

April 2001

## **Comments regarding additional information requested from the insurance industry**

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### MAIN MESSAGE

The most important message is my answer to question 27. In this I show that an examination of actual premium rates suggests large variations for identical insurance covers, both between companies and over time. In this context, the impact on insurance markets of outlawing access to genetic tests is likely to be very small.

## **Background**

Following its initial public consultation on genetic testing and insurance, the Human Genetics Commission prepared a list of further questions directed at the insurance industry, and also sent these questions to other persons who had responded to the public consultation. This document gives my answers to some of the questions. It supplements my main submission *Genetics and insurance: an actuarial perspective with a difference*, published at [www.guythomas.org.uk](http://www.guythomas.org.uk).

## **Answers to selected questions**

8. *We are told that the bulk of life insurance is written on the basis of placing people in broad bands of age, gender etc. What are the bands, what are the criteria for determining in which an applicant falls and what basis is used to set the premium loading for high risk bands?*

As I explained in my main submission, the use (or not) of particular criteria in insurance risk classification is to a considerable degree a matter of custom and habit (the example I gave was the variable practices in regard to smoking status). Life or health-related insurance requires some classification bands, in particular it is difficult to do without some classification by age; but almost all finer details are discretionary.

The empirical evidence for this large scope for discretion is that the bands and criteria used vary widely between different markets and countries. For example, in the UK private medical insurance (eg BUPA, PPP) is generally based on 10-year age bands, with no differentiation by sex. In contrast, life insurance is based on 1-year age bands, with different rates for males and females. There is no good rationale for the difference in approach: it is simply a matter of custom and practice in the two markets.

As an aside: there is an inconsistency between the assertion in the Institute of Actuaries' submission that self-selection presents greater problems in markets other than simple life insurance, and the current market practice of using *broader* classifications (which provide less 'defence' for the insurer against self-selection) in those other markets. The inconsistency

arises because the assertion is a mainly political strategy for the insurance industry: make limited concessions in relation to life insurance, but obfuscate about everything else.

10. *What information is routinely disclosed, or is disclosed on request, to an individual about the calculation of a premium, particularly where it involves an additional loading because of family history or genetic test results?*

This is a question where the insurance industry's public relations answer and practical reality may diverge. From a practical viewpoint, it has never been obvious to me as an insurance customer how I would become aware if my premium was at a standard rate for my age, or carried a health-related loading. I am aware of the provisions of the Disability Discrimination Act which allow a health-related loading to be challenged, but I am not clear of how I would become aware of the fact of such a loading. There seems much scope for the insurer to be evasive about the matter.

13. *What measures are in place to ensure that insurers only request and receive specific and relevant material from a patient's medical record? Could you give a general indication of the principles used in determining whether or not particular non-genetic risk factors are asked about?*

There are no restrictive principles except cost-efficiency. Insurers simply ask for as much information as possible, often asking the same questions in several different ways.<sup>1</sup>

15. *What evidence has the ABI collected from insurers to show whether they are complying with its published Genetic Testing Code of Practice? Are collated figures available for the log of applications containing genetic test results, referred to in paragraph 39 of the code?*

I believe the ABI has little *practical* concern for compliance. When the Alzheimers' Society produced incontrovertible evidence of non-compliance, the ABI would not even acknowledge their correspondence (until press comment by me and others started to appear). The Genetics Code of Practice is an example of "self-regulation". The essential features of "self-regulation" are no enforcement, and no penalties for non-compliance.

20. *ABI currently uses a ceiling of £100,000 for mortgage related life insurance policies, below which it does not expect genetic test information to be disclosed. What might be the impact of:*

- *Extending this to all life assurance (not just new policies linked to a mortgage)*
- *Raising the ceiling to eg £250,000 or £500,000*
- *Introducing comparable ceilings for other types of insurance (eg critical illness or long term care)*
- *Linking a ceiling to the index of house prices or to income?*

The impact of each of these suggestions would be immeasurably small.<sup>2</sup> (If the ABI suggests otherwise, ask them for their method of measurement, and what steps they have taken to collate the necessary data.)

21. *In view of the low frequency of the identified conditions in the population, is there any basis for thinking the costs of adverse selection would be significant if these ceilings applied? Would the costs of adverse selection be borne by underwriters or other policyholders?*

The insurance industry's answer to this type of question is always the mantra 'other policyholders will pay'. If this is the whole story, why is the industry worried about it? The truth is that the cost will be partly passed on and partly absorbed in margins; the exact split is probably impossible to measure even *ex post*, particularly when the aggregate cost is so small anyway.

