



Lifestyle changes and their impact on insurers

Hannover Life Re (UK) discusses the real issues at its annual client seminar

One of the most successful Hannover Life Re (UK) client seminars ever staged was held earlier this year in London. *2001 and Beyond – The Way Forward* focused on some of the big issues facing insurers operating in increasingly competitive market conditions; and the medical trends affecting future product development.

The programme began with the theme of companies Surviving in a Low Cost Environment. The discussion revolved around the reduction in margins, customer and regulator pressure on the industry and how the industry will look in ten years time.

This was followed by a presentation from our expert guest speaker Dr Rosalind Eeles, Senior Lecturer in Cancer Genetics, Institute of Cancer Research who brought delegates up to date with Genetics – Breast and Ovarian Cancer; explaining incidence/prevalence data, patient attitudes and mortality outcomes of different treatment choices.

Also covered was how current genetic issues will effect insurers, the new terms of the moratorium, modelling of mortality/morbidity for BRCA1, potential cross subsidy requirement and the new focus for family history.

The session was completed with a talk on Morbidity trends and Critical Illness including population trends, impact on critical illness incidence rates and the impact on product design, followed by Enhanced Annuities covering the current market, lifestyle risks, severely impaired risk and pricing issues.

Delegates from a wide section of the industry attended the seminar including representatives from life assurance companies and friendly societies and they provided valuable feedback throughout the day.

Hannover Life Re (UK) puts in an excellent performance for 2000

Hannover Life Re (UK) clients will be pleased to know that they are working with a company that continues to attract new business through increased efficiency and improved customer service.

2000 was another successful year for the company that is sustaining rapid growth. Premium income grew strongly with regular premiums up 57% and single premiums up 14%. Premiums totalled £42.3m, an increase of 35% over 1999. This fed through to an improved profit contribution for the Hannover Re Group.

Looking at the balance sheet, assets grew markedly and in our local regulatory (FSA) returns, the cover for the statutory solvency margin increased.

We are now looking forward to a further successful year in 2001.

Students and Trainees... Sign up now for the fast-track introduction to life assurance

As one of the UK's leading reassurers Hannover Life Re (UK) continue to be committed to training and developments within the life assurance industry drawing on the expertise of our team of professionals and well-known industry figures for the benefit of our clients. The course has been updated to ensure it reflects current developments in the life market.

Our eleventh Introduction to the Life Assurance Market Seminar is being held at Oatlands Park Hotel, Weybridge in Surrey from 6-8 November 2001.

This widely attended seminar is aimed at giving students and trainees, with 6 to 12 months experience of the market, a broad insight into the working of the UK's life assurance market.

The comprehensive programme will cover actuarial, underwriting, compliance and marketing topics. There are also several interactive workshops and discussion groups designed to allow the delegates to utilise what they have learnt each day.

For a booking on this year's course please contact: [Emily Pearce, Marketing Assistant](mailto:emily.pearce@hannover-re.com) tel: 01344 846841 or email: emily.pearce@hannover-re.com.

We hope you enjoy In Focus and we welcome your feedback as we strive to enhance our service. 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.

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Can we predict the future cost of critical illness with confidence?



Critical illness insurance was constantly in the headlines during the nineties as the sales success story of the healthcare insurance market.

Since the early days competition amongst providers has increased sharply and so it is now more important than ever to keep cover and features relevant. There are now over 3 million policies in-force, with around 795,000 new policies being written in 2000. However you view the situation you must recognise that it is big business.

To continue to be successful critical illness products need to be affordable. In order to price them

Male Malignant Neoplasms



- Trachea, bronchus and lung
- Prostrate
- Colon
- Bladder
- Stomach
- Other malignant neoplasms

correctly we need to take a regular look at what we expect cover to cost.

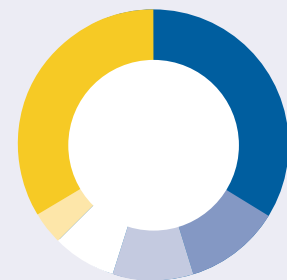
But can we predict the critical illness costs with any confidence?

In this article, we will try to determine whether it is possible and we use cancer as an example, as it is the largest cause of critical illness claims, accounting for 40% of the claims to date.

Cancer is most certainly a complex topic all of its own. The trends are always difficult to follow, so for an

update on the current situation we have put together the following pie charts. They show the most common types of cancer for both males and females in the 1990's.

Female Malignant Neoplasms



- Female breast
- Trachea, bronchus and lung
- Colon
- Ovary
- Rectum, anus
- Other malignant neoplasms

Welcome

We are pleased to introduce you to In Focus the new bright and exciting publication from Hannover Life Re (UK).

Hannover Life Re is now undoubtedly one of the major players within the international business arena. In 2000, the business grew to an all time record high, with premium volume reaching €2.5bn, and net operating profits €83 million.

