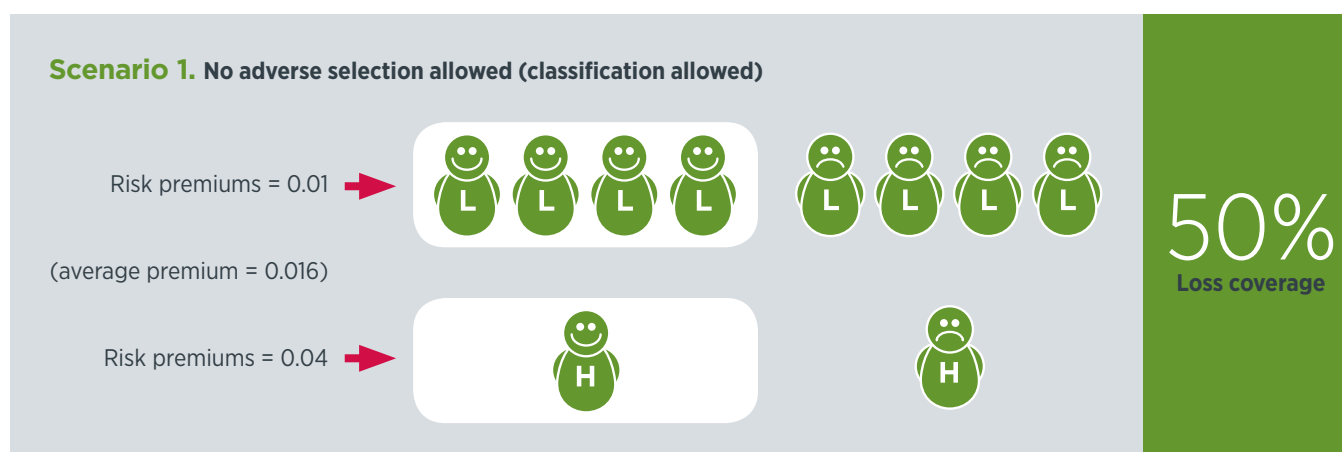
To fix ideas, it helps to think of a specific market, say life insurance. Our point can then be illustrated using the following toy example.

Consider a population of just ten people, comprising two risk groups: eight low risks with probability of loss 0.01, and two high risks with probability of loss 0.04. Assume that all losses and insurance cover are for unit amounts (this simplifies the presentation, but it is not necessary). Then consider three alternative scenarios for insurance risk classification.

In Scenario 1 members of each risk group are charged a price equal to their true probability of loss. The responses of high and low risks are the same: exactly half the members of each risk group decide to buy. The white areas denote the people who are covered.

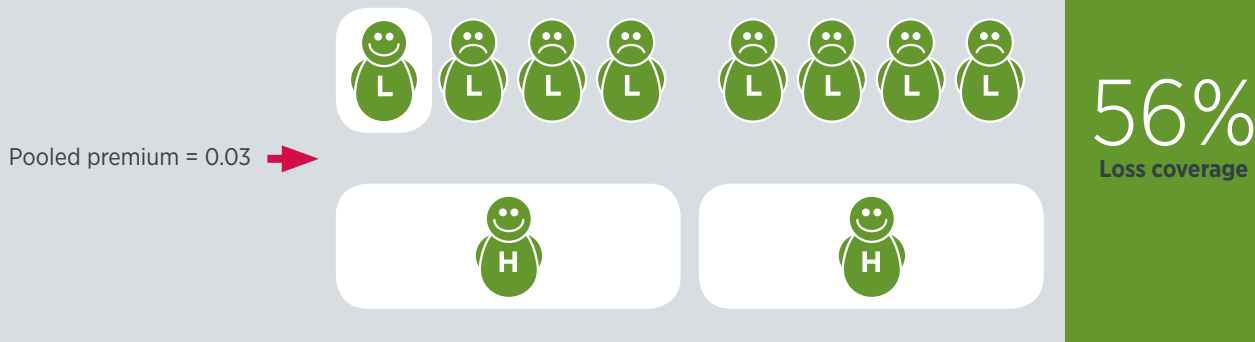
The average premium paid in Scenario 1 is 0.016. Exactly half the population's expected losses are compensated by insurance. We describe this as 'loss coverage' of 50%. The calculation is expected insured losses, divided by expected population losses, that is:

$$\text{Loss coverage} = \frac{(4 \times 0.01 + 1 \times 0.04)}{8 \times 0.01 + 2 \times 0.04} = 50\%$$



Not all adverse selection is adverse, and public policy should not seek to eliminate all adverse selection.

