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insight

The Big One

THE LOOMING RISK OF AN EARTHQUAKE-TRIGGERED MORTGAGE CRISIS IN CALIFORNIA

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Letter from Milliman CEO Pat Grannan

We live in ever-accelerating times. Information flows around the globe faster than ever before, and we are increasingly interconnected. This is causing the nature of risk and the behavior of financial and social systems to change. The severity and contagion of the financial crisis is one of many recent examples of how this dynamic can play out.

In this environment, a seemingly local risk like the one outlined in our cover story, "The Big One," can have global ramifications. An earthquake in California has the potential to trigger another mortgage crisis, one that could impact people who have never set foot in the Golden State.

Speaking of local risks, the ongoing U.S. healthcare reform process has both national and regional implications. This regional complexity is one of many factors making the reform issues more difficult. Milliman consultants have contributed to a better understanding of the issues with a variety of deep and timely analyses. Some are summarized in these pages and more appear on our Web site. As we contemplate major changes to one of the pivotal aspects of American society, the need to deliver independent, objective analysis as the world changes has become more obvious.

Our experience in the last six months during the healthcare reform process has also contributed to a change in the nature of this very magazine. Although we're very proud of the quality of the magazine—and while there's certainly value in delivering a publication that you can hold in your hands—we feel that by moving to an electronic publication we can better deliver fresh content on a more timely basis. This change will also contribute to a greener footprint for our firm. So this will be the last issue of *Insight* as a print publication.

We'll look forward to seeing all of our regular readers online, and to introducing them to a new kind of publication that focuses on a timely and interactive reader experience.

PATRICK GRANNAN

Milliman Chief Executive Officer

BY THE NUMBERS...

Spooky Stats. America's most sugary holiday, Halloween, has its origins 2,000 years back in the Celtic holiday Samhain.[1] Halloween celebrations traveled to America more than 200 years ago along with diverse early settlers, and Americans gradually developed unique customs around the holiday.[2] These days, Americans spend an estimated $6.9 billion annually on Halloween, making it the second-largest commercial holiday. A 2007 report stated that the country has 36 million eligible trick-or-treating children ages 12 and under, and that Americans consume 24.5 pounds per capita of candy each year. In addition, 1.1 billion pounds of pumpkins are produced in the United States annually, many of which are carved into the Halloween jack-o'-lanterns that light the paths of American trick-or-treaters.[3]

Back-to-school Cutbacks. With American consumers still struggling with unemployment and tighter budgeting, back-to-school spending was predicted to drop by 7.7% from last year as families cut back on everything from highlighters to new jeans. As we went to press, the average American family with students in high school or younger planned to spend $546.72 to get ready for fall, down from $594.24 in 2008. Of shoppers surveyed, 56.2% said that they were looking for sales more often than in typical years, two of five said they would purchase more store-brand school supplies and clip more coupons, and more than 18% said they would shop for fall clothes at thrift stores. Some things don't change, though, including American enthusiasm for new gadgets: Spending on electronics was expected to increase 11% per family to $167.84.[4]

Plump Heirloom Tomatoes...and Pigs? We've all seen colorful heirloom tomatoes at the grocery store, but what about heirloom meats? Heirloom, or heritage, livestock breeds persist on several small farms across the world, representing some of the thousands of breeds that existed until modern food production whittled prevalent animals down to the most efficient food producers. Today, 83% of dairy cows are Holsteins, and 75% of pigs in the United States come from only three main breeds, despite the fact that 37 varieties of swine still exist.[5] Within the past 15 years, 190 breeds of farm animals have gone extinct worldwide, and there are currently 1,500 others at risk. In the past five years alone, 60 breeds of cattle, goats, pigs, horses, and poultry have become extinct.[6]

Record-breaking Meals. The world has heard about swimmer Michael Phelps's eight gold medals at the Beijing Olympics and the records he's smashed since, but almost as impressive is his typical daily menu. Phelps reports consuming a whopping 12,000 calories every day (six times the requirement of the average adult male). For breakfast, Phelps typically downs three fried-egg sandwiches, a five-egg omelet, a bowl of grits, three slices of French toast, three chocolate-chip pancakes, and two cups of coffee. His usual lunch features one pound of pasta, two ham-and-cheese sandwiches with mayonnaise, and 1,000 calories from energy drinks, and his dinner includes another pound of pasta, a large pizza, and another 1,000 calories from energy drinks.[7] While this diet might kill most of us, it's tough to judge unless we're swimming anything close to Phelps's peak-season range of 50 miles per week.[8]

Big Blues. The world's largest animal (ever!) is the enormous blue whale, averaging lengths of 89 feet for females and 82 feet for males. To wrap your head around those numbers, imagine the length of three school buses or a lineup of more than 25 elephants. The tongue of a blue whale could hold 50 people, and a blue whale spout shoots at least 30 feet when it surfaces for air. The largest of the blue whales have hearts that weigh about 1,000 pounds, as much as a small car, and 14,000 pounds of blood circulating through their bodies. When born, blue whales are already 23 feet long.[9] Although the animals are massive, their population is dwindling. There are probably fewer than 15,000 blue whales in the oceans today, and they are considered an endangered species.[10]

Heating Up. Fire engines can cost from $50,000 to more than $750,000,[11] though their power is even more staggering than their cost. Upon arriving at a house fire, firefighters in an Emergency One (E-One) pumper/tanker truck first employ the 200-foot crosslay hose, which has a diameter of 1.5 inches and can gush 95 gallons of water per minute. For the most serious fires, the deluge gun shoots 1,000 gallons of water per minute, and another type of fire engine, the Pierce ladder truck, brings along a 105-foot ladder to attack multi-story fires.[12] The childhood fascination with big, noisy fire engines can grow up into an adulthood interest in the statistics of fire. The total estimated cost of fire to our society is $165 billion each year, with direct property loss due to fires estimated at $15.5 billion in 2008.[13]

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

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Bag It. Plastic shopping bags were introduced just 25 years ago, but society has gotten hooked, consuming an estimated 500 billion bags annually, or almost 1 million per minute. Single-use bags made of high-density polyethylene are most common, and they remain on the planet for 1,000 years once created. According to the *Wall Street Journal,* the United States alone goes through 100 billion plastic shopping bags every year, requiring about 12 million barrels of oil. Maybe it's time to jump on the reusable bag bandwagon. Each reusable bag has the potential to eliminate an average of 1,000 plastic bags over the course of its use.[14] The catch, of course, is that reusable bags take more energy to create than plastic bags. The U.S. Environmental Protection Agency claims that shoppers must use a typical reusable bag 11 times to make a more positive impact than 11 plastic bags.[15]

THE BIG ONE

BY DAVE CHERNICK, FCAS, MAAA,
KYLE MROTEK, FCAS, MAAA,
AND PAUL ANDERSON, FCAS, MAAA

The Looming Risk of an Earthquake-triggered Mortgage Crisis in California

A major California earthquake could cause tens of billions of dollars in mortgage defaults in San Francisco alone, where subprime exposure is even less than in other parts of the financially troubled state.

