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Health **Watch**

"For Professional Recognition of the Health Actuary"

Health Care Quality and Cost: Is There a Link?

by Steven Siegel

The most recent estimates of future health care costs released by CMS project a 6.4 percent annual increase in the cost of health insurance over the next 10 years. To put this trend into perspective, this increase translates into health care costs consuming $1 of every $5 spent in the United States by 2016—close to a total of $4 trillion. Given these whopping figures, health care consumers can be forgiven for taking a step back, scratching their heads and wondering whether these ever-increasing resources devoted to health care will also result in an increasing level of quality in health care.

I am sure there is no one out there who would deny that improved quality in health care is a worthy goal. Everyone wants good health. As John Poisal, deputy director of the government's National Health Statistics Group said in explaining why historically, when income rises 1 percent, health care expenditures rise about 1.5 percent—"What that indicates is a desire to purchase good health." And, of course, it would seem intuitive that to purchase good health, you need quality health care. But, what exactly is the relationship of price and costs to quality—does throwing more money towards health care necessarily raise quality? Should the highest charging providers be indicative of the highest quality ones?

These questions, among others, have been contemplated over the past few years by an SOA Project Oversight Group that was created to oversee research projects related to the issue of quality and cost. The group, chaired by Curtis Robbins with members Jane Jensen, Karl Madrecki, Guy Marszalek and John Stark, was initiated as an outgrowth of the SOA's Troubled Health Care System effort, which examined various aspects of the U.S. health care system and recommended areas for actuarial involve-

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Chairperson's Corner

by William R. Lane

For many years, both the Health Section and the Health Benefit Systems Practice Advancement Committee operated within the structure of the Society of Actuaries. A few years ago, however, the HBSPAC was discontinued and essentially all of its functions were merged into the Health Section. This step was taken to provide a more "member driven" focus to the health related activities. (Although, personally I tend to believe that it was simply too much of a mouthful to say "Health Benefit Systems Practice Advancement Committee.")

For years, the Health Section Council had the major role in developing and recruiting the health related sessions at the SOA's Spring Health Meeting and Annual Meeting. At the same time, the HBSPAC had the major responsibility for health related education and research. Even so, there tended to be overlap between the activities of the two groups. Hence, one central control structure with strong member involvement made sense to a lot of actuaries serving in the system.

When the change occurred, we moved a number of HBSPAC committees directly into the Health Section under the direction of the council (and renamed them "teams"). As the Health Section Council has continued to operate under these expanded responsibilities, we realized that we could better serve our members by restructuring two of these teams.

Our major concern in the restructuring of these teams was to better connect what we felt were the key issues facing our members and what we were providing for our members. The thought process is very simple. Every year, the Health Section Council meets in Chicago to plan for the upcoming year. At that time, we spend most of a day discussing what we feel are the key health issues. The Key Issues List is then published. This year, however, we took the process one step further. We also developed a list of the research topics and continuing education needs that we felt would match the Key Issues List. (In fact, after discussing what we felt was needed in terms of continuing education, we found that we had already identified two important key issues.) In other words, we are changing the system so that we will more directly match what we feel is important to our members with what we intend to deliver to them.

We then assigned all of these research topics and education needs to specific council members. As with sessions at the Spring Health Meeting, the council member is tasked with developing the topic, and recruiting actuaries to produce the end result. For research topics, the council member will help with the development of the RFP and the recruitment of the Project Oversight Group. For continuing education topics, the council member will help with the development of the topic and the recruitment of the speakers (either seminar or webcast).

In the past, we had both a Research Team and a Continuing Education Team that decided what topics to develop. Since the council has taken the responsibility for this aspect of the decision-making process, we are disbanding the teams for this function. On the other hand, the team members often also served on Research Project Oversight Groups and helped to develop continuing education seminars and webcasts. These activities weren't a requirement for team membership, but many team members performed them.

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To the extent that team members participated in POGs or helped to produce seminars and webcasts, their involvement will still be needed and they will continue to be recruited for these important functions. The actual production of these important member deliverables hasn't changed. What has changed is that the council has tasked itself with the direct responsibility of assuring that what we think our members need is matched by what we are developing for them.

One other change has followed from this restructuring—the duties of council members and their time commitment has increased. We, therefore, decided to expand the number of actuaries on the Health Section Council to allow us to stretch the workload over more people. Beginning with the Health Section Council that starts late this year, there will be 12 members on the council instead of the traditional nine. We even discussed expanding to 15 council members, but decided to see if 12 is enough. It is already difficult to get nine council members available at one time every month. The more members we add, the more difficult it will be to actually meet.

The elections this year will be for six new council members. One of these new members will serve for only one year and another of these new members will serve for only two years (But both of these people will be eligible to run for a full three-year term after their shorter terms are completed.). The other four new members will serve for the traditional three years.

The other issue we considered was how to provide stronger continuity from year to year. It seems that we have barely gotten started before the year is finished. On the other hand, there is a lot of work involved with being on the section council and three years is already a major commitment from our members. Perhaps next year the council will make changes addressing this concern.

It is my hope and belief that these changes will also make life easier for our volunteers. More time will be spent overseeing specific research or speaking at seminars, and less time will be spent in large committees with broad agendas. Thus, while we believe that the changes produce better results, I personally think they will also help make it easier for volunteers to enjoy their service and to more readily see the results of their service.

I truly believe these changes will better serve our members. There will be a larger work load on the council members, and an increase in the number of council members will help to make these changes possible. I fully expect, however, that our members will step forward (as they always have in the past) and continue serving the Health Section membership by providing the best in both research and education.

Letter from the Editor ... Equality Versus Efficiency

by Gail M. Lawrence

Not many possessions have survived from my graduate school days when I was pursuing a Master's degree in Economics. However, a small paperback book, *Equality and Efficiency—The Big Tradeoff*, did manage to linger on my bookshelves and make the move from house to house. Arthur Okun, a Yale professor and Brookings Fellow, who also served as Chairman on the President's Council of Economic Advisors during the late 1960s, authored the book in 1975.

Okun believed it was appropriate public policy for the government to redistribute wealth from the relatively rich to the relatively poor. When I recently re-read this book, his thoughts seemed relevant and useful today within the context of our current debate on the financing of health care. Within health insurance, the equality and efficiency tradeoff translates into the competing interests between "access for all" and "access for those who can qualify and afford it."

The book begins with a discussion of rights and Okun cites three reasons why rights should prevail over market forces—liberty, pluralism and human dignity. Access to health care falls into his discussion of "The Fuzzy Right to Survival" where he observes, "The case for a Right to Survival is compelling. The assurance of dignity for every member of the society requires a right to a decent existence—to some minimum standard of nutrition, health care and other essentials of life. … I do not know anyone today who would disagree, in principle, that every person, regardless of merit or ability to pay, should not receive medical care and food in the face of serious illness or malnutrition. … Although the right to survival now seems to be generally accepted, it has not been explicitly written into our statute books. It has been kept fuzzy, because its fulfillment could be very expensive. … Issues surrounding the extension and implementation of a formal right to a decent existence are the heart of today's controversies about health insurance, the negative income tax, and welfare reform. … Rights of survival set floors under the consumption of the various items identified as essential."

With guaranteed rights to benefits, premium subsidies, community rates and even prices fixed by the government, the Medicare market is certainly an example where the pendulum has swung to the side of equality over market efficiency. Near the other end of the spectrum sits the private health insurance market where efficiency is manifested by cost containment through the selection of risks and refinements in pricing. To borrow a metaphor made famous by Okun, the pooling of risks can best be described as tens of thousands of leaky buckets. Leaks are caused by many things, including voluntary anti-selection or the not-so-equitable involuntary loss of coverage due to uncontrollable "life events" such as the loss of a job or family member.

Popular sentiment seems to be a desire to move our private health care financing system in the direction of greater equality. A lot can be done to create bigger buckets with fewer leaks while maintaining appropriate efficiencies that can best be delivered by the private marketplace. I believe that actuaries are uniquely positioned to move the system towards universal coverage in a rational, sustainable way.

Okun concluded his now famous book with the following insight. "A democratic capitalist society will keep searching for better ways of drawing the boundary lines between the domain of rights and the domain of dollars. And it can make progress. To be sure, it will never solve the problem, for the conflict between equality and economic efficiency is inescapable. In that sense, capitalism and democracy are really a most improbable mixture. Maybe this is why they need each other—to put some rationality into equality and some humanity into efficiency." As he ended, so shall I.

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ment. The impact of quality in the health care arena was identified through this effort as one of the critical areas where actuarial expertise could bring insight into the national health care debate and hence, provided the genesis for the Project Oversight Group.

The group has overseen the completion of two research projects with each focusing on a different facet of the linkage between health care quality and cost. The resulting reports from the two projects can be found on the SOA Web site at: *http://www.soa.org/ccm/content/areas-of-practice/health/research/linking-quality-and-cost-an-analysis-of-the-hospital-quality-information-initiatives-measurers/.*

... the current design of the interventions in the HQI does not lend itself to a relationship that can be used to reimburse providers based on pre-defined levels of quality.

The first project examined the return on investment for hospital providers implementing programs specified by the CMS Hospital Quality Initiative (HQI) that was instituted several years ago. The research was conducted by the Michigan Quality Improvement Organization (MPRO), which collected data from a number of health care providers based in Michigan.

The focal point of MPRO's work was interventions related to surgical infection prevention, one of the CMS quality initiatives. MPRO developed a model to account for the development costs needed to implement this type of intervention along with the resultant revenue and savings that would accrue to the hospital. Of the five hospitals studied, payback periods ranged 0.1 to 3.3 months; in other words, quality as defined by this particular intervention appeared to provide rapid payoff for these hospitals.

The second project overseen by the group was just completed in November 2006. This project explored a different aspect of the relationship between health care costs and quality—the statistical correlation of hospital charges and quality. The researchers conducting this second study were John Cookson and Eileen Kurtz of the Philadelphia office of Milliman, and again, the Hospital Quality Initiative was used as the basis for quality indication.

Using data collected for the HQI as of the third quarter of 2005, the Milliman team computed a Pearson correlation coefficient between a hospital's performance rate (the proportion of cases where a hospital provided the recommended process of care per the HQI) and Medicare billed charges, allowed charges and other cost data. The objective of calculating the correlation coefficients was to measure the strength of the relationship between the quality and charge measures.

The results showed that for almost all of the quality indicators, there was a statistically significant relationship between the allowed charge per case and the quality indicator. Yet, although it was a statistically significant relationship, the magnitude of the correlation was not high enough to be used in regression models to produce usable predictions of costs or changes. Further analysis incorporating different approaches to defining charges and factors affecting charges yielded similar results.

The Milliman team concluded that while pay for performance is an objective that is widely desired by health care executives from all sectors of the industry, the current design of the interventions in the HQI does not lend itself to a relationship that can be used to reimburse providers based on pre-defined levels of quality. The team noted several explanations for why the current HQI results in a less than desired relationship:

1. **Scope:** The scope of the HQI interventions is relatively limited as it only measures protocols for three conditions.

2. **Design:** Better results may have been obtained if there were an overall quality indicator, rather than the current design, which is more splintered.
3. **Data:** Overall spotty reporting and low volume of quality data currently available impeded the potential for better defined correlations.

In light of these results, where does this leave us in terms of our question about the relationship of price and costs to quality? Obviously, there is the need for a good deal more research and development into suitable measurements for quality. One observation that the Project Oversight Group made is that sufficient data will be essential to further progress. But as John Stark noted, "In reading the report's narrative, the incentives to report data are mixed. A possible conclusion is that the same results will occur if the study is repeated unless the incentives for reporting and data are aligned for all parties." Clearly, these incentives will need to be such that providers will be convinced that it is in their best interest to improve their reporting capabilities.

One other conclusion is readily apparent from reading the reports—actuaries will be increasingly called on to critically evaluate quality measures and outcomes, thereby helping their employers decipher the risks and benefits in making future investments. In this realm, the SOA would like to assist actuaries to remain at the forefront of this critical, developing health care issue. With this in mind, I would heartily encourage you to contact me with ideas for future research on health care quality and cost.

Got a Research Idea?

The SOA Health Section Council is seeking new research ideas or proposals on a health-related topic for potential funding. The Council has a dedicated annual budget to fund research projects that benefit health actuaries. You can submit a proposal or idea at any time. Proposals are chosen among those submitted for funding based on their relevance to health actuaries and available budget. Examples of prior studies funded include the newly released study of the commercially available Risk Adjusters and the Impact of Medicare Part D on Drug Costs Study. Here's an opportunity for you to advance the profession and potentially uncover new knowledge!!

