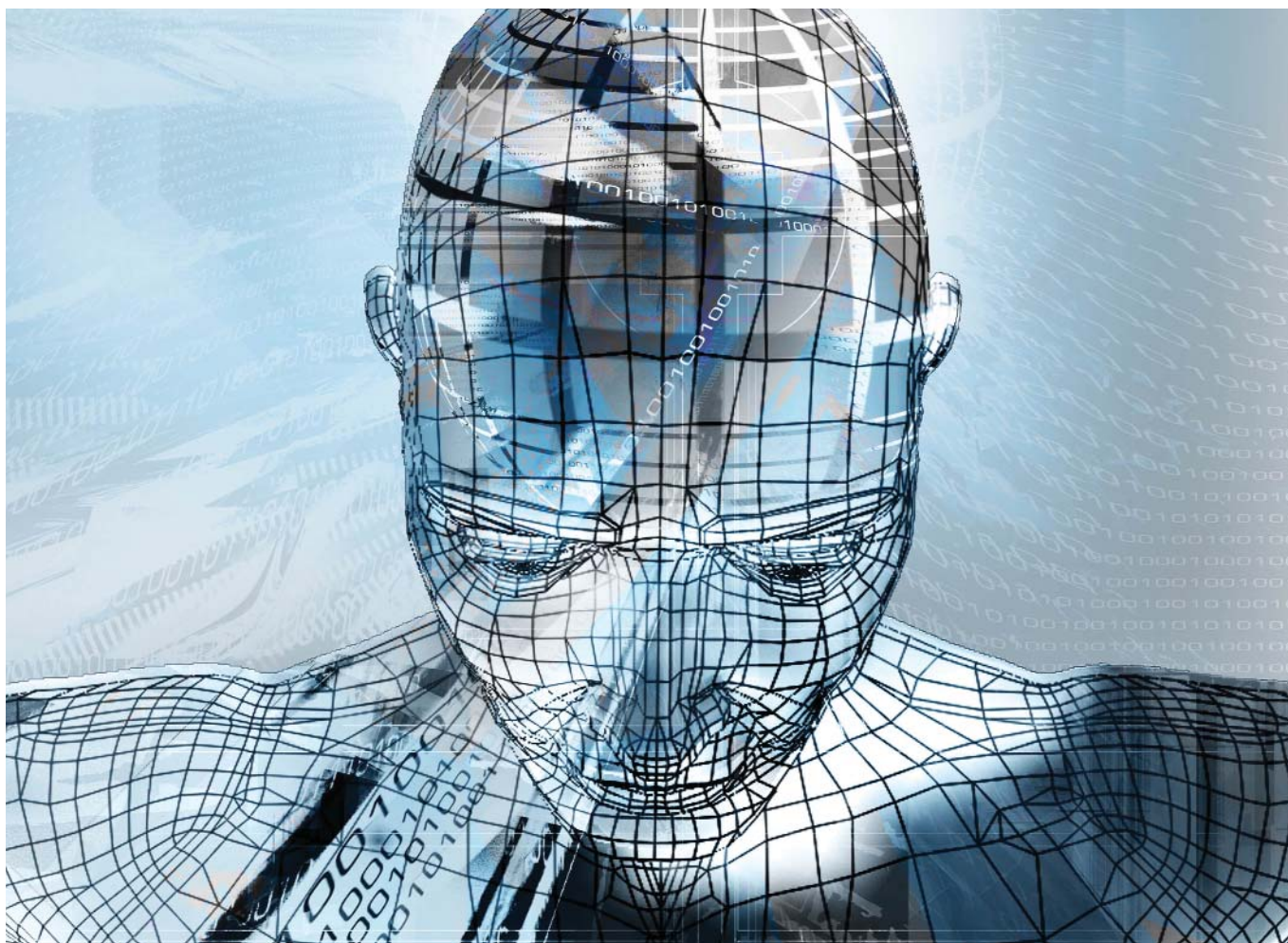


## Critical Illness: Evolution and Innovation



**In April 2006 the ABI issued a revised Statement of Best Practice on Critical Illness. This required all ABI members offering the product to implement a number of changes – including new Model Definitions – by April 2007.**

Now that this work is complete we have an ideal opportunity to stand back and assess not only where we are now, but also where we might want to go with this product in the future.