One of the scariest aspects of any crisis is not knowing how much worse it can get. The current crisis is no different. The sudden realization of vulnerability can lead to a predilection for imagining worst-case scenarios or a willful ignorance of urgent realities. What's needed instead is a frank accounting of the ongoing risks and well-founded plans to deal with them.

It is in this spirit that we highlight the risk of yet another financial crisis lurking in California that has received precious little attention: A major earthquake would leave many California population centers susceptible to a wave of mortgage defaults rivaling those we've seen to date. Because only 12% of California homeowners carry earthquake insurance and private mortgage insurance does not cover damaged properties, mortgage investors would be left in the rubble holding abandoned, damaged properties and defaulted loans.

A tremor of 7.9 on the Richter scale in San Francisco — the same magnitude as the 1906 San Francisco Earthquake — today could cause $120 billion or more in insured property losses alone.[1]

California Has Unique Vulnerabilities

California is well known for its earthquake-prone population centers, with the San Andreas Fault running much of the length of the state, in addition to an extensive network of other fault lines. But earthquake potential is only the catalyst in this chain reaction of risks.

The estimated property losses from an earthquake of this size would lead to billions more in losses from residential mortgage defaults in San Francisco.[2] The dearth of earthquake insurance coverage creates an immediate possibility of huge losses that aren't insured, and many homeowners may walk away rather than rebuild. We derived this estimate by applying our mortgage performance forecasting model (developed for mortgage-backed security and portfolio valuation) to a database of San-Francisco-area mortgages and publicly available data from sources like the U.S. Census and the U.S. Bureau of Labor Statistics. The model relies on historical performance, loan level underwriting characteristics, and economic forecasts.

Not only does this estimate exclude commercial property loans, business loans, and other credit defaults that could result from earthquake damage, but San Francisco also has even less mortgage default exposure than other earthquake-prone cities. The balance of subprime Alternative A-paper (AH-A) home mortgage loans in San Francisco is estimated to be less than one-fifth that of Los Angeles, and roughly half of San Diego's. These southern California housing markets have also been hit with more dramatic price declines.

In some cases, the mortgage losses would be even greater than the property damage. For example, suppose an earthquake causes $75,000 in structural damage to a $600,000 home. If the homeowner holds a $550,000 mortgage but does not have earthquake coverage, the earthquake would put him underwater on the home and make him much more likely to walk away. But only some of the home's value is recoverable. Mortgage owners are currently experiencing credit losses in excess of 50% of the loan balance when borrowers walk away. So the mortgage owner might face approximately $250,000 in credit losses resulting from $75,000 in property damage.

The potential default losses are in addition to the ongoing stream of defaults driven by the economy. Economists are predicting a second wave of foreclosures — mostly on adjustable-rate mortgages,[3] but with a surprising number of prime mortgages as well, arising from otherwise creditworthy borrowers who have lost their jobs.[4]

California has taken some of the hardest hits from the financial crisis and its ensuing recession. Unemployment rose to 11.9% in July — the state's highest rate since before WWII and the fourth-highest in the nation.[5] California home prices have also declined at a rate more than double the U.S. average.[6] With four of the 10 U.S. cities hit hardest by foreclosures,[7] the state has the second-highest percentage of subprime loans and the highest percentage of Alt-A loans. California also has one of the top ten rates of subprime and Alt-A foreclosures and late payments.[8]

And the damages and foreclosure risk aren't limited to structural damage from a quake itself. Water supplies could be seriously threatened, for example. Most population centers rely on water shipped from other parts of the state using levees that are, in some cases, more than 100 years old. A series of dry years has compromised the state's water supply, but an earthquake could cause major levee failures in some of the state's most important water transportation infrastructure.[9]

Earthquakes Pose a Unique Set of Risks for Mortgages

Many homeowners would not otherwise be at risk for mortgage default, but uninsured earthquake damage would represent an extra-large drop in home values relative to mortgage debts — a key factor in the likelihood of foreclosure. This shake-up in loan-to-value (LTV) ratios could drive many borrowers who are on the edge of default — and even many who seem to be far from it — over the cliff.

Although private mortgage insurance (PMI) typically protects investors against borrower default when the LTV is more than 80%, PMI policies exclude coverage for loans on properties with physical damage arising from earthquakes, among other perils. Thus, mortgage owners could end up bearing significant default risk from earthquakes or other uninsured natural disasters. Also, homeowners with more equity are more likely to buy earthquake coverage, leaving the more leveraged borrowers more likely to walk away.

Earthquakes are unique among natural disasters from the perspective of property insurance for several reasons. Unlike coverage for wind damage from hurricanes, which is required in a typical homeowner policy, mortgage companies don't require earthquake coverage near fault lines. People tend not to voluntarily buy earthquake coverage because it's expensive, it has large mandatory deductibles, and earthquakes often do not factor in a homebuyer's decision-making process. They are not as frequent as hurricanes, and don't occur in distinct locations like tornadoes, so people unknowingly tend to take more risks.

A Perfect Storm

Excessively leveraged borrowers, tight credit, and continuing job losses potentially place California's population centers in the crosshairs of a perfect seismic and financial storm. The solution? Both investors and consumers should seek a better understanding of their individual exposure to earthquake risk. Natural catastrophes have often outstripped the ability of insurers to adequately manage the risk, and in this case a layer of mortgage risk makes the situation more dire. M

California: A State in Crisis

4 of 10
California is home to four of the 10 U.S. cities hit hardest by foreclosures.

top ten
California has one of the top ten rates of subprime foreclosures and late payments.

11.9%
California's unemployment rose to 11.9% in July – the state's highest rate since before WWII.

double
California home prices have declined at a rate more than double the U.S. average.

1 Milliman projection to 2009 based on AIR Worldwide Corporation 2005 damage estimate. http://www.iii.org/media/facts/statsbyissue/earthquakes/
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QUITE THE COMBINATION

HYBRID PRODUCTS OFFER MORE EFFECTIVE SAFETY NET FOR SENIORS

BY CARL FRIEDRICH, FSA, MAAA

From 2000 through the first half of 2009, sales of long-term care (LTC) insurance plunged—a phenomenon that would seem to defy demographic trends that show an increasing number of Americans turning 60 each year. Rate hikes, product uncertainties, and an intractable reluctance by consumers have made LTC insurance a difficult sale. But a number of market and regulatory factors have come together to spur innovation in combination products that pair LTC with an annuity or life insurance. Could this next generation of hybrid products be the solution that consumers and insurers have been seeking?

Insurers have long weighed the pros and cons of the LTC market. While enticed by a rapidly growing senior market that currently numbers around 41 million, insurers continue to worry that providing LTC coverage may result in an unmanageable level of risk. Their main concern stems from the fact that LTC product designs are constrained by regulations that—among other restrictions—bar premiums with scheduled increases beyond age 65. In contrast, expected claim costs increase rapidly by age. Thus, insurers are required to develop level premiums that are anticipated to prefund all future claims of an aging pool of policyholders. Consequently, the annual premiums are well in excess of expected annual claims in early years, and eventually drop below expected claims in later years of a policy. As a result, this typically creates the result for LTC that higher lapse rates actually reduce insurers' profitability, making the product "lapse supported."

