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## **Session 60 PD**

### **Critical Illness Products: Recent Lessons from International Markets**

**Track:** International

**Moderator:** JAMES C. CHRISTOU

**Panelists:** SUSAN KIMBALL  
DAVID J. O'BRIEN

*Summary: Critical illness (CI) products are gaining in popularity in North America. More and more companies have, or are considering, introducing similar products in the United States. These products have been available for close to 20 years in many countries around the world, including South Africa, Australia, the United Kingdom and most of Asia. Many of the lessons learned in these countries concerning product design, pricing, underwriting and claims adjudication are relevant to the U.S. market. This session reviews the latest trends around the world.*

*Attendees gain insight into the key issues driving the profitability of the product and are better positioned to determine the main considerations in deciding whether or not to introduce such a product in their market.*

**MR. JAMES C. CHRISTOU:** I'm the moderator for this session, and I'm with Valani Consulting. One person on our panel is David O'Brien. He has over 14 years of experience in the actuarial field and his career has spanned over three continents. He started in Dublin, Ireland, then moved to South Africa and is presently in Charlotte, N.C. Some of you here probably are familiar with Susan already. She is with ING Re and has 17 years of experience in actuarial field. A major part of her experience has been in the CI field. This experience has included, but is not limited to, product design and pricing, reinsurance pricing, consulting on underwriting and regulatory issues. Susan is a fellow with the Society of Actuaries and presently holds the position of vice president, living benefits at ING Re.

**MR. DAVID J. O'BRIEN:** I'm going to talk about the South African, Irish and UK CI markets. Rather than talk about the lists of critical conditions and definitions and how they came to be, I prefer to take a more eclectic approach, which hopefully will be reasonably clear as we proceed. And lastly, I'll hold myself hostage to fortune and talk about current drivers within the marketplace and possible reactions.

Before we get into the detail of the CI marketplace, I'd like to give you a little flavor of the countries and highlight some of the key differences between the markets. Because it's an actuarial forum I guess it's good to illustrate the differences with some numbers.

First of all, as is shown in Chart 1, there are vast population differences between countries, such as Ireland, with a population of 4 million, and South Africa, with 46 million. I guess there's also a significant difference between South Africa and all of the other countries. It's really the difference between first-world developed economies and an emerging economy. That's really highlighted by the gross domestic products (GDP) per-capita, which is just under \$3,000 for South Africa, or roughly 10% or so of the per-capita income of the other countries. Within that average, there's a huge disparity between the incomes of the highest earning and the incomes of the lowest earning. So in effect, the true critical marketplace is really similar in size to that of the Republic of Ireland. There's a 90/10 rule in application where the vast bulk of insurance products are not available except in a very limited way to over 90% of the population.

Looking at the numbers, the unemployment rate is very high in South Africa, and there is a high rate of inflation. I'll talk through the impact of those and features of the marketplace when we get to the particular country-by-country discussions. One of the immediate things that you should have in mind is the available amount of money that each government has to spend on public health care. Clearly in a country such as South Africa, where the government can only levy taxes on income, the amount available to spend on health care is going to be a fraction of that spent in countries such as Ireland, the UK and the United States. It's true however, that no matter how much you spend on health care you can always spend more and that continues to drive the need for private health insurance and to quite a degree the CI marketplaces in the developed countries.

Chart 2 is a brief introduction to the CI marketplace. Unfortunately, there are no detailed public domain statistics available for the South African market, but I want to talk, at least anecdotally, about the latest trends in sales there.

The Irish and UK markets, if you adjust for population differences, are roughly the same size right now in terms of number of new sales, with products that are being used for CI being very similar across all three marketplaces. Typically CI, or dread disease depending on which market you're in, is sold as a rider benefit as an acceleration of life cover. The number of inforce policies continues to grow quite rapidly. This is more so in the UK where you can see the recent growth rate at 20%

per annum. It's still showing the growth rate that you would expect for a rapidly growing product. It's beginning to slow down in Ireland where the history of the Irish CI market is that it was in many ways an incubator for CI product design prior to the development of CI in the UK. Many UK insurance companies also have businesses in the Republic of Ireland. Because the societies are relatively similar in terms of wealth and product need, the smaller Irish product development marketplace is typically faster to evolve than that of the UK.

The bottom two rows illustrate the process of development of each market's understanding of claims experience. Even in these relatively developed marketplaces, the amount of information available for pricing is still relatively small. In the largest study, which is done in the UK for the six-year period between 1991 and 1997, there are 5,450 claims. That might seem like a reasonably large population of claims on which to make some pricing assumptions. Unfortunately, unlike a mortality study, there is a high level of heterogeneity within this data, and the data varies considerably according to the nature of underwriting. Even the distribution channel has caused significant variations in claims experience. Once we further subdivide by the critical illness that caused the claim, by duration in force and by age, really there aren't that many claims at that finer level of detail. So it requires a high level of judgment to interpret claims trends. I guess I can't really avoid the advertisement for the need for reinsurance arising from this lack of data. I think the direct insurance companies in all of these markets have been more than willing to let reinsurers take the majority of the risk attached to CI products, particularly given the guarantees that have become key selling features and the initial uncertainty as to whether the pricing level is going to be borne out in experience.

I will now turn to the detailed discussion on each marketplace. The rand is the South African currency. As an emerging market currency, there are still some considerable currency control regulations in place. But nonetheless, it's a very open economy and is subject to all of the woes of emerging market flights to quality and then reversions back. To give you a flavor for that over the last two years, in one 12-month period, the rand fell by 40% in value against the dollar and in the following six-month period gained back 25% of that loss. Then over the further six-month period it regained the remainder of that. That was because of, in part, a dollar weakening as much as rand strengthening.

That has a profound effect on the price of goods within the South African marketplace. Health care in particular is very prone to imported inflation. This has been one of the key reasons why health insurance products have seen double-digit inflation. Therefore, it's a very big concern to consumers to be able to maintain the purchasing power of the insurance products that they're buying. The latest innovation within that marketplace is, notwithstanding exchange-control regulation, to be able to put in place certainty as to the purchasing power of benefits. Rather than expressing policies in rand, they are now paying the benefits in rand, but linking the benefit to an index of currencies—typically the Euro and dollar. This isn't

a feature of only CI; it's also a feature of life cover and disability products. However, it's particularly apt for the CI marketplace. It has been a key factor in booming sales for those insurance companies that are able to construct the products and bring them to the marketplace first.

All regulation is local and that's particularly so in the South African scene. The nature of regulation is such that life insurance companies and the products they sell are regulated by the Financial Services Board; whereas, the health products and the health insurance marketplace, also known as the medical schemes marketplace, are subject to the regulation of an authority mandated by the Department of Health. The two bodies have very different agendas. The life insurance regulator is primarily concerned with the financial security of the life insurance industry. The health department and the health regulator are much more concerned with broadening access to health care. In recent years they have opened up the private health-care marketplace dramatically. There are now minimal underwriting constraints in place. Therefore, the risk pools that are created are now much more open, and a degree of antiselection is now possible. This is one of the forces for significant increases in premiums for those products. And therefore, it has taken many of those products out of the reach of even middle class South Africans who are now very concerned about health care, because quality of public health care is relatively low by first world standards, given the low income base available to the government on which to base a health-care system.

