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Group and Health Coverage in the Wake of September 11

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Executive Summary

The events of September 11, 2001 had a substantial effect on the insurance industry, particularly in the property/casualty, workers' compensation, and reinsurance areas. The events alerted us to the possibility that future attacks could significantly affect the group and health insurance industry and self-insured employer market. This is particularly significant for plans provided through employment, which usually have the unique characteristic of concentrated risk in limited locations.

How would group and health coverage be affected if a suicidal terrorist detonated a bomb in a crowded area or if a "dirty bomb" was used to spread radiation? How would the marketplace react if a biological agent were introduced into the water and food supply?

This monograph examines the impact of catastrophic terrorist events on group and health coverage including medical benefits and non-medical benefits such as group life, disability, and long-term care.

Medical Coverage

Any type of catastrophic terrorist event would have a broad effect on various entities including individuals, employees, private employers, insurers, reinsurers, health care providers, and all levels of government. Effects could be immediate, as in the need for medical care, or they could be longer-term, as in the need for delayed or ongoing mental health services.

A catastrophic terrorist event would likely cause increased medical claims as people affected by the attack seek treatment and as individuals experience symptoms that may or may not be related to the event. It would likely result in higher premiums for survivors of a catastrophic terrorist event due not only to higher claims costs, but also to increased reinsurance costs.

In addition, a catastrophic terrorist event could have a significant impact on solvency and reinsurance availability for medical insurers. Reinsurance is critical to maintaining solvency of insurance carriers, but it may not be available to provide for coverage of a terrorism event. Damages resulting from a catastrophic terrorist event could be large enough to threaten the solvency of health insurance carriers and self-insured plans, especially if reinsurance or a federal backstop is not available.

Group Life, Disability, and Other Non-Medical Coverage

As mentioned above, a catastrophic terrorist event could have a broad and varied effect on many different entities. Some of the impact could be in the area of predicting claim costs and the resultant effect on financing and capital for non-medical insurers.

The impact of a terrorist event on the capacity to write insurance could be significant for group life, disability, and other non-medical insurance carriers, especially if catastrophic reinsurance or a government terrorism program is not available. A catastrophic terrorist event would also have an impact on the need for capital since the industry needs to have sufficient capital to meet its claim obligations. Reinsurance allows insurers to write more coverage with the same amount of capital. Since September 11, there has been a significant decrease in catastrophic reinsurance capacity, particularly for group life insurers. Providing reasonably priced reinsurance coverage is an increasing concern for disability and specified illness coverage as well, since the impact of a catastrophic terrorist event would emerge over an extended period of time.

Additionally, the cost of coverage would be affected by a terrorist event. There are several considerations that could influence pricing and underwriting in the wake of such an event, such as increased cost of coverage where risk is concentrated in areas of higher perceived risk, or where insurers pass along increased reinsurance costs.

A catastrophic terrorist event could have a substantial impact on group and health coverage—both medical and non-medical benefits. In response to a terrorist event, insurers could experience increased claims and reinsurance premiums, decreased availability of reinsurance, and possible insurer insolvency. Although catastrophic terrorist events cannot always be prevented or avoided, their impact on the financial security provided by insurance and employee benefit programs could be minimized through risk-sharing mechanisms that involve the partnership of all affected entities.

Introduction

The tragic events of September 11, 2001 have changed us in many ways. We have renewed appreciation for our relationships and their meaning to us. We have also re-examined our security on many levels — recognizing that there are many aspects that extend beyond protection of life, limb, and property. Security also means protection from the financial burden of unexpected, and once unimaginable, events. Insurance and employee benefit programs can help enhance our financial security.

The September 11 attacks were indeed singular and catastrophic, but they alerted us to the possibility of future terrorist actions, and to the fact that terrorism can take many forms. Attacks by suicidal terrorists through conventional bombs remain possible, especially in areas where people gather or in places such as nuclear power plants where greater devastation is possible. But our concerns are not limited to direct physical attacks. There are other actions less direct and slower to emerge that are nonetheless equally devastating. There is the possibility of the general dissemination of biological agents in our water and food supplies, and the possibility of radiation, spread through so-called "dirty bombs."

Much of our financial security comes from insurance and employee welfare benefit programs. In this monograph, we will first discuss the implications of potential catastrophic terrorist events (CTEs) on the future of insurance and financial security provided through medical coverage. Next, the monograph addresses the implications of a potential CTE on the future of non-medical coverage, including long-term disability income (LTD); short-term disability income (STD); long-term care (LTC); limited benefit plans (such as hospital income); specified illness plans; and death benefits provided through group life, accidental death, and travel accident plans. Although each section focuses on specific types of coverage, some of the implications will apply to both medical and non-medical coverage as well as to pension benefit programs and individual life and annuity policies.