Once purchased, LTC insurance tends to grow in importance in the minds of aging policyholders, who feel that the time when they may have to avail themselves of the coverage is nearing. This policyholder loyalty further magnifies the lapse-supported nature of LTC insurance. In addition, the level premium structure with its inherent prefunding of future claims increases the pressure on insurers to meet investment targets. This pricing arrangement works well when interest rates are increasing and in the high single digits, but when investment returns sag, as they have recently, many insurers find that profitability plummets.

Insurers have also overestimated lapse rates, which, as the quality of insurers' products and distribution systems have improved, have decreased from the mid-single digits annually to between 1% and 2%. With larger-than-expected numbers of insured seniors on the books, claims are up and profitability is down.

These disruptive forces have precipitated recent increases in prices for new products being sold today, which in some cases cost as much as 50% more than those issued just five years ago. These higher rate levels, now averaging above $2,000 per year for a typical policy for recent industry sales, have further exacerbated the issue of affordability. Potential buyers have long been leery of the use-it-or-lose-it dilemma inherent in LTC products that by law have no cash value. In addition, a number of companies have had to file for rate increases on in-force policies, making the marketing of new policies more difficult.

Enter Combo Plans

Some of consumers' concerns may be mitigated by the introduction of combination LTC plans that generally rely on an accelerated payment of life or annuity base plan benefits to cover LTC costs, but still have cash value if LTC isn't needed or benefits aren't exhausted.

Virtually all combination LTC plans feature an element of self-insurance in that part of the LTC benefit is paid from either the cash value of the contract, as is the case with an annuity, or as a prepayment of both death proceeds and cash values in a life contract. Once the value of the contract is exhausted, independent LTC benefits are typically continued for a specific number of years. This structure lowers the cost of LTC for buyers who are now self-insuring part of the cost of LTC.

Under annuity-LTC plans, which are likely to have greater market appeal, accelerated benefits derived initially from reductions in the account value are used to provide LTC without assessing surrender charges. This payment stream is typically combined with some form of independent LTC benefits that extend beyond the term supported by the contract's cash value. Charges for the LTC insurance are assessed as level percentages expressed in basis points against the account value. As account values grow, new layers of LTC insurance are purchased with new layers of level charges.

The self-insurance component of the plan can greatly increase the affordability of LTC for consumers. But it is only one aspect of the product's appeal.

The potential market is enormous. If only 1% of the 95 million Americans between the ages of 45 and 70 were to invest $50,000 in a combination LTC-annuity product, the market would be some $47.5 billion.

Tax Advantage of Combo Plans

As buyers weigh the value of purchasing long-term care coverage versus simply letting their money sit in an annuity, insurers may find that the ultimate test of their LTC-annuity combos is in demonstrating that the whole is greater than the sum of its parts. Recent changes in the tax law, which give LTC benefits provided under an annuity tax-free status, may provide the proof they need.

What might the tax change mean to an individual who needs LTC? Consider the situation of a 60-year-old female who deposits $100,000 in an annuity and needs LTC 20 years later.

	Without LTC rider	With LTC rider*
ACCOUNT VALUE (assuming 3.75% annual growth)	$208,815	$189,580
TAXES ON GAIN** (assuming 30% tax rate)	$ 32,645	$ 0
NET BENEFIT AFTER TAXES	$ 176,170	$285,380

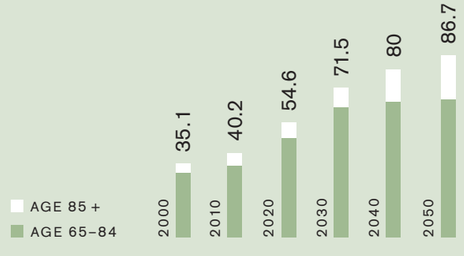
* Rider pays out up to 150% of account value with a cost of 50 basis points per year against cash value.

** Taxes ignore potential benefits of itemized deduction for nonreimbursed LTC medical expenses.

The Growing Market for Combo Products

The Baby Boomer generation is aging, with the U.S. over-65 population estimated to top 85 million by 2050. This growing market segment presents significant new opportunities for combination LTC products.

PROJECTED POPULATION OF THE U.S.: 2000 TO 2050
(IN MILLIONS)



Source: U.S. Census Bureau, 2004. "U.S. Interim Projections by Age, Sex, Race, and Hispanic Origin." http://www.census.gov/ipc/www/usinterimproj/

In 2006, Congress passed the Pension Protection Act, which broke new ground in the annuity market by giving LTC benefits that are integrated into a nonqualified annuity tax-free status, even if a portion of the benefits serves to reduce the account values in the underlying annuity. Effective Jan. 1, 2010, this unprecedented change in the annuity tax code will mean that an insured individual will be able to receive the entire account value of the annuity contract—principal as well as gains that had been formerly taxable—on a tax-free basis when proceeds are paid as qualified LTC benefits.

The change in the tax code could not be more timely. According to the Congressional Budget Office, the annual cost of nursing home care averaged $70,000 in 2004, a figure that is expected to double over 20 years, at which point approximately 67 million Americans will be over the age of 65. At present, only 10% of the target population for whom LTC insurance might be suitable have purchased it, according to reliable estimates.

By affixing LTC to the chassis of an annuity contract, insurers are able to fulfill the dual need of preserving income for individuals who fear they may outlive their assets, or potentially protecting them from the debilitating costs of a long confinement.

At the same time, insurers can enjoy pricing synergies that exist between annuities, whose earnings increase with lower lapse rates, and lapse-supported LTC, the importance of which tends to grow in the minds of insured individuals as they age. By adding the LTC rider, insurers have gained a natural hedge against lapses in their annuity products that typically occur soon after the surrender-charge period ends.

A Ready Market

The potential market is enormous. If only 1% of the 95 million Americans between the ages of 45 and 70 were to invest $50,000 in a combination LTC-annuity product, the market would be some $47.5 billion. A higher penetration rate of 3% of the targeted population with an investment of $100,000 would create a $285 billion market. These numbers may seem fabulous in

Some of consumers' concerns may be mitigated by the introduction of combination LTC plans that generally rely on an accelerated payment of life or annuity base plan benefits to cover LTC costs, but still have cash value if LTC isn't needed or benefits aren't exhausted.

Product Fundamentals

Dozens of product designs are likely to emerge as insurers ramp up their marketing efforts. Most are likely to fall into three basic categories.

TAIL DESIGN

LTC benefits are initially paid as accelerated benefits from the annuity's account value, based on a specified percentage of the account value that existed at the time of the initial claim. Once the account value is depleted, extended independent benefits are paid at the same monthly level for a specific period of time.

For example, a plan design might define accelerated benefits as 2% of the LTC benefit limit payable for 50 or more months with 25 or 50 months of extended benefits.