Therefore, CI products, which are in the full underwriting environment and outside of the scope of the health regulator, have significant opportunities. This has led to some niche companies developing pretty extensive CI products. The conventional CI product that you've probably seen up to now has maybe 30 conditions or so. It's been relatively stable at that in many markets. In the South African environment one trend has been to design products with potentially 100 benefits on a scale according to the degree of severity and the price tag attached to the cost of private health care for that condition. This has been resisted by the health regulators. So there's quite a dance between product developers and the health regulators who are trying to limit the extent to which products outside their control are available to the marketplace. They don't want healthy lives leaving the health pools and joining the private for the underwritten and select products.

I can't talk about the South African market without talking about AIDS and its impact on product design. Unlike other marketplaces where AIDS is covered at least to the extent of occupational injury, such as an accidental needle stick, the situation in South Africa is unfortunately very different. This is partly because of the very high rate of infection amongst the broad population. The majority of those infected with HIV in South Africa are those with relatively low incomes. There's a huge correlation between HIV positivity and the income level, and those with higher incomes can afford access to the full range of cocktail therapy with very different survival outcomes. Nonetheless, the insurance industry back at the emergence of AIDS withdrew most guarantees on all insurance products.

CI really has not been able to come up with a product that was affordable and would cover AIDS. That's a tough nut to crack, and it's unlikely that it will be solved any time soon.

Outside the CI marketplace there are competing products that currently offer AIDS therapies. This is in the medical scheme marketplace. However, that's not necessarily a sustainable product offering. Removing it will, I guess, level the playing field again.

Lastly, I will discuss the insurers' access to medical data. That's an interesting one. Those health insurers offering yearly reviewable health insurance policies, not life insurance policies or CI policies, have reverse-engineered their businesses so that they now have aspirations to become life insurance companies and in fact a leading few have already done so. They have very good information about the health status of their membership base. Right now legislation is such that there is considerable freedom to use that information to actively select lives for other product offerings, including life cover and, of course, CI. We're at the early stages of very sophisticated preferred life pricing, but even the initial relatively crude efforts have been perceived very warily by the existing life insurance players that don't have the same access to information. So clearly the nature of competition in this marketplace from those insurers with good health information about their customers is going to pose quite a challenge to the more conventional life insurer.

Turning then to the UK and the Republic of Ireland, they are very different marketplaces. CI has been a great success since its introduction in the 1990s in both the UK and Republic of Ireland.

The market is now maturing. Some recent changes to product design have been due to medical advances to the extent that definitions of coverage are not locked-in in policy definitions. Any change in the incidence of discovery of illness can have a very profound impact on the pricing outcome. Some recent examples are an increase in the sophistication for diagnosing prostate cancer and heart attack. If we take heart attack as a particular example, the use of enzymes to understand the severity of a heart attack caused considerable concern to the industry. A relatively minor heart attack versus a very severe heart attack both result in an increase in enzyme levels. The industry has to be very careful to ensure that severe heart attacks continue to be differentiated and receive full benefits to the exclusion of less severe heart attacks. That's a pretty complicated message to explain to an audience of regulators and consumers. It's a particularly important one though given that many of the first generation of CI policies have locked in the definitions of what benefits are covered.

As an example, some of the more recent reviews of products that have been introduced have significantly reduced the level of guarantees on coverage to the extent that even the benefit definition itself can be varied in a circumstance where there's a significant change in incidence.

This may be a theoretical flexibility given the pressures of distribution channels and consumer groups to resist pressures from insurance companies to change definitions. So the competitive marketplace certainly reduces the scope to impose wide scale changes, and that has a significant impact on the pricing outcome.

Turning to new illnesses, there has been a widening of the scope of CI conditions covered. However, that doesn't necessarily have a very profound impact on the nature of the total claims outcome. Creutzfeldt-Jakob Disease, a horrifying condition, has fortunately to date resulted in very few cases. This, therefore, is an easy condition for pricing actuary to consider adding. However, the long-term nature of the level of incidence is not known for this. It's a tough question as to what you can and can't offer in a CI policy.

Because of the success of CI in both the UK and Irish markets, there have been many new entrants to the market. What started out as a fringe product very quickly became a mainstream one. It became seen as a way to expand the premium base from each customer. So as soon as the immediate base need of life cover is taken care of, CI is seen as a natural add-on sale. That has led to heightened competition, consistently falling prices and increased benefit definitions.

More recently though, because the risk has been substantially transferred to the reinsurance market given the uncertainty in pricing, reinsurers have pushed back as the reinsurance marketplace has realized the extent to which guarantees are underpriced. As the policy has gone from a niche product to a mainstream product with very significant volumes, reinsurers have reviewed their appetite for offering guarantees. This has meant that some reinsurers have exited the guaranteed CI markets, certainly in the UK and Republic of Ireland, if not globally. So guarantees are becoming fewer and more expensive when they are available. This may well lead to a shift to more reviewable products.

The last comment I'm going to make touches on endowment mis-selling. This is a local market issue relating to the savings products that were sold in the UK market to back the obligation to repay mortgages after 20 or 30 years. These products are no longer in favor, and as a result new CI sales have shifted to a more acceptable term insurance chassis.

And lastly, this is where I'm going to put my neck on the chopping block and predict what's going to happen in the future. I will take each of the forces and the possible reactions one by one. Regulators are becoming increasingly concerned at the rejection level on certain CI claims. A UK study recently highlighted the problems with rejections on claims relating to total permanent disability. The policy design reaction to that has been to move away from occupation-based definitions toward activities of daily living (ADLs).

Claim trends by illness condition are chaotic. Coronary health and some cancers incidence patterns seem to be improving. However, the overall health of the nation

in terms of obesity levels is causing considerable concern in terms of the impact that may have on CI incidence rates over the next decade. This will certainly lead to further pressure on guarantees, leading to reducing levels of guarantees and a higher price where they are available.

And lastly, as the market matures from its initial burst of growth we have seen relatively small design changes, with the exception of guarantees. The nature of pricing has focused largely on grouping the majority of lives into the same pool, with smokers versus non-smokers being the key rating difference that's been observed. Within the South African marketplace, there's a clear trend to vary the pricing over the life of policies according to changes in the health status of policyholders. In other words, it is a dynamic loop. The pricing theory behind the dynamic loop is really at a very early stage of development. Therefore, the nature of discounts for those who are leading healthy lives or improving their health is not very elevated. That may change as the nature of competition increases, and as more and more research is carried out in this area.

**MR. CHRISTOU:** I'm going to give you a little bit different perspective on CI. I'm going to give you the Canadian perspective. I've had the unique opportunity to look at CI from three aspects. I've priced CI products; I've helped reinsurers develop incidence basis; and I've also sold CI policies. I spent a couple of years in my career out in the field actually selling CI. So, I think I have all aspects of CI covered. The marketplace in Canada has been steadily maturing. I'm going to cover four basic areas: growth in sales, pricing trends, product development trends and claims and adjudication trends.

The CI marketplace in Canada was introduced in about 1995. There were only about two companies at that point in time that were selling products. Presently there are 25 to 30 companies selling CI. It's primarily a stand-alone marketplace. Unlike a lot of other international markets in which a lot of the sales are on an accelerated basis, this is primarily a stand-alone basis. It's also distributed directly through licensed life insurance brokers. That's one thing I think that's really a big help to drive the market in Canada.

