A MILLIMAN PUBLICATION
ISSUE NO. 4
SPRING 2007

insight

Sick Days

A HUMAN CAPITAL PERSPECTIVE ON PANDEMIC INFLUENZA

P. 4

CONTENTS

Letter from Milliman CEO Pat Grannan

I am extremely proud of what my colleagues at Milliman do every day. Their work helps society manage and improve the mechanisms for protecting individuals' financial well-being through retirement funding systems, insurance, and healthcare financing systems. The articles in this issue of *Insight* offer some great examples of how our consultants are helping to improve the financial lives of the larger population.

Unfortunately, the portrayal of people in the financial industry in TV shows and other fiction, as well as in news stories, tends to give a very distorted impression. The typecast depicts negative and unethical behavior. This is unfortunate, since the vast majority of the clients and others I've encountered in my working life are people of high integrity. Yes, they generally make a nice living, but they do so by performing work that is valuable to society.

Enough of the soapbox. Enjoy the articles!

Pat Grannan

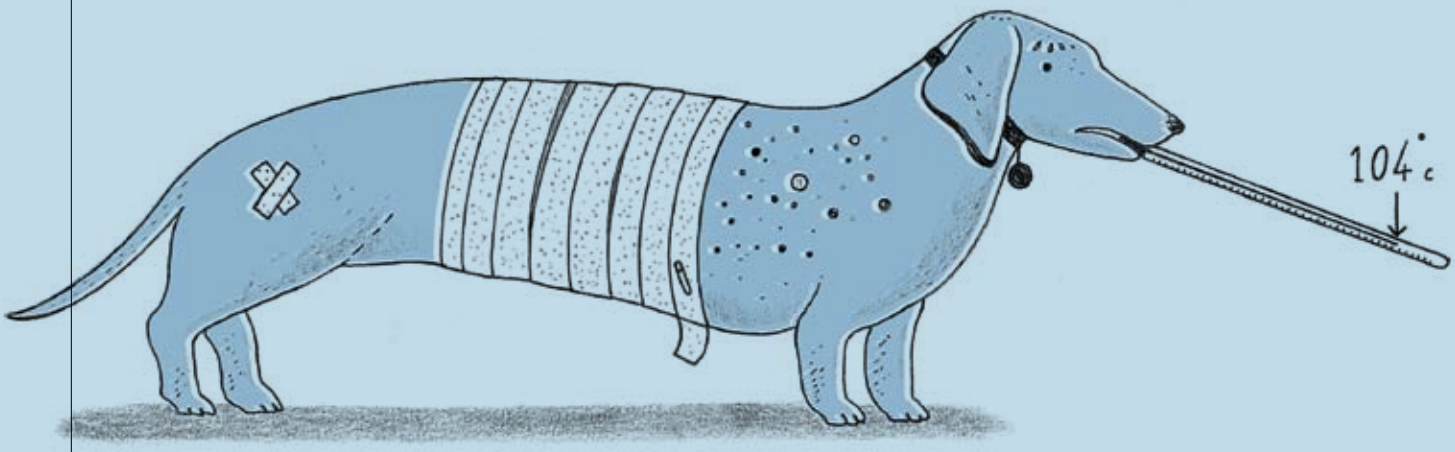
PATRICK GRANNAN
Milliman Chief Executive Officer

BY THE NUMBERS...

Pssst... Do Ya Wanna Buy an X-ray? Although identity theft has leveled off and actually dropped by 12% in the United States last year,[1] it was still the most common complaint reported to the Federal Trade Commission (FTC), responsible for 36% of complaints received in 2006.[2] But medical identity theft is still a real danger. FTC survey data show that more than 250,000 people were victims of this type of fraud recently. Stolen medical records can bring a price of up to $60 each on the black market, according to Pam Dixon of the World Privacy Forum.[3]

The Cost of Coffee. Personal savings rates are at their lowest level in 70 years, and the rising cost of consumer products may be partly to blame. A café latte from a major chain can cost $4 or more, and a consumer who indulges four times a week will spend $800 a year on his caffeine habit.[4] According to one estimate, by the time an unroasted bean from Ethiopia becomes a fancy cappuccino drink in the West End of London, the price of coffee has increased by about 7,000%.[5]

Are the Baby Boomers Ready to Retire? It began in 1946 with 3.4 million children born in one year, and by the time the Baby Boom ended in 1964, 76 million people had been added to the U.S. population.[6] In 2006, the first Boomers turned 60, and even though an Associated Press survey reported that a large percentage of Boomers expect to retire at about age 63, it remains to be seen exactly what "retirement" will mean for this huge demographic bloc. An estimated 25 million Boomers could soon be ready to retire, and by 2020, one-fifth of all workers in the United States will have reached "normal" retirement age. But how many will actually exit the nation's workforce? The AARP reports that workers in the over-55 age group now make up 14% of the U.S. workforce. The number of older workers will rise to 19% in six years, with 10 million more Boomers over 55 still working. Given the current economic climate and a desire to stay busy in a second, third, or fourth career, Boomers may not want to slow down, much less retire. Already, several nationwide employers, such as Verizon and Home Depot, are busy recruiting older workers. Many people may soon experience firsthand the trend of working well into their older years.[7]



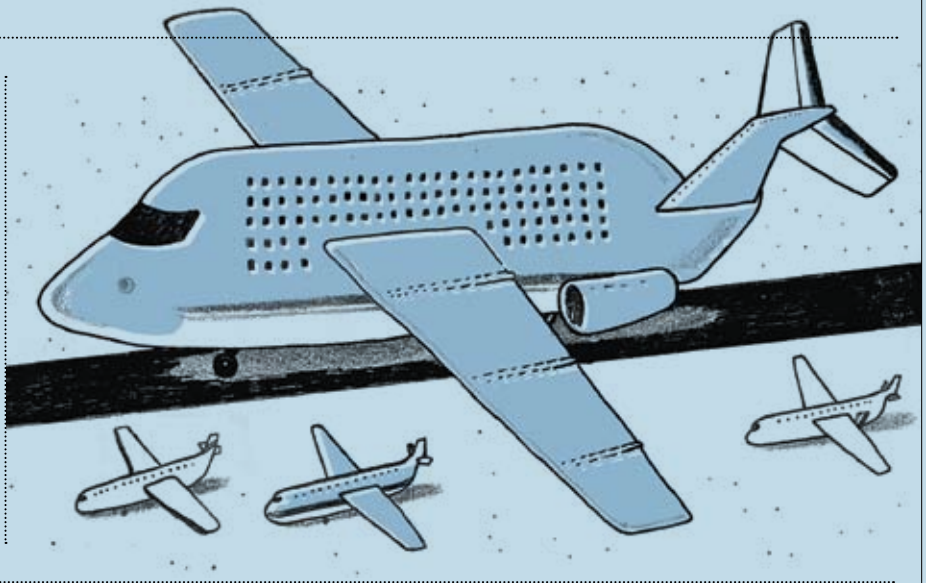
Health Coverage for Fido. The United States ranks far behind countries such as Sweden (where nearly 50% of all pet owners have pet insurance) in providing insurance for the furry creatures that live underfoot. The percentage of Americans who have pet insurance is currently in the low single digits. In 2006, the market for pet insurance in the U.S. was estimated at approximately $200 million, but it is expected to hit $250 million in 2007.[8]

Order More Candles. Along with the wars and worldwide disasters that have occurred over the past 100 years, there has been a significant benefit to living in these modern times: longer life spans. Since the start of the 20th century, life expectancy in the United States has increased by nearly 30 years. A person born in 1900 could expect to live to a mere 47 years of age. At the start of that century, just two years separated the life spans of men and women, but more than 100 years later, the difference in longevity between the sexes in the United States is five years.[9] On average, men now live to 75.2 years of age and women to 80.4 years (based on 2004 health statistics).[10] As reported by the 2000 Census, nearly 50,000 U.S. citizens claim to have reached the 100-year mark. So how long can people expect to live? According to the Los Angeles Gerontology Research Group, about 125 years of age could be the maximum.[11]

The Good News and the Bad News. The American Cancer Society (ACS) believes that cancer deaths are on the decline, citing 3,000 fewer cancer deaths from 2003 to 2004.[12] But the outlook is not so rosy if you extend the time horizon. Percentage-wise, there are just as many Americans dying of cancer today as there were in 1950.[13] This figure must be humbling for oncologists in their cocktail party conversations with cardiologists, because deaths from heart disease have plummeted over the same period. The recent cancer mortality progress cited by the ACS appears to be in colorectal cancer. Early colorectal screening has proven an effective—and affordable—clinical deterrent.[14] Hopefully this is a sign of more good things to come in the war on cancer.

