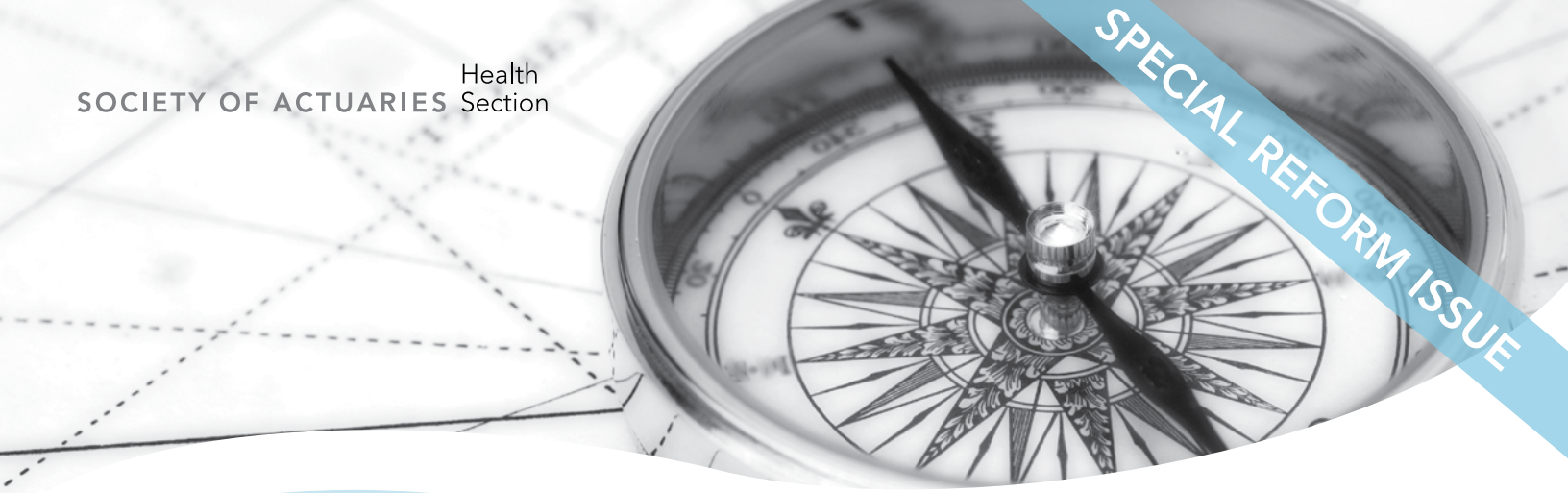
SOCIETY OF ACTUARIES Health Section



ISSUE 62 SEPTEMBER 2009

Health Watch

Navigating New Horizons

An Interview with John Bertko

by Sarah Lawrence

For most people retirement is an opportunity for relaxation and the pursuit of hobbies once pushed into the background during the hustle and bustle of full time working life. But for actuary John Bertko, years of hard work as a consultant and as a chief actuary have naturally spilled over into his retirement in the form of public service.

As a member of the Medicare Payment Advisory Commission (MedPAC), the National Advisory Committee for the California Health Benefits Review Program (CHBRP) and the Congressional Budget Office Panel of Health Advisors (CBO), Bertko spends much of his retirement conducting research and advising lawmakers on possible outcomes of different types of health care policy—and he wouldn't have it any other way.

"I have a joke with several friends about my 'quasi retirement,'" Bertko said. "I'm actually on five separate nonprofit project teams and the goal is not to exceed 40 hours a week."

CONTINUED ON **PAGE 6**

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Actuaries
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Letter from the Editors

by Mary van der Heijde and Grady Catterall

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You don't need us to tell you (though we will anyway) that health actuaries are working in interesting times. The convergence of severe economic pressures with an evolving political climate leads us to a point where the perceived need for large-scale reform is intense, and the likelihood that such reform will be enacted is greater than at any time since the 1960s. In response to the current environment, we've focused this issue of *Health Watch* on health care reform. We have included a variety of voices, looking at reform from different angles.

"Navigating New Horizons" features an interview with John Bertko, former chief actuary of Humana and currently an adjunct researcher at RAND and a visiting scholar at the Brookings Institution. As a member of both the Medicare Payment Advisory Commission (MedPAC) and the Congressional Budget Office Panel of Health Advisors, Bertko is directly involved in the development and implementation of federal government policies related to health care. In the interview, Bertko shares with us how his many years of experience at Humana and as a consultant—plus all his volunteer service with the Society of Actuaries and the American Academy of Actuaries—prepared him to make important contributions to the current health care reform debate.

Despite the economic pressures forcing some actuarial employers to cut back on spending, this year's Health Spring Meeting in Toronto was well-attended. The themes of quality, efficiency and reform were the foundation for many of the sessions and discussions. An article by Doug Norris summarizing the highlights of the meeting is included in this issue of *Health Watch*.

We were fortunate to have the opportunity to interview two of the keynote speakers from the Health Spring Meeting: Dr. Uwe Reinhardt, a leading thinker in the area of health economics and reform, and Shannon Brownlee, author of *Overtreated: Why Too Much Medicine Is Making Us Sicker and Poorer*. In the first interview, Reinhardt recognizes the challenges that actuaries face, pointing out two specific areas in which he suggests we focus our development. In the second interview, Brownlee discusses some of the key issues driving unnecessary utilization of care in the United States, along with their implications for health care costs.

There have been recent significant efforts within the Society of Actuaries, the SOA Health Section, and the American Academy of Actuaries to develop materials that respond to these changing times. This issue's "Soundbites from the Academy" includes many details of the Academy's recent activities in this area. We've also included an article discussing recent research sponsored by the SOA Health Section and Solucia.

Finally, we would like to congratulate again the winners of the recent Health Section contest for essays on "Visions for the Future of the U.S. Health Care System." We have included the three winning essays, as well as two other exceptional submissions. Twenty-nine essays were selected by SOA staffers and volunteers for inclusion in on online e-book which is available at: *http://www.soa.org/healthessays*.

We believe that a critical part of our role as actuaries is to provide sound advice to those who are developing or assessing proposals for reforming the U.S. health care system. Actuaries have long been relied upon to measure and mitigate risks. In these challenging times, it is both more difficult and more critical than ever that we continue to make these contributions. We challenge you to read up on and stay current with the evolving issues surrounding health care reform. Watch for opportunities to expand your ability to support your company in the face of these changes. Look for ways to work with other actuaries, both within your company and in the broader actuarial community, to make sure that all are benefiting from each other's efforts.

We hope this issue provides you with fresh insights into the key aspects of health care reform, and helps promote additional discussions in this area. ■

ISSUE 62 SEPTEMBER 2009

Health **Watch**

LETTER TO THE EDITORS

Where are the Women's Voices?

I was really pleased to see the Health Section of the SOA call for essays on Visions for the Future of the U.S. Health Care System. It was a good way to call forth creativity and share leading-edge ideas. But when I look at the 29 essays chosen for publication, only one is by a woman. Why only one? Is it because women didn't participate in the same proportion as men? Was there a bias in choosing the essays for publication?

P.S. It would be useful to know the percentage of women in the health section, the number of essays submitted by women, and the total number of essays submitted (which I understand was about double what was published). I think that would help substitute facts for appearances and demonstrations for impressions. ■

–Caterina Lindman

Editor's Note: The Health Section Council chairperson addresses this question in her feature, *Chairperson's Corner*.

Call for Papers–Living to 100 Symposium IV

The Society of Actuaries will present its fourth triennial international Living to 100 Symposium in January 5-7, 2011 in Orlando, FL. We encourage anyone interested in preparing a paper for the symposium to get an early start on pursuing the research and analyses. We are seeking high quality papers that will advance knowledge in the important area of longevity and its consequences. To learn more, visit **www.soa.org**, click on Research, Research Projects and Calls for Papers and Data Requests.

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This publication is free to section members. Current-year issues are available from the Communications Department. Back issues of section publications have been placed in the SOA library and on the SOA Web site: (www.soa.org). Photocopies of back issues may be requested for a nominal fee.

CHAIRPERSON'S CORNER

2009 Health Section Initiatives

by Jennifer Gillespie

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2009 has been a very busy year for the health section. Two activities in particular stand out:

Visions for the Future of the U.S. Health Care System

At the beginning of the year, the Health Section issued a call for essays on the future of the U.S. health care system. We wanted authors to share their visions of what the U.S. health care system should look like: what the underlying principles are by which the system should be organized and by which competing reform proposals should be evaluated; how the key issues of access, cost and quality should be addressed; how actuarial concepts such as risk pooling and risk adjustment should be incorporated; and what the respective roles are for government, private-sector firms and organizations, and individuals. The results were successful beyond our highest expectations: we had over 60 essays submitted, and the quality of the submissions was outstanding. Twenty-nine essays were selected for publication in an e-book on the Society of Actuaries Web site, and we awarded prizes to the top three entrants from Health Section members. Thank you to all of the authors who submitted essays, congratulations to those who were published, and kudos to our award winners—Jim Mange, Ian Duncan and Jon Shreve.

We received some questions about the fact that only one of the published authors was a woman. We worked hard to avoid bias in selecting essays for publication and for selecting our award winners—at least half of the publication selection committee was female, and the authors' names were hidden from the group that selected the prize winners. However, I did notice—and was a little bit disappointed to see—that only three or four of the submissions were authored by women, even though women make up a much larger portion of the Health Section membership. I have since talked to several women who mentioned that they had considered writing an essay, but were too busy. Perhaps it's just the age-old adage about how a woman's work is never done; even with increasing support from their spouses, working women may still have a bigger "second job" than their male counterparts. Or maybe it's something else entirely. Whatever the underlying reason, this is an issue that has surfaced before. A few years ago, someone did a study about the percentage of op-ed pieces in major newspapers around the country that were contributed by women: the Washington Post had 10 percent, the New York Times 17 percent, and the Los Angeles Times 20 percent. A recent Harvard Business School study also showed that both women and men are much more likely to follow male authors on Twitter than to follow female authors—although this is the opposite of what happens on other social networks like Facebook and MySpace, where both men and women are more likely to read content by women contributors. I really don't know what to make of all of this, but I hope we can find some way to draw more women into our ongoing dialogue on health care reform.

Untapped Opportunities for Actuaries in Health

Strategic work continues on the Untapped Opportunities for Actuaries in Health initiative. Actuaries who have transitioned from another field into health were interviewed last fall (along with their employers) to determine if there was a "repeatable path" that could be formalized to help others make similar transitions. However, we found that individuals' situations were unique; there were too few common threads to enable us to discern a general pattern.

This spring, several market research firms submitted proposals for studying other health-related fields. The work will be conducted during the summer and early fall.

This initiative takes on even greater importance with all of the activity around health care reform. By the time you read this, there probably will be several health-related bills before Congress, and we may have a better understanding of how the actuarial profession will be impacted.

Council Leadership

I want to finish my final Chairperson's Corner by thanking all of the Health Section Council and Friends of the Council for their terrific work this year! Thanks to their leadership, we had content-rich and well-attended meetings in Orlando and Toronto. We published three thick issues of *Health Watch*. A number

of research projects were kicked off and others were concluded. We established a special interest group for actuaries working in areas related to Medicare, and began looking into establishing a similar group for actuaries working in employee benefits. And as described above, we had a very successful first-ever call for essays on health reform, and we made great progress on the Untapped Opportunities for Actuaries in Health initiative.

It's time to say a special thank-you to those who have finished their terms on the Health Section Council: Barbara Niehus, Sudha Shenoy, and John Stenson. I would also like to thank Sara Teppema, our new Society of Actuaries Health Staff Fellow, and Jill Leprich for all of their support. Thanks also to Meg Weber and Steve Siegel for pitching in before Sara came on board. It's people like you who make this all possible. ■

Bertko said being nominated to participate in these groups was an honor he simply couldn't pass up. "It's acknowledgement that you have skills and experience to bring, but there's also this huge need," he said. "The healthcare system in the U.S. has deteriorated in the 30 years that I've been an actuary and it's time for our generation to fix it."