For some acts of terrorism, the effect on medical benefits is immediate, such as an increased need for antibiotics due to a biological event. For other acts of terrorism, there may be longer-term effects on medical benefits, such as delayed or ongoing utilization of mental health services.

Similarly, there could be an immediate effect on non-medical insurance and employee benefits, or there could be longer-term effects on benefits that provide for disability and long-term care. For example, a "dirty bomb" would likely cause relatively few immediate deaths and injuries, but illness, disabilities, and the need for long-term care would emerge over time. A biological, chemical, or radiological attack could spread illness over extended periods of time. The economic effects of terrorism may change the characteristics of disability experience, since the ability to find jobs affects the frequency and length of claims. When looking at employee benefit programs, we might find that terrorist acts would reduce some costs while increasing others (e.g., death benefits replacing annuity costs.) However, any terrorist act would likely change the level and pattern of expected costs for insurance and employee benefit programs.

CTEs could change the dynamics for handling contingent events by potentially overwhelming parts of the insurance and employee benefit systems and by causing some parts of these systems to be re-defined. CTEs have the potential to produce events that will impose a sustained demand for services in addition to large initial demands.

Group plans, especially those provided through employment, usually have the unique characteristic of concentrated risk in limited locations. Terrorist attacks at the workplace make it likely that a number of employees covered under a single plan (perhaps even all of them) would be at the same site. Regardless of the number of participants, the risk for that plan at that location is concentrated. For that reason, appropriate insurance and reinsurance are needed to make sure the promises of the plan can be met. This is true for all types of risk-bearing entities, including insurers, health care plans, or self-insured employer plans.

The discussion that follows describes in more detail the entities that are affected by potential CTEs, and how they are affected by the new climate of concern in the wake of September 11. We will be looking at topics such as: the availability of insurance and reinsurance, cost and underwriting issues, and solvency concerns.

Medical Coverage

Who is Affected?

Individuals/Employees

Individuals affected by CTEs require medical care. Depending on the type of attack, certain individuals such as rescue workers and other disaster-related personnel are also at elevated risk. For example, nearly one-third of the survivors of the September 11 attack who were treated for injuries were rescue workers (firefighters, police officers, emergency medical technicians, and other disaster-related personnel).[1] During a biological or chemical attack, maintenance workers, custodial workers, mailroom employees, emergency medical technicians, health care workers, public health officials, police, and fire personnel are all at elevated risk for medical services.

Private Employers

A CTE may cause interruption of business and the loss of key employees — a critical risk for employers. Since September 11, corporate risk managers have been scrambling to find ways to address the peril of terrorism risk. Insurance coverage, loss control, and alternative risk transfer are three risk management approaches employers use to deal with the risk of a CTE.

Insurance

Corporate risk managers will need to analyze medical plans offered and the ability of carriers to accept medical risk. The risk manager needs to consider the surplus of the primary writer in relation to the carrier's concentration of insureds. Reinsurers may exclude terrorism coverage, leaving primary carriers without reinsurance for terrorism losses.

Loss Control

Since September 11, loss control assumes an even greater importance in the marketplace. Employers (and insurance companies) should address issues such as concentration of risk, security measures, and the relative safety from terrorism at work-site locations.

Alternative Risk Transfer

There is renewed interest in other alternative risk financing tools for employers, such as captive insurance companies, formed by firms banding together to create their own risk-bearing entity and risk retention groups.

There are also significant medical risks for employers. Much of the medical coverage of the September 11 event was provided through workers' compensation policies.[2] Workers' compensation carriers do not have the discretion to drop terrorism coverage. Unfortunately, while some workers' compensation carriers are providing terrorism coverage, rate increases are as much as 100 percent for businesses with significant terrorism exposure. Other insurance plans are leaving the market (at least for larger white-collar employers in urban areas). For example, at least one insurer reportedly was not providing workers' compensation coverage to any business with more than 50 employees in any one location in New York City.

Health Insurance Industry

In addition to the terrorism risks shared in common by all employers, health insurance companies, including health maintenance organizations, have additional insurance risks. There is the potential for high claims due to direct terrorism incidents such as smallpox, anthrax, plague, and botulism. Plus, there are the potential indirect costs including mental health and post-traumatic stress. Because of these additional risks, changes to premium structures and marketing are likely.

Government regulations are likely to affect how the insurance industry must respond to potential attacks. The presence or lack of government stop-loss protection would have a significant effect on the risk borne by insurance carriers.

The health insurance industry depends heavily on effective information technology. The National Academy of Science warns that private computer systems are one of the areas vulnerable to terrorist attacks. In addition, effective response to any type of biological attack requires that information be disseminated quickly and accurately to all key players in the medical process. Effective information dissemination is likely to be hindered due to the lack of standards for identifying patients with electronic medical records.