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

Take the Bus Instead. In 2006, nearly 60,000 commercial flights were delayed for up to two hours,[15] and runway collisions are up 37% since 1995 despite the $1 billion spent each year on air traffic control upgrades.[16] And the congestion could get worse: The Federal Aviation Administration expects U.S. air traffic to triple by 2025.[17] Perhaps the answer lies in bigger aircraft. When the Airbus A380 goes into commercial service, it will be the largest passenger jet ever built, with enough capacity to carry more than 500 travelers into the friendly skies.[18] That is, if it can make it off the runway.



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SICK DAYS:

A HUMAN CAPITAL PERSPECTIVE ON PANDEMIC INFLUENZA

BY PHILIP S. BORBA, PHD, KATHRYN FITCH, RN, MED,
AND BRUCE PYENSON, FSA, MAAA

As we approach the 90th anniversary of the devastating 1918 influenza pandemic, the ever-present influenza virus's genetic jigsaw puzzle could be coming together again in a virulent way. As with other catastrophes, business planning for a pandemic is essential to both the preservation of our economy and the well-being of our society.

According to federal government estimates, pandemic influenza has the potential to cause 30% of the workforce to miss up to three weeks of work, generating economic losses similar to a recession.[1] Pandemic influenza could infect 90 million Americans; a severe strain could kill 2 million. Pandemic influenza would dramatically increase medical costs, but the greatest impact on most businesses will be lost productivity. For this reason, the authors created a human capital model that estimates lost work time as a driver of lost revenue and additional

morbidity and mortality costs. Among other findings, our model verifies the government's recession analogy. It also demonstrates how companies that successfully prepare for pandemic influenza can protect their revenue-generating ability and remain financially sound even when others in the same industries do not.

This article provides background on pandemic influenza and presents quantitative and qualitative considerations that businesses should keep in mind when planning for such a catastrophe. As others have noted, businesses can provide a crucial layer of defense and response for society as a whole.[2]

Today's Pandemic – So Far Among Birds

A pandemic influenza could occur if the highly pathogenic strain of H5N1 avian influenza A virus, currently endemic in wild birds, mutates to become highly contagious among people. Such a mutation would quickly spread worldwide given today's air travel. The H5N1 influenza strain, first identified in humans in 1997, has thus far lacked the ability to spread easily from person to person. The 1997 episode in Hong Kong resulted in 18 hospitalizations and six deaths. As of March 1, 2007, there have been 277 human H5N1 cases reported and 167 deaths.[3,4]

1 Congressional Budget Office, *A Potential Influenza Pandemic: Possible Macroeconomic Effects and Policy Issues*, December 8, 2005, revised July 27, 2006.
2 Business Roundtable Web site, www.businessroundtable.org.
3 World Health Organization, *Epidemic and Pandemic Alert and Response (EPR), Cumulative Number of Confirmed Human Cases of Avian Influenza A/(H5N1) Reported to WHO*, www.who.int/csr/disease/avian_influenza/country/cases_table_2007_03_19/en/index.html.
4 For the latest information on the number of reported cases and deaths, see the World Health Organization's Web site, www.who.int/csr/disease/avian_influenza/en/index.html.

What Is a Pandemic?

A pandemic is a disease epidemic spread over a wide geographic area and affecting a large proportion of the population. A pandemic influenza occurs when a novel influenza virus emerges that can infect and be efficiently transmitted among individuals because of its infection characteristics and a lack of pre-existing immunity in the community. By contrast, seasonal influenza, while highly contagious to susceptible people, involves a virus against which many individuals will have existing immunity.[5]

Milliman and Pandemic Influenza

Milliman's consulting is a good measure of business interest in a topic. For pandemic influenza, recent project requests have come from health and life insurers and reinsurers, property and casualty insurance purchasers, and the pharmaceutical industry. The most interested clients tend to be involved in leading-edge activities. Pandemic influenza planning hasn't yet become routine.

To date, nearly all human cases were caused by close contact with infected birds, although there is at least one case of probable human-to-human spread. Meanwhile, the H5N1 virus has spread in birds beyond Southeast Asia and China into Central Asia, Africa, and Europe; in recent years the total number of countries reporting avian infections has doubled every year (see Figure 1).

How precarious is the current influenza risk? The World Health Organization (WHO) believes we have reached a dangerous threshold. A new influenza subtype has caused the disease to appear in humans, but the strain has not yet evolved to where it can spread among humans. The as yet infrequent spread of H5N1 to people triggered Phase 3 in WHO's six-phased system, and marks the entry to a "pandemic alert period." Phases 4 and higher involve human-to-human transmissions. The current Phase 3 is the closest we have come to pandemic since the 1968 flu outbreak.[6]

Any human-to-human transmissions are likely to affect people of all ages. In February 2007, WHO published results from its study of avian influenza cases for the first three years of recorded human infections.[7] From November 25, 2003, through November 24, 2006, 10 countries reported 256 cases. The number of newly reported cases increased steadily over the 36-month period—from 45 cases during the first 12 months, to 93 cases during the next 12 months, to 188 cases during the last 12 months. The demographic characteristics of these cases are interesting.

- The influenza cases have been most prevalent among the young. The median age of confirmed cases was 18 years, more than half were people under 20 years, and almost 90% were people under 40 years. After adjusting for country demographics, WHO found incidence rates to be higher among younger persons.
- The median number of days from the reported onset of symptoms to hospitalization was four days. The median number of days from the reported onset of symptoms to death was nine days.
- The overall case fatality rate was 60%; it was highest among persons 10–19 years of age (76%) and lowest among persons age 50 and older (40%).

These statistics differ from seasonal influenza—normally older populations are more affected, and the fatality rate is not nearly as high.

Our health system is not well-equipped to stop pandemic influenza, as demonstrated by the 2003 outbreak of SARS in Canada. SARS (severe acute respiratory syndrome), which was first identified in 2002, is a severe lower respiratory illness caused by a novel coronavirus. During an outbreak in late 2002 through early 2003, more than 8,000 SARS cases and nearly 800 deaths were reported.[8] A mother returning home from Hong Kong brought SARS to Toronto, passing it to her son. The sick boy waited for more than 16 hours in a crowded emergency room, transmitting SARS to two other patients. Healthcare workers who failed to use proper procedures were also victims.[9] Fortunately, SARS is not as contagious as pandemic influenza.

5 U.S. Department of Health and Human Services, *HHS Pandemic Influenza Plan*, November 2005.
6 www.who.int/csr/disease/avian_influenza/phase/en/print.html.
7 World Health Organization, "Update: WHO-confirmed human cases of avian influenza A(H5N1) infection 25 November 2003–24 November 2006," *Weekly Epidemiological Record*, February 9, 2007, www.who.int/wer.
8 www.cdc.gov/ncidod/sars/clinicalguidance.htm.
9 Commission to Investigate the Introduction and Spread of SARS in Ontario, *The SARS Commission Executive Summary, Spring of Fear, Volume 1*, December 11, 2006.
10 U.S. Department of Health and Human Services, *HHS Pandemic Influenza Plan*, November 2005.
11 Both the Congressional Budget Office's *Potential Influenza Pandemic* and the U.S. Department of Health and Human Services' *Pandemic Influenza Plan* use "severe" to refer to an outbreak on a scale of the 1918 pandemic. An outbreak on a scale of the 1957 or 1968 outbreaks is referred to as "mild" in both publications. In the present discussion, we use "severe" to refer to a serious outbreak and "moderate" to refer to a less serious outbreak.
12 M. McCallister and F. Smith, *To Members of the Business Roundtable,* Business Roundtable, May 17, 2006, www.businessroundtable.org/pdf/20060714001AvianFluLtrFINAL.pdf.
13 A. Kao and D.J. Vidal, *Are Businesses Doing Enough to Prepare for a Pandemic?* Executive Action Series No. 204, The Conference Board, July 2006.
14 U.S. Department of Homeland Security, *Pandemic Influenza Preparedness, Response, and Recovery Guide for Critical Infrastructure and Key Resources*, September 19, 2006.

Macroeconomic Impact

Recently, the Congressional Budget Office (CBO) and the U.S. Department of Health and Human Services (HHS) published seminal reports on the effects of a pandemic influenza outbreak.[10] While the focus of the CBO report was on the macroeconomic effects of pandemic influenza, the focus of the HHS report was on pre-pandemic planning.[11] Because only three widespread influenza outbreaks occurred during the 20th century, modelers have scant information with which to develop infection and fatality rates. Both reports look to the 1918 outbreak for "severe" infection and fatality rates, and to the 1957 and 1968 outbreaks for a "moderate" outbreak.