Getting His Start

As a boy growing up in a small steel worker's town just outside of Cleveland, Ohio, Bertko describes himself as the "typical math geek." So it was no surprise to anyone when he chose to pursue a Bachelor's degree in mathematics at Case Western Reserve University of Cleveland. His path would have been straight ahead from there if it hadn't been for one major detour—the Vietnam War.

"I had one interview in college with a big insurance company and then life changed when the ping pong balls came up with low numbers," he said. "In 1970 they had the first draft lottery and it changed the life of many of us. I chose to go into the Navy."

For four years Bertko served as a mathematics and physics instructor for officers and enlisted students at the U.S. Naval Nuclear Power School in California. It also gave him the opportunity to meet people in the area with similar interests and talents, including a fellow instructor who became an actuary after leaving the Navy. In 1976, fresh out of the Navy himself and looking toward the future, taking a job with Metropolitan Life Insurance Company seemed a good fit.

"It is math oriented, involves problem solving and the people I worked with at Metropolitan in health insurance had interesting jobs," he said. "I found taking the exams the usual—I'm trying to think what the most popular term would be—ordeal that it is for everybody, but I got through it in the average amount of time. Five years and I was a fellow."

Moving Up

Bertko worked his way up to senior actuarial associate with Metropolitan in San Francisco before transferring to Metropolitan in New York. It was then back to San Francisco in 1980 to take a job with Coopers & Lybrand, where he was tasked with serving as managing consultant to state agencies for health reform projects, among other duties.

"I actually rotated through different things," Bertko said. "In the late '80s I was an employee benefits person, including one of the leaders on a big project for post retirement medical benefits. Then as managed care and insurance consulting got more important, Coopers & Lybrand had a number of big clients, notably what was Blue Cross of California, which became Wellpoint, and so I migrated to becoming an insurance company consultant."

In 1996, Bertko accepted a position as chief operating officer and principal for PM Squared/Reden & Anders in San Francisco, where he managed a small health data consulting firm and participated in the development of risk adjustment models, as well as managed client relationships with 15 large health insurers. Finally in 1999 he became vice president and chief actuary at Humana Inc., where he coordinated actuarial practices for the company, oversaw Medicare Advantage pricing and strategy, and served as liaison to Capitol Hill before retiring in 2007.

Projects and Committees

Since 1989, Bertko has contributed his time to a variety of projects and committees. He started with serving as a consultant to the Oregon Medicaid Prioritization Project and moved on to take part in projects such as the State of Hawaii initiative for the Uninsured and State of Colorado modeling of ColoradoCare. He has also served as vice president for the American Academy of Actuaries Health Practice and was a member of committees such as the Actuarial Board for Counseling and Discipline for the American Academy of Actuaries, the Competitive Pricing Advisory Committee for Medicare, and the Medicare Trustees Technical Advisory Panel.

Bertko said a combination of factors has motivated him to devote so much time and energy in so many places. "First of all, it continues to be a place where

you are handed puzzles of various kinds and you're challenged to solve them," he said. "And the second part is along the lines of becoming a consultant to the insurance industry. There was a need for consulting to state insurance departments such as Medicaid agencies and similar kinds of organizations as they began to work on areas of public policy and what should be done to make the system work better."

Current Projects

Trying to make the system work better is what Bertko is currently spending most of his time on at both state and national levels. "What I'm trying to do these days for all the places I'm working is to offer technical advice and not opinions," he said. "Everybody deserves and has opinions, but it's the people we elect who have to make the really tough calls."

As a member of CHBRP, he is one of 18 council members organized to give advice to the California legislature on the implications of anything that changes health care law in the state. "For example, about a year ago there was a law proposed about how to change the effective mandates and so CHBRP staff, who are drawn from various University of California campuses and a couple of other schools, put a report together and then the advisory council took a look at it, reviewed it and basically made sure that what it said made sense."

As a member of MedPAC, Bertko serves as one of 17 commissioners who debate and recommend updates in payment for approximately $450 billion of Medicare spending. "The updates are based on a whole variety of factors and need to satisfy three criteria: access, cost and quality," he said. "So we keep all of those things in mind when we are given a report with recommendations prepared by a staff of around 25 researchers and policy people."

In 2007 Bertko was nominated to serve on the CBO Panel of Health Advisors, a group consisting of acknowledged experts in health care who examine research in health policy and economics to advise the agency on its analyses of health care issues—an important task in a time when major health care reform is just on the horizon.

"When you line it up with international comparisons there is no way other than to say that we have a mediocre but expensive health care system," he said. "There are parts where the U.S. is the best in the world and there are parts where—and this is a comparison only to the developed nations—we are average or worse."

Bertko said there are two reform projects he is particularly excited to be a part of. The first is working with Brookings and Dartmouth on Accountable Care Organizations, an attempt to create what Bertko calls a "bigger tent" under which medical homes, primary care, case management fees and other reforms might be placed and would be set up to create budgets for health care at a local level. For the second project he is teaming up with RAND for the COMPARE microsimulation model, which seeks to take a very large sample, such as the Medical Expenditure Panel Survey (MEPS), and then set the data up to price out the cost and effects of various kinds of reform. "COMPARE is a very broad model put together by a team of RAND health care economists and is set up to tell people in a very public and transparent fashion what the different effects of reform might be," he said.

Reform and the Actuarial Profession

Of course health care reform means change and Bertko said these changes are going to present a big challenge to the actuarial profession as a whole if those changes extend to the health insurance industry business models. "Among other things most reform proposals require changes in rating mechanisms, changes in coverage and implementation of risk adjustments on a wide scale and actuaries are among those in the best position for all three of those jobs," he said. "But on an individual company basis there are going to be different levels of challenges."

Bertko said the best way actuaries can prepare for these challenges is to keep themselves informed. "My best advice is to read the paper every day," he said. "Almost every day something is being

CONTINUED ON **PAGE 8**

When you line it up with international comparisons there is no way other than to say that we have a mediocre but expensive health care system.

announced. Another thing is to read the summaries of bills in Congress and be alert to how they differ. The third place to go is to read, again, from a variety of what I would call non-actuarial sources. For example, MedPAC puts out two very good volumes in March and June that each have about 250 pages. One doesn't need to read all of them, but there are sections in each chapter that should probably be read by every health actuary in the United States." *(Please see the list below for more online resources for health actuaries interested in the reform process.)*

The Volunteer Spirit

Bertko said he is grateful for the career he has had and the fascinating projects he has been able to take part in, but it has been a long process. Actuaries who are interested in seeking a similar path must be willing to put in the extra effort and hours. "Really it's been 25 years of starting literally at the bottom and moving up in terms of helping with committees and being a chair or vice chair on committees all along the way," he said. "So start small and keep volunteering."

Online Resources:

Health Affairs: The Policy Journal of the Health Sphere—*www.healthaffairs.org/*

RAND: Health Compare—*www.randcompare.org/*

The New York Times—*www.nytimes.com/*

Congressional Budget Office—*www.cbo.gov/*

Budget Options: Volume I—*www.cbo.gov/doc.cfm?index=9925* ■

North of the Border with the S.O.eh? (A tour of the 2009 Health Spring Meeting)

by Doug Norris

The Society of Actuaries crossed the border this June, holding its annual Health Spring Meeting at the beautiful Westin Harbour Castle hotel in downtown Toronto, Ontario. Well over 700 attendees headed north of the border to engage in three days of exciting speakers, illuminating presentations, and the chance to network with some of the best actuaries in the industry. The SOA customarily attracts very entertaining and engaging speakers to this event, and this year was no exception. Despite the wide variety of attractions in Toronto, the sessions were well-attended, with many presentations "standing room only."

Although there was no official theme to the conference, it was clear that the current political climate was at the front of everyone's minds. Two of the three keynote speakers spoke on the subject of the future of American health care, and many presentations were either directly or indirectly focused on health care reform and related issues. Paramount to many of the sessions was the actuary's role in improving the quality and efficiency of the health care environment.

SOA President Cecil Bykerk led off the festivities on Monday at the Opening General Session, calling for actuaries to "succeed in the new normal," and talking about SOA initiatives for education and professional growth. Bykerk also shared details of the newly formed Employers' Council, which discussed the key issues, challenges and business needs for actuarial employers. He shared a vision of future functions to be made available online on a real-time basis, including social networking, wikis, forums, and professional development opportunities. Past SOA president Neil Parmenter, who passed away on May 3, was honored for his contributions to the profession, followed by a moment of silence.

SOA Executive Director Greg Heidrich spoke on the SOA's strategic plan and examined the SOA's role in the formation of intellectual capital. The strategic plan focuses on the four key stakeholders: members, candidates, employers and the public. Among the extensive professional development mentioned by Heidrich and available online, there is a new course, which likely appeals to most actuaries – "Self-promotion for Introverts!"

We were fortunate to have Dr. Uwe Reinhardt, a leading scholar and economist, provide the keynote address. Centered on the existence of the "value gap" in American health care, his address explored potential solutions to the rising cost of medical care relative to GDP. If the differential between health spending growth and GDP growth remains constant, health care will consume 40 percent of GDP in 50 years, pricing many Americans out of coverage altogether. Reinhardt's contention is that Americans will have to decide to either adopt a "tax and transfer strategy," or to ration health care by income class. Reinhardt compared President Obama's vision for health care reform with the Republican vision, looking at potential roles for an insurance exchange and a risk equalization fund. The ultimate solution will have to deal with the government cost to cover the uninsured population, estimated at a staggering $1.57 trillion over the next 10 years. *(Mary van der Heijde and I sat down with Dr. Reinhardt for a one-on-one interview after his keynote address. Please see the interview later in this issue, to hear more about his opinion for the role of actuaries in the future health care economy).*

There were over 70 engaging sessions on wide variety of topics. I was able to attend 11 of them, and I outline my observations here. A lively session on consumer-driven health plans, led by Amy Wilson (BlueCross/BlueShield of Minnesota), Dave Tuomala (Ingenix) and Jean-Francois Beaulé (United Healthcare), followed the opening session. Results of multiple studies were given, including the discovery that, although utilization was lower overall in CDHPs, quality of care (as determined by HEDIS measures) did not suffer. As the popularity of consumer-driven health plans continues to grow, it will be important for all of us to understand these emerging results, while the poor economy will result in some interesting behavioral patterns among those enrolled in high-deductible plans. Consumers, providers, employers and the government were urged to collaborate with one another to lead to future plan designs consistent with what consumers should be focusing on.

At Monday's general luncheon, Dr. Robert Buckman gave a keynote address on interpersonal communication, showing how one can improve reactions by

CONTINUED ON **PAGE 10**

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acknowledging and handling the emotions of the other party. Particularly when hearing bad news, people want to feel as though their situation is being taken seriously, and Buckman showed techniques for conveying an understanding of emotion to the listener.

Monday afternoon saw David McSweeney (Healthcare Data Management) and Joel Slackman (BlueCross/BlueShield Association) present on claim data issues, both today and in the future. McSweeney gave an overview of current issues facing the claim processing industry, starting with well-intentioned errors and misinterpretations of benefit, and leading up to outright fraud. The role of the actuary here is important, and it is essential to think of these potential problems just as an auditor would. Slackman gave us a peek into the near future, looking at the transition into version 5010 of the HIPAA Administration Simplification Transactions, and the implementation of ICD-10CM/PCS. Although 5010 will offer many improvement over the current 4010 system (including the ability to handle ICD-10), it will be a major systems change, including upgrades to enrollment, explanation of payment, and claims systems, and education and support for health plans will be critical. The new ICD-10 code set will allow for more than 155,000 different codes, augmenting the existing ICD-9 code structure while allowing for tracking of new diagnoses. Crosswalks between the code sets will be complicated, and payment structures based upon ICD-10 will result in many challenges for today's actuary.