Health Care Providers

Health care providers play a critical role in the defense against CTEs and are greatly affected by such events. Providers face the financial risk of delayed or reduced reimbursement as a result of a CTE. This could happen if a provider's billing system broke down under the pressure and urgency of responding to a CTE, if health plans lacked the financial capacity to immediately meet all of their benefit obligations, or if the banking system were to be disrupted for an extended period.

In the event of a CTE, clinical enhancements, adequate staffing, and improved information systems would be essential.

Providers need to develop increased capacity for clinicians and hospitals to engage in disease surveillance and disease reporting related to the intentional release of biological or chemical agents. Providers should also be educated on the diagnosis of smallpox, anthrax, and other contagious diseases. In addition, guidelines are needed to manage contaminated patients and adequate supplies of vital resources are necessary for effective treatments.

Additional health care workers must be available to provide essential emergency services in the event of a CTE. Staffing issues could be critical if health care workers stay away from a facility out of concern for personal or family safety. The Centers for Disease Control have proposed procedures that enable a public health authority to compel a health care facility, including physicians' offices, to provide services or the use of its facility if necessary for emergency response. Uses may include transferring the management and supervision of the health care facility to the public health authority for an unlimited period of time.

Information systems need to be enhanced to effectively address potential CTEs. For example, only 13 percent of hospitals have fully operational computerized patient record systems.[3] Most U.S. hospitals are still using paper records, with no potential for quickly moving medical information electronically. The Wall Street Journal reports that the retail pharmacy industry has a powerful database that could provide important information during bio-terrorism attacks.[4]

Reinsurers

The losses incurred by reinsurers from the events of September 11 arose primarily from property and casualty claims. To a lesser extent, claims developed from life insurance coverages. The events of September 11 had little impact on the financial results of health reinsurers.

The market for catastrophic health reinsurance was relatively small prior to September 11 since the coverage was difficult to price and the market was mostly individual coverage for accidents and multiple births. In 2002, an increasing number of health insurers have approached reinsurers about providing catastrophic coverage. The reinsurers have had a limited response to the demand for such coverage since: 1) the pricing of such coverage is difficult; 2) the reinsurer has little control over where the insurers write business; and 3) the reinsurers need to manage capital. Another difficulty in providing reinsurance for terrorism health claims is in developing a clear definition of what constitutes a "claim" arising out of terrorism.

Governments
All levels of government would be touched in the event of a CTE. Key areas of government responsibility during a terrorist attack would be:

- Assisting in the data analysis and detection of an event;
- Diagnosing and characterizing biological and chemical agents;
- Developing the proper response and communication to key response-workers and the public; and
- Declaring an "event."

In addition to the strategic role federal, state, and local governments would play in these events, government workers — firefighters, emergency medical service personnel, police officers, public health officials, health care workers and public health workers — would play a key role as first responders to a CTE.

What is the Impact on Medical Claims?

Whether a CTE is biological, chemical, or conventional, health care costs would increase. Claims would be likely to increase as people directly affected by the attack seek treatment for both physical injuries and illnesses and for psychological reasons. There may also be a shift in consumers' behavior toward illness. People afflicted with minor illnesses would likely visit the doctor — or emergency room — when they would ordinarily have recuperated at home without medical attention.

Direct Effect
The immediate requirements following a CTE are likely to include ambulance services (air and land), emergency room visits, inpatient hospital stays, prescription drugs, specialty care physician visits (e.g., surgeons, neurologists, anesthesiologists, radiologists, psychiatrists and psychologists, etc.) as well as follow-up appointments with primary care physicians.

An attack similar to September 11 could expose surviving victims to injuries such as inhalation of dust or aerosols, ocular injuries, lacerations, sprains and strains, contusions, fractures, burns, closed head injuries, or crushing.

Diagnosis and treatment of illnesses and injuries due to a biological attack such as anthrax, plague, botulism, or tularemia would require specific antibiotics or antidotes. Depending on the prior preparations, there could be shortages of the required drugs in affected regions. If the cure is not administered, other medical conditions could develop such as paralysis or pneumonia.

Chemical attacks such as nerve gases could cause a delayed reaction affecting long-term medical well-being. Areas most often affected are eyes, skin, and the respiratory and central nervous systems.

There would also be an impact on the cost of professional services and equipment:

- Contracted providers would have strengthened positions in contract negotiations, resulting in higher negotiated reimbursement rates.
- Depending on the location of the attack (e.g., tourist areas), health plans could experience higher non-contracted and unmanaged out-of-area expenses.
- Demand surge would cause prices of prescription drugs and supplies to increase.
- New drugs would be developed (or re-developed) with brand-name patents that will allow for higher prices.
- Shortage of resources, such as hospital beds, might cause an increase in costs.

