SOCIETY OF ACTUARIES

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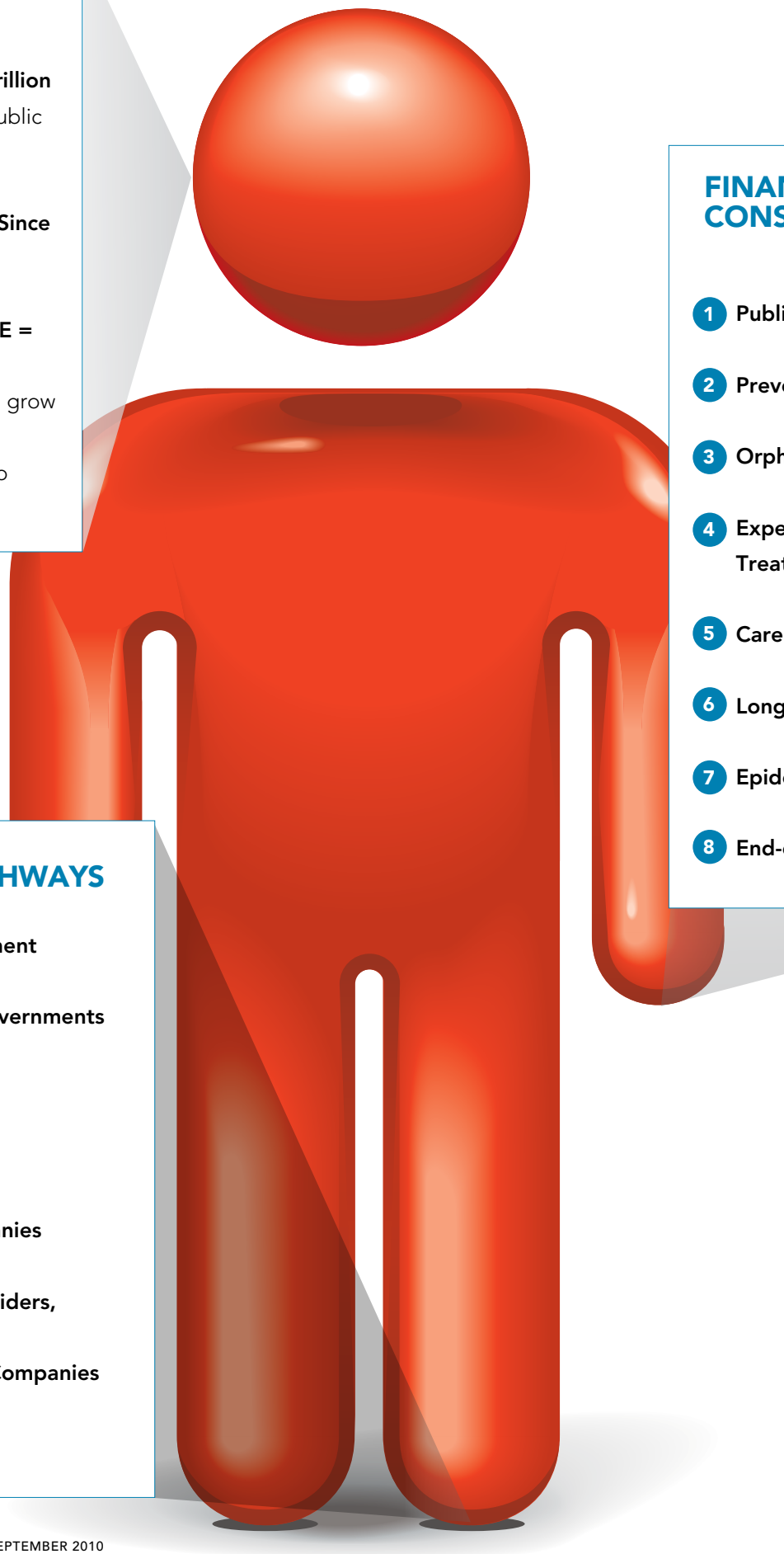
# FUNDING/FINANCING

## SCOPE

1. **2008 NHE = $2.3 trillion**
   - $1.1 trillion from public funds
2. **9.7% Growth Rate Since 1960**
3. **2019 Projected NHE = $4.5 trillion**
   - Public spending to grow 7.0% /year
   - Private spending to grow 5.2% /year



## FINANCING CONSIDERATIONS

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2. Preventive Health / Wellness
3. Orphan Diseases
4. Experimental & Unproven Treatments
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# Responsible HEALTH CARE REFORM

## PART 4: FUNDING/FINANCING

BY MAC MCCARTHY, BARBARA NIEHUS AND JAY RIPPS

**This is the FINAL ARTICLE in a four-part series about what actuaries see as ideal components of a health care reform package.**

Part 1 (February/March issue) provided preliminary thoughts and concluded that while we have not arrived at a consensus as to one best way to reform our health care system, actuaries have the tools and perspective to make a positive difference in the reform process. Part 2 (April/May) discussed various issues revolving around access to health insurance and access to health services—one key take-away was that simply providing access to insurance will not assure that everyone has access to the level of health care appropriate to their needs. Part 3 (June/July) explored potential approaches to rein in cost trends and enhance health care efficiency. Many of these have been tried already, so it is important that we keep practices that work, reject those that have failed, and continue to pilot new innovations.

