

# IN THE PUBLIC INTEREST

- 1 From the Council Chamber
- 3 From the Editor  
By Ardian Gill
- 4 Consistently Framing The Design  
And Analysis Of Health Care  
Proposals  
By Mark Litow and Bob Shapiro
- 7 Health Care Reform:  
The Right and Wrong Ways  
By Dwight Bartlett
- 9 Retirement Age From the  
Viewpoint of Economic and Social  
Policy  
By Ken Buffin
- 11 To the Editor of the Wall Street  
Journal: Response to August  
6 Review and Outlook Section  
Editorial, "Obamacare's Real Price  
Tag"  
By Concerned Actuary Group
- 12 On Health Care Reform  
By Fred Kilbourne and Mark Litow
- 14 Why are Public Programs (e.g.,  
Medicare) Generally Drastically  
Underfunded?  
By Robert Shapiro
- 15 Summary of the Council's first face  
to face meeting, Boston October  
25th, 2009  
By Jan Carstens
- 17 Worth a Look

## FROM THE COUNCIL CHAMBER

We are pleased that the Society of Actuaries has agreed to form this new and important Section, Social Insurance and Public Finance (SIPF) dedicated to education and research on the topic of social insurance and other publicly financed programs. The need has never been greater and we believe we have the SIPF Section up and running: the Council has been elected and had its first meeting at the annual Society meeting in Boston, where a planning process was put in place and critical assignments filled. We'd like your help in expanding the membership in numbers and disciplines, both in North America and abroad.

In 2007 the major North American actuarial associations (SOA, CIA, MAAA, CAS, ASPA, CONAC) signed an agreement to operate in the public interest, reaffirming that at the core of any profession is the concept of service to the public. The agreement stated, "It is important to identify, protect and advance the public interest in the work of our profession, its organizations and its members."

To this end the organizing committee petitioned the Society to form a new Section to give the profession a platform for addressing the ongoing fiscal and demographic challenges that we face not only in North America but around the world. These challenges are profound: SIPF programs combined dwarf all other areas of actuarial endeavor, and public understanding of the actuarial aspects of these programs is minimal at best. The Section will enable the profession to apply to these important issues the actuarial discipline that is sorely needed. The petition was accepted by the Society's Board in March 2009 and became effective in June with the enrollment of more than 200 members.

The stated purpose of the SIPF Section is "to develop consistent, high quality continuing education opportunities and to sponsor fundamental research into evaluating and man-



## IN THE PUBLIC INTEREST

ISSUE 1 | JANUARY 2010

### 2010 SECTION LEADERSHIP

#### OFFICERS

Bob Shapiro  
Chairperson

Fred Kilbourne  
Vice Chairperson &  
Strategic Planning

Jay Jaffe  
Treasurer

Janet Carstens  
Secretary

### COUNCIL MEMBERS

Mark Litow  
Ardian Gill  
Gordon Latter  
Robert Brown  
Warren Luckner  
Selig Ehrlich

### BOARD PARTNER

Valerie Paganelli

### NEWSLETTER EDITOR

Ardian Gill

### OTHER REPRESENTATIVES

Mark Litow  
Spring Meeting  
Coordinator

Warren Luckner  
Basic and Continuing  
Education Coordinator

Robert Brown  
Liaison to IAA

### SOA STAFF

Sam Phillips  
Staff Editor  
e: sphillips@soa.org

Andrew Peterson  
Staff Partner  
e: apeterson@soa.org

Jill Leprich,  
Section Specialist  
e: jleprich@soa.org

Julissa Sweeney,  
Graphic Designer  
e: jsweeney@soa.org

Facts and opinions contained herein are the sole responsibility of the persons expressing them and should not be attributed to the Society of Actuaries, its committees, the Social Insurance and Public Finance Section or the employers of the authors. We will promptly correct errors brought to our attention.

Copyright © 2010 Society of Actuaries. All rights reserved. Printed in the United States of America.


## Cont. ...From the Council Chamber

aging social insurance programs, including public pension plans, government funded health plans, workers compensation insurance and unemployment insurance.” The Section also expects to address actuarially relevant aspects of the financing of these programs. Our work will cross disciplines such as enterprise risk management, health and pensions. The participation of academics is encouraged and, as indicated above, we seek to attract actuaries and other professionals outside North America as well.

We believe the new Section has the potential to advance the profession, extend its influence, create opportunities for individual practitioners and, most importantly serve the public. We strive to bring the abilities of professionals in multiple disciplines and multiple countries to the critical social insurance and public finance issues facing us. Our goal is to develop capabilities for the public sector that are held in the same high regard as existing SOA programs for the private sector.

We recognize that there are potential conflicts with other Sections and other actuarial organizations. A major goal of the Section will be to identify and avoid these potential problems, and instead to complement and to contribute to these other entities.

To this end, liaison members have been appointed for each such Section or organization. Certain activities of the Section have already begun: At the annual Society meeting, Session 127, *Forgive Us Our Debts*, was devoted to the work of the Section.


All of us are impacted by social insurance programs, and we share responsibility for their financing. The better informed we are the better we can inform and improve policy decisions. Again we urge you to encourage others to join the Section and to contribute to its critical mission. Joining is easy: enter the SOA Web site and click on the Professional Interests tab. Then click the Sections header. Scroll down to the Social Insurance & Public Finance Section link and click. On that page you will find a Join a Section link. Clicking that link takes you to the next page which hosts a link for a downloadable form (Join Section). 

