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insight

Transforming Healthcare

IDENTIFYING THE FAILURES AND UNLOCKING THE POTENTIAL OF OUR CURRENT SYSTEM P. 4

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Letter From Milliman CEO Pat Grannan

Looking back at the business and financial landscape from a year ago, very little appears familiar. The combination of the severe economic downturn and popular consensus on the need for a new direction has made this a time of both great uncertainty and great opportunity. Just as necessity is the mother of invention, change does not come easily. I am optimistic that these tough times will provide the impetus needed to address difficult issues affecting our society's financial and physical health.

As with other aspects of the economy that were moving in an unsustainable direction, there is an opportunity now to make real improvements in the U.S. healthcare system. The cover story in this magazine identifies a framework for achievable improvements, focusing on the fundamental issues of cost, access, and quality of care.

This magazine also includes several other articles by Milliman experts on topics we think will interest you. Many people have come to dread the arrival of 401(k) account balances — some simply refuse to look at them — but plan sponsors have an obligation to carefully manage their plans and to continue communicating with participants. We discuss some of these fiduciary pressures in an article about managing defined contribution plans through a recession.

It's our hope that attending to the fundamentals — both during turbulent times like these and when things are booming — can help ward off future volatility.

Pat Grannan

PATRICK GRANNAN
Milliman Chief Executive Officer

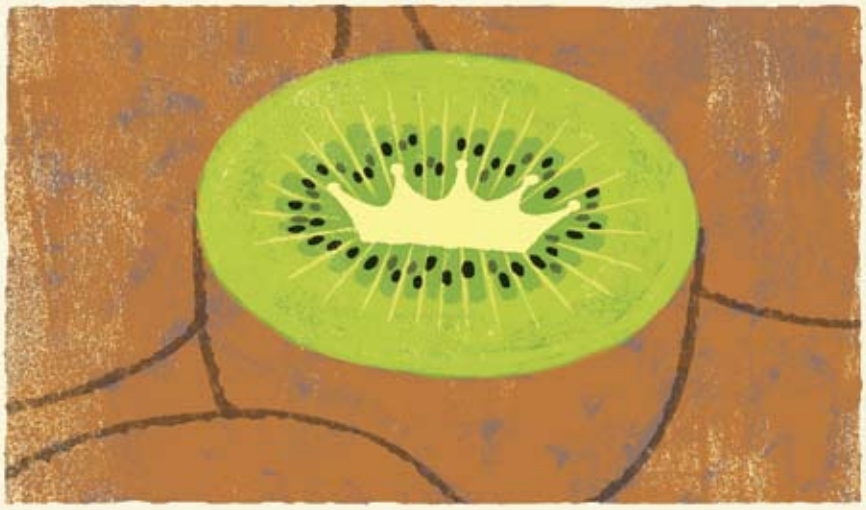
BY THE NUMBERS...

Here Comes the Bill. According to three major surveys, the mean cost of American weddings falls between $27,400 and $28,800.[2] The median is closer to $15,000,[3] which most would agree is still a substantial chunk of change. Parents of the bride pay for 57% of American weddings, and the guest lists average 167 people. Some of the pricier pieces include the engagement ring, costing a mean of $5,570; the bar and bartender at an average $2,938; and the rehearsal dinner at a mean cost of $1,153. While money surely can't buy love and love (hopefully!) does not require money, the current economic conditions already seem to be taking their toll on wedding plans. In 2008, the mean cost of weddings fell by 24%, for an estimated 2008 market value of weddings of $61.4 billion.[4]

Bounding Bug. While the flea has long been considered the highest-jumping insect, the overlooked spittlebug, also known as the froghopper, has recently bounded into its proper position in the leaping limelight. With legs like springs, the six-millimeter-long spittlebug can jump two feet into the air, higher than any other creature relative to its bodyweight. In the process, the spittlebug exerts enough force to lift 414 times its own weight. If humans were such skilled jumpers, we could jump higher than Manhattan's 625-foot-tall Waldorf Astoria hotel.[1]

Enumerating Lincoln. February 12 marked the 200th birthday of the 16th U.S. president, Abraham Lincoln. Lincoln died at 7:22 a.m. on April 15, 1865, at age 52, after being assassinated at 10 p.m. the night before. With his substantial accomplishments during the Civil War and with the tragedy of his untimely death, Lincoln has earned an esteemed position in the American consciousness, and he had an imposing physical stature, as well. At 6 feet 4 inches, Lincoln was the tallest U.S. president. His height in life doesn't hold a candle to his height in death, however: Inside the 99-foot marble Lincoln Memorial temple sits a 19-foot-tall sculpture of Lincoln.[9] The Lincoln Memorial was built with 36 columns, each representing a state in the Union at the time of Lincoln's death.[10] Another unique tidbit on the Great Emancipator: Lincoln is the only American president to hold a patent. Patent number 6,469 was issued on May 22, 1849, for his invention, "A Device for Buoying Vessels over Shoals," which was never actually used.[11]

Academy Glamour. The first Academy Awards were given in 1929 at a much less grand affair than their present-day counterparts: Fewer than 250 guests attended, with tickets priced at $10.[12] Today's ceremony is held at the Kodak Theatre at Hollywood Boulevard and Highland Avenue, which seats 6,000, and attendance is by invitation only. The tradition is so beloved that the show nearly always goes on—it has never been canceled and was postponed only three times. In 1938, flooding pushed the ceremony back a week, in 1968 the Oscars were postponed when Martin Luther King Jr.'s funeral was scheduled for the same day, and in 1981 the Oscars were pushed back one day after an assassination attempt on President Ronald Reagan. The awards are popular among both the public and the performers. Only three Oscar winners have ever refused their prizes: Actor George C. Scott said the entire production was "demeaning," writer Dudley Nichols refused his 1935 award because the Screen Writers Guild was striking, and Marlon Brando turned down his 1973 Oscar in protest of Hollywood's apparent discrimination against Native Americans.[13]



The Case for Kiwi. A recent Rutgers University study of the 27 most popular fruits has crowned kiwi fruit the nutritional king.[6] Each kiwi fruit packs its 50 calories with some serious nutritional punch. In addition to offering 120% of the recommended daily Vitamin C allowance, kiwis are nutrient rich with antioxidants, carotenoids, chlorophyll, fiber, folate, potassium, Vitamin E, lutein, and pectin. Kiwi fruit have been eaten in China for more than 700 years, where 400 kiwi varieties can be found.[7] Kiwi harvesting in the United States didn't begin until the late 1960s in California. The 50 acres of kiwi grown in 1970 exploded to 8,000 acres in California by 1988, and Americans enjoy the green goodness at still greater numbers today.

Holy Bestseller. The Bible is the United States' best-selling book every year. A conservative estimate of the number of Bibles purchased in 2005 is approximately 25 million, and the amount spent annually is estimated at more than half a billion dollars. The evangelical polling firm Barna Group reports that 47% of Americans claim to read their Bible weekly, and other studies have found that 91% of American households contain at least one Bible, with the average household owning four. Considering that nearly everyone already owns the book, the high sales reports are even more staggering. With nearly 2,000 pages in most Bibles, the cost of production is between two and four times more than the cost of printing a typical hardcover book. While Bibles are pricier for consumers than most books, the high production costs leave little profit margin.[5]

Got some facts or figures you'd like to share with us? Write us at insightmagazine@milliman.com.

Text-messaging Diva. A 13-year-old girl recently sent 14,528 text messages in just one month. Upon receiving a 400-page AT&T statement, her father first thought that the company must have made a mistake, as his daughter's texting feat seemed impossible. The girl, however, was guilty as charged. She sent an average of 484 text messages per day, which works out to one every two minutes of each waking hour. According to a Nielsen study of cell phone usage, the average teenager sends 1,742 text messages per month. The girl's father admitted that he also texts far above the average for his demographic, sending 900 texts per month, while others in his age group send an average of 200 per month.[8]

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TRANSFORMING HEALTHCARE

IDENTIFYING THE FAILURES AND UNLOCKING THE POTENTIAL OF OUR CURRENT SYSTEM

BY RON HARRIS, FSA, MAAA, AND CLARK SLIPHER, FSA, MAAA

The imperative for reforming our healthcare system is strong and growing. Milliman and its diverse clients, in their daily work, come face to face with shortcomings involving healthcare access, quality, and cost. In this article we hope to begin the process of establishing a framework for addressing these issues in a way that is cohesive, financially sound, and based on demonstrated approaches. Central to making meaningful reform is the conversion of inefficiency and waste found in the current system (which we conclude exceeds 25% of the total) into access and quality improvements. Doing so will not be quick or easy, but the price for failing to make significant progress is, and will continue to be, great.

The Imperative

The United States is in the midst of an unprecedented financial crisis. The projected federal budget deficit is at an all-time high and is almost certain to balloon further in the near term. Outstanding debt, currently in excess of $10 trillion, is staggering. The unfunded liabilities for existing entitlement programs, including Social Security and Medicare, dwarf that number. During 2008, we spent an estimated $2.4 trillion on healthcare in the United States,[1] representing more than 16% of the gross domestic product (GDP); both the dollar and percentage of GDP levels have continued to grow over time. This creates a financial burden on individuals, a competitive burden on business, and a funding burden on all levels of government. Yet we have more than 40 million people in this country who do not have adequate healthcare coverage by U.S. standards, and comparative measures of the outcomes from our present healthcare system are not commensurate with our high level of spending.

There seems to be general agreement that we cannot continue to meet the enormous societal obligations we face without identifying and systematically addressing the inefficiency and waste that help fuel the spiraling cost of healthcare. Rectifying these severe economic imbalances and healthcare-system shortcomings is likely to be a long, difficult, and painful process; and there are widely differing views on how to accomplish the needed corrections. An important aspect on which there does appear to be general agreement is the imperative for broad-based reform to improve effective access to quality healthcare coverage, while simultaneously controlling runaway costs.

Addressing Access, Quality, and Cost Together

The belief that our healthcare system is in need of substantial reform has become widespread, although sometimes for differing reasons. Most of these reasons, however, can be categorized as involving access to affordable healthcare coverage, the quality and efficacy of the care provided, and the cost of our healthcare system. It is our belief that each of these aspects of healthcare is important by itself, but that meaningful reform must consider all of them together in a sound and cohesive way.

ACCESS AND AFFORDABILITY The rising number of people in the United States without health insurance coverage, along with growing concern by others about losing their coverage

due to economic conditions, is reported regularly in the popular press. For many individuals of modest means, the price of healthcare coverage strains the limits of affordability. For most employers and other healthcare-plan sponsors, benefit costs represent both a financial and a competitive burden.

Access to healthcare coverage obviously could be improved by finding ways to fund coverage for those who are without it and to provide assurance that others won't lose coverage due to events outside their control. That is easy to say, but challenging to achieve in ways that are sustainable and responsible financially. Simply spending more through subsidies and/or mandates, without altering other fundamental dynamics within the healthcare system, would rapidly accelerate cost levels while rendering healthcare even less affordable and further increasing the financial strain.