The product characteristics are noncancelable and cover 20 to 25 current illnesses. Some of the creditor-type protection may only offer the core three. Face amount ranges from \$25,000 to \$2 million. Two million seems like a lot for CI, but believe it or not, there were numerous times when I was out in the field that we attempted to get more than two million, but never successfully. The reinsurers wouldn't budget on that. But we did have the need and tried to get that placed and couldn't.

As far as Canada goes, a lot of the buyers are in the 35-54 range. I think that's pretty consistent internationally. Where you see a big difference is the mix between males and females. Typically, life insurance sales are going to be 70 to 80% male and 20% to 30% female, where here we almost have a 50/50 split. The average premium is \$935 in Canadian dollars. That's about \$700 U.S. for the average

premium. The average face amount is \$101,000.

Chart 3 shows market share by product. The most popular product out there is the T-10. It's a renewable product. Typically it expires at age 75. There are other terms. There's a limited amount of T-5. The limited period level would represent the term-75 market or term-65, with term-75 being the most popular. The permanent products are the T-100-type products. It is problematic to price the permanent products. Typically at the end of the product, all the premiums are returned, so it's a true term 100-type product. There isn't a lot of good information once you get over age 65 as far as incidence rates.

Chart 4 shows annualized premiums in thousands. There has been a steady progression over time. As a percentage of new business, in 2001 CI represented 3.78% of premiums. In 2002, it represented 5.6% of premiums.

Based on number of policies—CI as a percentage of the number of new policies sold in 2001 was 6.5%, and in 2002 was 8.33%. So we're getting to the point now where one out of every 10 policies that a lot of companies are selling is a CI policy. For some companies that are primarily focused on the CI market, that's even higher. It can be as much as one in five.

The primary market has been noncancelable insurance. There's a lot of momentum moving away from the noncancelable. Creditor type is guaranteed renewable and the major reinsurers are moving away from the noncancelable market. It's very tough these days to find a reinsurer that's going to support a noncancelable basis. There's actually a new direct company that's offering cancelable CI coverage.

There are constantly new illnesses being added. The big three—cancer, heart attack and stroke—represent the majority of claims, but that doesn't stop people from continuing to add more coverages. The one thing that I really like in the Canadian marketplace is the ADLs. Basically now if you cannot perform two out of the six ADLs you're going to be able to qualify for some type of benefit. A lot of companies are introducing this. I like that idea because a lot of times with all the covered illnesses you may have something that's really limiting your lifestyle and you're not covered for it. So this is kind of like a catch-all.

Definitions are constantly being updated. It is necessary to keep up with medical advances and new diagnostic techniques and also to correct past "mistakes." I'm not sure if we really made mistakes or we're just learning more and more. We're getting better information and learning what that information means to us. So, I look at it as really just the learning curve.

The two big things with cancer are the cancer exclusions. Early products typically covered 100% of prostate cancer. Those definitions have now been changed. The UK marketplace has gone in the same direction. For skin cancer, the requirements have been strengthened a little bit. And the big one is that companies are now

working towards what we call a cancer moratorium. Previously you just had to be diagnosed with cancer in the first 90 days to disqualify coverage. Now what you're looking at is if you go and seek consultation and that consultation subsequently leads to a diagnosis of cancer, it will, in effect, make your CI coverage null and void.

There is also an updated heart attack definition. We're now able to track heart attacks and determine whether or not they have been significant. In product design trends, a lot of companies are offering the big three, and then they're adding a supplement to that, which could be 15 to 20 additional covered conditions. This usually takes the form of a rider. I'd like to see it stay this way. I don't want to get to the point where people can pick and choose coverages. I don't think we can ever afford to allow products to be structured in that way. There's enough antiselection in the marketplace right now without that.

Some of the things that previously were fully covered, such as prostate cancer, are now qualifying for a minimum-type benefit or a limited payout. Whether it's supplemental or it's carved out of the face amount, in all instances the policy still continues to remain in force.

We've typically worked on an indemnity-type base. The whole selling technique in Canada is to sell the fact that we're going to give you the money and you're going to use that money whichever way you see fit. If you want to take that money and go into the United States and get care there because you feel you're getting better or quicker care, that's up to you. A lot of insurers are looking at reimbursement-type coverage. That adds some additional risks, because a lot of the care is provided in the United States for Canadian claims. So from a pricing perspective you really have to understand what the ultimate benefit amounts are going to be when you're reimbursing, and you have to incorporate currency risk.

It's hard to talk about CI in Canada without talking about return of premium (ROP). CI pretty much has had ROP on death since the onset. But the new ones and the latest trends are actually having pre-defined points at which ROP is available, such as every 15<sup>th</sup> year or at age 65. Those are set out in the contract right up front. You really have to be careful when you're pricing these and how you're going to incorporate your lapses and your cliffs on your lapses.

One of the negative aspects of ROP is a lot of times you shift focus from the real need of CI coverage to the ROP benefits. I know we were guilty when I was out in the field helping the brokerage firm I was associated with selling CI. A lot of times our sales pitch was exactly that. We said if you get any of the predefined critical illnesses you're going to get coverage, and if you don't claim on it you're going to get all your premiums back at the end. It's a pretty strong marketing tool to be able to say that to someone. People really get excited about that. But you are shifting the focus away from the true needs and selling it as a CI need.

The overall incidence basis is creeping up. I attribute that mostly to just continually increasing the number of things that are being covered. With the guaranteed renewable incidence basis I think we have an opportunity to take out some of our loads and do a more accurate pricing. The one thing you have to do if you're going to go that route is make sure you review your basis regularly. Without those loads and the changing environment, you have to make sure you keep on top of what's going on and whether your rates are accurate.

There's been some really good reduction in first-year cancer claims. The moratorium has a lot to do with that. Strengthening of the definitions has something to do with that.

As for heart attack incidence, the use of tripronins could increase heart attack claims by five to 35%. There's a big gap between coronary artery bypass surgery (CABS) in the United States and Canada. I think the more treatment that's given to Canadians in the United States and the more influence the U.S. doctors have on individuals, the larger the increase we will see in CABS incidence in the future in Canada.

I think it's really important when you're looking at your CI product to keep on top of items such as general population trends, current health care systems, medical advancements and new diagnostic techniques, emerging company and industry experience, addition of covered illnesses and new definitions, changes in underwriting and/or claim practices and changes in product design, marketing and/or distribution.

Really you can look at CI as being death supported. I think the ROP on death is kind of eliminating some of that or reducing some of that. But more deaths out of the noncovered illnesses are really going to help your profits on your product. In CI underwriting, I think we're already doing something somewhat similar to preferred life underwriting. Family history plays a much bigger role in CI. We have some products out there that are very lapse-supported. We have some products out there that were on a noncancelable basis with fully guaranteed premiums and guaranteed coverage. Those ultimate lapse rates are coming in quite low. There are a lot of people out there that have those products and want to hold on to them.

ROP on surrender is creating a situation where you really have to take a close look and do a lot of sensitivity testing on your lapses. You don't want to be caught with a mispriced product because of your lapses.

Chart 5 helps illustrate underwriting trends. This is pretty standard, I think, no matter what country you're looking at. You get a big sub-standard and declined percentage. Again a lot of that has to do with the family history, and we're looking at things a lot more closely than we would on the life side.