# LETTER FROM THE EDITOR

by Ardian Gill

**F**or this, the Section's first newsletter, we ask tolerance for any rough edges that we have failed to hone. Aside from expressing thanks to the various contributors of the screeds appearing here, we want to acknowledge, with gratitude, the splendid efforts of the SOA staff who made the newsletter happen. In particular we are grateful for the help of Jill Leprich, Andy Peterson, Sam Phillips, Susan Lamczyk and Meg Weber. There are undoubtedly others who worked behind the scenes and we extend our thanks to them as well.

Readers of Jan Carsten's summary of our first Council face to face meeting must acknowledge the progress made on a number of fronts. For our fledgling efforts we have broadly addressed our mission of education and research into those public programs that need actuarial expertise. Now comes the hard part: we must identify at least one pilot project, structure that project, find the researchers and provide the funds to carry it out. The Council has scheduled monthly conference calls to further this effort. Aside from identifying what is wrong with a given program, we must propose ways to fix it.

Social Security and Medicare are obvious targets. The current situation with regard to these programs and various troubling projections of their financial future were laid out in a panel discussion at the annual SOA meeting. The presentations can be found on the SOA Web site for the panel "Forgive Us Our Debts," program number 127. Some general "fixes" were put forth which will serve as a starting point for the Section's work in these areas. We would welcome contributions from members and non-members on these or any other relevant public programs. Articles should be 1500 to 2500 words long. Please send them by e-mail to [sipfsection@gmail.com](mailto:sipfsection@gmail.com) 



**Ardian Gill, FSA, MAAA**

is president of Gill and Roser Life Intermediaries, Inc. in New York. He can be reached at [agillr@aol.com](mailto:agillr@aol.com)

# CONSISTENTLY FRAMING THE DESIGN AND ANALYSIS OF HEALTH CARE PROPOSALS

by Mark Litow and Bob Shapiro

*The words “profession,” “professional” and “professionalism” frequently appear in the statements, programs and in the organizational chart of the American Academy of Actuaries and related partner actuarial organizations. These are important words and deserve to be constantly on our minds and in our consciences. The concept of a profession carries with it the idea of service to the public. Today a unique opportunity, one could also say a professional obligation, for public service is presented to actuaries. In the United States, the national social insurance systems face serious problems. Any list of domestic issues has Medicare and Social Security in prominent places.*

*-Jim Hickman, FSA, MAAA, ACAS, 2006*

**W**e are members of a group referred to as the Concerned Actuaries Group, and this group has been working for more than three years in the spirit of Jim Hickman’s words. We believe strongly that each of us has a personal responsibility to serve the public and to lead such efforts whenever and wherever we can. If we fail to contribute, we fear we will regret our lack of involvement and look back on this time as a low point for our profession - actuaries being absent from the discussions where their unique expertise was required.

Nowhere is our leadership needed more today than in framing the ever intensifying national health care dialogue. Actuaries have a responsibility to assure that the design, costing and management of proposed Medicare and health care programs are developed with actuarial discipline.

Actuarial discipline involves much more than setting assumptions and pricing or costing a proposed program. It requires that management processes be established in a way that is consistent with the underlying assumptions, that experience is measured against those assumptions as it unfolds, and that adjustments are made based

on the learning that occurs in evaluating differences between what was expected and what actually occurred.

The Actuarial Control Cycle is a general actuarial framework that is an integral part of actuarial training. The Actuarial Control Cycle refers to the recurring cycle of specifying the problem, developing a solution, monitoring experience and refining the problem specification. Let’s look a bit deeper at each of the three elements of this continuous cycle.

**Specifying The Problem:** Our national health care system represents a large and growing proportion of our gross domestic product, and Medicare is a substantial part of our national health care system. Largely funded through payroll and federal income taxes, Medicare is also an important part of our U.S. financial system. It is responsible for a large part of the growing deficit that threatens the future viability of our economic system and standard of living.

Reasonably designed, priced and managed health care makes compelling economic and moral sense. Our current Medicare system and many related parts of our health care system are not reasonably designed, reasonably priced, nor reasonably managed. To remedy this situation, tenets such as the following need to be accepted (or overtly rejected):

1. Health care is not an unlimited resource. Health care must be designed to be affordable within the economy.
2. Medicare and other health care systems should follow actuarial and economic principles such as:
  - a. Use established risk pooling techniques that create credible and reasonably predictable results. Pooling like risks improves predictability. Pooling unlike risks often creates adverse selection and higher costs.
  - b. Minimize adverse selection. Mismatching of risk classification in cost/benefit

comparisons and/or distorting demand and supply or other economic balances lead to inefficiency or other consequences. These impacts can result in some blend of reduced affordability of, and access to, quality treatment.

- c. Minimize hidden induced demand. Overuse of insurance and third-party payment creates excessive costs. Insurance should protect only against catastrophic events and contingencies that are beyond the budget capacity of the insured.
- d. Monitor expected results. Establish clear initial assumptions for future behavior and experience, tie program design and management to those assumptions, manage to the scorecard of related expectations and adjust management practices periodically as actual experience differs from expectations.