26. *HGC has been given an example of a genetic reinsurance pool to assist those with genetic conditions to gain access to affordable insurance (copy enclosed). Can you comment on such reinsurance pools and on what, if anything, the insurance industry is doing to investigate such an approach?*

The reinsurance pool idea could be acceptable, if that is how the industry wishes to arrange things; but I see no reason why taxpayers should finance any of the cost.<sup>3</sup>

27. *Some have suggested that HGC adopt a broader definition of personal genetic information to cover family history information, the results of clinical examination, imaging technique, or tests on DNA, RNA, proteins or other metabolites. What might be the implications for insurance if such a definition was adopted?*

I would like to concentrate on family history in this answer, since I think some of the other suggestions are not sufficiently defined.<sup>4</sup>

The implications of restricting access to family history are likely to be very small in most markets. For example, premiums for term insurance would probably rise by less than 10%, which would be quite indiscernible within the much larger variation which already exist between the rates offered by different companies, and over time. The following paragraphs illustrate these variations.

*Inter-company variations*

Lowest monthly premium rates for 25-year level term assurance £100,000 for a standard male non-smoker life aged 25 next birthday:

<b>Company</b>	<b>£ per month</b>
Legal and General	11.04
Scottish Amicable	11.23
Zurich Life	11.50
Standard Life	11.79
Guardian Financial	12.30
Virgin Direct	12.39
Liverpool Victoria	13.85
Canada Life	15.50

Source: Financial Adviser (trade journal), 19 October 2000.

Note that the eighth lowest rate is **40%** higher than the lowest. And there many (probably more than a hundred) companies offering worse rates!<sup>5</sup>

The reasons for these substantial variations in premium rates are probably mainly commercial: for this particular class of business, the different companies have different combinations of underwriting standards, expense loadings, profit margins, and desired price competitiveness (and hence volume of sales).

#### *Inter-temporal variations*

As well as substantial inter-company variations on any particular date, there are also substantial commercially-driven variations over time.<sup>6</sup> Here are just few examples:

- In August 2000, 2 months before the date of the table above, one of the companies (Zurich Life) announced that it was cutting its premiums for term assurance by **up to 40%**.<sup>7</sup>
- In November 2000 of the table, another company (Swiss Life) outside of the top eight cut rates for female non-smokers by **up to 44%**.<sup>8</sup>
- This week (26 April 2001) the headline in *Financial Adviser* was: “Price war breaks out in term assurance market.” Norwich Union is reported to have cut rates for combined term assurance + critical illness cover for female smokers by **up to 37%**.<sup>9</sup> Standard Life is reported to have cut term assurance premium rates **seven times** in the last 2 years.

As the above figures suggest, term assurance rates have tended to fall sharply over the past few years, but clearly this cannot always be the case or the rates would decrease to nothing. The explanation is that insurance markets tend to be cyclical: there are periodic price wars, when rates are generally falling, and other periods (eg the late 1980s) when rates are generally increasing.<sup>10</sup> This is a commercial phenomenon, not a scientific phenomenon.

Relating all these data back to genetics: in the context of these inter-company and inter-temporal variations, the aggregate impact of outlawing access to genetic test results is likely to be negligible. The “scientific” account of premium rating presented by industry lobbyists bears astonishingly little relationship to the commercial facts.

Please note that in this section, I am **not** attempting to prove that term assurance rates contain large margins. I think it is quite possible that some of the recent premium reductions are excessive, and may lead to very considerable losses. The point I am making is that **both the excessive premium increases in the late 1980s, and the current (possibly) excessive reductions, are mainly commercially-driven market phenomena. Genetics is likely to be quite inconsequential in this overall context.**

28. Please estimate the costs of adverse selection for the options outlined in Q20 above on the basis that the restriction on the use of genetic tests were extended to the use of a family history of Mendelian disorder.

I believe the costs would remain extremely small, and probably largely indiscernible in the context of inter-company and inter-temporal variations such as illustrated in 27 above. It can also be noted that most of Professor Macdonald's modelling of the impact of genetic test restrictions assumes that family history is not available to insurers.

29. The question and my answer are similar to question 27.

## Other comments

There are three further comments I wish to make:

*Why are insurers making such a fuss?*

In the light of figures such as those in my answer to question 27 above, one might wonder: why are insurers making such a fuss? I do not really know. Perhaps insurers find it easier to think about political tactics and lobbying than to think about data and magnitudes. Perhaps policy in this area tends to be devolved to underwriters, who have a personal career interest (quite distinct from company shareholders' interests) in promoting new forms of discrimination. Perhaps there is some truth in the observation made by some insurers that the ABI is exhibiting "excessive self-interest" in this matter.