Based on years of experience with the current healthcare system, we know that sound and proven approaches to broaden coverage are available, even within a decentralized and pluralistic system of financing. These approaches recognize the multidimensional nature of the circumstances surrounding access to affordable healthcare coverage, including such important considerations as the wide range in individuals' health status and the broad spectrum of families' financial means and economic value judgments. Unfortunately, there are also numerous superficially attractive but fundamentally unsound ways to try to broaden coverage that we believe would exacerbate costs and impair access to affordable coverage.

The challenge we face is to reform the system in a meaningful way that will enable full coverage of everyone in the United States without, over the long term, simply spending more. This will require careful design and substantial redirection of spending in order to provide a sound and sustainable means of funding.

QUALITY AND EFFICACY Despite the resources that we as a nation commit to healthcare, gaps in quality, safety, and efficacy persist, and high-level indicators of outcomes from our healthcare system leave much to be desired. Comparative statistics — among countries, geographic areas within the United States, and local provider groups or delivery systems — show a wide disparity of results. Clinical evidence has been assembled on best practices for patient care, identifying efficacious and efficient treatment patterns and clinical pathways. Such evidence indicates that "less can be more" in terms of the numbers and types of services provided when delivering top-quality patient care. The totality of this assembled clinical evidence, properly structured, can provide an unbiased arbiter in the pursuit of improved outcomes, safety, and patient satisfaction without merely doing and spending more.

Our present quality-related shortcomings, coupled with the comparatively high level of spending on healthcare in the United States, point to a healthcare delivery system that, as a whole, is not performing effectively. Some of this failure is patient and lifestyle driven; some is provider, supplier, and technology driven; some, reimbursement-structure and payer driven; some, government, litigation, and regulation driven — and almost all of it is affected by incentives that are often not productively aligned among the parties or structured to promote optimal performance.

The evidence that the delivery system is not performing effectively overall does not mean that it fails to do so all the time and everywhere. Our consulting work exposes us to top-performing participants or parts of the system, as well as to mediocre or poorly performing areas. It is the latter portion that creates inefficiency and waste in the system, thereby impairing quality and increasing costs. Meaningful healthcare reform requires substantial reduction in that inefficiency and waste by improving overall quality, safety, and cost performance.

COST AND CAPACITY Some would argue that cost must not enter into the discussion of how the healthcare system should operate, but this is simply not realistic. All societies have limited resources and, proportionally, the United States already spends much more on healthcare than any other Western nation, with outcomes that too often are inferior. The notion of limited resources is a harsh reality with which we, as Americans, are just now coming to grips. Choices must be made. As a 21st-century society, we want quality healthcare coverage to be available and affordable for all our citizens. In order for that to happen, we must make difficult choices.

One way to reduce costs is through strict, centralized budget controls — thereby fixing supply and effectively producing mandated prioritization and rationing of care. Another way is to identify and substantially reduce the inefficiency and waste that is embedded within the system. Improvement in efficiency and elimination of waste are much more acceptable and enduring strategies within a U.S. context than budget controls and rationing.

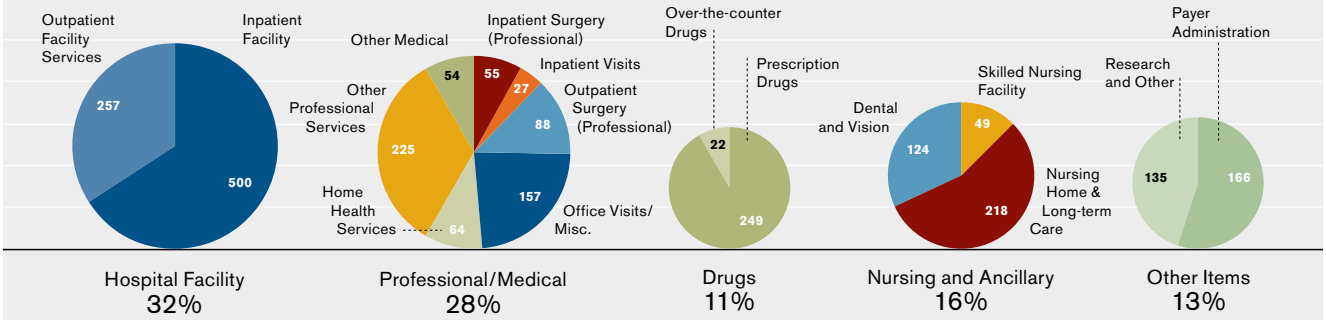
What do we mean by waste? And, once waste has been defined, where should the remediation process begin? We agree that some of the administrative costs embedded in the U.S. healthcare payer system are inefficient and wasteful. Certainly, simplifications and cost efficiencies could and should be pursued there; however, we believe that the impact of those improvements on overall costs would be modest compared to the savings that can be realized within the healthcare delivery system (including its embedded administrative costs). For the purpose of this discussion, we define healthcare waste as the impact on cost of unnecessary, redundant, or ineffective treatment that is contrary to, or not demonstrably associated with, improvement in healthcare quality and outcomes.

In order to reduce inefficiency and waste in ways that improve quality and outcomes while simultaneously reducing costs, a dramatic transformation of the poorly performing portions of today's healthcare system will be necessary. Accomplishing

1 Unpublished Milliman Health Care Reform Model. See Documentation Notes on p. 11.

EXHIBIT 1: ESTIMATED 2008 HEALTHCARE SPENDING IN THE UNITED STATES, BY SERVICE CATEGORY OR ITEM

SPENDING
Chart size indicates relative size; number in billion $



HIGHLIGHTS

Healthcare spending in the United States is attributable to a large number of service categories. During 2008, hospital facility costs were an estimated $757 billion in total, accounting for approximately one-third (32%) of the total $2.4 trillion. Professional/medical payments overall were an estimated $670 billion, accounting for slightly more than one-fourth (28%) of the total, and drugs an estimated $271 billion, for another 11%. Nursing, ancillary benefits, payer administration, and research/other together accounted for the remaining $692 billion (29%) of the total. Within each of these major categories, as well as the other categories shown in the exhibit, was a large number of various kinds of healthcare services and related items, and a multitude of provider or supplier types; and associated with each of them was a host of individual entities.

the task will require knowledge transfer, infrastructure development, alignment of incentives, and accountability. Achieving results will take time. The opportunity, however, is before us, and it can happen if we begin the process of truly meaningful reform in a determined and informed way.

Inefficiency in the Healthcare System

There are several ways to attempt to measure and quantify the extent of ineffectiveness and inefficiency, i.e., waste, in the healthcare system. One way that we find useful is to approach the problem from the opposite direction, by observing top-performing provider groups, suppliers, and delivery systems. We find this useful because it is concrete, rather than theoretical or abstract. It enables us to identify actual means by which specific healthcare practitioners and institutions have been successful in achieving high levels of measurable performance. Adopting achievements by top-performing entities as targets, we can then begin to measure, assess, and compile the extent of inefficiency or waste in the rest of the system.

An important caveat must be stated here. No system is perfect and there is no single pathway to success. Geographic, financial resource, and population disparities (among others) preclude adoption of a single methodology to achieve "well-managed" status universally. Still, we have concluded that a reduction in overall healthcare costs in excess of 25% would be possible if care were delivered under best observed practices.[2]

In 2008-dollar terms, such a reduction would have equated to more than $600 billion.

This conclusion is based on our observations and data from the highest-performing healthcare systems and health plans in the United States, coupled with our experience and informed professional judgment. We would note that such results are broadly consistent with numerous published studies and the variation in published aggregate utilization levels across geographic areas and among various medical provider groups, HMOs, and insurers. We would also note that the observations we used in drawing this conclusion reflect the delivery patterns of the top-performing providers involved at their existing unit price or cost levels — these savings are not merely due to across-the-board payment-level reductions.

Where in the healthcare system can the opportunities for efficiency improvement and waste reduction be found? The short answer is, in nearly all parts of it. Exhibit 1 shows where spending occurs today within the overall healthcare system, based on estimated values for 2008. Our experience with top-performing systems does show opportunities for efficiency improvements in practically all service categories, but especially in facility-based care. With shifts in the types of treatment and places of service under best-observed clinical practices, certain categories would increase accordingly.

Who will benefit from the savings generated from efficiency improvements and the reduction of waste? The short answer to this question is, patients and virtually everyone who pays for healthcare coverage. Exhibit 2 shows the sources of spending today for healthcare, based on estimated values for 2008. The single largest segment is government programs (primarily Medicare and Medicaid), followed by private-sector coverage (group plans and individual insurance).

The elimination of all inefficiency is obviously not possible, as a practical matter. Entire systems are never perfect, and high-performance techniques are not always fully portable. However, with a potential magnitude for reduction of more than 25% — even if only partially realized across the entire healthcare system — the opportunity for reduced spending by improving the effectiveness of the system, which could then be used for other purposes, is enormous.

What About the Uninsured?

In the past, perhaps the greatest obstacle to fully covering the uninsured has been the cost and its financing. We estimate the average number of uninsured people at about 46 million for 2008, with the number of persons uninsured at any time during 2008 substantially higher. A report prepared for the Kaiser Family Foundation estimates that $86 billion is currently spent on or by the uninsured, which includes out-of-pocket expenditures and government dollars spent on uncompensated care. The Kaiser report estimates an extra $123 billion is needed for full coverage.[3]

By comparison, the more than 25% potential reduction in healthcare-system inefficiency and waste equates to approximately $600 billion. If the system were made substantially more efficient — achieving, for example, even one-third of this total potential savings — resources sufficient to provide coverage for the uninsured could be available without increasing the current level of overall spending on healthcare. Obviously, the important issues of how to structure such funding for coverage of the uninsured must be addressed. However, this serves to illustrate the magnitude of the inefficiency involved and as an example of an alternative use to which such savings could be designated.

Conclusions

Our present healthcare system has widespread shortcomings involving access, quality, and cost. Each of these aspects deserves attention in a way that is cohesive, financially sound, and based on demonstrated approaches. Central to all of these aspects is the inefficiency or waste that exists in the present system.