- 3. Health care programs must meet to-be-established standards for access, quality and financial soundness.
- 4. Program management must preserve demonstrable financial equity between generations of citizens.

Establishing a consistent (and actuarially sound) foundation for assessing the costs and benefits of each and every current and new Medicare or other health care proposal is critical. Current analytical approaches are often opaque, not comparable. This situation is too dangerous to continue, with different constituencies often using different numbers to create demand for answers they want to promote. Each new proposed program should be scientifically sound, with clear standards for management that maintain the integrity of the original projections and related expectations. If this management discipline is not applied, we can continue to expect out of control costs and dissatisfaction. We cannot afford even to consider such a scenario.

## DEVELOPING A SOLUTION

Solution development begins with agreement on basic tenets, such as those offered earlier in this paper. A baseline (expected) case will underpin program costing and future management. sensitivity tests—under varying assumptions provide insights into where variations might be expected to occur and suggest indicators that show such occurrences are evolving. This management discipline is essential to the long-term success of any financial system.

Some basic questions that need to be addressed in any actuarial/economic analysis are set forth below:

1. **Induced Demand:** How does utilization differ under Medicare or other potential health care programs from what might be expected if citizens had insurance for only contingent and catastrophic events?
2. **Anti-Selection (Including Risk Pooling):** How and where is utilization increased because of design and management of the health care program enables individuals to “game” the system.
3. **Alignment:** What incentives are needed to motivate preferred behavior and avoid misuses of risk classification and pooling?
4. **Financial Soundness:** What are reasonable targets for Medicare and other health care systems, including allowance for margins to address fluctuations over time?
5. **Monitoring:** What types of corrective actions should be considered and what will trigger them based on a comparison of actual to expected results?
6. **Key Assumptions:** Critical assumptions driving the necessary actuarial and economic analysis should consider:



Health care programs must meet to-be-established standards for access, quality and financial soundness.

CONTINUED ON PAGE 6

- The program design and related risk characteristics including:
  - Financial security provided
  - Political sustainability
  - Political accountability
  - Affordability over time
  - Administrative efficiency
  - Intergenerational equity
  - Public acceptability (consider values, morals and ethics)
  - Level of individual choice
- Tooling up expenses for the program
- Ongoing administrative costs
- Investment earnings
- Potential variability

### MONITORING EXPERIENCE

Pricing and costing assumptions for a new health care proposal generally start with a review of past experience on similar programs with similar features. Periodic monitoring of an existing program includes a similar exercise reviewing past experience and trends relative to expectations that were set when the program was last evaluated from a cost perspective.

Projections are never realized exactly. For example, actual claims experience may be substantially different from that expected due a number of factors, including:

- Unanticipated impacts of program design (e.g., imprecise or otherwise flawed definitions of benefits).
- Inadequate program management (e.g., paying for claims that weren't envisioned by the program contract).
- Economic conditions (e.g., a recession generally increases claims costs).
- Over utilization (e.g., often present where the program covers more than contingent and catastrophic events).
- Inadequate incentives to motivate preferred behavior.
- Improper utilization of risk classification and pooling principles.


When the causes of the differences between actual and expected claims-or deviations of actual from expected for any other assumption-are determined, changes in the design or management of the program can be implemented so that actuarial discipline in the control cycle is restored. When such detailed monitoring and management adjustment is not done, as is the case with Medicaid, Medicare and other parts of the health care system, problems tend to compound themselves and eventually transcend effective control of the program managers.

There are other factors, such as the combining of social and insurance principles in our Medicare program, that must be carefully assessed with related assumptions set and periodically modified accordingly.

### MANAGING FUTURE PLANS

The integrity and manageability of future health care plans and proposals requires consistent continuing application of the type of discipline and transparent process described in this paper. If this practice was followed, a rational discussion of alternative programs and implications of those alternatives could occur. As things stand today, with every program having its own set of assumed facts and expectations, and with a few programs establishing the needed protocols to manage to underlying assumptions, it is no wonder we are struggling the way we are.

Actuaries are trained to understand, quantify and manage contingencies and risks. Although there will never be a perfect health care system, our current Medicare and health care systems are neither designed nor managed in a way that is effective or sustainable. We believe that any sustainable health care system has to reflect the principles, standards and management philosophies reflected in this paper.

We would like to thank Bart Clennon, FSA, MAAA; Jeremy Gold, FSA, MAAA, FCA, CERA; Fred Kilbourne, FSA, MAAA, FCAS, FCIA, FCA, EA, MSPA; and Jim Toole, FSA, MAAA; for their contributions to this paper. 



**Mark E. Litow, FSA, MAAA**, is a consulting actuary at Milliman Inc in Brookfield, Wisconsin. He can be reached at mark.litow@milliman.com.



**Bob Shapiro, FSA, MAAA**, is president of the Shapiro Network Inc. in Milwaukee, Wisconsin. He can be reached at shapironetwork@ameritech.net.