So finally, we've come to funding—who is going to pay for this? Of course, there is no such thing as a free lunch, so one way or another the American people will foot the bill through higher taxes, costlier goods and services, lower wage increases, and/or sacrifices of one form or another. The issue really comes down to how will the money necessary to achieve our health care goals be channeled—what path will the funds take, starting with collection on through to final distribution? This article will attempt to present the approaches gleaned from our actuarial colleagues, identifying alternative funding pathways and discussing the advantages, disadvantages and possible consequences of each.

We have looked at health care spending based on both the entity making payments and the category of health care in which the money is spent. In either of these analyses, considerations such as portability, equity, ac-

cess, efficiency, need for innovation, personal control over health care decisions, personal responsibility, social priorities, etc. take on different weightings. These considerations will be discussed, particularly as they indicate different, possibly conflicting, pathways.

Since the time we started this dialogue with actuaries on health reform, the state of health care reform legislation has changed considerably. Back in November 2009, many were expecting that this latest effort would go the route of previous attempts and never see the light of day. While we were writing the Access piece, legislation looked more likely, but there were many setbacks and opinions about passage swung back and forth, even amongst (especially for?) actuaries with good connections in Washington. By the time we put the Cost article together, the Patient Protection and Affordable Care Act (PPACA) (with an accompanying reconciliation bill) was the law of the land. Despite being a long and robust piece of legislation, there are many questions to be resolved. We are beginning to see the regulations put forth that will hopefully provide the answers needed by carriers, employers and individuals. Reform is not a single event, but rather a long process which likely will never truly end. Much of what happens from this point on will result from regulation and adaptations driven by reactions from various constituencies (providers, employers, insurance companies, states and individuals).

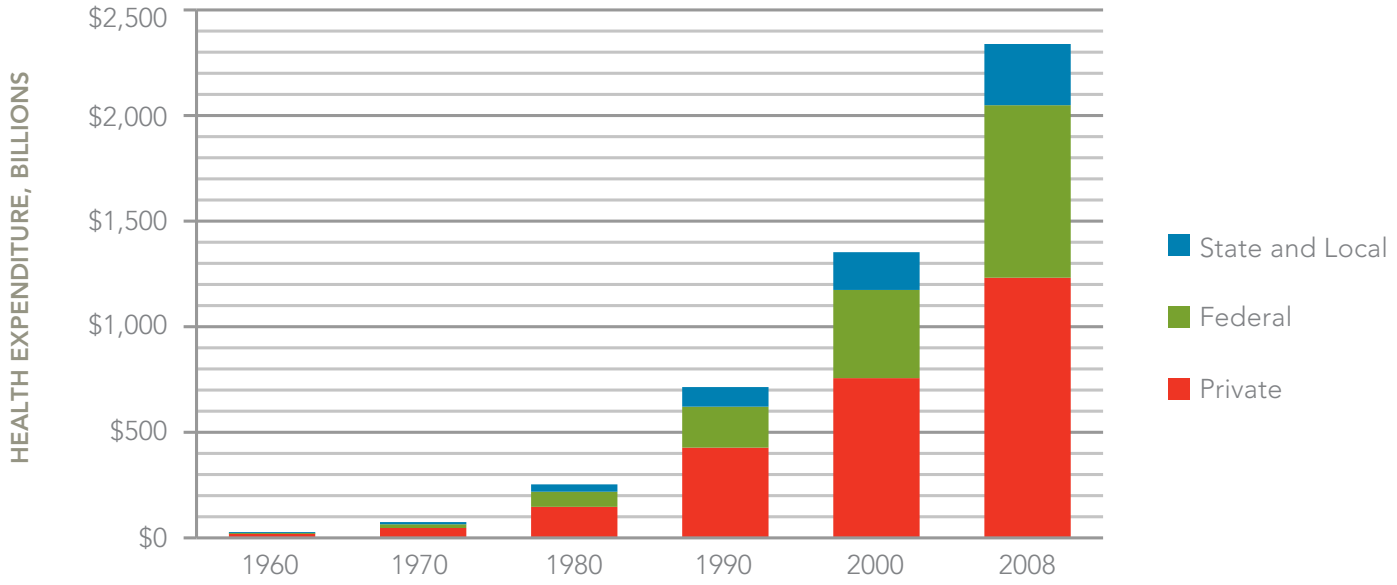
Throughout this process, we have tried to remain objective and highlight things that health care actuaries feel would work, regardless of whether or not they were in the proposals/legislation. We will keep to this principle; however, given the complexity of the topic and to keep the issues in context, we will start with the world as it existed pre-PPACA, acknowledging some of the changes/concepts introduced by this legislation.