### Scenario 2. Some adverse selection (classification banned)



Next consider Scenario 2. Risk classification has now been banned, so insurers have to charge a common pooled premium to everyone, somewhere in between the two previous premiums. At the pooled premium, high risks are more likely to buy, and low risks less likely (adverse selection). The white areas denote the three people who are now covered. The pooled premium is 0.03, which is set so that expected profits on low risks exactly offset expected losses on high risks.

Note that in Scenario 2, the average premium paid is higher (0.03 compared with 0.016 before), and the number of people covered is lower (three compared with five before). These are the essential features of adverse selection, which the example fully represents. But there is a surprise: despite the adverse selection, Scenario 2 achieves a higher transfer of risk, and hence a higher expected compensation of losses.

Intuitively, this can be seen by comparing the white areas. In Scenario 1 the shading over one high risk has the same area as the white area over four low risks. Those equal areas represent equal quantities of risk transferred. Then notice that in Scenario 2 the total white area is larger than in Scenario 1. This represents more risk being transferred, and hence more expected losses being compensated.

The visual intuition is confirmed when we calculate the loss coverage:

$$\text{Loss coverage} = \frac{(1 \times 0.01 + 2 \times 0.04)}{8 \times 0.01 + 2 \times 0.04} = 56\%$$

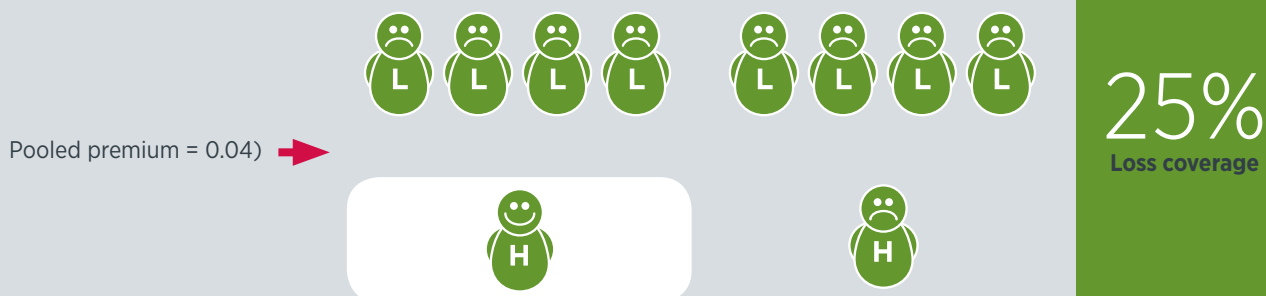
which is higher than the 50% in Scenario 1.

Scenario 2, with a higher expected fraction of the population's losses compensated by insurance – higher loss coverage – seems superior from a social viewpoint to Scenario 1. The superiority of Scenario 2 arises not despite adverse selection, but because of it.

So from society's viewpoint some adverse selection is a good thing. But like most good things, it's not good without limit. If adverse selection goes too far, it can lead to lower loss coverage. Scenario 3 illustrates this case. Adverse selection has now progressed to the point where no low risks, and only one high risk, buy insurance. The average premium has risen to 0.04. The white area is smaller than in both the earlier scenarios. The loss coverage is:

$$\text{Loss coverage} = \frac{(4 \times 0.01)}{8 \times 0.01 + 2 \times 0.04} = 25\%$$

### Scenario 3. Severe adverse selection (classification Banned)



## From a social viewpoint, compensation of the population's losses is the main purpose of insurance.

Taken together, the three scenarios suggest that risk classification increases loss coverage if it induces the 'right amount' of adverse selection (Scenario 2) but reduces loss coverage if it induces 'too much' adverse selection (Scenario 3). Whether Scenario 2 or Scenario 3 actually prevails depends on the response of high and low risks to changes in prices – that is, the 'demand elasticities' of high and lower risks.