Robert Bachler (Milliman), Howard Brill (The Monroe Plan for Medical Care) and Ian Duncan (Solucia) presented on a variety of predictive modeling applications in their late afternoon session Monday. Many current stop-loss models concern themselves only with the expected value of claims for individuals while ignoring the high degree of variability present, and Bachler focused on methods of accounting for and correcting this problem. Brill presented on the design and implementation of predictive models for his own plan, taking us from start to finish, while discussing obstacles encountered along the way. Duncan's case study took us through the predictive modeling process for evaluating the efficacy of wellness programs on the population of a commercial health plan. Overall, the panel was engaging and helped facilitate a rousing question-and-answer session.

A large audience arrived Tuesday morning to learn "What You Should Know about Underwriting - but Don't," and Jay Severa (Anthem) and Pete Roverud (Deloitte) did not disappoint. They walked us through hidden risks faced by those who underwrite, including the severe selection effects present in associations and professional employer organizations, performance guarantees, complex funding arrangements, and guaranteed issue mandates. Their ultimate recommendations? Communicate! Ask as many questions as you can, to multiple people, in different ways, and on more than one occasion.

The employer stop-loss insurance market was the topic of choice for the panel of Gregory Sullivan (CIGNA), Brian Shively (Summit Reinsurance Services), Shaun Peterson (HCC Life Insurance Company) and Russel Hugh (Actuarial Services LLC), as they led us on a journey of catastrophic claims, deductible leveraging, lasering of high-cost members, and reinsurance report cards. Setting expectations for non-actuaries is a key concern, as they usually do not have the background or patience to understand the many nuances and subtleties involved. All touched upon the subject of million-dollar claims, which are increasing in frequency at an alarming rate.

Shannon Brownlee's keynote address at Tuesday's general luncheon focused on "The Paradox of Plenty," where the overspending on the United States health care system actually leads to poorer health outcomes.

With elective care largely dictated by physician opinions and not by clinical evidence, Brownlee's contention is that local practice patterns and local capacity are what drive excessive utilization in our system. Furthermore, the transfer of taxpayer income from efficient markets to inefficient markets is resulting in the inefficient markets getting more expensive faster. Brownlee offered several solutions to the problem, including reforms such as Medicare outlier penalties, shared savings for efficient medical care, and direct medical practice. *(To read more about Brownlee's New York Times bestselling book "Overtreated: Why Too Much Medicine is Making Us Sicker and Poorer, as well as more about her views on the health care delivery system, please see the interview with her elsewhere in this issue).*

Trends were on the post-lunch dessert menu, when Scott Bentley (Milliman), Johnathan Chernick (Humana) and Greta Redmond (Ingenix) presented on recent developments in the industry. Bentley and Chernick led things off by walking us through considerations which need to be made when analyzing trends, including underwriting changes and adverse selection. Demographic, geographic, benefit plan and service mix changes can significantly mislead the actuary if not accounted for properly. Redmond led us through challenges faced by low-cost pharmaceutical options, which do not always end up in our claim databases for a variety of reasons, and in quantifying the impact of the recently-passed federal mental health parity bill.

Bob Beal (Milliman) and Dawn Helwig (Milliman) wrapped up Tuesday's sessions with lessons learned from two related types of insurance – long-term care and disability. After a thorough introduction to the subtleties of both types of coverage, Beal and Helwig delved into the competitive pressures faced while pricing and underwriting these benefits. In long-term care coverage, benefits and risk classes are not standardized, making competing rates difficult to compare. In the disability market, there are a small number of carriers, each of whom is chasing after a very specific target market. Unlike most forms of health insurance, long-term care and disability benefits are likely to be paid years into the future. Consequently, the valuation of these benefits is quite tricky, and projections are highly sensitive to assumptions set today. Effective claims management is vital in keeping a handle on the needs of the insurer.

Many came to hear Andrea Christopherson (Ingenix) and Steve Melek (Milliman) teach about the impact of the recently passed Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008. Christopherson gave a comprehensive background on the bill, which will impact the health care coverage of well over 100 million Americans, and mandates that the treatment and financial limitations for covered behavioral health benefits can be no more restrictive than the predominant treatment limitations applied to substantially all medical and surgical benefits. She then illustrated the results of a study performed on FEHBP and its applicability to future trends. Melek presented a strong case that this bill is a blessing in disguise, showing compelling evidence that effective treatment of behavioral health conditions could actually lower the overall cost of American health care while at the same time improving absenteeism in the workplace. Patients with chronic illness have much higher rates of co-morbid depression and anxiety disorders, much of which goes untreated. These patients' medical costs are on the order of $500 PMPM more expensive than their colleagues without the co-morbid behavioral conditions. Melek concluded with the results of a predictive modeling project, using lifestyle-based consumer data, to assist a large managed behavioral healthcare organization in the identification of patients who would benefit the most from an integrated medical-behavioral health care program.

For more on the Spring Meeting, please visit the SOA's Web site at *http://soa.org/meetings-and-events/*, where nearly all of the PowerPoint slides for conference presentations are available. Wish you had been there with us? New this year, the SOA is offering select Health Spring Meeting sessions for purchase on digital media via the SOA Live Learning Center. Please see http://www.softconference.com/SOA/am.asp for complete information.

We hope to see you at next year's Spring Meeting at the JW Marriott Grande Lakes in Orlando, Fla. from June 28-30! ■

Wish you had been there with us? New this year, the SOA is offering select Health Spring Meeting sessions for purchase on digital media via the SOA Live Learning Center.

An Interview: Dr. Uwe Reinhardt

by Mary van der Heijde, Doug Norris

We were fortunate enough to sit down with Dr. Uwe Reinhardt to ask more about what role he believes actuaries should take in the upcoming reforms. The James Madison Professor of Political Economy at Princeton University, Dr. Reinhardt is a leading mind in the area of health care economics and policy, and is a frequent contributor to the *New York Times*. He was also a keynote speaker at the Spring Health Meeting in Toronto.

We asked Reinhardt what he believes are the key areas in which actuaries should focus efforts or contribute expertise in the context of current reforms. His suggestion was that we concentrate on risk adjustment and in the bundling of provider reimbursements.

He discussed that in a health insurance system which is based on competing health plans, plans are pressured to both obey the dictates of social solidarity (items like universal coverage, community rating) as well as be sustainable and profitable. To balance these needs, he believes that risk adjustment is essential. About risk adjustment and measurement, Reinhardt said, "It's the Achilles heel of any plan – we've always had these competitive markets everyone comes up with stand and fall on the quality of the actuarial measurements that are there."

For risk adjustment, Reinhardt said, "The Dutch have probably proceeded further down [the use of risk adjustment] more than any other nation, and so the great risk-adjustment scholars are in Holland." He mentioned that we have many experts here in the United States as well. In the United States, he believes that given the large talent pool, we are able to respond quickly to learn and fill the knowledge needed for areas such as this. He said, "Now there's always been this fight – do you risk-adjust by individual going in, or… just simply let everyone enroll, and then in the end, you look at the risk pool, and make a risk adjustment based just on the pool." He continued on to say, "So what needs to be worked out is: do you want to pay the health plans an actuarially-adjusted premium one-by-one as people go in, so I would have one number on a tag that has all of my risk in it, and you would know it and get a payment on that basis? Or, do you not do that, and wait and just look at the entire pool, and try to say, 'We're going to make transfer payments until everyone actuarially has the same pool.' That whole thing is driven by actuaries."

The second area in which Reinhardt suggested actuaries should focus is on the appropriate bundling for reimbursement mechanisms. He said, "The other place that you will really need actuaries is this whole idea of bundling of healthcare." He discussed how when establishing reimbursement mechanisms, such as DRG grouping, it is important to understand what level of variance of cost is tolerable within that bundled payment. He said, "How big of a variance can you tolerate and still call it a bundle? Or how many patients would you need, if you get paid by bundle payments, and not get caught with your pants down? You'd want to set the reimbursement such that most of the time things will wash out. Some would be more complicated, some easier, and the payments would wash out. But then could you say what is the probability that we end up with a two-million dollar deficit because the bundles of patients are always more complicated? I see a big field there."

He said there are likely to be many changes to the priorities, roles and responsibilities of actuaries in the coming years, driven by the massive reforms affecting the market. "Within each company, within each health plan, the most important people are your actuaries," said Reinhardt. "I think that the profession has a bright future, and that the skill is totally transferrable if you have to do something else. But there's no question there will be a big need. Because any attempt at competition among insurers rises and falls on actuarial methods."

Dr. Reinhardt's blog on the New York Times can be found at: *http://economix.blogs.nytimes.com/author/uwe-e-reinhardt/*

He also shared with us the link to his personal Web page, which includes some other amusing and informative presentations:

http://www.princeton.edu/~reinhard/pdfs/French-to-Blame-banking-crisis.pdf

http://www.princeton.edu/~reinhard/pdfs/FALL%20FROM%20GRACE%20HEALTH%20CARE.pdf. ■

An Interview: Shannon Brownlee

by Mary van der Heijde, Doug Norris

We interviewed Shannon Brownlee, an award-winning author of the recently published book *Overtreated: Why Too Much Medicine is Making Us Sicker and Poorer,* and learned more about her perspectives on the current health care crisis. Brownlee's work has appeared in the *New York Times, Washington Post, Los Angeles Times,* and many other publications. Brownlee also gave a keynote address at the Spring Health Meeting in Toronto in June.

We asked Brownlee about the state of the current health care delivery system. "We have a health care system that is truly not much of a system," said Brownlee. "It's really quite a fragmented and disorganized market that delivers medical services. Partly because of this disorganization and partly because of the way that the market actually works, an enormous amount of unnecessary care gets delivered."

She went on to say, "There is enormous variation in the amount of utilization in different parts of the country. We like to think that people get care that they need based on how sick they are and what it is they actually need to get better. But in fact, this variation that we see around the country appears to not be very well linked to how sick people are."

Brownlee said that a key driver of regional variation in utilization is the chaotic nature of our fragmented care delivery system. "Physicians don't talk to each other as well; they don't coordinate care. Patients have a harder time having a primary care physician who really keeps track of what is going on," said Brownlee. Contributing to this issue, there also exists a certain level of supplier-induced demand for care. However, her premise is that although this is a contributor, it is not the primary issue. "It is certainly tempting to think that [regional variations in utilization] is supplier-induced demand. I've observed these sorts: the doctor sees the patient coming into the office and starts rubbing his hands together, saying, 'Another patient, another sail on my boat!' But it's probably not so much that as it is that there are practice patterns that get built up and developed in hospitals and in regions." Consequently, although supply levels and practice patterns likely exacerbate one another, neither is the complete explanation.

Brownlee mentioned a recent study by the Dartmouth Atlas Project, which looked at trends in practice patterns. On practice pattern habits, she said, "A lot of it is done at a very unconscious level. A physician moves, for example, from Boston to New Haven. There are a lot of beds in Boston; there are a lot of physicians per capita in Boston. Doctors who move from Boston to New Haven never notice that they now have far fewer resources to work with. They begin to make more conservative decisions. And vice versa, doctors who move from New Haven and move into Boston don't realize that they have now also adopted the local practice patterns in Boston, and become much more profligate in how they throw procedures and tasks and hospitalization at their patients."

We discussed the importance of clinical evidence in guiding medical treatment decisions. She said that getting evidence-based guidelines and metrics into the hands of the physicians making decisions is critical. "The problem is that in this country, we have, for the last 20 years, left the bulk of clinical research to the drug industry," said Brownlee. "The drug industry, rightly so, is not interested in finding out where and when you should hospitalize a pneumonia patient. They are interested in doing research that is going to sell their products. So, we spent billions of dollars in this country on clinical research, which is research that involves patients. But we are not asking the correct questions. We are not asking the questions for which we need answers. We are asking questions that promote the sale of drugs."