COINSURANCE DESIGN

Under this design, an insured individual's LTC costs are concurrently paid from the annuity's account value and extended independent insurance benefits at certain percentages until the LTC benefit limit is exhausted.

For example, if the lifetime LTC benefit limit is set at 100% of the account value at the start of the claim and 80% of the benefits are paid from the account value and 20% from independent benefits, 1/48 of the account value at the time of initial claim could be payable for 60 or more months. Another option might be to pay 1/24 of the LTC benefit limit for 30 or more months.

POOL DESIGN

Benefit payments are based on a maximum LTC pool, which consists of the annuity's account value and a net amount at risk to the insurance company. As the account value grows over time, the net amount of risk or independent LTC benefits would decline. Charges for the LTC benefit are assessed per dollar of net amount at risk. Benefits may reduce the account value on a dollar-for-dollar basis until the account value is depleted, or may reduce account values and net amounts at risk on a pro-rata basis.

For example, the maximum LTC pool amount could be set equal to 300% of a $100,000 account value at issue. Two percent of the maximum LTC pool of $300,000 could then be payable for 50 months or until the account value is exhausted if later. (Note that remaining account values may continue to grow with interest while on claim.)

Combo Product Timeline

Combination products have evolved against a backdrop of gradually changing market offerings and regulatory developments. The following timeline tracks the development of both long-term care insurance and LTC combination products.

1970s

Early generation standalone nursing-home-only plans are introduced, following a hospital stay (three-day minimum) and requiring a "medical necessity" trigger.

1980s

The prior hospital stay gatekeeper is removed and there is a change to "medically necessary." Some home-healthcare-only plans are introduced, and the mandatory inflation protection offer and nonforfeiture offer appear.

A number of companies add accelerated benefits for LTC to their life products.

1990s

EARLY 1990s: Comprehensive policies with activities of daily living (ADLs) and cognitive impairment (CI) triggers are available. Assisted-living facilities are added as eligible situs of care.

MID-1990s: CNA offers the independent LTC benefit (which does not accelerate life policy benefits) as a rider to a universal life product.

LATE 1990s: Federally tax-qualified policies are defined with favorable tax consequences. The industry develops improved underwriting, and care management techniques are developed to assist the insured in securing quality care and controlling claim costs.

LATE 1990s: Lincoln and Golden Rule market the first of the second-generation plans that couple accelerated benefit riders and extension of benefit riders together with a life product.

1999: Guaranty Life offers an annuity/LTC combo package that pays independent LTC benefits after acceleration of account values. A number of carriers subsequently follow suit and provide enhanced payouts on immediate annuities when the annuitant requires LTC.

1999–EARLY 2000s: Some annuities offer periodic payouts of cash values as "accelerated, surrender-charge-free" LTC payments.

2000s

EARLY 2000s: The federal employee program is rolled out with federal support and advertising. Hybrid products continue to evolve. The rate stability provisions in the National Association of Insurance Commissioners Model Law are developed to strengthen pricing in the industry and minimize concerns about potential rate increases. Revised reserve standards are imposed on the industry and regulators institute modified RBC capital requirement rules.

2000s: Combination plan product designs continue to evolve. Joint life versions are available, as are single life coverages. Single-premium and level-premium variations emerge. Underwriting standards evolve, as well.

2006: The Pension Protection Act (PPA) is passed. The new legislation leads to additional life combination market entries. The PPA establishes the first tax rules pertaining to annuity combos; this prompts a few annuity combo market entries.

2010s

FUTURE: The delayed effective date of Jan. 1, 2010, for many of the Pension Protection Act's key provisions is triggering additional life combo product development for rollouts in 2010.

some respects, but considering the fact that some $750 billion is already invested in nonqualified annuities that could serve as a source of funding for combination LTC-annuity products if the appropriate mechanism were to be developed, these off-the-cuff estimates may not seem unreasonable.

These asset-based combination products are not without their challenges, however.

The regulations that govern LTC and annuity products have grown up separately, and tend to address each product individually. State regulators have at times found it difficult to determine how some of these innovative products will fit within current insurance regulations.

Insurers will also need to resolve the strategic differences between LTC underwriting, which requires extensive medical information, and annuities underwriting, which requires answers to only a few financial questions. Finding a common approach that satisfies an insurer's underwriting needs while still accommodating a sales force's need to issue policies quickly and efficiently may be tricky, but it's not impossible. For instance, insurers may be able to guard against antiselection by adopting a moderate standard of underwriting that relies on a set of questions related to preexisting conditions, complemented by noninvasive techniques such as telephonic interviews with tests for cognitive abilities and prescription drug database reviews, all of which can be administered within short timeframes.

This streamlined approach, however, does not address the seldom-discussed issue of gender bias, which may pose an even greater challenge to the alignment of risk with LTC pricing. LTC rates traditionally have been developed on a unisex basis, not because of any regulatory requirement but rather as a matter of marketing. The present approach favors females whose claim costs over the life of a book of business are much higher than those for males. This cost difference stems partly from the fact that females typically live longer, which increases the likelihood that they will reach an age where LTC is needed, and partly from their higher utilization rates at some ages.

By affixing LTC to the chassis of an annuity contract, insurers are able to fulfill the dual need of preserving income for individuals who fear they may outlive their assets, or potentially protecting them from the debilitating costs of a long confinement.

But even here, there are techniques that can address this pricing risk. For example, substantial spousal discounts could promote a 50-50 spread of males and females, and mitigate the risk of underpricing associated with insuring a higher proportion of females. A large spousal discount—perhaps in the range of 25% to 30% or more—would also make sense because the presence of a mate could potentially delay the need for formal LTC.

Finally, for insurers that have not developed a strong expertise in LTC, the prospect of taking on a risk whose costs are closely tied to healthcare can seem somewhat daunting. Healthcare costs, with their potentially high volatility, raise the possibility of incurring substantial liabilities that stem from the promise to pay for LTC costs at some indeterminate time far into the future.

But experience shows that LTC claim costs per policy in force, year by year, have generally been in line with pricing assumptions, because virtually all standalone and hybrid LTC products cap benefits at a daily or monthly limit. If the rate of inflation for LTC services per day or month unexpectedly jumps, the increase would not have a material impact on insurers' results.

Still, insurers cannot go blindly into the LTC arena. It is important to have a firm handle on the components of cost. Milliman has recently updated its LTC claims cost database, which now includes more than $6 billion in industry claims, and those familiar with this data can provide knowledgeable perspectives regarding cost differentials.

Financial modeling can help insurers understand what happens under various scenarios. How are insurer returns affected by a 20% increase in claim costs? What would be the impact of a 10% decrease in lapse rates or a long-term decrease in interest rates? Past experience has shown that LTC insurers' results suffered more from a drop in interest rates and higher-than-expected persistency than from rising healthcare costs.