The arithmetic illustrated in the toy example applies broadly. It does not depend on the specific context of life insurance, nor on any unusual choice of numbers for the example. When we incorporate features omitted for simplicity from the example, such as profit and expense loadings, the basic point does not change.

From a social viewpoint, compensation of the population's losses is the main purpose of insurance. Policymakers may therefore prefer risk classification regimes that maximise loss coverage. This typically means regimes that produce a non-zero level of adverse selection, and somewhat lower numbers insured than if adverse selection were eliminated.

Our argument contrasts with orthodox economic arguments that policymakers should either seek to minimise adverse selection, or make a trade-off against other policy preferences such as dislike of discrimination. The orthodox arguments highlight that adverse selection leads to a rise in average price and fall in numbers insured. What these arguments miss is that adverse selection also leads to a shift in coverage towards higher risks – from a social viewpoint, the 'right' risks, those who need insurance the most. If this shift in coverage is large enough, it can more than outweigh the fall in numbers insured. So in aggregate, loss coverage is increased.

In practice, a complete ban on risk classification is unlikely; that is an exaggerated feature of the toy example. But the logic of the example does suggest that to maximise loss coverage, policymakers need to set limits on insurers' use of data. Using too much data to classify risk too finely and remove all adverse selection reduces the quantum of voluntary risk transfer, and so makes insurance work less well.

Finally, note that the concept of loss coverage is not predicated on any special consideration for the high risks. It is a measure of the overall efficacy of insurance in effecting voluntary transfer of risk. It stands apart from the social arguments against discrimination mentioned at the start of this article. It is a matter of arithmetic, not of ethics.

# Private medical insurance – a personal view

Brian Gedalla, CStat, Chartered Statistician (retired), Affiliate member of the IFoA (1999-2020)

Private medical insurance (PMI) in the UK uses a broken marketing and pricing model and can be uncompetitive, often exploiting captive customers. That's a very bold statement to make, but I make it from the perspective of an unhappy customer.

Let me explain.

I first drafted this article two years ago in the early stages of the pandemic, some three and a half years after I retired from a career in insurance lasting over 30 years. For nearly all of that time I had enjoyed the benefit of PMI as part of my remuneration package. I paid tax on the notional value of the premiums paid by my employers on my behalf and was grateful for the protection it offered me and my family.

In general, the cover was of the highest possible level, including the best hospitals, unlimited access to consultants, and treatments, as well as diagnostics, on demand. If there were personal excesses, these were modest and, perhaps most important of all, whenever I changed job, the transition from policy to policy was seamless, with no medical underwriting and no excluded prior conditions.

Like most reasonably healthy employees, I saw it as a useful 'perk' but made only intermittent use of the cover, usually for minor conditions that cleared up after brief treatment.

But then I retired! Since then, and particularly in the light of 'lessons learned' through two years of pandemic, lockdowns, and the consequences both social and economic, I have come to see PMI in a different light and have become increasingly convinced that my opening statement is true and should be a cause of concern for actuaries, insurance professionals and society in general. I will return to my post-pandemic thoughts at the end of the article, but for now, let me set out the problems with PMI as an insurance product and not as an

employee perk. Because once no longer in receipt of PMI as a benefit of my job, suddenly, the 'game' was very different.

I quickly discovered that all those minor medical incidents were now pre-existing conditions and if I wanted them covered, I had to go through underwriting and quite possibly find them excluded anyway. In fact, it rapidly became clear that the only way to preserve my existing cover was to remain with the same company that had provided the PMI to my final employer, whether I liked that company or not. It also meant that I was a completely captive customer and had no option but to pay whatever premium they demanded. I could only reduce that premium by accepting large excesses or reduced levels of cover.

At successive renewals the premiums increased, often wildly out of line with inflation, justified usually by my increasing age. While I was able eventually, through a broker, to transfer my policy to a much cheaper provider, it was to a company that I really don't like and I subsequently discovered that its claims procedure leaves a lot to be desired.