For more details on how to submit a proposal and the selection process, please contact Steven Siegel, SOA research actuary, at *ssiegel@soa.org*.

Has Mental Health Parity Arrived?

A Hallway Conversation about the Mental Health Parity Act of 2007

by Steve Melek

Mental health parity has been an issue for health insurers for many years. The Mental Health Parity Act of 1996 has been with us for over a decade now, but proved to be closer to "parity lite" in many ways (requiring parity between mental health and physical health benefits for calendar year and lifetime dollar limits only). Most health plans simply switched from dollar limits to inpatient day and outpatient visit limits if they wanted to continue to maintain restrictions on mental health benefit use and help control their cost.

Since 1996, many states have enacted legislation requiring various forms of mental health parity. Twelve states have enacted comprehensive or full mental health parity (limited exceptions or exemptions only) and 27 other states have enacted limited mental health parity laws (limited scope or selected groups only). Meanwhile, various bills have been introduced in Congress over the last decade, but none have had the strong prospect of passing like the Mental Health Parity Act of 2007 (Act).

Details of Senate Bill 558

Introduced by Senators Pete V. Domenici (R-N.M.), Edward M. Kennedy (D-Mass.) and Michael B. Enzi (R-Wyo.), the Mental Health Parity Act of 2007 (S. 558) cleared the Senate Health, Education, Labor and Pension Committee (HELP) on February 14 with a vote of 18-3 in favor of the bill. The Senate bill provides mental health parity for about 113 million Americans who work for employers with 50 or more employees. It would ensure that health plans do not place more restrictive conditions on mental health coverage than on medical or surgical coverage, including deductibles, co-pays, co-insurance, benefit limits and out-of-pocket limits. It also supersedes provisions of ERISA.

The bill does not require health insurance plans to provide any mental health coverage, only that if they do provide coverage, they must do so on a par with coverage for other physical illnesses. The bill does not include parity for substance abuse conditions, includes an exemption for companies with fewer than 50 employees, and contains a cost exemption for plans that incur a 2 percent or greater increase in total health care costs under the parity mandate. Determinations as to increases in actual costs under a plan (or coverage) need to be made by a qualified actuary who is a member in good standing of the American Academy of Actuaries.

The federal bill does not prohibit group plans from negotiating separate reimbursement or provider payment rates, or managing the provision of mental health benefits in order to provide medically necessary treatments under the plan (as a means to contain costs and monitor and improve the quality of care).

According to the legislation, oversight and administration would be conducted by the Department of Labor for self-funded Employee Retirement Income Security Act (ERISA) plans and by the Department of Health and Human Services for insured plans. The Act does not take away state mandated benefit coverage. State laws requiring plans to provide mental health coverage will remain in effect. The primary difference is that these plans will now have to treat a person's mental health coverage the same as physical health coverage under the federal parity guidelines that address financial requirements such as co-pays and treatment limitations (to the extent that they currently do not include such treatment).

The provisions of this Act shall apply to group health plans (or health insurance coverage offered in connection with such plans) beginning in the first plan year that begins on or after January 1 of the first calendar year that begins

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more than one year after the date of the enactment of the Act. This Act will become effective January 1, 2009 if enacted.

The bill will be subject to a full Senate vote, and the House is working on their own version of a parity bill. Time will tell how this all sorts out, but there is a good chance that a parity bill similar to S. 558 will be enacted this year.

Implications to Health Plans—A Hallway Conversation

The implications of this Act for health plans are many. Some of them may be not so obvious. I hope the following fictional hallway conversation between two actuaries will describe some of the salient points.

Eric: "Oh no, here we go again. The federal government is once again telling us what we have to cover in our benefit plans and it will further drive up our health care costs. Don't they know that we put these mental health benefit limits and restrictions into our health plans years ago because mental health costs were going through the roof? We finally had them controlled like we set out to do. If we have to provide unlimited benefits for mental health again, the costs will just go way back up."

Doug: "I don't think they will go up to the levels we saw back in the '80s and '90s. The providers have really changed how they deliver mental health care in the last decade or so. Remember when managed care first became popular and nobody knew what to do with our behavioral health care benefit management? And all of those new companies formed—those managed behavioral health care companies? I remember seeing slides of specialty behavioral cost data that showed that those "carve-out" companies ultimately reduced hospital behavioral health care costs as a percent of total health care costs by over 40 percent and reduced professional behavioral health care costs as a percent of total health care costs by 25 percent. There was a lot of inefficiency in the way we were treating behavioral health illnesses in the United States and they did a great job reducing those inefficiencies."

Eric: "You're right, they did help change the way behavioral health care is delivered. I remember when we had to figure out how to trade off inpatient hospital benefits with partial hospital services and intensive outpatient services. We didn't even have those in some of our contracts and I didn't even know what they were. And now that you mention it, our specialty behavioral health care costs have come down quite a bit. Last week I saw that even our indemnity plans had specialty behavioral costs that were running 15 percent lower than 10 years ago—and we don't manage that business at all. Must be that sentinel effect on providers. But what about the psychotropic drug costs? Aren't they going through the roof? Won't mental health parity just send them higher?"

Doug: "Yes, you're right about those rising psychotropic drug costs. As a percentage of total mental health spending, spending on psychotropic drugs has gone from about 7 percent to over 21 percent in 10 years. When the carve-out companies were reducing their specialty behavioral costs, psychotropic drug costs started rising rapidly. I think there's an

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association between those trends. The psychotropic drug costs aren't the responsibility of the specialty behavioral management firms; they're a medical risk. And if a primary care doc prescribes them, then the office visit costs are a medical risk, too. I don't think we pay much attention to those costs. But they won't be affected by mental health parity, at least not directly. Since they are almost always in the medical bucket, we already cover them like any other physical illness."

As a percentage of total mental health spending, spending on psychotropic drugs has gone from about 7 percent to over 21 percent in 10 years.

Eric: "Well, if we have to provide unlimited inpatient and outpatient services for all mental health conditions, what's to stop the providers from going back to the old ways of delivering mental health care? You know, those long hospital stays for kids with emotional problems and for suicide attempts? And those weekly therapy sessions for people that just want someone to talk to? Without the high co-pays or calendar year caps, won't parity drive up our costs?"

Doug: "They could, but I don't think they will if we keep an eye on things. The care has to be medically necessary, and we can continue any pre-authorization and concurrent review that we want to do. I'm not sure providers will go back to the inefficient ways they delivered care before, but they might. Maybe we could look into a pay-for-performance approach to change things if that happened, or change our management protocols for mental health services. But I have a feeling that we could even see our total health care costs go down with mental health parity."

Eric: "What? Are you nuts!? How could our health care costs go down when we increase mental health benefits?"

Doug: "I've heard that our primary care delivery system has become the de-facto delivery system for mental health care. More patients seek treatment in general medical settings for mental health problems than in the specialty behavioral settings. And the PCPs prescribe two-thirds of all the psychotropic meds, if not more. And I've heard that 80 percent of all patients that develop a depressive disorder first experience various symptoms of pain. And they naturally go to see their PCP for pain relief, but many never get to the underlying root cause of that pain for a long time. I've heard that the average time delay between proper diagnosis and treatment of depressive disorders and the initial onset of the illness is six to eight years. How much do you think we spend on primary care services during that time on those patients that just get their symptoms treated?"

Eric: "Wow, I never thought about it that way. But if they get treated by their PCPs, that's better than not getting treated at all, right?

Doug: "Well, maybe. But not if the treatment they receive from their PCPs is ineffective—then we're just wasting money. The statistics on effectiveness show that about 44 percent of patients that get treatment in the specialty mental health sector obtain minimally adequate treatment for their disorder. But in the general medical setting it's only about 13 percent."

Eric: "Holy cow—that low!?"

Doug: "Yep, not too pretty is it? So I wonder if we remove some of the hurdles that people with mental health problems have to face to get treatment from mental health specialists ... you know, like high co-pays and limited benefits ... I wonder if more of them won't get better treatment earlier and might get healthier sooner than they do in today's system. And if they get healthier, they won't cost us as much on the medical side—you know, all those visits to the PCP for symptomatic relief, showing up in the ER, or

worse, getting admitted into a hospital when their condition gets bad enough."

Eric: "I suppose it's possible. We should study those trends and see what happens to our covered members. That sounds very interesting and would be very useful."

Doug: "And not only health care costs, we should study the impact on other employer costs whenever we can get the data. We should look at absenteeism trends, disability costs and any other employer costs that could be related to mental health disorders. I know that depressed employees take many more days off work than non-depressed employees."

Eric: "But, Doug, what will the impact of parity be on small groups? They're already struggling under the weight of their health insurance costs. I can just hear the Chamber of Commerce now—one more mandated benefit and we cannot afford health care."

Doug: "I understand the concern on small employers. But most everyone is just looking at the increase in costs on specialty mental health care. While it could increase their small group rates by 1 percent or so, there's evidence emerging that other costs may go down shortly thereafter—costs of PCP visits, emergency room services and maybe even hospitalizations. And don't forget that depressed individuals use more sick days and are less productive at work. So if they get healthier with the right specialty care, other employer costs could go down."

Eric: "Well, you sure opened my eyes a bit on some of the issues surrounding this Act. Thanks for the input. And I hope you're right about our costs maybe going down when all is said and done."

Doug: "I hope so too. It will take some time before we know, but we should try to measure it accurately and then talk to some of our associates about what they are experiencing. Hey, I haven't even mentioned the exacerbation effect that co-occurring psychological conditions has on the high costs of chronic medical conditions. I'll let you get back to your office, but the next time we run into each other, that'll be an interesting topic for discussion as well."

What will the results of the Mental Health Parity Act of 2007 (or similar legislation) be if passed? I am sure it will vary based on the existing level of richness of mental health benefits in our health plans, and based on the degree of mental health management in our delivery systems. Let's just keep in mind that measuring specialty behavioral health care costs doesn't capture the full impact of this type of change. Measure psychotropic drugs, primary care visits, emergency room visits and the full spectrum of services impacted by mental disorders. Then, we'll have good results to evaluate and share in answer to this question.

Disease Management Association Releases Guidelines for DM Program Evaluation

by Ian Duncan

The Disease Management Association of America (DMAA), the industry trade association for companies that provide management of chronic disease, and health plans and employers that purchase these services, released its new publication *Outcomes Guidelines Report*.[1] The report is a consensus document that is the work of several committees that met during 2006 to debate often-controversial issues surrounding the value of DM programs.

DMAA describes its guidelines as representing "Generally Accepted Accounting Principles" for Disease Management evaluation. This is a worthy and necessary objective, although reading any of the accounting standards published by the Financial Accounting Standards Board will provide guidance as to what the standards should include. In particular, accounting standards (and their accompanying discussion) provide definitions and examples illustrating specific accounting principles. Accounting standards also have an important concept in common: they are all based on fundamental accounting principles, and can be evaluated against these principles.

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There are (or should be) fundamental evaluation principles in DM measurement. Tom Wilson's seminal article (Wilson, T.W. and MacDowell, M., "Framework for assessing causality in Disease Management Programs," *Disease Management*, Fall, 2003) lays out clear principles to employ in DM evaluation, particularly that of equivalence between the population being measured and the reference population. It is against the need for equivalence that the *Outcomes Guidelines Report* needs to be evaluated. What methodologies does DMAA identify as increasing equivalence, and conversely, what methodologies are rejected as inconsistent with equivalence?

What specifics does DMAA recommend?

- A pre-post evaluation design with an internal or external comparison group that is equivalent to the intervention group.
- Evaluations using a pre-post design without a comparison group should make explicit efforts to control potential biases and error.
- Measurement period: one year for baseline and subsequent years.
- Criteria for inclusion in measurement: commercial and Medicare member population be enrolled with buyer for >= six months; Medicaid TANF >= one month.
- Look back period: 12 months of the measurement period as well as at least 12 months of the preceding period.
- Defining a member month: members enrolled on the 15th of the month for commercial and Medicare populations when possible.
- Claims runout period: three months with completion factors or estimates, or six months with no completion contingent upon consistent payment patterns.
- Financial metric: health care cost outcomes as primary metric for assessing the financial impact of the program.
- Use medical and pharmacy claims where available to calculate changes in total dollars; convert to per member per month (PMPM) or per diseased member per month (PDMPM) as desired; can be used to derive ROI.

- DMAA recommends using paid and/or allowed costs.

- Trend: use non-chronic population for the purpose of calculating trend.