Attention will inevitably focus initially on altering and enhancing current propositions.

But at Hannover Life Re (UK) we believe the more interesting challenge is how the industry can continue to provide for customers' needs in the longer term – whilst also keeping cover affordable and growing the market.

We have been working on developing critical illness cover for the future for some time now, and we believe there are a number of potentially interesting routes forward. We outlined a range of alternative approaches at our Product Seminar on 20 June. For the purposes of this article we intend to concentrate on just two of these. But first, a little background.

### **Where we are now**

Before charting any future course, we must first define our point of departure. The main change ushered in by last year's ABI statement was the use of more descriptive headings in marketing material to improve clarity around what is and what is not covered in a Critical Illness product.

The changes to the model definitions themselves were intended to improve consistency and reduce the need for further revisions in the future.

The industry has been generally supportive of these updated definitions and their underlying aim of future-proofing Critical Illness cover. Improved confidence in – and availability of – long-term guarantees is particularly welcome. Any limitations in the revised definitions continue the trend of restricting cover where a condition's incidence is expected to increase significantly in future due to improved diagnostic tests and/or treatments. What the new definitions do not do is provide for the payment of benefits based on the severity of a disease as it affects individual claimants.

There seems to be a general perception that a 'measure of severity' has been introduced. Whilst implementing the changes, some providers have taken the opportunity to enhance their products' cover by widening certain definitions beyond ABI minimum standards which for the purpose of this article we will call ABI+ as well as adding new conditions.

Whilst we accept that the ABI+ approach may have its place in the future development of the Critical insurance market, there must be a real concern that it could undermine the very standardisation IFAs were looking for in the first place. It would certainly make it much harder for IFAs to compare products. If this approach is widely adopted, it could risk unpicking all the good work and confidence built up in the product since standardisation was first introduced.

## Enhancing the current proposition

### Tiered Benefits

#### Introduction

Current plans typically pay a single amount of benefit. It can be hard to balance the financial loss and seriousness of all the conditions covered. Compare, for instance, a minor stroke which permits an early return to work with the long-term disabling effects of, say, kidney failure.

The tiered benefits approach means that different levels of benefit are payable for different conditions – and for different levels of disability within individual conditions. Because the policy allows a partial payment, it means the balance of the sum assured remains available for a subsequent claim, either for a recurrence of the same condition or from a different cause.

This means payments can be tailored to match the likely severity and disability associated with each condition covered. Some very serious diseases like motor neurone disease and organ transplant, however, will always result in payment of the full amount of benefit.

It is important when designing a tiered product to ensure the level of tiering is neither too severe nor too complex. One way of doing this is to restrict the number of tiers to maybe four for the major conditions and a maximum of two for conditions which are of lower incidence or where several tiers is not practical.

The tiered benefits approach allows providers to cover a broader range of conditions and to incorporate the ABI definitions and thus qualify to use the ABI Critical Illness name. Premium rates for such products would be guaranteed.

In the following sections we focus on two specific disease processes, using these as templates to demonstrate how tiered benefits can be applied in practice. This exercise shows how matching payment to severity – and enhancing cover where current definitions are particularly robust – is indeed a natural evolution for critical illness products.

#### Blindness

- Level 1 100% – Blindness Severe visual impairment where vision is measured at 3/60 or worse using a Snellen eye chart
- Level 2 75% – Severe visual impairment where vision is measured at 6/36 or worse using a Snellen eye chart
- Level 3 50% – Significant visual impairment where vision is measured at 6/18 or worse using a Snellen eye chart
- Level 4 25% – Blindness in one eye or surgical removal of one eye

#### Stroke

- Level 1 100% – A Stroke with a residual deficit measuring 4 or above on the Modified Rankin Scale or failure 4 from 6 ADLs
- Level 2 75% – A Stroke with a residual deficit measuring at least 3 on the Modified Rankin Scale or failure 3 from 6 ADLs
- Level 3 50% – A Stroke with a residual deficit measuring at least 2 on the Modified Rankin Scale or failure 2 from 6 ADLs

Of course the tiered nature of the benefit payments does not fit well, for example, with the concept of the sum assured paying off a mortgage in full. However, whilst a partial payment could pay off part of the mortgage, it could equally be used for other purposes such as covering lost income, paying for treatments or adaptations, or perhaps for convalescence.