Touching on the topic of consumerism and the role of the consumer in needed reforms, she believes that while consumers have an important role to play, it is "fantasy" to believe that consumer-driven health care is going to fix the problem of overtreatment. A common belief is that armed with complete information, consumers will make rational decisions and go to the most efficient hospitals and best doctors. However, patients in hospitals are often frightened. "If you are sick enough to be in a hospital, you're pretty sick. You're scared, and you need somebody that you can trust and you think your doctor is the person that you should trust," said Brownlee.

CONTINUED ON **PAGE 14**

What we are realizing is that we need to fix the delivery system, we need to control costs, and we need to cover everybody; and yet, the focus is mostly on reforming insurance markets.

Although doctors often take issue with the requests patients make for unnecessary care, driven by patients' Internet research or direct-to-consumer advertising by drug companies, Brownlee believes, "The truth of the matter is that the bulk of decisions are made by physicians, and patients don't really have that much control in the situations where patients end up costing us the most."

On the recent reforms, Brownlee says, "What we are realizing is that we need to fix the delivery system, we need to control costs, and we need to cover everybody; and yet, the focus is mostly on reforming insurance markets. Reforming insurance markets is not going to reform the delivery system. And that is the piece of the health care reform puzzle that I am hoping starts to shift. In fact, this is kind of taking the focus of the reform effort away from the reign of actuaries and insurance companies; it really has to be done among the medical centers themselves and physicians."

For more information about Shannon Brownlee and her recent book *Overtreated*, her Web page is: *www.overtreated.com*. ■

Soundbites

from the American Academy of Actuaries' Health Practice Council

by Heather Jerbi and Melissa Stevens

What's New

With the momentum behind health care reform, the Academy's Health Practice Council (HPC) has been actively involved in educating policymakers on the actuarial considerations related to many of the provisions being considered—insurance market reform, individual mandate, public plan option, etc. The council and its work groups/task forces have been engaging policymakers in a number of ways, including producing educational policy statements and issue briefs, hosting Capitol Hill briefings, visiting with congressional/agency staff, and participating in panels hosted by external policy organizations.

Policy statements

One ongoing project is in response to feedback received during the course of the annual Capitol Hill visits. The HPC and the Federal Health Committee are developing a series of short policy statements, providing an actuarial perspective on various potential components of health care reform proposals. The first five papers in the series were released in May/June. These statements are called *Critical Issues in Health Reform* and address the following issues: individual mandate, actuarial equivalence, market reform principles, public plan option and gender considerations in a voluntary individual health insurance market. There are several more statements being developed on issues such as merging the individual and small group markets, transition issues, minimum loss ratios, and coverage for high-risk individuals.

The HPC has developed a dedicated Web page through the Academy's Web site in order to highlight these new policy statements, as well as additional materials related to health care reform. The Web page can be found at: *http://www.actuary.org/issues/health_reform.asp.*

The Academy also provided comment letters to the Senate Finance Committee on two of its health care policy options papers. The Medicare Steering Committee offered comments on the policy options paper entitled *Transforming the Health Care Delivery System*. The Health Practice Council offered comments on the policy options paper entitled *Expanding Healthcare Coverage: Proposals to Provide Affordable Coverage to All Americans.*

In June, the Health Care Quality Work Group released a new issue brief on *Value-Based Insurance Design*. The brief was developed to define value-based insurance design (VBID), provide an overview of its prevalence, examine the barriers to implementation, and review policy considerations related to VBID adoption and implementation.

In March, the HPC released an updated version of a 1999 issue brief, *Risk Classification in the Voluntary Individual Health Insurance Market*. This brief provides an overview of the fundamentals of risk selection and risk classification to help policymakers and the public better understand the role that risk classification plays in the voluntary individual health insurance market. The brief can be found on the Academy's Web site at: *http://www.actuary.org/pdf/health/risk_mar09.pdf.*

Capitol Hill briefings/visits

In addition to these policy statements, the Academy has hosted two Hill briefings (one in the form of a webcast), with more planned in the future. On June 22, congressional staff had an opportunity to ask a number of actuaries any of their questions related to health care reform.

On May 20, the Academy sponsored a briefing for policymakers, via webcast, on risk adjustment in the context of health care reform. Ross Winkelman, Michelle Raleigh, and Mita Lodh presented during the webcast. They defined risk adjustment, discussed how it is currently used in public programs and private plans, and outlined considerations for policymakers when determining whether to implement risk adjustment as part of national health reform. The slides from the webcast are available on the Academy's Web site at: *http://www.actuary.org/webcasts/health_may09.asp*. The full, recorded webcast is also posted at that link.

On March 11, the Academy sponsored a Capitol Hill briefing on risk pooling and the potential effects of health care reform on the individual and small-group markets. David Shea, chairperson of the Federal

CONTINUED ON **PAGE 16**

Health Committee, and Cori Uccello, senior health fellow, presented at the briefing, which drew about 30 attendees from congressional offices and other external health policy organizations. A video of the briefing is available on the Academy's Web site, as well as copies of the slide presentation: *http://www.actuary.org/briefings/pool09.asp.*

On March 9-10, the Health Practice Council (HPC) and Federal Health Committee held their annual Capitol Hill visits. Seventeen members visited 31 Congressional offices and government agencies over the two-day period. During the course of the visits, Academy members responded to questions on a wide variety of issues: the effect on premiums of risk pools in the group and non-group markets, the implications of an individual mandate, reinsurance and risk-sharing mechanisms, the implications of including a public plan option as part of a health care reform proposal, delivery and payment system reform, national/regional/state exchanges, and benefit design and actuarial equivalence.

Medicare

In May, the Academy's Medicare Steering Committee released an updated version of its issue brief, *Medicare's Financial Condition: Beyond Actuarial Balance*, to reflect information from the 2009 Medicare Trustees' Report. The paper highlights the committee's view that Medicare faces serious long-term financing problems that should be addressed sooner rather than later. The brief can be found online at: *http://www.actuary.org/pdf/medicare/trustees_09.pdf.*

With the release of the updated issue brief on Medicare's financial condition, the Academy also issued a Call to Action, urging policymakers to undertake comprehensive Medicare reform. The statement outlined four goals that any comprehensive reform of the program must seek to achieve: the HI trust fund must meet the short-range test of financial adequacy, the trust fund must also meet the long-range test of actuarial balance, the program's growing demand on the federal budget must be brought under control by a reduction in the growth in general revenue contributions, and overall Medicare spending must be brought under control by a reduction in the growth of spending. The full Call to Action can be found online at: *http://www.actuary.org/pdf/medicare/med_reform_may09.pdf.*

NAIC activities

On June 13, the National Association of Insurance Commissioners (NAIC) Blanks Working Group adopted revised instructions for the health annual statement actuarial opinion. The revised instructions are effective for the December 31, 2009, annual statement filing. The instructions now require a qualified health actuary to be appointed by the board of directors, the inclusion of a checked box section, the recommended use of specified language, and a supporting actuarial memorandum.

In March, the Medicare Part D RBC Work Group submitted recommendations for updated RBC factors for Medicare Part D to the NAIC Health RBC Working Group. The recommendations were amended by the Health RBC Working Group. The Working Group's recommendation that the report be adopted with changes was approved by the Capital Adequacy Task Force at the June National Meeting.

In February, the Medicare Supplement Work Group submitted its response to questions from the NAIC Accident and Health Working Group related to updating the Medicare Supplement Refund Formula. The work group opined on topics such as combining one or more types of plans, combining plans across states, smoothing tolerance levels and other issues surrounding a refund formula update.

In April, the NAIC asked the Academy to examine the current health care receivable factors. Currently,

all health care receivables use the same factor. In response, the Academy formed the Health Care Receivable Factors Work Group which will analyze the current factor for each line and make a recommendation to the NAIC. The NAIC is looking to make any necessary changes effective in time for the 2010 year-end financial statement.

Other documents
In light of ongoing efforts to reform the U.S. health care system, members of the Health Practice International Task Force are developing a series of articles on a variety of international health care systems. The first in the series appears in May/June edition of *Contingencies*. In that article, John Berkto interviews Yair Babad, an Israeli actuary. The interview gives the reader an overview of how the current Israeli health care system developed and how the system is performing. Future articles will feature the health care systems in Germany and the Netherlands. John Berkto's interview can be found in the electronic version of *Contingencies* at: *http://www.contingencies.org/*.

The Consumer Driven Health Plans Work Group has developed a monograph that summarizes a number of studies that have provided information on emerging data on CDHPs, specifically as it relates to the health care cost and utilization. The monograph is available on the Academy's web site at: *http://www.actuary.org/pdf/health/cdhp_may09.pdf*.

Ongoing Activities

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

Health Practice Financial Reporting Committee (Darrell Knapp, Chairperson) – The committee continues to work on updating several practice notes (Small Group Certification, Large Group Medical, and General Considerations).

Long-Term Care Principle-Based Work Group (Bob Yee, Chairperson) – This work group is in the modeling phase of their work and will be providing quarterly updates to the NAIC Accident and Health Work Group in 2009.

Request for Volunteers – The Committee on State Health Issues has formed a new task force. The Solvency Task Force will be analyzing solvency issues at the state level, including NAIC risk-based capital formulas, emerging NAIC principal based requirements, and individual state rules. The task force will also follow emerging international requirements and federal regulation of insurance companies, in relation to their effect on solvency requirements. Individuals interested in volunteering can contact Melissa Stevens, State Health Policy Analyst, at *stevens@actuary.org*.

Stop-Loss Work Group (Eric Smithback, Chairperson) – This work group is continuing to update a 1994 report to the NAIC on Stop-Loss factors. The work group has partnered with the Society of Actuaries (SOA) to update stop-loss factors. The SOA will be collecting and analyzing data from volunteer companies, and the Stop-Loss Work Group will use the aggregated data to propose an update to the current stop-loss factors. Insurance companies and reinsurers interested in supplying data for the study should contact Barbara Scott at the SOA, at *bscott@soa.org*, and provide her with your name and contact information.

Disease Management Work Group (Ian Duncan, Chairperson) – This work group has begun development of a public statement on evaluating wellness programs.

Medicare Supplement Work Group (Michael Carstens, Chairperson) – This work group has submitted recommended changes to the Medicare Supplement Refund Formula to the NAIC's Medicare Supplement Refund Formula Subgroup, of the Accident and Health Working Group, and continues to work with the NAIC to develop a refund formula.

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 Melissa Stevens at *stevens@actuary.org*. ■

New Research Study

Measurement of Health Care Quality and Efficiency: Resources for Health Care Professionals

by Sara Teppema

Last June the New Yorker published an article by Atul Gawande called "The Cost Conundrum," which explored geographical variations in the cost and delivery of health care. The article has received considerable attention from the Obama administration and Washington policymakers as the United States gears up for health reform and seeks to find savings in the system. The findings in Gawande's article are based on data from The Dartmouth Atlas, a project which has been analyzing health care cost and utilization disparities for years. The fact that this research is currently in the mainstream spotlight reinforces the critical need to address the opportunities to improve the U.S. health care system's quality and efficiency.

The objective of the report is to serve as a resource about quality and efficiency measures that demonstrate the performance of hospitals and physicians.

Likewise, the decentralized nature of the health care system, often poorly aligned payment structures and the complexity of roles assumed by service providers, as well as the current economic crisis, make quality and efficiency programs, and their measurement, especially relevant.

Many organizations have developed a multitude of programs and metrics to address and measure quality and efficiency. The number of organizations continues to expand, and programs are evolving very quickly. Increased standardization and innovation has been facilitated by the following emerging trends in quality and efficiency:

- Greater collaboration and coordination across key industry players;
- Continued enhancements of hospital quality measures – more measures in greater depth from more locations leading to improved results;
- New metrics to measure physician quality using evidence-based medicine;
- Improved versions of efficiency metrics using episodes of care and member risk-adjustment to create a framework that links micro clinical measures and macro population measures;
- Launch of diverse pay-for-performance pilots and initiatives; and
- Alternative networks offered to members in major locations based on quality and/or efficiency.