Besides the 2009 Tucson Conference of Consulting Actuaries (CCA) meeting, input for this article came from two Healthcare Reform Taskforce calls, plus comments from a number of actuaries via e-mail and several one-on-one phone conversations. We are grateful to all who offered opinions. Note that we have attempted to present multiple perspectives, regardless of our personal opinions. However, if any bias or preferences are perceived in this article, they are reflective solely of the authors' views and not a position or consensus of the CCA, the Taskforce, nor the authors' employers.

## SCOPE OF THE ISSUE

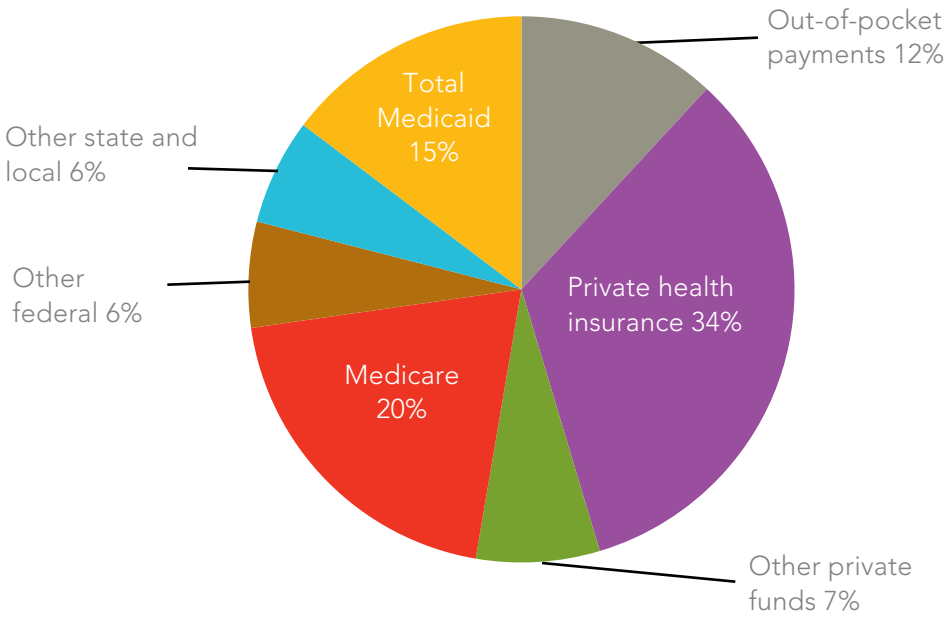
According to the most recent National Health Expenditures (NHE) reports from the Centers for Medicare & Medicaid Services (CMS), the total U.S. health expenditures for 2008 were $2.3 trillion, split roughly half and half between public and private sources. Since 1960, the average annual increase for total expenditures has been 9.7 percent and rates of increase for public spending have been significantly greater than those for private in every decade since, except for the 1980s. As a result, public spending has

## Table 1: National Health Expenditures, 1960–2008




The National Health Expenditure Accounts (NHEA) are the official estimates of total health care spending in the United States, measuring annual U.S. expenditures for health care goods and services, public health activities, program administration, the net cost of private insurance, and research and other investment related to health care. Source: *http://www.4.cms.gov/NationalHealthExpendData/downloads/tables.pdf*

## Table 2: 2008 National Health Expenditure Allocation

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grown from 25 percent of the total in 1960 to 47 percent in 2008, as can be seen in Table 1 on page 18.

Of the $1.1 trillion of 2008 public health expenditures, the largest portion ($469 billion) was for Medicare, followed closely by Medicaid (federal and state combined of $344 billion). Table 2 provides additional details of the allocation of both public and private dollars.

Health care reforms will affect health expenditure levels and the allocation between government, employers, insurers and individuals. However, the most significant factors pushing health costs up will continue to be demographics, medical advances and inflation. Currently, CMS is projecting total health care costs increasing to $4.5 trillion by 2019, with an average increase of 7.0 percent per year for public spending, versus a private expenditure growth rate of 5.2 percent over that period.

### POTENTIAL PATHWAYS OF FUNDS

This section looks at various pathways that a dollar can find its way into health care financing, looking at advantages, disadvantages and consequences of each.

#### Federal Government

In 2008, the federal government's expenditures for health care were nearly $817 billion.[1] About $469 billion of that was through Medicare, and another $208 billion was Medicaid and SCHIP (funding state programs). Defense and the Veterans Administration (VA) amounted to about $44 billion. About $10 billion was spent on public health activity.