Insufficient numbers of hospital beds or a lack of home health care resources could delay the recoveries for those injured, resulting in claims for a longer period.

Indirect Effects

CTEs could have impacts that are less obvious than the injuries suffered. In an attack similar to September 11, surviving victims could suffer from and seek treatment for non-injury related cardiac, respiratory, neurologic, or psychiatric illnesses.

Mental Health

Regardless of the method, CTEs would most likely result in psychological problems for many people. According to Asst. Surgeon General Brian W. Flynn, "psychological problems, specifically post-traumatic stress disorders that result from terrorist attacks, tend to be more serious, more complicated, and longer lasting than the types of problems that arise after natural disasters."

While some suffering from mental health issues following a terrorist attack would seek care immediately, some will not. Those who do not might ultimately receive care on a long-term basis. The hoaxes that follow an attack could also add to the instability of the situation.

Laid-Off Employees

Businesses and industries affected by the terrorist attack would, more than likely, be forced to lay off employees. Laid-off workers could continue their benefits through COBRA for 18 months. Studies show that laid-off workers on COBRA use more medical services, generating costs that are often significantly higher than the costs for active employees.[5]

In addition, recent lay-offs have targeted lower seniority (younger) employees, increasing the impact of changing demographics on health care costs.

While COBRA provides important protection for laid-off workers, it is only available as long as the employer's health plan still exists. COBRA continuation coverage will not be available if employers go out of business, or are forced to discontinue their benefit programs. The Health Insurance Portability and Accountability Act of 1996 (HIPAA) guarantees continued access to coverage to workers who have had health coverage for at least 18 months. Widespread business failures or employers' abandonment of their health plans could place a strain on the high-risk pools and other mechanisms states use to guarantee access to HIPAA-eligible individuals.

In the extremely rare event that an employer loses nearly all of its employees, the employer may cease to exist. This would create a dilemma for some employees and dependents of the company since they would have no way to access group health insurance on their own through the federal COBRA law.

Similar Symptoms

Several modes of attack result in flu-like symptoms as the first indicator of infection. Public awareness of this fact has been heightened and the result is more visits to the doctor or emergency room. Patients want assurance that their affliction is the flu rather than the result of biological terrorism. Physicians and hospitals may also increase the normal number of diagnostic tests to defend against the possibilities of illnesses brought on by attacks.

There has also been an increase in the number of requests for preventative flu shots, which resulted in shortages of the vaccine over the fall and winter of 2001-2002.

Uncertainty

Given the inexperience of the United States in dealing with terrorist attacks, there is a great deal of uncertainly that goes with estimating the impact of an event. Managing and reporting financial results with certainty would be difficult.

Cost Offsets through Potential Government Involvement

On June 12, 2002, President Bush signed the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Public Law No. 107-188). This law allocates $4.6 billion to strengthen the nation's defenses against a bio-terrorist attack.

The bill establishes a national disaster medical system to provide appropriate health services, health-related social services, and, if necessary, auxiliary services (including mortuary and veterinary services) to respond to the needs of victims of a public health emergency. It would also:

- Provide $640 million to maintain a strategic stockpile of vaccines, therapies, and medical supplies to meet the health needs of the United States population, including children and other vulnerable populations in the event of a biological threat or attack or other public health emergency;
- Expand the availability of potassium iodide for communities near nuclear plants to treat radiation poisoning in case of terrorist attack;
- Provide a total of $1.6 billion in grants to states for hospital preparedness and assessments of the vulnerability of local water systems; and
- Provide $300 million to the Centers for Disease Control and Prevention to upgrade its facilities.

What is the Impact on Medical Premiums?

In an already inflationary environment for medical costs, the primary effect of CTEs would be higher premium increases assessed on CTE survivors as a result of the direct and indirect claim costs described previously. Depending on the type of CTE, total premium expected by the insurer may be significantly reduced due to the extreme mortality and subsequent loss of membership/exposure. Loss of premium might present the insurer with a short-run cash flow predicament and will likely create long-term solvency concerns.

Increased premiums might be anticipated in areas that are likely targets of terrorism. Large metropolitan areas and areas of sensitive political importance are such targets. Regional health plans, with a high concentration of risk in small geographical areas, will also be more vulnerable to catastrophic risks. Similarly, employer groups with significant exposure concentrated in these areas might receive premium increases based on the perceived risk.

Premium increases would also be generated due to increased reinsurance costs, in anticipation of potential CTEs, especially for regional carriers and for groups with high concentrations of risk.