Combination LTC-annuity contracts are indeed complicated products that will require training of a distribution force that can clearly and accurately communicate the benefits and limitations of these products. They will also call for the development of underwriting systems that reduce risk without sacrificing speed or inhibiting the introduction of new product designs geared to the needs of a demanding market. If ever there was a time for innovation in asset-backed products, it is now. With the right direction, such products can be a boon to both insurers and consumers. **M**

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GASB 45

A WAKE-UP CALL FOR PUBLIC PLAN SPONSORS

BY BECKY SIELMAN, FSA, MAAA, EA,
ROSCOE HAYNES, FSA, MAAA, EA, AND STEVE MAY

On its face, complying with the Governmental Accounting Standards Board's Statement 45 (GASB 45) is not that difficult. Employers in the public sector must obtain an actuarial valuation of their other-than-pension postemployment benefits (OPEBs) at two- or three-year intervals, depending on the size of the plan. There's no *requirement* to prefund the benefits or take action of any kind.

But clearly, the *intent* of GASB 45 is to get employers thinking about the size of their OPEB liability — and what can be done to manage it. The most significant OPEB is retiree medical benefits. In creating the disclosure requirements, GASB wanted to address a growing concern over the potential magnitude of employer obligations. With an aging population and escalating medical costs, the old "pay-as-you-go" approach will leave taxpayers across the country on the hook for astronomical benefits costs.

GASB 45 amounts to a wake-up call for public plan sponsors. It's a warning signal to pay close attention to retiree medical benefits, a signal that was never there before in the public employer arena. Plan sponsors need to be aware of the huge cost of these benefits — not only what the cost is this year, but where the cost is going in the future. In almost every valuation we've done, the annual bill for retiree medical benefits is projected to double in the next 10 years; in some cases, it will triple. Even if plan sponsors didn't have GASB 45 requiring them to measure and disclose OPEB liabilities, for cash flow purposes they would certainly want to anticipate the impending climb in retiree medical expenses.

Penny Wise, Pound Foolish

Unfortunately, many public plan sponsors seem to have not fully understood the implications of GASB 45. We've encountered a number of situations where the sole concern is to be able to check off the item that says, "I've supplied GASB 45 information to my auditor." Employers with this mindset tend to view the cost of complying with GASB 45 as simply the cost of hiring an actuary to do the valuation, without much regard for managing the liability.

But ignoring liabilities doesn't make them go away. Even if a public organization is not going to prefund the benefits, or if GASB 45 is just an exercise in completing an audit, the retiree medical, dental, and life insurance coverages for retirees are still important benefits that should not be overlooked. In the process

of complying with GASB 45, public plan sponsors enlist an actuary from a firm like Milliman to collect important information about these benefits. The organization is thus in a great position to use that data to get a better handle on what the benefits cost and whether the level of provided benefits is sustainable over the long term. Accurate information is the basis for planning how to pay the bills as they come due down the road. A number of specific opportunities exist for public plan sponsors to improve their situation by working with experienced actuaries. It's a modest investment considering what's at stake: millions, hundreds of millions, or even billions of dollars of retiree medical obligations.

Setting Appropriate Assumptions

Accuracy is the chief reason why it is important to have an experienced actuary involved in GASB 45 work. A big part of the process is setting appropriate assumptions. An actuary specializing in the public sector will know from experience what makes public sector employee groups different from those in the private sector and will be able to choose assumptions accordingly.

For example, safety officers, like police and firemen, typically have little to no turnover and tend to stay in the job for an entire career. Public pension actuaries know this and are able to set appropriate assumptions for the employee population. Consider mortality—teachers tend to live longer than just about any other group of employees. There are numerous similar nuances that are not commonly known by actuaries without extensive experience in the public sector. That's why specialized experience in the public sector is so important in performing GASB 45 valuations.

Public plan sponsors should be able to answer detailed questions about their OPEB liability, such as the following:

- How does the discount rate affect our numbers?
- How does our annual required contribution compare to our pay-as-you-go cost?
- Is a funded or unfunded plan appropriate for us?
- What if future medical inflation is higher—or lower—than expected?
- What will our numbers look like three, five, and 10 years down the road?
- How will the ratings agencies react to our numbers?
- What factors are driving our numbers—Usage by certain departments? Our decision to offer particular benefits? The cost of our health and dental plans? Our ability—or lack thereof—to control future cost increases?
- Is the current level of benefits sustainable? Can we afford to stay on our current path?

Another example is the work health actuaries put into analyzing how medical costs vary by age. For larger employers with experience-rated benefits, best practices should include customizing this "age curve," taking into account the specific demographic profile of their employee groups and the benefits provided. Each client is different, the benefits are different, and the demographic profile is different. These differences will show up on the bottom line, as the calculation of liabilities using a customized age curve could be 25% or 30% different from the result obtained using a generic age curve.

That can make a big difference in dollar terms. Recently, we helped a town in Connecticut cut its liability by $3 million just by using customized assumptions, rather than generic New England or East Coast assumptions. Of course, it's possible that the more accurate assumptions could have increased the liability by a similar amount. The point is that it's important to have the *right* number.

Beyond the Initial Set of Numbers

The moment when the actuary delivers the initial numbers is pivotal in the process. It's important to understand that the first set of numbers is not the endpoint. Plan sponsors who take GASB 45 seriously are more likely to view the presentation of the valuation report as the beginning of a meaningful discussion about the cost of the benefits that will be provided to future retirees. In our experience, when organizations receive the initial liability calculation, we start to hear from finance directors, personnel directors, and finance committee members. They ask a host of questions. Some are as basic as, "What can we do to make these numbers smaller?" Others are more scenario-driven: "What if we used different assumptions, along with the following changes in our benefit plan…?" Qualified public pension and health actuaries will be able to answer these questions and others.

In many cases, prefunding future benefits using appropriate investment vehicles can help plan sponsors more effectively finance the benefits. We have written about these options in some detail in other publications.[1]

Learn From Pension Plan Designs

Historically, many public employers have been generous when it comes to retiree medical benefits. For example, one large employer provides essentially free lifetime family medical and dental benefits for anyone who retires with just 10 years of service. This is a very expensive benefit to provide to employees who may have devoted just a fraction of their working lifetime to the employer. Taking a page from the design of traditional pension plans, public employers might consider reshaping their retiree medical benefits to be more in line with the philosophy underpinning pension benefits.

For instance, in most pension plans the amount of benefit increases in proportion to time on the job. Translating this philosophy into the realm of retiree medical benefits, instead of providing full coverage for all retirees, a pension-like strategy might begin with retirees who have fewer than 15 years of service paying for most or all of their premiums, while those who have longer service pay a lower portion of their premiums.

Also, recipients of traditional pension benefits don't get more money just because they are married. But a lot of public plans provide retiree medical benefits for employees *and* their spouses and dependents. As a result, people who are married with children get at least twice as much of a benefit as people who are single. That's a well-intentioned, but costly, provision. To keep their benefits programs solvent, today's employers may want to move in the direction of keeping spousal coverage available, but having the retiree pay part or all of the premium for the extra benefits.