Achieving meaningful healthcare reform, we believe, will require a systematic approach to the identification and elimination of as much as possible of the inefficiency and waste that currently siphons off more than 25% of our country's healthcare spending. Will there be losers in such a transformation? Probably, including those segments of the healthcare system that have prospered in the past, despite ineffective or wasteful practices, and that may be unable to adapt to a high-performance environment. Will there be winners? Yes — patients who need and will receive the right care, people currently without coverage, and the individuals, businesses, and governmental entities that pay for coverage, as well as those parts of the healthcare system that can adapt and thrive in the new environment. **M**

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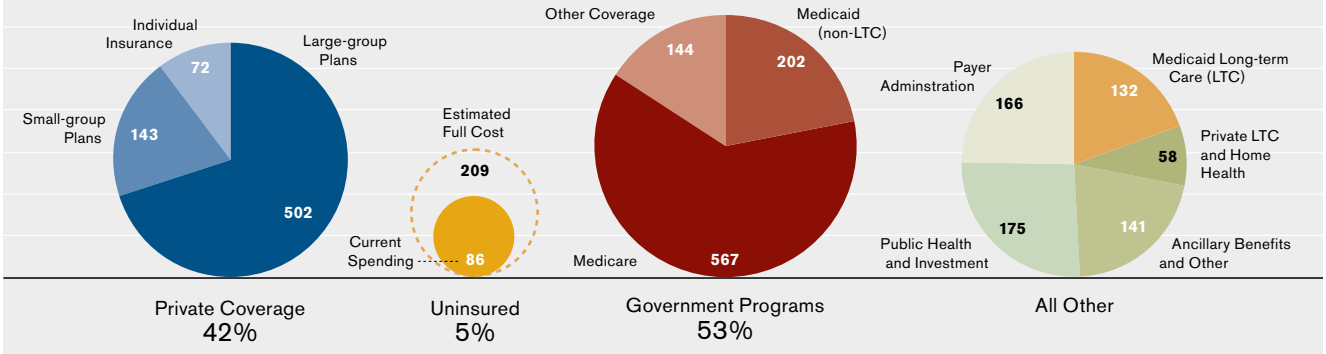
2 Pyenson, B., Fitch, K., Goldberg, S., "Imagining 16% to 12%: A Vision for Cost Efficiency, Improving Healthcare Quality, and Covering the Uninsured," February 2009.

3 Hadley, J., Holahan, J., Coughlin, T., Miller, D., "Covering the Uninsured in 2008: Key Facts about Current Costs, Sources of Payment, and Incremental Costs," *Health Affairs*, 27, no. 5, w399–415, 2008. Prepared for the Kaiser Commission on Medicaid and the Uninsured, Henry J. Kaiser Family Foundation, August 2008.

EXHIBIT 2: ESTIMATED 2008 HEALTHCARE COVERAGE AND SPENDING IN THE UNITED STATES, BY MAJOR PAYMENT SOURCE

SPENDING

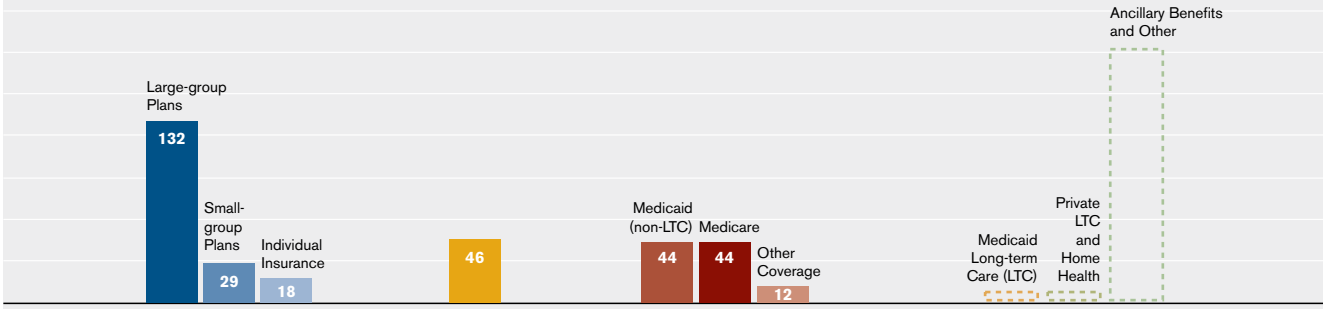
Chart size indicates relative size; number in billion $



Private Coverage 42% | Uninsured 5% | Government Programs 53% | All Other

POPULATION

Number in millions



Private Coverage 59% | Uninsured 15% | Government Programs 33% | All Other

HIGHLIGHTS

Just as healthcare spending in the United States is attributable to a large number of service categories, it also involves a variety of major payment sources. Spending associated with acute-medical-care services represented the large majority (nearly three-quarters) of total healthcare spending, slightly more than $1.7 billion out of an estimated total of $2.4 billion during 2008. Costs for other than acute medical care were nearly $700 billion, representing slightly more than one-quarter of total healthcare spending.

During 2008, spending associated with covered services under government programs (primarily Medicare and Medicaid) was an estimated $913 billion in total, accounting for slightly more than half of the total $1.7 billion of spending associated with acute medical care services, even though they covered only one-third of the total U.S. population. By contrast, the private coverage segment (group plans and individual insurance) served nearly 60% of the population, but it accounted for a substantially smaller proportion of the spending associated with acute-medical-care services (an estimated $717 billion, or 42% of total acute-care costs). Within each of these two major categories, as well as the other categories shown in the table, were large numbers of separate entities contributing to total healthcare spending.

Documentation Notes for Exhibits 1 and 2

- The source of the compilations is the *Milliman Healthcare Reform Model*. It contains cost details for U.S. subpopulations (market segments), including spending by healthcare service category. It is based on a variety of sources—including proprietary databases, the U.S. 2008 Statistical Abstract, Centers for Medicare and Medicaid Services data, the 2008 Medicare Trustees Report, Census Bureau data, Employee Benefit Research Institute data, the 2008 Milliman Medical Index, and Milliman's *Health Cost Guidelines*.

- Payer administration costs are shown separately from amounts spent on care by service category or payment source.

- The average number of uninsured persons during the year is an estimated 46 million; the corresponding number of persons actually uninsured during the year is significantly higher. Estimated uninsured spending during 2008 is $86 million. Additional costs for the uninsured, had they been fully covered during 2008, is an estimated $123 million. See text for source.

- The average number of Medicaid-covered persons is an estimated 44 million; corresponding number of persons actually covered during the year is significantly higher. This estimate is based on Current Population Survey data, so it may be understated due to self-reporting.

- The Other Covered Populations category under Government Programs includes workers' compensation, Department of Defense coverages, maternal and child health programs, Veterans Administration, medical vocational rehab, temporary disability, and state and local hospitals.

- Population counts for Private Coverage and Government Programs are duplicative, due to the coverage of certain individuals under more than one payment source.

- Population counts for Medicaid Long-term Care (LTC), Private LTC and Home Health, and Ancillary Benefits and Other are also included in Private Coverage or Government Programs categories for acute medical care. The Ancillary Benefits and Other category includes dental and vision care, and over-the-counter drugs.

- The Public Health and Investment category includes government public health activities plus public and private investment in research, structures, and equipment, less government uncompensated care payments for costs related to uninsured individuals that are reflected in the Government Programs amounts.

RISKS

MANAGING ENTERPRISE RISK:

FOR LIFE INSURANCE COMPANIES, PRICING DEMANDS CLEAR ASSESSMENT OF POSSIBLE THREATS

BY BRADLEY M. SMITH, FSA, MAAA, FLMI, AND NEIL CANTLE, ASA, FIA

The recent volatility in the capital markets and the consequent adverse developments across the financial services industry have stimulated interest in more sophisticated risk-management techniques. Having spent our careers working in or for the life insurance industry, focusing on the pricing and valuation of life insurance and annuity products, we believe that much of the fundamental exposure facing life insurers arises from a failure to adequately understand the risks that are assumed. Such lack of understanding results in pricing products incorrectly.

Certainly, there are many types of risk, and each must be addressed to fulfill the requirements of a full enterprise-risk-management (ERM) solution. However, when focusing on the underlying drivers of primary risk, we believe that *understanding* which risks are being taken, *charging* a suitable price to offset them, and then *managing* the business to keep risks within the expected range—these factors together present the ultimate challenge.

Panoply of Risk

PRICING RISK relates directly to the long-term nature of a life insurance or annuity-type policy. By contrast, a candy bar manufacturer presumably knows or can ascertain all the costs associated with the development, manufacture, and distribution of the candy bar when setting its price. If any of the knowable costs change, that information can be used to adjust the price of the product. Unlike a candy bar manufacturer, "the cost of goods sold" inherent to a life insurance policy will probably not be known with certainty for many years and should be projected over a long period of time when setting the policy price. The failure to fully appreciate the risks being taken, not to mention their value, can lead to the underpricing of the policy itself and the company's ultimately incurring a loss on the sale. Given the sophistication of the insurance marketplace, the more underpriced a product is, the more policies a company may sell. While some elements of a life insurance policy may not be guaranteed and can be adjusted based upon events subsequent to the sale, the management of these nonguaranteed elements creates risk. A company's inability or unwillingness to manage such nonguaranteed elements can also lead to losses.

MARKET-VIABILITY RISK occurs when a company cannot find a market for and sell its policies to a given constituency on a profitable basis. An insurance company will fail if it cannot

find a continuing market for the products it sells. It also faces strategic risk from choosing the wrong markets in which to participate. These risks are closely related to and arise from pricing risk. There may be a market for a particular product at a given price that is not profitable, based upon the efficiencies and risk-management competencies that the issuing company brings to the table. Likewise, a market for that particular product may evaporate if a company, when charging a price it believes to be profitable, cannot communicate the product's value to potential clients. Consequently, there is a natural friction in the management of each of these risks. Obviously, the ability to sell products that are profitable is the key to the long-term sustainability of a company.

ASSET-RELATED RISKS are associated with the products sold by a life insurance company. Given the long-term nature of a life insurance contract and the level premium charged for what is normally an increasing risk (i.e., mortality increasing with attained age), a life insurance company typically accumulates a substantial number of assets (premiums) to invest. The higher the rate it assumes it can earn on the assets, the lower the premium it may charge. The ability to meet the assumptions utilized with respect to investment return will determine whether the policy is as profitable as it was projected to be in the pricing process.

Successful risk management requires that the assumed investment rate (for guaranteed premium products) and the investment spread (for nonguaranteed products) are set consistent with the company's realistic ability to achieve both objectives. Many of the historical failures of life insurance companies can be traced to the assumption of an unrealistically high investment rate/investment spread that resulted in investment in assets with excessive duration mismatch or dubious quality, or that became extremely illiquid. A "run on the bank" can jeopardize even the best-managed company. This risk can be reduced by avoiding excessive concentration in any one asset class and taking care to anticipate and plan for liquidity requirements under a range of different scenarios.

"Reaching for yield" to meet assumptions that were set during the pricing process has been a primary cause of life insurance company impairments over the last 25 years. Examples of this include investing in real estate to support interest rates credited on guaranteed-investment contracts, in junk bonds to support interest rates credited on universal-life and deferred-annuity contracts, or, more recently, in long-term assets supported by short-term borrowing to extract the difference in yield.

Those responsible for product development, pricing, and overseeing the overall risk-management function in a company generally recognize the impact of interest-rate movement and its potential negative effect on the projected profitability of certain types of products within certain markets. However, many of the assumptions with respect to policyholder behavior are still based on informed judgment rather than reliable experience. Consequently, the sensitivity of results under differing environments should be assessed and reflected in the product-development and pricing processes, because these form a key part of the risk-management process of the company.

RISKS ASSOCIATED WITH OTHER PRICING ASSUMPTIONS must also be addressed in the risk-management process.

