



**SOCIETY OF  
ACTUARIES**

**HEALTH  
SECTION**

# Health Watch

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# Health Watch

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To join the section, SOA members and non-members can locate a membership form on the Health Section webpage at <http://www.soa.org/health/>.

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# Letter from the Editor

By Marilyn McGaffin

Welcome to the March issue of *Health Watch*. This issue has a variety of articles that reflect the ever-changing world of the health industry. I would like to thank all of the authors for their willingness to share their insights with the actuarial community, as well as those who have reviewed and edited the articles in order to make this issue a valuable resource.

This issue of *Health Watch* opens with an interview from Cathy Murphy-Barron, the former American Academy of Actuaries' Health Practice Council chair. She has become a leader in the health insurance industry. In her view of leadership, actuaries have the ability to help people identify the larger potential risks underlying their actions and the consequences of those actions. In doing so, we need to be trustworthy, to lead by example and to let others shine.

Actuaries have the ability to help people identify the larger potential risks underlying their actions and the consequences of those actions. In doing so, we need to be trustworthy, to lead by example and to let others shine.

The second article is a roundtable discussion about predictive analytics that was sponsored by the Society of Actuaries (SOA). Each of the executives involved makes us aware of how predictive analytics can be used in the health insurance industry. A short article by Lillian Dietrich, a predictive analytics actuary, explains how her team is mining electronic health records to

find previously undiagnosed at-risk patients to improve care management more efficiently.

The next two articles focus on supplemental products. Ken Clark gives guidance for pricing Medicare Supplement products after January 1, 2020. This is a follow-up to the MACRA article from November's *Health Watch*. Rex Durlington explores medical out-of-pocket plans by determining the extent of the products and designs, comparing and contrasting features and analyzing the price ranges for similar offerings. Medical out-of-pocket plans are marketed toward filling in the "holes" in health care coverage.

Rebecca Owen has authored an article on opioid use. In it, she details how opioid use has turned into abuse and how the health insurance industry can help to solve the problem. It is an eye-opening article on how opioid abuse is much more widespread than just providers prescribing painkillers.

Kurt Wrobel, CFO and chief actuary for Geisinger Health Plans, explains the SOA's Affordable Care Act (ACA) Exchange Initiatives. His interview with *Health Watch* sets up the next two articles regarding the ACA. In the first article, Greg Fann outlines the evolution of the individual market, concluding with the final regulations implemented by the Obama administration as of December 22, 2016. Joe Slater, John Culkin and Josh Strupcewski opine on what the repeal and replacement of the Affordable Care Act could look like based upon information available in early December 2016, shortly after the presidential election.

This issue closes with a summary of Health Section highlights from the 2016 SOA Annual Meeting & Exhibit in Las Vegas last October.

Throughout 2017, the Health Section Council will sponsor a series of webcasts around the proposed and actual changes to the Affordable Care Act. The intent is to keep to the facts and be informational in order to keep the health actuarial community up-to-speed. These webcasts will be advertised as they become available.

We hope you enjoy this issue, and from all of us at *Health Watch*, we wish you a very happy spring! ■



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# Chairperson's Corner

By Brian Pauley

I remember my first Health Section Council meeting shortly after being elected just over two years ago. I was appointed to the secretary/treasurer role, which meant managing the section budget and meeting minutes, beginning with our annual face-to-face meeting in Chicago. I was in awe of how much work the council performed and wondered how I was going to meaningfully contribute amongst such a strong group of people. One year later, I became vice chairperson and had the opportunity to assist Elaine Corrough during her successful year as chairperson. It has been a great two years. Late in 2015, we had the idea of holding a strategic planning meeting for council leadership to set the direction for a strong 2016.

The vision of the SOA Health Section Council is to *prepare health actuaries for positions of leadership and promote the relevance of health actuaries.*

When a last-minute work commitment prevented Elaine from traveling, she asked me to lead the meeting. It is her belief in me, as evidenced in times like that, that gives me the confidence to lead this council. For that, I cannot thank her enough.

As council chair, I'm surrounded by 11 great fellow council members. The last two years of section elections have blessed me with what I call "blue chip recruiting classes." (I love college basketball, so I often use basketball analogies in leadership situations!) I want to give special mention to my vice chair, Sarah Osborne, and my secretary/treasurer, Karen Shelton. I first met

Sarah at my Fellowship Admissions Course (FAC) in September 2009. We have been fellow SOA volunteers and great friends ever since. And, although we work at different organizations, we now also work in the same city, Kansas City. I've known Karen through our education and examination committee volunteer work through the years. I am blessed to call her a great friend as well. You'll find no one with a bigger passion for what the Health Section Council is charged to accomplish than Karen. With people like this working alongside me, I'm confident that the council will have a successful 2017 and is in some of the best hands I can imagine for the years to come.

The vision of the SOA Health Section Council is to *prepare health actuaries for positions of leadership and promote the relevance of health actuaries.* I'm confident we have put the right processes and structures in place to execute on that vision. By the time you read this, each of the council and council leadership teams will have had planning meetings to ensure that our strategies and goals to execute on this vision are strong and sound. In the next issue of *Health Watch*, I'll bring you those details.

At 4,000 members strong, the Health Section is the largest special interest section of the SOA. My team will do everything in its power to deliver value for your section dues. That said, there is much to do. As an example, the election of Donald Trump to president alongside Republican control of both houses will have a definite impact on health care policy. The Health Section Council will be at the forefront of that and other discussions to ensure the health actuarial profession has a voice.

Finally, I hope you enjoy this issue of *Health Watch*. One year ago, we came up with the idea of an editorial board to facilitate the creation and publication of our flagship magazine. This publication is stronger than ever as a result, and I want to use it as much as possible to deliver superior value to you, the section member.

Happy New Year! ■



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# Up Front With the SOA Staff Fellow

By Joe Wurzburger

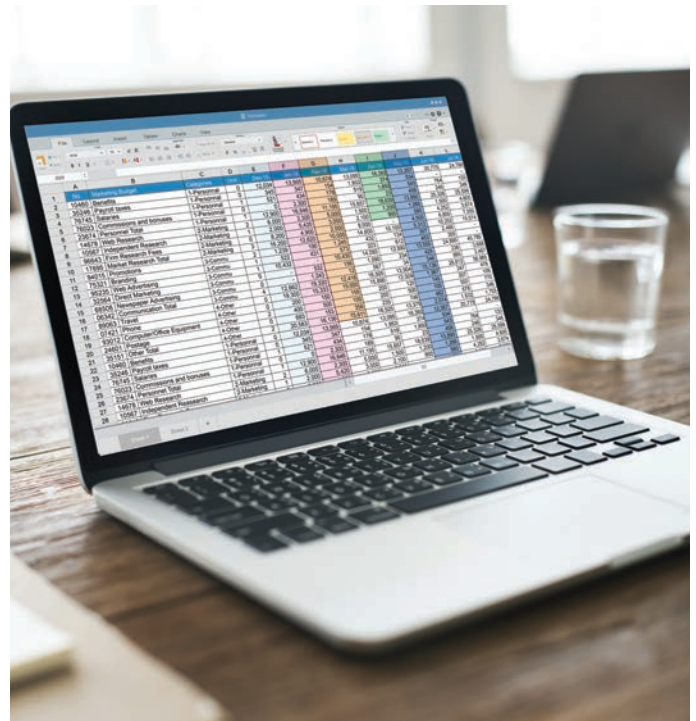
**B**y the time you read this column, the winter holiday season will have come and gone. That means that I have most likely watched the movie *Fred Claus* another 12 times or so. I love silly holiday comedies, and *Fred Claus* is one that my wife and I rewatch each holiday season.

One of my favorite scenes in *Fred Claus* is when Vince Vaughn's titular character, inspired by the sight of successful Salvation Army fundraisers, tries to raise money for his own selfish purposes by posing as the representative of a charity. Let me be perfectly clear—I do not condone his actions. But I do love the name of the charity he falsely represents: People Help the People. Look past Fred's devious intentions and consider the concept—isn't people helping people what life is all about?

I thought back to the idea of people helping people this past August when I was at the SOA's Valuation Actuary Symposium. I was a table moderator for the Buzz Group: Health Reserves Hot Topics session (a fantastic session, by the way, that is offered each year). Some people at our table shared an example of cooperation in the state of Alabama that benefited all who were involved. I followed up with a few of the key people who were involved with that experience, and I would like to share what I learned.

If you are a pricing actuary for a company offering products on the Affordable Care Act (ACA) exchange, you know that uncertainty surrounding risk adjustment payables and receivables makes premium rate setting even more difficult than it would be otherwise. Not only is the uncertainty a challenge, but the timing for the announcement of these amounts is generally too late to incorporate into pricing for the upcoming year.

Some people in Alabama took it upon themselves to work together to mitigate this challenge. The original request involved one company's CFO asking an actuary from another company if they would be willing to exchange risk adjustment information. After some internal discussion, it was determined that sharing with just one company wouldn't be beneficial. They denied the request, but fortunately it didn't die there. Both companies thought that the idea would in fact work on a larger scale.



One piece was missing, though. They needed an impartial aggregator and someone who could encourage participation from all (or nearly all) carriers in the state. So they placed a call to Steve Ostlund, an actuary with the Alabama Department of Insurance.

Ashley Smithson, an actuary at Blue Cross and Blue Shield of Alabama, explains: “The data was eventually going to be publicly available anyway, so we weren't trying to gain access to any private information. We were just looking for a way to gain access to the relevant data we needed for pricing in time to use it for our rate filings. And for carriers to feel comfortable about the privacy of their nonpublic data, we needed an unbiased third party.”

Steve started by reaching out to the handful of largest insurers in the state. Given the mechanics of the risk adjustment calculation, he needed these carriers to participate in order to have any hope of producing meaningful results. Fortunately, he got a swift response from them: they were all in.

With the biggest players in tow, Steve approached the rest of the insurers in the state and quickly obtained the necessary commitments. The project was a go, and it was time for Steve to implement the steps needed to complete the process.