Finally, most public pension plans require employees to contribute a portion of their earnings toward the cost of the benefits, so that the overall cost is shared between workers and employers. This concept can be extended to retiree medical benefits as well. Every 1% of pay that employees contribute to an OPEB trust means 1% of pay less that the employer (and taxpayers) will have to pay.

Modify the Medical Plan

Faced with rising bills for medical and dental benefits, many employers have already been looking at changes that will cut the cost of benefits for both employees and retirees. These include increasing copays, offering managed care plans (HMOs) instead of indemnity plans (PPOs), or implementing consumer-driven health plans. The savings that result from these changes may be relatively modest, but anything that lowers the bill for medical benefits will lower the liability for OPEBs as well. There are other options that employers should consider when looking for ways to bring down their GASB 45 liability.

For instance, one significant driver of GASB 45 liabilities is the assumption about future medical inflation, also known as the "trend rate." Implementing disease management or wellness programs can make a measurable difference in controlling costs. Plan sponsors who take such steps may be able to lower the trend rate, which in turn will lower the liability for OPEB benefits.

Larger municipalities typically self-insure for most medical benefits, but often provide a Medicare supplement policy on a fully insured basis for their older retirees who are covered by Medicare. The employers may be paying an inflated premium for this coverage that hasn't been checked against the market. Or they may be located in a market that doesn't have many competitive options, which keeps the price high. In these cases, it may be beneficial to change the funding arrangement to a self-insured basis. This can substantially cut costs because the employer is no longer paying premium taxes and has more control over claims margins and reserves.

Another option for chipping away at the size of the GASB 45 liability is an employer group waiver plan (EGWP). EGWPs are insurance products that build in the federal government's subsidy for prescription drugs under Medicare Part D. If the subsidy is built into the employer's premium via an EGWP, employers can receive a double benefit in the form of lower premiums *and* a reduction in the GASB 45 liability. For example, one large employer reduced its premium by $1 per member per month by moving to an EGWP—not much to crow about all by itself. But the move reduced its OPEB liability by $15 million—significant savings by any measure.

Purpose of Benefits

In the immediate aftermath of GASB 45, there were reports of a few towns that decided to terminate their retiree benefits programs. We seriously doubt whether that will be the prevailing trend. Historically, public sector employers have had a strong commitment to taking care of their employees and retirees. They don't want to end benefits, but they will need to answer the wake-up call that GASB 45 represents.

In today's environment, plan sponsors have no alternative: They must prudently look at how to control the cost of benefits. If an employer decides that existing programs are sustainable, it will also need to know its options for managing them as efficiently as possible. Alternatively, a plan sponsor may conclude that it has to reduce the level of benefits; in that case, the sponsor will need to be able to explain to constituents the facts and analysis that guided the decision.

When reviewing their programs, employers need to balance the cost of the benefits with their purpose—the reason they offer employee benefits in the first place, which is to attract and retain quality workers. GASB 45 encourages greater discipline in making retiree health benefits more manageable and cost effective, and helping employers fulfill longstanding obligations—provided they don't hit the snooze button. **M**

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JUST THE FACTS

THE HIDDEN CAUSE AND EFFECT OF HEALTHCARE REFORM; TALES OF EVIDENCE AND UNINTENDED CONSEQUENCES

As the healthcare reform debate has raged on, with claims and counterclaims, solutions and refutations, Milliman has delivered a series of briefing papers providing data-driven analysis of healthcare and reform concepts (see them at http://tinyurl.com/yzgxavs). This research explains connections and illuminates the hidden cause-and-effect dynamics at work. This includes an examination of various unintended consequences that may complicate reform efforts, including cost implications and changes to care delivery. What follows are short perspectives on this research by Milliman healthcare experts.

UNDERSTANDING HEALTHCARE PLAN COSTS AND COMPLEXITIES

BY THOMAS D. SNOOK, RONALD H. HARRIS, AND ROBERT H. DOBSON

Health benefit plans are complex because they need to address various dynamics, including the need for true insurance against catastrophic events, the balance between premium levels and out-of-pocket cost-sharing costs, and the role of healthcare as a tax-deductible employee benefit in the U.S. system.

Take, for instance, the disparity in costs by location in the United States. According to the Milliman Medical Index™ (MMI) (http://tinyurl.com/ygvo8f9), which calculates the different costs for a typical family of four living in 14 different major metropolitan areas, this year the average cost for a family living in Miami has exceeded $20,000 ($20,282) while the cost of care for a family living in Phoenix is still below $15,000 ($14,857). The extent of regional cost disparity has often been cited as a major contributor to the relatively high overall cost of healthcare in the United States.

To further illustrate the disparity of health plan costs, we can consider the cost relativities among five different health plans, looking both at a typical member (or cross-section) of the labor force in Manhattan, N.Y., and a typical member of the labor force in Manhattan, Kansas.

The difference in per-member per-month (PMPM) cost is attributable to differences in both utilization levels and reimbursement rates. Contributors to differences in utilization levels include physician practice patterns, as well as differences in population health status. Demographics do not play a role in the differences in the costs shown in this table, because the authors' analysis is based on normative demographic composition. Reimbursement rate differences reflect the differences in payment levels from health plans, which can be due to regional variation in the general cost of doing business, differing labor costs, local regulations regarding hospital staffing levels and institutional resource development, competitive dynamics, or other reasons.

COMPARISON OF BENEFIT PLANS BY GEOGRAPHIC LOCATION (MEASURE PMPM)

	MANHATTAN, NY	MANHATTAN, KS
MMI PPO*	$319	$245
Alternate PPO	$252	$185
HMO-style Plan	$370	$285
Popular FEHBP** Plan	$330	$254
HDHP***	$172	$122

The regional question is one of many important variables. In any plan, there are at least five different variables at work—a person's health, benefit design, and how it affects selection and utilization, provider choice and then, of course, the final cost. These variables can work in either similar or opposing directions, which is why oversimplifying a discussion of how to reform healthcare can be perilous. **M**

➤ *Read the full paper at http://tinyurl.com/yj9oy7b*

CHANGING EXPECTATIONS IN HEALTHCARE

BY JON SHREVE

While there is widespread agreement over certain health reform goals—increased access, improved quality, and reduced costs—there is no such agreement when it comes to how we specifically accomplish these goals. If comprehensive healthcare reform is to occur, it should start with a clarification of the fundamental expectations for those involved in healthcare, including providers, payors, and patients. These expectations might be stated as follows:

1. We expect every individual to obtain health insurance.
2. We expect healthcare providers to align health practices with evidence-based medicine, and measure and report outcomes.
3. We expect payors to develop incentives that reward outcomes rather than simply paying for procedures.

The conventional wisdom holds that barriers such as pricing and underwriting restrictions account for the large number of uninsured Americans; however, even free expansions of Medicaid have often experienced uptake rates of 60% or less. The single most important factor in up-take rates for reform enacted in Massachusetts—where the number of people without health insurance decreased by 342,000 in the first year of the legislation—was widespread acceptance of the expectation that every individual have insurance.