The CBO assumed that under a severe outbreak, 30% of all individuals would be infected, and that among those infected, 2.5% of the cases would be fatal. Survivors would miss three weeks of work due to sickness, fear of becoming sick, or because they were caring for family or friends. The CBO assumed that, under a moderate outbreak, 25% of all individuals would be infected and the case fatality rate would be between 0.1% and 0.2%. Survivors of a moderate outbreak would miss 25% of the amount of time lost under a severe outbreak.

The CBO estimates that real GDP would drop by 4.25% over the year following a severe pandemic influenza, with approximately half of the drop due to employees' inability to work and half due to decreases in consumer demand. Under the moderate pandemic scenario, economic effects might be masked by normal variations in economic activity.

General Business Advice

Planning for pandemic influenza should be an important part of an organization's risk management and disaster recovery plans. The Business Roundtable, an association of American CEOs, has made explicit the connection between pandemic influenza and homeland security: "Should a pandemic influenza outbreak occur, chief executive officers would play a key role in protecting their employees' health and safety as well as mitigating the impact on business. As with all homeland security preparations, the key task is planning."[12] Yet according to a survey conducted between mid-April and mid-May 2006, The Conference Board found that 44% of employers with sales between $500 million and $1 billion did not have any plans in place to address the impact of a pandemic influenza.[13]

Even modest steps could minimize adverse impacts on employers. Business continuity plans that map essential links in the employer's operations could help control the disruption caused by worker absence. A reserve of prophylactic treatments could slow disease spread across the employer's workforce. The U.S. Department of Homeland Security provides extensive preparedness plans for businesses.[14]

Economic Impact on Particular Businesses

The authors' model considers the following factors, which businesses can consider in their own planning:

WORKER ABSENCE AS A DRIVER OF REDUCED REVENUE. Most U.S. companies have revenue that is about twice as high as wages. In other words, every dollar of "lost" wages produces two dollars in lost revenue. Manufacturing, with high raw material costs, has a higher multiplier. Profit as a percentage of revenue varies from company to company.

WORKFORCE COMPOSITION AFFECTS LIKELY ABSENCES–AND THE DAMAGE THEY CAUSE. In pandemic influenza, workers with dependents are more likely to miss work because they may stay home to care for ill family members. Different worker types (executives, managers, sales, production, etc.) have different family compositions and wage levels.

SCENARIOS. The CBO/HHS severe and moderate scenarios define infection rate, morbidity, and mortality, and are based on historical data.

BENEFIT DESIGNS. Of course medical benefit spending goes up, which varies by scenario. Depending on the scenario, life insurance benefits and replacement costs could become important.

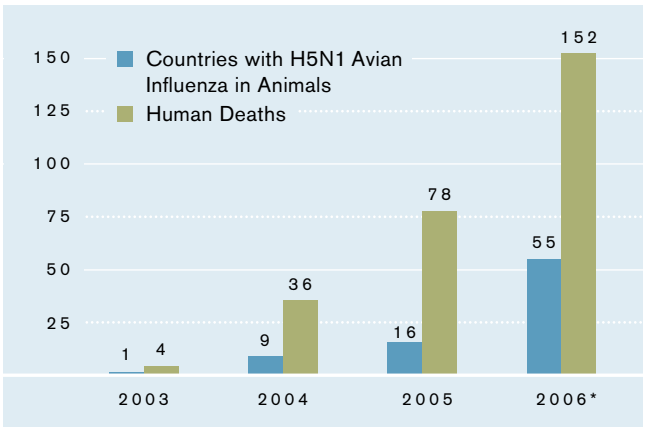
USE OF ANTIVIRAL PROPHYLAXIS. Antiviral prophylactics add to cost, but if they dramatically reduce infection rates as many expect, the pandemic influenza damage will be much lower.

Applying company specifics to the well-established scenarios gives enterprise risk managers a foundation on which to develop plans.

Treatment, Prevention, and Preparedness

Pandemic influenza does not yet exist and its clinical characteristics are unknown, but experts expect treatment will be the same as for seasonal influenza, ranging from symptomatic treatment to antivirals to outpatient medical care, hospitalization, ICU care, and mechanical ventilation. If a pandemic were to occur, antiviral drugs could limit the spread of the infection through

FIGURE 1: GLOBAL IMPACT OF AVIAN INFLUENZA



* Through November 13
Source: Department of Health and Human Services, *Pandemic Planning Update III*, November 2005.

Web Sites for More Information

The Centers for Disease Control and Prevention (CDC) and the U.S. Department of Health and Human Services (HHS) provide Web sites with very comprehensive information on pandemic and seasonal influenza; much of this information targets employers.[15] Major national business organizations have produced information that employers can use to protect against and prepare for an influenza pandemic. We expect that these sources will produce additional materials as the knowledge of and concern over pandemic influenza develops.

- **WWW.CDC.GOV/FLU/WORKPLACE**
  The CDC Web site provides literature for distribution to employees, along with information about symptoms.
- **WWW.PANDEMICFLU.GOV/PLAN/BUSINESS**
  The HHS Web site includes a checklist for business pandemic planning, a contingency planning process, and information about protecting against influenza.
- **WWW.PANDEMICFLU.GOV/PLAN/WORKPLACE-PLANNING/BUSINESSCHECKLIST.HTML**
  The HHS Web site provides a checklist developed by the CDC and the HHS that identifies specific activities for businesses to prepare for an influenza pandemic.
- **WWW.BUSINESSGROUPHEALTH.ORG/GLOBALHEALTH/AVIANFLU.CFM**
  The National Business Group on Health, a national nonprofit organization, includes examples of planning initiatives by large employers on its Web site.
- **WWW.BUSINESSROUNDTABLE.ORG/SECURITY**
  The Business Roundtable has published comprehensive reports addressing management strategies and providing strategic considerations.
- **WWW.USCHAMBER.COM/ISSUES/INDEX/DEFENSE/PANDEMIC_INFLUENZA**
  The U.S. Chamber of Commerce Web site provides information on how businesses can prepare for pandemic influenza to maintain business continuity, help protect employees' health, and work with health officials to minimize disruption.

aggressive prophylaxis, and antivirals could reduce the severity of cases. Current experience with seasonal influenza shows that, to be most effective, antiviral drugs used as prophylaxis need to be administered within 48 hours of exposure to the infection. In May 2006, the HHS set a goal to stockpile enough antiviral treatments for at least 25% of the U.S. population, or 75 million individuals. In a January 2007 report to Congress, the HHS reported that by fiscal year 2008, the U.S. federal government will have completed the purchase of 50 million antiviral treatment courses and subsidized the states and other entities with the purchase of another 31 million treatment courses (see Figure 2).[16]

In a pandemic influenza outbreak, drug companies could convert their seasonal influenza vaccine programs to produce a vaccine for the pandemic influenza strain. The current seasonal influenza vaccine process requires about six to nine months from start to finish and that process can't start until the pandemic influenza strain has been identified—which means the pandemic has begun. Emerging technologies may dramatically shorten that process. However, vaccines take about two weeks to become effective after inoculation.[17] Even if vaccination technology leaps forward, a basic strategy for limiting the impact of pandemic influenza must involve delaying the spread of the disease. Delaying infections means reducing the concentration of economic and human impact—and buying time until a vaccine that prevents the infection can be developed and disseminated. Based on historical data, epidemiologists expect two or more waves of the virus; not all susceptible people will catch the virus at the same time, so delaying tactics would seem to be effective.

The Department of Homeland Security identifies key tactics that could be adopted as part of a pandemic preparation plan, and each measure is applicable to most businesses:

ISOLATION. Separation of persons with specific infectious illnesses in their homes, in hospitals, or in designated healthcare facilities.

15 These Web site addresses were accurate as of January 26, 2007. The addresses of items in Web sites may change from time to time.

16 Homeland Security Council, *Implementation Plan for the National Strategy*, May 2006; and statement by G.W. Parker on "Pandemic Influenza Preparedness: Update on the Development and Acquisition of Medical Countermeasures" before the U.S. Senate Subcommittee on Labor, Health and Human Services, Education and Related Agencies, January 24, 2007.

17 Centers for Disease Control and Prevention, Questions & Answers: Flu Vaccine, www.cdc.gov/flu/about/qa/fluvaccine.htm.