“The worksheet was developed by staff at the companies,” Steve explains. “I provided confidentiality of results. ... I sent each company a copy of the input file. They input information from their RATEE report and returned it to me. I then copied each row for each company to allow the formulae to work on the

If you are a pricing actuary for a company offering products on the ACA exchange, you know that uncertainty surrounding risk adjustment payables and receivables makes premium rate setting even more difficult than it would be otherwise.

aggregate of all companies. After I had results, I pasted values in and deleted each row associated with another company, so a company only saw the summary table and their own data.”

Providing the data was administratively very easy for each participating company, since the RATEE file is an output file received after a submission to the EDGE server. This just added one more step to that process in terms of dropping that data into the spreadsheet template and sending it to Steve.

Ashley says that Steve turned the data around in less than five days, making it possible for companies to incorporate that information into their rate filings. And as it turns out, the risk adjustment transfer estimates were very accurate.

The vibe I got sitting around that Buzz Group table at Val Act was very positive from those who had been involved in the process, and Ashley concurs. “Risk adjustment transfers are very volatile, even for carriers that enroll a substantial portion of the risk pool. This process helped us significantly.”

Ashley shared that this process will continue in Alabama going forward. In fact, it may even be expanded, as interim reporting is being contemplated that would provide partial updates during the year to allow for more proactive planning for each participating company.

This process worked in Alabama primarily due to widespread carrier participation and the presence of an impartial regulator aggregator. Perhaps it would not work as well in other states. But it seems like a worthwhile case study that demonstrates what can be accomplished when actuaries work together and find win-win solutions to challenging issues.

After all, that’s the mission of People Help the People, and we wouldn’t want to let Fred Claus down. ■



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# Leader Interview

With Catherine Murphy-Barron

Catherine Murphy-Barron, FSA, MAAA, is a principal and consulting actuary with Milliman Inc. in New York, where she focuses on health insurance and managed care consulting. Cathy is a long-time volunteer and former vice president, Health, with the American Academy of Actuaries. Greg Fann, FSA, FCA, MAAA, conducted the interview.



Catherine  
Murphy-Barron

## ON BEING AN ACTUARY

**Health Watch:** How and when did you decide to become an actuary?

Catherine Murphy-Barron: I grew up in Ireland, where actuarial work was not a common profession, so I actually didn't know what an actuary was until I was in my early twenties. By then I had come to the U.S. and was working as a bookkeeper for an insurance agency in Omaha, Nebraska. I was trying to find a career that would be more fulfilling, when a co-worker said in passing that she thought I would make a good actuary. I did some research, talked to a friend of a friend who was an actuary at one of the Mutual of Omaha companies and decided this was the career for me!

**HW:** What other careers did you consider? Or if you have had other careers, can you describe them?

CMB: I'm not sure that you would call them careers, but right out of college I worked as a travel agent. This was in Ireland and at the time, with a 25 percent unemployment rate, I was lucky to have a job. About nine months into the job, the bookkeeper at the travel agency quit and they asked me to fill in, which made sense given my business degree. After I moved to the U.S. I was able to get a job as a bookkeeper for an insurance agency, since I had the prior experience.

**HW:** What was your favorite job before you became an actuary?

CMB: I didn't particularly enjoy any of the jobs I had before becoming an actuary. I really struggled to figure out what I wanted to do. Actuarial work appealed to me because I loved the idea of using mathematics to predict the future, but my big concern was, what if I spent years taking my exams, finally got a job as an actuary and hated it, after all that work and money? On the first day of my first actuarial job I sat in the weekly staff

meeting while they discussed the various upcoming projects and all I could think was that this had to be the coolest job on earth. I came home that night and I was on cloud nine! I still feel that way today, twenty-five years later.

**HW:** What has been most crucial in your development as an actuary?

CMB: I think for me it's been learning to see the big picture. As actuaries, we start out as mathematicians. Early in our careers we are building the models, working with equations, and we can miss the forest for the trees. We have to learn to look up. Why are we creating this model? What is it that we are trying to prove? As actuaries, our natural tendency is to play with the numbers. If we don't look at the big picture then we get pigeonholed as technicians, when we actually have the ability to help people identify the larger potential risks underlying their actions and the consequences of those actions.

**HW:** Looking at your career as an actuary, do you see any important learning milestones or turning points in your career?

CMB: About 10 years after getting my FSA, I decided to get an MBA. It was something that I had been thinking about for a while. At work, I was interacting with company leaders, CEOs, CFOs, boards of directors, and while I understood the actuarial side of the business, I wasn't sure I understood everything that these leaders think about. What kept them up at night? I decided an MBA would give me that insight. I have to say that I found the experience very satisfying. It gave me a perspective that I didn't have before. We see the actuarial and financial side of our client's business, but we don't often get involved in the bigger picture. I feel my MBA has given me another way of looking at my world, and that, combined with my actuarial viewpoint, is valuable to my clients and my staff.

Another important milestone for me was the realization that things don't always turn out the way you expect them to, and that's OK. My approach has always been to determine my career goals, make a plan, and then work hard to reach those goals. But sometimes things don't go as planned. I started my career as a life insurance actuary but switched to health simply because we moved to a new city. That move changed my direction and my goals. The big surprise was that the result was much better than anything I had dreamed of.

**HW:** As an actuary, what keeps you awake at night?

CMB: I work in health care, so there's a lot that keeps me up at night. I came to the U.S. when I was 22, and America has been very good to me. After I got my FSA I decided that I wanted to give back to this country that has given me so much, so I joined the American Academy of Actuaries Uninsured Workgroup.



I wanted to participate in an effort to bring health insurance to those who were unable to get it. This desire hasn't changed. As an actuary, dealing with health care reform in the last few years has been both exciting and terrifying. On the one hand, here was an opportunity to make some real headway. On the other hand, the resulting uncertainty and constantly changing rules have meant that the reform has not entirely achieved the objectives intended by its creators.

I worry about the risk to the U.S. health care system as a whole and the risk to the actuarial profession. Actuaries are trying to do quality work in a very volatile environment while at the same time trying not to get caught up in the politics of the reform. Given that we now have a new administration which will likely bring even more change, it's likely to be a while before I get a good night's sleep. Even so, I wouldn't want to be doing anything else.

### ON BEING A LEADER

**HW: How much did your actuarial training prepare you for this role? What additional training—formal, informal or otherwise—did you need to be successful?**

CMB: Taking actuarial exams and going through that process was about learning to be an actuary, not a leader. And I think that's appropriate. I learned how to be a leader from my co-workers and mentors, from watching those around me. I am lucky enough to work at Milliman, a highly regarded actuarial consulting firm, and I have worked with some really dynamic and creative consultants over the years. I see how they lead, how they interact with their clients and staff, and I try to incorporate that into my approach. That said, you can't just copy what others do; you have to make it your own. Put your own voice to it.

I also read a lot of self-help books. My husband always jokes that when I want to learn something new, the first thing I do is go out and buy a book. My approach has always been to figure out where I want to go next in my career, determine what skills I need to get there and then figure out how to learn them.

**HW: What are the most important lessons you've learned in your role?**

CMB: I think the most important thing I learned is to let go. There is more than one way to approach a problem, and just because someone approaches a problem differently, that doesn't mean their approach is wrong. I have found that the best way

With respect to leadership, I want someone that our people trust. Someone who leads by example and lets their people shine.

to get results is to give your people the project/task, make sure they understand what we are trying to achieve and then get out of their way and let them do it. More often than not you won't be disappointed.

**HW: Let's say you're hiring your successor. If you're presented with two actuaries with equivalent experience and training, what characteristics will help you choose one over the other?**

CMB: With respect to leadership, I want someone that our people trust. Someone who leads by example and lets their people shine. Give the staff the opportunity to accomplish the task and, when they do, give him or her the credit for doing so. I also want someone that recognizes that, when push comes to shove and something has to get done, he or she is willing to roll up their sleeves and jump in to help out, no matter how menial the task.

**HW: Describe the biggest one or two challenges that you have faced in your role.**

CMB: I think my biggest challenges have been managerial. In the beginning I had a hard time letting go. It's hard to give up control of a project. I had to force myself not to micromanage. The other challenge I had to overcome was how to manage relationships—you can't really be a friend as well as the boss. There may be times when you have to make difficult decisions that you don't want to do to a friend but ultimately, you have to. It's your responsibility to the company.

**HW: What advice would you give to another actuary going into a leadership position for the first time?**

CMB: It can be very fulfilling and fun. Just remember to trust that you have hired the right people and let them do their thing. ■

# An Executive Roundtable on the State of Predictive Analytics in U.S. Health Care

By the Society of Actuaries

*Editor's note: This article originally appeared in Modern Healthcare. Copyright © 2016 by the Society of Actuaries. Reprinted by permission.*

**W**ith the expansion of risk in health care, the ability to predict needs and outcomes is more important than ever. Mining data, forecasting probabilities and trends, and ultimately managing risk, is a burgeoning area for health care through predictive analytics.

Six executives from across the country gathered in Philadelphia on Aug. 30, 2016, to share how their organizations are approaching predictive analytics through processes, employee training, department structures and more. Here are the valuable insights—and successes—they shared.

## How are your organizations using predictive analytics?

**Carol Haines:** In our emergency department, we started identifying for clinicians the patients who are a potential readmission. When a patient visits the ED, it shows up in a real-time dashboard whether the patient was admitted within the last 30 days. This helps the clinician think about how they could possibly treat this patient differently to avoid a readmission.

**Kurt Wrobel:** For us, it's identifying abusers of the system. We sift through our data to find the few percent who increase the cost of care. We can remove those abusers from the network and start predicting those who will become abusers based on early behavior. In many cases we actually report them to law enforcement for fraud.

**Pamela Peele:** Once a patient consumes a lot of care and we realize they need care management, it is too late to impact the situation. We have a very exciting predictive model called Project Flashlight, which predicts which patients are going to need high-touch care management as they enter the UPMC Health Plan.

