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## Session 24PD Critical Illness Insurance Update

**Track:** Health Disability Insurance, Product Development, International

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*Summary: Critical illness (CI) insurance, which pays a lump sum benefit if the insured is diagnosed with one of a specified list of diseases, has become very popular in a number of countries. Sales have been rapidly increasing and the product offerings are becoming more complex. Although the product has grown slowly in the United States, sales in Canada are expected to nearly triple from 2000 to 2002. The panelists in this session discuss the current state of the CI market in the United States and Canada. Specific topics to be addressed include product features, marketing and producer issues. The panelists also share their thoughts on whether the success of CI products in Canada and other countries is an indication of potential future growth in the United States.*

**MS. SUSAN KIMBALL:** I work for ING Re, and we help our clients develop CI products. Michael Helewa has nine years of experience in the actuarial field. During the past six years, Michael has focused on the living benefits side of the business from the perspective of a direct writer, reinsurer and consultant. Much of that time has been spent on the pricing, product development and marketing of CI insurance in Canada, including a number of presentations to educate and train different distribution channels on CI insurance. He is a consultant at Biloni Consulting in Canada.

Darrel Spell is a principal and consulting actuary with the Tampa office of Milliman USA. He joined the firm in 1998 after spending 16 years in a life and health insurance corporate setting. Prior to joining Milliman, Darrell served as the product line manager for individual accident and health products for GE Financial Assurance.

He has extensive experience with the pricing and management of individual health products. His primary area of concentration is the development of products for the senior market, such as long-term care and Medicare supplement, as well as the development of specialty health products such as CI.

I'm going to discuss CI in the United States. It hasn't grown here as much as it has in other countries, but we see it growing every day. We're certainly hoping that it gets there very soon. Michael is going to talk about Canada. He will discuss the statistics and the trends that are going on with respect to CI products. Darrell will talk about trends in other countries.

About a year ago Life Insurance Marketing and Research Association (LIMRA) did a study that showed about 44 companies in the United States are selling CI insurance. Of the 44 companies, 12 were individual and the rest were in the worksite market. There are more companies in the market since then.

Why do we need CI insurance? People are surviving in the United States. They're actually surviving all over the place. In Canada and the United Kingdom, the big reason people are surviving tends to be due to public health care. A lot of people say the United States doesn't have public health care and question why we need this product. We need the product for several reasons. The probability of getting a CI before age 65 is about three times the probability of dying before age 65. Those are your working years, and you and your family may need some money if you get a CI. The chances of getting a CI are three times that of dying.

If people want to maintain their quality of life, because they're surviving with a CI, they need financial support. The managed care reputation is deteriorating. The deductibles for HMOs are going up. Doctor choices may be limited. You may not be able to have your number one choice of doctor if you get a CI. There may be disappointment in expenses not covered by other insurance. We'll go into a little more detail on that later. You may say, "I've got good health insurance." Health insurance really is not going to cover a lot of the expenses related to CIs. There's concern about funding for retirement. If you don't have a CI product, you may have to take money out of your 401(k) plan, deplete it to zero, not go back to work for a year, and then have some trouble. You may not start putting money back in for another couple of years, and that could really hurt the money you were planning on having in there for retirement.

As I mentioned, in Canada and the United Kingdom there is public health care. Some people in Canada do come to the United States for care and need additional expenses to do that. In the United Kingdom, the product tends to be a product that pays off the balance of your mortgage when you get a CI. There they focus on mortgage protection.

Why do we need CI insurance? In the United States, approximately two-thirds of costs associated with cancer are not covered by health insurance according to the

American Cancer Society. That's huge. That shocked me when I first saw it. But in talking to someone who actually had cancer, he told me that he wanted to go to the Mayo Clinic and it wasn't covered under his typical HMO plan. He had to pay for airfare to get there. His expenses also included his wife's airfare, the hotel, parking, which was \$1500 alone, and their time off of work.

There are all these expenses that aren't necessarily medical expenses. Some of them that were not going to be covered under medical if they're experimental or paying for deductibles, but a lot of them are not necessarily going to be medical. If you have a stroke, you might need to put a wheelchair ramp in your house. That's not paid for by health insurance.

I found it amazing that 47 percent of foreclosures are due to serious medical problems while 3 percent are due to death. It is not because the people who own homes aren't dying, they certainly are dying, but they have life insurance to help their beneficiaries through that time and don't lose their home. People who get a CI, if they don't have a CI policy, have an almost 50 percent chance they might lose their home. That's pretty devastating. Some of the things I talked about already, such as expenses not paid by other insurance, take their toll.

Of the types of products offered in the United States, stand-alone is still the most popular, but accelerated riders to life products are becoming a lot more popular. We're seeing more and more companies interested in that. I think that makes sense. We, for instance, may have a client who is in the term-insurance market, and with term insurance you've got to be careful because the premiums can be pretty competitive. In order to keep the premium down, they're not covering a whole lot of conditions.

They're going to accelerate less than 100 percent. You might accelerate just 25 percent. That's going to help keep the premium down. The accelerated rider is still more expensive than people think. It tends to be about two-thirds the cost of a stand-alone product, mainly because it's not a terminal illness rider. If you have a heart attack, you can live another 30 or 40 years. The cost of accelerating that is much higher than, say, a terminal illness accelerated rider.

There are a few additional riders out there. If you want, you can put an additional rider on life, but it is especially useful if you want to put it on something other than life, such as disability insurance (DI) or long-term care (LTC). It pays an additional benefit. That's priced very similarly to the stand-alone product. You may just have some lower expenses since it's a rider. In Canada, the stand-alone is the most popular product. There's a bank product in Canada that's an accelerated rider and I've heard that it isn't extremely popular, but it is out there. In Asia, the accelerated product is more popular.