Funds to support these expenditures come from several sources. Dedicated funding for Medicare expenditures comes primarily through a payroll tax shared by employees and employers. However, this funding needs significant supplementation from general revenues. In 2008, general revenues accounted for 38 percent of total Medicare funding. The 2009 Trustees report[2] triggered a "Medicare funding warning" indicating that general revenues were projected to be 45 percent of total funding by 2014. The report also indicated that the Hospital Insurance (Part A) Trust Fund was projected to be depleted by 2017. The 2010 report has been delayed in order to assess the impact of PPACA and was not available at the time of writing this article.

Funding for other federal government health expenditures comes primarily through general revenues and deficit funding. Note that in FY2010, the federal budget deficit has been projected to be about $1.4 trillion.[3]

Giving the federal government control of the purse strings has advantages. The federal government can define and implement social priorities/policies that would otherwise be inconsistent with how the private insurance market works. Without some level of government participation, segments of the population are unable to afford access to health care. It can redistribute resources by using tax revenues to pay for health care to, or subsidize health insurance premiums for, low income individuals. It can unilaterally set provider fees, a control of health

FOOTNOTES:

[1] US National Health Expenditures as reported at *http://www4.cms.gov/NationalHealthExpendData/*

FOOTNOTES:

[2] 2009 annual report of the boards of trustees of the federal hospital insurance and federal supplementary medical insurance trust funds

FOOTNOTES:

[3] According to the Congressional Budget Office's March 2010 Baseline *(http://www.cbo.gov/ftpdocs/112xx/doc11231/budgetprojections.xls)*

care costs that is not available to the private market. And it can establish mandates and appropriate penalties that apply to employers, individuals or other entities. Moreover, coverage provided through the federal government is portable throughout the country.

On the other hand, it can create a sense of entitlement that applies pressure for increasing benefits and resists attempts to rein in costs through limiting payouts. The federal government is the only entity that can print money and finance costs through increasing the national debt. This has resulted in expanding programs that have been chronically underfunded. Also, a large federal program is often difficult to change, which can stifle innovation. Moreover, there is no direct consumer accountability for good or bad health care purchasing decisions, and Medicare has been slow to implement programs that control fraud and abuse.

One unintended consequence of federal programs is the impact on private market pricing of health care services. As the government has taken steps to slow down the growth in Medicare spending, providers have looked to make up those "losses" by increasing fees to private patients. This cost-shifting has fueled increasing costs for private patients, which then is reflected in higher private insurance premiums.

Another unintended consequence is the burden that can be placed on states through mandates. Medicaid is funded jointly through state and federal funds. However, there have been many instances where the federal government has reduced the funds it makes available to help finance these state programs, while at the same time requiring more and more expansions of coverage. Medicaid has become an increasing burden on state budgets.

**State and Local Governments**

State and local governments' share of health care expenditures in 2008 was about $290 billion. About one-half of that amount was spent for Medicaid and SCHIP programs. Recently, states have been particularly dependent on supplemental federal funding provided under the American Recovery and Reinvestment Act (ARRA), which is scheduled to expire on Dec. 31, 2010. Most state and local governments are currently dealing with substantial budget deficits and are cutting back in many areas.

Aside from earmarked federal funds, state and local governments usually rely on general revenues to fund health care expenditures. And states do not have the same latitude of deficit spending that the federal government is able to use, since they must balance their budgets.

Except for the flexibility stemming from the ability to print money, state governments bring along most of the advantages discussed above for the federal government. The states are also more likely to be aware of local issues and have the ability to reflect the local needs and conditions more effectively than a national approach could. Another advantage from a policy perspective is the diversity of the states. They can experiment with different approaches on a smaller scale, and the nation can learn from these experiments—identifying successful programs that can be shared and implemented more broadly, as well as programs that don't work.

Most of the disadvantages associated with state government funding also parallel those listed above for the federal government. However, the pressure associated with having to balance budgets can, in some instances, mitigate some of these disadvantages.

Unintended consequences include the cost-shifting to the private market as discussed above. Both Medicare and Medicaid contribute to this effect. In some cases Medicaid reimbursements are low enough that many providers will refuse to treat Medicaid patients, creating different types of burdens on the health care system.

### Employers

Employers fund the system in a variety of ways. The most significant source of funding is through providing group health programs to employees and dependents. In 2007, about 60 percent of the non-elderly population (under 65) was covered through a group plan.[4] However, this percentage has been dropping over time as insurance becomes more expensive. The average value of employer paid health insurance ranges from 7.3 percent (private) to 11.2 percent (government) of an employee's total compensation.[5] This pathway is well-established, and most people who have group health insurance are extremely or very satisfied with the quality of health care they receive.[6]

Employers also pay a share of payroll taxes (1.45 percent) for Medicare as well as income taxes at both the federal and state/local level. They also pay other taxes that vary by state, such as sales tax.