QUARANTINE. Separation and restriction of the movement of people who, while not yet ill, have potentially been exposed to an infectious agent.

SOCIAL DISTANCING. Within the workplace, social distancing measures could take the form of modifying the frequency and type of face-to-face employee encounters (e.g., placing moratoriums on hand-shaking, substituting teleconferences for face-to-face meetings, staggering breaks, posting infection control guidelines), establishing flexible work hours or worksites (e.g., telecommuting), promoting social distancing between employees and customers to maintain three feet of spatial separation between individuals, and implementing strategies that request and enable employees with influenza to stay home at the first sign of symptoms.

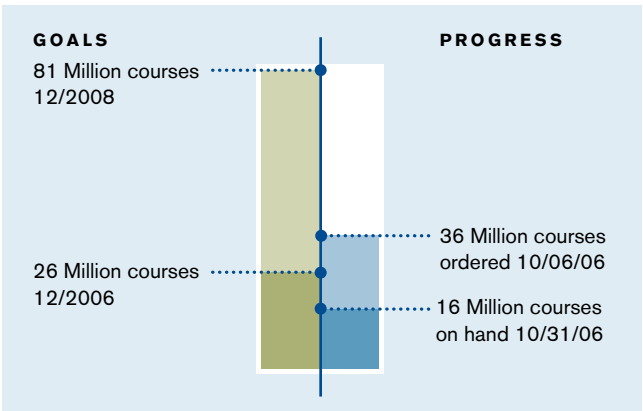
CLOSING PLACES OF ASSEMBLY. Voluntary or mandatory closure of public places, including churches, schools, and theaters.

"SNOW DAYS" AND/OR FURLOUGHING NON-ESSENTIAL WORKERS. Voluntary or mandatory closure of all non-essential businesses and/or furloughing all nonessential workers. Of course the employer should consider extending paid time off.

CHANGES IN MOVEMENT PATTERNS. Restricting movement at the U.S. border, instituting reductions in the transportation sector, and applying quarantine protocols. Business and discretionary travel would be severely curtailed, with a rippling effect on the petroleum, airline, railroad, trucking, postal, and delivery industries, to name a few.

Two antiviral drugs, zanamivir and oseltamivir, have indications as prophylaxis against seasonal influenza; they can greatly reduce the likelihood that an unvaccinated individual will become infected. While the characteristics of pandemic influenza are unknown, some organizations are stockpiling these drugs to protect their workforces from pandemic influenza.

FIGURE 2: U.S. STOCKPILE OF ANTIVIRAL DRUGS



Source: Department of Health and Human Services, *Pandemic Planning Update III*, November 2005.

Concluding Comment

At the outset, we posed the question: "How realistic a threat is an influenza pandemic?" Admittedly, it is impossible to predict the "if, when, what, where, and how." However, recent history has taught us that low-probability, high-cost events certainly do occur. Whether the disasters are attributed to nature (e.g., earthquakes, hurricanes) or man (e.g., terrorist attacks), it is prudent to be aware of the possible consequences and take appropriate preparatory action. Understanding the nature of the risk—and preparing for it—might determine whether we avoid the devastation of an event like the 1918 outbreak or relive it. M

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TIME FOR A NEW

RETIREMENT METAPHOR?

BY GERALD ERICKSON, CPC

Throughout the second half of the 20th century, the prevailing metaphor for American retirement was the three-legged stool. Conventional wisdom held that retirees could expect to be supported comfortably throughout their retirement by a combination of retirement plans, Social Security, and personal savings. Today, that stool looks rickety at best. The balance between defined benefit and defined contribution plans has shifted, Social Security is in dire need of reform, and many people are saddled with record levels of personal debt.

Economic, social, and political factors have created an ocean of insecurity. As millions of American workers find themselves increasingly responsible for planning their own retirement, they are left to wonder if they can successfully navigate the rough waters of retirement planning. Accordingly, these workers should view their plans not as a stationary stool, but as a boat that they can pilot into retirement. As captains of their own vessels, employees will have different destinations, and their course and speed will be determined by the stalwartness of each boat's components: retirement plans, Social Security, and personal responsibility. Ultimately, success will depend on several factors, including the assistance of an experienced crew of retirement plan sponsors, providers, and Congress.

The Keel: Finding Stability

Historically, American workers have benefited from a paternalistic attitude toward retirement. The federal government offered pensions to military personnel as far back as the Revolutionary War, while pension plans sponsored by organized labor and corporations grew considerably in the early 1900s. Recent changes in attitudes toward retirement plans were initiated in part by a need to curb corporate spending and boost competitiveness. This trend took hold in industries across America and around the world, and affected private and public employers alike. Efforts to increase corporate financial transparency have made the economic climate even more difficult, and recent regulatory changes that modify the accounting rules have put extreme financial pressures on many plan sponsors.

The result is a major shift in thinking about employee benefits. The traditional understanding—which holds that an employer is responsible for providing healthcare and other benefits to employees during their working life and throughout their retirement—is no longer the prevailing model. Over the last two decades, employers have increasingly changed their

core retirement program from a defined benefit (DB) plan to a defined contribution (DC) plan, due to a number of factors including reduced administrative and regulatory requirements, less volatile funding costs, and a more transient workforce.

Although DC plans are popular with the American workforce, actually assuming responsibility for planning your own retirement can be daunting. Many plans suffer from poor investment decisions and a general lack of participation. However, the winds appear to be changing. Thanks to recent congressional action, behavioral finance research, and lessons learned in education programs, today's employees have many new options and opportunities previously unavailable to them in planning for a secure retirement.

With the passage of the Pension Protection Act of 2006 (PPA), Congress acknowledged the need for assisting workers in preparing for their retirement. While the PPA has caused uncertainty with respect to the long-term effects on DB plans, key elements of this legislation provided opportunities to create a more successful DC plan. A few of these are listed below.

- Key provisions of the Economic Growth and Tax Relief Reconciliation Act of 2001, scheduled to sunset in 2010, became permanent.
- Plan sponsors received fiduciary relief in allowing for default investment elections and clarification of fiduciary oversight in providing for participant investment advice.
- Additional disclosures related to participant statements are now required.
- The Employee Retirement Income Security Act (ERISA) was amended to preempt state garnishment laws, clearing the way for automatic enrollment arrangements.

With the enhanced features for DC plans, more fiduciary care demonstrated by plan sponsors, and continued refinements on the management of DB plans (such as liability-driven investment strategies), the keel of our boat should provide much-needed stability.

A boat cannot function properly without its captain. Likewise, successful retirement planning cannot happen without individual commitment and personal responsibility. By taking control of the helm, workers take control of their financial futures.

Social Security: the Lifeboat?

Started in 1935 as a means to provide pension benefits to people not covered by a pension plan, the Social Security system is currently facing a crisis. In the 1950s, workers outnumbered retirees approximately 17 to 1. This has dropped to fewer than 4 to 1.[1] Social Security is projected to take in more money than it will pay through 2017. However, because it is funded by payroll taxes, the expenditures of this pay-as-you-go system are expected to outpace its revenues when Baby Boomers begin to retire en masse. As a result, the trust fund is expected to run aground after 2040, at which point Social Security will only be able to finance 74% of promised benefits.[2]

The overall benefits of the Social Security system are also being questioned today. According to a recent Heritage Foundation study, the rate of return from payroll tax investments in Social Security pales in comparison to what most consumers could yield from conservative private investments within 401(k) accounts or U.S. Treasury bills. And Social Security taxes themselves are not small; they take a significant bite out of every paycheck and make it more difficult for Americans to amass significant personal retirement savings.

Although there is no quick fix in sight, several options continue to be debated. Many discussions center on increasing the retirement age at which benefits may begin, reducing benefits, or raising the payroll cap on wages subject to Social Security tax.

Like a lifeboat on a larger craft, Social Security can be a useful supplement but may not be suitable as a primary vehicle. Accordingly, workers should take extra precautions to ensure that their retirement plans have other resources to rely upon.

Setting the Mainsails

A boat cannot function properly without its captain. Likewise, successful retirement planning cannot happen without individual commitment and personal responsibility. By taking control of the helm, workers take control of their financial futures.