Canadian and U.K. products tend to be all fully underwritten products, but, of course, we have to do something different. Our producers like the more simplified

version, so that we have not only fully underwritten in the individual market, but we have simplified issue in worksite and in-group, plus some guaranteed issue out there. Compare the fully underwritten to life insurance and you're going to have differences in that you're probably not going to have as many substandard.

Financial underwriting is going to be different. You may do 20 times salary for life and only seven times for CI. There's going to be more questions. Even if this is an accelerated rider onto life, you can use those life questions on your base application, but you will need to add a supplemental application for CI to cover things like a family history question. Have you ever had cancer, a heart attack or a stroke? You need to ask about those kinds of things.

For the worksite simplified issue product, you're going to load that because it's less underwriting. It is typically a short form application and accept/reject. In the group market you can also have some simplified issue. You can also have guaranteed issue. There's not a whole lot of CI, but if it is, more likely it's 100 percent employer paid and 100 percent participation.

Most companies in the United States cover what we call the core five—life-threatening cancer, heart attack, stroke, major organ transplant and renal failure. We do have some partials in our products. For those partials, you may only cover 10 or 25 percent of the face for angioplasty, bypass, and carcinoma in situ, which is early stage cancer. Angioplasty is starting to go away. I'd say less than 50 percent of the products have an angioplasty benefit because it's fairly common. It's really not critical. We've actually seen some companies, especially if they're in the medical market, where you can get some anti-selection on that benefit.

There are some others that might be covered, such as blindness, deafness, paralysis, Alzheimer's and multiple sclerosis (MS), and don't add a whole lot to the premium. These are the benefits that are going to attract a younger buyer. The underwriters and actuaries don't like Alzheimer's and MS too much, though. They can be tough at claim time. That is something to think about for those two coverages.

Canada is similar to the United States, but they don't have angioplasty or carcinoma in situ. They have the core six, which is our core five plus bypass. The number of conditions of CI in Canada is starting to increase. That tends to happen. It's a way for the producers to compare and say that their product is better than yours. It can be unfortunate because they can grow quite unwieldy. In the United Kingdom for example, the last I heard there were 50 conditions, but it might be even more than that. They do cover bypass at 100 percent and they've gotten quite a few claims on that.

The product design in the United States is typically level premium benefits to age 65 or 70, or for life, depending on what market you're in. If it's for life, most often the benefits reduce 50 percent at age 65. That's to keep the premium down. It gets

very costly at the older ages because once you get out there past age 65, it's much more likely that you're eventually going to get one of these CIs. You may not die from it, but you'll probably have it. We don't have a whole lot of information out there at the older ages either. Since there's less information, it's a little more conservative to reduce your benefit to 50 percent. Most U.S. products, but not all of them, include return of premium on death.

In Canada, the products seem to be level term or a 10-year term to age 75. There are some T100 products, and the products typically have return of premium on death and often have a return of premium at maturity rider, which is obviously pretty expensive. The producers and consumers in Canada like it. It's touted to them as a win-win situation. If you don't get a CI, you'll at least get your premiums back. So it works well on a marketing front.

The amount and age ranges in the United States. More often, I probably see more issue ages 18 to 64, but that can go up to age 69 with a maximum face right now of one million. In Canada issue ages 18 to 65 are with maximum of million. Waiting period and survival period are very important aspects of the product. The waiting period is the time from issue that you need to wait. You can not file a claim within those number of days. The survival period is the time from when you get a critical illness to actually getting paid. You need to survive that period before you then get your benefit paid.

In the United States, the waiting period is typically 30 to 90 days for cancer. We recommend 90 days. Cancer is the most anti-selective. The waiting period is zero to 30 days for all others that are less anti-selective. The states may require no waiting period, or at least a limited benefit. Most of them, even if they say no waiting period, will allow you to pay a 10 percent benefit for the first 30 days and then the full benefit thereafter. But a lot of them do require just a 30-day waiting period. The contract terminates if you have a CI within the waiting period, except in one state.

Survival period in the United States is typically zero days. Consumers and producers do not like survival periods. It doesn't matter if you die 10 days later. The reason for that is it's supposed to be a living benefit. You're supposed to have life insurance already out there. If you die right away, you get your life insurance. You don't really need the living benefit to help you through you're illness. The consumers and producers hate it. It adds maybe about 6 percent to the premium. So, usually in the United States there's not a survival period. In Canada the waiting period is 90 days for cancer, zero days for all others. The contract typically terminates. The survival period tends to be 30 days. The survival period is more acceptable in Canada, and so they go ahead and include it.

Guarantees are a very important issue, especially in comparing the different countries. In the United States, our product is guaranteed renewable and the premium guarantees are typically one to two years. You may see up to five. In

Canada, they're non-cancelable for the most part. I'm starting to hear about some that are coming out that are not fully guaranteed for life, but a lot of them right now are. The bank product is more of a guaranteed renewable product. In the United Kingdom, they tend to be fully guaranteed, but these are going away. They may likely go away in Canada as well.

There is at least one reinsurer in the United Kingdom that had some bad experience and didn't like the fact they couldn't raise premiums. They're not covering the fully guaranteed products anymore. I think at the very least we're going to see non-fully guaranteed products come out in the United Kingdom. They might still try to have the fully guaranteed ones, but rates will probably go up if some consumers still are willing to pay for those guarantees. We'll see how that goes. It doesn't make a lot of sense to have the real long-term guarantees for a new product where we don't have the insured experience.

For regulation in the United States, stand-alone is considered a health product. The accelerated rider is considered a life product, accelerated rider to life. There are some states, like California, though, that make you go through the health people throughout the filing process. They still put their requirements from the health side on your accelerated rider. An example in California is they require a mammogram benefit be paid on a CI product. The additional rider is a health product.