To the extent that employers bear the cost of providing health care, they have an incentive to control costs, promote efficiencies, promote employee wellness, and find innovative ways to structure plans. Moreover, many employers pay most of the cost of the insurance, which leads to high participation rates, resulting in broad coverage. But the employer pathway works less well for dependents than for employees, in part because employers generally do not fund dependent coverage as generously as they fund employee coverage.

Employers can hire or engage health benefit experts to assist them in purchasing decisions, so that employers can be more sophisticated health insurance purchasers than individuals. Sophisticated buyers foster a competitive, innovative health insurance market.

However, coverage through employer plans has historically created portability and "job-lock" issues. A change in jobs may require a change in insurers and/or health care providers. Loss of employment may result in a disruption of coverage. Employees may be "locked into" their jobs because of their need for health insurance and difficulty in obtaining it if they leave their jobs. Job-lock can cause economic inefficiencies.

Moreover, the international competitive position of U.S. employers may be weakened by the high and rapidly growing costs of group health insurance. This in turn can depress wages and other benefits, as well as profits. And as employers seek to save dollars, more and more costs may be shifted to participants.

Finally, as with government pathways, employees and their dependents are shielded from the direct economic consequences of their health care purchasing and lifestyle decisions.

**EMPLOYERS FUND THE SYSTEM IN A VARIETY OF WAYS. THE MOST SIGNIFICANT … IS THROUGH PROVIDING GROUP HEALTH PROGRAMS.**

### Individuals

Individuals fund the system through a variety of taxes as well as premium payments and out-of-pocket payments. Even a person who is uninsured is typically paying something toward the cost of medical care. For example, if the person is employed, then funding is done through payroll taxes. Income taxes go to general revenues, which are used by federal or state governments to help fund health care costs, and state sales taxes can be part of general revenues used by a state to fund Medicaid.

This pathway allows employees and their dependents to purchase insurance that best suits their individual circumstances. Therefore, it promotes innovations that benefit the individual buyer, rather than an employer or government buyer, and it gives individuals more control over their health insurance costs and purchasing decisions. And individually purchased insurance is fully portable and independent of employment/employer.

When individuals are responsible for paying out-of-pocket, they have incentives to be smart consumers. Given the right information, some will pay attention to prices and also give consideration as to which services they think are worth buying versus those that are not. However, individuals typically cannot budget for catastrophic expenses, and clearly need insurance for financial protection.

Individually purchased insurance best reflects individual risk characteristics and is, in that sense, more equitable than group insurance. For example, in group insurance, the younger employees subsidize the older employees, since employee contribution rates generally do not vary by age.

Some contend that health insurance is too complicated and too hard to understand for individuals to make rational purchasing decisions. They contend that experts available

FOOTNOTES:

4 Statistical Abstract, 2010, Table 149; *http://www.census.gov/compendia/statab/2010/tables/10s0149.pdf*

5 *http://www.bls.gov/news.release/ecec.nr0.htm*

6 EBRI Issue Brief No. 323, Nov. 2008; *http://www.ebri.org/pdf/briefspdf/EBRI_IB_11-20081.pdf*

through an intermediary like an employer or government agency need to be in the purchasing decision process to protect individual purchasers from making poor decisions.

Also, individual purchasers have little bargaining power with health insurance companies; therefore, some contend they cannot effectively exert pressure to keep costs down.

## IN 2008 CONSUMERS PAID ABOUT $259 BILLION IN HEALTH INSURANCE PREMIUMS.

Individual insurance, like group insurance, shields consumers from the direct economic consequences of their health care purchasing and lifestyle decisions. Some contend that more reliance on the individual purchase pathway would increase the upward pressure on health care costs, as individuals seek to "get their money's worth" from what they spend on individually purchased insurance.

In the case of individually purchased insurance, health care reforms must be carefully designed to avoid additional unintended consequences. Individual mandates that allow a person to move in and out of coverage when medical care is needed will create an unworkable system. The resulting anti-selection can cause health insurance premiums to increase significantly. Those individuals who are not wealthy, but whose income puts them above the level to qualify for government subsidies, may find coverage unaffordable.

### Insurance Companies

In 2008 consumers paid about $259 billion in health insurance premiums.[7] Although the largest employers are likely to self-fund medical plans, insurance companies insure benefits for individuals and for people covered under group medical plans offered by smaller employers. Insurance companies also offer Medicare Supplement and Medicare Advantage plans. There has been a tendency toward more regulation of rates in the small group and individual markets in recent years. Insurance companies are generally subject to income taxes, and health insurance premiums are subject to premium taxes in most states.

Insurance companies deal in a competitive marketplace and have incentives to both control medical costs and run their businesses efficiently, including fraud and abuse controls. They also have incentives to offer innovative products.

Insurers are also required to hold adequate surplus to assure solvency and, in many cases, make profits to assure investors a reasonable rate of return. As a result, as with any ongoing business, they must include profit margins in their pricing. Many insurers' efforts to control costs (such as questioning the need for certain medical care) are viewed negatively by consumers. Insured premiums reflect underlying claim costs, resulting in regular increases, which have been a cause for concern.