# HEALTH CARE REFORM: THE RIGHT AND WRONG WAYS

by Dwight Bartlett



**R**ight now seems to be a critical point in the debate in Washington about health care reform. There is a broad consensus that our health care “system,” if you can call it that, is seriously dysfunctional. Witness the fact that more than 47 million Americans are uninsured and tens of millions more are underinsured, leading to uninsured medical expenses being the single leading cause of personal bankruptcy in America. Witness the fact that we spend about 16 percent of our Gross Domestic Product (GDP) on health expenditures, which ranges anywhere from 50 percent to 100 percent more than other economically advanced countries. Witness the fact that we get poorer results from our overly expensive health care, if our level of health is measured by standards such as life expectancy and infant mortality rates. By both measures we rank near the bottom among economically advanced countries. Just to give you one example, Japan’s figures are approximately 81.6 years and 3.2 per thousand respectively, while ours are 78.4 and 6.2. Yet, Japan only spends about half as much as we do on health care as a percent of GDP.

The contributing factors to this unfortunate situation are many and varied, so health care reform efforts must be multifaceted. It is generally believed, for example, that our medical

malpractice insurance system in this country encourages frivolous lawsuits, and the practice by health care providers of defensive medicine, i.e., the use of tests and procedures not indicated by the patient’s condition simply to avoid the possibility of being sued for failing to consider every conceivable diagnosis, no matter how remote. A few states have adopted caps on damages for pain and suffering, which seem to help in this regard.

Another factor cited frequently for our high costs is the lack of a national electronic system of personal health care records, which health care providers can access in an effort to provide health care, which is well integrated with the total program for an individual patient. How much this would help control costs and improve outcomes is controversial, but the achievement of some benefit seems obvious by common sense.

It is increasingly recognized by health care economists and other experts in this field that the overwhelming major contributor to the high cost of our health care is our fee-for-service form of reimbursement of health care providers. This form of reimbursement is what is used by the principal program in which most Medi-

It is increasingly recognized by health care economists and other experts in this field that the overwhelming major contributor to the high cost of our health care is our fee-for-service form of reimbursement of health care providers.

CONTINUED ON PAGE 8

care eligible individuals are enrolled and which is characteristic of most employer-based health insurance programs, other than Health Maintenance Organizations (HMOs), which cover the great majority of non-elderly Americans.

Fee-for-service health care provides exactly the wrong incentives to health care providers. It incentivizes them, doctors and hospitals, to provide expensive forms of health care, because that maximizes their profits. This is well documented by studies conducted at the Dartmouth Medical School by John Wennberg and Elliott Fisher, who estimated that of the two trillion dollar expenditure for health care in 2006, as much as 700 billion dollars was spent on health care that did patients no good but caused unnecessary harm.\*

Often cited as examples of health care programs that produce superior results at lower costs are the Mayo Clinic and Kaiser Permanente. A government run system which also reputedly gets better results at lower costs is the Veteran's Health Administration. All of these operate on other than a fee-for-service basis, with doctors being compensated on a salaried basis and the system being reimbursed on a group capitated basis, depending on the number patients they care for. As a result, providers have an incentive to keep the population for which they are responsible as healthy as possible at as low a cost as possible, using results-oriented experience-based health care procedures.

All this sounds like a revisiting of the HMO movement, which started out so promisingly in the 1970s with leadership from the Nixon administration, but which came a cropper in the 1990s as insureds complaining about unqualified accounting types at the HMO making medical decisions. Since employers were pay-

ing most of the bills, insured employees simply wanted no limits on expensive health care.

The current danger in health care reform is that the politicians will focus on closing coverage gaps without taking measures to control costs. The consequences of that can be seen in Massachusetts, where it is estimated that the cost of health care has gone up by 30 percent since their state mandates of universal health insurance coverage have gone into effect. We desperately need to avoid repeating that mistake at the national level. Let us hope that the Washington politicians will be brought to realize what is the true root of our current and growing crisis.

**\*Overtreated,** Brownlee, Shannon, P.37  
Bloomsbury, N.Y. 



**Dwight K. Bartlett, III, FSA,** Chief Actuary, Social Security Administration 1979-1981, Maryland Insurance Commissioner 1993-1997. He can be contacted at [dkb3fsa@verizon.net](mailto:dkb3fsa@verizon.net).



# RETIREMENT AGE FROM THE VIEWPOINT OF ECONOMIC AND SOCIAL POLICY

by Ken Buffin

The United States Social Security system is currently financed by joint employer and employee payroll taxes, each at 6.2 percent of workers' annual wages up to a maximum of \$106,800. According to the latest financial report of the Social Security trustees, projected payroll taxes, together with the current trust fund assets, are adequate to meet scheduled benefits until the year 2037. Thereafter, payroll taxes are projected to fall short of the level required to meet scheduled benefits. According to the trustees, an increase of one percent of covered annual wages, to 7.2 percent for both employers and employees, would be required at the present time to bring the relationship between the actuarial values of future benefits and future contributions into balance over the 75-year projection period to 2083.



There are many ways in which the projected actuarial balance over 75 years might be improved so as to eliminate the projected deficit beyond the year 2037. The two major categories of adjustments to the system that have been extensively debated in recent years include increasing contributions and/or decreasing scheduled benefits. Actuaries typically focus on the concept of the 75-year actuarial balance as an important criterion for maintaining the solvency and sustainability of the system. A great deal of literature exists describing various proposals to make parametric changes to the system, such as: increasing the payroll tax rate; increasing the limit on taxable earnings; changing the components of the primary benefit formula by reducing the benefit percentage rates or adjusting the ranges of covered earnings associated with each of the benefit percentage rates; reducing the amount of cost-of-living adjustments; changing auxiliary benefits on death or disability; and changing the definition of normal retirement age so as to continue to increase gradually to higher ages in future. (The normal retirement age is already in the process of moving in steps from 65 to 67 as provided under the present Social Security law).