The latest trend in Canada is to look at splitting your coverage between several

reinsurers. You know at inception there was really only one reinsurer supporting the CI market. They were driving the CI market. That's no longer the case. There are a number of choices now for reinsurance. Companies more and more are looking to split their coverage amongst different reinsurers, but that can be problematic. The reinsurers spend a lot of time developing their own bases, and it's hard to get a common platform. If you want to split it by alpha, we may get in a situation where one reinsurer would be offering standard, and the other one sub-standard on a case, and that's difficult to do. So I think we need some change in the marketplace where we get a more consistent basis between reinsurers as far as definitions. I'd like to see that happen, but I don't know if it's going to.

There has been a SARS relapse in Toronto. I think they have about 7,000 people quarantined again. So there's a lot of talk now about what to do with people, especially a lot of people that are traveling to China and other infected regions in the area. Toronto is certainly not out of the woods yet. So there's a lot of talk about how to handle underwriting with respect to SARS.

In the claims adjudication trends, there are a high percentage of denied claims. I probably would attribute that to two factors. I think a lot of times people don't understand what they're getting. Sometimes they aren't having it explained, because the focus sometimes is on the ROP feature. Maybe people are not exactly understanding what their coverage is offering them and when they can and can't claim.

Another factor is that I think doctors aren't in the habit of providing information about the onset of illness. So if we want to take a look and try to track the survival period, it's pretty difficult. Doctors are only in the habit of providing date of death. So it has to be a learning curve for them too.

As can be seen in Chart 6, the big three (cancer, stroke and heart attack) account for 90% of the claims. When you throw in CABS, you have 97% of the claims. We're pricing for those big three to represent about 80% of the claims. So we're still seeing some selection against us here. I think we need to be able to account for that in our pricing. It's too early to tell what's going to happen with cancer as far as the new definitions and moratorium period are concerned. It's something we have to keep on top of.

We're seeing a large number of contestable claims. That goes back to what I referred to as the doctor's learning curve on this. In Canada there hasn't been much litigation. It's not a very litigious culture. I would suspect that as the market gets more mature in the United States, you will see a lot more litigation here. I'd really like to see some standardized CI definitions. We really have to get the reinsurers to the table and make sure that they are comfortable with that. There's going to have to be some give there. I think if we can get there we're really going to be able to develop decent experience. We're only going back to '95 and the market is just ramping up now. We don't have a lot of experience out there from

which we can draw any conclusions. Standardizing the definitions will allow for a much easier analysis of the trends.

Accelerated side benefits are also becoming more popular. The stand-alone market has been a priority source of sales in Canada. The UK has been well accustomed to accelerated sales. I think we're starting to get that in Canada as well.

So in conclusion, I think no matter what marketplace you're in, to be successful in CI you have to constantly review and you have to get all your departments involved. You must have your actuaries, adjudicators, medical directors and marketers all on the same page and constantly reviewing.

**MS. SUSAN KIMBALL:** I'm going to talk mostly about the United States and make some comparisons to Canada mainly and possibly some other countries where applicable. We really are waiting for this product to take off in the United States. I feel that it's definitely growing and it will get there. It's a much needed product. This will be a result mainly of relying on educating consumers and producers about the product. Once that happens I think it will really take off. Having said that, there are certainly a fair amount of companies selling CI in the United States. There are around 50 companies, most of which are work-site. The Life Insurance Marketing and Research Association (LIMRA) performed a study a couple of years ago that has 44 companies. Thirty-two are work-site and 12 were selling individual. So I think the individual is starting to grow, especially as life companies, for example, are putting more and more CI accelerated riders onto life to help tweak that commodity type of product.

Why do we need CI insurance? In the United States, people are surviving. They're not dying. The chance of getting a critical illness before age 65 is three times the chance of dying before age 65. That's during your working years when you need it. More than 50% survive these illnesses one to five years. The managed-care reputation is also deteriorating. Anyone in an HMO knows that deductibles and copays are going up. They don't cover everything that you'd like them to cover. You have to go to certain doctors and so on. You might ask yourself if you get cancer would you rather go to your HMO doctor or the Mayo Clinic? There's a true story of a woman who had bone marrow cancer. Her chances of survival were 40% if she went to her local doctor, but 70% if she went to the Mayo Clinic. So in her mind, there was no choice. But, it cost a lot to be able to do that.

There is disappointment in expenses that aren't covered by other insurance. A lot of people don't realize how big that can be. Let's say you go to the Mayo Clinic, not only will it likely not cover everything the Mayo Clinic does, it's not going to cover your airfare, your hotel when you stay there, your spouse, your time off of work or parking. Another true story I heard was that someone who had cancer said they spent \$1,500 on parking alone at the clinic that they went to.

There are also concerns about funding for retirement. If you don't have a CI policy

you may take a loan out on your 401(k), and you're not going to be contributing to your 401(k) while you're out sick. When you get back you might need to get back on your feet, so you may not contribute for another year or so. That's going to hurt your retirement savings.

In Canada and the UK, obviously one of the big issues is public health care. Why do they feel it's needed there? People like to say that it's not taking off in the United States because we don't have public health care. I don't buy into that for the reasons that I just went through. Especially because of managed care. As James mentioned, a lot of people go to the United States for care, and so they like to have that lump sum to be able to pay for those amounts. In the UK most of the products pay off the mortgage balance, and that's very popular there for that reason.

In the United States, approximately two-thirds of the cost associated with cancer is not covered by health insurance. That's a pretty scary statistic. Again, that goes to things like traveling and parking. Those kinds of things are simply not going to be paid for by other insurance. So CI can fill that gap.

Another interesting statistic is that 47% of foreclosures are caused by serious medical problems, such as critical illness, while only three percent are caused by death. That doesn't mean that people who own a home aren't dying. What it means is they have life insurance and when they die they don't lose their home. Their family doesn't lose their home. But they don't have CI insurance, so if they get cancer and have to pay the medical bills versus their mortgage payment they're going to lose their homes. I'm sure that is one of the reasons it's so popular in the UK to be tied to a mortgage product.

There are a number of types of products offered. Right now in the United States the stand-alone health product is the most popular. Also, a lot of the life companies prefer to do the accelerated rider onto their life product. That is becoming more and more popular these days. There are a few additional riders, such as life, disability income (DI), long-term care (LTC) and those kinds of products that you aren't going to accelerate. But you can put the additional rider onto that. In Canada, stand-alone is most popular and accelerated riders are popular for the bank product. In Asia, the accelerated product has always been the most popular.

On the underwriting side, in Canada and the UK it's basically individual fully underwritten business. The bank product is a little more towards the simplified issue side. But in the United States, the work-site market is where it's the most popular right now. That is simplified issue, and that can vary between just a couple of questions to a little more robust simplified issue in the voluntary employee market. Group can be simplified issue, or if it's going to be employer-paid 100% participation then guaranteed issue makes sense. In the individual market you want to have it fully underwritten. So obviously the pricing will reflect that underwriting as well.

Of the covered illnesses in the United States, over 80% have the core five—heart attack, cancer, stroke, major organ transplant and renal failure. That's actually the core six in Canada. They include CABS in their grouping of the core products. In the United States we also tend to pay partials, so it might be 10 or 25% of the face that is paid for. We're seeing more partial payments for angioplasty, bypass or carcinoma in situ, which is early cancer. More people are getting away from angioplasty; it's just not critical. Some companies are going away from that because of antiselection. Most are still including bypass and carcinoma in situ, especially on the work-site products, because it's difficult to explain what cancers are covered and what are not.