How do we do this? We purchase publicly available data and retrospectively analyze who consumed a lot of care. Then, we compare it to our data to run a prospective model, predicting who would consume a lot of care based on the entire population. It works beautifully. The math is still on my whiteboard; because it is such a thing of beauty, I cannot bring myself to erase it.

**Jim Dunn:** I spend a lot of time thinking about where hospital talent will come from in the future. Where are they now? Where will they be in five years? So we do a lot of predictive analytics around replacement of key clinical staff, turnover metrics and more. For instance, we cannot predict exactly when people are going to retire, but by flagging employees who have run their retirement and pension plan numbers three times in one year, that's a predictor for me to start looking for that position's replacement.

## How are your organizations currently challenged with data?

**Carol Haines:** Gathering the data and being able to use it has been a challenge. Health care is in a time of mergers and acquisitions, and acquiring providers on different technology systems exposes the problem that we have too many disparate sources of data and no common definitions.

**Pamela Peele:** As an industry, we need more standardization. The root of the problem is that all the data we're using now was created to do something else. For instance, claims data are bills to be paid. But then we grab it and pretend to do population health management with it.

**Jeffrey Driver:** We too are challenged by the state of today's data. Our approach is to actually accept the world as it is with disparate data sources and look at it as a bowl of individually wrapped candies. We created a system that acts as a "shrink wrap" around all of those candies—that data—to translate the disparate sources into one language. We built this with funding from our insurance company and in conjunction with a vendor.

**Paul Savage:** That is a viable approach, for now. But we still don't have a national standard for health care data. When banks started to process electronic transactions, a single standard was created. Health care data is far too valuable to not treat it the same way.

Predictive analytics will better match physicians and patients in the future in the hopes of better achieving mutually desired outcomes.

## What can predictive analytics accomplish?

Jeffrey Driver: What we're really jazzed about is taking decision analytics to the patient level. We have the technology and are steering it toward end-of-life care, as this is a very costly area in health care but has almost no planning or structure around it. (Research also shows there's a complete discord between the patient's thinking about prognosis and the clinician's.)

So, we are developing our proprietary system to scan and "read" the information contained in a medical record over a lifetime, as well as personal documents, to discover what that patient's values are. Then, we will compare that against the quantitative information and research available about their prognosis—generating a framework of the patient's values against what is actually possible in medicine. This will help the patient and physician make keener decisions.

Paul Savage: The end-of-life application is a valuable one, because the culture of health care right now is to provide whatever care is necessary for as long as possible to sustain life to 100 years old. That mind-set needs to change. The actuaries of Medicare recently released that by 2025, \$5.6 trillion will be needed for the cost of care. That's untenable.

Kurt Wrobel: I agree, this is a huge issue. It is where a lot of our expenditure goes.

Pamela Peele: We've learned that social determinants are incredibly important in predicting outcomes. Patients who live alone or have experienced a significant life event within the last year—situations such as these affect clinical outcomes. A very important piece of data we use in predictive modeling is the deprivation index, which captures the social resources available to patients within their ZIP code. This is free information. We find that it correlates with the topology of chronic conditions and helps us identify where additional resources need to be deployed, based on where a patient lives, to impact outcomes.

This is important because, starting next year in Pennsylvania, the insurer will be responsible for more than just formalized care. They will also be tasked with making the patient's home accessible, exterminating pests, putting in chair rails and more. A scope of services far beyond medicine.

## How is your organization's culture changing to adopt data analysis and predictions?

Kurt Wrobel: We're trying to figure out how to take a system that's broken, disjointed and inflationary and make it more efficient. And we are going to, but it will take time. I believe we will see a group of incremental wins that will fuel predictive modeling, leading to more change.

Applying predictive analytics to end-of-life-care is a very costly area in health care but has almost no planning or structure around it.

Pamela Peele: As an industry, we're not even thinking about the fact that financial risk has been pushed onto providers who are not trained to handle or manage it. In an effort to manage it, clinicians are turning to data. We're not pushing it down their throats—they're coming with their plates hungry for it, because they need that information to understand where they are against their financial risk.

Jim Dunn: When departments receive data and are ready to fix a problem, sometimes the informal internal systems will not allow these changes to happen. You will need someone, or a group, to change the culture and processes that allow for change.

Carol Haines: Our organization has actually received data so well that the demand increased immediately. And we didn't have a process in place to screen for what data is being asked. Now, we ask internal stakeholders whether pulling and analyzing a certain set of data is going to add value to the organization. If you're asking for the data, is it actually changing something? Or is it just that you want to "know"? We have limited resources and need to think very seriously about where we spend them.

Jeffrey Driver: What we've done is gain acknowledgment for the usefulness of data and then marry it with design thinking. This involves bringing groups of people together to decide what the data is telling them and what are they going to do about it—but then instead of reaching for cookie-cutter solutions, engineer solutions that actually work in the culture and the place where the problem exists.

## Can predictive analytics be done wrong?

Kurt Wrobel: Yes. Health care is increasingly learning to value data; the problem is when people interpret the information without enough training. Certain disciplines and professionals asked to interpret data without the background to fully understand it is very problematic.

Paul Savage: Indeed, unaided analytics is very, very dangerous. It has limited the power of predictive analytics because when you have someone using it inappropriately, it's ineffective.

Jim Dunn: There is a qualitative component to this. In health care we do well with hard data, but no different than mergers

and acquisitions, it can fail because of soft components like culture changes and communication issues.

**What skills, training and professionals will propel health care in predictive modeling?**

**Pamela Peele:** The value of analytics to an organization is the amount of influence those analytics have on decision making. So, I have two journalists in my shop whose job is to make the data consumable to the end user. I have 30 employees now, and we are growing to 50 in the next year. I credit the journalists entirely for the approval in expansion because they've properly communicated the value.

**Jim Dunn:** We need to look at the ability to use data in decision making as a core competency for onboarding and hiring leaders. Too many organizations are not screening leaders' backgrounds and how they understand and read data—we just leave it up to random groups of people who understand how to do it. Moving forward, these must be considered core competencies.

**Kurt Wrobel:** As an actuary, I value what actuaries bring to the table: professionalism and regulatory knowledge. We don't want "data pullers" in our organization. Geisinger errs on the side of training rather than recruiting in this area, so we've built a culture around rewarding those who pass actuarial exams. We emphasize the importance of the actuarial credential for analytics.

**What does the future of predictive analytics look like?**

**Carol Haines:** To me, it is pairing the right clinician with the right patient. We need to start looking at outcomes based on personalities, education and physician preferences. Some physicians are better at taking care of certain types of patients. So, the outcome that's desired by both patient and physician—not necessarily desired by society or the health plan—that's an exciting frontier.

**Jeffrey Driver:** The law of accelerating returns tells us that even though we are at the beginning of predictive analytics in health care, we will see faster returns as time goes on. Think about how in the 1960s we were using calculators, and today we have phones that communicate with our watches. The successes in predictive analytics will be copied and amplify across the industry, creating faster adoption. There is no doubt that predictive modeling will be woven into the future of health care. ■



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Kurt Wrobel, FSA, MAAA, is chief financial officer and chief actuary at Geisinger Health Plan.



Christina Galoozis, moderator of the roundtable, is with Modern Healthcare Custom Media.



Pamela Peele, Ph.D., is chief analytics officer, UPMC Health Enterprises.



Paul Savage is CEO of Healthcare Intelligence and chairman of the Health Analytics Institute at Iona College.

# Mining Electronic Health Records to Achieve the Triple Aim

By Lillian Dittrick

**A**s a predictive analytics leader, I apply my traditional health insurance background and actuarial training to my role leading the risk analytics team at UnityPoint Health, one of the nation's largest nonprofit health systems. Our diverse team includes an engineer, actuaries, former health insurance underwriters, certified public accountants (CPAs), data scientists and a statistician. Together, they use advanced analytics to build more complete patient risk stratification models by mining claims, clinical and social determinant data in new ways.

Hospitals and health systems are increasingly designed to excel at the triple aim of providing patients with quality care and optimal experience at a lower cost. The challenge is achieving financial viability in a changing environment as it shifts from fee-for-service to value-based care. This rapid transformation is offering unprecedented opportunity for those of us working in health care analytics. One step toward achieving financial viability is making use of accurate coding and documentation of electronic health records.

My team and I developed an application to cull unstructured doctors' notes in electronic health records (EHRs) using a natural language processor (NLP). Although the use of EHRs has increased substantially, millions of unstructured, free-form doctors' notes, rich in medical information, continue to go

## CONSIDERING A NONTRADITIONAL CAREER IN PREDICTIVE ANALYTICS?

An actuary's skill set is naturally aligned with current and emerging trends in health care, especially as providers move away from the fee-for-service model and take on more risk. Companies need people who understand the data and how to analyze it, recognize its shortcomings and communicate the findings, and actuaries get that kind of specialized, broad training.

Learn more about predictive analytics opportunities at <https://www.soa.org/predictive>.

untapped. This article explains how the team is mining electronic health records to find previously undiagnosed at-risk patients to improve care management more efficiently.

The work my team does centers around making sure providers realize the value of the services they deliver. At its core, being able to realize the value of these services comes from accurate coding and documentation to provide appropriate care management and get reimbursed for services rendered. At the end of the day, providers can only get paid for what they correctly code.

To help our network of providers realize the value of accurately coding their services, we are taking the massive amount of data in EHRs and running it through annotators we developed in an NLP. It captures clinical data and translates it into useful insights, which we are using to improve patient outcomes.

There's still room for progress. We estimate that up to 20 percent of our diagnosis codes are not recorded in structured fields. We imagine this is not unique among health care systems. Because this kind of undercoding impacts both timely disease identification and billing, we are using the NLP to turn this unstructured data into structured data.

The NLP can scan doctors' notes for valuable information, such as family history and ailments, to help predict patients' medical needs. It can also help identify chronic conditions that have not been recorded in structured fields in electronic medical records.