Lapse Rates Many of the most popular products being sold today (e.g., long-term care, level-premium term, no-lapse-guarantee universal life) are lapse supported (i.e., profits increase if the ultimate-duration lapse rate is increased). Lapse support has had a negative connotation among some, with an implication that the pricing of such products was somehow flawed. However, lapse support is a consequence of the product's design. Specifically, any coverage that charges level premiums for an increasing exposure (i.e., increasing probability of claim), without providing nonforfeiture values commensurate to the "equity" the policyholder has generated in the policy, will be lapse supported. Profits increase as the ultimate-lapse rate increases, because fewer policyholders are in force in policy durations for which the revenue collected is less than the benefits and expenses paid.

Conversely, if lapse rates in ultimate durations are less than were assumed in the pricing process, the profitability of the product will suffer. In some instances, the repercussions can be quite substantial, with reductions in the ultimate-lapse rates wiping out the projected profit of the product and creating a substantial loss. This has been particularly true with no-cash-value life insurance (i.e., term to 100) sold in Canada several years ago and in the early-generation product offerings of long-term-care policies in the United States. Consumers, or their agents or brokers, tend to recognize a good deal when they see it, and do not lapse these policies, with lapse rates for some of them falling below 1% annually.

Assuming a low rate of ultimate lapse in the pricing process produces a higher premium, given a stated profit objective with all other assumptions remaining equal. Consequently, the natural friction between the salability and the profitability of the product emerges during the pricing process. The risk-management process should recognize this and avoid the utilization of unrealistically aggressive (i.e., high) ultimate-lapse rates in the pricing of these products.

Mortality Assumptions Insured mortality has improved significantly over the last 25 years. The extrapolation of this improvement into the future during the pricing process creates risk for the insurance company. It follows that if any projected mortality improvement does not emerge, the negative impact can be significant if ultimate-lapse rates also fall below pricing assumptions. The splitting of cohorts into more underwriting classes, the uncertain impact of medical technology, and the lack of credible mortality experience for older ages have resulted in

the development of assumptions based on informed judgment rather than historical experience. This makes the monitoring of experience as it emerges critical to the risk-management process. Risk management may require the hedging or balancing of this risk among different lines of business.

Severe Events The effect of infrequent but severe events, such as epidemics or terrorist attacks, should be considered in both the risk-management process and the product-development/pricing process. The cost of stop-loss reinsurance can be incorporated into the pricing of life insurance products to reflect this risk.

New Business The absolute level of new business produced can have a significant impact on surplus levels. Tactics such as the financing of new agents and the payment of annualized first-year commissions can produce a substantial effect on the level and quality of new business produced.

Counterparty Risk The potential negative consequences of counterparty risk have become clear over the past several months, as financial institutions with the highest ratings have failed or were acquired or bailed out in some form. Historically, the biggest counterparty risk within life insurance companies was associated with ceded reinsurance. The risk-management process should consider the reinsurer's ability to pay claims, even during times of economic or catastrophic distress. Risk management should also assure that pricing the guarantees embedded in variable-annuity products with living-benefit guarantees recognizes the cost charged by well-capitalized, reliable counterparties.

Hedging Cost Volatility Stock-market volatility directly affects the cost of hedging the risks embedded in variable-annuity products with living-benefit guarantees. As market volatility increases, the cost of hedges increases. Product pricing should reflect the long-term nature of these guarantees and the volatility of the cost of hedging them.

Risk Contagion The correlation of various risks has historically been underappreciated. The implosion of the subprime mortgage market led to the bursting of the housing bubble, which resulted in the tightening of credit standards, reduced consumer spending, increased stock-market volatility, decreased interest rates and increased interest spreads, asset devaluation and illiquidity, and recession. Causation can be debated, but the correlation of these events cannot. The magnitude of these developments occurring together is much more virulent than the effect of each occurring separately. The subtle interactions between risk factors often go unnoticed until emergence of a complex pattern that can be difficult to understand and anticipate.

Acquisitions In an acquisition exercise, the premiums are set and the amount to be paid for the business is determined. The primary objective during an acquisition process is not for the company to understand the risks of the entity being purchased, but rather to understand how the risk profile of the new combined post-acquisition entity is different when compared with the pre-acquisition risk profile. The new entity will entail different risks and, presumably, different skills, so successful integration requires these to be optimally allocated and priced into the acquisition.

Other Risks

This article has stressed that many of the risks faced by life insurance companies can and should be reflected directly in the product-pricing and product-development processes. Nonetheless, not all risks can be successfully identified early in the process. The promises made by a life insurance company to its policyholders are by their very nature long-term. The effect of such things as agent misselling, interruption of business processing, and litigation can be managed and reflected indirectly in the product-pricing process. However, other risks — such as emergence of a new competitor, enactment of unfavorable legislation, development of new technology (e.g., the Internet), failure or bad behavior of a competitor (Madoff effect), war, economic depression, or an unsolicited offer to purchase the company — are more difficult to manage, avoid, and reflect in the pricing process. These risks can imperil the future of any one industry or company. It is therefore important for every company to make sure to understand the risks being taken and to try to reflect suitable allowances in pricing to ensure the long-term ability of the company to manage those risks for society.

Once understood, it becomes clear that it is difficult to differentiate solid everyday management of a company from an effective risk-management process. Risk management must be integrated into the everyday operation of the company — and indeed *is* the everyday operation of the company. Strategic success is possible when companies understand which risks are being taken and can appropriately charge for those particular risks. They can then focus on the important day-to-day task of managing those risks. **M**

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RISE

THE AND RISKS OF MEDICAL TOURISM

BY LISA BEICHL

The term "medical tourism" seems to be cropping up everywhere these days. From trade and business journals to the popular press, traveling to another country specifically to obtain medical care is a significant new trend. In this challenging economy, where the cost of healthcare continues to spiral up and hundreds of thousands have lost their health insurance along with their jobs, it's not surprising to see keen interest in less expensive resources, especially because the savings are often substantial. Today a $250,000 heart surgery in the United States costs approximately US$15,000 in India, including airfare and accommodations. As a result, a number of major U.S. insurance agencies and provider companies are offering coverage for a range of medical procedures performed internationally. It is easy to imagine how this could lay the foundation for a growing treatment alternative and possibly, depending on variables such as the future of Medicare and the concept of universal coverage, a sea change in the U.S. healthcare industry. But important factors such as hospital reporting, medical residency requirements, the use of evidence-based medical guidelines, and even pharmaceutical nomenclature vary worldwide, and so a critical component remains unsolved: how to standardize the way patients, providers, and payers assess and manage the risks associated with this new medical frontier.

Americans Go Abroad

In 2007, an estimated 750,000 Americans travelled abroad to receive medical treatment.[1] While these "medical holidays" traditionally have conjured images of the well-to-do pairing vacations with tummy tucks, financial necessity is a growing force behind the trend. An estimated 47 million Americans lack health insurance, and millions more are underinsured or face deductibles too high to manage. While the costs at home have grown increasingly out of reach for many, a burgeoning, highly competitive medical

1 *Medical Tourism: Consumers in Search of Value*, Deloitte Center for Health Solutions, 2008.

industry serving foreigners has been taking root worldwide. This summer, the *Boston Globe* followed a "tourist of the medical variety" through his healthcare experience in Thailand,[2] where hundreds of thousands of visitors make similar trips each year. The *Chicago Tribune* explored a son's decision to "outsource" his parents' assisted living care to India,[3] where they receive daily massages and 24-hour nursing care. These countries, and others such as Argentina, Hungary, Mexico, Singapore, and South Africa, have built medical centers that cater to "medical tourists," many employing advanced technologies and U.S.-trained physicians. As a result, obtaining both elective and necessary treatment abroad is becoming increasingly appealing.

Particularly in light of the seriousness of some surgeries and procedures being sought abroad, the term "medical tourism" seems a misnomer. A better term is "cross-border care," because it encompasses both the phenomena of traveling to an out-of-country destination to receive medical treatment as well as traveling to in-country locations for specialized care. This, too, is a growing trend. A recent study found that 88% of respondents would consider going out of their community or local areas to get care or treatment for a condition if they knew the outcomes were better and the costs were no higher there.[4]

While Americans have been willing for some time to travel within the United States to seek care from medical experts, and a growing number of individuals cross U.S. borders to the north and south to buy less expensive drugs and services, the number who would now travel for treatment is substantial. What also is new is the distance many are willing to travel. As Americans become more active healthcare consumers, and as information about treatment options and resources becomes increasingly available via the Internet, attitudes about travel and healthcare seem to be shifting. Today almost 39% of respondents to a recent survey said they would go abroad for an elective procedure if they could save half the cost and be assured that the quality was comparable.[5]

In addition to the shift in consumer attitudes and the increasing range of healthcare resources, there is the growing necessity for many to find affordable options. A few years ago, the U.S. Senate Special Committee on Aging investigated medical outsourcing as a means of responding to the rapidly rising costs of care in the U.S. system. The current economic situation has only served to exacerbate the challenge many Americans face in affording medical care and may escalate the burgeoning trend of seeking care abroad. With the considerable number of job layoffs around the country, the percentage of the population that is un- or underinsured is growing even more rapidly.

Many of the recently unemployed qualify for COBRA, but a significant percentage struggle to pay the premiums and often lose their coverage. In fact, the Commonwealth Fund reports that under COBRA, unemployed workers would have to pay four to six times their current contribution. It reports that, because of the high premiums, only 9% of unemployed workers have COBRA coverage.[6]

Top Countries With JCI-approved Hospitals

Country	Number of facilities with some kind of JCI approval*
TURKEY	32
KINGDOM OF SAUDI ARABIA	23
UNITED ARAB EMIRATES	19
BRAZIL	17
SPAIN	17
IRELAND	15
SINGAPORE	15
ITALY	13
INDIA	12
MEXICO	8
DENMARK	7
CHINA	6
GERMANY	6
TAIWAN	6
QATAR	5

*JCI approval may be for a specific disease and not necessarily the whole hospital

At the same time, economic pressure is causing more businesses to take a hard look at their rising healthcare-benefits costs. Even individuals with employer-sponsored healthcare coverage are finding themselves facing significantly rising costs through higher copayments and/or deductibles. Many employers are offering high-deductible health plans with a health savings account, and the trend is expected to grow. The increasing financial stresses on premiums in the United States stand in stark contrast to the lower medical costs in countries like India, Thailand, and Singapore, where an individual can pay as little as 10% of the cost for the same treatment in the United States. As plan deductibles and copayments increase and more and more Americans lose their coverage entirely, the appeal of purchasing lower-cost healthcare services abroad will grow.

The Business of Healthcare Outsourcing

In response to this market demand, insurance agencies and provider companies have begun covering the outsourcing of medical treatment in out-of-country facilities, and it is an expanding business. This year, the nation's second-biggest health insurer, Indianapolis-based WellPoint, included an outsourcing benefit for employees of Wisconsin-based Serigraph Inc. The target country for care is India, and employees will have the option of receiving certain nonemergency care there. Serigraph will waive the deductibles and coinsurance, as well as pay all medical costs and travel for the patient and a companion.[7]

A few major insurance providers offer low-cost policies that encourage members to seek care abroad. Blue Shield and Health

Net of California encourage members to seek care in Mexico, while United Group Programs, a Florida third-party administrator, offers a program that refers patients to Bumrungrad Hospital in Thailand as a preferred provider.