So, as a statistician/actuary involved in general insurance for my entire working life, what does all this tell me?

My view is that if PMI is intended as a personal insurance product, rather than a corporate perk, then selling it as an annual renewable insurance fails to meet the basic objectives of such a product. The reality is that when sold as part of large corporate schemes for the benefit of essentially healthy employees, premiums can be kept comparatively low, as the occasional large claim is easily offset by the mass of scheme members whose claims are minimal or even zero. The same pricing model will also work when providers offer cover to younger individuals, either through 'affinity' schemes or as pure solo policies – the claims experience of the corporate groups for similar age groups can inform the pricing strategy for the individuals.

... once no longer in receipt of PMI as a benefit of my job, suddenly, the 'game' was very different.

But as the policyholders age, and in particular leave employment, the insurers can legitimately argue that what started as an insurance policy now rapidly morphs into a maintenance contract as claims become inevitable. Insurers don't help themselves by not always exercising proper control over claims costs and too often entering into arrangements with healthcare providers (not, I hasten to add, the medical consultants, whose fees are ruthlessly monitored, but rather the private hospitals, sometimes even owned by the insurers) by which often eye-watering bills are paid without any challenge.

The simple fact is that the older we get, the more likely we are to have had medical episodes. That makes us captive customers in a way that we are not for any other class of personal insurance. For example, however poor our motor insurance claims record might be, most of us can usually 'shop around', as we are constantly exhorted to do by the FCA, consumer groups and others, to find a cheaper policy. While we might suffer premium loading, we are unlikely to be told, "You've had an accident, so we won't cover you for accidents". If we buy breakdown cover, we won't be told, "You had a flat tyre last year, so your cover now excludes flat tyres", and so on. Yet that is exactly what happens with PMI. I am reminded of the travel underwriter I once worked with back in the 80s who dismissed the suggestion he should include cover for cancellation or medical costs due to pregnancy existing at policy inception with, "A household underwriter wouldn't cover a building already on fire. Why should I?", but the very nature of PMI is to cover medical costs and few customers want to have the very condition they have previously suffered from excluded.

This means that insurers are in an unusually strong position when it comes to their more elderly or previously sick customers. Essentially, they can charge whatever they like at renewal as the only sanction the customer has is to lapse the policy. And once lapsed, they will quickly find that reinstatement with any provider without prior-condition exclusion is either impossible or prohibitively expensive.

Of course, the insurers will argue, and have the data to support, that the premiums they charge reflect the deteriorating claims experience, and that the fiercely competitive nature of the corporate employee sector means they don't make huge profits there either.

But what all this says to me is that this is simply not a suitable product to be sold on an annual renewable basis. While the corporate customers obviously want to be able to offer the employee benefit at the least possible cost, and maybe some of their employees don't want their taxable benefit to be too high either, if the consequences of the current structure are explained properly, perhaps the employees would take a different view and come to realise that their own long-term interests would be better served by the product being restructured as a lifetime purchase, ie as a long-term assurance rather than a short-term insurance.

In other words, we should be offered, and should be buying, PMI as we used to buy life assurance, with the expected costs for lifetime cover properly spread over our lifetimes so that when we need the insurance it is actually there and does not turn out to have been an illusory perk whose sole purpose was to attract us to a particular career choice. Such policies need to have their premiums and coverage fixed at the outset (and not 'reviewable' by the insurer at crucial break points as too many 'whole life' policies do these days). Insurers will argue that so-called lifetime care policies are extremely difficult to cost and will point to the problems providers of such plans have got into in the United States. They will also point out that lifetime plans are almost unknown in Europe.

But lifetime health insurance isn't the same as lifetime care. It wouldn't involve an open-ended commitment to residential care home and nursing fees. I am not suggesting that the cover provided should suddenly also include chronic conditions and their care (always excluded from PMI), merely that acute care should always be available when the customer needs it and not just when it is cheap to provide for a tiny subset of the policyholder base.