Some of the issues that states have around this are waiting periods or survival periods. They may say you can't have a survival period on your product, but return of premium, no return of premium or only return of premium for a non-CI cause. As far as application questions, there are a couple states that don't like family history questions which, of course, the underwriters don't like to get rid of. Typically you want to ask the questions, such as if you've ever had cancer, a heart attack or a stroke? In some states say you can only ask if they have had that within the last 10 years. Loss ratio's usually priced at a 50 percent loss ratio but can go higher than that in some states, up to 55 to 60 percent. There are some unique requirements such as the one I mentioned from California.

Canada has one regulatory body In the United States and we're jealous of that. It's a challenge in the United States to file these products. You have to re-price, too, when it makes a difference to your experience. You're going to have a fair amount of re-pricing when you have this in different states.

There isn't a whole lot of innovation in the United States, but considering it's pretty new, we're not doing too bad here. We do have partial payments, which aren't happening in other countries. It's similar to scaled benefits in other countries. South Africa is big on scaled benefits where you might pay 25 percent on one stage of cancer, 50 percent on another, 75 and 100. They are much bigger and more complex in that way. In the United States we have partials such as the 10 percent carcinoma in situ. For modular products, there are a few out there where, especially if a customer has a cancer product already, they don't want to cannibalize that

product. You may have product that puts all the heart together, and then everything else. At least then you can carve out the cancer if the person already has a cancer product.

Within the worksite market, it's typically going to be the employer that chooses, not the employee, because then you can get some anti-selection. There is a product or two that actually pay benefits more than once. Again, if you do something like that, you want to group the heart together or you wouldn't want to pay heart attack and then also pay angioplasty and then stroke since it's so related.

We need to learn from other countries. It doesn't always happen that the United States is one of the last to introduce a new product. Let's learn from the other countries and have the longer waiting periods to avoid anti-selection. Make sure that we have strong underwriting and solid definitions that the underwriters and medical directors understand and can buy-off on and explain to the producers. These things are going to help avoid anti-selection.

A key thing is the producers. Companies really have to be dedicated to training their marketing people and putting money into that because if you're not, it's not going to go anywhere. It's a new product. They need that training. It's not that hard to understand. They need that training to make it work.

Change language to revise the coverage if it's no longer critical. You might want to get rid of angioplasty if you're starting to get anti-selective claims, and it's not really critical anyway. Cover less than 100 percent for some benefits where it makes sense.

In the United Kingdom, CI coverage was introduced in the late 1980s and grew obviously very quickly from there, starting at about 1996. Right now there are 2.4 million CI policies in the United Kingdom, which is one in 15 citizens who own a CI product. That equates to 30 percent of new individual premium sales. That would be pretty nice in the United States. We'd all like to have a product like that.

The Canadian market has grown dramatically in the last couple of years. The annualized premium increased 119 percent from the first half of 2000 to the first half of 2001 in Canada. We're really not sure what's going to happen yet in the United States. For 2000 sales estimates, we had 100 million in all markets of premium, and, as I mentioned, we really do need CI here. HMOs, retirement funding, quality of life and expenses that aren't covered are good reasons that we really do need this product here.

**MR. MICHAEL J. HELEWA:** Susan has done a great job in outlining the key differences between the Canadian and the U.S. CI markets. My presentation will focus mostly on the Canadian market with an emphasis on recent trends and issues. Just briefly we'll look at the history of CI insurance in Canada. In its current

form, it was introduced in Canada in 1995. Eight years later there are 25-30 companies currently selling CI.

As Susan mentioned, it's primarily sold as stand-alone individual CI coverage. Many companies do offer it as riders on their disability income plans and their life policies as well. Mostly it's distributed through licensed insurance advisors. There had been attempts at going into the direct marketing arena to target specific associations. The creditor market and the group market have made significant inroads as well.

This product is primarily non-cancelable. The contract is fully guaranteed. The insurer cannot change the premium rates or the definitions of the CIs. Right now there are about 20-25 covered illnesses that are part of each policy. We're not quite at the 50 illnesses, as the United Kingdom is. Issue ages are 18 to 65 typically, and the face amount ranges from 25,000 to two million.

The average issue age is currently about 40, and 75 percent of buyers are between ages 35 to 54. Relatively young buyers are seeing the need for this product. Also an interesting statistic is approximately 55 percent are males and 45 percent are females. Females seem to see the need for this product. If we compare it with life insurance, it's usually about 70 to 80 percent males and 20 to 30 percent females. The average premium is around \$900 to \$1000, and the average face amount is about \$100,000. It certainly isn't an inexpensive product.

The Canadian market is dominated by two specific types of product—the renewable Term-10 products and the limited period level products. Over 80 percent of all sales on an annualized premium basis are within those products. When I say renewable, I mean T10 so that premium rates are level for 10 years, and then they jump up after 10 years and remain level for another 10 years. The limited premium period level are typically your T75 plans, and there has been some T65s being introduced, as well as T20s.

If we look at the new individual CI sales on an annualized premium basis, it's over 100 percent growth from 2000 to 2001, and from 2001 to 2002 it's about a 40 percent growth. LIMRA just came out with the first quarter results for 2003, and premiums are just in excess of \$17 million in premium. Translated throughout the year, it's an estimate of about another 30 percent growth this year.

Just to keep in mind relative to life insurance premiums, life insurance premiums in Canada are in the range of \$1 billion a year. It's still far off from that. It's about 5 to 6 percent of life insurance premiums, but it is growing. It's interesting to note that there hasn't been anything significant that happened in the Canadian market, as in the U.K. market where standardized CI definitions seemed to have increased sales quite a bit. This just seems to be the natural growth of CI in Canada as more and more companies enter the market and people become aware of this type of product.