Blue Cross of South Carolina has created an international arm, Companion Healthcare,[8] which manages health and dental care provided outside of the United States. Aetna now manages a self-insured group of 27,000 members that introduced a medical-tourism benefit for hip and knee surgery for U.S. employees who want an option to reduce the $3,000 deductible on elective surgery.[9]

In addition to insurance companies' covering lower-cost options abroad, at least one U.S. business, Blue Ridge Paper Products in North Carolina, is offering employees incentives to obtain major medical care overseas, providing up to $10,000 for undergoing expensive U.S. procedures in select hospitals in India.

Even closer to home, Aetna has a program for small businesses that provides for immigrant workers to receive all of their care — not just selected procedures — in "network" hospitals in Mexico, through Vitalidad México con Aetna. This option lets individuals seek care in venues and within a culture they understand, presumably for a commensurate premium point.

But covering outsourced healthcare opens the door to a number of administrative and liability issues. There currently are no standard insurance codes or quality measurements across country lines. What if complications arise when the patient returns home? Is the procedure covered if non-FDA-approved materials or drugs were used? Most important, who is responsible if something goes wrong? Some insurers are outsourcing international claims to third-party administrators or travel-claims companies outside the United States, but because these are new practices, it is unclear whether they have the infrastructure and focus to assess and manage these types of cases in the way the U.S. market expects. With no governing or legislative body overseeing international healthcare, how will malpractice or challenged claims be handled?

U.S. Hospitals Abroad

Major U.S. hospital associations have not overlooked the trend toward cross-border care, and many are expanding their presence internationally. Hospital Corporation of America (HCA) in Tennessee is poised to purchase hospitals in China.[10] Johns Hopkins has acquired facilities globally and established affiliate relationships with hospitals in more than 30 countries. A who's-who list of other top-tier U.S. hospitals is making the move abroad, including Duke, Harvard, the Mayo Clinic, Memorial Sloan-Kettering, Cleveland Clinic, University of Texas, and University of Pittsburgh.

But because a facility bears affiliation with a well-respected name, does that ensure the same caliber of care? How can patients and families decipher the relationship between the familiar U.S. respected-name hospital and its overseas presence?

There are essentially three ways an AMC institution or a U.S. hospital does business abroad:

- Ownership — The U.S. hospital actively operates and manages the international hospital.
- Affiliation — The U.S. hospital affiliates for care delivery with the international hospital.
- Relationship — The U.S. hospital consults to support running the international hospital.

There is a broad range of differences in these business arrangements, such as whether they include in-country physician-training programs, U.S.–domestic physician rotations, and medical director assignments. Some relationships require strict onsite examination of services such as water-source purity, sanitation, sewage, laboratories, and food preparation; others do not, providing only question-and-answer checklists without direct inspection. Because it is difficult for patients, payers, and referral agencies to differentiate the kind of relationship existent between a U.S. facility and its out-of-country collaborator, quality and risk assessments are currently challenging.

Setting International Standards

In response to the rise in international medicine, a number of regulatory agencies have begun establishing standards for care. Most notably, the Joint Commission International (JCI) has accredited more than 100 facilities in 34 countries, ranging from Austria and Bangladesh to Turkey and the United Arab Emirates.[11] Australia and Canada are extending their accreditation programs into the international arena. The Australian Council on Healthcare Standards (ACHS) focuses on four major topics: safe management of blood, infection control, falls prevention, and continuity of care among healthcare providers.[12] The Canadian Council on Health Services Accreditation (CCHSA) promotes quality by providing education to medical staff to build Western-style capacity, working with 30 clients in four geographical areas: the Caribbean, Latin America, Europe, and the Middle East combined with North Africa.[13]

2 Conway, Alicia B., "Medical Tourism," *Boston Globe*, July 2, 2008.
3 Goering, Laurie, "Made in India: Low-cost care for ailing parents. American facing unpleasant alternatives finds novel solution with outsourcing," *Chicago Tribune*, July 29, 2007.
4 *Medical Tourism: Consumers in Search of Value*, Deloitte Center for Health Solutions, 2008.
5 Ibid.
6 Doty, M. M., Rustgi, S. D., Schoen, C., and Collins, S. R., Maintaining Health Insurance During a Recession: Likely COBRA Eligibility, The Commonwealth Fund, January 2009.
7 "WellPoint Soon Will Offer Some Medical Travel Benefits," *StarTribune.com*, November 20, 2008.
8 www.companionglobalhealthcare.com/.
9 McGinley, Laurie, "Health Matters: The Next Wave of Medical Tourists Might Include You," *Wall Street Journal*, February 16, 2008.
10 "First family looks to China for new hospital venture," July 28, 2008, www.tennessean.com/apps/pbcs.dll/article?AID=/20080729/BUSINESS01/807290328/1003/BUSINESS (accessed August 6, 2008).
11 www.jointcommissioninternational.org/ (accessed August 6, 2008).
12 "International Expansion," *The International Medical Travel Journal*, Issue 04 2006.
13 Interview with Wendy Nicklin, President and CEO of the Canadian Council on Health Services Accreditation; *The International Medical Travel Journal*, Issue 04 2008.

As the international medical market expands, so do the number of accreditation groups. Beyond the United States, Australia, and Canada, there are accrediting groups from numerous countries, the standards and judgment criteria of which are less known or even unknown to the U.S. healthcare market. How is a patient or provider to determine the differences in standards among hospitals that are accredited through one of these groups? How will the level of care measure up to a hospital accredited through the JCI?

As consumers and medical professionals seek to ascertain quality and standards in the fast-emerging international marketplace, the guideposts are not always clear. For instance, another regulatory body, the Center for Healthcare Planning and Quality (CPQ), states its mission as "ensuring outstanding world-class service provision."[14] However, the CPQ is located in Dubai's Healthcare City, so it appears that CPQ is regulating standards within its own medical facility.

While gains are being made in establishing international standards, the question remains: Who is assessing the accrediting agencies for independence, accountability, and transparency?

Travel Agents as Medical Facilitators

To navigate the labyrinth of outsourced healthcare, many patients now depend on "medical facilitators." They serve a host of roles, including acting as facilitators between patients and foreign physicians and hospitals, scheduling surgeries, buying airline tickets, reserving hotel rooms, and even planning sightseeing tours for recovering patients. Medical facilitators are introduced through several sources — travel agencies, trip planners, hotel chains, and international-minded doctors' offices. In response to the need for direct liaison with patients traveling abroad, business is booming in this field. But there is no regulatory body that qualifies medical facilitators in their capacity to help plan medical care. The *International Medical Tourism Journal* reports that "hospitality stakeholders" in at least one country — the Philippines — are seeking to have medical-travel facilitators reclassified as professionals so they can make referrals to physicians directly.[15] Another large network, the International Medical Tourism Association (IMTA), which identifies itself as a nonprofit group of hospitals, insurers, and tourist groups interested in expanding the role of medical tourism, has introduced a facilitator certification program. It certifies participants to coordinate patient care for individuals who travel from one country to another for healthcare purposes.[16] Applicants are not required to have any clinical background. However, they are required to provide biannual payments of $2,500 to the IMTA and to refer patients to the facilities and partners in the IMTA network. This means that their customers are being asked to trust IMTA facilitators, who are marketed as certified to coordinate the "patient journey" but have no clinical training, and who will refer them to IMTA-certified facilities, which have no known certification standards.

Across the board, there are no licensing requirements for medical travel or tourism agencies, either in the United States or overseas, which is likely part of the appeal of this rapidly growing piece of the international healthcare industry. A *Business 2.0* article reported on MedRetreat, based in Odenton, Md., noting that its customers' average length of stay in hospitals abroad is 17 days and that the company makes most of its money through commissions for booking hotel rooms and by pocketing the 20% discount on treatment costs that its partner hospitals grant in exchange for referrals.[17]

The Need for Informed, Unbiased Advocacy

An estimated six million Americans will be traveling abroad to receive care by 2010,[18] which makes the need for transborder-healthcare monitoring a growing priority. International case managers (ICM) and knowledgeable patient advocates could help provide more comprehensive, unbiased information about current conditions and practices, as well as facilitate care appropriate to individual patients' needs.

Not all health economies are equal, and expertise must be developed in the quality and risk factors associated with care on a regional and countrywide basis. These include determining standards for drugs and medical technology, as well as the quality of practitioner education. What if a given culture does not promote collaboration? Is that a skill set that hospitals can "turn on" to meet the needs of different clients? How can political instability in a region be weighed as a potential risk factor in patient care? And what about ethical concerns? What role should human rights issues play in the selection of an international care facility?

Critical components of any risk analysis should include an assessment of an individual's medical history and known complications that could arise. For example, if an individual seeks medical care in a country affected by dengue, malaria, or foodborne illnesses; has evidence of counterfeit medication; or learns that high levels of corruption exist — what impact could any of that have on the care pathway? And how might the patient advocate proactively plan for problems if they arise?

These risks can be assessed in broad strokes, but qualified advocates have the ability to work "on the ground" on behalf of individual patients to secure culture-sensitive connections, promote clear communications, and determine the reliability of services. ICM practitioners possess the ability and skill to reach first, beyond the periodic, system-level accreditation reviews and business-brand affiliations and second, through the curtain of in-country customs, in order to provide critical assessments of quality and risks. They and qualified advocates would have the ability to respond to patients' day-to-day, real-world concerns.

Evaluating Care at the Facility Level

Standards set by the JCI serve as a valuable road map to ICMs, patient advocates, and anyone interested in evaluating standards

of care at the facility level. They include care pathways that dovetail well with the *Milliman Care Guidelines*®, which deliver internationally recognized evidence-based best medical practices at the bedside.

The JCI standards[19] focus on two areas: patient-centered standards and healthcare-organization-management standards. The use of clinical pathways or evidence-based medical protocols map out as follows:

JCI STANDARD GROUPING	Areas *Milliman Care Guidelines* support
PATIENT-CENTERED STANDARDS	• Access to care and continuity of care • Assessment of patients • Care of patients • Patient and family education
HEALTHCARE-ORGANIZATION STANDARDS	• Quality improvement and patient safety • Staff qualifications and education

The *Milliman Care Guidelines* offer practitioners, patients, payers, and patient advocates a common language for evaluating standards of care. By providing clinical-treatment pathways based on scientifically researched evidence, the *Guidelines* help ensure continuity of care and provide important education and discharge-planning information, whatever the setting. They also deliver tools for measuring outcome variances and can help facilitate collaboration among practitioners to understand and determine treatment courses.

The use of evidence-based protocols serves as a real-time quality gauge. Used correctly, these protocols ensure that the hospital is aware of international evidence of best practices, is working to apply them, and will communicate with the patient, insurer, or third-party administrator when it deviates from that course. Delivery of quality care through clearly defined pathways, assessed by unbiased international monitors, provides the best opportunity to set accountable standards in cross-border care.