Among providers, evidence-based medicine is central to improving quality, as it will help address issues of inconsistent care

* PPO: Preferred provider organization, the most common type of employer-sponsored health plan.
** FEHBP: Federal Employee Health Benefit Program, which offers health plans to federal employees.
*** HDHP: High-deductible health plan.

and inappropriate care, which lead to contradictory and often adverse results as well as higher costs.

The current fee-for-services system offers little or no accountability for performance. With healthcare costs comprising 16% of GDP and projected to grow to 20% in 10 years, the basis for paying for healthcare must shift to one that rewards healthy outcomes and provides financial incentives for following evidence-based medical practices. M

➤ *Read the full paper at http://tinyurl.com/yh7bs9v*

YOUNG INVINCIBLE PROVISION POINTS TO QUESTIONS ABOUT COST AND SUSTAINABILITY

BY THOMAS D. SNOOK

In Senator Max Baucus's *Framework for Comprehensive Health Reform,* he brought to the public eye a demographic that actuaries have been keeping an eye on for some time: "young invincibles"—the healthier, younger people that have typically not purchased coverage in the voluntary market. While the concept of a young invincibles policy originates from practical concerns, it also has cost consequences, especially if new rating rules suggested in various healthcare reform bills are enacted. The people most likely to be attracted to young invincible policies—obviously the young and healthy—are precisely the kind of risk profiles that can offset the costs posed by older and/or less healthy individuals under community rating. M

➤ *Read the full paper at http://tinyurl.com/yfphrqp*

KEY CONSIDERATIONS IN UNDERSTANDING THE CO-OP AS AN ALTERNATIVE TO THE PUBLIC PLAN

BY JIM O'CONNOR

If healthcare co-ops emphasize integration and coordination of care, and are successful at lowering utilization levels through management of the care provided, they should be in a position to lower—or at least stabilize—premiums accordingly. This is conditioned, of course, on good business management practices being followed, a reasonable cross-section of risks maintained, and realistic regulatory requirements applied consistently across all competitors.

For a co-op to succeed with these objectives, it will have to operate on a level playing field with other insurance entities, subject to the same rating restrictions, reimbursement rates, and regulatory requirements. M

➤ *Read the full interview with Jim O'Connor at http://tinyurl.com/yhqfrzw*

THE SHORT-TERM COST CHALLENGES OF EXPANDING COVERAGE TO THE UNINSURED

BY ROB DAMLER

A relatively new Medicaid expansion program in Indiana is now offering experience data that is meaningful in the context of healthcare reform. The first year of this voluntary program revealed certain behaviors by uninsured populations as they acquired coverage. Utilization levels for these populations were higher than average, and in many cases early adopters were also among the sickest and most costly, with healthier and less costly individuals joining later. Indiana's experience reveals important findings about various aspects of antiselection, which are the results that occur from the financial behavior of the highest-risk, most expensive people in seeking healthcare coverage that is available to them.

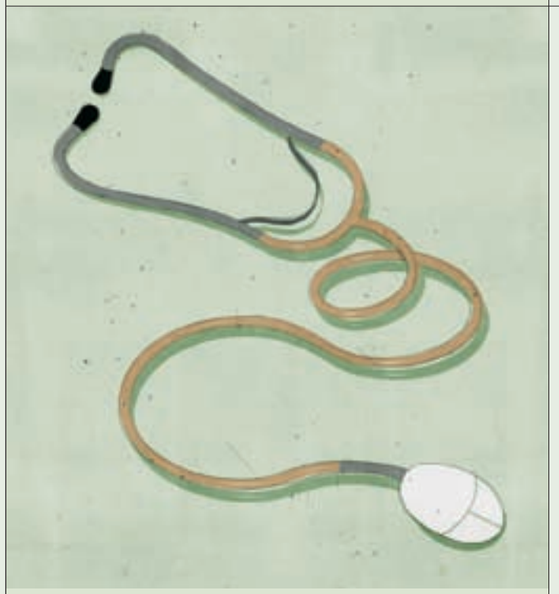
The earlier enrollees in the Healthy Indiana Program included those with serious chronic conditions, individuals with immediate near-term medical treatment needs, and those with pent-up demand for services that had been deferred for financial and other reasons. The result? Higher initial costs and a more expensive insurance pool at the outset.

These results offer lessons for nationwide attempts to cover the uninsured, especially for any attempts that pursue such ends on a voluntary basis. M

➤ *Read the full paper at http://tinyurl.com/mwoas7*

REGIONAL DATA EXCHANGES UNLOCK POTENTIAL OF ELECTRONIC HEALTH RECORDS

BY RICH MOYER AND PAUL LEONARDO



The American Recovery and Reinvestment act sets aside billions of dollars for electronic health records (EHRs). While this funding may help with the adoption of EHRs for many providers, there is an important piece of the eventual health IT infrastructure that has not yet received much attention: regional data sharing that can unify healthcare on a community level, provide quality reporting for consumers, and power a more transparent system.

Community-based data-sharing initiatives in Minnesota, Massachusetts, Oregon, Wisconsin, and Washington (commonly referred to as chartered value exchanges or CVEs) have already shown, at least using administrative data, that it is possible to bring stakeholders to the table, get appropriate infrastructure in place, and begin using community health data to improve quality and transparency. These organizations may serve as models or building blocks for more meaningful use of EHR data nationally and how they can help prevent a kind of health IT Tower of Babel.

Making decisions on a national level will naturally emphasize conditions that are, on average, most important nationally. CVEs can place additional emphasis on medical matters that are of concern to regions, collecting more data, performing more detailed analyses, and delivering more relevant results. M

➤ *Read the full paper at http://tinyurl.com/yks76uc*

RETOOLING MEDICAL PROFESSIONAL LIABILITY

BY CHAD C. KARLS

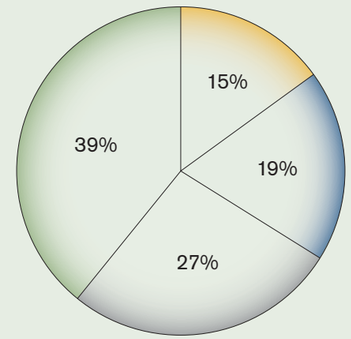
The nationwide healthcare reform discussion may offer an opportunity to revisit the way the United States adjudicates claims of medical negligence. The current medical professional liability (MPL) environment is both adversarial and wasteful, and often does not help those who have suffered from negligence.

According to a Milliman analysis of more than 30 years of MPL insurance industry data, as reported to state insurance departments in annual financial statements, the distribution of how premiums are spent in the current tort system of adjudicating claims breaks down as follows:

- 27% is for the insurance industry's claims management costs, which include:
  - 22% for defense counsel, expert witnesses, litigation, technology fees, and other court costs
  - 5% for insurance company oversight of claims
- 15% is spent on insurance company overhead and expenses (e.g., agent commissions, state premium taxes, etc.)
- 19% pays for the claimant's (plaintiff's) attorney

That leaves 39% for final disbursement to the claimant when the entire adjudication process has finally reached its conclusion three-and-a-half to five or more years after the original incident.