Some of the others that are pretty popular are blindness, deafness and paralysis. You might want to include these. They can be caused by an accident, and could attract a younger buyer. Alzheimer's and multiple sclerosis (MS) are two more. MS can also attract a younger buyer. Those two, however, are difficult to claim time. For one thing, you need to have a certain length of time that you have symptoms and so on before you're going to actually say it's diagnosed. They are difficult to diagnose. Sometimes for instance, MS can be severe, or it may not be. So those are tough, and the underwriters and actuaries tend not to like including those. But obviously the producers do.

In Canada they have the core six. They don't include angioplasty or carcinoma in situ, and bypass, I believe, is included at 100%. As James said, it doesn't happen as often as it does in the United States. But that could change especially if they come to the United States to get their operations. The number of conditions is increasing. The UK is the same on bypass, and I believe they go up to 50 or 60 different coverages in the UK.

The product design in the United States has a level premium and benefits to age 65, 70 or life. Typically the benefits are to age 65 or 70, which are during your working years when you need it the most. If it does go for life, the benefits most often are reduced 50% age 65. This is mainly to keep the premiums down. I think in the United States right now people still are adjusting to the fact that premiums seem kind of high. So anything we can do to keep those premiums down is going to help. It really affects premiums quite a bit, because once you get out past 65 the chance of getting a critical illness is obviously much higher.

We typically have an ROP on death, but not always. We typically don't have an ROP on maturity. Again, that is because of the cost. It can be a pretty high cost. Canada typically has level term or 10-year term to 75, some T-100 and they typically have an ROP on death and a rider for maturity.

Now I want to discuss the amount and age ranges. In the United States, they typically are 18 to 64, but they can go up to 69. In Canada they typically are 18 to 65, which is very similar. The average age in the United States is about 42; I think James said in Canada it was 40. Average size in the United States is about 50,000,

that's reflective of a lot of the products that are in the work-site market. So the amount tends to be slightly lower than Canada's. I think they were 100,000 in Canada. The maximum face in the United States right now is a \$1 million versus Canada's \$2 million.

Waiting period and survival period are important. The waiting period is the amount of time from issue in which you cannot claim a full benefit. So it's basically to help with antiselection. The survival period is the amount of time that you need to survive after getting a critical illness. If you die within that period then you don't get a full benefit payment. In the United States, the waiting period is 30 to 90 days for cancer. We recommend 90 days because that's going to be your most antiselective condition. We do know of companies that have seen at least some antiselection on cancer if it's less than 90 days. In the work-site market sometimes it takes a while to actually issue the policy. So, they feel there's a little bit of a built-in extra waiting period there that can help.

For all illnesses other than cancer, the waiting period is anywhere from zero to 30 days. We prefer 30. But when you really think about it, it's definitely a lot more difficult to antiselect against the company for some of the other things besides cancer.

Some states may require no waiting period, and I believe one actually says absolutely no waiting period at all. Most of them that say no waiting period will still allow you to pay a limited benefit for a certain number of days. Some say you can only have a 30-day waiting period. Some say it can be 90 days, but you have to provide something like 10% of the face during the waiting period if they get a critical illness. If that happens, and they get a critical illness during the waiting period, then the contract usually terminates. One state, which I think is South Dakota, says that you cannot terminate the contract even if they claim during the waiting period. The survival period in the United States typically is zero days. The survival period in Canada is usually 30 days, and it's more acceptable there. In the United States the consumers and producers just hate the survival period. If someone got cancer they want to pay it, they don't care if they die a couple of weeks later. Most people do survive, so it only adds maybe five or six percent onto the premium. So that's why we usually do not have a survival period in the United States. Canada is very similar, with 90 for cancer, zero for others and the contract terminates.

Now I'm going to discuss guarantees. In the United States it's guaranteed renewable. Luckily we have not gone to the long guarantees, because obviously it's a new product. We don't have insured experience, and it doesn't make a lot of sense to have the long guarantees. It's just a little riskier, obviously. So we look at premium guarantees of one to two years. Sometimes it goes up to five, but most of them are one to two. And James went through a lot of the issues around noncancelable, and how that's changing a little bit in Canada; in the UK also, and David went over this in the UK. They have intended to be fully guaranteed, but the

reinsurers are backing out of that full guarantee. So, they look like they're going away in the UK and Canada.

On regulation, the stand-alone product in the United States is a health product so it needs to be filed that way. Accelerated rider is considered a life product. Some states still review it on the health side and still may put some of their health requirements on this accelerated rider, but it's filed and administered as a life. But, you may still have to put some of the health requirements in that product for certain states. An additional rider is going to be a health product similar to the stand-alone. Some of the states have issues with it, but the majority of the issues revolve around waiting periods. Some states say you cannot have a survival period. Some states don't like ROP or say you can only return it because of a non-CI cause. I'm not sure why. It helps the consumer to have ROP. I can't always figure out why states do what they do.

Some of the application questions create problems. Some states don't like questions about family history. Louisiana is an example. Obviously we think family history is important, so that's a tough one to get rid of. Also on the application we'll ask questions like, have you had cancer, heart attack or stroke? Some states say you can't ask if you've ever had a certain illness, but you can ask have you had it in the last 10 years. So those are some of the issues around the questions. If you do make those changes you need to reflect that in your pricing.

Another issue is the loss ratio. Usually you go for about a 50% loss ratio. But some states go up to 65, so you'll need to adjust that for certain states. Again, this is a health product. Sometimes there are unique requirements. California requires a mammogram benefit for all health products, which makes no sense because people are already getting that covered in their health coverage. But California also requires that you have to have health coverage before you can buy CI. So it's obviously dual coverage and they don't care. Canada doesn't have to deal with a lot of these varying regulations by states.

When you look at innovation in the United States there's not much innovation. But, considering that it's a pretty new product here I think the United States is fairly innovative. We do have partials in the United States, which you don't see everywhere. That's similar to scaled benefits, and it makes sense for certain things. In the work-site market, it's hard to explain the cancer, so you want to include the carcinoma in situ. But it's early cancer, so why should you pay a full benefit for that?

Modular products may make sense. You may have certain modules. One could be cancer; one could be heart, so it would include heart attack, stroke, bypass and angioplasty; and then another segment could be all others. That works nicely. You don't necessarily want the person to be able to choose this, because you could get selected against. But, you might let the employer choose it on a voluntary work-site side. If it's a company that has the cancer products, and it is worried about

cannibalization of cancer sales, they can include this and leave out the cancer module and just let them buy the other pieces but keep their current cancer product.

There actually is at least one product out there in which benefits are paid more than once. So let's say you get cancer and it pays it, but the policy stays in force and then you get a heart attack and it pays that. Obviously that's going to be more expensive and you need to price for that. And you also need to think about relationships. If you have cancer and you have radiation within the chest area, that can affect your heart. So that's going to affect your incidence of heart later down the line. So, you need to think about this if you're going to do that kind of a product.

In other countries there are scaled benefits. That would be, for example, if you have three variations of cancer and you only paid 25% on the least invasive cancer up to 100% on the most invasive cancer. Heart problems can be similar. With mini heart attacks you might pay a little, going up to a full-blown heart attack. They have that in South Africa, and, again, that can keep the price down if you're going to pay less versus where you would normally pay 100%. Reviewable definitions have been discussed a little bit. Don't count on that ever happening in the United States because I don't think the states would ever agree to something like that. I certainly think it's a good idea, but I don't think it's going to actually ever happen.