Product design trends seem to be a fairly hot topic these days in Canada. As we mentioned, about 90 percent of the policies are issued on a non-cancelable basis. But more and more, there's talk about guaranteed renewable products. The reinsurers have really spearheaded the CI market in Canada. They're the ones who put in the time and research to develop the morbidity bases, the underwriting guidelines, etc. Recently, a major reinsurer pulled out of CI from a non-cancelable basis; they only issue guaranteed renewable now. There is another company entering that will only offer guaranteed renewable coverage.

I think it's inevitable that the market will eventually become guaranteed renewable, but as long as there's other reinsurers out there willing to issue non-cancelable, I don't see it making significant inroads until all the reinsurers come to an agreement or companies face serious losses because of the non-cancelable type contract. Actually there are two insurers who have taken it a step further and are offering cancelable CI coverage. Not only can the insurer change the premium rates, they can flat-out cancel the policy on you.

Covered CIs seems to be the trend in most markets. New illnesses are constantly being added. Some of the latest ones are aortic surgery and heart valve replacement, benign brain tumor, and loss of independent existence, which is a catch-all type definition. It's not associated with any specific CI illness, but I think it's akin to the total and permanent disability definition that the United Kingdom has. In Canada they seem to shy away from the disability-type definition and are more comfortable issuing something a little more strict, similar to a long-term care type definition, meeting two out of six activities of daily living (ADLs) or cognitive impairment.

Definitions are also constantly being updated. This is necessary to keep up with medical advancements and new diagnostic techniques and also to correct past mistakes. I really don't believe they're past mistakes, rather we're learning with experience. Earlier I mentioned updated cancer exclusions. Not to diminish the severity of being diagnosed with prostate cancer, but it's not typically seen as a life-threatening cancer, but more as a life-altering cancer, and early generations of CI products actually covered this on a full-benefit basis. Now they seem to have moved away from that. Early prostate cancer is now excluded from CI contracts.

Also, malignant melanoma was previously excluded if it was .75 millimeters in depth or less. This is an example of keeping up with new clinical definitions. The staging has changed. Now Stage 1 melanoma is 1.0 millimeter in depth or less. They just want to be consistent. The cancer moratorium is the 90-day waiting period for cancer. Previously if you were diagnosed with cancer within the first 90 days from the policy effective date, you would not be able to claim under this contract. However, many people used to buy this contract. Informed people, such as medical or lawyers, used to buy this contract, or still do, and would seek medical consultation during that 90 days but wouldn't be diagnosed till after the 90 days, and, therefore, they would be eligible for the claim. They're actually tightening up

that definition. Now no benefit will be paid if you're diagnosed within the first 90 days or if there's any signs, symptoms or medical consultation within the 90 days that leads to a diagnosis of cancer, even if it doesn't happen within those 90 days. They're really trying to tighten up the definition to remove or limit the anti-selection as much as possible.

There is an updated heart attack definition. New ECG changes consistent with heart attack were always included. It used to be elevated enzymes as well. Now it's elevation of cardio-biochemical markers. There is now a more sensitive test that can also lead to higher heart attack claims. We also now have CI packages. About three to four years ago, maybe a little longer, companies began to try and take the shopping-cart-type approach where they'll offer a base package which is typically cancer, heart attack and stroke, and sometimes includes bypass surgery, and then also offer an enhanced package that would include the base package plus all the additional 15 to 20 illnesses. These are now being offered.

However, most sales still are currently all of the covered conditions, so that is the base package plus the enhanced package. The reason is the base package with those three illnesses, cancer, heart attack and stroke, represents around 80 percent of the cost. For only an additional 20 percent of the premium, you can get 15-20 more illnesses. Most people are going with that. However, covering deafness and blindness has proven to become a byproduct of it. I don't know if it was necessarily thought of when it was first introduced as a fairly valuable underwriting tool. Now a lot of underwriters are able to offer people who are deaf or blind, for example, the base package and exclude the additional package. Otherwise, if they had the whole gamut, they're already covering deafness and blindness. They wouldn't be eligible for this product. It does provide some flexibility there.

Limited payout benefits are relatively new as well. They essentially pay 10 to 25 percent of the face amount to a maximum of 10 to 25,000, for the most part. There are great variations among companies right now. It's either on a supplemental or a carve-out benefit. Supplemental means in addition to the face amount and the carve-out if you get paid \$10,000, because then your face amount for any future CI claims will be reduced by about \$10,000. Some of the types of illnesses that are being considered for this include early prostate cancer. Yes, they are excluding prostate cancer now from a full CI benefit but offering it under the supplemental or under this limited payout benefit, as well as ductal carcinoma in situ, and insulin-dependent diabetes. Once you get paid these limited benefits, the policy remains in force, and you're eligible for a future full-benefit CI claim.

Since CI was introduced it has been an indemnity-type product. In other words, it's a lump sum payment that's paid upon diagnosis, and the claimant has discretionary use of the insurance monies. They can do whatever they want with that money once they claim. One of the big marketing tools in Canada for the use of that money is to circumvent the waiting list to get treatment for your illness by going to the United States and using this money to get treatment there. You won't have to

wait longer. Some companies now have taken it a step further where they're not giving a lump sum payment, however, they are issuing reimbursement coverage. If you do get a CI, they'll pay for the care received in the states. It reimburses your medical expenses with diagnosis of CI.

I don't necessarily see these products as being competition to the indemnity-type products that were accustomed to. I almost see them as being a good complement to the products. They're typically a lot less expensive, and having both might be a good way to go. One portion of your CI product is you can use the money as you wish, and the other one reimburses your medical expenses.