Because of this, we feel it would be more appropriate to sell tiered benefit critical illness on a standalone basis to sit alongside a life product allowing the full mortgage repayment on death. We would also recommend these products be sold on a single life basis, enabling partners to take out different sums assured to match their respective needs.

Another consideration will be the cost of developing a system capable of handling the administration of this type of product – not simply the financial cost but also the time and effort required.

*continued on page 5*

# Increasing Heart Rates

The unveiling of another year's Hospital Episode Statistics (HES) is usually enough to set one or two actuarial pulses racing. But the latest HES figures are causing veritable palpitations. The cause of all this excitement is the unexpected increase they show in the rate of heart attacks (see Graph 1).

This increased incidence seems at odds with the dramatic falls we have seen in deaths from heart attacks. In 2005, for example, death rates from heart attacks for people aged between 35 and 64 were only around a quarter those of 1989.

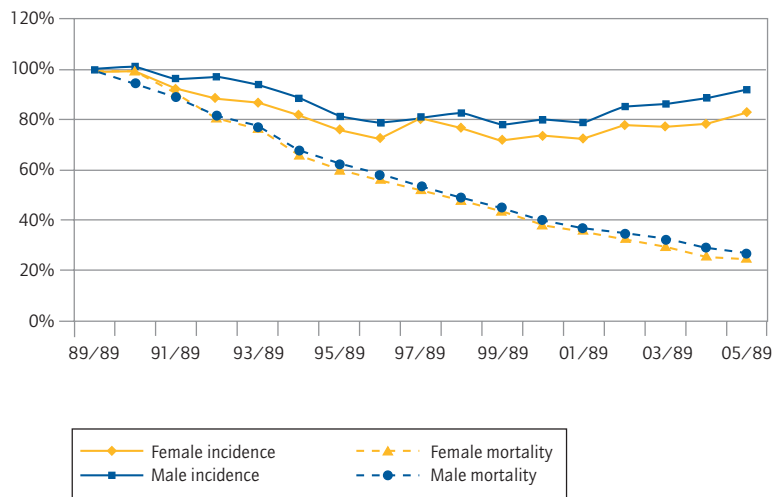
Most lifestyle changes over the past decade or so have been beneficial in their effects, and over the same period medical care has improved significantly. Increased NHS resources have been focused on reducing deaths from heart attacks. The National Service Framework (NSF) for Coronary Heart Disease (CHD), announced in March 2000, sets national standards for the prevention, diagnosis and treatment of CHD in England. Priority targets were set for helping people quit smoking, setting up rapid access chest pain clinics, assessing people with new symptoms of angina within two weeks of referral, and reducing call-to-needle-times for thrombolysis for heart attacks.

A closer look at trends in the prevalence of the main risk factors over time, reveals that some certainly are improving – but not all. For example, the overall proportion of smokers in the population has continued to fall in recent years. But, the rate of reduction slowed right down in the 1990s compared with earlier decades. Indeed smoking prevalence for men under 50 has actually remained stable or increased slightly since the early 1990s. (See Graph 2)

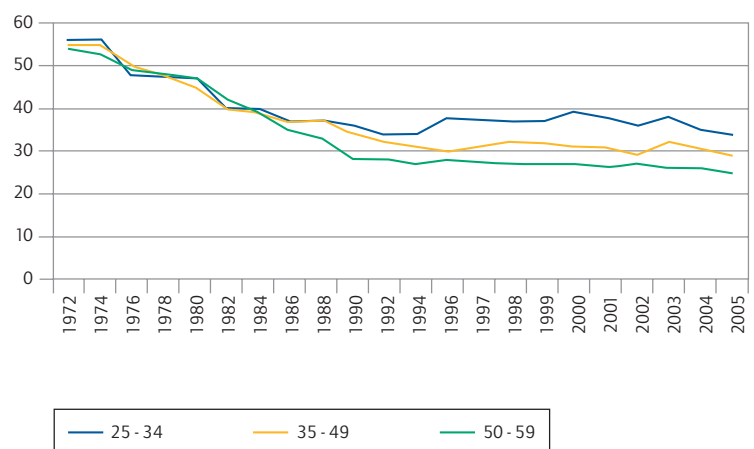
Being overweight or obese significantly increases a person's risk of heart attack, and the news on obesity is not good. More than a quarter of the population, male and female alike, is now classified as obese (i.e. with a Body Mass Index (BMI) of 30 or more). This proportion is steadily and significantly increasing, with 11% more men and 7% more women classified as obese in 2005 than in the early 1990s.