Advocates of increasing the normal retirement age beyond 67 point to the effects of a secular trend in declining mortality rates and the corresponding increase in life expectancy from generation to generation. From an actuarial perspective, there is a certain logic to the concept of increasing the normal retirement age to counterbalance the financial effect of improving longevity expectations. However, economists often take a different view and tend to consider the economic and social aspects of proposals for changes to the normal retirement age in addition to their financial effect alone. A recent research paper published by the Washington-based Economic Policy Institute takes issue with the concept of increasing the normal retirement age, presents the issue in the broader context of economic and social policy, and presents a rationale for “why raising the social security retirement age is not the answer.”

In a briefing paper published in May, the Economic Policy Institute makes several points in support of not raising the Social Security retirement age. (1) Retirement security is declining as fewer individuals are covered by tradition-

From an actuarial perspective, there is a certain logic to the concept of increasing the normal retirement age to counterbalance the financial effect of improving longevity expectations. However, economists often take a different view ...

CONTINUED ON PAGE 10

al defined benefit retirement plans and older persons face rising health care costs. (2) Life expectancy should not be viewed in isolation. Other long-term trends, such as an increase in women's labor force participation have had an important financial effect on Social Security's finances. Aggregate Social Security contributions have grown faster than life expectancy at retirement. (3) Today's workers pay more into the system. They live longer than previous generations, work more hours and retire later. (4) Working women have helped to strengthen Social Security finances. Today's employed generation works six days more a year than the generation of fifty years ago due to women's participation in the labor force. The financial effect has been positive since the system subsidizes spouses who do not work and those who earn much less than their partners. (5) Forcing people to work longer may hurt those it is meant to help. Retiring early makes sense for workers with shorter life expectancies. Raising the retirement age would hurt those who have little choice due to poor health or little prospect

of employment. (6) Raising the retirement age would hurt low-income and minority workers. Most of the increase in life expectancy in recent decades has been among higher-income workers. (7) The shortfall has more to do with widening income inequality and other labor market factors. Earnings of most workers have stagnated except for higher-income workers. Earnings above the current limit of \$106,800 are not subject to the Social Security payroll tax. (8) It makes no sense to cut benefits at a time when retirement insecurity is rising. Other changes, including an increase in the payroll tax rate and raising the limit on taxable earnings, together with implementing comprehensive health care reform, are more aligned with national social and economic policy needs. 🧑🏻🧑🏻🧑🏻

Ken Buffin is founder of Buffin Partners Inc. He can be contacted at [commentary@buffinpartners.com](mailto:commentary@buffinpartners.com)

## Pay Your Dues and Section Memberships Online\*

Using your credit card and our easy-to-use online payment system, you can pay your dues, renew section memberships or sign up for new section memberships. For your convenience, you can also sign up for IAA special interest sections at the same time you renew your SOA membership.

\*To pay by check, visit the site below to print your invoice.

Renew today at <http://dues.soa.org>!



# TO THE EDITOR OF THE WALL STREET JOURNAL

Response to August 6 Review and Outlook Section editorial, "Obamacare's Real Price Tag"  
by Concerned Actuary Group

**W**e read the August 6 editorial, "Obamacare's Real Price Tag," with great interest. The analysis in the piece confirms the actual Medicare historic experience of: (1) consistent underestimates of costs, (2) continued escalation in the level of Medicare's unfunded liability ... which is currently approaching \$40 trillion as reported in the annual Medicare Trustees Report, and (3) lack of normal management controls within the Medicare program. Any well-managed public company has a system of management controls that periodically adjust program design and funding to assure consistency with initial costing expectations.


We are a group of concerned actuaries that have been working for several years to increase public awareness of the financial realities, including intergenerational equities, of Medicare and other social insurance and public finance programs. The actuarial profession has unique expertise in this critical area. Our group believes strongly that the concept of profession carries with it an obligation to serve the public.

We have several immediate suggestions for increasing public understanding of current cost issues and providing a framework for consistently evaluating each and every new proposal, such as pending health care legislation. Our objective is not to support one program or another, but to assure that any program considered meets minimum preset financial and management standards (standards we demand in the accounting for any and all non-governmental enterprises). Our citizens are owed assured long-term financial soundness.

Several simple steps to start with:

1. Demand that any future public health care program learn from Medicare and other prior experiences. Don't repeat the same mistakes. Medicare costs have been underestimated and the program undermanaged since its inception in 1965.

2. Demand that government programs be held to the same accounting requirements and transparency as public companies. After all, government is funded solely by citizen-shareholders and these shareholders should have the same protection as public company shareholders.
3. Charge a non-partisan coalition of leading financial experts (i.e., academics, accountants, actuaries, and economists) to provide a meaningful framework for designing and managing public programs ... not to prescribe answers, but to establish standards and management disciplines that politicians and regulators must follow.
4. Focus assuring balance in future program revenues and costs. No financial system will work with revenues increasing 5 percent a year and costs increasing 8 percent a year, as expected in current CBO projections of the proposed health care plans.