Part of the cost passed along to consumers in insurance premiums is the cost of premium tax. These taxes have been assessed by states for many years and avoidance of those taxes has been one of the motivations for large employers to move to self-funding. In light of the new federal taxes on insurers under PPACA, it is likely that more movement will be seen toward self-insurance, leaving the burden for those insurance company taxes disproportionately born by small employers and individuals.

Insurance company prices historically have been set to reflect the underlying cost of the risk. In many cases, this may be seen as inconsistent with social objectives. For example, actual medical costs vary widely among different demographic groups. Because of costs related to child-bearing, women in their 20s or 30s are expected to incur greater medical costs than men of the same age. Similarly, people are generally expected to incur greater costs as they age. To the extent that laws prohibit gender rating or establish limited age-rate bands, this creates cross-subsidies among individuals. This also creates the potential for further anti-selection—if younger people opt out, the average rate for the remaining insured population will increase. These types of requirements can have a very material effect on expected claim costs for an insurer's block of business.

To the extent that insurers are unable to price products at actuarially sound rates, several unintended consequences can occur. Carriers may either need to exit certain markets or may face possible insolvency. Adequate rating concerns may also prove to be a barrier to entry for new players and will deter entities that are willing to invest in starting or building insurance companies.

### Health Care Providers

Health care providers can be a source of funding, either directly through special taxes on some providers, or indirectly by setting uniform fee schedules that are less than negotiated "market rates." It is questionable whether direct taxes on providers can be a viable long-term funding

FOOTNOTES:

[7] U.S. National Health Expenditures as reported at *http://www4.cms.gov/NationalHealthExpendData/*

source, since these taxes may be reflected in providers' charges for health care services, resulting in no net revenue to the health care system.

### Medical Manufacturers and Pharmaceutical Companies

Many medical manufacturers and pharmaceutical companies participate in a global marketplace where the United States is a significant market but not the only market. Much of the innovation in these areas has occurred in the United States and has been funded through health care costs—adding to an already expensive system. The federal government could establish new rules that would impact the pricing of their products in the United States, lowering the prices and therefore creating health care cost savings.

Alternatively, additional taxes could be assessed that would be used to help pay for health care costs, but ultimately add to the cost of the products. Under either approach, a consequence can be that fewer resources would be allocated to innovation through funding of research.

### Charitable Organizations

Charitable organizations have been important sources of funding for research and patient support efforts. These organizations play a role that neither the government nor the private sector can effectively address, since they are able to focus resources that reflect the priorities of those who give money to the charities.

## FINANCING CONSIDERATIONS BY CATEGORY OF HEALTH CARE

The advantages and disadvantages of alternative funding pathways may be differentiated by category of health care. Not all health care costs are necessarily well-suited to the same funding pathway. Considerations regarding funding pathway by category of health care are discussed in this section.