Research Project and Results

To help capture a snapshot of this highly complicated area, the Society of Actuaries Health Section and Solucia Consulting have co-sponsored a research project to review and inventory the wide range of quality and efficiency measures currently available. Researchers Sheryl Coughlin, Ian Duncan and Greger Vigen identified 83 organizations and over 150 programs/products that measure the quality and efficiency of physicians and hospitals.

The objective of the report is to serve as a resource about quality and efficiency measures that demonstrate the performance of hospitals and physicians. Besides outlining key areas of consideration for quality and efficiency measurement, the report also describes future opportunities for actuaries and other health professionals interested in this evolving area.

Actuaries can bring a unique skillset to the table, by leveraging their deep analytic and measurement background. According to Duncan, "There is a potential role for actuaries here, but this isn't a given and we will have to do considerably more work to position ourselves and our role with more research such as this, and development of appropriate tools."

The end-product of the research includes a descriptive report plus a comprehensive reference document. The report provides an executive summary of the research team's findings; a discussion of the importance of quality and efficiency measurement; a discussion of limitations and measurement challenges for quality and efficiency programs; and an overview of stakeholder organizations with examples of their quality and efficiency programs.

The report's sections on the importance of quality and efficiency measurement and on the limitations and measurement challenges are themselves a valuable resource for someone seeking to familiarize him or herself with quality and efficiency issues and programs. These sections discuss varying approaches to measurement, changes and innovations in measurement, challenges to measurement across populations, the difficulty of defining "quality," and diversity in approaches among stakeholders.

The reference document, included as an Appendix to the full report, is the heart of this research. It summarizes information from many organizations involved in quality and efficiency efforts, and was

extracted from publicly available information on the organizations' Web sites. The following information is provided for each of the described organizations/programs.

- **Summary** – gives the reader an understanding of the organization or metric including background and descriptive information.
- **Methodology** – provides the reader with an understanding of any particular procedure or set of procedures used in data collection and/or analysis, technical specifications, methodological constraints, and target population. The reader may determine the applicability and relevance to his or her particular areas of interest.
- **Results** – gives the reader an understanding of whether there is evidence that the organization or product has achieved its objectives, and undertaken any formal or informal evaluation of efficacy.
- **Publications** – In some cases only marketing materials were accessible via the Web site. Where possible, the researchers attempted to include peer reviewed materials, white papers and other formal analyses if available.

Each entry also identified an organization as belonging to one or more of the following key categories:

1. Accreditation, Certification;
2. Analytics, Decision Support, Health Care Data Technology;
3. Incentives, Rewards Programs;
4. Performance Ratings, Reports, Scorecards, Benchmarking (actual performance);
5. Standards Setting, Industry Organizations (measurement structure);
6. Summary for Public, Consumer, Infomediaries.

Research Methodology

The search was restricted to information contained on Web sites and was conducted between November 2008 and March 2009. The list of organizations and measures is by no means an exhaustive list, but

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rather one intended to canvass a wide range of those active in health care quality and to then inventory a cross-section of organizations. Inclusion in the inventory was driven by the primary focus of the measure or activity. Rather than listing every state program and insurance carrier, the report presents a few representative examples from organizations that illustrate particularly interesting approaches, innovations or programs.

The depth of the Web sites reviewed varied considerably. Some Web sites offered a comprehensive outline of measures, products or services with downloadable documentation such as technical specifications, white papers or peer-reviewed papers. Other Web sites offered primarily marketing or publicity materials with limited descriptive and technical detail. Access to some Web sites (such as health plans or employer sites) was restricted to members. In a few cases where there was a dearth of information, supplemental Internet searches were performed to augment the materials.

As knowledge about quality and efficiency measurement accumulated, the search fields were further narrowed. As the research was conducted over a period of several months, the Web sites of some organizations profiled in this report were re-visited several times in order to ensure that the most current information was captured.

Research Team Reactions

The researchers—Coughlin, Duncan and Vigen—were surprised by the lack of coordination of effort among stakeholders, and the lack of an overarching national strategy to channel research and development efforts. They believe that this report is the first single comprehensive source that inventories quality and efficiency measures. They hope that the report will become the "go to" resource for those looking for additional resources, or who want to learn more about this important topic. Although the reference document describes a broad array of organizations and measures, related links and publications are provided to enable the user to find additional detailed information if needed.

Actuaries can benefit from the report regardless of their level of expertise. Those who are new to quality and efficiency measures can read the report, become familiar with the reference document, and consider how they can apply the tools to their own company's initiatives. Actuaries with more experience can use the links and publications to learn more about the underlying techniques, particularly risk adjustment and predictive modeling.

The researchers caution that the reference document may go out of date quickly as the field is changing rapidly. The links provided will help readers obtain the most current information, and the SOA is looking into ways to keep this research current and accessible. ■

Note: As of this writing, the research report has completed a public comment period and is being finalized based on comments received. The SOA expects to issue the final report in Fall 2009. When posted, the report will be available on the SOA's Web site at: *http://www.soa.org/research/research-health.aspx*

Prepaid Medical Care and Medical Insurance

by John I. Mange

Note: This essay won first prize in the contest sponsored by the SOA Health Section.

John I. Mange, FSA, MAAA, is executive director and chief executive officer of Health Reinsurance Management Partnership in Danvers, Massachusetts. He can be reached at *jmange@hrmp.com.*

Ask yourself this: Other than medical (or dental) insurance, is there any insurance product on which you expect to make a claim every year? Undoubtedly, the answer will be, "Of course not."

Through decades of practice, policymakers and the public have become accustomed to thinking of insurance as how one accesses medical care. The reason one expects to make a claim every year on medical insurance is that much of what is sold as medical insurance today is not insurance. It is prepaid medical care. Covering prepaid medical care drives up the cost of insurance and contributes to the extraordinarily high rate of trend in medical costs from year-to-year.

An Inefficient System

The medical insurance system is, nevertheless, the means by which most people access the medical care system in the United States. It is remarkably inefficient for that purpose. Why?

Medical insurance today inserts a third party—anadministrator—and its attendant costs into virtually every single doctor/patient interaction. The presence of theadministrator, whether public or private, weakens the doctor/patient relationship. There is someone else in the room, figuratively speaking, exerting influence over decisions that the doctor and patient should make together.

Moreover, the administrator's costs are high, much more so than, say, credit card transaction costs, because the administrator has many difficult questions to answer before it can process the transaction:

- Is the patient eligible?
- Are the services covered?
- Were the services medically necessary?
- Were the costs reasonable?

Because these questions are often not answered in advance, the patient may not know his/her net costs (after insurance) until long after services are delivered. How are doctors and patients supposed to make informed decisions in such an uncertain environment?

Misaligned Incentives

In addition, today's medical insurance system distorts incentives in several ways. First: because much of today's insurance is prepaid medical care, those covered by insurance are incentivized to extract value from their insurance instead of, as with other insurance, hoping that they never make a claim. This contributes to overutilization and causes demand for medical services to be comparatively inelastic contributing to high unit costs.

Second, because reimbursements are often based on the services delivered and not on the outcomes produced, providers are incentivized to deliver as many services as possible. This, too, contributes to overutilization.

Third, reimbursements are often limited to amounts that are usual and customary, so providers are incentivized to determine the maximum reimbursement available, not the economically appropriate price. This contributes to high unit price inflation.

Finally, because prices for medical insurance today rarely reflect lifestyle choices, medical insurance fails to incentivize covered lives to adopt healthier lifestyles. Wellness is, of course, covered by many medical insurance policies today, but there is often no financial incentive to take advantage of such benefits when they are covered.

CONTINUED ON **PAGE 22**

Note: The thoughts, insights and opinions shared in these essays are not necessarily representative of the views of the Society of Actuaries or the authors' employers.

Failure to correct these issues will perpetuate their effects on the system, and the resulting system will fail to deliver on higher quality, more affordable medical care sought by advocates of reform.

The issues cited here—interference in the doctor/patient relationship, the costs of administering prepaid medical care, and the design of medical insurance—are but a few of the many issues facing the U.S. medical care system, but they are often overlooked and frequently misunderstood. Failure to correct these issues will perpetuate their effects on the system, and the resulting system will fail to deliver on higher quality, more affordable medical care sought by advocates of reform.

Addressing The Issues

How can we address these issues? First, educate policymakers and the public that medical insurance should be like other insurance, a financial service that is frequently bought (perhaps even mandated), rarely used, but critical to the physical and financial well-being of the insureds.

Second, effect legal and regulatory changes that differentiate between prepaid medical care and medical insurance. For example:

- Define medical insurance as coverage for medical care that exceeds an agreed amount per person per year, perhaps expressed as a percentage of income and indexed to inflation.
- Require that prepaid medical care and medical insurance be unbundled from one another.
- Continue the tax deductibility of medical insurance.
- Eliminate the tax deductibility of prepaid medical care.

Third, encourage the pricing of medical insurance based, in part, on known actions of the insureds that demonstrably lower the cost of medical care, including:

- Cholesterol screenings.
- Mammograms and pap smears.
- Immunizations.
- Smoking habits.
- Demonstrated weight management behaviors.

Fourth, require that costs—both of services and of insurance reimbursements—be transparent. That is, providers must post prices for the services they provide so that their patients know what they will be asked to pay, and insurers must schedule benefits so that patients will know how much they will be reimbursed.

Fifth, require that insurance reimbursements be based on episodes of care, adjusted as appropriate for complications. Such a requirement would likely cause providers to adjust their posted prices to an episode-based approach, which would, in turn, focus attention on how to achieve favorable outcomes efficiently instead of on the services that were delivered.

Sixth and finally, encourage, but do not mandate, the purchase of prepaid medical care, and allow prepaid medical care to be offered by providers directly to the public. Concurrently, allow prepaid medical care plans to be designed so that transaction costs can be reduced to the level of a credit or debit card. The costs covered are predictable, and many people would not perceive the need to pre-fund these services. They do not need to be part of an insured medical package.

The perceived but needless connection between insurance and access has clouded our thinking about what medical insurance is and how best to address the issues of access and affordability. If, in our effort to reform the medical care system, we fail to:

- Address these issues,
- Help policymakers and the public make the distinction between medical insurance and prepaid medical care,
- Squeeze administrative expenses from the cost of prepaid medical care,
- Restructure the pricing of medical insurance to encourage healthy behaviors, and
- Restructure medical insurance to correct its distorted incentives, we will likely fail to slow the inexorable rise in the cost of medical care. We can ill afford to fail at this task. ■

Harnessing the Forces of Markets and Innovation

by Ian Duncan

Note: This essay won second prize in the contest sponsored by the SOA Health Section

Ian Duncan, FSA, FIA, FCIA, MAAA, is president of Solucia Consulting a SCIOinspire Company, a Hartford, Connecticut-based health care consulting firm. He can be reached at *iduncan@soluciaconsulting.com.*

When I was a boy, not all that long ago, the concept of individual self-service was virtually nonexistent. At the grocery store, you handed a list of items to a clerk behind a counter, who disappeared and returned with your order. In the bank, you queued up—sometimes for a considerable time—in order to cash a check or make a deposit with a teller. A third example is the numerous administrative processes that have been replaced by integrated circuit technology where (as Moore's law states) the capacity of transistors doubles and the price halves approximately every two years. Whole industries have been re-engineered in the last 50 years, transferring activities (shopping, bank transactions, etc.) via technology to customers, increasing choice and efficiency and simultaneously lowering costs.

Contrast these examples with the delivery of health care. Although attempts have been made to drive out costs and involve the consumer more in both the consumption and the purchase of health care, these attempts have generally not been successful in the United States or elsewhere. Why is this? Is it possible to achieve the same gains in productivity in health care? Is there an inherent structural inhibition that prevents us from making the same advances with regard to health care?

Health Care Financing

That we have a problem in health care financing in the United States (and other countries) is clear. One symptom of the problem is health care costs which continue to increase faster than the rate of growth of income. Instead of falling costs and increasing quality—as we see in other industries—we experience rising costs, and most commentators have difficulty making conclusive quality statements.