- For this purpose, non-chronic population is defined as those members not identified as having the "common chronic" conditions of diabetes, CAD, heart failure, asthma, or COPD (obstructive airways disease).

- Members with certain other conditions may be excluded from the non-chronic population if these conditions are also being managed by another disease management program outside of the five "common chronic conditions."

- Risk adjustment: parties must agree on mutually acceptable risk adjustment.

- DMAA recognizes that outcomes measurement problems arise in small samples. No specific recommendations are made, although there is a reference to "common actuarial practices" (probably credibility weighting).

- Exclusions: DMAA recommends that there should be three types of exclusions from the evaluation for financial and utilization measures: Patients (e.g., ESRD, HIV/AIDS, etc.), claims for certain diagnoses (e.g., trauma with hospitalization) and claims above a stop-loss level (e.g., $100,000). There are good reasons for theses exclusions, and the interested reader should refer to the SOA study "Evaluating the Results of Care Management Interventions: Comparative Analysis of Different Outcomes Measures" for more detailed discussion. See *http://www.soa.org/ccm/content /areas-of-practice/health/research/eval-results-care-man-int/*

Viewed from the perspective of a set of GAAP principles, DMAA's guidelines, in my opinion, deserve a B or B+. Fundamentally, DMAA has employed its resources effectively by

recognizing that the historical-adjusted method, used by the majority of the industry, is a practical answer to the measurement problem. While other potential solutions may exist, the industry has been searching for these for years without success. So rather than pursue another fruitless chase, the guidelines committee has worked on codifying and improving the methods used by the industry.

Some commentators will disagree completely with this approach. Some recommend the use of alternative methods that either suffer from more problems, or do a good job of validating that savings exist, without actually generating a savings number. And we cannot lose sight of the fact that purchasers require savings numbers for any number of purposes.

Many of the committee's recommendations (e.g., exclusions, claims run-out, etc.) are already standard practice in the industry. Some of their recommendations need further work, such as the recommendation on risk-adjustment, which lacks specifics as to why or how this technique should be employed, or small sample size issues. DMAA recognizes that further work needs to be done in these areas and plans to assemble work teams to address them in 2007. More seriously, there are several issues familiar to actuaries in which the committee needs to do further work:

1. Although it may be implicit in the methodology discussions, DMAA could have stated more clearly that a participant versus non-participant or a cohort design are both

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unlikely to produce equivalence between intervention and comparison groups.

2. The recommendation regarding the use of non-chronic trend, while it may be correct in certain circumstances, has been shown to be at risk of significant bias in an article in the *North American Actuarial Journal* in which chronic and non-chronic trends are compared ("A Comparative Analysis of Chronic and Non-Chronic Insured Commercial Member Cost Trends" (Robert Bachler, FSA, FCAS, MAAA, Ian Duncan, FSA MAAA, and Iver Juster, MD, *North American Actuarial Journal* 10 (4) October 2006.)). With trend the single largest generator of DM savings, it is crucial that this issue be understood by purchasers and that unbiased estimates are used.

3. DMAA states that it supports the principle of equivalence, but in a discussion of population identification, endorses both a prospective design (members are identified once and are considered always chronic) and a re-qualification design (a member is considered chronic in a period only if the member meets the qualifying test in that period). Since these two methods produce radically different results, they cannot both achieve equivalence.

4. DMAA does not address how to validate results calculations. It is imperative that data underlying the calculation, such as eligibility and paid claims, be reconciled to external data sources. Other commentators have also picked up on this issue and recommend methods (such as so-called "plausibility analysis") that tie dollar savings to underlying utilization reduction.

While the new DMAA outcomes guidelines are a necessary first step in creating rigor in evaluating care management programs, they require further work before they represent measurement guidelines that allow for comparison of results across programs or eliminate many of the biases present in methodologies currently in use.

It is to be hoped that DMAA's committees will repeat their hard work of 2006 and address these issues in 2007. We applaud their efforts and look forward to their results.

Footnote

[1] Available from DMAA for $125 for non-members. See *www.dmaa.org*.

Editor's note: DMAA welcomes specific comments on the guidelines at dmaa@dmaa.org. *Solucia hosted a webcast including comments by a number of industry experts. Copies of the webcast (which qualifies for SOA CE Credit) are available from* http://www.soluciaconsulting.com/conferences.html.

Just released!!

The Health Section is pleased to make available a new report that evaluates the predictive accuracy of risk assessment tools. The report can be accessed at: *http://www.soa.org/soaweb/research/health/hlth-risk-assement.aspx.* Stay tuned for an article on the report in an upcoming *Health Watch*.

Navigating New Horizons ...

An Interview with Eric Stallard

by Jim Toole

I caught up with Eric Stallard at his house just as he was pouring a cup of coffee. Eric is a man who does not allow time to slip through the cracks. An avid runner, Eric has logged 33,931 miles since he started keeping track in August of 1979. As a caveat, he noted that there were periods when his production was down (it is hard to run after leaving the office at 4 a.m.) and while in training he would give himself bonus miles for short track training, modifying his distance for a scale of intensity. He credited running for facilitating solutions to many of his problems.

And a prodigious problem solver he is. His CV displays 40+ pages of productivity over the last 35 years, from four books to scores of research projects to 100+ scientific articles dating back to the 1970s. His first actuarial paper was published in 1982, 10 years before attaining his ASA designation. This was followed by an additional 47 actuarial publications, beginning one year after his ASA. He is one of the fortunate people who get to do what they truly enjoy, following his creative spark while leading from the strength of his prodigious intellect, and in the process creating a unique and very personal career path.

Eric Stallard

ASA, FCA, MAAA, is a research professor of demographic studies in the Department of Sociology at Duke University. He can be reached at *eric.stallard@duke.edu*.

Background

Eric was born in Ireland and moved to New York City when he was eight years old. After graduating from Fordham Preparatory School in 1967, he entered Duke University to study math and physics. Once there he found he had a penchant for psychology, but the fall of 1970 proved to be a critical turning point when he discovered computer science. It was creative, challenging, and intellectually exciting all at the same time, providing a spark that was missing in his traditional course work. Eric describes computer science "like a cross between crossword puzzles and chess." Beware! He remembers beating his dad at chess at age nine.

His approach to computing was pure problem solving, and he worked harder at it than anyone else, at times putting in 40 hours a week on one course alone. This sort of focus put him to the head of the class in some areas, while other course work languished. He took to wandering around Duke's gothic corridors to find problems that lent themselves to computational solutions, and then proceeded to find ways to crack them. Eric soon found himself on the Duke payroll as a programmer solving applied statistical problems. Currently a research professor, Eric has worked at

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Duke in one capacity or another for over 35 years.

To properly establish the mood, it is important to remember in the early days of computer science the machines were typically situated in the bowels of the university complex in dank, windowless rooms far from the maddening crowds. They were out of the way, and only attracted people with business there. If you happened to be lost on campus, you would be hard-pressed to end up there. The serious programmers would arrive at 4:00 p.m. and stay until the wee hours, but without the benefit of Starbucks or diet sodas.

... epidemiology identifies important factors in the health of a population, while medical demography will take those factors and attempt to assess their impact on life expectancy and health, as well as measure the potential impact of available interventions.

At the time programs were loaded through card readers, and programs could run into the thousands of cards. Thus, the mix of people in queue generally consisted of 1) those individuals waiting to use the card reader and 2) folks waiting for the beast to finish reading their programs, spit out results and give them their precious deck of cards back. For Eric and others, the experience ended up being social, as the people who were waiting shared a commonality of interests. Talking passed the time and kept the crowds from becoming unruly. Eric met Dr. Kenneth Manton in the queue, and they shared a common interest in multivariate statistical analysis. Eric helped him program his dissertation, and they formed a working relationship that has continued for over 30 years.

Work

Eric's areas of expertise span health, disability, chronic disease and mortality, creating opportunities for dialogue among specialists and novel approaches to problems. Because of his breadth, he often serves the role of multidisciplinary generalist tying together teams of specialists, creating elegant medical demography models that integrate all of these elements. But instead of thinking about crossing boundaries, for Eric the boundaries do not seem to exist. He has always made a point of exploring what he needed to know to complete assignments. When faced with new problems that needed to be solved, he researched areas that both interested him and provided the intellectual muscle to find the answers.

Eric is currently serving on the Social Security Advisory Board's 2007 Technical Panel on Assumptions and Methods. The technical panel reviews the methods and assumptions used by the Trustees of the Social Security Trust Funds for assessing the long-term financial status of the Social Security system. The review is performed quadrennially with a great deal of intellectual horsepower, and there is a surprising amount of disagreement on assumptions. Given the 75-year time horizon of the projection (three generations, the equivalent period of the Great Depression to the present day), this is to be expected, but the results drive one of the most important line items of the U.S. budget.

In particular, Eric noted that there is a wide range of opinion as to the trajectory of mortality at the higher ages. With a 75-year projection, this becomes material in a way that is often an afterthought with pricing and modeling individual life insurance. There is a surprisingly wide range of opinion as to where mortality is going and how fast it will get there. He has written a definitive paper establishing a framework by which to evaluate the divergent array of longevity models in the *Journal of Risk and Insurance* entitled "Demographic Issues in Longevity Risk Analysis."

He has also done work in liability forecasting for asbestos-related medical claims, in particular, for the Manville Trust during the 1990s. The transition to asbestos modeling was a good fit for

him, building on his experience in cancer modeling for the previous 15 years. Rather than approaching the problem as a P&C cost issue, he developed a medical demography approach to the pool, integrating special characteristics of asbestos on health, disability, chronic disease and mortality. Stallard contrasts medical demography to epidemiology in this manner: epidemiology identifies important factors in the health of a population, while medical demography will take those factors and attempt to assess their impact on life expectancy and health, as well as measure the potential impact of available interventions. As a result of using these novel approaches, he challenged the prevailing view and found issues with previous epidemiological assumptions and published literature.

He is not afraid to take a position and not shy of controversy. A man of great intellectual integrity, he arrives at conclusions based on the data rather than the preponderance of opinion. Perhaps his most influential research was performed over a 15-year period spanning the 1980s and 1990s. At the start of this period, epidemiologists and demographers were very concerned that with increasing longevity there would be a concomitant increase in the incidence of disability and chronic disease. Rather than leading to improved quality of life, it was thought increased life expectancy would lead to more years of disability and their attendant costs, transforming our society in a negative way. The assumption driving this result was that the age-specific incidence of disability would remain constant.

We now know that this is not the case, but for most of the 1980s and 1990s this was the prevailing view, causing a great deal of concern among epidemiologists and demographers. Eric was involved in the National Long-Term Care Survey since its early years and was an integral part of the team that initially identified and later confirmed the decline in disability. Substituting facts for impressions, they collected data, analyzed it and concluded that the expected pandemic of chronic disease and related disability simply was not happening; in fact, disability was decreasing faster than mortality. It took more than 10 years of persistence before this position became the prevailing accepted paradigm in the field, but as a result of his and his colleagues' persistence, they fundamentally changed the understanding of where health and disability trends in this country among the aged are heading.

Professional

He was first introduced to the profession by Dr. Dennis Tolley, ASA, in 1982 when they published a paper with Dr. Manton in *Transactions of the Society of Actuaries*. Dr. Tolley later recommended to Eric that he consider attaining an actuarial designation via the examinations sponsored by the Society of Actuaries. Eric did some research on the topic and found the syllabus exciting. He was impressed that actuaries had systematically investigated these areas and set up a course of study that he had been unable to find in other disciplines. While there was a significant amount of overlap on applications and areas of practice he was already interested in, he was surprised to find a number of new topics he was unfamiliar with. Thus, taking the exams forced him to closely examine old tools as well as learn new ones. Overall, he enjoyed the exam process, as it was an area of study of great interest to him. It was also helpful to him professionally because the university recognized the importance of the designation and gave him both a promotion and a raise. When I asked him if he would do it over again, he said, "Definitely!"

Eric received professional designations in 1992 (ASA), 1993 (MAAA) and 2003 (FCA). While almost all of his actuarial papers were published after attaining his ASA, his first actuarial paper was a 1982 *Transactions* article. That paper, along with his other publications at that time, focused on cause-specific mortality models and their elaborations in stochastic compartmental models of disease progression. He spent a lot of time working on compartmental models for cancer, which

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included actuarial cost components as shown in the 1982 *Transactions* article. He found these modeling approaches to be of great value in liability forecasting for asbestos-related cancer claims against the Manville Trust during the 1990s. In many respects he had been doing actuarial work all along.