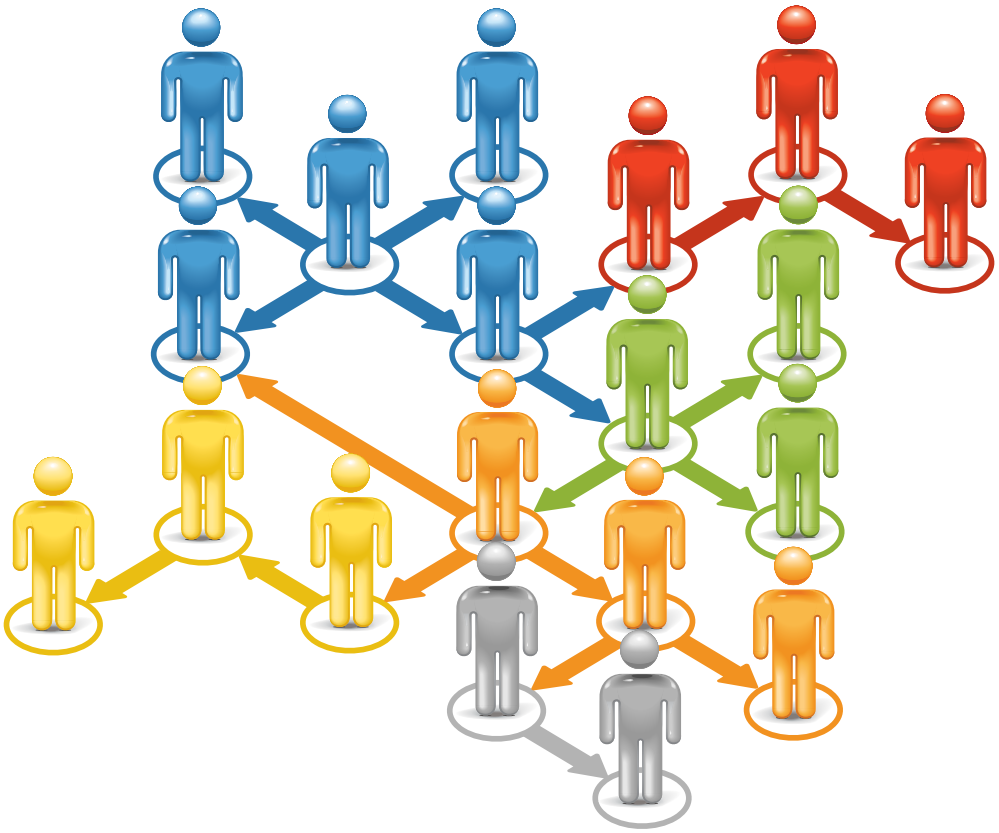
### Public Health Care

In this category we include health care programs that are primarily preventive rather than curative, and that deal with population-level rather than individual health issues—such as programs to provide clean air and water, proper disposal of waste, control of infectious diseases, etc. It is broadly accepted that the funding pathways for these programs must be primarily federal, state and local governments, with some marginal but important funding through charitable organizations.

### Preventive Health/Wellness

Some preventive health programs and costs fall into the category of public health and are generally funded through governments. Others are included in health insurance programs. In fact, the recently enacted health care reform laws require full coverage of certain preventive services with no cost-sharing by the individual patient. There are several points of contention regarding the coverage of preventive costs in health insurance.

- Some contend that full coverage of such costs results in greater adherence to preventive protocols than if they are not fully covered by insurance. Others contend that the primary barriers to obtaining preventive services are not tied to their costs—many of which are relatively inexpensive—but rather to lack of knowledge or motivation.
- There is also a concern that coverage of preventive services through insur-



ance is inefficient, since such services are frequent, low-cost, predictable and budgetable. Generally, the kinds of costs appropriately covered by insurance are those which are infrequent, high and unpredictable. Covering preventive health care costs through insurance results in additional and unnecessary administrative expense, which could be avoided if these services were provided at no direct cost to the individual (funded by government) or by having people pay for them directly, with government subsidies for those who cannot afford them.

**HIGH-QUALITY HEALTH CARE IS AVAILABLE OUTSIDE THE UNITED STATES AT PRICES MUCH LOWER THAN SIMILAR CARE PROVIDED IN THE UNITED STATES.**

### "Orphan Diseases"

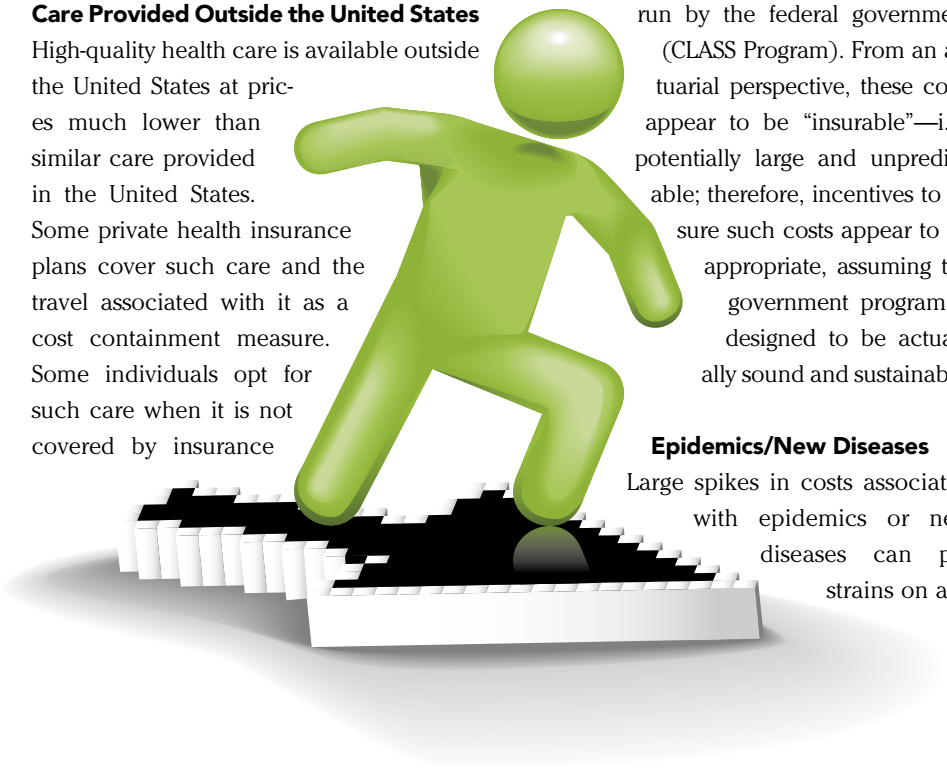
Diseases or conditions that affect very few people are generally covered by health insurance programs, including both private sector and public sector insurance programs. However, coverage of costs to treat such diseases/conditions may not provide sufficient funds or incentives to support the research needed to find treatments/cures, because the number of people affected is small. Special support of research through targeted government programs or charitable organizations focused on such diseases is often needed.