The reliance of return of premium benefits seems to be unique to Canada. They're a big part of the CI sale. They either have return of premium on death, return of premium on expiry or maturity, and the latest trend, return of premium on surrender (ROPS). They typically refund about 75 to 100 percent of the premiums paid on one of these decrements. ROPS is the latest trend: however, there's quite a bit of variation between the ROPS features offered by each company. For example, one company offers surrender points—they're predefined surrender points—every 15 years. With another company, you can surrender your policy at age 65. Other companies allow you to surrender your policy every 10 and 20 years. There's quite a bit of variation, but essentially they define surrender points for the client, and at that time they can surrender their policy or lapse their policy for a refund of premium.

As Susan mentioned, this is certainly very popular with the producers in Canada. The focus of the sale shifts from the CI benefits to the return on premium (ROP) benefits essentially. The broker now is not burdened with trying to explain the technical contract to the consumer. I mean there are five to six pages of medical definitions in there. It's a big burden on the producer. As an actuary I don't understand all of them either, but we have the luxury when developing the product—a good team of underwriters, claim adjudicators and medical professionals to help us out with that. It certainly focuses the sale to ROP benefits. As Susan mentioned, it's a win-win situation. If you get sick, you get paid. If you stay healthy, you get paid as well.

Obviously, pricing trends will be influenced by the product development trends. This isn't earth-shattering, but as you increase the number of covered illnesses, your incidence rates will certainly increase as well. An interesting point is guaranteed renewable incidence rates versus non-cancelable incidence rates. If the market does move to guaranteed renewable, will they be removing the non-cancelable loads or are there even non-cancelable loads? Will future trend factors be reflected less if it's guaranteed renewable? A lot of these issues are dependent on the type of product, whether the company can change the premium rates every year or if there are five- or 10-year rate guarantees or whether there's a limit on how much the company can increase the premiums. The biggest part may be the company's philosophy when pricing this type of product.

However, most people feel that this product should have been issued as guaranteed renewable from the start. I don't think we'll be seeing the incidence rates decrease by moving to guaranteed renewable. I probably see them increasing for non-cancelable. We also need to consider the cancer incidence. Hopefully the strengthening of the moratorium period and the exclusions will limit the anti-selection and also decrease early cancer claims. Use of new testing could increase heart attack claims by five to 35 percent depending on the age. There's not much data here, it's more judgment, but there is a general feeling that heart attack claims will increase with the use of this test to detect heart attacks.

The incidence for coronary artery bypass surgery is far lower in Canada than in the United States. I think the main reason is availability. It's much easier to get a bypass surgery in the United States than it is in Canada. One question is whether or not future incidence will increase in Canada for coronary artery bypass surgery as it becomes more widely available. I think it will probably eventually decrease as angioplasty becomes more popular. It's a far less invasive procedure. The recovery time is far less as well. As far as the technology of angioplasty, right now they can do many things with it, and there isn't much need for coronary artery bypass surgery. I see the incidence actually decreasing in the future.

It's recommended to review your incidence rates annually. There are a few items you should look at when developing or reviewing your incidence rates, certainly including the current health-care system. As the health-care system gets more experience, you can look at your own company and industry experience when reviewing it as well. Certainly changes in underwriting and/or claim practices and changes in product design marketing and/or distribution are important. Mortality is death supported because there is no benefit associated with death unless you have the ROP benefit. In other words, the higher the ultimate mortality, the higher the profitability. Should the mortality assumption be similar to preferred life? Right now the underwriting is similar to preferred life. However, there's quite a bit of anti-selection with this type of product. I would imagine the mortality assumption is probably somewhere in between preferred life assumption and a standard mortality.

This product also is heavily lapse supported, especially for the permanent T100 products. We don't have any experience on ultimate lapse rates, but for T100 life they are decreasing. That's typically what you look at when developing your lapse assumption in the absence of experience of a similar life product. ROPS on surrender is very risky or very sensitive to lapses. Certainly people who buy a CI policy with ROPS will probably defer their lapses to the surrender point. It would also encourage additional lapses from people who wouldn't have lapsed before because of this benefit. The lapse assumptions, particularly at the bumps, are very important.

Typically the benefit amount risk really applies to the reimbursement model where now the risk is shifted from the policyholder to the insurer. They don't know exactly what benefit they're going to pay because it's reimbursement. Second, we're talking about reimbursing coverage in the United States There's a currency risk and an inflation risk with the medical inflation that we're so familiar with.

If we look at an idea of the underwriting between CI and life, we notice that far less applications are issued standard for CI than they are for life insurance, and that's not surprising. We're talking about CI that uses preferred life type underwriting and has a huge focus on family and personal history. There are quite a few cases where you might qualify as standard for life but either be declined or rated for CI.

It's becoming more and more difficult to have a clear and concise underwriting philosophy. Insurers are starting to split their business amongst reinsurers, and, as we mentioned, they're really the driving force in the Canadian market. If your business is split between two reinsurers, and they have two different underwriting guidelines, it's quite a challenge to come up with one clear and concise underwriting guideline. The use of exclusions are becoming more popular. For example, for someone diagnosed with thyroid cancer that has been in remission for the last five years and is now trying to make the offer for CI, thyroid cancer and any cancer or other CI claim that's directly associated with that cancer will be excluded. Also, you might exclude paralysis for occupational risk or high accident risk. Not all companies are comfortable doing this. We noticed that mostly the disability income companies are comfortable with this type of approach because they're very used to excluding the riders on disability income, whereas life companies are not used to exclusion riders.