All agree that health care should be reformed. We owe it to our kids and grandchildren to be very specific in how we design and manage these reforms. We have a moral responsibility to avoid the runaway costs and inadequate management discipline that has brought us and, more importantly, our children, to the financial precipice we stand on today. 

Concerned Actuary Group  
([www.concernedactuaries.com](http://www.concernedactuaries.com))

# ON HEALTH CARE REFORM

by Fred Kilbourne and Mark Litow

Everyone seems to agree that the U.S. health care system needs reform, and then different people espouse different solutions. Some people believe that if we merely provide everyone coverage our problems will be solved. Others say that we must control the cost of private insurance, get entitlement spending under control and lower claim cost trends, while at the same time covering those currently uninsured. More recently, proposals to address these issues have resulted in concerns about maintaining access to quality treatment for people currently covered by insurance or programs. But we need to be concerned about the actuarial and other principles underlying the combination of coverage, cost and access to treatment, or how we have arrived at our predicament.

An examination of the current groupings of options noted above shows how ultimately unsustainable they are. These results are evident because fundamental principles are being ignored in each of the following current approaches.

## CURRENT APPROACH 1: COVER THE UNINSURED

To provide all or most of the uninsured with coverage, a vehicle is needed through either government or private coverage or some blend of the two. But then what happens? If we push

the previously uninsured into coverage, costs explode due to pent up demand, without any other change, as utilization of coverage under any type of program is much higher than for an uninsured population. This result will mean increases in government costs, private costs or both due to failure to satisfy principles of insurance let alone other shortcomings.

## CURRENT APPROACH 2: PROVIDE GOVERNMENT COVERAGE WITH LOWER PROVIDER FEES

If we enroll people primarily into government coverage and reduce provider fees in an attempt to control costs while providing coverage, providers will reduce availability and access to quality treatment. Under this scenario, some think the government can wring out all of the inefficiencies in the process, but utilization under government programs, without restricting access to needed treatment, is generally much higher than private programs for the same demographic population; reasons include more fraud and abuse and mandates. Further, current government entitlements are grossly underfunded, and expanding them increases deficits, putting even more strain on the system. Principles not satisfied include those relating to matching revenues and costs, and supply and demand.

## CURRENT APPROACH 3: MANDATE RICH PRIVATE COVERAGE

If we enroll people into private coverage and do not change the utilization implicit with heavy third-party payment, costs will be difficult to control. When people pay for a service or product with somebody else's money, they always spend more. Is this the fault of fee for service reimbursement or is the issue the financial incentive and lack of transparency of costs and services? Are we not confronted instead with classic over and under insurance issues and if so, how does enrolling more people into private insurance without other fundamental changes



address these issues? This approach also violates risk classification principles.

#### CURRENT APPROACH 4: MANDATE HIGH DEDUCTIBLE PRIVATE COVERAGE

Or what if we try and control costs by simply mandating that people purchase reduced insurance such as Health Savings Account plans? This should reduce cost, but some people will not be able to afford the out-of-pocket costs. Further, this approach does not satisfy the principle of actuarial soundness of entitlements, and with less money going to providers through private insurers/employers, availability issues could increase without other changes.

#### CURRENT APPROACH 5: MANDATE UNLIMITED ACCESS TO PROVIDERS

If reform creates unlimited access to treatment to the uninsured without any other changes, or even if the status quo is continued with the unlimited access today, the country is headed toward a financial apocalypse. Technological changes are wonderful and we should encourage them, but advancing technology, without balancing associated costs and measuring value, does not satisfy principles of checks and balances or risk management. Our society has limited resources, and focusing only on unlimited access will cause future harm to our entitlements, economy and standard of living.

This list of approaches does not include or address other concerns which also need attention, such as litigation, demographic changes, eligibility for Medicare etc. All of these issues need to ultimately be addressed to bring the health care system back under control.

#### A DIFFERENT APPROACH

If none of the approaches above can be successful, what should the approach to reform be? The answer can be found in what each of the approaches above avoids. That is, adherence to basic actuarial principles and those of other pro-


fessions that relate to health care. Health care is a complex issue, and treating symptoms without understanding of fundamental principles for success is a formula for poor solutions that may actually compound problems.

Examples of basic principles to which proposed solutions must conform are:

- Actuarial science: principles of risk classification and over/under insurance;
- Economics: principles of supply and demand and value creation;
- Safety Nets: principles of subsidizing only those in need with funding support provided by small amounts from all others who are not subsidized.
- Clinical: principles of maintaining or improving health care over time and meeting the needs of patients; and
- Other: principles such as those relating to risk management, accounting, etc., including a control cycle (i.e. actuarial control cycle).

This change in focus will not happen by accident. Rather, the framework and process followed must be rigorous and follow principles of all the parties involved.

Indeed, this process has in a sense begun through the most unlikely of sources--the public. How strange that the general population, with very limited knowledge of our health care system, has begun asking the right questions of our leaders in Washington. Furthermore, those questions are, as they should be, frequently actuarial in nature. To properly answer them, actuarial principles are needed as part of the foundation, so that people can understand what is black, white or gray.

Actuaries need to work with other professions and groups so that principles are espoused and maintained, and, the input provided is used properly. Such an approach has the potential for a sustainable and well functioning system, while the approach of today does not. 