Health plans could also consider steps that affect availability of coverage in order to protect solvency and coverage for those they insure. Exclusion of terrorism events is one method that has been considered for certain types of insurance. Alternatively, caps might be placed on the reimbursement level for services provided after concentrated events.

What is the Impact on Solvency & Reinsurance?

The catastrophic damages resulting from a CTE could be large enough to threaten the solvency of insurance carriers and self-insured health plans. The total cost of the September 11 World Trade Center loss is estimated to be in the tens of billions of dollars. The property and casualty industry carriers covered most of this loss. Reinsurance helped to spread the risk among many different insurance companies. In the case of large catastrophic losses, reinsurance is critical to maintaining the solvency of insurance carriers. No single carrier could handle a major catastrophic event, such as the World Trade Center loss, without facing the possibility of financial ruin. An effective reinsurance market is essential to carriers who participate in a market subject to catastrophic risk. Similarly, an effective reinsurance market is essential to carriers who offer coverage that does not exclude terrorism events.

Almost all insurance contracts had war exclusions before the September 11 attack. Whether terrorist attacks would be considered war, however, was ambiguous. Furthermore, reinsurers and carriers would find themselves under regulatory and political pressure to cover the insurance expenses arising from CTEs, such as the September 11 attack. As a result, indemnification of losses and payment of benefits are likely to be provided without dispute or as ex gratia payments.

Property and casualty reinsurers, along with life catastrophic reinsurers, have begun implementing clear contract provisions to exclude terrorism of any kind since September 11. The exclusions could create a gap in coverage if any party in the insurance/reinsurance chain of coverage is required to provide terrorism coverage while the risk-takers on the upstream side are not. This could be particularly alarming because many reinsurers are foreign owned, and smaller foreign reinsurers might not follow directives or mandates from federal or state governments to cover losses outside contractual and legal obligations. A federal backstop is one alternative to fill the potential insurance gap.[6]

The demands for capital are significant when considering the potential costs of terrorist events, whether a single CTE or a series of smaller but repeating terrorist events. The National Association of Insurance Commissioners (NAIC) capitalization formulas call for roughly one dollar of surplus for each four dollars of risk premium for medical stop-loss underwriting risk. However, the terrorism risk within the United States has not been quantified historically. (Indeed, the level of risk may have increased significantly in recent years, making the use of historical data problematic at best.) Adjusting the NAIC Risk Based Capital (RBC) formula or any other capital formula to accurately assess the capital required for extreme terrorism events will likely be very difficult. If capital is insufficient and an insurer becomes insolvent, state guarantee funds may be available.

CTEs within a small geographic concentration, such as a "dirty bomb" targeting a single town, would have a major impact on local health plans. Many health plans are regional entities. In certain geographic areas, one or two health plans dominate the market share. These health plans are often provider-owned organizations. When hit by a CTE, these local health plans would sustain major financial losses from their insured population as well as from the uninsured or under-insured populations requiring emergency medical care. Smaller health plans would likely have reinsurance coverage; however, the frequency and level of claims experienced with a CTE might still place a health plan at the risk of insolvency. In the event of insolvency, reinsurance will generally provide coverage for a short period, e.g. 30 days. Once a health plan is in financial ruin, covered members might not have any other local carrier options.

National carriers or health plans could sustain a local terrorism event more readily than local health plans. First, these carriers do not have the concentration of risk local health plans have to deal with. Second, these carriers generally have stronger capital positions than the local carriers. Despite diversification and surplus strength, only a few carriers have a capital position in the billions that would enable them to withstand the excess medical expenses resulting from an extreme terrorist attack. Perhaps most frightening of all is the possibility of a biological attack that could not be contained regionally but that affected most or all of the nation. Such an attack could threaten the financial strength of even the largest insurers.

Solvency and Self-funded Health Insurance

Many large employers self-fund their health insurance benefit plans. Roughly one-third of the population receiving health benefits from employer-sponsored plans are covered under self-funded arrangements. These employers often have far less financial capability to absorb catastrophic expenses in the event of a CTE than would insurance and health plan companies. While many self-funded employers purchase stop-loss coverage in excess of a specific amount per covered person (e.g., $100,000) and per the entire covered population (e.g., 125 percent of the expected claims), they are subject to the medical expense risks below these specified claim levels (attachment points). The largest employers have in the past retained all the risks without any stop-loss coverage.

Just as health plans and health insurers suffer from terrorism losses, self-insured employers are also at risk. Self-insured employers may have difficulty finding affordable stop-loss coverage due to the risk of CTEs. Some employers might return to the fully insured market for coverage rather than self-insure. Whether reinsuring or buying fully insured coverage, employers seeking protection against the risk of terrorism would face increased costs. In addition, there may not be sufficient market capacity to handle an influx of terrorism-exposed employers returning to the fully insured market.