Integrated products were also discussed a little bit. In the UK, for instance, they have CI and disability insurance as a combined product, so there can be some overlap there. And if you do it more as a combined product you can get rid of that overlap. You can pay more of a disability-type monthly payment while they are disabled. But then if they get a full blown critical illness, or total and permanent disability or death, then you can pay the remainder of the amount in that case. That's how that product works.

In Asia, CI has been targeted at certain groups. They actually have female agents selling products specifically geared to females and that's very popular. I think that makes a lot of sense. It would make sense in the United States as well. There is also basic to full-scale coverage. In places like the UK, where it's been around for quite a while, they started out pretty basic and it obviously grew to a lot of things, included a lot of different conditions and became more expensive. So then they decided to give people a choice. You can get something that maybe has the big three and keep your price down, or you can get a Cadillac version that covers everything for an additional premium.

We really do need to learn from other countries. Unusually, the United States is one of the later ones into this market. And a lot of times we may be the innovative entity, but in this case we're not. But it's kind of nice, because we can actually learn things, such as to keep those 90-day waiting periods on cancer to avoid antiselection. We know to make sure to have strong underwriting and solid

definitions to make life a little bit easier at claim time and hopefully avoid courts telling you to pay when you shouldn't. We've also learned to change language to revise coverage if it's no longer critical. Again, we can't do reviewable, and we can only do this going forward, not back. But with things like angioplasty you realize that you're getting antiselected. It really is not critical, so let's change. Let's get rid of it or change the language to something else just to make sure that it's working with the current environment of medical advances and definitions.

Another example there is triponins on heart attack. That wasn't in anyone's definition and all of a sudden triponin is now what doctors are looking at to determine if there actually has been a heart attack. So you need to change that language in your policy to incorporate what happens if triponins are used to determine a heart attack. Again, you can cover less than 100% for some benefits, whether it's partials or scales.

Chart 7 helps to paint a picture of the future of CI insurance. It shows up to 2000 in the UK. Obviously there is a lot of growth here. It was introduced in the late 80s and there were probably 2.4 million CI policies by 2000. That translates to one in 15 Brits having a policy, which is obviously huge. We get one in 15 U.S. people to have a policy and this will be a pretty darn good market. And 30% of new individual premium sales are what CI represents in the UK.

As shown in Chart 8, in Canada the annualized premiums actually increased 119% from the first half of 2000 to the first half of 2001. Obviously, in the last couple of years it has grown dramatically.

As far as the future of CI in the United States, I really do feel like we will see growth similar to the UK and Canada. This is mainly because of what I said earlier about HMOs and retirement funding. We're living longer; we want quality of life and we don't want to live longer and not have the money to support ourselves financially and all the costs that aren't covered. Year 2000 sales estimates in the United States were about \$100 million in premium for all markets. It's actually hard to get a lot of these estimates, because it's not being completely tracked yet. But LIMRA is doing a pretty good job and we're actually going to do a survey this summer on CI. So hopefully we'll get a little more current information on that as well.

**MR. CHRISTOU:** We in the insurance industry have to start buying in. Until we've bought into the concept and we start owning policies ourselves, it's going to be a hard hill to climb as far as getting this thing really going in the United States. I think there's been a lot of growth, and there's a lot of potential. I don't know what we need to kick start it. Susan might have a better idea.

**MS. KIMBALL:** I think a lot of it really revolves around education of producers and consumers, as well as state regulators. A lot of people don't understand the need for it. Hopefully a presentation like this will scare you a little bit into realizing you

probably need a CI policy yourself. It's just getting the word out there and getting producers. In the United States a lot of the issue is around the premium, especially for life producers who feel the premium is high. But once they understand the probabilities behind it, and if they can keep the premium down, it can work. They might accelerate 25% and that helps you keep the premium down.

**FROM THE FLOOR:** I'm with AM Re. We're intermediaries and we have a practice here and also in the UK. By the end of this year there will be no UK reinsurer that will be offering full guarantees, period. They're not issuing them now. They're working with certain clients who have them now, and are easing them into reviewable with some form of short-term guarantee. I want to give you one of the issues that came up with one of our clients over there. Up to now accelerated CI products with full guarantees have offered both life and the CI coverage. Now once you go to reviewable, as the rates go up it affects the whole policy. So what happens if the rates get to a point in which somebody can't sustain it and then loses their life cover simply because it's not a specific component? I think at that point there's dis-synchronicity between the life and the CI thing. Do you have a thought on whether or not a company should be going into just selling protection with a CI rider that could be dropped if the price got too high?

**MS. KIMBALL:** Certainly in the United States it's done as a rider, so you can drop it if the rates would go too high. Also, as far as guarantees go, the base plan can be guaranteed. You know it might be a 10-year guarantee on the life part of it, but the rider will still just have a one- or two-year guarantee. Certainly the rates could go up. But in the United States they can simply drop it, because it's always a rider. So you're saying in the UK it's accelerated but it's not considered a rider?

**FROM THE FLOOR:** No, it's an integral part of the contract. It's death with accelerated CI. And so, if the rate goes up, then the policy is going to go away.

**MS. KIMBALL:** I would think if they just switched that to the rider it would solve the problem that you're talking about.

**MR. O'BRIEN:** Susan, maybe if I could make a comment. It comes down to the health of the overall pool that remains after the premium increase. I guess this creates a considerable incentive for companies to balance the need for a premium increase with the need to model the effect of antiselective lapsation.

**FROM THE FLOOR:** You're aware of the fact that on reviewable now primary companies are raising rates like 40%?

**MR. O'BRIEN:** That is absolutely right. The nature of the marketplace has changed fundamentally. The guarantees were, I guess, mispriced.

**FROM THE FLOOR:** And it's really difficult to get away from the Association of British Insurers (ABI) definitions.

**MR. O'BRIEN:** That is absolutely right. Although from a consumer's point of view there's a lot of benefit in having standardized definitions in the marketplace to the extent that there's a group outside the insurance company setting definitions that certainly holds companies hostages to fortune. From a U.S. perspective the standardization forced by states may well be a similar threat in terms of the ability to control the product. That said, the benefit of standardized definitions in reassuring customers as to what's covered and what's not covered may well be a strong advantage in helping the market grow and building trust in the product. This all points to the need to have up-front margins in the product to be able to cater for this situation because it's very hard to control the product cycle once you've issued the policy. There is also an expectation of continuation of coverage even if the contract itself is reviewable. I agree with your comments.

**FROM THE FLOOR:** Are there reserving issues in CI as there are in LTC? We've been approached on a couple of occasions to look at the reinsurance market for LTC. We find the ceding companies, based on the reinsurer's perception, have significantly under-reserved through their liabilities. Is this an emerging issue for CI?

**MR. O'BRIEN:** I can't comment on the U.S. specifics, but I can comment on the international markets. Within the UK there has been considerable freedom on the setting of reserving levels. It's up to the discretion of offices where there's freedom to act, but with publicity. A recent survey of reserving standards suggested broadly that insurance companies were following the reinsurance pricing rates as their basis with an allowance for deterioration in experience of perhaps one to two percent per annum on fully guaranteed products. That really has not been a significant issue of concern for the direct marketplace, because so much of the risk is reinsured. Clearly the reinsurers are concerned about the cost of those guarantees and that's really where the strain is arising. Perhaps Susan or James can comment also?