This enriched information can be used to complete patient risk stratification models, including risk scores, and to analyze missed coding opportunities.

The NLP annotators have "cognitive" abilities similar to human coders. We are using the annotators to analyze unstructured data for diabetes and chronic obstructive pulmonary disease. Our next analysis will be around social determinants of health, such as living arrangements and employment status, to help with care management initiatives.

Some of the other models we developed using EHR data include a clinic appointment no-show model and a staffing model to forecast patient demand and guide staffing levels.

While nothing in health care can be predicted with certainty, actuaries use predictive analytics to identify new models of care that improve health care quality, costs and outcomes for our patients. ■



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# Will the Medicare Supplement Market Have “2020” Vision in the World of MACRA?

By Kenneth L. Clark

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Recently passed legislation referred to as MACRA (Medicare Access and CHIP Reauthorization Act of 2015<sup>1</sup>) will, among other things, affect the Medicare Supplement industry in calendar year 2020. Specifically, the Part B deductible can't be covered. Therefore, Plan F will no longer be an option for individuals newly eligible for Medicare starting January 1, 2020.<sup>2</sup> However, in-force policyholders will be able to keep their current versions of Plan F, and individuals eligible for Medicare prior to January 1, 2020 (i.e., not “newly eligible”), can purchase the current version of Plan F on or after January 1, 2020.

For the Medicare Supplement market, the news is mixed. Overall loss ratio experience (and resulting premium rate pressure) could be more favorable for several years following the implementation of MACRA. However, retention dollars (premium less claims) will most likely be reduced due to MACRA.

Individual carriers are in a position now to plan a course to proactively mitigate risks or exploit opportunities. I recommend analyzing the financial impact of MACRA implementation on your Medicare Supplement product portfolio to provide insight into appropriate next steps. Using a model built from our knowledge of the market, we have simulated the future policy issues of Medicare Supplement Plans F and G and made some interesting observations.

## THE MEDICARE SUPPLEMENT MARKET WILL SPLIT INTO TWO DISTINCT MARKETS

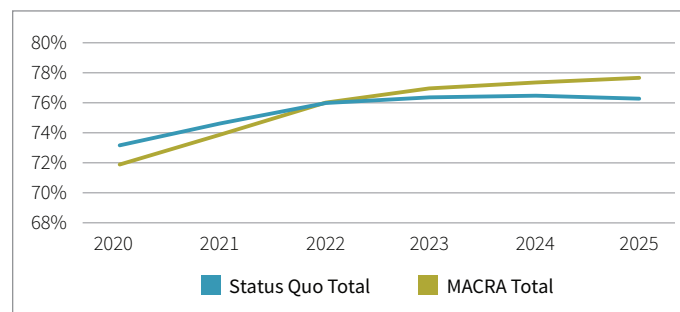
What we now consider one market for Medicare Supplement will effectively become two markets starting in 2020. We will call them Newly Eligible (NE) and Non-Newly Eligible (NNE). This is terminology from the regulatory language that specifies eligibility to purchase Plan F (or Plan C). The NE

market will consist of individuals who reach the age of 65 on January 1, 2020, and later. Over time, this market will have an increasing maximum age and a minimum age of 65.<sup>3</sup> The NNE market will consist of individuals who reach the age of 65 before January 1, 2020, and an increasing minimum age but no maximum age.

## OVERALL LOSS RATIO EXPERIENCE BETTER INITIALLY FOLLOWING MACRA IMPLEMENTATION

Based on modeling various reasonable scenarios of the Medicare Supplement market, experience on policies issued in 2020 and later should initially exhibit a loss ratio as much as 1.0 percent to 2.5 percent lower than would otherwise be the case. The reason is that exposure to the non-medically underwritten higher-loss-ratio open enrollees will shift from Plan F to Plan G, a lower benefit plan. Therefore, the higher loss ratio business has lower exposure and the overall loss ratio is lower, all else being equal. This loss ratio improvement will likely last for a few years and then reverse, with portfolio loss ratios realizing a steady increase in future years as Plan G exposure overtakes Plan F. Figure 1 illustrates this pattern based on our overall projection of the market with and without the implications of MACRA.

Figure 1  
Projected Loss Ratios, Plans F and G—2020 and Later Issues



Source: Projections based on key assumptions noted, including the Health Coverage Portal by Mark Farrah Associates, Medicare Supplement Insurance Experience Exhibit data as filed in NAIC annual statements.

### Key assumptions for this scenario:

- Issue status distribution (UW/OE/GI)<sup>4</sup>:
  - Plan F: 40%/40%/20%
  - Plan G: 50%/50%/0%
- Issue status morbidity relativities (UW/OE/GI): 1.0/1.1/1.3 excluding UW selection
- UW selection factors by duration for UW status
  - Year 1: 75.0%
  - Year 2: 87.5%
  - Years 3+: 100.0%

- Annual sales (before MACRA impact) as a percent of Medicare FFS
  - Plan F: 3.0%
  - Plan G: 1.1%
- Current market based on MFA Medicare Supplement database consisting of NAIC source data.<sup>5</sup>

Plan F sales, which will only be available to the NNE market, will consist of a greater portion of healthier underwritten business than under the current environment. Plan F will still be available to NNE individuals under guarantee issue provisions.

Conversely, Plan G will likely comprise a greater portion of higher cost/utilization open enrollment and guarantee issue business from the NE market. As the NE market grows and the NNE market shrinks over time, the relative mix of Plan F and Plan G will shift and the market will be more reflective of Plan G experience.

Initially, the favorable underwritten Plan F experience issued at higher rate levels could offset the negative Plan G experience. As time goes by and Plan G becomes an even greater portion of the market, this relatively unfavorable experience will overcome the positive Plan F experience unless corrective action is taken. The aggregate impact may remain positive for numerous years.

How can MACRA possibly have an overall more favorable impact on experience initially? This scenario occurs if the higher cost/utilization individuals otherwise choosing Plan F under an open enrollment or guarantee issue provision are either forced to or allowed to purchase Plan G at a reduced premium and benefit level. This essentially reduces the exposure for these individuals. Until such time when future Plan G sales significantly outpace Plan F sales, these results could continue for several years. However, if there is a complete shift immediately to Plan G regardless of the availability of Plan F, then experience will be worse immediately under MACRA enactment than

without MACRA enactment. To demonstrate, Figures 2 and 3 show the separate Plan F and Plan G results that make up the total loss ratios for both plans depicted in Figure 1.

### RETENTION DOLLARS TO BE LOWER FOLLOWING MACRA IMPLEMENTATION

In spite of more favorable experience, however, retention dollars are expected to be lower for all years following MACRA implementation. The impact through 2025 could be in excess of \$2 billion for only the Plan F/G market. This reflects the profitability on the Part B deductible coverage that goes away.

This is due to a higher proportion of Plan G sales that correspond to both a lower benefit value and a lower overall premium amount. To the extent administrative expenses reflect a fixed per policy or claim component or corporate overhead component, this will squeeze profit margins and place upward pressure on rate levels, all else being equal.

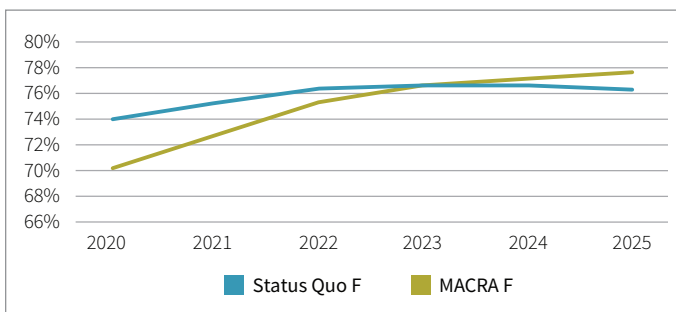
### SPECIFIC CARRIER EXPERIENCE VARIES BASED ON PARTICULAR CIRCUMSTANCES

Overall market movement reflects a composite of independent carriers. The experience of a particular carrier will reflect its particular pricing structure and position in the market. This will determine the extent to which market patterns will be replicated. There will be carriers on each side of the market pattern. Some will see overall results deteriorate and require additional rate action, while others may use this as an opportunity to improve competitiveness.

Key considerations include:

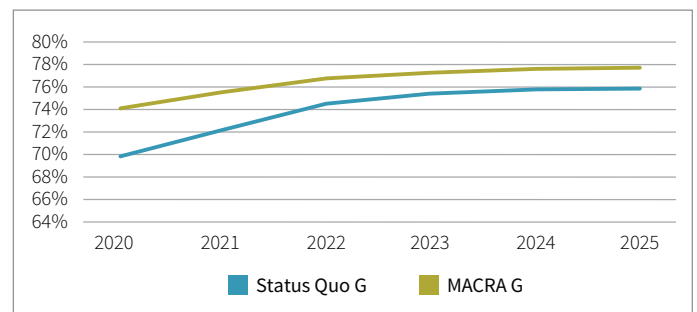
- The volume of pre-MACRA business exposure available to absorb the initial impact at least in the early years
- The relative experience/rating differential of a carrier's Plan F versus Plan G, including age rate slope

Figure 2  
Projected Loss Ratios, Plan F—2020 and Later Issues



Source: Projections based on key assumptions noted, including the Health Coverage Portal by Mark Farrah Associates, Medicare Supplement Insurance Experience Exhibit data as filed in NAIC annual statements.

Figure 3  
Projected Loss Ratios, Plan G—2020 and Later Issues



Source: Projections based on key assumptions noted, including the Health Coverage Portal by Mark Farrah Associates, Medicare Supplement Insurance Experience Exhibit data as filed in NAIC annual statements.

- The relative mix of underwritten, open enrollment, and guarantee issue business before and after MACRA and the relative morbidity level difference among them
- The level of underwriting (i.e., full versus simplified) performed

### COMPANY POSITIONING FOR MACRA STARTS NOW

Each carrier will have its own circumstances and position in the market along with unique experience levels, sales targets, and rating structure. The time to begin the process of positioning your Medicare Supplement product for 2020 is now. Policy development and rating decisions will need to be finalized well in advance of the end of 2019 for plans sold in 2020.