As actuaries, concerned about both costs and the long term, we should be doing more to explain to the public that the benefits that they have awarded themselves (through Medicare and Medicaid) are unsustainable without significant increases in productivity. Consider the following: the value in current dollars of the Medicare benefit that we provide seniors at age 65 exceeds the accumulated contributions of the individual senior and his employer—assuming a lifetime of contributions at the median wage level—and future retiree contributions by about $250,000. This is, essentially, an unfunded liability to the taxpayer, and an asset to the retiree. The median house price in the United States is currently about $170,000, so we provide retiring seniors an asset worth 50 percent more than a median house. A politician who proposed awarding every senior a free house at retirement would be laughed out of Washington. Yet no one questions whether it is reasonable, sustainable or even a wise use of national resources to provide a free health care benefit worth considerably more. Medicare benefits represent such large unfunded liabilities because of high rates of projected cost increase (trend). If we could reduce future trend to even the average rate of price inflation, the unfunded liabilities would fall to a more sustainable range. The challenge is to find ways to harness the same forces in the health sector that have proven successful in reducing transaction costs in consumer goods, electronics and financial services.

Instead of attempting to harness the forces of the market and innovation that have been so beneficial in other industries, policymakers turn, again and again, to the same failed solutions that have resulted in our present crisis. I am reminded of a comment made by Fidel Castro on the 50th anniversary of the Cuban revolution: the reason for the disastrous state of the Cuban economy is not too much central control, but insufficient socialism! Our Washington policymakers, having failed abysmally to control the cost of Medicare and Medicaid, now propose to extend their reach to the other half of the health care economy that they do not directly control. Like second marriages, truly a triumph of hope over experience!

Vision For The Future

This paper, however, is about visions for the future of the U.S. health care system. There is an alternative vision that, applied to the U.S. health care system, could unleash the same forces that have delivered increasing quality and lower prices in other industries. Five things are necessary to realize this future:

CONTINUED ON **PAGE 24**

In a market in which there are obvious diseconomies of scale in health care — with a few notable exceptions — encouraging more health care spending simply raises costs.

1. *Change the U.S. tax code.* Currently, the tax code (through the deductibility of health insurance premiums) favors over-consumption of health care at the expense of other goods and services. In a market in which there are obvious diseconomies of scale in health care—with a few notable exceptions—encouraging more health care spending simply raises costs.

2. *Return responsibility for medical decisions to doctors and patients.* Managed care is an important set of tools for educating patients and providers about best practices and cost-effective solutions, but it has become the central cost-control technique in the system. Coupled with a lack of personal budgetary responsibility, managed care is always a villain, rather than an important technique for helping consumers manage their health care dollars. Consumers see no reason for limiting demand or for using managed care techniques, because the third-party payer system makes some other entity responsible for financing care. Individual consumers responsible for managing their own health care budgets will demand that providers provide not just for clinical treatment but also help consumers make the most of the health care dollar.

3. *Encourage individual responsibility.* The case is often made that medical care is too complicated and requires too much specialized knowledge to allow individual involvement. Yet our experience with the Internet is that consumers demand, and use, large quantities of health care information. The great genius of the current U.S. system—and one that we destroy at our peril—is that it decentralizes decision making to many different actors: patients, physicians, managed care companies, employers, etc. Considerable political pressure exists to blow up the existing decentralized system and place decision-making power in the hands of a few technocrats. Yet, as markets have universally illustrated (and a few counter-examples, such as the Soviet Union and the current Medicare system illustrate all too well), centralized decision making can never ensure as efficient, innovative or cost-effective a solution as a decentralized system.

4. *Educate the public about their responsibility for long-term funding.* Ultimately, the success of the U.S. health care system will require individual responsibility for lifetime needs, with perhaps employer subsidies for working employees and some degree of state subsidy for the indigent. The scale of unfunded Medicare (and Medicaid) liabilities, discussed above, is simply too large for the government to continue to provide on a non-means tested basis for the elderly, let alone those who are actively working. The sooner the United States recognizes this and begins to plan for the replacement of universal government-provided care, the sooner we can implement a replacement system. In the meantime, today's young workers should begin accumulating a tax-free fund to take care of their retirement needs. There is no reason why such an accumulation system should not be successful—the IRA and 401(k) models are examples. Depending on the institution with which the worker accumulates funds, the worker would also have access to important components of an insurance package: network discounts, information about provider quality and efficiency and care protocols.

5. *Encourage the type of innovation and disruptive productivity increases that we have seen in other industries.* One of the biggest inhibitors of productivity increases in medicine is the current "expert model," which the medical profession has encouraged and from which it benefits. In the early days of computers computing was a similar "expert model." To access the computer, you had to approach the computer's acolytes, who wore white coats and inhabited air-conditioned computer centers. Bill Gates and Microsoft came along and disrupted the entire model, placing enormous computing power in the hands of the end user. If we want to control health care costs in the future, we will have to encourage the equivalent of Bill Gates's disruptive technology that places ultimate responsibility in the hands of the consumer. This can be done, and we see a few tiny signs of the coming revolution, as employers begin to provide financial incentives/disincentives to employees to assume precisely this type of responsibility. But for the most part, the medical industry—which is a huge user of medical technology—has failed

to embrace consumercentric technology. Some early solutions exist (for example, home monitoring and test kits for individuals to monitor their own health). The financial incentives—to both members and providers—are not yet in place to support this model, but will develop rapidly as thefunding crisis grows.

This vision is clearly radical. However, the president is proposing an even more radical remaking of the system, with vast expenditures and huge concentration of power and decision making in the hands of a few technocrats who have failed to demonstrate that they can manage the 50 percent of the health care economy that they currently direct. An alternative vision—one in which individuals and their providers make the decisions—is possible. It is not too late to reject centralization of the system in favor of the consumer. ■

Note: This essay was written in fond memory of Jerry Grossman M.D., Kennedy School of Government at Harvard University. A great entrepreneur and true friend, from whom I learned the power of disruptive innovation.

Change the Expectations in Health Care

by Jonathan Shreve

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Note: This essay won third prize in the contest sponsored by the SOA Health Section.

It is my premise that the primary reform that is needed within the health care system is a change in our expectations. Making it clear what we expect is the first step, and the second step is adjusting policies to be consistent with the expectations.

Note that clarifying expectations is not an easy task—there are many voices representing both broad and narrow interests, which can quickly turn the task of setting expectations into a long wish list of changes. I believe that there are two primary expectations which should be made clear:

- It is everyone's responsibility to have health insurance coverage.
- It is the health care provider's responsibility to achieve the most efficient and highest quality outcome by following the principles of evidence-based medicine.

With these expectations set, it is then critical to follow them up with the appropriate financial incentives, so that our actions and our words are consistent.

Accessibility: The Uninsured Problem

The working assumption for many years has been that we have a large number of uninsureds because of barriers in the system, such as high price or medical underwriting restrictions. Remove the barriers—we have assumed—and we can fix the problem. With that as a hypothesis, a number of states have proceeded to remove the barriers, with little effect. States from Maine to Washington have introduced low cost options for people with relatively lower incomes—some as high as four times the federal poverty level—only to get a very low percentage (in the 10 percent range) of the uninsured to take the option.[1] Even free expansions of Medicaid often experienced take-up rates of only 30 percent.[2] Other states have put in restrictive rules on medical underwriting and/or community rating to find a similar result—little change in the uninsured rates.[3] If you build it, they still won't come.

Along comes Massachusetts, and it breaks down the same barriers that the other states have broken

1. Take-up rate based upon Milliman Analysis and the following sources: Lipson, D., J. Verdier, L. Quincy, E. Seif, S. Shulman, and M. Sloan. "LEADING THE WAY? Maine's Initial Experience in Expanding Coverage through Dirigo Health Reforms." November 2007. Mathematica Policy Research, Inc. http://www.mathematica-mpr.com/publications/pdfs/Dirigofinalrpt.pdf. Data from the: Current Population Survey (CPS). U.S. Census Bureau. 15 January 2009. http://www.census.gov/hhes/www/cpstc/cps_table_creator.html. Damiano, P. C., E. T. Momany, J. C. Willard, B. L. Udeh, E. O. Heiden, B. B. Richardson, and K. T. McCrory. "First Evaluation of the IowaCare Program." December 2008. University of Iowa Public Policy Center. http://ppc.uiowa.edu/Download/IowaCareReportFINAL.pdf.

2. Take-up rate based upon Milliman Analysis and the following sources: S.Artiga and C. Mann. "New Directions for Medicaid Section 1115 Waivers: Policy Implications of Recent Waiver Activity." Kaiser Commission on Medicaid and the Uninsured. March 2005. Kaiser Family Foundation. http://www.kff.org/medicaid/upload/New-Directions-for-Medicaid-Section-1115-Waivers-Policy-Implications-of-Recent-Waiver-Activity-Policy-Brief.pdf McRae, T. and R. Stampfly. "An Evaluation of the First 21 Months of Operation of Michigan's Adult Benefits Waiver." November 2005. Institute for Health care Studies. http://www.ihcs.msu.edu/pdf/ABW_Evaluation.pdf. "Health Insurance Flexibility and Accountability (HIFA) Initiative Fact Sheet." 17 March 2008. Center for Medicaid Services. http://www.cms.hhs.gov/MedicaidStWaivProgDemoPGI/downloads/MIABW1115CurrentFactsheet.pdf. Gavin, N. I., N. D. West, and N. F. Lenfestey. "Evaluation of the BadgerCare Medicaid Demonstration." Centers for Medicare and Medicaid Services. December 2003. http://www.cms.hhs.gov/DemonstrProjectsEvalRepts/downloads/Badgercare_Final_Report.pdf. "WISCONSIN-BADGERCARE 1115 DEMONSTRATION." Center for Medicaid and Medicare Services. 17 March 2008. http://www.cms.hhs.gov/MedicaidStWaivProgDemoPGI/downloads/WIBadgerCareSCHIPCurrentFactsheet.pdf. "New Jersey Title XXI 1115 Fact Sheet." Centers for Medicaid and Medicare Services. 17 Mar. 2008. http://www.cms.hhs.gov/MedicaidStWaivProgDemoPGI/downloads/NJFamilyCareFactSheet.pdf.

3. Sloan, F. A., and C. J. Conover. "Effects of State Reforms on Health Insurance Coverage of Adults." Inquiry 35 (1998): 280-93. Davidoff, A., L. Blumberg, and L. Nichols. "State health insurance market reforms and access to insurance for high-risk employees." Journal of Health Economics 24 (2005): 725-50.

down, but it also includes a tax penalty for individuals without health insurance. The take-up rates skyrocketed from the experience of all the other states. The tax penalty was well below the actual cost of insurance. I would argue that it was not the economic incentive to get health insurance by itself that caused the change, but more importantly the expectation that you should have coverage that drove the much higher take-up rates. As a society, we have expressed this view for auto insurance and even quitting cigarette smoking to great effect. As the expectations are set, we often start to back them up with laws, but I believe the greatest impact comes from setting the expectation. In Massachusetts, the take-up rates were nearly 54 percent,[4] and the number of individuals without health care insurance has decreased by 324,000 in the first year of the legislation (2006).[5]

Affordability And Efficiency

We currently rely on subsidies in order to remove the barriers to getting coverage. Governments subsidize the lower income individuals, employers subsidize employees, and the younger healthier individuals subsidize the older less-healthy individuals. To some degree this will always be true. Sometimes those subsidizing others cannot afford the subsidy. Even if they can afford it, there is always an alternative economic use that the money could be put toward (from other investments to lowering prices or taxes). We all understand that health care is very expensive in the United States, and it is expensive in other parts of the world. Medical costs in the United States have steadily outpaced inflation and now comprise over 16 percent of the Gross Domestic Product (GDP). This figure is projected to increase to 20 percent in the next 10 years.[6] It is critical that we find a way to reduce the cost of health care, and in turn reduce the burden of this cost on the subsidizers and on the direct purchasers.