Substituting facts for impressions, they collected data, analyzed it and concluded that the expected pandemic of chronic disease and related disability simply was not happening; in fact, disability was decreasing faster than mortality.

Eric has given much back to the profession. He was a 1996 winner of the National Institute on Aging James A. Shannon Director's Award for his research proposal *Forecasting Models for Acute and Long-Term Care*. In 1999, the Society of Actuaries awarded him first prize for his paper *Retirement and Health: Estimates and projections of acute and long-term care needs and expenditures of the U.S. elderly population*, presented at the Retirement Needs Framework Conference. He is currently Chair of the American Academy of Actuaries' Federal Long-Term Care Task Force; and serves on the Academy's Health Practice Council, Social Insurance Committee, State Health Committee and State LTC Task Force. He has served on the Academy's Board of Directors, as well as the SOA's Long-Term Care Insurance Section Council, CCRC Experience Task Force and on the Society's Work Group on Factors Affecting Retirement Mortality.

The final question I posed to him was what did he do with the SOA Educational Institution Grant (a cash prize awarded to full-time faculty attaining ASA/FSA status). He laughed and said he used it to travel to SOA meetings and purchase actuarial books.

Living to 100 Symposium

January 7-9, 2008, Orlando, FL

Mark these dates on your calendar and join us for another thought-provoking experience!

The Society of Actuaries' Committee on Living to 100 Research Symposia invites you to its third, triennial international symposium on high-age mortality and related issues taking place Jan. 7-9, 2008, in Orlando, Fla.

Actuaries, demographers, gerontologists and other professionals from around the world will be among those presenting:

- Mortality projection methods
- Enhanced mortality rate and population projections
- Implications of an aging population for social, financial, health care and retirement systems

World-renowned scientist Dr. Cynthia Kenyon, American Cancer Society professor and director of the Hillblom Center for the Biology of Aging at the University of California, San Francisco, will provide the keynote address.

For more information and registration please visit *http://www.soa.org/ccm/content/ce-meetings-seminars/conference-and-symposiums/living-to-100-symposium/living-to-100-symposium/*

Medicare and Medicare Advantage—Out of the 60s and into the New Millennium

Part 2: Medicare and the Private/Public Partnership

by Daniel Bailey

This is the second installment of a two-part article on the history of Medicare and Medicare Advantage. The first topic in this installment is a brief explanation of Part D; the second is Medicare Advantage (MA). The focus of this article is on the medical aspect of MA.

Medicare Part D

As a consequence of the Medicare Modernization Act (MMA) passed in December 2003, the U.S. government initiated the Medicare Part D pharmacy program on Jan. 1, 2006. This program was a long time coming—President Johnson had convened the first panel to discuss a Medicare pharmacy plan during the 1960s. Although this article is focused on the non-pharmacy aspect of Medicare and Medicare Advantage, some mention of Part D needs to be made here. To those Medicare beneficiaries who did not already have comparable pharmacy coverage provided by their employer, Part D made available a standard (basic) level of pharmacy benefit to all Medicare beneficiaries who pay premiums equal to 25.5 percent of the net cost of the benefit, which does not include the cost-sharing inherent in the benefit.

Prior to Part D, the government did not provide prescription drug benefits for all Medicare beneficiaries. Since Medicare itself was "primary" for medical costs, a large portion of the cost of many of the "richer" employer retiree plans, those that covered pharmacy, was for pharmacy for seniors. As shown in Table 1 in the first installment, however, only about 35 percent of seniors had employer-based retiree coverage in addition to Medicare. Not all employer retiree health plans covered pharmacy, but those that do and offer "creditable coverage" can receive some reimbursement (retiree drug subsidy) from the government as an incentive not to drop their retiree Rx coverage now that Part D is available. Prior to Part D, only three of the 10 Medicare Supplement plans covered pharmacy H, I and J; and, as of Jan. 1, 2006, these three plans can no longer be purchased with a pharmacy component.

The Part D standard benefit for 2007 is not simple. Here are the most essential benefit facts, hopefully without getting hopelessly lost in the details. The diagram below illustrates the four "zones" of the benefit and the cost sharing that applies. Bear in mind that the description of the standard benefit cost-sharing does not include the cost of any premiums paid by the member for the standard Part D plan.

As shown in Table 1 on page 20, the standard plan has a $265 deductible, followed by 25 percent member cost-sharing on the next $2,135 (from $265 to $2,400), followed by 100 percent cost-sharing in the "doughnut hole" (from $2,400 to $5,451.25) for another $3,051.25 out of pocket, and followed finally by only 5 percent cost-sharing for expenses over and above $5,451.25. More precisely, after the $3,850 out of pocket threshold (TrOOP) is reached, the subsequent cost-sharing is the greater of a generic/brand copay of $2.15/$5.35 or 5 percent coinsurance. Essentially, this means that the beneficiary must spend $798.75 out of pocket up to the point they reach the doughnut hole, and if they spend all the way through the hole, they have spent $3,850 out of pocket by the time they reach the TrOOP. At the point the beneficiary in a standard Part D plan reaches the TrOOP, she has spent a total of $5,451.25 on Part D drugs, for which she has paid

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Table 1. Standard Part D Benefit for 2007

ZONE 4 (Catastrophic)	Member Pays 5% of Cat Costs	Government Pays 95% of Catastrophic Cost after Member Exits Donut Hole
ZONE 3 (Donut Hole)	The "DONUT HOLE"–Member Pays Next $3,051.25 Member's Cumulative Spending is $3,850 when exiting Donut Hole	
ZONE 2	Member Pays 25% of next $2,135 Member's Cumulative Spending is $798.75 when entering Dunut Hole	Government Pays 75% of next $2,135 (between deductible and donut hole)
ZONE 1	Member Pays Initial Deductible of $265	

$3,850 out of pocket and CMS has paid $1,601.25. The catastrophic portion of Part D is relatively rich. It will be interesting to see whether this affects the flow rate of the new drug pipeline or the unit cost of expensive drugs, now that the government is paying the bill.

The Part D drug plan is like a theoretical combination of two plans; theoretical because such a combination does not exist in the marketplace. The first is a maximum benefit drug plan with a limited HMO liability of, say, $750 or $1,000, which HMOs sold in the early 1990s—this is the basic coverage up to the start of the doughnut hole. In the case of Part D, the government pays $1,601.25 up to the point the doughnut hole is reached. This "basic" coverage is combined with a second plan, a catastrophic plan that generously pays 95 percent of claims after the TrOOP is satisfied. You could think of the doughnut hole as an enormous corridor deductible between the basic and catastrophic coverage.

Depending on how one views the glass that contains water at 50 percent of its capacity, the Part D benefit has supporters and detractors. On the one actuarial hand, it is widely available Rx coverage for Medicare beneficiaries, and it provides much greater benefit than payment, on average. On the other, the doughnut hole and other aspects of Part D benefit complexity have been criticized. There is another positive point; Part D makes PBM discounts available to Medicare beneficiaries who did not have access to them previously.

Part D is the biggest change to Medicare in recent years. There were many politicians who refused to vote to approve it unless it was projected to cost less than $400 billion in the first 10 years, 2004 through 2013. The estimate from the Congressional Budget Office was a conveniently convincing $395 billion. About the same time, Richard Foster, chief actuary at CMS, projected it would cost more like $500 to $600 billion. Despite political pressure and threat of unemployment, his $534 billion projection was revealed, underscoring that the adage, "land of the free because of the brave" also pertains to actuarial science. The cost estimate I saw in early 2006 was in the high $600 billions for the first 10 years of Part D, down from the low $700s estimated at year-end 2005. The test of time, at least initially, however, is revealing good news for all those footing the Part D bill. In early December of 2006, a report was issued that 2006 Part D expenditures would be around $30 billion—about 30 percent less than expected. About half of the downside difference is attributed to lower than expected take-up, that is, fewer enrollees entering the government plan than anticipated; the vast majority of the other half is attributed to lower unit cost for the drugs themselves.

With Part D added to the benefit, Medicare costs the U.S. taxpayers about 3.2 percent of GDP in 2006. In the Trustees' Report for 2005, it is noted that the Medicare expenditure as a percentage of GDP is projected to rise above 12 percent in 2080, absent any significant compression of cost over time. Assuming that the federal government takes in very roughly one-fifth of GDP as income tax revenue, the economic allocation question of the future will be between health care, on the one hand, and on the other, guns, butter, infrastructure, social security, education, welfare, food, clothing or shelter. What will

change? It seems likely that all of the above will, including our means to pay for more services.

Medicare Advantage—What's The Advantage?

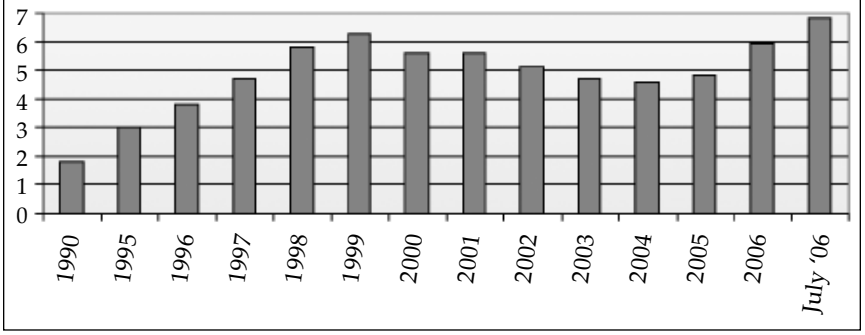
Managed Medicare—Part C

When the MMA was passed in December 2003, it amended Medicare, Title XVIII of the Social Security Act. At the same time that the Part D benefit was approved, managed Medicare (Medicare + Choice) was also given a shot in the arm with revenue increases to the remaining private plans, and it was re-named Medicare Advantage. Managed Medicare first began as Medicare Risk in 1983, enabled under TEFRA 1982. It evolved into Medicare + Choice under the Balanced Budget Act (BBA) of 1997. Today, under this public/private partnership, private plans offer managed Medicare to individual Medicare beneficiaries (and groups) through the Medicare Advantage program. The government looks to the private sector to find ways to control cost and improve the quality of Medicare. A line from the CMS Fact Sheet about the 2006 Medicare Trustees Report reads:

> *"A key part of improving quality and reducing overall health care costs involves greater access to Medicare Advantage plans, which save beneficiaries around $100 a month through promoting care coordination and prevention."*

The partnership between public and private is on the rise again. It is tenuous, though, because it has waxed and waned before, as seen in Table 2.

Table 2. January MA ENROLLMENT in millions



As a consequence of the MMA, since early 2005 enrollment in managed Medicare has been on the rise again. In the first five months of 2006, MA enrollment increased by roughly 1 million. The Kaiser Family Foundation Web site lists MA enrollment at 7.6 million for October 2006—an increase of 1.6 million over the same date last year. In each county in which they now participate, private companies will receive a minimum of 100 percent of the average FFS Medicare amount. The funding level that the government makes available to private companies has much to do with their willingness to participate. In return, the private sector can bring to Medicare some things that the federal government generally has not, such as a systematic program of medical management.

Traditional Medicare A/B is essentially an unmanaged network with little explicit constraint on the beneficiary's utilization of the benefit other than cost-sharing. (Implicitly, however, the DRG-based hospital payment system helps to control the length of inpatient stay.) Part C is the other name for Medicare Advantage or Medicare offered by the private sector. With the exception of private Fee for Service plans (more about those later), it has the home court advantage of being able to coordinate care and apply various aspects of medical management, such as wellness programs and disease management for specific conditions such as diabetes, hypertension, congestive heart failure or other cardiovascular disease, chronic obstructive pulmonary disease and asthma and end-stage renal disease. The objective of medical management, in its various forms and aspects, is to improve the quality of care, provide continuity of care and reduce unnecessary cost by providing effective service, when

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Recap of a Meeting of the Minds

by Louise H. Anderson

A second successful *Meeting of the Minds* seminar was held in Minneapolis on October 10, 2006. Health services researchers and health actuaries gathered to discuss two topics of mutual interest: consumer driven health plans (CDHP) and pay for performance (P4P).

Steve Parente, Ph.D., University of Minnesota, presented results from his recent research on CDHP selection and utilization in conjunction with a presentation on CDHP experience from Tom Boldt, ASA, chief actuary, Definity Health. David Knutson, director of Health Systems Studies, Park Nicollet Institute for Research, and Howard Underwood, FSA, MD, MBA, Deloitte Consulting, addressed new developments in P4P.

Louise H. Anderson, PhD, FSA, is a research associate at HealthPartners Research Foundation. She can be reached at *Louise.H.Anderson@HealthPartners.com*.