#### What Steps Should Carriers Take in Anticipation of Future Claim Shifts?

MACRA will undoubtedly change the demographic mix of different plans in opposite directions. The impact on claim levels can be estimated by modeling future results that reflect current demographics and underlying experience along with the expected impact of MACRA. Model results provide a guide to quantify the need for future rate action and could help answer the following questions:

- Is this an opportunity to scale back on Plan F rating action in anticipation of future shifts? If so, by how much?
- What is the right balance to be able to strengthen Plan G rate levels in anticipation of MACRA, while at the same time remain competitive in this new environment?

#### What Market Opportunities are Available Both Before and After 2020?

The implementation of MACRA will undoubtedly change the Medicare Supplement landscape. There are multiple potential scenarios to recognize for both existing carriers and potential new entrants. Scenarios to consider and analyze may consist of the following:

- Will Plan G sales increase as new carriers enter the market with a focus on Plan G?
- Or will consumer education and agent/broker influence result in a “run” on Plan F sales to a greater degree than exists even today?

- At what point will the market anticipate the impact of MACRA and narrow the F/G gap in pricing?

Whether a carrier has a large volume of Medicare Supplement exposure or is a new market entrant, MACRA will have an impact. While Plan G will ultimately replace Plan F, there is still a place in the market for Plan F in the near future. A carrier’s ability to properly position these respective plans will require “2020” vision.

### LIMITATIONS

Projection results reflect a limited set of plausible scenarios. Future results that emerge will differ from projection assumptions. The intent of projecting future experience under various feasible assumptions is to identify the likely pattern and timing of Medicare Supplement experience in 2020 and beyond due to MACRA legislation. Specific carrier experience will vary based on particular circumstances. ■

*Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in actuarial communications. I meet the qualification standards of the American Academy of Actuaries to render the analysis contained herein. The opinions expressed in this report are those of the author alone and do not necessarily reflect the opinions of Milliman or other employees of Milliman.*



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### ENDNOTES

- 1 Public Law 114-10—Apr. 16, 2015; 129 Stat. 87. Congressional Record. Vol. 161 (2015). Retrieved January 21, 2016, from <https://www.congress.gov/114/plaws/publ10/PLAW-114publ10.pdf>.
- 2 The same fate will impact Plan C. However, for the purposes of our discussion, we will focus on Plan F.
- 3 For the sake of this discussion, we are ignoring under-age-65 Medicare enrollees.
- 4 UW = medically underwritten; OE = open enrollees; GI = subject to guarantee issue provisions.
- 5 Health Coverage Portal by Mark Farrah Associates, Medicare Supplement Insurance Experience Exhibit data as filed in NAIC annual statements.



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# Medical Out-of-Pocket Products (MOPPs) Overview

By Rex Durlington

This article is based on a canvass of products variously referred to as deductible plans, cost-sharing coverage, major medical complement or gap plans. For the sake of simplicity and to avoid confusion with Medigap plans for those on Medicare, I refer to these products as Medical Out-of-Pocket Plans, or MOPPs.

The goal of my research was to determine the extent of the products and designs, compare and contrast features and analyze the price ranges for similar offerings. In researching this product line, I relied heavily on public filings and my own product development and pricing experience within this market.

MOPPs of any volume date back to 2009 or so and generally coincide with the growing popularity of health savings accounts (HSAs) and high-deductible health plans (HDHPs). The advent of HDHPs moved a larger share of the cost of health care onto the consumer. MOPPs were designed to ease the burden of high out-of-pocket first dollar costs on the consumer.

## THE MARKET

The marketplace for MOPPs is almost exclusively made up of group products, as they are essentially tied to group major medical coverage. MOPPs are usually sold as group coverage to diminish potential anti-selection by individuals (“I’m buying it because I know I will spend more than the premium and deductible”). Group participation requirements may vary between 100 percent participation, a minimum level of participation or individual underwriting if the group participation levels are not met (voluntary purchase).

MOPP coverage writers enjoy at least these accompanying advantages:

1. Since a condition for coverage is that the insured has a primary medical plan, the adjudication of claims is done at the primary carrier—an administrative savings.
2. MOPP benefits are considered “excepted benefits” under the Patient Protection and Affordable Care Act (ACA),

eliminating a lot of ACA red tape (see note on “excepted benefits”).

3. There is no need for reinsurance, as the maximum benefit is related to the out-of-pocket maximum of the primary carrier, that is, the primary carrier is the de facto specific reinsurer.

Note: There are four “excepted benefits” safe harbor provisions: (1) the plan is issued by an entity other than the primary carrier; (2) the plan is designed to fill gaps in primary coverage; (3) the cost of coverage must not exceed 15 percent of the cost of primary coverage; and (4) the plan must not differentiate among individuals in eligibility, benefits or premiums based on any health factor of an individual.

I identified about a dozen offerings (principally small group plans) in the market as of the start of 2016, which form the basis of this article.

## BENEFIT DESIGN

The medical expenses covered are usually inpatient, outpatient, office visits and ambulance. The “cleanest” designs simply state they cover the deductibles, copays and coinsurance required under the primary plan. Other designs limit the reimbursement or put additional conditions on benefits such as ambulance use (accident only, subsequent admission). Office visits also may have a limit on the number of visits and a reimbursement cap per visit or per person. I feel that the fewer exceptions built into the product design, the more palatable the product will be to the consumer. Matching the coverage gaps of the primary insurance with the product design is key to an effective offering.

Some other explicit benefit variations are listed here:

- Prescription drugs
- Radiation/chemotherapy
- Radiological tests
- Durable medical equipment
- Hospice
- Vision
- Physical therapy
- Mental health
- Critical illness
- Specialist fees

In a couple of plan designs it was noted that inpatient benefits are not provided. When designing a product, my recommendation is to keep it simple, that is, follow the “clean” design of covering deductibles, copays, coinsurance and out-of-pocket limits of the primary plans. In addition, to truly be a product that covers the cost-sharing “gaps” and to avoid confusion for the consumer, a zero deductible/zero coinsurance option is recommended.

## BENEFIT LEVELS

Table 1 shows a broad range of benefit levels found in the market. Two variations are shown of typical policy provisions.

## EXPECTED DISTRIBUTION

Table 2 shows observed variations in expected distribution by tier.

## RATE MANUAL FACTORS

A sample of rate manual factors is shown in Table 3 (on page 20). Adjustment factors shown are for illustrative purposes only.

## UNDERWRITING CRITERIA

MOPPs require primary coverage under a “major medical” or “comprehensive medical plan.” A distinction between the two was not found in the filings, but a general definition would include a requirement that the insured person pay a deductible, copayment and/or portion of coinsurance as part of their coverage and includes:

- Group or blanket insurance plans
- Group Blue Cross/Blue Shield
- Other group prepayment coverage plans
- Coverage under labor-management trustee plans
- Union welfare plans
- Employer organizational plans
- Employee benefit organizational plans
- Self-funded plans

Comprehensive or major medical plans do not include limited medical plans, Medicare, Medicaid, CHAMPUS or Tricare.

Pre-existing conditions and full or simplified underwriting generally do not apply except in cases of late enrollment (if allowed). Waiting periods may apply for new hires. Participation requirements generally apply for voluntary benefits.

With virtually no underwriting available for MOPPs, a key concern should be adequate participation and avoidance of anti-selection, or “cherry-picking,” by applicants who anticipate

Table 1  
Benefit Level Variations

Benefit Category	Variation Set 1	Variation Set 2
Inpatient	\$500–\$10,000	\$500–\$15,000
Outpatient	\$50–\$7,000	10%–70% of inpatient max
Ambulance	\$100–\$1,000	\$50–\$350
Office visits	\$10–\$250	3–12 visits/insured/year
Prescription drugs	\$5–\$25	5–12 scripts/insured/year
Deductibles (employee)	\$0–\$2,000	\$100–\$5,000
Coinsurance	0%–20%	10%–50%
Family multipliers	2 times employee limit	3 times employee limit
Age bands	0–39, 40–49, 50+	18–49, 50+

Table 2  
Expected Distribution Variations

Tier	Employee	EE+Spouse	EE+Children	Family
Distribution A	63%	11%	9%	17%
Distribution B	49%	15%	10%	26%
Distribution C	75%	8%	8%	9%
Distribution D	50%	15%	10%	25%
Distribution E	69%	9%	12%	10%
Distribution F	76%	8%	6%	10%

higher utilization of benefits. Adjustment factors to the rates should be considered based on the number of lives covered or a minimum level of coverage.

As noted in the “Rate Manual Factors” section, group size may impact pricing, and loss ratio requirements will vary among individual, small and large groups.

The application captures who will be covered, who is eligible for coverage, for what benefits and at what benefit levels. In addition, information on the primary carrier should be included. In order to have the most flexibility with potential applicants, the following questions address many of the nuances in the applications:

- Are all (potential) insureds covered on the major medical plan?
- Are there employees eligible for Medicaid, Medicare, CHAMPUS or Tricare?

- Are all employees actively at work and able to perform regular duties?
- Are any insureds currently disabled?
- Are retirees eligible?
- Are retirees under 65 eligible?
- Are surviving spouses eligible?
- What is the number of COBRA eligibles?
- What is the hours-per-week requirement for eligibility? (Range from 18 to 30 hours per week noted.)
- Does this plan replace similar coverage?
- How many are eligible by category—full-time, part-time, eligible employees?
- How long is the desired waiting period?
- Does the waiting period apply to new hires only or all employees?
- Is any coverage offered via a cafeteria plan? Which benefits?
- Who is the major medical carrier?