### Experimental Treatments, Unproven Treatments, Clinical Trials

Most health insurance does not cover treatments that are experimental, not "medically necessary," or in clinical trials. The recently enacted health care reforms require coverage of participation in clinical trials starting in 2014. Because insurance does not cover experimental or unproven treatments, the costs for these treatments must be paid by patients able and willing to pay for them, or absorbed by the providers/developers of these services as research and development costs, to be recovered if and when the treatments are proven to be effective, or through inflated prices for covered treatments. Requiring such treatments to be covered by insurance would drive up insurance premium rates. Coverage of such treatments only if they are being tested in controlled clinical trials limits the impact on premium rates, while supporting the generation of sound evidence on which to base future coverage decisions.

### Care Provided Outside the United States

High-quality health care is available outside the United States at prices much lower than similar care provided in the United States. Some private health insurance plans cover such care and the travel associated with it as a cost containment measure. Some individuals opt for such care when it is not covered by insurance (e.g., cosmetic procedures), or if they are uninsured. An issue with such care is that follow-up care may be awkward and/or expensive. In terms of efficiency and innovation, including the funding of such care through the various funding pathways appears to be desirable.



### Long-Term/Custodial Care

Most health insurance does not cover the cost of long-term/custodial care. Individuals may buy long-term care insurance separately from health insurance to pay some portion of the cost of such care if it becomes necessary. At this time, the funding pathways for such care are predominantly through individuals (via insurance or payment for care directly as needed) or through government programs. As our population ages and life spans increase, there is concern that governments may not be able to provide the necessary funding; consequently, some contend that more individuals should be encouraged—through monetary incentives or otherwise—to purchase long-term care insurance. The recently enacted health care reforms contain some incentives to do so by establishing a voluntary long-term care insurance program run by the federal government (CLASS Program). From an actuarial perspective, these costs appear to be "insurable"—i.e., potentially large and unpredictable; therefore, incentives to insure such costs appear to be appropriate, assuming the government program is designed to be actuarially sound and sustainable.

### Epidemics/New Diseases

Large spikes in costs associated with epidemics or new diseases can put strains on any

of the funding pathways. Except for funding through the federal government, which is able to handle cost spikes through its control of monetary and fiscal policy, it is advisable that all funding pathways have catastrophic reinsurance coverage through organizations financially able and willing to provide such coverage.

### End-of-Life Care

This is a difficult ethical and emotional issue. However, as our population ages, laws, regulations or standards of practice that require health care providers to deliver all possible care under all circumstances may put impossible demands on any of the available funding pathways. There are instances in which steps that can be taken to prolong life may not be in the best interests of the patient. It is essential that our society deal comprehensively and courageously with the questions of which care, under what circumstances, should be funded through pathways other than directly paid for by individual patients and their families.

## CONCLUSIONS/RECOMMENDATIONS

The many facets of health care and differing needs of the population, along with various pathways available to bring the needed resources to bear on the issues, result in a complex matrix of possibilities. The challenge is to construct a funding system that matches the strengths of each pathway to needs in such a way that inefficiencies are minimized and undesirable side effects are avoided.

There are a number of possible permutations that could achieve these goals, but any proposed solution must be comprehensive in scope and should be "tested" against the following principles:

- It must be adequate to cover realistic cost projections and be sustainable over time. We tend to underestimate cost trends and overestimate our ability to manage them. Budgeting for the best-case scenario will surely lead to disappointment. To be sustainable, the system must reflect our society's values and priorities.
- Transparency should be built into the system in order that society may decide whether or not these values are being addressed properly.
- We must recognize that the funding pathway will often have an effect on costs. Removing barriers to access can lead to excessive administration and over-utilization, driving costs up. Centralized processing without oversight, accountability and financial incentives may lead to fraud and abuse. Personal funding of reasonably affordable services promotes smart purchasing, which avoids waste and lowers costs.
- The potential for unintended consequences under each pathway should be recognized and appropriate mechanisms must be in place to detect them early and take corrective actions.
- There must be sufficient flexibility built into the system to respond and adapt to unforeseen issues such as emerging new illnesses, demographic shifts and economic cycles; to address the emergence of unintended consequences; and to adapt to changing social values.

## WRAPPING IT UP

This is the last of our series on health actuaries' take on health care reform. Throughout, we have benefited by the knowledge, wisdom and unselfish sharing of our many actuarial associates. We hope we have accurately and concisely depicted their varied perspectives. We hope they, and you, will continue to promote responsible health care reform to the best of our collective abilities, keeping in mind that we have only just begun this process. It is our strong bias that constructive actuarial input to this very important issue at all levels will result in a more socially and fiscally responsible end result. A

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