Potential Impacts to the U.S. Market

Today the most common procedures Americans seek abroad are dental, cosmetic, orthopedic, and cardiovascular.[20] There is every indication that the trend toward cross-border care will grow substantially. What does this mean to U.S. hospitals and practitioners, who earn significant margins from these types of cases? At what point will it affect the bottom line? Can U.S. hospitals compete with the international market when the cost of care and labor is significantly higher in the United States than abroad? Could this change the landscape of medical delivery?

While this article has focused on the potential risks associated with international care, it also should be noted that many international hospitals deliver exceptionally high-quality care and customer-focused service. Quality varies dramatically in U.S. hospitals, and evidence-based best medical practices are not delivered with consistency. By comparison, Singapore medical facilities today reportedly are providing outcome data that sets new international standards in measurements and accountability. As a U.S. benefits director noted in hearings held by the U.S. Senate Special Committee on Aging, "We do not get commensurate value for our healthcare dollar, are not seen as customers, must pay for medical errors and hospital-acquired infections, and are patronized by being constantly told by healthcare leaders that American healthcare is the best in the world."[21]

To compete effectively, a possible scenario is that U.S. hospitals will capitalize on the growing willingness among healthcare consumers to travel to receive cost-effective, high-quality care by establishing themselves as hubs for practice specialties. Less expensive rural areas within the United States may become hotbeds of state-of-the-art medical facilities that cater to cardiac or orthopedic patients. With the potential for public policy shifts and a focus on healthcare reform, combined with increasing market pressures, it is unlikely that the U.S. medical model will remain unaffected by international competition.

Minimizing Risk

While the future of cross-border healthcare is an unknown, it is clear that there is great opportunity for capturing more accurate information and working to develop a standardized approach to identify the risks and benefits of receiving care abroad. Because there currently is no oversight of cross-border care, it is vital that patients, providers, and payers have access to unbiased information with which to measure risk, assess quality, and inform better decisions. **M**

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14 *International Medical Travel Journal*, Issue 04 2008; full-page advertisement for "Dubai Healthcare City."
15 "The Philippines: Makati promotes," *International Medical Travel Journal*, Issue 04 2008.
16 www.medicaltourismassociation.com/certification.html (accessed January 2, 2009).
17 Crawford, K., "An Rx for Clever Start-ups: Taking Operations Overseas," *Business 2.0*, August 2006.
18 *Medical Tourism: Consumers in Search of Value*, Deloitte Center for Health Solutions, 2008.
19 Joint Commission International 3rd Edition, 2008.
20 *Medical Tourism: Consumers in Search of Value*, Deloitte Center for Health Solutions, 2008.
21 "The Globalization of Health Care: Can Medical Tourism Reduce Health Care Costs?" U.S. Senate Special Committee on Aging Hearings, June 27, 2006.

LOOKING AT THE TOTAL VALUE OF A

COMPENSATION PACKAGE

BY GREGORY MCNUTT AND JOHN HANKERSON

Compensation is a key element in attracting and retaining required labor talent. But to stay competitive, most companies should not overcompensate relative to others in their labor market (industry and region). Factors beyond our control have conspired to make compensation management hard. This is particularly true in today's challenging economic climate — and in the context of ballooning healthcare costs and retirement benefit obligations. While considering benefits in the context of industry standards is a good first step, it is most useful to look at total compensation: the relative levels of all benefits provided by an employer compared with other similar employers. This enables the company to strategically adjust elements of compensation. Balancing employee satisfaction, recruiting needs, financial risk, and payroll budgets is much easier when using a total-compensation approach.

Surprisingly few companies take a comprehensive view of compensation. For one thing, different decision makers are typically in control of different elements of compensation. They may not even communicate regularly, let alone tightly coordinate their efforts. Also, employees may not understand the full value of the compensation they receive. In part this is due to the general secrecy and lack of transparency around pay. While confidentiality about pay levels makes sense, there is no reason for lack of communication between employer and employees about the features and values of compensation packages. Many companies understand this and are working much harder to communicate effectively with employees about benefit details—and employees are feeling more empowered to ask questions. A total-compensation approach can be invaluable in these communications, enabling all parties to understand why the package is what it is and enabling more effective negotiation.

Milliman has developed a structured approach to analyzing total compensation. At the heart of each project are data about cash compensation and benefits. These data enable us to take the value of each pay element and the value of the total package and compare those values to compensation levels in organizations similar to the one under study.

The Total-compensation Process

Total-compensation analysis enables a strategic approach to compensation. Yet many companies begin with little or no conscious alignment between compensation strategy and organizational goals. All too often, companies respond by managing one pay element at a time, failing to recognize that the whole can be greater or smaller than the sum of its parts. To get the most out of the process, the organization needs to begin by defining its *overall* strategy. Is it to be seen as the low-cost provider of its products? To have the most highly satisfied customers? To accomplish a defined set of tasks set out in legislation? Or just to keep things as they are? Once the business strategy is defined, we can begin to lay out a compensation strategy that will help the company meet its broader goals. The key point is that compensation strategy can and should serve the organization's larger goals, rather than operating in isolation.

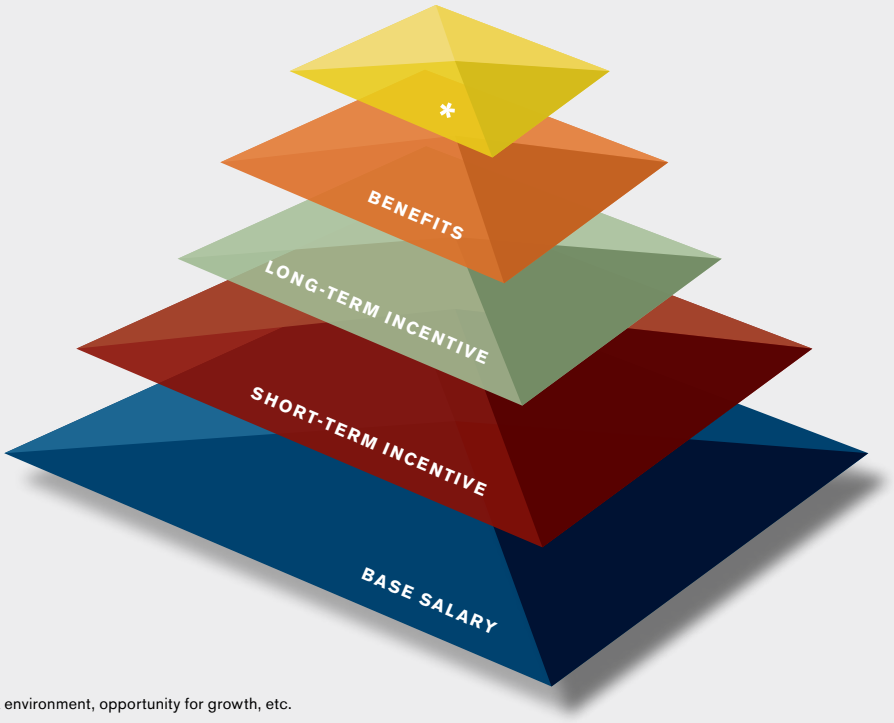
Now we proceed to gather and analyze data on compensation as it stands. This begins with compiling data on relative benefit levels within the organization. For each position, we want to understand the balance among all the benefits provided, including those that are optional (such as discounted auto or life insurance) and those that are contingent (such as bonuses). At the same time, we gather data about compensation levels of the organization's peers. The mix of public data, packaged research, and custom surveys we use to accomplish this varies by industry. Some industries have lots of data available; more specialized ones require more effort.

After analysis, we can clearly see differences between the target organization's approach to compensation and the approaches within its labor market. That enables us to develop a pay strategy—a plan for shifting the compensation program to better suit the organization's goals. Here, the key considerations are:

- Should imbalances in the total-compensation package relative to industry norms be addressed, and, if so, how?
- What is the company's desired competitive position? Can it afford to pay a premium to get the very best and most experienced employees? Or would it rather take a more balanced approach to growth, retaining and guiding employees from junior to senior levels? The answers for a technology start-up will be very different from those of an established manufacturing company, for example.
- Which benefits are most compelling to desired recruits? In lower-paid positions or those with younger workers, cash may

Milliman has developed a structured approach to analyzing total compensation. At the heart of each project are data about cash compensation and benefits. These data enable us to take the value of each pay element and the value of the total package and compare those values to compensation levels in organizations similar to the one under study.

TOTAL-COMPENSATION ELEMENTS



* Intangibles such as work environment, opportunity for growth, etc.

TOTAL-COMPENSATION COMPARISON

Compensation Element	Competitive Position (25th / 50th / 75th)	Surplus/(Deficit)
Cash Compensation		$9,843
Long-term Incentive		$4,717
Retirement/Capital Accumulation		($3,172)
Benefits		($1,765)
Perquisites		($2,850)
OVERALL		+$6,773

Competitive Objective
Current Position

hold more weight than pensions or retiree medical, which can seem impossibly far in the future. Midcareer workers with growing families may place great stock in health coverage. Senior managers or executives may be at an age where defined-benefit plans or long-term-care insurance have greater moment than for younger workers. Balancing these needs can lead to more effective recruitment and retention.

- Which elements of compensation tend to motivate performance in desired ways? Is a bonus-driven, pay-for-performance scheme typical of many sales positions an effective inducement? Or would it create undesirable competition and hamper a team atmosphere?

Closing the Gap

When the total-compensation strategy is established and current programs have been evaluated, we build plans to close the gap between what is in place and what is desired. Usually, this includes:

PRIORITIZATION To manage the change effectively, we identify the top priorities and tackle those first. This is a matter of balancing risk and reward. If a change is expensive and challenging but likely to lead to a highly desired outcome, it can become a high priority. On the other hand, even simple changes might be seen as trivial in terms of accomplishing the most important goals of the organization. To prioritize change, we consider business strategy, resource constraints, costs, regulatory requirements, and timing.

COMMUNICATION One of the most important benefits of a total-compensation approach is greater transparency between employer and employee. The employer is better able to communicate the value of the compensation package, and the employees are satisfied that they have made an informed choice. (This can tend to reduce situations that we have observed in which an employee leaves an organization in search of higher pay, and then seeks to return after learning how good he or she had it in the first place!)

We work with the organization to develop a communication plan for both immediate and long-term changes. We clarify the business case for change and establish a process for ongoing sharing of information about the total-compensation program, as well as employees' roles in contributing to the employer's success. This also helps to alleviate employee anxiety about changing benefits, which can be a factor even when those changes are in their favor.

TRAINING Benefits are already complex. While the total-compensation approach sometimes leads to simpler benefits structures, it can also add complexity when there are advantages to a more granular approach. Additionally, it often requires people to comprehend and act on matters that were formerly outside their expertise. Training modules can speed implementation. They can be developed for any and all stakeholders, from management to line workers, union or nonunion.

EVALUATION We develop a plan for systematic and metric evaluation of the effectiveness of the new programs, as well as a means to modify the programs as needed.