**MR. CHRISTOU:** I think from the Canadian perspective there is a lot of concern because the ultimate lapse rates have been significantly lower than we originally thought.

**FROM THE FLOOR:** It's like the old T-100.

**MR. CHRISTOU:** I agree. The profits on the level term to 75 are significantly impacted if your ultimate lapses are lower. A lot of the ROP is also impacting the ultimate lapse rates. With the ROP there are very few lapses in the ultimate durations. So it is a big concern. It's a valid concern and that's a good point that you raised.

**FROM THE FLOOR:** I have one more question. What Canada and the UK share in common is a national health scheme. The United States doesn't have national health, but what you have now is a drive for consumer dollars. I think one of the problems in getting CI out is the fact that consumers have a finite amount of dollars

to spend. There's such a plethora of products out there. How do you get their attention for something like this?

**MS. KIMBALL:** That's the question.

**MR. KENNETH W. FAIG:** Are the moratoria in lieu of or in addition to standard pre-existing-condition-type clauses that one would ordinarily find at least in the United States for health insurance?

**MS. KIMBALL:** I'm not sure what you mean by the moratorium on it.

**MR. FAIG:** If I understand the moratorium correctly, it says we're not going to pay a cancer claim that occurs in the first X days of the policy's existence. Whereas a pre-existing conditions clause would say that for some period, which would typically be somewhat longer such as six months, we will not pay a claim where the condition was diagnosed or symptoms manifested themselves before the policy existed.

**MS. KIMBALL:** We think that there's obviously a little overlap. We feel you get more out of the waiting period probably than the pre-existing clause. The pre-existing clause is very typical on health products, so it's an additional safety net to be able to use. You can go back when you're researching an early claim to make sure that that person didn't have symptoms. Like in your example, the clause could say if you had symptoms six months to a year before you bought the product and then you claim within a year after, that claim can be denied. So it's an additional safety net to help you deny a claim that was antiselective.

A lot of states do not allow the pre-existing on a life product. So you may not be able to do that on the accelerated rider. But as long as you have the waiting period, you're probably okay.

**MR FAIG:** I also wanted to ask, particularly in jurisdictions where the zero-survival period is prevalent, how significant is the post-mortem element for the claim payments and is that in particular a significant component of the denied claims? I also want to ask whether some of those considerations might drive using a life chassis with acceleration as opposed to a stand-alone chassis. If you're using a life chassis and you die from some kind of very bad illness, you get a benefit. Whereas, if you have a stand-alone product with no ROP and you die of a noncovered condition, presumably there is no benefit.

**MS. KIMBALL:** That's correct. You also presume that the person had life insurance coverage, so they'll get coverage from their life insurance product. They didn't get a critical illness. It's supposed to be a living benefit. So if there is a survival period the reasoning behind it is that it's a living benefit. They have life coverage hopefully over here, and so there's no need to really to pay in that instance. Again, it only adds five or six percent to the premium.

**MR FAIG:** I'm somewhat surprised by that result because I thought that a fair number of myocardial infarction (MI) and strokes resulted in death within just a few hours, but medical science, I suppose, has changed that.

**MS. KIMBALL:** Something like 67% survive a year or more after having a heart attack.

**MR. FAIG:** But one of the points you made is that this coverage can be valuable when the condition is of some duration, and you can undertake elective forms of care that might not be covered by governmental plans. However, there are also other situations. For instance, if I understand correctly, there are certain very expensive drugs that can be administered for MI. Is there a niche here for people that had an identification card of some kind that showed they had CI insurance, or are those decisions really decisions the medical profession is going to call a medical decision and make it on that basis? And a CI card is not going to make a difference. They'll administer this drug if it's medically appropriate.

**MS. KIMBALL:** I certainly hope having a CI product wouldn't vary what a doctor would do for a patient. We can only hope that.

**MR. JOHN M. BRAGG:** I'm with Bragg Associates. I think it is beginning to take off in the United States. I think it certainly is on the work-site side and the individual also, I hope. I'm glad to see that it's going stand-alone, by the way. There is some talk about packaging it with LTC so that you have the CI appealing to the younger group and the LTC to the older group. Is that going on?

**MS. KIMBALL:** I know that there is a lot of talk and some consulting firms are looking at pricing that for people. I think there might actually be a product or two out there that has that combined LTC and CI. Obviously there are a lot of pricing issues around that. I think it makes sense to do the CI through your working years to about 65, and then the LTC component can kick in at that point. And then you kind of have the ADL thing built in, which James talked about in Canada. I think it makes a lot of sense.

**MR. O'BRIEN:** I have a comment on the UK marketplace. The addition of LTC is really hung up on waiting for certainty to emerge on the treatment of savings and the means testing that will apply for government benefits. So the direction of UK consumers saving into a particular product chassis is really dependent on tax treatment of the particular products that are on the marketplace. One of the big concerns amongst consumers is that they would put their savings into the wrong vehicle and find that they are denied access to the base government programs. It's almost a disincentive to provide for long-term care, at least in certain sections of the marketplace. It is more than likely that we will see significant change in the product design for LTC. In the South African marketplace it's simply a hierarchy of needs. In other words, there are limited consumer dollars to put into the products. So therefore CI, health insurance and life cover are ahead of the need to provide

for long-term care and pension savings. That's likely to be the case in the near future.

**MR. CHRISTOU:** From the Canadian marketplace there are companies that package those two together. In the Canadian marketplace it's been a very tough sell for the LTC portion. So whereas CI has taken off, LTC hasn't. Companies are trying to package the two together. But they are having some difficulties selling that concept.

Chart 1

## Markets: South Africa, Ireland and UK

■ A brief country introduction - some numbers...

	South Africa	Rep of Ireland	UK	USA
Population (millions)	46	4	59	290
GDP per person pa	\$2,954	\$25,066	\$24,058	\$34,637
Unemployment rate	34%	3.7%	5.1%	4.8%
Rate of consumer price inflation	5.7%	4.9%	3.1%	3.0%
Govt medium term bond yield	10.1%	4.2%	4.6%	4.0%

- Sources: UN Statistics, National Statistics Offices

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Chart 2

## Markets: South Africa, Ireland and UK

■ A brief introduction to CI - some numbers...

	South Africa	Rep of Ireland	UK
Number of new Individual CI sales (000s)	n/a	58	910
Est inforce number of CI policies (000s)	n/a	275	4,009
Growth rate pa since 1995	n/a	6%	20%
Most recent experience investigation period	'91-'94	'95-'99	'91-'97
Number of claims in study	1,129	1,750	5,450

- Sources:
  - Actuarial Society of South Africa CSI committee dread disease investigation 1991-1994
  - Society of Actuaries in Ireland CI Working Party Report 2000
  - Institute of Actuaries of England and Wales Report of the CI Healthcare Study Group 2000/2001