Despite a slowing rate of improvement in the main risk factors in the 1990s and early 2000s, deaths from heart attack continue to fall. More effective medical intervention may be largely responsible for the continuing downward trend. Earlier treatment with lipid regulating drugs such as statins across a broader spectrum of the population is a significant factor in moderating the prevalence of high levels of cholesterol. Two thirds of the population have blood cholesterol levels of 5.0 mmol/l or above.

Graph 1: Trends in Heart Attack since 1989, Ages 35-64



Graph 2: Percentage of Male Population who Smoke Cigarettes



The NSF is targeting a maximum level of 5.0 mmol/l. Prescriptions for lipid regulating drugs have increased almost 40 fold between 1991 to 2006, with 42 million prescriptions written in 2006. The NHS now spends more on statins and other lipid regulators than on any other class of drug.

There have also been exponential increases in the number of certain types of heart operations, such as angioplasty, which are known to reduce the risk of heart attack (see Graph 3). The number of coronary artery by grafts (CABG), which can also reduce the risk of a subsequent heart attack, rose rapidly from the late 1980s until around 1994. Since then fewer CABGs have been performed as angioplasty has increasingly become the preferred treatment.

So why is the incidence of heart attack now increasing while death rates continue to fall?

Great strides have been made both in reducing sudden death from heart attack and in using medicines more effectively following attacks. In 2000/01 ambulance services responded within 8 minutes to immediately life-threatening calls just 9% of the time. By 2004/5 that proportion had improved to 81%. During these years the NFS targeted improvements in the proportion of patients receiving thrombolysis within 30 minutes of arriving at hospital following a heart attack. It also set targets for the improved use of effective medicines so that 80-90% of people discharged from hospital would be prescribed aspirin, beta blockers and statins. Another target was increasing the number of angioplasty operations performed. Many of these targets have since been achieved.

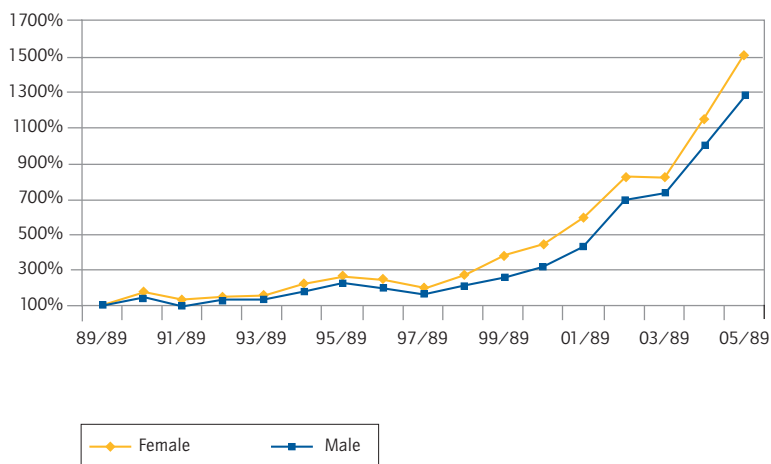
As the previous strong improvements in risk factors continue to level out, we can expect heart attack incidence to remain high. A 2005 review by the Health Care Commission concluded that the prevention of heart disease requires further attention.

The other significant contributor to increased incidence is more accurate diagnosis. Troponin is regularly used now to help determine the most appropriate treatment regime for patients experiencing angina or a heart attack. As expected, its use has led to some patients who would previously have been diagnosed with severe or unstable angina being classified as having had a heart attack. To what extent the latest available data reflects this change in practice remains unclear. But current hospital practice would suggest that the full impact of reclassification will show through in 2007's statistics.

Recent and future claims for heart attack under critical illness policies will reflect these trends. The impact on pricing – and on the profitability of existing business – will depend on how successful the industry has been in anticipating these changes.