Work site-related medical expenses are likely covered by workers' compensation coverage. Nonetheless, the impact on employed workers could result in psycho-physiological effects on workers' spouses and other dependents. These effects could result in increased mental health and prescription drug costs, and could delay the recovery from non-CTE-related catastrophic illnesses.

Group Life, Disability, and Other Non-Medical Coverage

Who is Affected?

Individuals

Individuals affected by CTEs may experience financial devastation caused by the death or disability of a breadwinner, the costs of treating injuries and illness, or the costs of caring for dependents who are unable to care for themselves.

Individuals provide for these contingencies by purchasing private individual and group insurance, by paying taxes for government-sponsored programs, by establishing personal investment and savings programs, and by contributing to charities that provide support.

Employers

Employers may incur higher costs for their benefit programs, even if they escape the direct impact of a CTE. They may experience slower benefit payments from insurers, or they may receive only partial payments in the event of insurance company bankruptcies. They may lose facilities and employees because of CTEs. In addition, they may lose employees because of necessary social responses to the CTE, such as military reserve call-ups or emergency worker requirements. Material supply and product distribution may be affected, as well as basic communication and utility infrastructures such as mail, telephone, and electrical services.

Insurance Companies

Insurance companies' solvency may be impaired if experience is unfavorably impacted by a CTE. Insurers may choose to withdraw from markets or limit coverage where they believe their solvency could be jeopardized in the future. Reinsurance availability for CTEs may change, with lower limits, exclusions, and higher prices likely. Insurance companies may lose facilities and employees because of a CTE itself, or because employees are involved in the community's response. Insurers may be affected by infrastructure breakdowns, such as loss of utility or communications services, just like any other employer.

Insurance Industry

The insurance industry as a whole may experience a reduction in capacity because of earnings and solvency concerns. Insurance promises cannot be made without adequate financial resources to back them up. Reinsurance may be more restrictive and cost more. Risk-based capital standards may be re-evaluated. Surplus requirements would tend to increase, and investment capital would tend to decrease because of solvency concerns. State guarantee funds could be of some limited assistance should insurance company insolvencies occur.

Self-insured Plans

Self-insured plans could be overwhelmed financially and administratively. In the most severe cases, they could be unable to pay benefits. They could lose the ability to obtain catastrophic reinsurance vehicles at a reasonable cost.

Governments

Governments would be affected at all levels. Programs such as Medicaid, Medicare, and Social Security, as well as state disability and unemployment programs, could face significant pressure for additional benefits. Local governments that provide the initial response to a CTE could experience major facility and personnel losses, significantly impacting their ability to react. Federal hazard management processes would likely expand and require a deployment of resources initially intended for other uses.

Potential CTEs would affect different entities in different ways. Some of the impact would be in the area of predicting claim costs and the resultant effect on financing and capital. These issues are discussed in the following sections. Other impacts are more general in nature, and affect business, governments, and charities in a much broader context. These issues are mentioned here, but are not discussed further.

What is the Impact on the Capacity to Write Insurance?

The capacity to write insurance can be defined as making sure that promises made can be kept. This is largely accomplished through state oversight and regulation that ensures sufficient capital is available to meet obligations, either in a direct insurer's own surplus or through reinsurance, where specialized insurers provide coverage to direct insurers.

One of the greatest challenges to the insurance industry is to provide coverage at a reasonable price. For example, one element affecting the cost to consumers of insurance coverage is the existence of reinsurance coverage for CTEs. The availability of insurance products has historically been facilitated by the availability of attractively priced, low-deductible catastrophic life reinsurance, which reimbursed carriers for multiple life losses due to a single event. Catastrophic life products have allowed insurers to price for the mortality risk from disease and accidents while having a known cost, the catastrophic premium, for multiple death claims arising from some type of catastrophe.

Catastrophic reinsurance coverage has normally not been required by disability writers due to the difficulty of defining a claim and the long nature of potential claims. Determining an appropriate premium for these coverages is complicated because the true cost of a CTE may not be known for an extended period of time, adding uncertainty and risk to those products. This adds uncertainty to the disability pricing process and increases the financial risk to an insurer offering these products.

It is estimated that $600 million to $800 million of claims arose from group life and accidental death coverages due to the events of September 11, with catastrophic reinsurance covering over 50 percent of those claims.

The catastrophic coverages were normally made available by special risk underwriting pools or by the Lloyd's market. An underwriting firm manages the special risk underwriting pools with the risk shared among reinsurers and insurers who agree to take a share of the risk. Since September 11, the reduction in the availability of catastrophic coverage has been partly due to unwillingness of reinsurers and direct writers to take a risk share in a special risk pool where they have little control over the covered risks or the pricing.