A combination of bad habits or bad judgment may be the best way to describe today's record levels of consumer debt. The Commerce Department recently reported that the savings rate for all of 2006 was a negative 1%. Essentially, not only did people spend every dollar they earned last year, but they also dipped into savings or borrowed, making it the lowest savings rate since the Great Depression. The methodology to calculate the savings rate does use a fairly simple equation, with no recognition given to capital gains on investments or increases in the value of home ownership. Household net worth, a figure calculated by the Federal Reserve, provides additional insight. This metric, which includes all assets held by individuals less their total liabilities, was estimated at $54.1 trillion at the end of third quarter of 2006,[3] representing an increase of more than $3 trillion over the previous four quarters. This could be an indication that people may be expressing overconfidence in a consistent and unrealistic

appreciation in home values or stock market returns. In any event, one thing is clear: Americans like to spend.

Compounding the problem of poor spending habits is the apathy many workers demonstrate toward employer-sponsored retirement plans such as 401(k) plans. Whether as a result of intimidation, confusion, or disinterest, many participants choose inaction. Fortunately, the PPA has given plan sponsors a compass by which to guide the boat. By implementing "autopilot" plans (auto enrollment, default deferral levels, periodic deferral increases, properly diversified investment allocations, and periodic rebalancing of investments), the PPA ensures that proper navigation occurs without constant oversight.

Even though these DC plan tools are making retirement plan choices easier for many people, there are still decisions that should be evaluated by each person as they relate to his or her own personal situation within these plans. For example, what makes more sense from a participant contribution standpoint: Roth 401(k) deferrals or traditional pretax deferrals? This has long-term tax implications that will affect each retiree differently, depending on personal financial goals and objectives.

While these decisions can guide us on our journey, we must still make adjustments along the way. Our plans for retirement may be driven off course by factors like education expenses, increasing healthcare costs, and aggressive spending habits, which can undermine personal savings and slow down our boat. By periodically trimming the sail to compensate for these headwinds, the captain increases the chances of safely reaching the ultimate destination.

Charting the Course

Retirement means different things for each of us. Some of us may decide to continue working a reduced schedule as a lifestyle choice, while others may need to keep working deep into their golden years. Given today's ever-changing retirement climate and an uncertain economic environment, it is clear that individuals must become the stewards of their own retirement plans. No longer can they afford to look toward a pension entitlement and Social Security as their primary means of retirement. It is imperative that people individually accept responsibility for their own retirement planning and start saving for this eventuality early on.

Unlike the outdated stool that sits on its three wooden legs, our new retirement metaphor is a maneuverable vessel with a vast array of navigational tools. A future retiree can sit comfortably at the helm of this sturdy boat and sail it in any direction. By carefully managing retirement options and taking advantage of planning techniques such as autopilot plans, retirement income guarantees, and phased retirement, each individual can chart a customized course to retirement security. **M**

Given today's ever-changing retirement climate and an uncertain economic environment, it is clear that individuals must become the stewards of their own retirement plans.

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1 Social Security Administration, www.ssa.gov.
2 *2006 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds*, May 1, 2006.
3 *The Wall Street Journal*, February 3, 2007.

HIDDEN COSTS:

ARE 401(k) FEES TAKING A BITE OUT OF RETIREMENT SAVINGS?

BY JANET RUBENSTEIN, CEBS, AND JEFF MARZINSKY, CPC, CMFC

"Fiduciary" is the word of the decade in financial services, as many businesses have been scrutinized for lack of disclosure and conflicts of interest. Now companies with 401(k) plans are being criticized for the fee structures used to pay for plan administration. Particularly if a 401(k) provider "bundles" recordkeeping fees with fund expenses, it can be nearly impossible to determine the actual costs and know the true expenses of the plan. How much is being paid for recordkeeping? Is the plan sponsor getting the best price for mutual funds? Who is paying for what?

When Congress passed the Tax Reform Act of 1978 and created the 401(k) section of the Internal Revenue Code, it established a new playing field in retirement planning — one that could provide a savings vehicle for employees of almost any-sized business. Today, roughly two-thirds of the private sector workforce participates in a 401(k) savings plan.

However, where fees are concerned, it has become increasingly clear that for many plan participants and plan sponsors, the playing field is not a level one.

Given the variety of 401(k) vendors and pricing strategies, two participants investing in the same mutual fund but through different 401(k) plans can earn disparate returns. Vendors boasting of a "no fee" plan may bury the recordkeeping costs in the fund expense, while other vendors may bill the plan sponsor directly for recordkeeping costs. Hidden fees are troublesome because, over a lifetime of contributing $5,000 a year, assuming an annual gross rate of return of 9%, a participant paying an additional fee of just 1% would retire with $1,918,678 rather than $2,448,895, or $530,217 less. That 1% difference in fees could wipe out 26% of the employee's retirement nest egg.[1]

Plan sponsors who establish and administer their company's 401(k) plans need to uncover and understand how different costs and benefits play out; as fiduciaries to the plans, they and their companies can be held responsible for making sure that plans work to the exclusive benefit of participants and that fees are reasonable in terms of the level of quality and services provided.

A growing number of companies now face lawsuits alleging they failed in their fiduciary duties to properly administer their

1 This example assumes the following:
• Annual contribution made mid-year, with a 3% CPI increase each year
• 9% annual return, reduced by expenses at the time earnings are credited
• 40-year time horizon.

Revenue Sharing

In general, revenue sharing (i.e., expense reimbursement payments) represents amounts made available by fund companies to pay for shareholder services that are provided to a plan and its participants. For example, shareholder services could include recordkeeping and accounting services, processing mutual fund sales and redemption transactions, custodial/trustee interface services to the plan, and the development of enrollment materials for plan participants. While many recordkeepers receive revenue sharing from the fund companies, any such revenue should be used for the exclusive benefit of the participants in the plan.

401(k) plans under the law governing private-sector retirement plans, the Employee Retirement Income Security Act of 1974 (ERISA). The Securities and Exchange Commission and the Department of Labor (DOL) have launched several high-profile investigations and media scrutiny is on the rise, including a recent review of 401(k) plans by *Forbes* magazine under the headline "Retirement Rip-off."[2]

The True Cost of a "No Fee" Plan

While many plan participants and sponsors are increasingly concerned with their plans' fees, they struggle to understand them. Bundled plans (where one vendor provides both the recordkeeping and investment services) emerged years ago as a response to concerns by plan sponsors that 401(k) plans offered by unbundled providers (which required multiple vendors for recordkeeping, compliance, custodial, and other services) were difficult to manage. Bundled plans were presented as a less complicated alternative, offering sponsors a single point of contact for the required plan services.

A participant paying an additional fee of just 1% would retire with $1,918,678 rather than $2,448,895, or $530,217 less. That 1% difference in fees could wipe out 26% of the employee's retirement nest egg.

Bundled, "no fee" plans were also supposed to be less expensive. And for many plan sponsors they have been, since fees are based on plan assets and primarily paid by participants. ERISA allows certain plan-related expenses to be charged directly to plan participants (see sidebar, "401(k) Plan Expenses Allowed by ERISA"). But as more and more 401(k)s have adopted a bundled approach, it has become increasingly difficult for plan sponsors and participants to determine how much they are paying in fees and whether those fees are reasonable according to the standards established by ERISA.

Why is this? The origins are complicated. All mutual funds have an expense ratio that differs depending on the type of fund (equity, bond, fixed income) and the management style (passive or active). Some index funds are computer-driven, and thus have a low expense ratio. Low expense funds seldom offer "revenue sharing" or 12(b)1 fees. However, other funds — those that are actively managed — typically have a higher expense ratio and part of that expense ratio may be used to provide revenue sharing or 12(b)1 fees. The availability of revenue sharing and 12(b)1 fees makes the fund more attractive to plan sponsors, vendors, and brokers because the sharing of revenue will reduce their costs, or a broker will be paid directly from the fund company rather than the plan sponsor to provide services to the plan.