Table 3  
Rate Manual Factors

Factor	Value	Adjustment
Family maximum	2 times employee max	95%–97.5%
	3 times employee max	100%
Group size	1	135%
	2	130%
	5	115%
	10–19	105%
	20–49	100%
	50+	95%
Multiproduct discount	0	100%
	1	97%–98%
	2	96%
	3+	93%
Employee subsidy/participation	<25%	110%
	25%–49%	105%
	50–74.9%	100%
	75%–99%	95%
	100%	90%
Rate guarantee	1 Year	100%
	2 Years	107.5%
	3 Years	115%

- What is the major medical deductible, coinsurance, copays and maximum out-of-pocket?
- What is the major medical anniversary date?
- Is the major medical cost sharing by plan year or calendar year?

## REGULATORY ISSUES

The following, while not an exhaustive list of regulatory filing issues for MOPPs, should give the reader a head start on items to resolve prior to filing.

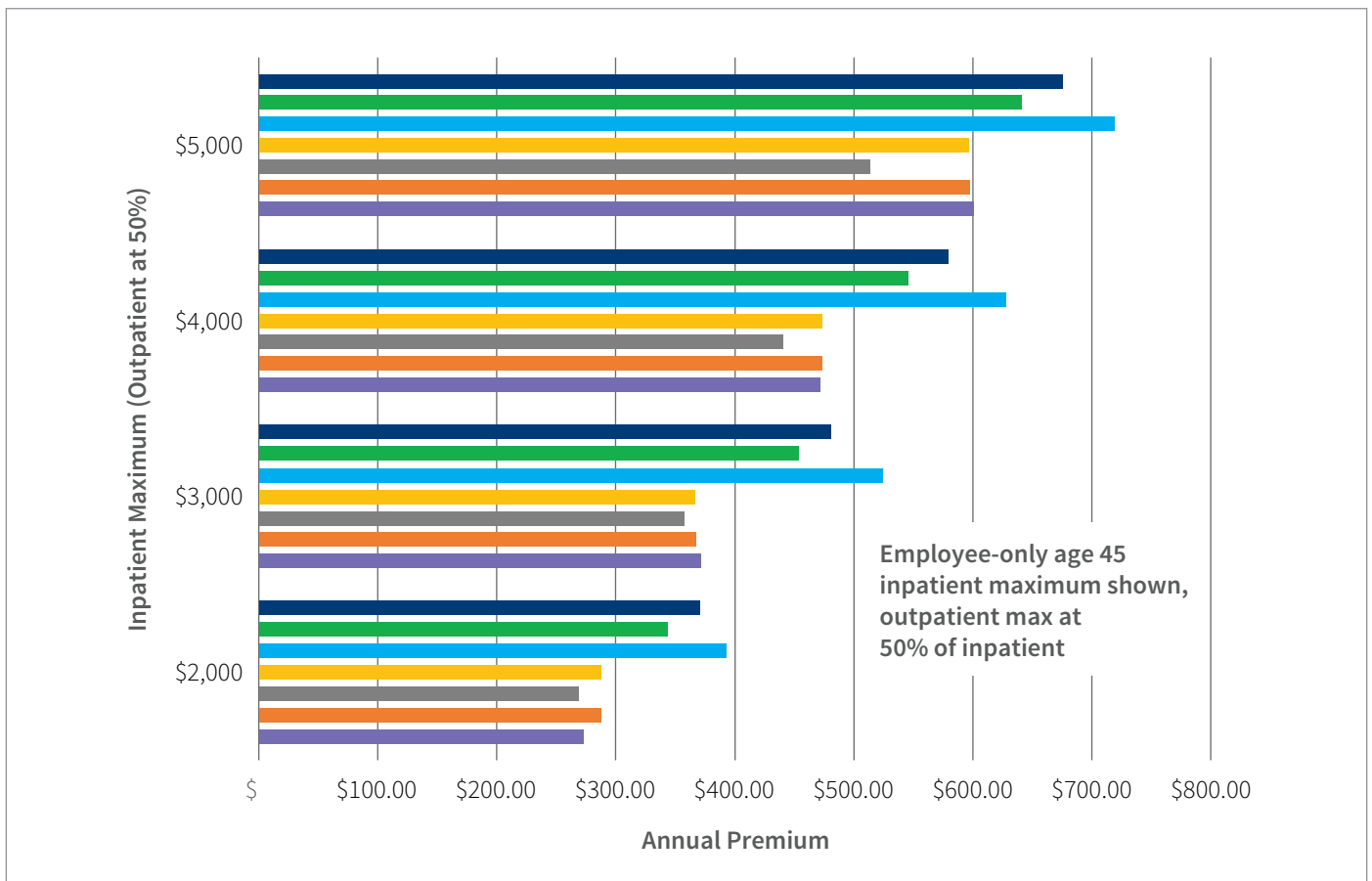
- Late enrollment may not be a basis for excluding group members—they may be subject to pre-existing conditions but may not be excluded from enrollment.
- Ensure the underwriting manual is complete.
- Rate guarantee factors greater than two years (large group) may not be used.
- Justify the assumptions for tiering, multiple product discount, trend rates and participation factors.
- Underwriting adjustments must be objective.

- Identify and justify any experience rating methodology and credibility criteria, and demonstrate the predictive ability of the method.
- Age-banded rates should form a smooth progression relative to the claim cost curve.
- Justify the use of the same rates regardless of the level of employer premium contribution.
- Provide claim costs, incidence rates and assumed lengths of stay by pricing age and gender for each benefit type.
- Explain whether claim costs were based on population or insured data. If population data, justify its use.
- Certify that this product is an excepted benefit under 26 US Code 9832.
- Explain why this plan is not subject to the loss ratio requirements of the ACA (80 percent small group, 85 percent large group).

## PREMIUM RATE COMPARISON

As can be seen in Figure 1, premium rates essentially fall into two groups, with three plans at higher rates and four at lower rates. This split corresponds with the age of the products (although

Figure 1  
Annual Premium Comparison



As MOPPs are marketed toward filling in the “holes” in one’s health care coverage, it would seem that the most palatable product design would cover these holes either in their entirety or subject only to a modest deductible.

some caveats are noted). Some of the plans have been around since 2011 while others were approved in 2015. Generally speaking, the earlier plans were cheaper and most likely based on a narrower field of experience, that is, less range of cost-sharing options. Inpatient benefits now go up to \$10,000 or \$15,000 maximums, but there were not enough plans to come to a statistically significant conclusion. No evidence of subsequent rate increases was found.

Another factor that may lead to earlier plans being cheaper is that premiums will tend to go stale due to medical inflation. For example, assume an annual premium of \$1,000 and expected claims of \$500, for a 50 percent loss ratio. Now assume two years of medical inflation at 10% (simple interest). Claims will increase to \$600 and the loss ratio will rise to 60 percent.

For products with a deductible, the increase would be more pronounced due to deductible leveraging. Consider the previous example with a deductible such that total claims are \$750, of which \$250 is paid by the insured. The carrier still has a 50 percent loss ratio at inception. After two years of medical inflation, claims have risen to \$900, of which the insurer’s share is \$650, or a loss ratio of 65 percent. This illustrates the need to forecast claims to at least the midpoint of the expected shelf life of the premium rates and may indicate that the earlier priced products have stale premiums, that is, higher than intended loss ratios.

Riders for ambulance benefits are not shown, as the benefit may be for accident-only claims or included in other coverage. Benefit amounts also vary considerably depending on ground only or ground/air transport.

Physician office visit benefits are typically based on a per visit per person amount with a number of trips per person per year limit. The annual premium for a \$25 per visit benefit was found to be in the range of \$50–\$150 with variations by age range.

### PREMIUM RATE CAVEATS

Some of the cheaper plans shown have a minimum deductible of \$250 or \$500 rather than a zero dollar option. While every effort was made to keep the plans comparable, the pricing level detail did not allow for accurately determining the cost of each benefit or the assumed value of the deductible.

Also, in my sample there are a limited number of actuaries pricing multiple plans, so it is not totally unexpected that the rates appear to be grouped.

### CLOSING

My decision to canvass this product category was due to industry and client interest in MOPPs as a supplemental health plan that avoids many of the regulatory hurdles of ACA products and is becoming more desirable as individual out-of-pocket costs continue to rise. In addition, there currently appears to be limited competition in the market.

As MOPPs are marketed toward filling in the “holes” in one’s health care coverage, it would seem that the most palatable product design would cover these holes either in their entirety or subject only to a modest deductible. Benefit exceptions should generally be avoided or prominently disclosed.

Beyond the scope of this article is the impact these products may have on major medical pricing and design. The presence of a lower cost sharing option as a supplement to primary medical coverage may alter policyholder behavior in ways not anticipated by the primary carrier.

As always, I advocate the simplest product design possible to streamline the pricing, marketing, administration and regulatory approval process. ■



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# The Increasing Number of Opioid Overdose Deaths in the United States—A Brief Overview

By Rebecca Owen

National and local media report almost daily the devastation wrought by heroin overdoses, the emergence of extremely potent synthetic opioids and the role of prescription pain medications in the increasing public health challenge of opioid addiction. The problem has many sources and will be very hard to solve, but the numbers are so sobering that it must be of primary importance to all stakeholders, from public policymakers to insurance companies paying claims.

There are five categories of opioids tracked in national overdose statistics: natural opioid analgesics such as morphine; semi-synthetic opioids such as OxyContin (oxycodone); methadone; synthetic opioids such as fentanyl; and heroin. Often the media reports are for deaths from prescription drugs, a term that usually includes four of the five types of opioids, the exception being heroin and some of the synthetics.

Opioid deaths have increased sharply since 2000, as is shown in Figure 1. Note the particularly stiff rise in deaths from heroin since 2010, a result of a dramatic expansion in the delivery system for the drug in the United States as well as the emergence of very pure heroin from Mexico. A new source of concern is the entire class of synthetic opioids such as fentanyl, which is so potent that overdose can occur by accidental skin contact. Even more worrying is the rapid emergence of new synthetics that are hundreds of times more potent than heroin, whose chemical composition is not on record, and whose manufacture can be done anywhere. It is worth noting that Narcan (naloxone HCl), the anti-overdose drug, does not work as well for a fentanyl overdose as it does for heroin and is not at all effective on some of the new synthetics.