I said I'd come back to my post-pandemic views. Reading my draft through again in the spring of 2022 has made me realise that the issues I was writing about back in 2020 are in even more urgent need of being addressed than when I first drafted the piece. If the last two years have taught us anything at all, it must be that the British love affair with the National Health Service has created a chimera, an illusion that the NHS is a wonderful universal provider of cradle-to-grave healthcare, the envy of the world and that all that is needed to solve its many problems is for government to pump an ever-greater

... we should be offered, and should be buying, PMI as we used to buy life assurance, with the expected costs for lifetime cover properly spread over our lifetimes ...



proportion of GDP into it. For long periods, we were exhorted by ministers and their medical officers to 'protect the NHS' and this became the rallying cry. We have emerged (we hope) from the pandemic to find ever-lengthening queues for NHS specialist care and a growing crisis of access to any kind of NHS treatment. I am not trying to make a political point here, merely to comment on what is self-evidently true. We are already seeing reports of patients dipping into their savings to fund private treatment that in many cases could well be life saving, yet would not be available on the NHS without potentially life-threatening delays. The government has announced substantially increased funding for the NHS to try to reduce waiting times, but ministers admit that the problem will get worse long before any improvements can be delivered.

It seems to me that the PMI industry has an opportunity, perhaps even a duty, to step up to the plate and to design and market products that are attractive and affordable to as wide a proportion of the population as possible. The more patients

that can be treated quickly and early in the development of their conditions in the private sector, the more pressure can be taken off the NHS. The current structure of low-cost employee-perk policies and high-cost, to the point of unaffordable, policies for the retired population simply will not meet these requirements. Worse, as policyholders find they cannot afford their PMI and lapse their policies, they will fall back onto the NHS, increasing the demand for taxpayer-funded healthcare. The pandemic, and the growing economic crisis following it, has made it imperative that for the good of the country as a whole, we find ways to put the PMI ship back in order and do our bit to 'protect the NHS'!

Come on now! There are some very clever people working in general and health insurance. Surely some of them can design and price a health insurance plan that actually works!

It seems to me that the PMI industry has an opportunity, perhaps even a duty, to step up to the plate and to design and market products that are attractive and affordable to as wide a proportion of the population as possible.



# Institute and Faculty of Actuaries

## About the Institute and Faculty of Actuaries

The Institute and Faculty of Actuaries (IFoA) is a royal chartered, not-for-profit, professional body. We represent and regulate over 32,000 actuaries worldwide, and oversee their education at all stages of qualification and development throughout their careers. We strive to act in the public interest by speaking out on issues where actuaries have the expertise to provide analysis and insight on public policy issues.

To fulfil the requirements of our Charter, the IFoA maintains a Public Affairs function, which represents the views of the profession to government, policymakers, regulators and other stakeholders, in order to shape public policy. Actuarial science is founded on mathematical and statistical techniques used in insurance, pension fund management and investment.

Actuaries provide commercial, financial and prudential advice on the management of assets and liabilities, particularly over the long term, and this long-term view is reflected in our approach to analysing policy developments.

A rigorous examination system, programme of continuous professional development and a professional code of conduct supports high standards and reflects the significant role of the profession in society.

## Contact us

If you would like to know more about the IFoA's work please contact us at: [policy@actuaries.org.uk](mailto:policy@actuaries.org.uk)

### Beijing

14F China World Office 1 · 1 Jianwai Avenue · Beijing · China 100004  
Tel: +86 (10) 6535 0248

### Edinburgh

Level 2 · Exchange Crescent · 7 Conference Square · Edinburgh · EH3 8RA  
Tel: +44 (0) 131 240 1300

### Hong Kong

1803 Tower One · Lippo Centre · 89 Queensway · Hong Kong  
Tel: +852 2147 9418

### London (registered office)

7<sup>th</sup> Floor · Holborn Gate · 326-330 High Holborn · London · WC1V 7PP  
Tel: +44 (0) 20 7632 2100

### Oxford

1<sup>st</sup> Floor · Park Central · 40/41 Park End Street · Oxford · OX1 1JD  
Tel: +44 (0) 1865 268 200

### Singapore

5 Shenton Way · UIC Building · #10-01 · Singapore 068808  
Tel: +65 6906 0889

[www.actuaries.org.uk](http://www.actuaries.org.uk)

© 2022 Institute and Faculty of Actuaries