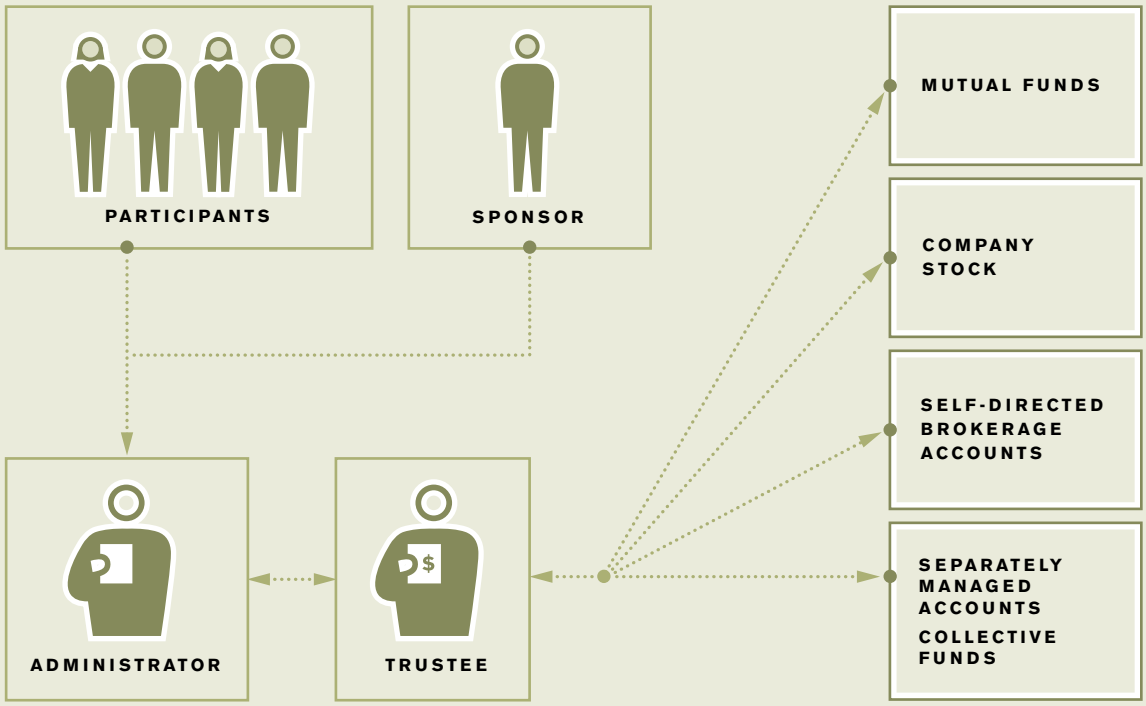
Commissions are paid to whoever sells the mutual funds, typically in the form of 12(b)1 fees paid to brokers. Sub-transfer agency payments are also paid to third-party administrators for recordkeeping, communications, and other services. This payment of commissions and revenue sharing may become a problem if not disclosed.

Plan sponsors should demand full disclosure of the amount and distribution of the revenue generated by their plans, as well as the associated recordkeeping costs. While more and more vendors are providing this information, many service providers still offer very little information about fees, 12(b)1s, and revenue sharing; and what they do provide is sometimes not easily understood by plan sponsors or participants. Moreover, when plan sponsors ask their providers about recordkeeping costs, they are often told that plans are "free."

The guidelines on disclosure, while not necessarily prescriptive, are at least clear. The DOL, which oversees plan compliance and serves as a resource to participants and sponsors, holds an unambiguous position on fiduciary responsibility. It places the burden solidly with sponsors, explaining that they have "a specific obligation to consider the fees and expenses paid by the plan…. Among other things, this means that employers must ensure that fees paid to service providers and other expenses of the plan are reasonable in light of the level and quality of service."[3]

The "Bundled Unbundled" Solution

What does this architecture entail? The graphic below provides an example of a "bundled unbundled" approach. This approach is unbundled – pulling from different funds and accounts – but is delivered in a bundled fashion thanks to the sophistication of the trading platform. The sponsor and participant deal directly with their administrator and receive an integrated experience that belies the complexity of the actual architecture.



The potential fiduciary conflict inherent in revenue sharing is one of the business practices currently under scrutiny. Is additional revenue being used to the exclusive benefit of plan participants, as required by ERISA, or is it being used to the benefit of the sponsor?

But when fees are investment-based and calculated as a percentage of the plan's assets, they can mushroom over time as the plan grows and can open up the potential for fiduciary conflicts. When fees are charged as a percentage of plan assets, plan participants do not necessarily benefit from built-in economies of scale. Plans may be eligible for a cheaper share class (priced at a percentage of fees depending on the size of the plan) than what is being charged to participants. For example, a $20 million plan may qualify for lower-cost institutional funds but still buy higher-cost retail funds to pay for plan recordkeeping. The disparity between the true cost of investment management and what is being charged is "shared" with the plan sponsor to pay the recordkeeping costs.

The potential fiduciary conflict inherent in revenue sharing is one of the business practices currently under scrutiny. Is additional revenue being used to the exclusive benefit of plan

2 Neil Weinberg, "Retirement Rip-Off," *Forbes*, December 12, 2006.
3 Department of Labor booklet, *A Look at 401(k) Fees*.

THE TRUE COST OF HIDDEN FEES

The potential cost to the plan participant can be difficult to discern because it requires a multi-faceted analysis of the costs. First, consider the different share costs built into this hypothetical example:

SHARE CLASS	12(B)1 FEE	SERVICE FEE	EXPENSE RATIO
Institutional	0.00%	0.00%	0.50%
Investor	0.00%	0.10%	0.60%
Trust	0.25%	0.25%	1.00%
Class A	0.25%	0.50%	1.25%

Next, apply the expense ratios from the different share classes to a typical $50 million plan:

COST FOR A $50 MILLION PLAN	12(B)1 FEE	SUB T/A SERVICE FEE	TOTAL FUND EXPENSE RATIO
Institutional	0.00	0.00	250,000.00
Investor	0.00	50,000.00	300,000.00
Trust	125,000.00	125,000.00	500,000.00
Class A	125,000.00	250,000.00	625,000.00

Depending on the size of a participant's account, a difference in share classes can result in a significant discrepancy in fees:

COST TO A PARTICIPANT	INSTITUTIONAL	INVESTOR	TRUST	CLASS A
$25,000 Account Balance	125.00	150.00	250.00	312.50
$50,000 Account Balance	250.00	300.00	500.00	625.00
$100,000 Account Balance	500.00	600.00	1,000.00	1,250.00
$150,000 Account Balance	750.00	900.00	1,500.00	1,875.00
$150,000 Account Balance	1,250.00	1,500.00	2,500.00	3,125.00

Thousands of dollars in participant assets can disappear if a plan is not using the appropriate share class. In the current environment, plan sponsors who are not making their fee structure transparent are likely to have their motives called into question.

Plan sponsors should demand full disclosure of the amount and distribution of the revenue generated by their plans, as well as the associated recordkeeping costs. Many service providers still offer very little information about fees, 12(b)1s, and revenue sharing; and what they do provide is sometimes not easily understood by plan sponsors or participants.

participants, as required by ERISA, or is it being used to the benefit of the sponsor?

Sharing the Wealth (Revenue Sharing)

In addition to tracking the actual cost of services, sponsors and participants in bundled plans face other challenging questions: In what share class is revenue sharing paid? How much revenue sharing is paid? It's important to note that a mutual fund share class does not describe the quality of the fund, but simply what is paid for the fund. The tabular example above outlines four share classes of the same fund that one might find in a 401(k) plan.

Share classes are sometimes determined by the size of a plan's assets. For instance, plans with significant assets qualify for a better share class due to their size. A better share class may mean one with a lower expense ratio on the investment (and often a lower amount of revenue sharing paid). But just because a company

or organization qualifies for a better share class does not guarantee that its plan will include that share class. Moreover, the additional revenue is used to compensate advisors, brokers, and/or plan administrators and is not always disclosed.

Plan sponsors and participants should know what share class their plan qualifies for because, over time, those additional costs can significantly erode retirement savings. It also is important to make sure that, as a plan's assets grow, it moves up to a better qualifying share class.

A Good Plan

Bundled plans were originally supposed to simplify 401(k) management. However, plans have become increasingly complex as the ways in which fees can be calculated have evolved over the years. In fact, the Department of Labor 401(k) Fee Disclosure Form lists 38 definitions for fee terms.

But it doesn't have to be this complicated. There are essentially four parties that deliver services to 401(k) plans: recordkeepers, trustees, fund companies, and investment advisors. With today's technology and integrated platforms, all of these services can be overseen by a single, unbiased point of contact. In fact, there is now another alternative to bundled and traditional unbundled approaches, one we call the "bundled unbundled" solution. Innovations in technology have allowed plan administrators to bring together unbundled service providers in an integrated electronic platform that, from a service perspective, resembles a bundled approach. The "bundled unbundled" approach uses an open architecture to integrate competitive pricing practice and industry-leading financial service options.

The Scrutiny Is Just Beginning

The movement to require fuller and clearer disclosure is under way. The Government Accountability Office (GAO) recently released a 43-page report arguing for disclosure of fees by both plan sponsors and plan providers. Specifically, the GAO wants Congress to amend ERISA so that plan sponsors are required to disclose all fees, including investment management fees, to participants. The GAO also wants this information reported to the DOL.[4]

In the meantime, plan sponsors can request an unbiased audit of their existing plans. If changes are necessary, there are options available now for creating more transparent plans — ones that assure ERISA compliance and make sure 401(k) plans benefit the people they were designed to serve. M

Plan sponsors and participants should know what share class their plan qualifies for because, over time, those additional costs can significantly erode retirement savings.