For group life insurance, there has been a significant decrease in catastrophic reinsurance capacity since September 11 as described above. This is evident in changes in price, exclusions and limits such as:

- Increases in deductibles from $500,000 to $5 million or more;
- Rate increases of up to 500 percent or more;
- Decreased limits on coverage per event to $10 – $25 million;
- No quotes for companies with a perceived geographic concentration of risk;
- Exclusion of terrorism coverage;
- Exclusion of coverage for nuclear, biological, and chemical events.

In response to decreased catastrophic reinsurance capacity for group life and accidental death, direct insurers have explored the following alternative approaches, each of which has limitations:

- Obtaining aggregate stop-loss reinsurance that provides reimbursement for losses above a certain percentage of expected losses in a year, up to a maximum dollar amount. The direct carrier retains substantial risks (e.g., up to 140 percent of expected claims). The cost for this aggregate stop-loss coverage is often higher than the cost of pre-September 11 traditional catastrophe products.

- Establishing reinsurance purchasing cooperatives among similarly situated carriers to obtain more favorable reinsurance prices based on an improved risk profile. This is still in the concept phase and is proving difficult to develop and implement.
- Obtaining reinsurance on selected concentrated risks or quota share reinsurance, which covers a percentage of the risk. Due to the competitive pricing for large groups, the direct writers have had little extra margins to pay for the risk premium associated with sharing a portion of the risk.
- Obtaining financial reinsurance to spread losses over several years reducing the current earnings/surplus impact to the direct insurer. However, this does not resolve economic concerns because the risk is not truly transferred.
- Pooling of risk among direct carriers, including existing pools for life and accident (special pooled risk administrators) and other proposed pools for life and long-term disability. As with any pool, the challenge is to manage the pool assessments equitably.

Since so few claims have arisen from September 11 for group disability coverage, direct writers have been less focused on finding a solution for the possibility of unusual claims arising from terrorism. The disability writers have had some preliminary discussions on developing a pooling mechanism to fund CTE claims, but at this point there has not been a sense of urgency for the disability carriers to find some solution.

Direct insurers have not generally made significant changes to their pricing and underwriting practices, despite the difficulty in obtaining reasonably priced reinsurance for CTEs. State regulatory limits on the use of terrorism exclusions and competitive concerns have minimized the changes in their products and practices. However, it will be necessary for these direct insurers to appropriately recognize the risk exposure and reinsurance limitations in their product management.

A difficulty in the group life market has been to receive accurate exposure information by location. Normally the group carrier is aware of the billing address of a policyholder but does not have a record of the location of each insured. It is now common in the workers' compensation market for the employer to provide that level of detail. Group carriers will need to develop better means to track the location of their risks in order to provide a satisfactory level of data for catastrophic reinsurance.

Finally, insurance industry groups have been working with Congress to establish a federal high deductible backstop program for CTE losses to assure the availability of reasonably priced coverage. Extreme losses from terrorism risks may no longer be an insurable risk in the current global political climate, and may warrant federal intervention. The recently enacted Terrorism Risk Insurance Act of 2002 (Public Law No. 107-297,) does not include life and health coverages in the backstop program. The law does, however, authorize a study of the impact of terrorism on those lines of insurance, and the insurance industry is continuing discussions with Congress and the Administration on this issue.

What is the Impact on the Availability of Capital?

The increased risk of losses due to CTEs increases the need for capital to assure that the industry is able to meet its claim payment obligations. Although regulatory and rating agencies have not changed their risk-based capital (RBC) formulas, closer examination is to be expected even if formulas are not formally changed. There will likely be increased concern with carriers that have relatively low RBC ratios.

There are real risks to a carrier's solvency with a CTE. For example, the destruction of a building housing the majority of a client company's employees has the potential to severely impair a carrier's surplus position in the absence of reinsurance protection. There are similar solvency concerns for disability income and long-term care insurance carriers with a bioterrorism event or a "dirty bomb."

At the same time that there is an increased need for capital, non-medical insurance is less attractive to potential investors. The return on their investment is threatened by increased reinsurance costs and higher retained losses from CTEs.

The higher reinsurance cost, solvency risks, increased need for capital, and potentially higher cost of capital could disproportionately affect small to mid-sized carriers who specialize in the non-medical business. Large group life carriers, who covered most of the claims arising from September 11, tend to have the largest concentrations of risks. The larger carriers have traditionally reinsured only 1 percent of the risks they cover through the purchase of excess reinsurance. Since September 11, there has been some increase in the percent of business reinsured, especially for accidental death benefits. Small carriers, who have greater need for reinsurance, may no longer be able to compete.

What is the Impact on the Cost of Coverage?