Going Forward

At this point, the company's pay strategy is on more solid ground. Its resources are allocated more effectively toward the achievement of its goals. Recruitment and retention efforts will be less impeded by compensation that is out of sync with that of competitors. They will also be targeted toward the most desirable employees for given positions. The value of benefits — and the reasons behind changes to them — will be communicated more effectively, helping to increase employee satisfaction and loyalty. Communication has been established between formerly disconnected entities managing various benefits. Management can be more confident that its payroll and

Some Typical Elements of Total Compensation

- Base salary
- Incentives (cash, equity)
- Medical plan
- Dental plan
- Vision plan
- Life insurance
- Long-term disability insurance
- Short-term disability insurance/sick leave
- Maternity or family leave
- Time off
- Retirement (defined contribution or defined benefit)
- Retiree medical
- "Perks" (e.g., parking, cell phone, computer, etc.)
- Work environment
- Flex-time, work from home, and other alternative work options

One of the most important benefits of a total-compensation approach is greater transparency between employer and employee. The employer is better able to communicate the value of the compensation package, and the employees are satisfied that they have made an informed choice.

benefits budgets are being well spent, and it can effectively communicate the reasons behind its decisions to shareholders or other stakeholders.

Because industry pay levels, labor markets, and economic conditions can change fairly quickly, it is important that the company review the data and the strategy based upon it regularly. Otherwise, its strategy can become outdated as quickly as it was put in place.

Examples

For one company, Milliman developed a survey instrument to collect both compensation and benefits data in a way that would allow Milliman to assign a relative dollar value to the benefits. We found that total compensation was competitive. However, the balance of benefits differed from the norm for its industry. Cash compensation was somewhat high (5% to 8% above median) compared to its labor market, while noncash benefits were notably below median. The organization decided to move salaries closer to market median, while modifying the retirement plan to improve the competitiveness of the total package. The organization found itself better positioned to manage total pay costs going forward, as it improved control over salaries and enhanced a highly valued employee benefit.

Another company offered a competitive total package but wanted to reduce the richness of its medical benefits in light of uncontrollable and rising costs. It kept the total package the same by providing a lump-sum cash payment each year, dependent on company performance. This reduced the fixed cost in medical benefits, but did not reduce total compensation. The company also put in place the flexibility to cancel the lump-sum payment in financially challenging times, enabling it to retain employees rather than turning to layoffs as a first resort.

A third client had a rich retirement and profit-sharing plan, contributing 12% of employee pay to retirement programs for all employees. It discovered that its lower-paid employees were frustrated with this practice and would rather have more take-home pay. The company took 25% of the retirement benefit and gave employees a choice of how to allocate it among pay, retirement, and other benefits. In this case, the additional flexibility gave the lower-paid employees the power to choose how to spend their money. The total-compensation package was not changed; its terms were simply altered to improve employee satisfaction.

These few examples demonstrate the diverse strategies that are enabled by a total-compensation approach to pay and benefits. By supporting decisions with high-quality data and analysis, the organization can make informed and effective choices. By aligning pay practices with company goals, both can be greatly improved. In a challenging economic environment, time and effort spent understanding and balancing total compensation is a worthy investment. **M**

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WARRANTIES: A DIFFERENT KIND OF RISK

ACTUARIAL ASSESSMENT

BY MICHAEL PACZOLT, ACAS, MAAA, AND DOUGLAS K. NISHIMURA, ARM

Businesses entering the extended warranty field tend to think of extended warranties as large moneymakers because the repair costs appear small compared to the actual sales or premium — the amount paid by the consumer for the warranty. However, extended warranties can be a money-*losing* proposition if management does not maximize the use of all possible resources, including actuaries. An actuarial perspective has been used successfully in certain lines of business with extensive warranty exposure, such as the auto industry, and is available to any company that is either considering a new warranty business or looking to rectify an unprofitable warranty line.

Before getting into the core components of the actuarial approach, it may be important to define some terms. There are two main types of contracts often referred to as "warranties": a manufacturer's expressed warranty from an original equipment manufacturer (OEM), sometimes referred to as an "OEM warranty," and an extended service contract (ESC), often referred to as an "extended warranty." We will use the term "warranty" throughout this article to encompass both types unless otherwise specified.

Both types of warranty should have the same broad underlying goal: to maximize profit. In general, companies selling extended-service contracts tend to focus on top-line revenue

with little regard for the bottom-line results. Extended service contracts can be and are an important profit source for many retailers. OEM warranties, on the other hand, can be a significant cost to a manufacturer, hindering profitability. The *actuarial* point of view aids in program design by providing management with unique insight into the company's warranty costs.

The Actuarial Approach

How can actuaries help? At the outset, an actuary can advise on how best to manage a particular risk. For example, should the company pursue typical insurance or self-insurance? The situation for each company is unique. In general, typical insurance is less complex for the insured. By reducing complexity, the insured forfeits some profit, tax, and cash-flow advantages that it could receive from a self-insurance arrangement, such as a captive.

When the company has determined what vehicle to use to manage its warranty risk, it can turn to actuaries for specific insight into the financial mechanisms of that risk, including:

- estimating the expected costs associated with a new warranty
- projecting expected payments by year
- estimating the necessary reserves for outstanding claims in order to determine booked liability or buyout cost
- estimating the cost of goodwill payments
- calculating earnings patterns to properly align revenue and expected losses
- pinpointing poorly performing products earlier
- helping in the design of warranty coverage and length
- helping management in risk-financing decisions

Actuaries also bring a valuable insurance perspective to a warranty. Commercial codes allow manufacturers and retailers to issue warranties or service contracts without regulation. In this manner, the warranty business is largely unregulated, and in many states warranties are not regarded as insurance; thus, there is no requirement that an actuary review warranty exposures. That is not to say that companies should not strengthen their warranty business with insurance principles. An actuary can infuse a warranty with sounder risk-management principles, providing the company with a competitive advantage.

How Does the Actuarial Approach Differ From a Mechanical Statistical Approach?

Statisticians typically use a Weibull distribution to predict warranty costs. The Weibull distribution models failure rates and is particularly good at modeling breakdowns over time, and thus is a go-to method for many industries. But there is a problem with using a Weibull distribution to model warranty behavior, because such an analysis assumes that warranty claims correlate only to product failures. This approach doesn't take into account consumer behavior and other external factors.

By contrast, an actuary will use a loss triangle, which uses historical data to track development over time of a group of policies (or warranties). This allows a better consideration of behavioral and other external factors. Thus the actuarial approach allows the use of both quantitative and qualitative information. We have identified some of the qualitative considerations below.

ADVERSE SELECTION Adverse selection (also called "antiselection" or "negative selection") is the tendency of people with a significant loss potential to buy insurance (or warranties). Information asymmetry — where one party, the consumer in this case, has much more information about possible loss potential than the other party — factors in to adverse selection.

For example, assume there are two types of consumers, high and low risks. If a service agreement is priced to cover the average cost of repairs for both high and low risks, more high risks than low risks will buy the service agreement, resulting in inadequate premiums. The price will then go up to reflect greater-than-average costs, compounding the problem by causing the low risks to drop out of the market, leaving only the high risks to buy these service agreements and resulting in a vicious cycle.

Providers must take care when designing their program(s) to reduce the chances of adverse selection. Adverse selection can be avoided by:

- Incorporating deductibles, so that consumers share in the loss. For example, a $50 deductible on a cell phone will motivate consumers to be more careful with their equipment.
- Implementing a time limit before coverage begins. If the consumer must wait for, say, 60 days until coverage begins, he will be less likely to purchase the extended service contract, knowing he will immediately abuse the product.
- Selling the extended service contract at the point of sale. This approach ensures that the extended service contract is purchased at the time when the equipment is whole and functioning. Such a provision is not unlike the preexisting condition provision often attached to individual health insurance policies.
- Increasing knowledge of both product and consumer. Adverse selection emerges from information asymmetry. Does the consumer have better information than the seller? For example, a snowboard company with an extended warranty that didn't know its product was popular in terrain parks would face some serious warranty implications as snowboards came

back damaged. (It would have to be said that a snowboard company that offered an extended warranty without very clear damage provisions would be a textbook example of knowing neither its product nor its consumers!)

GOODWILL In order to maintain a good relationship with its customers (goodwill), a company may continue coverage after the warranty has expired or cover causes not indemnified by the warranty. Goodwill can include any payments outside of the contract term or coverage. This is a common practice and can be an expensive one, accounting for between 5% and 20% of total costs, based on our historical analysis.

Goodwill costs can be contained by keeping comprehensive data to track warranty-policy inception, including information about the date of purchase. Many companies provide warranties before determining how to administer the returns. When a customer submits a claim without date of purchase (having thrown away the sales receipt), insisting that the product was bought within the warranty period, the selling company may feel obliged to honor the return in order to maintain goodwill with the consumer.

SEASONALITY When estimating warranty costs, which are usually based on monthly or quarterly data, one must take into account periodic fluctuations due to seasonal patterns—lawnmowers, for instance, are more likely to have a claim in spring or summer than in fall or winter.

The geography of exposure may increase complexity. Summer temperatures last longer in Texas than in Illinois, so lawnmowers are likely to be used more often and over a longer period of time in Texas. We would expect a higher frequency of claims in Texas, with those claims occurring more evenly throughout a greater portion of the year.

PRODUCT MIX AND UNDERLYING WARRANTY Triangular methods require consistency. If a product mix changes over time, development will also change. Development of the current product mix going forward must be adjusted from the historical data.

Similarly, if the underlying manufacturer's warranty changes, the actuary will have to make an adjustment to the analysis. An extended service contract may overlap the manufacturer's warranty. For this reason, the extended service contract may experience no losses for the initial period, but if the underlying warranty changes, the extended service contract will gain or lose additional exposure to loss.

PIPELINE CLAIMS Warranty exposures experience a lag between when a claim is incurred (or occurs), reported, recorded in the system, and finally paid. The loss triangles must be adjusted for these lags, so that they show "apples to apples" developments for each quarter. Sometimes, a claim may be reported in the warranty period, but not paid until after the warranty policy has expired.

EARNINGS PATTERN The earnings pattern for warranty exposures is typically based on an incurred (as opposed to paid or reported) basis. Once the triangles are adjusted for lag (see pipeline claims, above), the earnings pattern can be calculated from the development pattern. Earnings patterns can be based on actual payments, depending on the accounting used.

Premiums or fees must be earned to reflect special accounting rules for warranties. Traditional lines of insurance, such as workers' compensation, assume that losses occur evenly throughout the policy year (usually one year). But warranty losses do not occur evenly; they can occur for many years into the future, which means the premium is not earned evenly over the life of the policy. It is crucial to reflect the appropriate liability for warranty losses; a mismatch can show unprofitable warranties as profitable.

UNEARNED PREMIUM RESERVE VERSUS LOSS RESERVE There is a distinction when referring to the components of the total warranty liability. A loss reserve is for a claim that has already occurred (is incurred), but has not yet been paid. Traditional insurance products have a long lag between when a claim occurs and when it is paid. Thus most of the liability is a loss reserve.