In health care, less can be more. When back surgery and bed rest have equivalent clinical outcomes for certain types of back pain, why would you attempt surgery? Other than optimal care is delivered in many situations and for many reasons. The reasons include out-of-date information, the wrong financial incentives, bad habits and inefficient structures. The result is bad care and bad outcomes for patients and

5. Holahan, J. and A. Cook. "The Decline in the Uninsured in 2007: Why did it happen and can it last?" Kaiser Commission on Medicaid and the uninsured. October 2008. http://www.kff.org/uninsured/upload/7826.pdf.

6. Keehan, S. et al. "Health Spending Projections Through 2017," Health Affairs Web Exclusive W146: 21 February 2008.

7. "From Volume to Value: Transforming Health Care Payment and Delivery Systems to Improve Quality and Reduce Costs." Rep. 14 January 2009. Robert Wood Johnson Foundation. http://www.rwjf.org/files/research/nrhiseries-bettewaystopay.pdf.

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Restructuring the payment system has the ability to produce a powerful motivation for health care providers to perform only those procedures consistent with the medical evidence.

inefficient use of resources. The inefficient use of resources also means that other patients may get no care at all. In the United States, the more treatments that are given, the more the providers are paid, independent of the value of the intervention.

This leads to the second expectation I think we need to set: it is health care providers' responsibility to achieve the most efficient and highest quality outcome by following the medical evidence. Further, because this is our expectation, our payments to providers need to reflect that. Recently, CMS has stopped paying for "never" events, like surgery on the wrong body part. This is a good start, but its expectations are significantly below the level I suggest. Recent movements toward pay for performance or medical home are also moves in this direction, but all are within the context of more is better. In a fee-for-service system, each additional service generates an additional fee.

Private sector evidence-based medical guidelines are well established, and the vast majority of third-party payers rely upon them to determine the medical effectiveness. (This is best left to the private sector, as public efforts get bogged down in politics, are less likely to be deployable, and rarely get updated in a timely fashion.) This same level of evidence-based guidelines needs to come to the bedside, and we need to expect physicians to follow these guidelines in each decision they make.

During the 1990s, more physicians were paid based upon treating a number of patients, rather than upon the volume of services generated. Some of the early forms of capitation were not as refined as you might like, and they led to "managed care backlash." However, during the 1990s, medical cost trends were at a lower level than they have been before or since. This was a partial and imperfect beginning to paying our providers consistent with our expectations. One payment solution that has been suggested is offering risk-adjusted payments for episodes of care.[7] Under this reimbursement arrangement, insurers and other payers pay all hospitals or medical professionals fixed amounts per episode of care depending on the condition being treated. Restructuring the payment system has the ability to produce a powerful motivation for health care providers to perform only those procedures consistent with the medical evidence. A system that is driven by results rather than services will allow physicians to be more efficient as they focus on necessity rather than the quantity of services.[8]

Policies Versus Expectations

Most government actions start with one set of rules, and pile more sets of rules on top of those. It is good business for lawyers and other professional advisors, but they usually don't add much stimulus to the economy. Of course, some element of this is necessary, but how far should it go?

In your own workplace, would you rather be subject to a long, detailed list of policies (as most of us are) regarding all form of behavior in your office, or would you rather be given a core expectation—we expect you to treat others with respect, act professionally, and don't do anything stupid. I believe most of us would prefer the latter, and the result is better outcomes.

Of course, changing expectations is actually cultural change, with culture reflecting our country's shared attitudes, values, goals and practices. Individuals learn much of our culture through everyday habits—we all assume that service providers should get paid for each service they perform. For major cultural shift to happen, it usually takes multiple leaders demanding the change, and focusing their behavior on making that change. These leaders come from many sectors—much of the health care change in the past has been demanded by employers and then reflected by the health care community. In the future, we will need leaders from employers, health plans, health providers and government to accomplish the level of changes we wish to make.

When President Obama starts health care reform, I would much rather that he state these two expectations than to send his policy wonks into action. Although the latter would likely be better for my business. ■

8. Kahan, S. "Creating Value-Based Competition in Healthcare." Essays on Issues: 254a.

Health Reform, American Style

by Hobson Carroll

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Today's health care financing mess requires an American fix. We need a rational solution that recognizes where we have come from in paying and providing for health care in this country, as well as our government, history, culture, economic system and all the other things that define us as a nation. The entire world is struggling with health care financing. Solutions need to be locally relevant, and the United States is no exception. My proposal for reforming core elements in the health care system follows.

Everyone Is Charged The Same Amount

Currently, the same service from the same provider costs different parties different amounts depending on who is paying. This is patently ridiculous for something society has effectively stated is a right, or at least a social utility. We must require all-payer, transparent pricing from providers for their products and services. Each provider is free to set prices as they deem appropriate, but those prices must be the same to all purchasers.

I am referring to a price that represents the true, bottom-line net charge that the provider bills and collects. Payers won't be able to negotiate with providers for special discounts or pricing concessions for any reason. If a provider agrees to a particular schedule of fees or prices with a given payer, fine. But it then applies to every other payer as well.

This doesn't mean that insurance benefits must cover whatever the provider charges. Schedules of allowed maximum charges, or networks of providers for which the insurer will cover 100 percent of the provider's fees, will come into play. Applied against these will be the usual cost-sharing devices of copayments, deductibles and coinsurance.

Provider charges that exceed the insurer's allowed charge schedule, however, must be balance-billed to the patient and should be treated the same as other cost sharing under the benefit plan. This will be critical in bringing true competition to the marketplace of health care services.

Providers will be allowed to waive collection of the patient's portion of their bill, as a charity adjustment or for other economic need as perceived by the provider. However, provider flexibility on the patient's balance must not be used as a loophole to effectively discount charges of one group or another by, for example, promising to waive copayments for those in a particular network that has negotiated with the third-party payer for copay forgiveness. No deals will be allowed that essentially change the provider's charge schedule for persons covered by that payer's program.

The same goes for government programs, especially Medicare and Medicaid, except for some possible minor concessions for administrative savings. A full discussion of how important this is and why it is at the core of health care reform is larger than the scope of this essay. But Medicare and Medicaid are among the chief culprits creating the current turmoil and basic tenets of their design need to be corrected. Making these programs pay on the same basis as others is right, fair and necessary. There's no way we can have such a significant portion of medical services being paid for through a price-setting mechanism that dodges responsibility and creates cost-shifting distortions whose effect touches the rest of the economic sector.

Everyone Is Covered

A significant percentage of our population is either not covered by any formal insurance program or is inadequately covered. This flies in the face of effective risk pooling. The only way to reach anything approaching universal coverage is to require it, full stop. Everyone must be in the pool if the principles of social solidarity and individual equity are to be in balance. Details of how to mandate coverage, how it is enforced, how violations are punished, etc., are very solvable (if not simple) issues. Various financing mechanisms to provide necessary subsidies related to income and other measures can be established via tax policy.

Choice of coverage essentially should be left to an open and revitalized marketplace, which will

CONTINUED ON **PAGE 30**

grow out of new demand and other changes that I discuss herein. However, coverage must provide at least a minimum level of acceptable and reasonable insurance benefits. This can be monitored through a supervising entity that sets a minimum standard and oversees the demonstration of actuarial equivalence for benefit variations.

Someone with authority needs to make a decision on what the universal standards will be.

Everyone Is Eligible For Coverage

The current system not only requires underwriting by both group and individual insurers, but also the resulting inherent discontinuities that arise through actuarial discrimination (classification). This not only generates practical, ethical and economic distortions; it also undercuts the idea of pooling, a critical societal tool for managing health care finance. It also creates significant and unnecessary administrative, legal and marketing costs.

In both the individual and group market arena, we must do away with underwriting based on claim history and medical conditions. This will eliminate the need for so-called high-risk pools. To interweave these elements with universal coverage, there will be a need for risk-adjustment programs, such as reinsurance pools that ensure actuarial balance between insuring entities. With anti-selection eliminated, minimized or made equitable across the entire market through universal coverage, underwriting will no longer be necessary and the societal goals of broad coverage and relative equity can be maintained.

Everyone Receives Fair And Open Insurance Pricing

Pricing transparency must be established within the new insurance marketplace. In particular, mandatory full disclosure of all marketing/sales compensation—in whatever form—should be required for all medical expense insurance. In addition, serious consideration should be given to moving insurance product pricing to some variation of a modified community-rating basis. This can be integrated with changes in the tax system, so as to provide necessary cross-subsidization.

Everyone Is Taxed The Same Way On Health Costs

We must balance tax policy and health care financing costs by allowing qualified medical expenses, whether out-of-pocket claims or insurance premiums, to be deductible no matter who is paying them. The maximum deductible amount could vary based on taxpayer demographics. Tax policy could be integrated with a subsidy program so as to promote affordability of mandated universal coverage.

Maximum benefit levels for deductibility should be established in conjunction with the valuation of benefit plans against a minimum standard. The definitions of "affordability," "qualified," "minimum," "maximum," as well as other tax policy details are subject to practical resolution. (I recognize that deciding exactly who or what entity makes such decisions will prove to be an interesting challenge.)

Of course, a viable, though just as controversial, alternative is to eliminate any deductibility whatsoever. The key is fairness through consistency.

Everyone Has Information

Between "Everyone Is Charged the Same Amount" and "Everyone Receives Fair and Open Insurance Pricing," a foundation is laid for true consumer empowerment in the purchase of health care services and insurance. But there's still a piece missing—rational and efficient management of medical records and measurement of provider quality.

Everyone seems to agree that significant information technology advances are attainable in the health care arena. But writing about it doesn't make it happen and talking is about all that we get from the politicians, academicians and physicians who are active in the current movement for health care reform. Someone with authority needs to make a decision on what the universal standards will be—incorporating a dynamic that anticipates continuous improvement—and then require all relevant parties to meet those standards in very short order and with no exceptions.

There are no acceptable excuses for why America can't revamp its health care system to harness the tremendous productivity and quality improvement

that is available through the application of appropriate technology. In reality, the solution lies less in technical know-how than in political will.

A Solution That Works

Are these the only things that would contribute to improving the situation in which our country finds itself? What about an emphasis on primary and preventative care, the importance of individual responsibility, or controlling the apparent runaway increases in health care costs that confront us every day?

The first two are matters for benefit design, and the latter is a symptom of the underlying problems, not a cause. By addressing basic issues and allowing the resulting managed—but corrected—marketplace to come into being, primary care and individual responsibility will be emphasized and enhanced through meaningful, creative and cost-effective benefit packages. Innovation in reimbursement and information will follow.

The current system has stymied creativity and entrepreneurship, two of America's greatest strengths. The medical industrial and financial complex needs to be fixed at the core, not patched to death on the periphery. Goals for comprehensive care, a higher quality of care, the proper kind of care, and the most cost-effective care are actually different facets of the same single goal: financing and providing for the best care. This starts with simple and rational changes at the fundamental level, so as to create a health care financing system that's consistent with the history, cultural trajectory and creative powers of the American experience. ■

Note: This essay was derived from a commentary originally written for publication in the March/April 2009 edition of *Contingencies magazine*.

U.S. Health Care System: Righting an Inversion

by Jim Toole

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Remember those office toys filled with colored sands, the ones that formed intriguing patterns when you turned them over? In nature, the process of reaching equilibrium is seldom so controlled. Tornados, avalanches and epidemics are all examples of the rapid and violent equilibration of inversions and criticalities.

Not all inversions are destructive; the unique characteristics of water preserve life from year to year. As water cools, it becomes denser and drops to the bottom of a lake, pushing warmer water to the surface. But at 4 degrees Celsius, something special occurs. Water begins to expand, floating back to the surface to form ice, leaving space hospitable for marine life. Such a small thing, such a big effect. Intriguingly, the theories that explain inversions and their return to stasis can also help with understanding the behavior of markets and social networks.