The increase in drug mortalities is evident everywhere in the United States, as the graphics in Figure 2 on page 24 show. On the left is a map of U.S. overdose deaths in 2000. Very few areas are colored dark red (more than 20 deaths per 100,000) in this

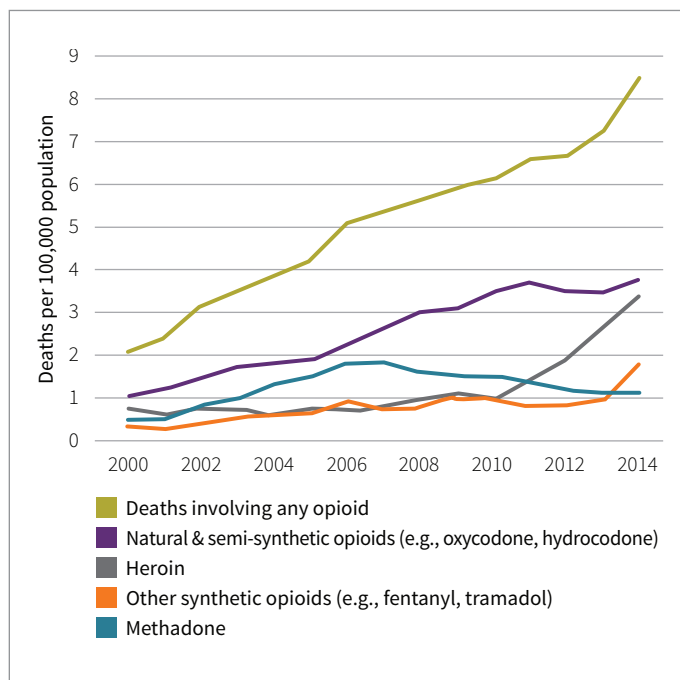
graph. In 2000, these seemed to be outliers, but in reality, they were the early signs of a terrible trend. By 2014, the dark red had seeped into all but a few areas of the United States. These graphs are constructed by county and it is very clear that the problem of opioid overdose deaths is not an urban phenomenon, but blights rural areas as well.

Both women and men are impacted by these trends (Figure 3 on page 24), but it is most noticeable in the middle years. It is particularly shocking to see the extent of the increase in overdose deaths in people aged 45–54. These people are not stereotypical young heroin addicts in a sleazy shooting gallery in a bad part of town, as portrayed a TV series, but a wide spectrum of people, such as those who have struggled with pain and pain relief while under medical care.

Mortality studies also show that this trend is most pronounced in people with lower income and less education. They are often not able to work due to pain and are beset with mental health issues. It is not unreasonable to conclude this is a large issue in Medicaid and Affordable Care Act exchange populations.

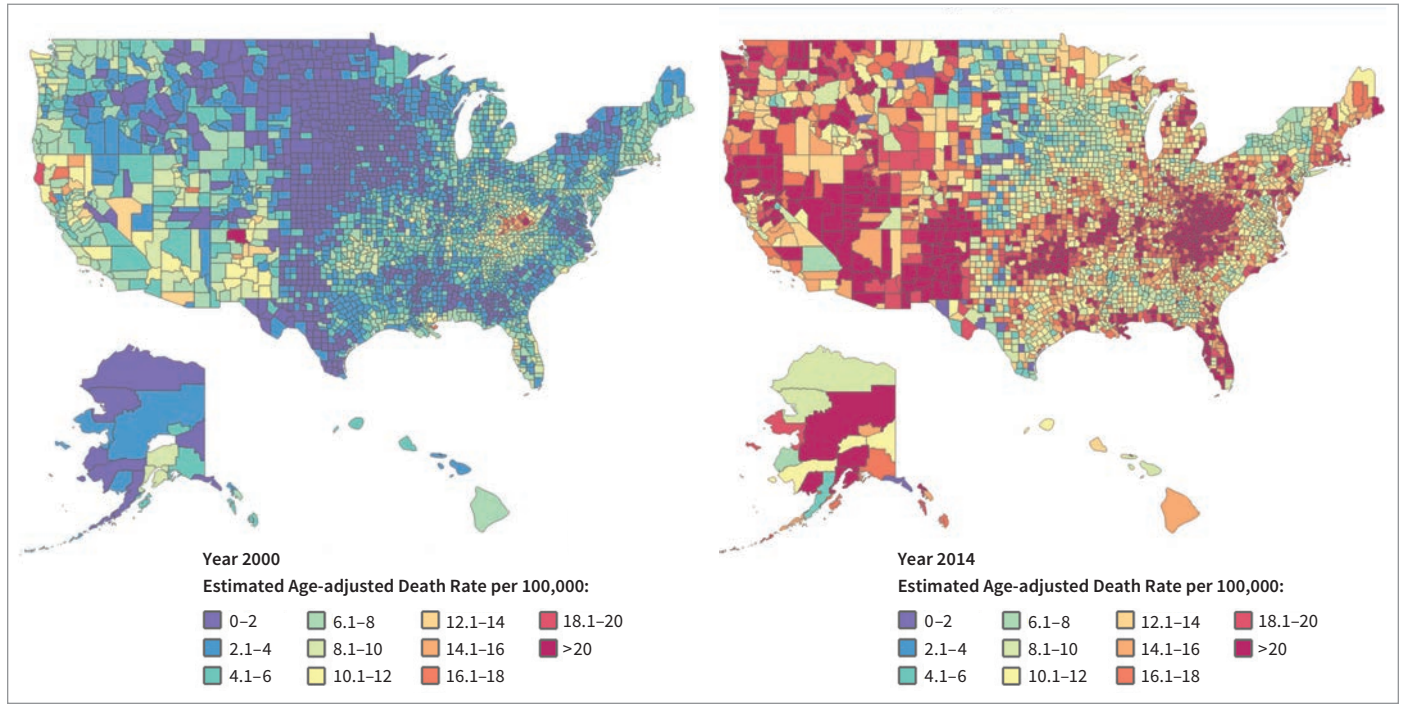
Opioid deaths are not the primary source of mortality for people 35 and over. Chronic disease such as heart disease or acute diseases such as cancers are still the primary causes of death, but

Figure 1  
Opioid Overdoses Driving Increase in Drug Overdoses Overall



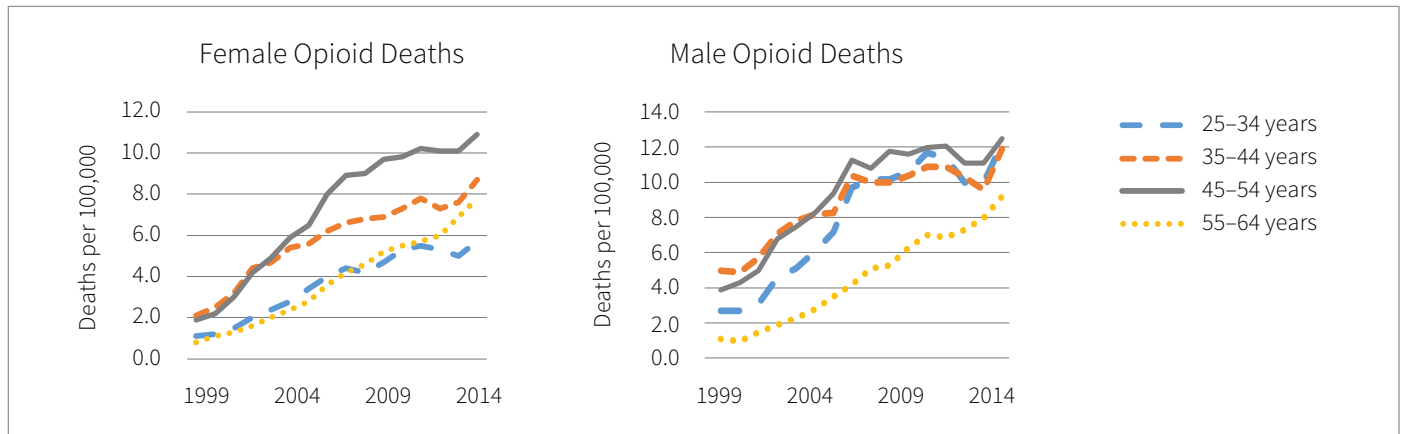
Source: Centers for Disease Control and Prevention. Increases in Drug and Opioid Overdose Deaths—United States, 2000 to 2014, MMWR 2015. [www.cdc.gov/drugoverdose](http://www.cdc.gov/drugoverdose).

Figure 2  
Comparison of U.S. Drug Overdose Death Rates, 2000 vs. 2014



Designed by L. Rossen, B. Bastian & Y. Chong. Source: CDC/NCHS, National Vital Statistics System.

Figure 3  
Opioid Deaths in the United States, by Sex and Age (1999–2014)



Source: Centers for Disease Control and Prevention.

opioid deaths play a significant role (Table 1). Other causes of death, such as suicide, which is also on the rise, may have underlying opioid issues as a silent contributing factor, especially for the younger age groups. Heroin plays a larger part in overdose statistics for the younger age groups, while prescription drugs factor more heavily in the statistics for older age groups.

Mortality is not usually of key interest to health actuaries, other than those whose practice is in retiree and Medicare plans. However, consider that not every person who has troubling opioid use suffers a fatal overdose. The actuary may be sure that these mortality measures represent only a small portion of the people struggling with drug addiction, with many more



Table 1  
Deaths per 1,000 (2014)

Age Group	Heart Disease	Malignant Neoplasm	Opioid Poisoning
25–34	7.7	8.3	23.1
35–44	25.6	27.8	25.0
45–54	80.1	103.2	28.2
55–64	185.8	287.6	20.3

Data source: Centers for Disease Control and Prevention, Health, United States, 2015.

nonfatal cases within our insured population. The human and financial costs of increased drug use are part of the force of health cost trend and may be especially important for certain demographics. CDC National Center for Health Statistics data show that heroin use in the uninsured population in 2013 was five times the rate in the insured population. For the years 2007 to 2014, the relative use of prescription opioids for women below 200 percent of the poverty threshold was double that of women above 400 percent.