Dr. Parente and Boldt each offered an analysis of CDHP experience compared to traditional benefit designs. The two analyses differed in methodology: Dr. Parente used a panel design, following the same CDHP enrollees from a single employer over a three-year period; Boldt used a cross-sectional design, following members from four self-funded employer plans that offered both CDHP and PPO over a three-year period. The two designs have different purposes and may show differing results. Dr. Parente's panel analysis showed that CDHP enrollees have higher total expenditures in years two and three compared to POS and PPO enrollees. Expenditures were higher for hospital and physician categories. In contrast, Boldt's cross-sectional analysis showed that CDHP membership had lower costs than PPO membership.

One might argue that Dr. Parente's analysis has validity to forecast future experience under CDHP as membership begins to stabilize. However, the panel analysis included only 26 percent of the employee population because it was restricted to a continuously enrolled sample. Similarly, Boldt's cross-sectional analysis might be considered the best approach for actuaries, because it takes a population-based view that accounts for the expenditures of all members, not just those with continuous enrollment. The audience participated in a great deal of thoughtful questioning and discussion about the methodology and results from each presenter!

Dr. Underwood gave an overview of pay for performance (P4P) including the relationship of P4P with quality initiatives, issues for implementing P4P, the current status of P4P, and how to best prepare for P4P implementation. Dr. Underwood cautioned about the need to include all stakeholders in the development and implementation of P4P, especially in the areas of data, IT and measurement. Knutson presented the results of a survey of Minnesota Medical Groups on their attitudes toward P4P, Minnesota Community Measurement reporting and tiered networks. Knutson's research suggests that providers have a high level of uncertainty about P4P programs and public reporting, that P4P brings modest revenue yet appears to modify group behaviors, and that patients are more influenced by tiering than public reporting of medical group quality. These two presentations emphasize that P4P is at an early stage of development and that modifications will surely follow as implementation grows.

Nearly 50 attendees from research and actuarial backgrounds attended the half-day seminar.

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A Survey of Medigap Enrollment Trends

by the AHIP Center for Policy and Research

Editor's note: This article contains excerpts from AHIP's October 2006 research report, "A Survey of Medigap Enrollment Trends, July 2006," and is reprinted with the permission of AHIP. The report is available in its entirety on the AHIP Web site at www.ahipresearch.org.

In July 2006, America's Health Insurance Plans (AHIP) conducted a survey of its member companies offering Medicare Supplemental (Medigap) insurance coverage. The goal of the survey was to identify any shifts in Medigap coverage resulting from changes made to Medicare and Medigap by the Medicare Modernization Act of 2003 (MMA), which created the Medicare Part D prescription drug benefit. The survey tracked the types of federally standardized Medigap policies in force from January 2003 to July 2006, and the types of new policies issued over that period.

For this survey, AHIP received responses from 25 companies in the Medigap market, reflecting 1.7 million Medigap policyholders. Overall, 10 to 11 million Medicare beneficiaries have Medigap coverage, and roughly two-thirds of Medigap policyholders have federally standardized plans. Therefore, AHIP's survey represents approximately 20-25 percent of the overall market for federally standardized Medigap plans.[1]

Key Findings

- According to the survey, the number of Medigap policyholders has changed little in recent years, and there has been no major change in the number of policies in force thus far in 2006. Among AHIP member companies responding to the survey, the number of federally standardized policies in force fell by about 1 percent from January 2006 to July 2006, after having grown by 1.7 percent from 2005 to 2006, and 0.1 percent from 2004 to 2005. [*See Table 5*]

Table 5. Number of Federally Standardized Medigap Policies In Force in Survey, January 2003 to July 2006

	January 2003	January 2004	January 2005	January 2006	July 2006
Total Number of Medigap Policies In Force in Survey	1,607,074	1,722,680	1,724,400	1,753,789	1,734,763
Percent Change from Prior Date		7.2%	0.1%	1.7%	-1.1%

Source: America's Health Insurance Plans
Note: Data are based on 25 carrier responses.

- In July 2006, the majority of Medigap policyholders in federally standardized plans were in Plan F (51 percent). Plan C had a 14 percent share of the market for federally standardized plans; Plan G had a 9.5 percent share; and Plan D had an 8.5 percent share. Plans F and C cover 100 percent of the deductibles and coinsurance charged by Medicare's fee-for-service program; Plans G and D cover all deductibles and coinsurance except for the Part B (outpatient) deductible ($124 in 2006). [*See Table 6 on page 24*]

- Thus far, very few policyholders (less than 0.05 percent) have purchased either of the new standardized Medigap Plans K and L, which cover a smaller portion of Medicare's

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Table 6. Distribution of Federally Standardized Medigap Policies In Force, by Product Type, January 2003 to July 2006

Medigap Product Type	January 2003	January 2004	January 2005	January 2006	July 2006
A	2.1%	2.1%	2.0%	1.8%	1.7%
B	9.6%	8.9%	8.0%	7.1%	6.6%
C	20.8%	18.6%	16.9%	15.1%	14.2%
D	10%	9.5%	9.2%	8.7%	8.5%
E	3.1%	3.6%	4.1%	4.3%	4.0%
F	46.6%	47.7%	48.9%	50.6%	51.4%
F (high deductible)	0.2%	0.2%	0.4%	0.5%	0.6%
G	4.8%	6.0%	7.4%	9.2%	9.5%
H (with Rx)	1.3%	1.2%	1.1%	0.8%	0.3%
I (with Rx)	0.7%	1.2%	1.3%	0.9%	0.5%
J (with Rx)	0.8%	0.9%	0.8%	0.6%	0.4%
J (high deductible, without Rx)				0%	0%
H (without Rx)				*	0.5%
I (without Rx)				0.2%	0.6%
J (without Rx)				0.2%	1.3%
K				*	*
L				*	*
Total	100%	100%	100%	100%	100%
Total Policies in Force in Survey	1,607,074	1,722,680	1,724,400	1,753,789	1,734,763

Source: America's Health Insurance Plans
Notes: Data are based on 25 carrier responses. Plans H, I and J without prescription drug benefits were not available prior to 2006. Likewise, plans K and L were not generally offered prior to 2006.
* Less than .05%

Table 7. Number of New Medigap Policies Issued by Carriers Responding to the Survey in the First Six Months of the Year, 2003 to 2006

	January 1, 2003 to June 30, 2003	January 1, 2004 to June 30, 2004	January 1, 2005 to June 30, 2005	January 1, 2006 to June 30, 2006
Number of Policies Issued in Survey—First Half of Year Shown	154,310	125,380	135,696	192,499

Source: America's Health Insurance Plans
Note: Data are based on 25 individual carrier responses, representing approximately 1.7 million policyholders.

deductibles and coinsurance. A small share of Medigap purchasers were in Plan F with a high deductible (0.6 percent). None of the carriers responding to the survey offered Plan J with a high deductible. [*See Table 6*]

- The number of new policies issued rose in the first half of 2006, in part because Medigap policyholders switched policies as a result of new rules associated with the Medicare drug benefit. The MMA prohibited new sales of Plans H, I and J with drug benefits effective on Jan. 1, 2006; the number of policyholders

Table 8. Distribution of New Medigap Policies Issued in the First Six Months of the Year, 2003 to 2006

Medigap Product Type	January 1, 2003 to June 30, 2003	January 1, 2004 to June 30, 2004	January 1, 2005 to June 30, 2005	January 1, 2006 to June 30, 2006
A	2.4%	2.1%	1.3%	0.7%
B	10.9%	3.8%	2.8%	2.6%
C	11.0%	7.5%	5.5%	5.5%
D	12.6%	8.1%	6.6%	5.6%
E	6.0%	7.9%	6.1%	3.3%
F	44.9%	51.9%	52.0%	49.7%
F (high deductible)	0.7%	1.3%	1.6%	1.3%
G	8.6%	16.0%	23.2%	13.7%
H (with Rx)	1.2%	0.3%	0.1%	
I (with Rx)	1.6%	1.1%	0.8%	
J (with Rx)	0%	0%	0%	
J (high deductible, without Rx)	0%	0%	0%	0%
H (without Rx)				4.7%
I (without Rx)				3.3%
J (without Rx)				9.2%
K				0.2%
L				0.3%
Total	100%	100%	100%	100%
Total New Policies In Survey	154,310	125,380	135,696	192,499

Source: America's Health Insurance Plans
Note: Data are based on 25 individual carrier responses, representing approximately 1.7 million policyholders. Plans H, I and J without prescription drug benefits were not available prior to 2006. Likewise, plans K and L were not generally offered prior to 2006.

with those plans fell by more than 50 percent between January 2005 and July 2006. [*See Table 7 on page 24 and Table 8 above*]

Footnote

[1] According to the 2002 Medicare Current Beneficiary Survey, approximately 11 million Medicare beneficiaries in the fee-for-service program have purchased Medigap coverage. A 2001 report by the Government Accountability Office (GAO) estimated that approximately 61 percent of Medigap policyholders had federally standardized plans in 1999; 35 percent had supplemental plans that predated federal standardization; and 4 percent had Medigap plans in three states—Massachusetts, Minnesota and Wisconsin—with state-based standards that can be used instead of the federally standardized plans. See Government Accountability Office, Medigap Insurance, (July 2001, GAO-01-941). Since 1999, the percentage of Medigap policyholders with federally standardized plans most likely has risen, because all new policies sold outside of those three states must meet the federal standards.

Small Group Health Insurance in 2006:

A Comprehensive Survey of Premiums, Consumer Choices and Benefits

by the AHIP Center for Policy and Research

Editor's note: This article contains excerpts from AHIP's September 2006 research report, "Small Group Health Insurance in 2006: A Comprehensive Survey of Premiums, Consumer Choices, and Benefits, September 2006" and is reprinted with the permission of AHIP. The report is available in its entirety on the AHIP Web site at www.ahipresearch.org.

In early 2006, America's Health Insurance Plans (AHIP) conducted a comprehensive survey of member companies offering coverage in the small group health insurance market. Responses included premium and benefit data from more than 650,000 small groups (those with 50 or fewer employees), reflecting 4 million workers and 3.2 million dependents with coverage as of January 2006. Over 80 percent of the small groups represented had 10 or fewer employees. In total, 21 AHIP member companies provided data for the survey, including large national and regional carriers, as well as single state and local plans. This represents by far the largest recent survey undertaken of the small group market.

Key Survey Results

In 2006, the average premium for small group health insurance was $311 per month ($3,730 per year) for single coverage and $814 per month ($9,770 annually) for family coverage. Within the small group market, premiums fell slightly as firm size increased. [*See Table 2*] Firms with between 26 and 50 employees paid an average of $287 per month for single coverage, while firms with between 11 and 25 employees paid an average of $299 per month, and firms with 10 or fewer employees had average single premiums of $330 per month. Small group premiums in 2006 were slightly lower than those reported in the 2005 Kaiser Family Foundation (KFF) survey of (mostly) larger employers, despite an additional year's increase in health costs. Premiums in the KFF survey for all firms with three or more employees averaged $335 per month ($4,024 annually) for single coverage, and $907 per month ($10,880 per year) for family coverage in 2005.[1]

Employee cost-sharing tends to be higher among small group plans. For example, the average annual deducible for PPO plans reported by the KFF survey of mostly medium-size employers (3-199 employees) in 2005 was $469, while the average deductible for single coverage in the small group market (50 or fewer employees) in AHIP's survey in 2006 was $849.

Among small firms in large states, average premiums ranged from a high of $419 per month for single coverage ($1,097 for family coverage) in New York to a low of $246 per month for single coverage ($645 for family coverage) in Virginia. Higher-premium states included Connecticut, Massachusetts, Louisiana, New Hampshire and Colorado. Lower-premium states included Missouri, Pennsylvania, Ohio and California. [*See Table 5*]

Among employees with small group coverage, 57 percent had PPO coverage in 2006, with both in-network and out-of-network benefits. Thirty-nine (39) percent had HMO coverage, often with a point-of-service (POS) option. Approximately 4 percent of enrollees had a health savings account (HSA) benefit, with a qualifying high-deductible health plan (HDHP).

More than 10 percent of small group enrollees had a choice of two or more benefit plans. Of workers offered an HSA plan, approximately one-third also had a choice of a PPO or HMO/POS plan.