4

Chart 3



Chart 4

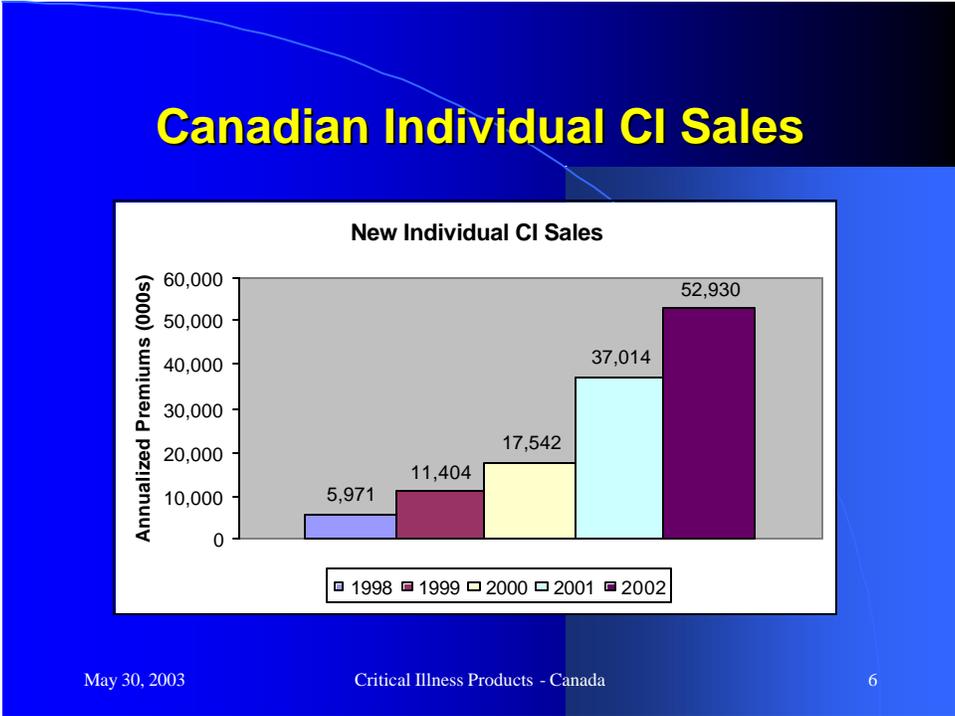


Chart 5

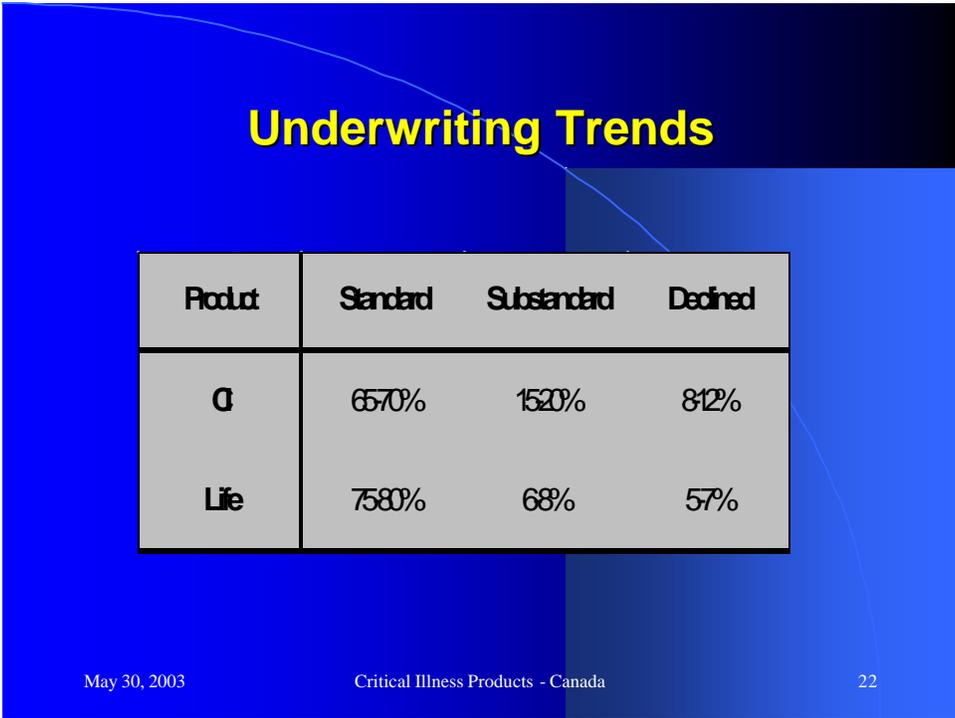


Chart 6

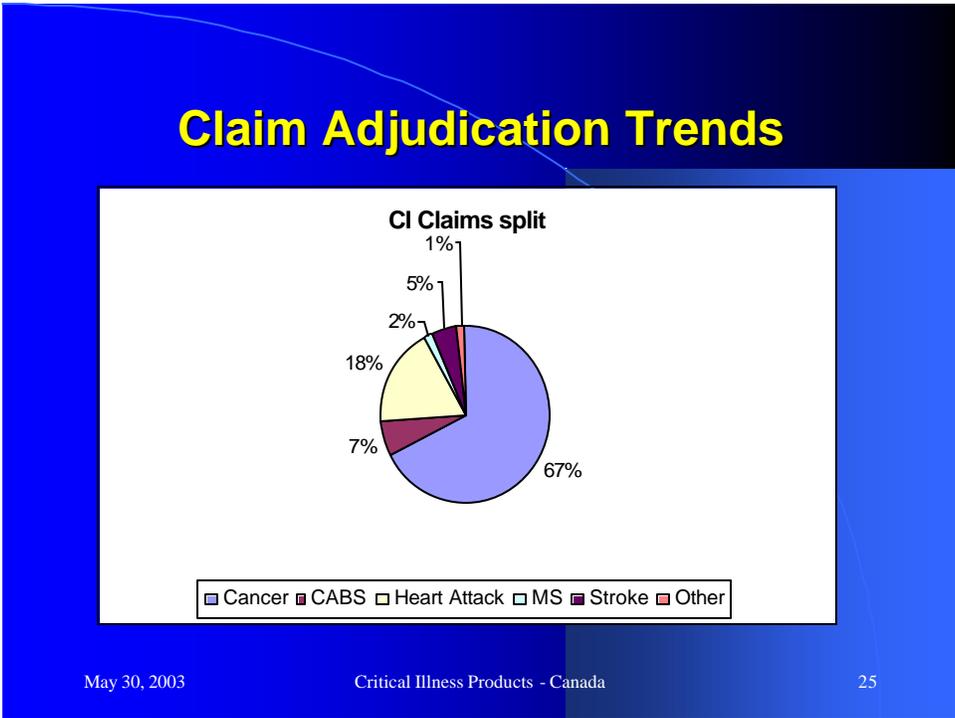


Chart 7

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**The Future of Critical Illness Insurance**

**United Kingdom**

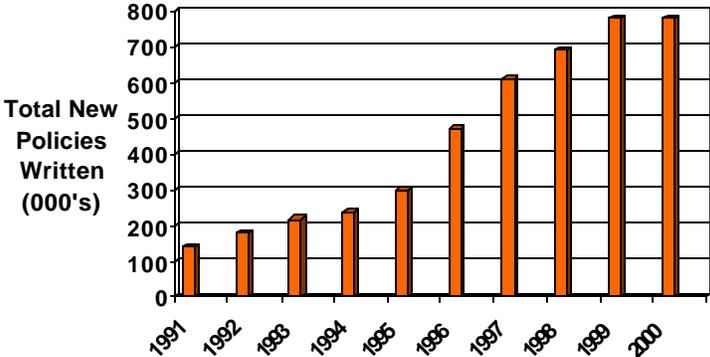


Chart 8

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**The Future of Critical Illness Insurance**

**Canada**