It is probably not so surprising that 75 to 80 percent of claims are approved under CI versus life at 90 to 95 percent. Certainly death is fairly objective, whereas with CI we try to keep it objective, but it's not always the case. A few of the reasons why they're denied is they don't meet the definition of CI. Their claim for isn't covered under the contract. It's within the cancer moratorium period and non-disclosure. Those are some of the main reasons why they're being denied.

If we look at CI claim split we'll see that heart attack, cancer and stroke represent about 90 percent of all claims and cancer being 67 percent. It is interesting to note that with cancer, if you separate it between gender, about 90 percent of all claims for females are cancer (mostly breast cancer) and 50 percent for males. These are early claim statistics. We have to keep in mind that the average duration of a policy in Canada is still under two years. I expect the other categories to increase in the future as we get to Alzheimer's, loss of independent existence and Parkinson's. Again, the average age of claimant is 47. I also expect that to increase as the block matures. For the big three, which have more than 90 percent of all claims, incidence is about 80 percent. I think that'll smooth out, and similarly for cancer.

There's an unexpected number of contestable claims due to non-disclosure of family history. It seems to be about two to three times higher for CI than on life for contestable claims. In Canada there's not much litigation. It's not a litigious environment. So far, the cancer moratorium and the definitions have yet to be challenged in court. Certainly a lot of claims have been denied for the cancer moratorium. There is some incidence with heart attack where clinical definition is that they had a heart attack, but they didn't meet the definition of the contract, they denied the claim and it has yet to be challenged.

A standardized CI definition similar to the U.K. - accelerated CI benefit could be on the horizon. Right now the creditor type insurance is issuing this type of benefit, but it really hasn't caught on in the individual market. Preferred CI has been discussed but I think would be quite difficult, especially at this time, when you don't have much of a spread of risk right now to separate the classes even further. Regardless of the market, a successful CI program requires constant review and vision from a dedicated core team of experts.

**MR. DARRELL D. SPELL:** We've already discussed the United States and Canada and a little in the United Kingdom. I'm going to talk about other regions, primarily Southeast Asia, South Africa, Europe, Latin America and Australia. I'm going to be referring to the acceleration benefit versus the stand-alone. By acceleration benefit, I'm talking about a rider to a life contract where if a person has a critical condition they receive a payment that's basically a prepayment of their death benefit. Their death benefit is reduced as a result of that CI being paid. A stand-alone policy is, in fact, a contract that provides or primarily provides a CI benefit, and once you trigger a benefit and you receive 100 percent of your money, the contract terminates. We'll be talking about stand-alone versus acceleration.

If you look at policies around the world—I'm going to do some generalization here to try to keep from getting too detailed—they tend to follow pretty much the same pattern. Typically you see that the product starting out as having three or four primary triggers, which are almost always cancer, heart attack and stroke, and then some other fourth trigger like coronary artery disease. Typically, everybody is coming out with a fixed indemnity payment whenever the first occurrence occurs, and usually there's something to reduce cost by reducing benefits at age 65 or some other advanced age. That's been fairly typical throughout. However, there are some variations by region that I want to quickly run through.

In South Africa they're primarily using the acceleration approach. It has been very well received. The market likes it and they're buying it; the customers are fairly affluent and they're buying fairly large policies. The policies are fairly broad, covering 20 or so diseases. There is fairly comprehensive coverage. For Australia, it is somewhat similar. They seem to have pretty much followed the South Africa example primarily using the acceleration approach. Market penetration has been pretty good in Australia, about 2 to 3 percent. There are some very large policies, a

U.S. \$1.5 million face amount, which is pretty substantial. Their coverage is fairly broad. You'll typically see 30 –or so diseases in a product offering in Australia.

Asia is a little different. I've broken Japan out from other markets in Asia because of the differences between them. In Japan, the product is doing quite well. Market penetration is around 4 to 5 percent. Again, they're using the acceleration approach, but I would describe their approach to the marketplace as being a little bit more conservative than other areas. They typically cover three diseases—cancer, heart attack and stroke—but that's all. That seems to be fairly consistent throughout Japan. Recently there have been some companies moving to expand it but nothing like what we're seeing in other areas of Asia. In the rest of Asia, the race is on to see who can offer the most, the best and the biggest package of benefits available. The product has been well received, but 30 diseases are common. There are some companies offering as many as 50 diseases. You can just imagine what the policy form looks like.

In Europe they also have the acceleration approach with some stand-alone coverage available. Europe is not doing too well. It's not really catching on in Europe, except in a couple of pockets. Some areas of France seem to be buying it. Austria has had some limited success but generally not so because of their social policy and the insurance programs that they have, etcetera.

I think this next section might be what gives you the most value because I'm going to talk about some of the variations that you will see in other countries. Maybe it will prompt some ideas. In South Africa you will see that there are an expanded number of conditions being offered. One of the approaches that they're taking is companies will have a menu of four to eight benefits available, and you can pick and choose which of those diseases you want to have covered. They have this nice deal that if you pick all eight of them, you'll get a bonus. They will automatically expand it to up to 20 diseases, and those additional 12 are fairly minor things, but, nonetheless, as a result of buying all eight, you get this benefit. They will vary those benefit payments based on the severity level of the CI. Now that's an interesting concept. I think it's worth exploring a little bit further.