**Fred Kilbourne** is an independent actuary with the Kilbourne Co. He can be contacted at [fred@thekilbourne.company.com](mailto:fred@thekilbourne.company.com).



**Mark Litow, FSA, MAAA,** is a consulting actuary at Milliman Inc in Brookfield, Wisconsin. He can be reached at [mark.litow@milliman.com](mailto:mark.litow@milliman.com).

# WHY ARE PUBLIC PROGRAMS (E.G., MEDICARE) GENERALLY DRASTICALLY UNDERFUNDED?

by Robert Shapiro

**A**lbert Einstein once said, “Imagination is more important than knowledge for knowledge is limited to all we know and understand while imagination embraces the entire world and all there will be to know and understand.” Einstein never could have envisioned the extent of the imagination of designers and managers in our public financial systems.

In a “perfect world,” financial expectations for new public programs (or for enhancements of old ones) would be based on appropriate prior experience with comparable programs. The designers would establish management disciplines to underwrite and administer the business in a manner consistent with those assumptions.

Of course we know that public programs don’t exist in a perfect world ... partisan politicians, lobbyists and other interested parties often work hard to justify their desires and hence distort science in the analysis. One of their most dangerous tricks is to cost a program within a short time frame (e.g., 10 years), not reflecting expected cost overruns beyond the end point of that 10-year period.


But even beyond these political distortions, there are problems with the financial analysis of our public programs. First, and probably foremost, these programs intertwine social and financial programs in such a way as to: (1) make it difficult to determine what should be analyzed as a financial plan and what should be analyzed as a handout, and (2) make it easy for politicians to establish costs for what they want to appear reasonable. Other reasons for underfunding range from gaming the system (e.g., legislators retiring on pensions and then going back on salary) to “voodoo economics.”

So a fundamental reason for the substantial understatement in projected costs of our public programs is “garbage in – garbage out.” For example, it is just plain wrong to assume experience will be as we’ve seen in other well-man-

aged private sector financial programs, when in fact these public programs are not structured or managed in the same way.

There are two other issues:

1. First, government programs likely cannot be managed with the discipline found in private programs. There just aren’t the same regulatory and financial pressures on government as there are on private companies.
2. Second, similar to private sector financial programs, there are things that we just don’t know (because they have not occurred in the past) and they are not reflected in the pricing models. Here many politicians have a unique capability of projecting unknowns, but only those that bend the numbers in the direction of their desires.

We have a problem here. It is a major problem. If we don’t fix it, we put the long-term strength of our country (and the financial lives of our children and grandchildren) in peril. How do we bring the needed focus, discipline and accountability to these public systems before it is too late? We suspect it won’t take too much imagination ... just import the protocols found in management of strong private sector businesses. 



**Robert Shapiro, FSA, MAAA**, is president of the Shapiro Network Inc. in Milwaukee, Wisconsin. He can be reached at shapiro-network@ameritech.net.

# SUMMARY OF THE COUNCIL'S FIRST FACE TO FACE MEETING, BOSTON OCTOBER 25<sup>TH</sup>, 2009

by Jan Carstens

## PARTICIPANTS –

**Bob Shapiro, Rob Brown, Jan Carstens, Ardian Gill, Jay Jaffe, Fred Kilbourne, Mark Litow, Jeremy Gold (guest), Bart Clennon (guest), Valerie Paganelli (SOA Board Partner), Warren Luckner (by phone), Selig Ehrlich (by phone), Andrew Peterson (SOA Staff Partner), Jill Leprich (SOA Section Specialist)**

## LIAISONS:

The Council welcomed SOA Board Partner, Valerie Paganelli, who expressed enthusiasm for her role in the Section. Other outreach efforts were to be established through a series of committees, viz:

Membership, with emphasis on the need to enroll members from within and without the actuarial profession.

Communications, to coordinate activities with other Sections, committees and organizations.

Research, both to identify existing articles to include in a bibliography and to identify research projects for the Section and possible sources of funding.

Education, both basic and continuing, to respond to the mission of the section.

## STRATEGY:

As might be expected, at the first Council meeting much discussion focused on the Section's mission of education and research, including how to implement it and how to fund it. It is expected that a major source of funding will be the dues of the members and to this end, it is important to recruit a large number. The Council believes that every actuary should have an interest in this Section since social insurance and its funding impacts all of us as taxpayers and citizens. Thus the Council would like to aggressively recruit members – both from within and without the actuarial profession. From within the actuarial profession the Section's message to potential members should emphasize its importance to them Personally, to their Practice,



to the Profession and to the Public, the four Ps of importance.

Since the problems of publicly financed programs are international in scope, a significant component of the membership should come from countries outside North America. Another targeted group would be professions such as economists, researchers, policy-makers, statisticians and the like. It was hoped that an upcoming e-mail from the Section to all SOA members would significantly enlarge membership. One slogan suggested was “Write a check for \$25 or write a check to the country for \$25 million.”

A second potential source of funding might be grants from foundations such as the Peterson Foundation which is reported to have available \$1 billion to educate the public about the nation's finances. It was made clear that a specific and detailed plan would be necessary to approach other groups, including other Sections, for funding.