MEDICAL MALPRACTICE COSTS



15% INSURANCE INDUSTRY OVERHEAD AND EXPENSES
19% INDUSTRY MANAGEMENT COSTS
27% CLAIMANT ATTORNEY FEES
39% FINAL DISTRIBUTION TO CLAIMANTS

There are a number of alternatives to the current system now under consideration, including caps on damages, special injury funds, medical or health courts, establishing clinical guidelines, and no-fault insurance. The best solution is most likely a process that does not lock every claim into a pitched legal battle, but which can adapt nimbly and respond appropriately in the wake of adverse medical incidents. **M**

➤ *Read the full paper at http://tinyurl.com/yzsx8po*

ADVERSE SELECTION AND THE INDIVIDUAL MANDATE

BY THOMAS D. SNOOK AND RONALD G. HARRIS

While nearly everyone can agree about a goal to improve access to healthcare and health insurance, there may be unintended consequences resulting from proposed changes that would move the United States away from a voluntary system of obtaining health insurance through employer plans or in the health insurance market. These consequences should be weighed carefully to ensure that the system operates fairly and sustainably in the post-reform environment. Most importantly, if the mandate to maintain insurance coverage is not strong and effective and cannot prevent adverse selection, and if certain additional provisions or restrictions accompany a weak mandate, premium rate levels are likely to escalate significantly. This could create a selection spiral that potentially results in an increase in the total number of uninsureds.

Adverse selection is the natural process of individuals making insurance purchasing decisions that reflect their own personal circumstances and healthcare needs and desires. Insurers have addressed adverse selection by developing time-tested underwriting and rate-structuring techniques for mitigating and managing the resulting healthcare risks and costs.

Most reform proposals are predicated on the ability to prevent individuals from opting out of buying health insurance. If you remove the ability to opt out, the thinking goes, you no longer need the rating and underwriting techniques that were developed to combat adverse selection. This is not to say that adverse selection entirely goes away in the proposed new paradigm. Current proposals offer several benefit thresholds. As people choose among "platinum," "gold," "silver," and "bronze" plans, there will be adverse selection implications. But an individual mandate theoretically narrows the options and rules out not participating.

"Theoretically" is of course the key word. Can a mandate incentivize 100% coverage? Can it come close? If it fails to do so, what happens to the selection dynamics, and in turn, what do those selection dynamics do to the cost and availability of health insurance? **M**

➤ *Read the full paper at http://tinyurl.com/ylxf89e*

NO ROOM TO STAND: ANALYZING THE "CADILLAC" TAX

BY ROBERT H. DOBSON

The idea of taxing so-called Cadillac plans may sound reasonable at first. But the actuarial reality of a tax indexed to a specific dollar-amount ceiling is that it would likely affect others with less rich benefits. Whether someone hits the ceiling is not so much driven by benefit richness as it is by age, gender, profession, health status, and the geography of the covered population.

Consider, for example, how age and gender affect plan cost. Assuming a similar employer-sponsored PPO plan, the national average per-member per-month (PMPM) cost this year for an age-30 male is $155 per month – less than $2,000 per year. For an age-60 female, however, the PMPM is $717 – or $8,604 annually, which exceeds the excise tax threshold or ceiling.

As suggested elsewhere in other Milliman research, the working definition of "actuarial value" that has been proposed has a number of problems or limitations (go to *tinyurl.com/yj9oy7b*). Here, then, is another: Will this reform potentially install both a ceiling and a floor without leaving room to even stand up? The ceiling is based on fixed dollar amounts, while the floor is based on specified "actuarial values."

For the market to perform effectively, any threshold should be determined not by crude, total-dollar limits but rather by a working definition of "actuarial value" that can accurately serve to measure the levels for both a floor and a ceiling. **M**

➤ *Read the full paper at http://tinyurl.com/yf4fqnk*

THE CONVERGENCE OF HEALTHCARE QUALITY AND EFFICIENCY

BY HELEN BLUMEN AND LYNN NEMICCOLO

The United States spends more than $600 billion every year on healthcare that is essentially wasteful. What does that mean? We analyzed the relationship between healthcare quality and efficiency in the delivery of care. Throughout the country, different practitioners recommend different types of care and different quantities of care, and these different recommendations are important drivers of unnecessary variations in delivery of healthcare service. These variations can lead to inferior outcomes and higher-than-necessary costs. Setting standards and using them as a means to reduce variation is one of the best opportunities today for the convergence of higher quality and greater efficiency in our medical system, goals that traditionally have been viewed as mutually exclusive.

By bringing evidence-based guidelines to the bedside, electronic health records hold the potential to improve physician decision making and thereby reduce unfounded variations in care. But they are only part of what should be the larger goal: an automated engine of quality and efficiency that can minimize disparities in care across the entire U.S. system. It will not be easy. Creating this engine will require advancements in the implementation of available technology, refocus of the underlying drivers of healthcare financing, and the empowerment of physicians to deliver care securely when following best medical practices. **M**

➤ *Read the full report at http://tinyurl.com/yk4dyna*

INSIDE GERMANY'S HEALTHCARE SYSTEM

BY AXEL MEDER

The healthcare system in Germany is more than 150 years old, and has remained viable through economic ups and downs. It's a hybrid system, funded through both public and private entities. Most of the population is covered through the public system. But those who are self-employed or who earn more than 4,050 Euros per month may purchase private health insurance coverage.

In the German healthcare system, coverage is mandatory. All citizens can see a physician or use a service as they see fit, regardless of whether they are covered by public or private insurance. It is essentially a one-tier system. About 90% of the German population is covered by the public healthcare system, with the remaining 10% covered privately. Private insurance must provide a minimum level of coverage and it also allows people to purchase additional benefits, like a single-bed hospital room, consultations with the chief doctors, and upgraded benefits for prescription drugs. But all patients have access to essentially the same treatments and options, although there are physicians and clinicians who offer their services to private patients only. There is no obligation for higher-earning people to opt out of the public system–private insurance is entirely voluntary.

Financing for public health insurance is pay as you go. The premium one pays depends upon income. This year, the rate is 15.5% of gross income up to a maximum of 3,675 Euros per month. The employee pays 8.2% and the employer pays 7.3%. When a person is young, a lifelong aging reserve is added to his or her premium and is invested in an interest-bearing account. It must earn 3.5%, but often earns more. In this way, when the risk-based premium is higher later in life, the invested amounts can offset what might otherwise be an unaffordable premium, so coverage can continue. The aging reserves are tax-privileged for policy holders and insureds, and they can be used only for this purpose.

Everyone in Germany has to be covered, either through public or private insurance, so a person cannot lose coverage. People always have the right to cancel their policy and choose a different one. Companies have the right to cancel the policy only in the first three years. The private system tends to be more attractive for younger people, because of lower premiums and the reserve account. When someone is around age 45, the premiums in the private system may be higher than in the public system, so private insurance becomes less attractive and only a few people change from public to private insurance. **M**

➤ *Read the full interview with Axel Meder at http://tinyurl.com/yhjjtmd*

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