Table 2. Premiums by Number of Covered Employees in Small Group Plans, 2006

	Number of Groups in Survey	Total Covered Employees	Total Covered Lives	Average Monthly Premium - Single	Average Monthly Premium - Family
10 or Fewer Employees	544,302	1,864,783	3,393,702	$330	$864
11 - 25 Employees	84,594	1,245,100	2,256,453	$299	$785
26 - 50 Employees	27,368	924,604	1,570,999	$287	$752
All Small Groups	656,264	4,034,487	7,221,154	$311	$814

Source: America's Health Insurance Plans. Note: Family premiums estimated for a family of four.

Almost half (46 percent) of enrollees in small groups chose HSA/HDHP plans when offered a choice among HSA plans and other types of health plans.

An average PPO plan purchased by small employers included an individual deductible of $849, 18 percent co-insurance, a co-payment of $21 for physician visits (in-network), and an annual out-of-pocket limit of $2,700. An average HSA plan had an individual deductible of roughly $2,220 but had relatively small cost-sharing requirements above the deductible; the average annual out-of-pocket limit for HSA plans in the small group market was approximately $2,800. An average HMO/POS plan in the small group market had co-payments of about $20 for primary care office visits and about $25 for specialist visits.

Small group insurance is mostly regulated by the states. Roughly two-thirds of the states have adopted premium rating rules designed in the early 1990s by the National Association of Insurance Commissioners (NAIC), which allow rates to be adjusted for the demographics of enrollees in a group, but place limits on the magnitude of adjustments for health status, industry and other rating factors. The most common limit or "rating band" for health status is 25 percent above or below the standard rate.

Federal law requires small group health insurance to be offered on a "guaranteed-issue" basis. That is, a small business cannot be denied coverage due to the health status or illness of its employees or their dependents. In general, states with tighter limits on rating or "community rating" rules—which do not allow rate variation based on health status or the prior claim experience of the group—tend to have higher average premiums.

Other factors affecting premiums include state regulatory climates, high rates of illness or health risk factors among state residents, state premium taxes or assessments, the cost of hospital and physician services in individual states, and the types of products chosen and degree of deductibles or other cost-sharing purchased by the state's small businesses. One easily overlooked factor is the degree to which small group premiums reflect health care providers' uncompensated costs of caring for uninsured residents or underpayments from low reimbursement rates paid by some state Medicaid programs.

Table 5. Premiums by State, All Small Groups, 2006

States	Average Monthly Premium Single	Average Monthly Premium Family
Alaska	$436	$1,141
New York	$419	$1,097
Connecticut	$404	$1,059
West Virginia	$401	$1,051
Massachusetts	$392	$1,027
New Hampshire	$377	$989
Louisiana	$373	$978
Wyoming	$369	$966
Colorado	$362	$950
Rhode Island	$352	$923
Nevada	$349	$914
Utah	$349	$913
Nebraska	$347	$910
Florida	$345	$904
New Jersey	$342	$896
Maine	$341	$893
Texas	$338	$886
Maryland	$330	$864
Wisconsin	$327	$857
New Mexico	$325	$852
North Carolina	$325	$852
Minnesota	$324	$849
Montana	$320	$838
Illinois	$317	$832
Oklahoma	$316	$827
Michigan	$315	$826
Indiana	$314	$823
United States	**$311**	**$814**
South Dakota	$310	$811
Mississippi	$307	$803
Kentucky	$303	$794
South Carolina	$300	$786
Georgia	$299	$783
Kansas	$299	$785
Alabama	$297	$777
Tennessee	$297	$779
California	$296	$775
Ohio	$296	$776
Pennsylvania	$294	$770
Missouri	$292	$765
Iowa	$285	$747
Arizona	$281	$736
Virginia	$246	$645
Washington	$245	$643
North Dakota	$234	$612

Source: America's Health Insurance Plans. Note: Family premiums estimated for a family of four.

Footnote

[1] Employer Health Benefits: 2005, The Kaiser Family Foundation and Health Research and Educational Trust (September 2005). The KFF survey includes some small firms and breaks the premium results into three categories: firms with 3-199 employees, firms with 200 or more employees, and the overall total (3 or more employees).

Community Benefit: A Matter of Mission and Accountability

by Julie Trocchio and Jim Toole

Editor's note: For more information regarding the application of techniques discussed in this article, plan on attending Julie Trocchio's session, Planning and Reporting the Community Benefit for Non-Profit Providers, at the Spring Health meeting in Seattle.

Community benefit is inherent to the mission and tradition of America's nonprofit hospitals. It is also the legal requirement for hospital tax exemption. New materials from the Catholic Health Association, developed in cooperation with VHA, Inc.,[1] can help hospitals through the challenging process of planning and reporting their community benefit, thereby demonstrating that their mission, tradition and legal obligations are being met.

Nonprofit hospitals were established because of the need in our communities to care for poor, elderly, sick, injured and dying persons. Religious and civic leaders found the financial and human resources needed to care for their neighbors. Addressing community health needs remains the primary mission of nonprofit hospitals. It is a rich tradition of service that is as vibrant today as when these institutions were started.

What Is Community Benefit?

In its broadest sense, community benefit means operating a hospital in the best interest of the community and basing decisions on what is good for the community. It also means providing services for the community that go above and beyond caring for patients. Community benefit has come to be understood as services that reach out to persons facing barriers to health care access, that are designed to meet community needs and improve community health.

Community benefit is also the legal basis for hospital tax exemption. Nonprofit hospitals are exempt from paying taxes as 501(c)(3) charitable institutions under the *Internal Revenue Code*. Supplementing the *Code* is Internal Revenue Ruling 69-545 which established the community benefit standard nearly 30 years ago. The community-benefit standard calls for hospitals to have a community board, open medical staff, emergency room open to all regardless of ability to pay, and for excess funds to be applied to the organization's facilities, patient care, medical training, education and research.

Non-Profit Status Under Fire

During the 109th Congress, questions arose about whether the community benefit standard was sufficient and whether hospitals were providing enough community benefit to justify their tax exemption. In September 2006, Senate Finance Committee Chairman Charles Grassley (R-IA) held a hearing titled "Taking the Pulse of Charitable Care and Community Benefits at Nonprofit Hospitals." In his opening statement, Chairman Grassley said, "Non-profit hospitals receive billions in tax breaks at the federal, state and local level. The public has a right to expect significant, measurable benefits in return."

The year before, in May 2005, a Ways and Means Committee hearing on the tax-exempt hospital sector raised similar issues. In announcing the hearing, Chairman Bill Thomas (R-CA) said, "Congress needs a better understanding of the subsidy for tax-exempt hospitals. Tax-exemption is an important benefit and the Congress has a responsibility to assure the American taxpayer that the tax-exempt hospital sector is living up to its community responsibilities." During this same period, attorneys general in Illinois, Ohio, Montana and other states asked similar questions and began studies of tax exempt hospitals in their states.

In essence, policy makers who raise the issue of tax exemption are asking: Are hospitals sufficiently community-oriented and are they providing enough community benefit? The issues and questions raised by Chairmen Grassley, Thomas and others are legitimate. Hospitals should be able to demonstrate that they continue

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to fulfill their charitable mission, that they provide measurable community benefit, and they continue to deserve exemption from taxes.

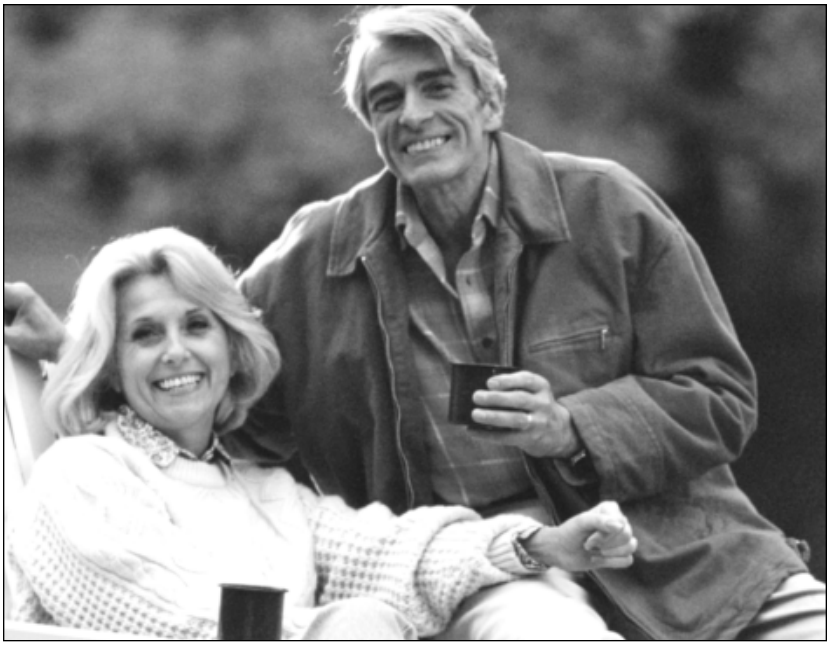
How Do You Measure Community Benefit?

In April of 2006, the Catholic Health Association of the United States (CHA), in cooperation with VHA, published *The Guide for Planning and Reporting Community Benefit* to help tax-exempt health care organizations reinforce their mission of community service and tell their community benefit story. This was a revision of CHA's *Social Accountability Budget*, first published in 1989 after similar policy issues were raised about the tax exemption of nonprofit hospitals.

The *Guide* presents a definition of community benefit developed by community benefit, finance and legal experts within and outside of CHA and VHA, using the Internal Revenue Service revenue ruling and audit guidelines. The definition includes specific categories of services with recommendations for what should and should not be counted.

The three main categories of community benefit are charity care (reported at cost); the unpaid cost of indigent care programs such as Medicaid; and other community services. Other community services include:

- **Community Health Services:** clinics, support groups, support services, and prevention and health promotion activities.
- **Health Professional Education:** training for physicians, nurses and other health professionals to address unmet community needs.
- **Subsidized Services:** trauma services, hospice and palliative care programs, and behavioral health.
- **Health Research:** clinical research and studies on community health and health care delivery.
- **Donations:** cash, grants and in-kind services.
- **Community-Building Activities:** neighborhood improvements, housing programs, coalition building and advocacy for community health improvement.



The following are not considered community benefit:

- Medicare Shortfall
- Bad Debt
- Programs provided for marketing purposes
- Required programs and services required
- Programs for employees

Planning and Reporting the Community Benefit

There are six steps for planning and reporting the community benefit. Each step is critical to ensuring the success of the overall process. Like the actuarial control cycle, the process is an iterative one. Each builds on the successes and attempts to redress the shortcomings identified in the previous period. In addition, the goals of the community may change, necessitating a reallocation of resources or reprioritization of goals.

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1. **Building a Sustainable Infrastructure:** The infrastructure is made up of collaborative relationships with community members and organizations, adequate staffing, a budget and policies that are well understood and consistently practiced. Leaders must be accountable for meeting community benefit goals. It also requires reaffirming commitment to the mission of community benefit.

Actuaries, with their strong ethics and perception as a "fair broker," are well positioned to serve on a team to assist institutions and communities to reach consensus on establishing community benefit goals.

2. **Planning for Community Benefit:** Planning starts with identifying community needs and assets and setting priorities for services. It also includes integrating planning with other health care organizations and agreeing to be part of community-wide efforts to improve health in the community. Because the needs and assets are different in each community, there is no "cookie cutter" approach or standard checklist. Just getting the right players to the table to participate in the discussion may take more than one iteration.

3. **Determining What Counts as Community Benefit.** The definitions and categories described earlier are presented along with criteria for determining whether activities are true community benefits. These definitions allow hospitals and health systems to report community benefit in a consistent, standardized way.

4. **Accounting for Community Benefit.** Standardized accounting methods assure that accounts of community benefit are quantified, credible and comparable with reports of other organizations. The accounting forms are also available for purchase in commercially available software.

5. **Evaluating Community Benefit Programs.** The guide recommends evaluating overall community benefit programs and individual initiatives by establishing specific objectives and indicators of effectiveness. Specifying goals that are measurable, attainable and reasonable given the time horizon of the planning cycle can be a sticking point in the process. The goals need to align with the missions of the institutions in order to be supported, and buy-in at the highest levels are needed. [*See* Step 1]

6. **Communicating the Community Benefit Story.** The public as well as key internal audiences need to be aware of your efforts. Guidelines are presented for communications and community benefit staff to work together in developing, planning, tracking and evaluating community benefit programs to tell the community benefit story.

Role for Actuaries

So what role can actuaries play in this process? Many of the steps described above play directly to our professional strengths. Certainly in the accounting and evaluation pieces there is much to recommend our skill set. However, the entire planning cycle is one of consensus building between different stakeholders. Actuaries, with their strong ethics and perception as a "fair broker," are well positioned to serve on a team to assist institutions and communities to reach consensus on establishing community benefit goals.