Man As Market Maker

Like humans and the social networks they serve, markets are creative, hungry and constantly evolving. Markets respond to their environment and the incentives in them, explicit and implicit. Many noneconomists think that there are only two kinds of markets: the "free" one ordained by god (or, as the case may be, Adam Smith), and the wreckage of all other civilizations throughout history that failed to follow free market principles (usually pursuing some "ism", led by some "ist"). The "free" market is a mathematically convenient way of arriving at prices between willing buyers and sellers when goods are reasonably homogenous, information asymmetry is minimal, and the cost of externalities (environmental degradation, social injustice) can be comfortably ignored. As we all know, theory is different than reality.

Modern markets do not spontaneously generate, nor are they formed by some invisible hand. While early markets formed organically—as capital became more concentrated—owners demanded more structure and transparency. Most, if not all, 20th century capital markets were conceived, designed and created with great intentionality and continue to evolve. The Chicago Mercantile Exchange, NASDAQ, Treasury markets, emissions trading and spectrum auctions, were all created by businesses, investors and quasi-governmental authorities for the express purpose of serving as crucibles for equalizing supply and demand.

One of the confounding characteristics of markets is that they behave irrationally: they have booms and busts. Speculation creates imbalances of economic pressure, similar to inversions and criticalities. Commodities, real estate, financial instruments—even tulip bulbs—all experience cycles and bubbles dating back to, well, the invention of markets. Tended skillfully, pressure can be released with a minimum of pain and dislocation. Left to fester, a bubble may burst with catastrophic effect, engulfing not only local markets but collateral markets with contagion-like effects.

Modern markets are structured, rule-based and withstand the pressure of capitalism best when framed by explicit policy, reinforced by responsive governance structures and protected by effective oversight mechanisms.

Perverse Incentives, Predictable Outcomes

Our nation's health policy has been to have no policy. The employer-based health care system is an accident, and not a happy one. Far from intentional, it is the result of WWII era tax policy allowing businesses to deduct health insurance premiums to attract talent and circumvent wartime wage/price controls. One-sixth of the output of the entire U.S economy—an unimaginable 2.2 trillion dollars—is funneled into health care with only the slightest regard for outcomes. When production is not constrained by quality or efficiency, outcomes suffer; we have only to look at the auto industry to see the result of focusing on lobbying rather than product.

The incentives for health care delivery in the United States are inverted: we reward intervention and skimp on maintenance; reimburse service volume while ignoring outcomes; and penalize efficient providers even as we reward the profligate. As a result, the system costs twice as much as it should, underperforms in terms of outcomes, yet still leaves over 45 million people—17 percent of the non-Medi-

care population—uninsured. Our health system is ranked 37th in the world by the World Health Organization (WHO). We are afflicted with an infant mortality rate more than twice that of Japan and Sweden, yet despite numerous studies showing high returns in terms of avoided health care costs, we invest merest pennies from the health care dollar in public health.[1]

Medical errors have become institutionalized. Studies estimate 3 percent of all hospital visits result in medical errors, the same rate as in 1984. The Institute of Medicine reported as many as 98,000 people die each year as a result of preventable medical errors, more than auto accidents, guns and AIDS combined, even more than the entire Vietnam War. Excess mortality amenable to healthcare is 44 percent higher than Canada, contributing to an additional 100,000 deaths per year.[2] Discretionary deaths which would be viewed as shocking in any other industry—imagine two fiery plane crashes every day of the year—are accepted as a normal business cost.

Our system suffers from a legacy of oppression, segregation and racial injustice. The United States is the only industrialized nation with an employer-based health care system other than South Africa. Far from incidental, at the time the enabling tax legislation was passed, segregation was the law of the land and brutally enforced. Today, workers without health benefits are still disproportionately persons of color. The infant mortality rate for blacks is a shocking 240 percent of the rate for whites. While blacks represent 12.3 percent of the population, just 2.2 percent of physicians and medical students are black. This is less than the proportion in 1910.[3]

By not agreeing to intentional health policies we receive the worst of all possible worlds, a perfect storm of high costs, poor access and shameful outcomes which disproportionately impact the poor and people of color.

What Is To Be Done?

While the U.S. health care system is dangerous to our physical health, the market is broken and hurtling towards a fiscal crisis of unimaginable consequence. Michael Levitt, then secretary for health and human services for George W. Bush, said health care spend-

CONTINUED ON **PAGE 34**

1. Public health focuses on the health of populations through education, prevention and monitoring; healthcare delivers services to individuals when they become sick.

2. Schoenbaum, S. "Reducing Preventable Deaths through Improved Health System Performance." The Commonwealth Fund. October 9, 2008.

3. Baker, R. et al. "African American Physicians and Organized Medicine, 1846 – 1968: Origins or a Racial Divide." JAMA. 2008;300(3):303-313.

ing "could potentially drag our nation into a financial crisis that makes our subprime mortgage crisis look like a warm summer rain."[4] Part of the problem is, short of an overhaul of the system, the tools available to policymakers are relatively blunt. There is no health care federal reserve that can bend health care trends like the Fed manipulates money supply and interest rates to influence financial markets.

Actually, there is. Special interests have just refused to permit it to operate as anything more than a sightless payer. Medicare, along with Medicaid and other state and local health programs, account for over 45 percent of the spending in the United States. That's right. The U.S. "private" health care system is funded almost half by tax dollars. When these programs were initially established—as a compromise to powerful health lobbies—sustainable policies guided by actuarial principles were excluded. Thus, what was a golden opportunity to incorporate information other than price into the system became instead the start of the mad gold rush that is the U.S. health care system.

Who better than actuaries, experts in the analysis of socioeconomic consequences of risk, to help design a robust framework for a sustainable health care market.

Medicare can and must serve this role.[5] Where Medicare leads, the industry will, in most cases, gladly follow. Medicare studies show widespread regional variation in spending, with no statistical difference in outcomes. Because there is no mechanism to examine and communicate the benefits, risks and costs of new treatments—a critical component of any market—researchers estimate 30 percent of care in the United States does nothing to improve health outcomes. Based on experience with similar institutions in Britain and Germany, the Commonwealth Fund estimates direct savings of $368 billion would be achieved over 10 years by establishing a Center for Medical Effectiveness, using Medicare to accelerate the diffusion of best practices.[6]

Change is coming, and this time actuaries can't afford not to be involved. Will the transition be intentional and managed, or chaotic, like a bubble bursting? Can we bend the trend through sheer force of will, or will we stand by and watch as the train hurtles the track? While the cost of action is great, surely, the cost of inaction is greater. Americans need to invent, implement and evaluate sustainable health care policies, divert cash-flow streams away from projects which feed the beast, and focus on projects and policies which enhance value:

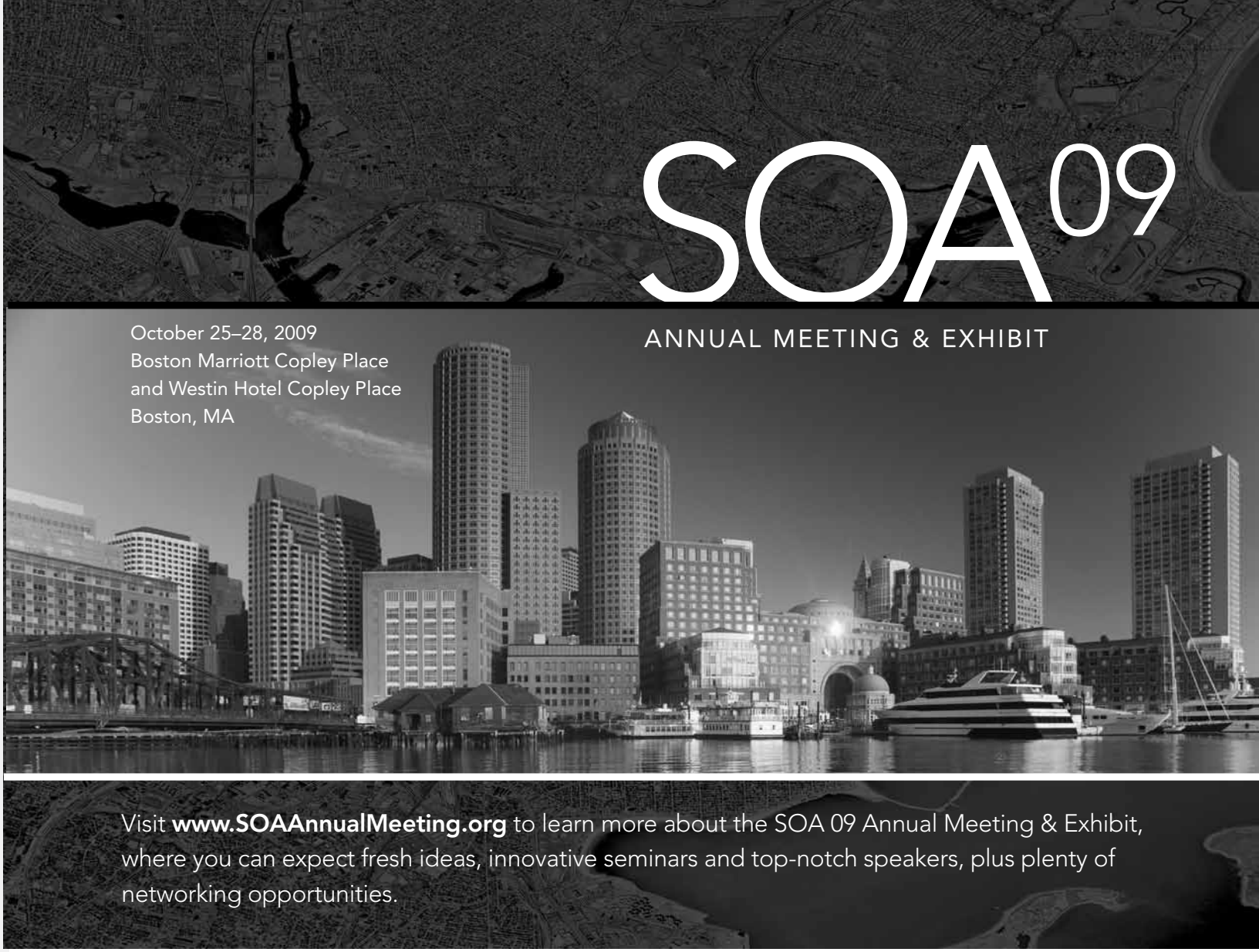
- Reward outcomes, not services.
- Incentivize the practice of evidence-basedmedicine.
- Do the comparative effectiveness research (substitute facts for impressions).
- Develop electronic medical records.
- Establish regional systems of medical homes and off-hours care facilities.
- Invest in the nation's public health infrastructure.

There is no single "magic bullet." It will require a combination of thoughtful, coordinated policies and a change in our cultural expectations of infinite resources and unlimited choice. Who better than actuaries, experts in the analysis of socioeconomic consequences of risk, to help design a robust framework for a sustainable health care market, balancing risks and incentives and bringing back into the equation externalities of quality, access and efficiency? In taking this leadership role, actuaries will earn the right to participate as opportunities arise in these new institutions, and play a continuing role going forward, applying the actuarial control cycle to inform evidence-based policymaking. ■

4. Levitt, M. "A World Without Innovation." Speech given on September 10, 2008 in Paris, France.

5. For those who perish the thought of government involvement in "bending the healthcare trend," I would point out that the Federal Reserve Board was established in 1913 to fulfill this very role: encourage financial stability and put the government, not Wall Street, in charge of the country's money supply. While this was quite controversial at the time, few today envision a financial system without a strong role for the Federal Reserve.

6. Davis, K. "Slowing the Growth of Health Care Costs: Learning from International Experience," NEJM, 359;17, October 23, 2008.



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Session 63 - Panel Discussion

WELLNESS: WISENESS OR WEIRDNESS? (AND DOES IT REALLY HAVE AN ROI?)

Wellness is a focus area for employers and health care reformers alike, but what do they really mean by "wellness?" Is it measurable? Is there an ROI? This session will also take a look inside one employer's on-site health clinic.

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