401(k) Plan Expenses Allowed by ERISA

Types of expenses that can be allocated or charged against plan assets for the administration of a plan are as follows:

- Fees for outsourced administration, communication, and recordkeeping of the plan
- Expenses for amending a plan and obtaining an IRS letter of determination
- Investment management fees
- Fees for 401(k) testing and coverage testing

In addition, certain plan-related expenses can be charged directly to plan participants:

- Distribution and hardship withdrawal fees
- Loan processing fees
- Fees for calculating benefits under different distribution options
- Investments-related fees in participant-directed plans
- Administrative fees for terminated participants
- Qualified domestic relations order (QDRO) processing

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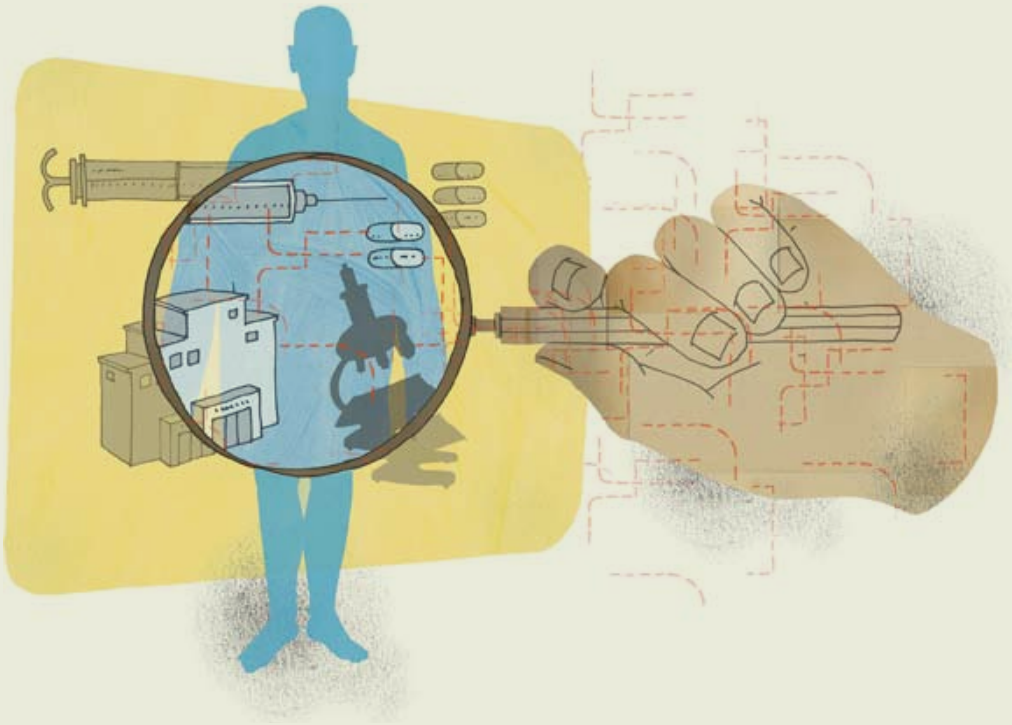
4 U.S. Government Accountability Office, *Private Pensions: Changes Needed to Provide 401(k) Plan Participants and the Department of Labor Better Information on Fees*, November 2006.

VALUE-BASED INSURANCE DESIGN:

PUTTING A PRICE ON HEALTHCARE QUALITY

BY DAVID MIRKIN, MD



As employers struggle with the burgeoning costs of healthcare, cost-sharing initiatives seem to be everywhere. But how exactly should costs be shared? Healthcare benefits and copayments historically have been distributed equally among employees. This arrangement is arguably fair. But is it effective?

Value-based insurance design (VBID) suggests that it makes more sense to address healthcare costs based on the value to individual patients rather than as a "one-size-fits-all" solution. VBID is a system of cost sharing that tailors copayments to the evidence-based value of specific services for targeted groups of patients. Currently, cost sharing is nearly always based on the expense of the service or medicine and rarely is related to its potential benefit to a patient.

The pressures created by skyrocketing healthcare costs make VBID very timely. The approach can help mitigate some of the downsides of cost sharing, such as the creation of barriers to critical medical services and medicines for the patients who most need them. While everyone is anxious to address rising healthcare costs, no one is served if diabetics, for example, do not take their medicine or get regular eye exams because their copayments are too high. Ignoring chronic problems when they are still treatable will likely require more expensive treatments in the future. VBID encourages the use of services when the clinical benefits exceed the costs.

According to Michael Chernew, a professor of healthcare policy at Harvard University who developed the VBID concept along with Drs. Allison Rosen and Mark Fendrick of the Division of General Medicine at the University of Michigan in Ann Arbor, "There is understandable concern that if you just charge people more money, you'll get negative outcomes. Employers want to control costs and provide quality healthcare benefits. Value-based

VBID offers a more nuanced approach to delivering healthcare benefits, something that many employers are looking for as they seek to both improve their delivery systems and control costs.

Advances in technology will continue to improve the ability to collect and share electronic medical records and health assessment data, which are critical steps for implementing VBID programs that address a wider range of diseases.

insurance design allows them a way to minimize the deleterious consequences to straight-up cost sharing."

* * *

BRINGING VBID TO LIFE While the idea behind VBID has been around for nearly a decade, today's advances in disease management and data-sharing technology are paving the way for real-world applications.

At its simplest, a VBID program can target clinically valuable services for copayment reduction. This approach focuses on the service, rather than targeting benefits to individual patients. As Chernew and his colleagues outlined in a recent *Health Affairs*[1] article, Pitney Bowes currently reduces copayments for all drugs commonly prescribed for diabetes, asthma, and coronary heart disease.

In its most advanced form, VBID considers both the patient's condition and the available treatments. A program of this type targets patients with select clinical diagnoses and lowers copayments for specific high-value services. All treatments are considered, and those with more "value" are given a higher priority. The municipality of Asheville, N.C., and the University of Michigan have implemented programs that reduce copayments for selected medications for employees with diabetes.

* * *

POTENTIAL ROADBLOCKS But accurately determining the value of services is not always straightforward. It calls for using a blend of clinical judgment, health economics, and actuarial techniques. And adjusting copays appropriately requires robust actuarial analysis.

Several groups provide useful guidance on how to rank services and structure payments. In the United Kingdom, for example, the National Institute for Health and Clinical Excellence (NICE) publishes recommendations on public health, clinical practice, and health technologies within the National Health Service. VBID principles are also being promoted in the United States through the National Business Group on Health and the National Business Coalition on Health.

VBID programs also face a number of challenges to implementation, among them human relations concerns, as some employees might object to others paying less for certain services. In the case of the University of Michigan, Chernew reported that its program received overwhelming employee support through numerous e-mail testimonials. Clear communication surrounding VBID initiatives can help muster this kind of employee enthusiasm.

Other concerns include higher administrative costs, the potential for fraud or for attracting patients with targeted diseases, and data issues. While these are potential barriers for implementing VBID initiatives, many of these challenges have been successfully met. For instance, current wellness and disease management programs conduct claim searches through administrative data and help provide high-value services. In fact, companies may find that these types of programs can lay the groundwork for an effective VBID initiative.

Disease management programs and current VBID programs tend to focus on diseases such as diabetes, in which patients can be easily identified using specific data sets. Advances in technology will continue to improve the ability to collect and share electronic medical records and health assessment data, which are critical steps for implementing VBID programs that address a wider range of diseases.

* * *

GETTING STARTED VBID programs are feasible today. For companies considering targeting costs based on the clinical value of services, sound financial forecasting will help determine the scope of their programs. As with other benefits programs, VBID can be crafted to achieve any cost target, including budget-neutral programs created with an actuarially equivalent design.

VBID offers a more nuanced approach to delivering healthcare benefits, something that many employers are looking for as they seek to both improve their delivery systems and control costs. A study conducted by Chernew and his colleagues shows that, currently, there is little connection between quality-improvement initiatives and the financial structure of benefit plans. "Value-based insurance design allows companies to reach that synergy," he said. M

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1 Michael E. Chernew, Allison B. Rosen, and A. Mark Fendrick, "Value-Based Insurance Design," *Health Affairs*, January 30, 2007, http://content.healthaffairs.org/cgi/content/abstract/hlthaff.26.2.w195.