It is important to establish objectives and indicators of effectiveness to evaluate the success of each cycle, and that these goals are quantifiable. As an independent third party, the actuary

can assist in the ongoing process of evaluation and realignment.

What's Next?

Last fall's election will have an impact on the public policy scrutiny of nonprofit hospitals. Ways and Means Chairman Bill Thomas has left the Congress and Senator Grassley no longer chairs the Senate Finance Committee. Several state attorneys general have gone on to other roles. But even with the change in the political landscape, it is expected that the debate surrounding community benefit and the appropriateness of tax exemption for nonprofit hospitals will continue. As Pete Stark, the new chair of the Ways and Means Health Subcommittee, said when asked about the subject, "The players may have changed, but the issues remain the same."

The momentum for more rigorous planning and reporting of the community benefit within nonprofit hospitals is expected to continue. The policy questions posed over recent years have motivated local governing bodies to put community benefit on their agendas as well. At a national and local level there is a growing trend of making health care leaders accountable for the community benefit their organizations provide.

We predict that the issue of community benefit will continue to be a priority for both policy makers and hospital leaders. This is good news for the mission of our organizations and the communities we serve.

Footnote

[1] A nationwide network of more than 2,400 community-owned health care systems and their physicians.

Community Benefit Resources

Available from the Catholic Health Association at *www.chausa.org*

A Guide to Planning and Reporting Community Benefit

Community Benefit Categories

"Does it count? Hotline"

Comparison of CHA's guide and state community benefit requirements

Template for reporting community benefit on the IRS form 9990

Community benefit accounting forms

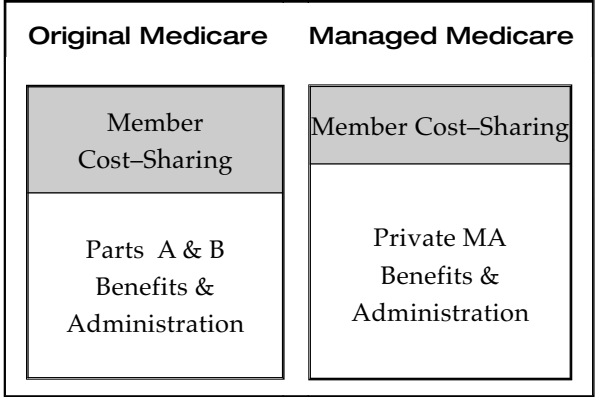
Examples of hospital and health system community benefit reports

Information on educational opportunities and resources

needed, in the appropriate setting, using best practices. This is essentially the premise of managed care.

On an actuarial equivalent basis, Medicare Advantage (MA) must cover all the same benefits as traditional A/B; this is just the minimum, however, and MA generally covers more than the traditional A/B benefit as illustrated in Table 3.

Table 3. Added Value of Managed Medicare



For example, MA may include unlimited inpatient days as well as coverage for glasses and hearing aids, whereas traditional A/B does not. Under an MA plan, the beneficiary may also share less of the cost of services than he or she would under traditional A/B. Of the two, the latter is usually of greater actuarial value to the beneficiary. For example, if the total allowed cost of an office visit and procedures performed during is $200 under traditional A/B, the beneficiary would be obligated to pay $40 in coinsurance (20 percent) assuming the $131 deductible is already met. Under MA, the beneficiary might only pay a single HMO copay, typically less than $40, and generally no deductible for HMO. In fact, MA HMOs often cover preventive office visits at no copay. For outpatient surgery, a beneficiary could be responsible for $250 of coinsurance under A/B, for example, but only the $50 copay under MA.

Essentially, the beneficiary must elect MA of their own choice. Under MA, they generally will receive additional benefits for which they would otherwise have to purchase a Medicare Supplement plan. This is especially attractive to Medicare eligibles that do not have either Medicare Supplement or retiree health coverage. Because MA is like Medicare A/B plus something extra that resembles Medicare Supplement, the beneficiary who chooses MA cannot also purchase a Medicare Supplement plan.

Traditional Medicare and Medicare Supplement plans do not co-exist in perfect harmony. Although Medicare is the primary payer, Medicare Supplement is secondary and pays much of the A/B cost sharing, thereby reducing Medicare's primary disincentive to Medicare utilization. Under MA, this would similarly undermine the premise of a coordinated care plan. But more important, a Medicare Supplement plan on top of a MA plan could duplicate coverage due to the unique product designs of MA plans.

As managed Medicare has increased in enrollment, Medicare Supplement has generally decreased, and vice-versa. Employer retiree health coverage is another matter. Like pension benefits, private employers are trimming employee benefits from various directions, and retiree health coverage has been no exception. With the advent of GASB, which are financial accounting standards applied to government entities, we should expect to see increased interest in controlling the cost of retiree health benefits for government employers as well.

As previously mentioned, the government offers private health insurers an incentive to participate in part C by paying them at least the equivalent fee for service (FFS) cost of A/B claims. In some counties, CMS pays MA plans more—sometimes considerably more. This differential above the A/B FFS equivalent cost is often referred to as "lift" and it varies by county, as does the FFS medical cost itself. In return, the private managed Medicare organizations may add value by passing along a "richer" package of health benefits to the Medicare beneficiary. That is the theoretical underpinning of the

win/win/win for the government/beneficiary/private health insurer.

The inducement of additional benefits motivates the beneficiary to forego the freedom of provider choice in traditional A/B in favor of a coordinated care plan. MA HMO and PPO plans are network-based. The additional benefits they offer may include preventive care. There are also other advantages that inure to the beneficiary, such as the targeted help they may receive from the MA plan in managing their own chronic conditions. For example, upon identification of a diabetic member based on their medical or pharmacy claims, the Part C HMO can better coordinate the patient's care. A primary care physician may act as gatekeeper and direct the diabetic member to appropriate specialty care. That same member may receive mailings with information about their condition, information that traditional A/B does not offer.

MA seeks to find ways to improve the quality and efficiency of care, and this consequently helps control cost. CMS is effectively employing managed competition in MA that does not exist in traditional Medicare. A number of studies have been conducted comparing the quality of the medical care provided under MA versus traditional A/B; the HEDIS criteria established by the NCQA are often used as criteria. One limited comparative study is the "Quality of Diabetes Care in Medicare Advantage" conducted by the Alliance of Community Health Plans (ACHP). An AHIP publication about MA plans cites an article in JAMA that "finds that MA plans outperform Medicare fee for service on key quality measures."

Medicare Bids

Insurers that participate in managed Medicare must submit a separate bid for each health plan sold to individual members in each county. (In fact, if the plan is medical only, there is only one bid; if the plan is medical and pharmacy combined, MA-PD, then two cross-referenced bids are required.) For some private companies,

especially national ones, this may amount to hundreds of bids. In each county, CMS establishes the benchmark payment rate based on the MA county ratebook. The private plan thinks of this as the cost of A/B medical services excluding member cost-sharing that they must beat. In order to add value, the private company must bid below the benchmark. Essentially, this serves as proof that a private company can deliver traditional A/B medical services for less than the government would. The difference between the benchmark and the bid is called the savings. The private company must give 25 percent of the savings back to CMS, which puts the money back into the MA program, some earmarked, some not. In essence, the value of the 25 percent of savings goes to the government and taxpayers.

Benchmark – Bid = Savings

75 percent x Savings = Rebate

The rebate is the actuarial estimate of the added value that the private company provides to the member in the form of additional benefit. Like the bid and benchmark, it is expressed on a per member per month basis. Some or all of the MA rebate can be used for supplemental pharmacy benefits up to and beyond the standard Part D benefit that the government already gives. Under Medicare + Choice, prior to the inception of Part D on January 1, 2005, many health insur-

(continued on page 34)

ers also gave away some pharmacy benefit. Likewise, the rebate could be used to pay all or some of the beneficiary's monthly Part B premium, although this is less common.

There are several categories of target beneficiaries to whom MA is marketed. First and foremost is the individual beneficiary. Another is employer groups. There are two types of plans made available to these two constituencies—Coordinated Care Plans (CCP: HMOs and PPOs) and Private Fee for Service plans (PFFS). Within Coordinated Care Plans, health insurers may also offer SNP plans to Special Needs Populations. An example of an SNP might be a plan only for individuals that are both institutionalized in nursing homes and dually eligible for Medicaid and Medicare.

The inducement of additional benefits motivates the beneficiary to forego the freedom of provider choice in traditional A/B in favor of a coordinated care plan.

MA HMO or PPO is not available in every county in the United States. With respect to offering an MA plan as a start-up in a new "expansion" county, PFFS can be provided by an insurer more easily than a CCP. (HMO and PPO require a network infrastructure.)

PPO plans are offered on two bases—local and regional. HMO is local only, and like local PPOs, rates and benefits may vary by county and by plan. The regional PPO, however, must offer the same rate for the same plan across multiple counties. At this point, the anti-selection bell sounds in the mind of the actuarial reader. For 2006 and 2007, CMS did not allow local PPO expansions into new counties. This was done to encourage plans to offer the newer regional PPO, which was enabled under the MMA. In 2008, the prohibition against local PPO expansions will be removed.

The local PPO was first enabled under the BBA. Opposition to managed care was acquiring momentum through the mid-1990s and into the late-1990s, and managed care backlash found its way into MA in the form of PPO products as an alternative to the Medicare HMO. The PPO products did not require gatekeeper referrals to see a specialist, and they allowed the members greater freedom of provider choice through an out-of-network benefit. Whereas the HMO plan may use a primary care physician as gatekeeper, the PPO plan relies on the benefit differential between in and out of network care in order to direct care to its preferred providers.

PFFS (Private Fee for Service) was enabled under the BBA, along with MA PPO. It is somewhat like a halfway step between a CCP and traditional A/B Medicare, which represent the two poles of the managed care continuum. PFFS is, essentially, an indemnity plan. There is no prohibition, however, against offering PFFS through a network. Throughout the United States, there are many service areas where PFFS is now available, but CCP is not yet. PFFS has effectively enabled the government to extend the footprint of managed Medicare. Although it does not permit the same level of medical management as CCP, some global medical management, such as large case or disease management, may still be possible.

The MA HMO is the most potent delivery structure, and the staff/group model is potentially the best of its class. In principle, the latter has all the modalities of effective medical management available to it, as well as the efficient provision of integrated high-quality primary and specialty services; much of it is often contained in the same building. The downside to the members is the limitation on provider choice. HMOs usually cover preventive services. As mentioned, the primary care physician gatekeeper (GK) helps manage specialist utilization and coordinate care. Other management tools available include pre-certification, second opinion, concurrent review, discharge planning, case

management, disease management, centers of excellence, formulary, claims review, COB and control of fraud and abuse. This may help explain why Kaiser has such a strong presence in the MA market in northern California, where it relies on a "bricks and mortar" approach.

MA—In Practice Private/ Public Interaction

From the perspective of the private insurer, government programs are higher cost to administer than commercial business. MA presents a number of management challenges to health insurers. First is the seasonality and time-compression of the periods involving bidding and desk review. Bid season is between the first week of April, when county rates for the next year are released, and the first week of June, when final bids are due. Desk reviews are conducted by actuarial consultants retained by CMS, and they occur between mid-June and may extend through mid-August. After that, CMS announces the direct subsidy for the prescription drug program, PDP, and all the MA-PD bids must be re-submitted within a tight time frame. Theoretically, if the assumed PDP subsidy in the original MA-PD bid is extremely close to the final subsidy, revision may be unnecessary.

At the beginning of the desk review season, a different and separate part of CMS conducts a review of each private insurer's MA plans. Their charge is to identify aspects of MA benefits that may be discriminatory to beneficiaries that choose the insurer's MA plan, especially members with specific diseases or chronic conditions. This is an important function that the government must perform to assure that private MA is at least as good as traditional Medicare A/B. With the advent of actuarial equivalency of benefits, it is possible that some insurers might design and bid a plan that requires higher cost-sharing for some services than traditional Medicare does.

It is incumbent on insurers to know and understand the A/B benefit so that they offer the

beneficiary something equal or better. And it is the responsibility of the actuary who signs the bid to know the cost of the additional benefits. If the actuary's costs are higher or lower than what CMS thinks they are worth, the actuary will be asked to justify her work. CMS uses statistical analysis to identify plans whose claims picks, expenses loads or profit margins are high or low outliers relative to the competition.