Assuming the increasing incidence of heart attack has already been factored in, premium rates for new business will not need to change. But rate series prior to 2000 – when the Joint European Cardiologist Society of Cardiology/American College of Cardiology Committee first recognised Troponin in the definition for heart attack – are unlikely to have allowed for changes in diagnostic techniques and the increasing trend in heart attack rates. All things being equal, this would suggest that the profitability of existing books of business will be lower than expected.

**Graph 3: Trends in Angioplasty on Two or More Vessels since 1989, Ages 35-64**



For business written with reviewable rates, any premium review should take account of the increasing trend. For older policies covering angioplasty, the rapid escalation in operation rates – offset to some extent by the reduction in the rate of CABG – will also reduce the profitability of existing books.

Realistically, the upward trend in heart attack incidence could not have been anticipated much in advance of 2000. Premiums are likely to be reviewed upwards on existing blocks of business, and the profitability of business written on guaranteed rates can be expected to deteriorate. This unexpected reversal in a previously improving trend certainly provides a persuasive illustration of the value of guaranteed premium rates for the policyholder.



**Joanne Wells**  
Head of Actuarial Pricing

### The Savings on Tiering Benefits

A tiered benefit product can cost less than a standard critical illness product if it is structured so that it provides lower benefit amounts for less severe conditions than a standard product. If the severity of a condition subsequently increases the tiered benefit product could provide the same benefit amount as a standard product. Alternatively, the scope of cover could be increased and any cost savings relative to a standard product could be used to broaden the range of conditions for which benefits are offered.

Insurers can each select their own preferred balance between cost and breadth of cover relative to the standard product. We would be happy to assist insurers in determining and implementing their desired position.

### Rider Benefits

Whilst Tiered Benefits is one way to go there are other possible routes to enhancing CI benefits which would not involve making adjustments to the standard benefits. We would suggest an alternative might be to look at enhancing the proposition in a different way.

This could be achieved by offering a standard critical illness plan and attaching a rider benefit which – rather than drawing down from the main sum assured – provides an additional sum assured for a range of less severe or disabling conditions.

The maximum amount of cover for rider benefits could be limited to, say, 20% of the base policy's sum assured – subject to a maximum of £10,000 per condition covered. Premium rates would be guaranteed.

An insurer adopting a rider benefit proposition would be well positioned, now and in the future, to apply this structure to do a number of things. It allows considerable flexibility both for adding new conditions and for moving some or all elements of conditions from the main contract into the rider benefit. For example, all Stage 1 cancers could be moved down into a rider and higher stages covered within the main contract's cancer cover.

Any insurer offering children's benefit will already have a platform allowing single/multiple cash payments for a defined amount that does not draw down from the headline benefit, so this new approach should not prove particularly onerous in terms of systems time or development.

Among the conditions we would consider suitable for a rider benefit are:

- Ductal carcinoma in situ
- Low grade prostate cancer
- Enhancement to a number of the more robust ABL definitions for example
  - Blindness

- A range of heart related surgical benefits.
- Some surgical benefits affecting quality of life targeted at later age issues
- Serious accident benefit

We would also allow pre-payment of cover for any condition that includes payment following specified surgery. By paying for treatment directly we can positively affect quality of life and potentially prevent the condition from progressing.

We can accommodate the benefit being structured either as a single claim or as separate claims paid for each and every condition covered. Insurers will be able to 'pick and mix' from listed conditions and we will be happy to work with providers to develop other possible covers.

### Broad cost of adding Rider Benefit

The cost of adding a rider benefit relative to the premium for the base policy will naturally depend on which conditions it covers. But it will also depend on what percentage of the sum assured for the base policy is paid as a rider, and how the maximum sum assured per condition compares with the average sum assured under the base policy. Increasing the premium by, say, 10% would make it possible to provide rider cover for an attractive range of conditions.

When applying this concept it is important to draw attention to the fact that there is a cost increase over a standard critical illness product because the total sum payable as benefits is potentially higher when a rider is added. The counter argument is that the rider approach offers the benefit of more extensive cover and the payment of benefit for less serious conditions whilst leaving the principal sum assured intact. This should make this form of cover more attractive.

### Summary

We hope this article provides a flavour of the different approaches Hannover Life Re (UK) can deliver to help you stimulate new sales in your market. We would be very happy to discuss these with you further and outline our ideas for other product developments.