*A two-year moratorium?*

I have recently read suggestions that ministers may be favourably disposed to a moratorium on insurers' access to genetic test results for *two years*. In my view the context provides no rationale for such a short timescale as two years.

- First, from an actuarial perspective, mortality investigations by their nature take many years (essentially because you have to wait to see who survives and who doesn't), and I see no way in which genetic testing can change this. It will take many years, probably many decades, for compelling new information to emerge.<sup>11</sup> In this context, there is no justification for a time limit as short as two years.
- Second, from the perspective of people who are affected, there is always a fear that at some future date attitudes may become more hostile, and insurance industry lobbying may reverse any moratorium. Ministers made a mistake on this issue three years ago; it is quite foreseeable that certain types of minister and certain types of government could make similar mistakes again. But to announce *in advance* that a moratorium will apply for as little as two years seems to suggest *ab initio* the intention to renege.

If ministers wish this decision to be taken seriously, either by the public or the insurance industry, a very much longer timescale should be stipulated. I can really see no reason for not stating that the ban will be permanent, and I think public confidence requires this, or something much closer to it.

*Why are the views submitted by the Institute of Actuaries different to mine?*

The views submitted by the Institute of Actuaries are the views of a working party consisting mainly of insurance company employees or consultants, *and including common membership with the ABI Genetics Committee*. Similarly, when asked to nominate an actuary for the patently sensitive role of GAIC membership, the Institute knew who to choose: *an employee of an insurance company*.<sup>12</sup> The general thrust of their submission follows a classical strategy of opponents of anti-discrimination legislation: regretfully observe that legislation would not solve all problems, then use this as an argument for doing nothing. The claim in the Institute's submission that it does not represent any particular interest group is transparently bogus.

Guy Thomas  
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#### NOTES AND REFERENCES

<sup>1</sup> To see this, you might ask either insurance companies or medical practitioners for samples from half a dozen companies of each of (a) the forms that are sent to the applicant's general practitioner seeking so-called Private Medical Attendant's Reports (PMARs); and (b) the forms that are sent to a doctor instructed by the underwriter to carry out a medical examination (ME) on the insurance applicant.

<sup>2</sup> I am assuming that the first proposal would apply in combination with some sort of ceiling, either the figures cited in the next item or a modestly higher amount.

<sup>3</sup> Incidentally in Professor Wilkie's letter to Baroness Kennedy dated 11 February about the reinsurance pool, the discussion concerning racial discrimination is incomplete in one respect. This is that it does not acknowledge that many UK insurers openly operated racial discrimination in premium rating in the 1960s. I wonder if they were justifying this by similar arguments to those that they are using now.

<sup>4</sup> For example: does 'results of clinical examination' mean all medical information, of any kind? That would be a radically different proposition from excluding family history information.

<sup>5</sup> There was in fact an even more competitive rate available in October 2000, namely £8.75pm from Equitable Life. I have omitted this because if I include it, somebody may try to obfuscate by referring to this company's other current problems. In fact those problems have nothing to do with term insurance and there are some good reasons why Equitable was cheaper than all the others (I can explain if required). Nevertheless, the 40% variation between the next 8 companies is sufficient to make my point.

<sup>6</sup> The premium for most types of life assurance is fixed at the outset of the contract. The variations described here would affect only new policies, not policies already in force.

<sup>7</sup> Source: retrospective report in Financial Adviser, Protection Supplement, 9 November 2000, page 3.

<sup>8</sup> Source: again a news items in Financial Adviser, Protection Supplement, 9 November 2000, page 3.

<sup>9</sup> Source: news items in Financial Adviser, 26 April 2001. Note that critical illness is one of the covers for which the Institute of Actuaries alleges there are unspecified "greater problems"

<sup>10</sup> Actuaries sometimes actually use the phrase "the insurance cycle" to describe this cyclical variation. The excessive premium increases in the late 1980s, and their commercial background, were described in s6 of my main submission.

<sup>11</sup> The effect of smoking on mortality provides an example of the very slow infiltration of new information into premium rating. The first papers making the link appeared in the early 1960s, but it took more than 20 years before this

information was widely used in insurance. (There may have been some special factors in this case, eg many senior insurance executives would themselves have been smokers, so there was less enthusiasm for penalising smokers than there is for penalising people affected by genetic conditions.)

<sup>12</sup> The insurance company concerned was closely involved in the ABI's first submission to GAIC, and I believe this was not a coincidence. I have tried over the past few years to make my criticisms of the Institute's policy known to the working party – my various letters to them have been published at [www.guythomas.org.uk](http://www.guythomas.org.uk).