Facing the potential for increased losses due to CTEs, direct insurers have a limited number of options to manage this risk in the marketing of insurance products, i.e., pricing, underwriting, and contractual changes. The present position of many state regulators is to prohibit contractual changes limiting exposure to CTEs. Underwriting restrictions and pricing actions are the other potential risk management options that insurers may need to utilize. Alternatively, they may be forced to reduce offerings in certain markets if the returns and risks cannot be appropriately balanced. The extent to which mortality and morbidity are expected to increase, and the extent of any increase in the cost of capital will influence these decisions.

Segmentation of an insurer's portfolio of risks will be an important tool used by both direct writers and reinsurers in managing risk relative to CTEs. This will lead to examining concentration of risk by factors such as location and industry. To the extent that changes are made to pricing and underwriting practices, the market will try to match the costs within a segment to the risk assumed. This will tend to lead to higher prices, or to the extent that this balance cannot be achieved, lessened availability of coverage.

The following considerations will likely influence pricing and underwriting responses to CTE risk:

- Concentration of risk (contagion), where the risk that any particular individual will experience a loss is not independent from the risk of any other individual experiencing a loss, increases the potential risk from a CTE. This is a particular problem for insurers offering group coverage to employers, and for self-insured employer plans. An insurer will try to balance out risks by geographical areas, industries, and other parameters. Cost of coverage will increase in areas of higher perceived risk or where there are significant levels of concentration in any location. For example, an insurer may try to limit the portion of its business concentrated in certain zip codes or certain employer locations. This would be particularly true for small to medium-sized insurers.
- Direct insurers will pass along increased reinsurance costs in their products. They will continue to approach the reinsurance market as an efficient means to spread the risk of CTEs. Catastrophic reinsurance costs will remain high or continue to rise in the absence of viable catastrophic reinsurance markets which, at the current time, are limited.
- Direct insurers, to the extent that catastrophic or other types of reinsurance are unavailable to cover risk at a reasonable cost, will need to reflect a higher cost of capital as the perceived risk level increases. In certain segments of an insurer portfolio, a higher return on investment will be required for taking on added risk. Certain hazardous industries or locations will require higher prices. In some circumstances, insurers may limit sales in some segments because the cost of reinsurance or capital is prohibitive.

- Some smaller insurers may lack the financial resources to accept the risk without reinsurance protection, and may be forced to leave the market.
- Various types of insurance claims arising from experience with death, disability, and long-term care coverages will likely influence pricing and underwriting. Insurers will attempt to predict the likelihood of a CTE and its effects on insureds, such as loss of life, incidence and duration of disabilities, and the nature of disabilities. For any financial security program, these would translate into higher costs for death benefits, disability payments, and caregiver costs. These financial effects can arise as a direct result of a triggering event, or as an indirect longer-term effect such as increased stress-related claims.

Summary

The world changed on September 11, 2001. The threat of CTEs has altered the insurance and employee benefit arena in many ways. In an effort to preserve capital, insurers have looked for ways to control risk. This has taken the form of higher prices, stricter underwriting requirements, and more restrictive contract provisions for reinsurance coverage. In turn, this has created greater exposure to risk for direct insurers, employers, and individuals who can no longer obtain appropriate reinsurance coverage for CTEs at a reasonable cost.

Insurers and the government need to work together to make sure that benefits promised are benefits paid. Preserving solvency through risk pools, reinsurance, and appropriate capital requirements is essential to the financial security of individuals and their employers. While CTEs are neither predictable nor preventable, their impact on financial security can be minimized through appropriate risk-sharing mechanisms that involve the partnership of all the entities that may be affected by them.

Endnotes

[1] Centers for Disease Control and Prevention, Fact Sheet: *Rapid assessment of physical injuries related to the attack on the World Trade Center — New York City, September 11, 2001*, January 10, 2002.
[2] The American Academy of Actuaries' Extreme Events Committee provides a broader discussion of the effects of terrorism on workers' compensation and the property/casualty insurance market in the monograph, *Terrorism Insurance Coverage in the Aftermath of September 11*, which is available on the Academy's website at http://www.actuary.org/casual.htm.
[3] "Health Care Goes Digital: Doctors and hospitals find they can't stay offline any longer," *Wall Street Journal*, June 10, 2002.
[4] "Inventory Data From Drugstores Could be Tip-Off to Bioterrorism," *Wall Street Journal*, November 13, 2001.
[5] Charles D. Spencer & Associates, 2000 COBRA Survey (Chicago, Illinois: Spencer's Benefit Reports, 2000)
[6] On November 26, 2002, President Bush signed into law the Terrorism Risk Insurance Act of 2002 (Public Law 107-297). This legislation creates a federal backstop to limit the liability of the property/casualty insurance industry in the event of a future terrorist attack.

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