ACCOUNTING TRANSPARENCY AND THE PUBLIC SECTOR:

THE POLITICAL AND PHILOSOPHICAL COSTS OF GASB 45

BY BECKY SIELMAN, FSA, MAAA, AND BILL THOMPSON, FSA, MAAA

An accounting rule affecting thousands of public entities across the country—from state and local governments, school districts, and police and fire departments to county hospitals, community colleges and state universities, as well as many other tax-funded public institutions and organizations—presents daunting challenges to public sector political and administrative leaders. They will be required to identify and disclose liabilities associated with the "other post employment benefits" (OPEB) offered to their retired employees beyond pension or termination benefits—that is, they will need to begin accounting for the projected cost of their retirees' medical, prescription drug, long-term care, disability, and life insurance benefits.

Early reaction to Government Accounting Standards Board Statement 45 (GASB 45) has generally focused on its dire implications. The most expensive OPEB component, retiree medical benefits, looms large in these discussions, prompting news articles that warn of the "next retirement time bomb" and moving one mayor to proclaim, "We can't pay for it."[1] The largest government entities will see the effect of GASB 45 in their financial statements for fiscal years ending in 2008. Other public sector employers will see it in 2009 and 2010.

We have addressed some of the important aspects of this issue on the Milliman Web site (see www.milliman.com/gasb45/faqs.php). Yet, the sheer number and variety of public entities affected by GASB 45—as well as various provisions for its phased implementation—make it impractical for any single analysis to serve as a template for action in the face of myriad uncertainties.

Instead, it might be useful to point out a few of the political and philosophical challenges that decision-makers in the public sector must address as they search for solutions specific to their circumstances. After all, their decisions regarding retiree medical benefits and other OPEB elements affect not only employees and retirees but also taxpayers, voters, and constituents.

The promulgation of GASB 45 flows from four considerations that align the public sector with similar requirements for accounting transparency in the private sector as specified in Financial Accounting Standards Board Statement 106 (1990). First, OPEB liabilities represent largely unquantified encumbrances against the future revenue of the public entities that provide these benefits. Second, public officials, employees, and taxpayers alike can act responsibly only when they have access to as much information as possible regarding OPEB commitments and costs. Third, prudent public policy-making requires that the cost of OPEB benefits be accounted for in the context of the cash flow needed in coming years to pay for them. And finally, there is an intergenerational issue: As soon as public employers promise to provide OPEB benefits, they must understand the implications and value of that promise—both today and in the future.

Before the advent of GASB 45, most public entities funded their OPEB obligations on a pay-as-you-go basis and did not set aside funds during employees' working years to prefund their retiree benefits. Costs for the OPEB benefits were relatively low, and often were not identified separately from the costs for insurance benefits provided to employees. However, for many public employers, this pay-as-you-go approach is compromised by the sheer number of people now entering retirement and by the rapid escalation of healthcare costs. While these trends affect both private and public employers, their effect on the public sector is more dire, because this sector has historically opted to redress the perceived imbalance in compensation between the public and private sector by leveraging a favorable employee-to-retiree ratio in order to provide generous healthcare and retirement benefits.

A number of politically sensitive alternatives are emerging that will fundamentally change long-standing compensation policies in the public sector. No single alternative offers a complete solution to the looming problems of financing retiree healthcare and other OPEB. Moreover, all of these alternatives are vulnerable to the "law of unintended consequences," in that they potentially create more problems than they solve. In the end, some combination of solutions will likely be needed as public sector decision-makers attempt to address the huge shortfalls in their retiree healthcare programs:

■ **PREFUNDING** establishes dedicated financial pools. Ideally, these pools will be run by professional investment managers working with a long-term investment strategy approved and overseen by a board of directors whose primary fiduciary obligation is to the dedicated fund itself. Prefunding typically requires a phase-in process of four to eight years and, of course, a source of revenue specifically directed to its purposes. Depending on where its money comes from, a prefunding scheme can soak up a large percentage of available tax or fee revenues and so compete with every other function financed by the public entity that creates it. Prefunding has long been used for pension benefits in both the public and private sectors.

■ **CUTTING BENEFITS** has always been the "third rail" in public policy, at least for the affected constituencies, and can run afoul of existing collective bargaining agreements, contracts, or statutes. More important, this strategy represents a fundamental policy

1 Milt Freudenheim and Mary Williams Walsh, "The Next Retirement Time Bomb," *The New York Times*, December 11, 2005.

reversal, given the fact that benefits of all kinds, including OPEB, have been used to attract and retain the public workforce. A cut in benefits is generally regarded by those who suffer it as a pay cut or some such diminution of their compensation. Because benefits are important components of the compensation package, cuts in this area may also lead to demands for higher wages and salaries.

■ **RESTRICTING BENEFIT ELIGIBILITY** for new hires creates different castes or classes of employees who may perform similar functions at the same pay levels, at least during the transition in the workforce from those enjoying better benefits to those working with reduced eligibility. As with benefit cuts, reduced eligibility is perceived as a fundamental shift in policy that changes the terms of employment and compensation in the public sector.

■ **BONDING THE UNFUNDED OBLIGATIONS** and placing the proceeds and investment returns in a trust fund specifically dedicated to retiree healthcare is not yet permitted in most states. Even if it is permitted, it requires a degree of political will to incur the costs, sequester the revenues, and enforce the agreements necessary to fashion a program that will meet the bonding industry's standards for performance.

■ **RAISING TAXES** will encounter a significant wave of resistance from a public that has been conditioned by the rhetoric of tax cuts for the last 25 years. Politicians are loath to admit that increased taxes are on the table. It is especially difficult to argue for higher taxes if the revenue will not be used to provide new services or facilities. Yet, whether through a decision to prefund or through a series of cost shifts or a reduction in benefits, state and local public entities must find new revenue to meet their unfunded OPEB obligations.

Any of the solutions proposed here will require tough decisions, as leaders must choose among options that are all flawed in one way or another. Where local custom allows it, government officials may need to act unilaterally and will risk strong criticism from constituents. These tough decisions may prove impossible in areas that are governed by collective bargaining.

Implementing GASB 45 will reveal an actuarial reality that requires political solutions in the widest sense of the word: The situation changes long-standing terms of employment, alters traditional relationships between public employees and the governments that employ them, and rekindles the philosophical debate over who pays for what, how much they should pay, and when they should pay it. Moreover, these solutions will not occur in a vacuum. State and local governments share taxpayers, voters, and constituents with the federal government, which confronts its own daunting funding requirements with respect to Social Security and Medicare. According to the head of the General Accountability Office, U.S. Comptroller David Walker, federal retiree healthcare programs will capture the lion's share of the federal budget by 2040 if they are left unaddressed; the rest of the federal budget will be devoted to little else but debt service.[2]

Public sector employers will need to confront the implication of GASB 45. They will need to determine the magnitude of the costs they face and the cash flow available in the coming years to meet them. They will need to decide whether prefunding makes sense, and what steps are required to implement it. Like their counterparts in the private sector, they will need to cast a critical eye on ways to reduce the overall costs of medical benefits for existing retirees and control the growth of healthcare costs for future retirees. And they will need to do all of this under scrutiny from their employees, the taxpayers they rely upon, and the constituents they serve. **M**

THE PICTURE IN NUMBERS

What kinds of specific liabilities are municipalities facing? There is a large range among various municipalities, in terms of accrued liabilities and prefunding contribution amounts. The range flows both from the size of the municipalities' workforces and from the richness of the OPEB benefits.

For small town A, with 400 employees (half of whom are teachers), and very modest OPEB benefits, the accrued liability for future retiree medical costs is $12.1 million and the town would need to budget an additional $650,000 per year to prefund these benefits in a trust. A's finance director estimates that this represents a tax increase of 1.5%. In an era where tax increases of 4% or 5% are met with outrage from taxpayers, shoehorning an extra 1.5% into the budget is a daunting proposition.

For eastern seaboard city B, with 2,000 employees and more generous OPEB benefits, the numbers are correspondingly larger: an accrued liability of $150 million and an annual prefunding cost of $15 million. And for state C, with upwards of 50,000 employees and essentially full medical and dental benefits for all retirees, the accrued liability is measured in the tens of billions of dollars.

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2 David Walker interview, *60 Minutes*, CBS, March 4, 2007.

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Design: Sequel Studio, New York. Photography: Fredrik Broden, front and back covers, page 4; Holly Lindem, page 14.
Illustration: Harriet Russell, pages 2–3; Christopher Silas Neal, page 10; Leigh Wells, page 20.

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