Discussions proceeded to education of actuaries and students, perhaps focusing on social security systems, federal and state pension plans, and


CONTINUED ON PAGE 16

government health programs. Aside from newsletters, the Section could broaden its outreach through SOA and industry meetings, webcasts and discussions at actuarial clubs and universities. Calls for papers and their subsequent publication on the Section's website or in its newsletter offer another educational opportunity.

Proceeding to the subject of research a few subjects that were put forward were:

1. A summary of the history of Social Security and Medicare programs with attention to what has gone wrong with those programs . (And, presumably, how to fix it? –Ed.)
2. A succinct summary of the various trustees reports.

3. Cost analyses of such plans.
4. An objective “watchdog” model to remain abreast of ongoing developments with attendant publicity concerning them.

For immediate short-term projects, the Council identified the need for an actuarial bibliography, an inventory of potential partner organizations, establishment of current and future priorities and establishment of the aforementioned committees and liaisons. 



## New Professional Development E-Courses

Take advantage of these additional opportunities to grow your knowledge on a variety of important and valuable subjects, while earning continuing professional development (CPD) credit, from the convenience of your computer.

The new e-course topics include:

- decision making and communication,
- enterprise risk management,
- financial economics,
- financial reporting and operational risk,
- fundamentals of actuarial practice,
- health systems overview,
- investment strategy,
- pricing, reserving and forecasting,
- regulation and taxation and
- social insurance.

Learn more and register today at [WWW.SOA.ORG](http://WWW.SOA.ORG).



# WORTH A LOOK

The following articles may be of interest to Section members. They are summarized here along with a link to the articles themselves.

## LESSONS OF THE FINANCIAL CRISIS FOR THE DESIGN OF NATIONAL PENSION SYSTEMS

Gary Burtless, Brookings Institution

The recent financial crisis and historical record suggest important lessons about the design of national pension systems. First, wide fluctuations in asset returns make it difficult for well-informed savers to select a savings rate or a sensible investment strategy for DC pensions. Workers who follow identical investment strategies, but who retire a few years apart, can receive DC pensions that are startlingly unequal. Second, it is difficult for ordinary workers, as opposed to optimal planners, to make sensible choices about portfolio allocation. Their investment errors mean that actual returns fall short of the theoretical returns that could be earned by a well-informed, disciplined investor.

Full article at: <http://www.watrisq.uwaterloo.ca/Research/2009Reports/2009-7.pdf>

---

## MARKET VALUATION OF ACCRUED SOCIAL SECURITY BENEFITS

John Geanakopulos and Stephen P. Zeldes

One measure of the health of the Social Security system is the difference between the market value of the trust fund and the present value of benefits accrued to date. ... In valuing such claims, the key issue is properly adjusting for risk. The traditional actuarial approach ... ignores risk and instead simply discounts expected future flows back to the present using a risk-free rate. If benefits are risky and this risk is priced by the market, then actuarial estimates will differ from the market value. ... We find that the difference between market valuation and actuarial valuation is large, especially when valuing the benefits of younger cohorts. Overall, the market value of accrued benefits is only four-fifths of that implied by the actuarial approach. Ignoring cohorts over 60 (for whom valuations are the same), market value is only 70 percent as large as that implied by the actuarial approach.

Full article at: <http://papers.nber.org/papers/w15170>

---

## SAFEGUARDING MEDICARE

Patricia Barry

An article in the October AARP Bulletin with the above title discusses various aspects of health reform then under consideration. The article concludes with an interesting bit of history, relevant to the fear that hospital and other facilities will be overwhelmed by a surge of formerly uninsureds seeking treatment.

“... history shows that worst-case fears that accompany any big change often evaporate. More than 19 million seniors were poised to start using Medicare on July 1, 1966. Amid fears that they’d all show up at hospitals that day, Army and veterans hospitals were put on alert, with helicopters on standby, to take the overflow. But there weren’t any lines anywhere, according to Robert Ball, the Social Security commissioner who implemented Medicare. ‘We didn’t need a single Army bed ... or a single helicopter. ...’”

Full article at: <http://bulletin.aarp.org>



HELP US

# STAY IN TOUCH.

Update your profile in the online directory of Actuarial Memberships.

You can change your:

- Addresses, such as employer and work/home contact information;
- Preferences, including your name and options for including or excluding specific information from your listing in the directory; and
- Professional designations, such as non-actuarial designations, employment type and areas of interest.

Update your profile today at  
<https://www.actuarialdirectory.org>

JUNE 28-30

JW MARRIOTT GRANDE LAKES

ORLANDO, FL



Attend the **SOA '10 Health Meeting**, where we've lined up engaging speakers, thought-provoking sessions and plenty of networking opportunities. You'll get **cutting-edge** information, be **inspired** by professionals from different areas of actuarial expertise and learn **new ways** to further your career.

Learn more at <http://HealthMeeting.soa.org>.

**H** SOA  
2010  
HEALTH MEETING

Actuaries

Risk is Opportunity.®

SOCIETY OF ACTUARIES

Social Insurance &  
Public Finance Section

# IN THE PUBLIC INTEREST

475 N. Martingale Road, Suite 600  
Schaumburg, Illinois 60173  
p: 847.706.3500 f: 847.706.3599  
w: [www.soa.org](http://www.soa.org)

Non Profit Org  
U.S. Postage  
PAID  
Carol Stream, IL  
Permit No 475