I've seen two approaches to this severity level variation. Some companies will offer four variants. Some will offer eight. Typically, whatever it is there'll be some schedule. On the four they'll pay 25, 50, 75 percent or 100 percent based on the severity of the condition at initial diagnosis. If you are diagnosed as having a critical condition, they will evaluate how far that condition has progressed, and depending on which severity trigger definition it satisfies, then you will receive the appropriate payment. For example, on the four-level option, if you have a cancer that's diagnosed early, you may receive 25 percent of your payment. If you are treated, and the condition does not progress, then you may not receive additional payment. On the other hand, if the condition is treated, the treatment doesn't work well, and your condition continues to get worse, you may at some point progress to the point that you meet the next trigger. Then you would receive a second 25 percent, so

that you receive 50 percent. This would continue until you satisfy the most severe definition. That has been fairly popular, I understand, in South Africa because it's intuitive to the customer. It makes sense to them. The other nice thing is it does reduce the ultimate cost of the coverage because on average you're not paying out that full benefit as you would under a typical policy in the United States.

I'd like to go over some things that are interesting about the Asian markets. There are a lot of specialty options in Asia. There's a female dread disease policy, a male dread disease policy and a juvenile dread disease policy. These are quite fascinating to look at. I'm just going to explain a little bit about the female dread disease policy because I think it is rather interesting. From what I can tell, it was introduced in Hong Kong in 1995. It is fairly popular. Some variation of this cover has been offered in every country in Southeast Asia. Each country seems to adapt the concept to fit the culture of their country. For example, in some areas there is a stream of future life event payments tagged to this policy so that it mirrors an event. Perhaps, in that culture marriage is a big event. If you trigger a CI, you may receive this fund so that when your child gets married the fund then pays. I'm not going to go into all that, but I just thought that was an interesting variant based on the particular culture that they're marketing to.

I should say that throughout Asia, when we talk about these policies, they're fairly small in face amount, typically around \$50,000 versus the \$1 to \$1.5 that we've been talking about elsewhere. On the female dread disease policy there are several triggers. One would be complications of pregnancy, such as ectopic pregnancy, death of the fetus or newborn child or severe preeclampsia. A second trigger would be congenital anomalies with the child, such as Down's Syndrome, cleft palate or congenital heart disease.

A third trigger for female diseases could come from a fairly long list that includes carcinoma in situ of the cervix and breast. The fourth trigger, and I understand that this is fairly big in terms of contributing to the popularity of these contracts, is that it comes with a free checkup. It actually adds fairly substantially to the expense for the policy, but, nonetheless, it has huge perceived value in the markets where it's being sold. The women will buy these contracts so that they can get the annual checkup.

There are a lot of other variations. Some markets in various countries are offering graded benefits. This is typical. We actually see it in the United States where we may have a 100 percent benefit, but if you have an angioplasty, it only pays 10 percent. We see a few of those options in the United States, but in other countries we're seeing a lot more of them. I'm not talking about severity level now. I'm just talking about proportionate payment based on the particular condition that you may have.

Another option that a lot of people are looking at now is the multiple payment approach. For example, you may receive 100 percent of the face amount if you are



diagnosed with a particular condition. If you have a heart attack you receive 100 percent of the face amount. Now we eliminate heart attack as a future trigger, but if you are subsequently diagnosed with cancer you would receive 100 percent of the face amount for cancer. We then remove cancer as a future benefit trigger. The contract would continue until a limit is reached such as three times the original benefit amount. Once you're paid the third face amount, then your policy contract would be terminated.

Another approach that some carriers are using is paying for reoccurrence. If you have a heart attack, you are paid 100 percent of the coverage. If, after some time elapses, you have a second heart attack, you might receive 50 percent of the face amount. Then, subsequently, you would receive 25 percent on your third heart attack, if you survive it. Another approach that is fairly common in the United States is that annuity payments can be paid out over some fixed period or over the life of the insured. We are beginning to see some inflation options, both simple and compound, as well as guaranteed purchase options and buy-back options. This would be where on an acceleration product you have a portion of your life insurance benefit accelerated as a result of the CI payment. After some time elapses you then are given the option to pay a fee and have your full death benefit restored as long as you are free of symptoms. It's a fairly nice feature.

I'll talk briefly about some regulatory issues. Regulation is different in other jurisdictions. It varies substantially by country. If you're going to go into Asia, you're going to have a lot of jurisdictions to deal with. You're going to have a lot of different regulations that you have to comply with. Generally, I would say that there's a lot more flexibility elsewhere than there is in the United States, in terms of flexibility to draft definitions that really fit what you want to do. You don't have quite the loss ratio limitations that you have in the United States. You have the ability to implement risk management features to a much larger extent than what you have in the United States and you also have the ability to incorporate more exclusions.

Throughout Asia where there is this race for who can have the biggest policy, we're beginning to see regulatory authorities put a cap on what you can offer. There is a country in Southeast Asia where the insurance companies have gotten together and agreed that they will put a cap on the number of benefits and diseases covered.

If you are going to try to market outside the United States or Canada, data is going to be tough to find for you. There generally is good insured life data in the United Kingdom, Australia, Canada and South Africa. There are some good reports available. In just about every country you can find population data of some sort, but it's difficult to find insured lives data in most countries. It would be inappropriate to use data in one country and try to transfer it to another. I wouldn't even use U.S. data for Canadian business and vice versa. Where available, you can use the published sources. There are also some proprietary studies done by various

reinsurers and consultants. I have seen a few of those. They are great. If you're going to go out into other markets, you should inquire about that.

I think that in a lot of circumstances it's appropriate to use population data as long as you are making appropriate adjustments. This is one area where foreign data might be helpful. I think you can look at the relationship between insured data and population data in some other countries and draw some inferences that might be applicable to the new market you'd be entering.

**MR. ALAN PARK:** What do you think the value of percent of premium is with a family history question? I agree there are several states that don't allow it. What do you put in there for those states or do you not account for it?