As part of this global network, Hannover Life Re (UK) will continue to bring its clients and business partners the best ideas from around the world. Using the benefits of our vast network as part of our customer relationship management strategy, we will ensure that our client partnerships continue to thrive in the challenging UK market.

In the coming months, In Focus will keep you, our clients, informed on the important issues affecting the widest range of life and health topics. I am sure that you will find the news items and articles informative and relevant to your own businesses.

We always welcome feedback at Hannover Life Re (UK) and I will be pleased to hear your personal views on In Focus. Please do not hesitate to contact me at david.brand@hannover-re.com.

I look forward to receiving your comments.

David Brand
Deputy Managing Director



The truly enlightened reassurer

Topics: Can we predict the future cost of critical illness • Lifestyle changes and their impact on insurers • Hannover Life Re (UK) puts in an excellent performance for 2000 • Student and Trainees, sign up now for the fast-track introduction to life assurance

Much of the new business gained over the last decade was written on guaranteed terms and this trend is likely to continue as long as the public's perception remains that the cost of the guarantee represents value for money.

It is too soon to tell whether the industry has correctly anticipated future critical illness costs or if it is the customers that have got the best out of the guaranteed terms.

Changes in incidence over the years

Graph 1 shows male population incidence rates for all types of cancer that are covered by the ABI's recommended definition for a critical illness product. The graph's shape is unpredictable and it is difficult to use this graph to project costs. For example, extrapolating the trend for males aged 35 to 39 years old from, say 1979 to 1984 gives very different answers to extrapolating the trend from 1987 to 1992.

Assessing changes in incidence rates by age is very important. The rate for males aged 25-29 has increased by +45% between 1979 and 1992. This is a dramatic increase compared to the incidence rate for males aged 55-59 which is almost unchanged. In terms of number of claims though, it is the older age groups that are important. In 1992 the incidence rate at ages 25-29 was only 6% of that at ages 55-59.

Graph 1 – Male All Cancers Covered by Critical Illness
Ratio of Incidence Rate in Calendar Year to Incidence Rate in 1979

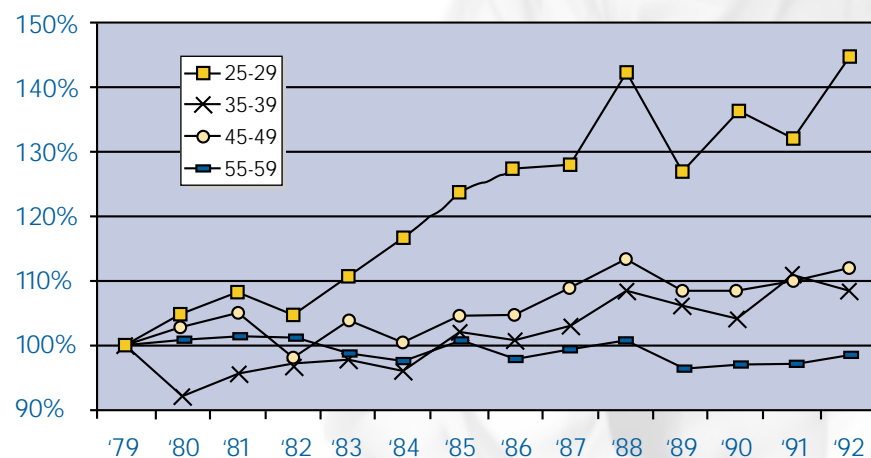


Table 1 – All cancer estimates

	1993	1994
Estimate from ONS	213,800	212,800
Actual incidence	219,305	224,320
% error	3%	5%

Estimates based on death rates

Can trends in death rates by cause give us any help in calculating future costs? If the relation between incidence and death rates is stable then projecting death rates would also predict incidence rates. Death rates by cause are reported more quickly than incidence rates. The Office of National Statistics (ONS) took advantage of this in 1999 to publish estimates of cancer incidence rates for the years 1993 to 1997. The ONS assumed that the ratio of incidence rates to the death rate for each cancer (except for breast cancer) remained at its 1992 level. ONS estimates compared to the actual rate can be seen in table 1.

A 3% error after one year and 5% error after only two years could lead to a serious miscalculation in the cost of cancer claims over the average duration of a critical illness policy of medium to long term.

The ONS used a different method for breast cancer as it was known that a screening programme was in place.

Table 2 shows that the errors are even greater than when all forms of cancer are grouped together, demonstrating the difficulty of the task of anticipating the effect of screening programmes.

Extrapolating trends gives only a crude idea of future incidence rates. The reasons for the changes may give more help to those trying to project future scenarios.

Interpreting trends

The external risk factors associated with cancer are now well documented by medical researchers. Smoking, diet, exercise and the environment are factors that have an effect on the incidence of cancer. It is now believed that in Western countries up to a third of all cancers may be linked to diet. Food can either be harmful or protective as in the case of fruit and vegetables.