A warranty policy, though, has a long lag between when the policy is sold and the claim occurs, but often has a short lag between occurrence and payment. A warranty claim is paid quickly after the loss occurs, usually within weeks. That means warranty liability is almost entirely an *unearned premium reserve*, with very little actually being a loss reserve.

LENGTH OF WARRANTY When a product breaks, consumers may wait until the warranty coverage is about to expire to file a claim. This can cause a slight increase in claims, or "bump" in development, in the loss triangles. The effect can vary, depending on length of warranty. A longer period has less effect; a shorter period has more.

CHANGES IN CONSUMER BEHAVIOR Claim development can be affected by consumer awareness, particularly when consumers suddenly become aware of their product's warranty (if the press has been reporting the product is defective, for example) or become aware of problems with the business holding the warranty (such as a potential bankruptcy).

The value of the warranty can affect behavior, as well. Consumers are more likely to pay attention to a warranty for an expensive item like a car than a warranty for a household gadget with a small repair (or replacement) cost.

About Warranties

According to Arvinder P.S. Loomba's *Historical Perspective on Warranty*, warranties existed as early as the Babylonian and Assyrian era. Hammurabic code implies "an eye for an eye." If a house collapsed and killed the owner, the builder could be killed. If a house collapsed and killed slaves, the builder was obliged to replace the slaves and rebuild the house at his own expense. Subsequent code provided that slaves be sold with 30- to 100-day guarantees against illness.

Warranties in the 21st century are somewhat less stringent. There are generally two kinds. An implied warranty, or that which is required by law, must be provided at the point of sale. For example, the warranty of merchantability requires a product to function as expected by the buyer. An express warranty, which may or may not be required by law, explicitly states a fact or promise in verbal or contract terms.

Warranties are offered on a wide variety of products. Builders offer home warranties. Manufacturers, and many retailers, offer warranties on "brown" goods (typically, small household electrical/entertainment appliances), "white" goods (major household appliances), and automobiles, as well as other manufactured goods.

The allocation of warranty costs varies by channel. The cost of a manufacturer's warranty is implicit in the product's cost (e.g., the manufactured product is sold to retailers for $500, of which $20 goes to warranty expenses). This cost is usually not visible to the final purchaser of the product. Retailer and third-party-provider extended service contract costs are nearly always explicit to the consumer (e.g., a warranty policy sold to the consumer for $50).

The lengths of warranties vary significantly. Unlike traditional types of insurance, warranties can cover losses occurring from periods of only 30 days to as long as the lifetime of the product. Because of the length of warranties and relatively low incidence of early breakage, it may take some time for a company to discover just how profitable or unprofitable its warranties are.

The original purpose of warranties was to promote customer satisfaction and loyalty, and to increase competitive advantage. Manufacturers have viewed warranties in this way as a cost. But other companies entering the extended service contract or "extended warranty" business have realized that extended service contracts can also serve as a significant source of potential profit.

OBSOLESCENCE Some products, such as computers, become obsolete before the warranty coverage expires, so that even if the product breaks, filing a claim is not worthwhile for most consumers. Again, this affects the tail development or the emergence of claims for older products. With some products, the "bump" is offset by obsolescence.

Other Common Pitfalls

There are many other factors that can affect the success of a warranty program, such as:

- repeat breakdowns (which may need to be analyzed separately because of a leveraging effect on first returns)
- nondefective returns (which should be removed from the exposure base—e.g., sales units)
- trends (such as changes in frequency and severity of breakdowns, and inflation)

An actuarial approach to warranty management can help companies handle these risks. The ultimate goal of any warranty program, after all, is to maximize profit. The actuary can be the key to unlocking the profit potential. **M**

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RESTORING CONFIDENCE IN THE 401(k):

WHAT RETIREMENT PLAN SPONSORS NEED TO DO

BY CHRISTINE BRADFORD

The past year's global collapse in financial markets, cutting across asset classes and sectors, took 401(k) investors on a harrowing ride. Nearly all participants have seen their nest eggs seriously diminished, at the very least. In some cases, the loss has been devastating, particularly for those near retirement age, whose investment portfolios were heavily weighted toward equities.

While little can undo the short-term damage, barring an unpredictable economic upturn, the focus of plan fiduciaries today is on enabling participants to move forward. Many people are willing, if warily, to stick with their investments. Others, however, may seek to withdraw (and incur stiff tax penalties in the process) or reallocate investments in ways that rein in risk, yet may ultimately jeopardize their long-term objectives.

How, then, can plan fiduciaries begin to rebuild confidence and enable participants to make informed decisions in allocating their retirement savings? The process depends on an honest assessment based on answers to three key questions:

1. Are plan participants sufficiently advised and educated to make informed investment decisions?

2. Does the plan offer options that participants need in order to adequately diversify and manage risk in their investments?

3. Do plan fiduciaries have the ability to carry out their overriding responsibility, which is to provide a wide enough range of options, with prudent oversight?

* * *

DIVERSIFICATION AND EDUCATION If the first rule of investment is diversification—among asset classes and industry sectors—it is one that is not always well understood by retirement-plan participants. In the current downturn, too many have discovered that they are less diversified than they thought or that investments they've used to balance stocks, including presumably "safe" money market instruments, have proven surprisingly vulnerable to the unraveling of financial markets.

Certainly, in a treacherous market, there have been very few safe havens. But some diversification strategies have helped portfolios soften the blow. A prime example is the balancing of stocks with bonds, which have performed much better in the current environment than have equities.

In 2008 the value of equities dropped 37%, as measured by the S&P 500 Index. While this would have had an adverse impact on any portfolio with exposure to stocks, an allocation to fixed-income assets would have resulted in less of a hit. As the S&P plummeted last year, the Barclay's Capital Aggregate Bond Index rose, managing a 5.5% gain for all of 2008. Thus, had a portfolio maintained an allocation of 60% stocks and 40% bonds, the year's loss, based on these two indices, would have been roughly halved, to 20%.

Another principle of retirement investment is age-appropriate allocation among asset classes offering varying degrees of growth potential and downside risk. Simply put, people of different ages have different objectives and time horizons and ought to be exposed to levels of risk that make sense for their particular stage of life. Young or middle-aged participants, with a relatively long time horizon, can accept a greater level of risk in return for long-term growth potential. Participants approaching retirement, however, should be focused on preserving capital, which means they should avoid the substantial risks involved in a portfolio heavily weighted to equities. Many plans, of course, have default options that automatically diversify and allocate contributions. Such default options, at this point, ought to be closely considered by plan fiduciaries, with an eye toward using mechanisms that shift allocations as participants age, such as target-date retirement funds.

Plan administrators should make sure that participants are aware of the above principles—that they know the options available, understand the risks of each, and grasp the roles various instruments play in a well-designed portfolio strategy. To increase understanding, the plan must offer substantial opportunities for participants to seek education, whether through publications, fact sheets, live investment seminars, or Web-based retirement planning tools.

While some plans have the in-house resources to educate plan participants, for others the solution lies in contracting the services of an outside investment advisor. Such professionals can be invaluable in helping participants build the right portfolio—one aimed at achieving sensible objectives based on number of years to retirement and risk tolerance.

Of course, education is less effective if participants lack good options to work with, and best practice demands that the plan be able to offer good choices from a varied list of options. The aim should be a range of options that allow participants to diversify and grow, with component investments closely monitored for performance, value, and untoward risk.

* * *

DOCUMENTATION, CHOICE, AND OVERSIGHT The imperative to provide wide-ranging options—and to monitor each of those options closely—may get less attention than it should in a bull market, when all boats rise. However, it becomes absolutely critical in a more challenging investment environment. Here, then, are a few best practices that a well-managed plan should consider:

1. Documentation: Every retirement plan should have a formal investment policy statement (IPS), a document that describes plan policies, procedures, and fiduciary responsibilities. The IPS should detail overriding plan objectives, such as enabling participants to maximize returns with prudent and appropriate levels of risk. It should also describe how the plan selects various options, reviews them periodically, terminates them if need be, and controls plan administrative and management costs. Once finalized, the governing principles of the IPS should be publicized to all participants, reinforcing the impression that their retirement plan is both well conceived and well governed. In addition, all meetings—including those with investment managers and advisors—should be documented in the form of minutes, thereby demonstrating due diligence and adherence to ERISA and the plan IPS.

2. Choice: The second hallmark of a well-managed plan is a broad range of investment options with distinct risk/return profiles (the U.S. Department of Labor specifies at least three). A poorly managed plan with an inadequate choice of options would be one in which options are focused almost entirely on equities. Participants then have little room to diversify or to allocate assets in ways most appropriate to their age and length of time to retirement.

3. Oversight: Finally, disciplined, ongoing oversight of investment options is critical. This means that performance objectives must be established for each investment option, with periodic evaluation via comparison with appropriate peer groups and indices. Beyond performance, fiduciaries must also monitor the underlying holdings of each investment option, including those of funds that might be considered the most conservative. In the past year, many investors have been shocked by degradation of money market funds, long considered among the most conservative and secure of investment vehicles. The problem was that some funds, unknown to investors, had troubling assets among their holdings. These included subprime-related investments, the assets that kicked off the global slide.

* * *

DILIGENCE AND EXPERTISE Ensuring a high degree of choice and oversight is a huge responsibility, and those so charged must pursue their charge with care, skill, and diligence. This means it is essential to ensure that fiduciaries understand and are able to carry out their roles: prudently selecting plan options, monitoring performance and underlying holdings, and making decisions based on thorough evaluation of an option's suitability for the plan. While it is not necessarily a requisite practice to hire an outside investment consultant, living up to fiduciary responsibility demands a great deal of time and expertise. For this reason, it may be prudent to engage the assistance of outside advisors who can help review the plan's options, objectively gauge investment performance, monitor options for adverse developments, and recommend the addition (or elimination) of options as market conditions and plan demographics change.

In the end, plan sponsors must accept that challenge is a constant in financial markets and that best practices ensure a better outcome in any environment, challenging or benign. While ERISA does not require that plan fiduciaries be able to foresee financial crises, it does require that said fiduciaries take all prudent and necessary steps—to structure the right plans, provide good oversight, and give participants the resources and education they need to avoid big losses and ultimately succeed in reaching their retirement objectives. Armed with a sound investment strategy, participants can begin to rebuild confidence in their retirement programs and in their ability to meet long-term objectives. **M**

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Milliman, whose corporate offices are in Seattle, serves the full spectrum of business, financial, government, and union organizations. Founded in 1947 as Milliman & Robertson, the company has 49 offices in principal cities in the United States and worldwide. Milliman employs more than 2,100 people, including a professional staff of more than 1,100 qualified consultants and actuaries. The firm has consulting practices in employee benefits, healthcare, life insurance/financial services, and property and casualty insurance. Milliman's employee benefits practice is a member of Abelica Global, an international organization of independent consulting firms serving clients around the globe. For further information visit www.milliman.com.

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