Risk Adjustment

Medicare's reimbursement methods have evolved considerably over the past 40 years, and risk-adjustment is one of the more recent methods instituted by CMS that has resulted in more accurate payment. Like technology developed by NASA that has spillover value to the rest of the economy, the development and evolution of DRGs, RVUs, and now risk adjustment, have had a considerable effect on the commercial health care sector. This was mentioned in the first installment of this article also.

Risk adjustment was developed by CMS ostensibly to prevent private plans from cherry-picking the healthier and more profitable Medicare beneficiaries. CMS reimburses MA plans based on the risk-adjusted health status of each member. Prior to the phase-in of risk-adjusted reimbursement, Medicare relied on

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age-sex adjustment only. As of 2007, the per member revenue that CMS pays private insurers will be 100 percent risk-based using the CMS-HCC risk adjustment method. The HCC approach supersedes the earlier PIP-DCG approach, which was based on inpatient claims only. The hierarchical condition categories cover about 70 disease groupings based on inpatient and outpatient claims. This does not mean that age and gender are no longer a factor. The way that the HCC method works, a 65-year-old male with diabetes has a lower risk score than an 85-year-old male with the same condition. Similarly, all else equal, a 65-year-old female with breast cancer has a lower risk score than an 85-year-old female with the same disease status.

One intended consequence of the MMA was to expand the role of the actuary.

Provider Reimbursement by MA Plans

Some provider groups have asked whether private payers will reimburse them at a higher level under MA than CMS pays them in fee-for-service payments under traditional A/B. Under MA, provider reimbursement is not necessarily the same as under traditional Medicare. Thus, private insurers may reimburse providers more or less than the providers would be paid by CMS for the same service. Physician compensation may be pegged exactly to RBRVS, or it may be a scalar of an equivalent thereof, such as 102 percent of RBRVS in aggregate, but not for any given CPT code. Some HMOs use Medicare's relative value units (RVUs) to determine physician payment, and they update their fee schedule whenever CMS changes. The private HMO may use the same conversion factor as CMS, or one that is different. Like commercial business, there is considerable variability to the methods and level of provider reimbursement paid by MA plans.

CMS Revenue to Private Plans

A big random variable in the future of the private/public partnership under Medicare Advantage is the adequacy of funding, especially in consideration of the long-term funding challenges that face Medicare. If private players cannot make money in MA, they will exit the product, as they have in the past. When the political composition of Congress changed in November 2006, discussion was again re-opened on the role of the private sector in Medicare. Two studies, one by Med-Pac and the other by the Commonwealth Foundation, both charge that the government is paying out more to the private sector for its managed Medicare members than it would if these members were in traditional A/B Medicare. This discussion has increased in intensity, and payments to MA plans as well as national Medicare expenditures, may be affected by how this discussion plays out.

Another issue with MA can be its complexity. CMS may require change of bid tools, processes or methods during the bid season; this may necessitate additional work or re-work, which is a risk inherent in most government programs. From the perspective of a for-profit carrier with shareholders to consider, it is not unlike event risk. A complication that arose in April 2006 was the difficulty of determining the 2007 risk-adjusted increases for existing MA members. It proved difficult to assess the increase in per member revenue for 2007. This was due to a number of adjustments that had to be made to the 2006 revenue level in order to calculate the 2007 level after several moving parts, including risk scores, all changed simultaneously.

Role of the Actuary

One intended consequence of the MMA was to expand the role of the actuary. A qualified actuary must certify each MA and each PD bid. Certain certifications by the chief actuary of CMS are also required under the MMA. In a June 24, 2003 letter signed by Janet Carstens on behalf of the Health Practice Council of the American Academy of

Actuaries, the AAA recommended to Congress that various activities outlined under proposed Medicare legislation could be carried out best by qualified actuaries. The work of the Academy on this topic helped Congress understand not only what actuaries can do, but also the standards of practice that govern the quality of our work. The Academy has also offered its services in providing objective actuarial research. In the ongoing discussions of health care and public health care programs today, there will be many similar opportunities for actuaries to add unbiased value in a manner that no other profession can.

Conclusion

So what is the advantage of Medicare Advantage? It is different things to different stakeholders, but one thing is generally agreed—Medicare Advantage works. Beneficiaries enrolled in MA receive a richer benefit than they would under traditional Medicare, and their care is handled in a more efficient and cost-effective manner, while their quality of care remains at least as good as traditional Medicare and arguably better for many. The cornerstone of the advantage brought by the private sector is something formerly known as "managed care," before the term became much less politically correct for reasons perhaps both justified and not. The cost saving brought about by medical management creates value that is beneficial to beneficiary, government, taxpayers and private insurers alike.

MA enables the government to inject new ideas and medical management into the enormous social insurance system that funds health care for the aged and disabled in the United States. Without changing the entire system, the Part C private/public partnership has allowed CMS to "experiment," on a limited scale and in a controlled manner, with alternatives or enhancements to traditional Medicare. It is no easy task to provide both health and financial security against ill health for the qualified aged and disabled of our entire nation, and through its partnership with the private sector, the government obtains input from private companies for the benefit of the common good. These are the some of the advantages of Medicare Advantage.

RECAP OF A MEETING OF THE MINDS... | FROM PAGE 22

Attendee evaluations were extremely positive and encouraged annual events with similar formats. Evaluators commented that they liked the "contrast of backgrounds researching similar topics" and "contrasting viewpoints to really illuminate topics."

The seminar was jointly organized by the Society of Actuaries' Health Section Professional Community Team and the Minneapolis/St. Paul Twin Cities Actuarial Club (TCAC). The first *Meeting of the Minds*, held December 2003, was a similar format and also a joint effort between the SOA's Health Section and the TCAC.

The Twin Cities is an ideal location for health services researchers and health actuaries to meet and mingle because it is home to the University of Minnesota with its Health Policy and Management Division, many health actuarial consulting firms and researchers and analysts from government, managed care organizations and consulting firms.

The *Meeting of the Minds* format, with presentations by health services researchers and practicing health actuaries, is valuable for the subject content and presentation of methodological approaches. Attendees were able to observe the application of alternative analytic techniques to address apparently similar questions. The TCAC and Health Section Professional Community Team plan to continue organizing these cross-disciplinary *Meetings of the Minds* on an annual basis to encourage networking and collaboration within and across professions.

Sound Bites from the American Academy of Actuaries Health Practice Council

Contributed by Heather Jerbi and Geralyn Trujillo

What's New

In February, the Health Practice Council sent letters to Senate and House leadership regarding the introduction of legislation, *Genetic Information Nondiscrimination Act*. The legislation has passed the Senate Health, Education, Labor and Pensions Committee, and is expected to see Senate floor action soon. The companion bill in the House has been passed by all three committees of jurisdiction and is also expected to be brought to the floor soon. The letter discusses the actuarial implications of a ban on the use of genetic information.

Subsequent to a recent SOA study and the Surgeon General's report that confirmed secondhand smoke causes lung cancer and heart disease, the Academy has released a fact sheet on secondhand smoke. The Academy's Senior Health Fellow, Cori Uccello, summarized the implications of the study that estimated costs related to diseases caused by secondhand smoke. Both the fact sheet and a news release can be found online at *http://www.actuary.org/pdf/health/smoking_oct06.pdf* and *http://www.actuary.org/newsroom/pdf/smoke_oct06.pdf.*

With policymakers exploring different pooling mechanisms as a means to expand the availability of health care coverage, the Academy Small Group Market Task Force developed the issue brief *Wading Through Medical Insurance Pools*: *A Primer* to provide background information on the types of medical insurance pools and how they operate. The issue brief also explores how changes within a multiple small-employer pool would affect medical costs and the potential effects of introducing a new rating mechanism in an existing insurance market. The September 2006 issue brief is available on the Academy Web site at *http://www.actuary.org/pdf/health/pools_sep06.pdf.*

In August, the Academy's Federal Health Committee sent a letter to the chairperson of the Citizens' Health Care Working Group offering to provide an actuarial perspective on issues related to the working group's interim recommendations. The working group was created as part of the *Medicare Prescription Drug, Improvement, and Modernization Act of 2003*, and over the past year they have been responsible for initiating a national discussion among U.S. citizens on issues related to the health care system. The Academy letter highlights numerous health care issues that could benefit from an actuarial perspective as final recommendations are considered. The letter is available on the Academy Web site at *http://www.actuary.org/pdf/health/coverage_aug06.pdf.*

The Stop-Loss Work Group gave a progress report to the NAIC after the Spring national meeting. The progress report is available on the Academy Web site at *http://www.actuary.org/pdf/life/stoploss_march2007.pdf.*

The State Long-Term Care Principles-Based Work Group gave a presentation at the spring NAIC meeting. The presentation is available on the Academy Web site at *http://www.actuary.org/pdf/health/ltc_mar07.pdf.*

Ongoing Activities

The Academy's Health Practice Council has many ongoing activities. Below is a snapshot of some current projects.

- **Consumer Driven Health Plans Work Group** (Jim Murphy, chairperson)—This work group is developing an issue brief to respond to some frequently asked questions on Health Savings Accounts.

- **Disease Management Work Group** (Ian Duncan, chairperson)—This work group is

currently finishing its work on a practice note on disease management. An exposure draft is expected by May 2007.

- **State Mandated Coverage Task Force** (Jim Oatman, chairperson)—This recently created task force seeks to monitor and provide input on the recent increase in discussions around mandated coverage.

- **HPC Extreme Events Work Group** (Jan Carstens, chairperson)—This work group is developing a paper that examines health care issues associated with natural disasters and pandemics. They are looking at issues including the types of extreme events, types of risks and risk mitigators.

- **Individual Medical Market Task Force** (Mike Abroe, chairperson)—This task force continues to work on two papers related to how the current individual market operates. They are examining issues related to affordability and barriers in the individual medical insurance market and they expect to publish a paper in the next few months.

- **Long-Term Care Principles-Based Work Group** (Bob Yee, chairperson)—This work group is discussing current principles-based methodology and the implications of the Academy's Life Practice Council's work on the area of long-term care.

- **Health Principles-Based Work Group** (Shari Westerfield, cchairperson)—This work group will be monitoring and responding to changes due to the principles-based approach, especially in governance and non-LTC areas.

- **Premium Deficiency Reserves Work Group** (Donna Novak, chairperson)—This work group has published their discussion paper on premium deficiency reserves, which is now available on the Academy's Web site.

- **Uninsured Work Group** (Karl Madrecki, chairperson)—One subgroup is looking at issues related to the fundamental principles of insurance and the characteristics of health insurance, and a separate subgroup is looking at issues related to health care costs.

NAIC Projects

The Committee on State Health Issues continues to monitor issues, including LTC, retiree health, health insurance issues, Medicare Part D, principles-based methodologies, Medigap modernization, etc.

Upcoming Activities and Publications

The Health Practice Council has established plans for 2007, which included visits to Capitol Hill in March.

Several documents were slated for publication in early 2007, including the papers on HSAs, barriers to the individual market, Part D lessons learned, health care quality, disease management, premium deficiency reserves and Medicare reform options.

If you want to participate in any of these activities or you want more information about the work of the Academy's Health Practice Council, contact Heather Jerbi at *Jerbi@actuary.org* or Geralyn Trujillo at *Trujillo@actuary.org*.

Society of Actuaries

Health 2007

SPRING MEETING

June 13–15, 2007

Sheraton Seattle
Seattle, WA

http://HealthSpringMeeting.soa.org

www.soa.org

Meeting Highlights

- Emerging Career Opportunities for Actuaries
- Incentives for Desired Outcomes—Pay-for-Performance Programs
- IASB and FASB Developments: Impact on Health Carriers
- Disability Insurance and Enterprise Risk Management
- Self-Promotion for Introverts
- Transforming the Market Through Consumerism and Transparency
- Pricing a New Product
- Making Sense of the Health Policy Process
- Demand Forecasting for Health care Delivery Systems

Keynote Speakers:

The SOA is pleased to welcome Juan Williams, senior NPR correspondent and critically acclaimed author, as our opening keynote speaker. Williams, who is also a political analyst for Fox News Channel, will share his insights into the emerging political landscape as the 2008 campaigns begin, and in particular, the implications for health care in the United States. *For more information on Williams, please visit www.apbspeakers.com.*

Margaret Stanley, a recognized leader in the health care industry, will be one of two keynote speakers for the health section luncheon. Stanley will discuss how to lead and effect change successfully in the health care industry. Paul G. Ramsey, M.D., CEO for UW Medicine, executive vice president for Medical Affairs and dean of the School of Medicine at the University of Washington, will explain how new physicians are being trained and its potential impact on the health care system in the future.