Diet seems to play a particularly important role in bowel cancer. Research shows that a diet rich in fibre and starchy food and low in fat, with moderate alcohol intake, may help reduce its risk. Currently people in the UK are not eating enough fibre.

Smoking is also a key issue for insurance companies. Smoking has a strong correlation with the incidence of some cancers and has the strongest association with lung cancer. It is estimated to increase the risk of contracting lung cancer by about 20 to 25 times.

The incidence of lung cancer rates for males aged 35-49 can be seen in graph 2 as a percentage of the rates in 1980. The reduction of the prevalence of smoking is also shown. Based on a simple model assuming that the incidence

Table 2 – Breast cancer estimates

	1993	1994
Estimate from ONS	28,600	28,800
Actual incidence	30,495	31,671
% error	7%	10%

rate for non-smokers is constant, the actual reduction in prevalence of smoking between 1980 and 1992 should lead to a 26% reduction in the incidence rate. Instead the incidence has fallen more than this to between 56% and 73% of its 1980 level.

There must be other factors at work as well as random variations. Perhaps diet and environment as well as the rate at which lung cancer is detected have also had an impact on the incidence rates for both smokers and non-smokers. The relative risk could also have changed and the higher proportion of ex-smokers in the non-smoking category may also impact the incidence rate for current non-smokers.

New systems of detection

Changes in the rate that cancer is detected can have a big impact on the cost of critical illness claims. Screening was first introduced for cervical cancer in 1964 but it was not until 1988 that computerised call-recall systems were made compulsory for all health districts. Financial incen-

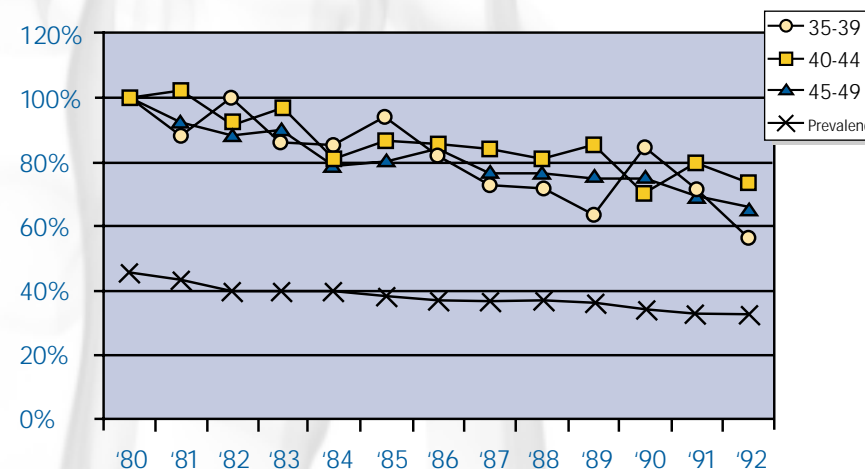
tives for GPs to achieve high coverage were introduced later in 1990.

Evidence shows that cervical screening is effective in reducing mortality. The number of women with this cancer has increased broadly in line with the number of smears taken, although since 1990 the incidence of invasive cervical cancer has fallen. This is thought to be due to the success of detection. There are also programmes to screen women between 50 and 64 for breast cancer.

The benefits of screening for prostate cancer are now being hotly debated. The ABI has now entered into the debate on prostate cancer with a consultation paper. The issues regarding prostate cancer are potentially far reaching.

Given the ongoing emphasis on improving healthcare it is very likely that detection rates will improve for many cancers in the future. Developments such as these could have a major impact on critical illness product design and costs in the future.

Graph 2 – Male Lung Cancers
Ratio of Incidence Rates in Calendar Year to 1980 and Prevalence of Smoking



The future cost of cover depends on changes in lifestyle, detection and treatment

Lifestyle factors may ultimately give us the best indication of the future cost of cancer claims. The links between cancer, diet and environmental factors are not as fully researched as those between cancer and smoking. There is some correlation that could help predict changes to incidence rates. Surveys show that consumption of fruit and vegetables is increasing in the UK at a slow rate and other diet improvements are being made. There is still scope for improvements in diet that would help reduce cancer incidence.

Examining smoking habits helps explain changes in incidence rates. Younger people are smoking more and this could materially impact future rates of cancer if they persist in smoking. For insurance purposes, changes in people's smoking history and consumption will also be important in assessing the relative risks for smokers and the impact of ex-smokers on the non-smoker group.

Earlier detection combined with better treatment should mean increased survival rates and improvements to the quality of life of people diagnosed with cancer. In the longer term, it is possible that detection may occur well before a cancer affects lifestyle or becomes life threatening. This could lead to a change in perception about which cancers consumers consider as life threatening or critical. The impact of earlier detection on the cost of providing critical illness cover in its present form could force changes to the product design, even if consumers still view all cancers as critical.

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