**Ronnie Bowes**  
Head of Marketing



**Julie Hopkins**  
Head of Underwriting  
& Claims Strategy

## Hannover Life Re – 2006 Results

### Hannover Re Group

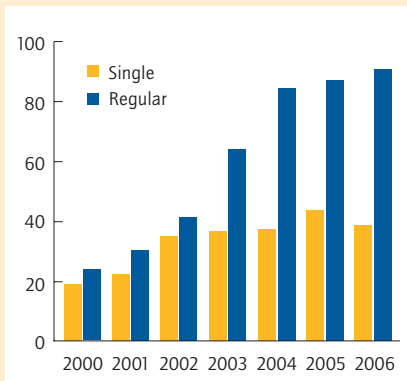
In 2006 Hannover Re surpassed its financial targets and recorded the highest Group net income in the company's history, of Euro 514.4m. In comparison with 2005 where the result was impacted by exceptionally severe hurricanes, catastrophe losses in 2006 were relatively light, contributing to the good result from the Property and Casualty division. Life and Health business also contributed to the excellent result, with a net income from the operations around the world of Euro 102.6m.

These substantial returns have reinforced the Group's financial strength which will provide further comfort for our clients. Shareholder equity grew by 11.4% to Euro 2.9 billion and policyholders' surplus increased by 6.5% to Euro 4.9 billion. The Group's rating remains very high, at AA- ('Very Strong') from Standard and Poor's and A ('Excellent') from AM Best.

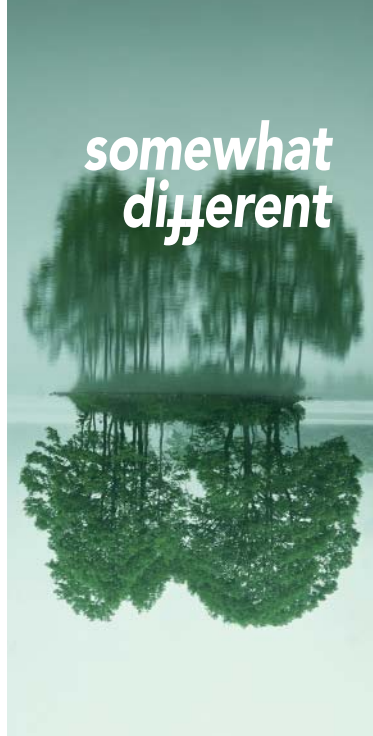
### Hannover Life Re (UK)

In the UK our growth and contribution to the Group result for the Hannover Life Re family of companies continues. Gross regular premium written by Hannover Life Re (UK) alone in 2006 reached a record £90.4m, and this figure excludes those premiums written in the UK by our colleagues in Hannover and Dublin. Our total premium for 2006 was £129m, over three times the premium written in 2000.

Whilst more than achieving its profit target set by the Hannover Re Group, the net income was retained within Hannover Life Re (UK), enhancing the security of our clients in the UK.



somewhat  
different



We hope you enjoy **In Focus** and we welcome your feedback, please forward any comments to Kirsteen Grant. If you wish to be added to our mailing list contact Kirsteen on 01344 846833 or email [uk.marketing@hannover-re.com](mailto:uk.marketing@hannover-re.com).

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CONTACT

## Protection ReDefined



Our successful annual product development seminar 'Protection ReDefined' continues to ensure we provide our clients with the knowledge they need to keep updated on issues facing the industry and assess trends affecting future product development.

The seminar was held at the Chartered Accountant's Hall, London in June, attended by protection professionals from within the life and health industry providing them with an opportunity to discuss the key drivers within our industry.

The programme included two excellent guest speakers – Angus MacIver, Insurance Business Director, Prudential who covered their new flexible protection plan and Cord Rinke, Associate Director, Hannover Life Re Germany who provided an insight into the enhanced annuities market including automated underwriting and product opportunities.

In addition our own expert speakers covered Critical Illness Opportunities and Pricing, Reinsurance in the New Capital World and Underwriting Hot Topics which provided delegates with a comprehensive and informative day.

A synopsis of our Critical Illness talks are featured in this edition of In Focus.

Look out for future seminars or contact us at [uk.marketing@hannover-re.com](mailto:uk.marketing@hannover-re.com)