**MS. KIMBALL:** A lot of times our clients don't even want to issue in those states if they can't have a family history question. It's hard to know exactly how that's going to impact your claims. Certainly people can lie, and others will wonder if you are really going to follow up to figure out if they really have family history. There are many different opinions around that, but our actuaries and underwriters feel that most people, depending on the underwriting, are honest. If you're going to have, say, follow-up teleunderwriting where you go through a long list over the phone on a fully underwritten product, a lot of people they feel are pretty honest when they're asked directly by a person. They will ask if your parents had cancer, heart attacks, strokes and so on. They think these questions are pretty valuable. If you don't have the questions, the people who do have that family history are going to be the ones that buy. You're going to get a lot of anti-selection and probably a lot more claims. I think that the price is going to be considered natural pricing. It's going to be a pretty big hit.

**MR. PARK:** When somebody answers that question, depending on how you ask the question, then how are you going to underwrite it? They could answer that they had a father that died of cancer or a brother that had diabetes before he was 50. What kind of guidelines are you giving to the agents in order to use that information? You've got to have some sense of what's important if you're going to have a question like that.

**MS. KIMBALL:** In the studies that people have done, they've said that for the answer to the key question—has anyone in your immediate family—they note it's usually two members of your immediate family that have had cancer, heart attack, stroke, and so on because your chances go up very much when the answer is yes. If they answer yes to that question, then you don't issue the policy.

**MR. PARK:** It's an "accept or decline" question.

**FROM THE FLOOR:** You said that loss ratios they demand 70 percent on specified disease, regardless of whether it's individual or group.

**MR. JOHN CATHCART:** I'm seeing a number of policies out there that provide a wellness benefit, either as an embedded benefit or as an optional rider. I'm curious as to what your thoughts are with regard to the impact that has on the incidence rates for the CI.

**MR. SPELL:** I have seen a few of those. I don't think personally that it impacts the CI. I think it's just a little bit of sales sizzle. It apparently does help with sales, but I've not seen any evidence that it would impact CI incidence rates. From a pricing standpoint, I have not been so bold as to lower the incidence rates as a result of that benefit being there.

**FROM THE FLOOR:** Similarly in Canada for any type of wellness benefit, there's really not much adjustment to incidence rates you'd make for them. It's more from a marketing-type approach just to differentiate your product from another competitor's product.

**MS. GAIL LAWRENCE:** Susan, have you seen any accelerated benefits in the United States? For the other panelists, what kind of variations have you seen in the definition of the accelerated benefits?

**MS. KIMBALL:** There are accelerated products out there, and we're seeing more and more of that as we talk to our life clients who don't want to do the stand-alone. They like the accelerated rider a lot of times because of the filing, that it's filed as a life product. We've probably seen at least 10 that are out there right now.

**MS. LAWRENCE:** By accelerating benefit, what's the definition? That they're going to die?

**MS. KIMBALL:** Basically with an accelerated rider, it's typically on a life insurance policy. When you get a CI, you accelerate the death benefit. You may accelerate 25 percent, up to 100 percent of that death benefit. They get the CI. They determine at issue the percentage that they want to accelerate. When they get the CI, if they chose 50 percent, they get 50 percent of the benefit, and the other 50 percent will be on death.

**MS. LAWRENCE:** Are there any policies out there that have an accelerated benefit if you've been diagnosed with another disease that's going to result in death, such as a disease separate from the major incidence rates for heart disease, cancer and stroke?

**MR. SPELL:** Yes, there are some.

**MR. DAVID FITZPATRICK:** On the group side in the United States, are there any employer-paid like on a stand-alone basis, not counting the accelerated stuff?

**MS. KIMBALL:** There are not a whole lot of people out there doing group. In the last year or so, group was starting to be looked at. There are a few of them out there. There are so many more in the worksite. I'm not sure who the major players are in group. Some companies are starting to explore it and do some developing on it.

**MR. SPELL:** But there are a lot of people doing it in worksite.

**MR. ROBERT BERLINE:** We're seeing quite a few diseases over in the Far East added, and some here in the United States. What's the likelihood of the trends here in the United States for other diseases? Let me throw out a few diseases. One would be AIDS, HIV. Others would be designer or de jour, such as SARS or mad cow disease. How do those fit into this?

**MR. SPELL:** There are some carriers that are covering AIDS. In some cases they limit it to AIDS for health-care workers who have had a needle prick or something like that. It would not surprise me to see that disease added more broadly. SARS or diseases like that will not be added because it is the disease de jour. I don't think there's any pressure on companies to add something like that if there's a perception that the disease is going to run its course and go away.

**MS. KIMBALL:** I do know in the United Kingdom that a company or two added mad cow disease. They actually got some claims that they weren't really expecting. You can add that, but I think you can learn a lesson, too, that you may actually get claims for it.

**MR. HELEWA:** Certainly in Canada they do have occupational HIV similar to what Darrell mentioned. With regards to SARS and mad cow, again I can't see those being added in the near future. First of all, it's too early to tell what SARS really is. What's really important is once we do know what SARS is, is to determine how will it affect any other potential illnesses.

**MR. FRANK WALKER:** Michael, could you comment more on the return of premium. In our low interest rate environment I question how that could still be viable unless the surrenders are only 15 or 20 years down the road. Are those only paid when a claim has not occurred?

**MR. HELEWA:** Yes. That's an excellent question because I think most of the industry is wondering how it's viable. Some of the benefits are truly rich. I think the first return of premium on surrender benefit that came out was 100 percent after 10 years. Certainly with the low interest rate environment, I don't know how it could be profitable. They must be assuming quite a low selection rate or election rate as to that benefit. This is only for active policyholders. So once a claim occurs for CI, per se, the policy terminates. They wouldn't be eligible for a return of premium on surrender. The limited payout benefits, however, would still be eligible

for that. They would probably carve out the amount they paid for that on the return of premium.