The phenomenon of switching from the abuse of prescription drugs to using heroin is well documented; the *National Survey on Drug Use and Health* reports that 79.5 percent of new heroin initiates began their drug use with prescription opiates. However, merely restricting access to prescription drugs will not be sufficient to quell the tide. Illicit markets are ready to fill the need with inexpensive, powerful alternatives to prescription pain medications—primarily heroin, but also fentanyl. The White House Office of National Drug Control Policy reported in May 2016 that the production of pure Mexican heroin, which unlike black tar can be smoked or snorted as well as injected by entry-level users, rose from 26 metric tons in 2013 to 70 metric tons in 2015. At the same time, prices plummeted and the supply system became more consumer-friendly, featuring delivery service and customer satisfaction. Recent CDC studies report that heroin use increased by 63 percent from 2002 to 2013.

Treatment is needed, but successful treatment is rare and there is not enough capacity in addiction and recovery services to handle this kind of growth. The substance abuse workforce is not adequate to meet the needs, and medical providers such as primary care physicians and hospitals are not well trained in substance abuse care. The surgeon general’s report *Facing Addiction in America*, a weighty 428-page study released in November 2016, notes that only one in five people who need treatment for opioid use disorder are receiving treatment. Further, a successful course of rehabilitation treatment is often not enough to cure addiction, in that it may be effective for the course of treatment, but not adequate for a subsequent substance-free life. Relapse rates are high, and returning to a community and way of life that fostered drug dependence without changes in the social fabric hampers success.

In *Facing Addiction in America*, the authors note that statistics “emphasize the importance of implementing evidence-based public-health-focused strategies to prevent and treat alcohol and drug problems in the United States. A public health approach seeks to improve the health and safety of the population by addressing underlying social, environmental, and economic determinants of substance misuse and its consequences, to improve the health, safety, and well-being of the entire population.”

There will not be one solution to the problem of opioid addiction. The array of impacted communities, with their varying resources and needs, will require different strategies. Insurance carriers will be a part of the solution, but they will not be able to address the entire scope of the problem of substance abuse. Actuaries will need to use all of their abilities to synthesize workable solutions using the resources and approaches from all of the stakeholders. ■



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# ACA Exchange Initiatives Program Interview

With Kurt Wrobel

The Health Section recently published a series of eight articles related to the long-term sustainability of the Affordable Care Act (ACA) exchanges, with a special focus on risk adjustment. These articles accompanied a formal SOA research project that examined relative risk in the ACA individual market. The entire collection can be found as the first web-exclusive content for *The Actuary* magazine at <http://theactuarymagazine.org/category/web-exclusives/aca-initiative/>.

Kurt Wrobel, FSA, MAAA, spearheaded this initiative and did a masterful job of leading a diverse group of thought leaders. We had a chance to catch up with Kurt recently and get a bit of a behind-the-scenes look into the project.

## **Health Watch: What was the motivation and primary goal behind this project?**

Kurt Wrobel: As we developed the initiative, we most wanted to highlight a complete story of the ACA marketplace based on meaningful emerging data and actuarial principles—two areas that had been widely underreported. Instead, many have focused on short-term issues (rate increases, risk corridor funding, operational challenges) without a full grounding in actuarial principles. We wanted to correct this shortcoming by developing research and articles that focused on the long-term sustainability of the exchanges using the best available data. By doing this, our goal was to have a positive impact on the public debate by offering an objective view of the marketplace and its long-term sustainability.

## **HW: What were the early steps?**

KW: The earliest steps included soliciting viewpoints from a wide range of actuarial experts representing different organizations, including smaller health plans, larger Blues plans, large national players, regulators and consultants. Because of the technical nature of our effort, we had an off-site where we began to focus on the most salient long-term challenges, including the risk adjustment program, the changing risk pool, the subsidy program and the significant member turnover in the program.

## **HW: Who were some key contributors?**

KW: We had a number of contributors who participated in the off-site, wrote an article in final publication, or provided insight throughout the process. These include Greg Fann, Hans Leida, Doug Norris, Victor Davis, Kristi Bohn, Jason Siegel, Andie Christopherson, Rina Vertes, Dave Dillon, Susan Pantelly, Valerie Nelson, Elaine Corrough, Margie Rosenberg, Scott Brockman, Greg Gierer, Timothy Jost and Roy Goldman.

While many graciously volunteered their time, I want to particularly thank Joe Wurzbarger and Rebecca Owen from the Society of Actuaries for their efforts. Joe worked tirelessly to keep the whole group organized and grounded as the project and the marketplace program evolved over time. Without his organization and guidance, the project would not have come to its final completion. In addition to providing guidance, Rebecca also wrote an excellent article highlighting the most important objective facts on the marketplace program.

## **HW: Did the goal or plan change at all along the way?**

KW: The entire project was very much a moving target. Initially, we wanted to follow a blueprint developed by pension actuaries in their successful 2020 program where they engaged actuaries as well as a number of external experts, including researchers and professors, to address long-term pension-related issues. As we tried to develop something similar, we found that many researchers were not as well equipped as actuaries because they didn't have the same access to real-time information or a detailed knowledge of the regulatory details of the ACA. They also had less interest in the topic because so little data had been made public. As a result, we decided to pursue projects that focused more on actuaries rather than other outside experts.

## **HW: How challenging was it to manage this project in a constantly changing environment?**

KW: This was a difficult aspect of the project. Between the emerging financial performance and the potential for technical changes in the law—particularly around risk adjustment—we did not want to provide technical feedback on issues that would change in a few months. We also wanted to be careful to allow more hard data to emerge before providing a more in-depth analysis. We felt this was important because so much of the discussion had already been on theoretical issues rather than actual data.

## **HW: There clearly have been some challenges in the ACA marketplace. To what extent have actuaries been able to successfully anticipate these?**

KW: I think many of us have been very successful at highlighting the emerging challenges. Several relevant articles are highlighted here:

- “The True Cost of Coverage: Let’s Talk About Those ACA Subsidies Again and Understand Their Impact on Individual Rates,” *The Actuary*, Dec. 2015/Jan. 2016, <http://theactuarymagazine.org/archives/>
- “The ACA Cost Predictability Question,” *The Actuary*, Oct./Nov., <http://theactuarymagazine.org/archives/>
- “The Individual Market and ACA Products: Starting from First Actuarial Principles,” *The ACA @ 5: An Actuarial Retrospective*, 2015, <http://www.soa.org/health/>
- “The Individual ACA Market—What’s Next?” *The Actuary*, Feb./March 2015, <http://theactuarymagazine.org/archives/>
- “A Comparison Between the ACA Exchange and Medicare Risk Adjustment Programs,” *Health Watch*, January 2015, <http://www.soa.org/news-and-publications/newsletters/health/pub-health-section-newsletters-details.aspx>
- “Implementing the ACA: An Actuarial Perspective,” *The Actuary*, December 2013/January 2014, <http://theactuarymagazine.org/archives/>
- “The ACA—Two Policy Experts’ Perspectives,” *Health Watch*, October 2013, <http://www.soa.org/news-and-publications/newsletters/health/pub-health-section-newsletters-details.aspx>

**HW:** Some authors had different viewpoints on the use of concurrent vs. prospective risk scores. What is your view on this issue?

KW: I think the concurrent vs. prospective risk scores remains as an important question. On the one hand, the concurrent scores are theoretically more accurate and important for a population that has a significant amount of turnover. The concurrent approach also requires health plans to wait six months after the contract period for a final financial reconciliation—an important limitation in the program. In my view, the concurrent approach can work, but it also needs features that allow health plans to have better real-time information on their true financial performance. Without this, I think the concurrent approach is not workable for the long term.

**HW:** One of your criteria for long-term market sustainability is that plans have an interest in the long-term health of members in the pool. The other two criteria (predictability and ability to react to financial results) seem like they could

I have concerns about a policy that actively encourages member turnover largely because it discourages investments in improving the health of members.

**be improved with changes to existing processes, but the long-term health question isn’t as obvious. Ultimately, does this aspect require explicit support of public health initiatives, or can we address it mechanically (such as through spreading costs associated with chronic conditions that develop over time)?**

KW: As I suggested in my article “A Review of Emerging Data: The Long-Term Sustainability Question for the ACA Marketplace” (<http://theactuarymagazine.org/category/web-exclusives/aca-initiative>), I have concerns about a policy that actively encourages member turnover largely because it discourages investments in improving the health of members. I view this as a big problem and one that calls into question the policy of relying so heavily on competitive markets to produce a lower premium rate. I think allowing a reasonable incentive for health plans to invest in its members along with other public health initiatives funded by state and federal governments will produce a better overall outcome.

**HW:** One of the authors said that solutions to sustainability don’t solve the problem if the market is underfunded to begin. Do you have a sense for how much the entire ACA market is underfunded? Is it just a matter of looking at the risk corridor results, or are there other buried costs that we are not seeing?

KW: I think the large rate increases in many markets and the withdrawals by several large insurers suggest that the program has been underfunded. The risk corridor results provide additional evidence of this problem on a national basis. The extent, however, is still an open question that varies significantly by state.

That said, I think the challenges in the program go beyond just a funding problem. I think that the structural challenges—including the challenge in estimating health care costs, tracking financial performance, and economic incentives to change plans—create inherent long-term concerns that will not be corrected with large rate increases. ■

# The Evolution of the Individual Market (Part I)

By Greg Fann

*Author's Note: The views expressed herein are those of the author alone and reflect current information as of December 2016. They do not represent the views of the Society of Actuaries, Axene Health Partners LLC or any other body.*

The election of Donald Trump as the president of the United States and the subsequent nomination of Tom Price, MD, as the secretary of the Department of Health and Human Services (HHS) signal major alterations to an already turbulent individual health care market. Actuaries and other stakeholders have many questions about upcoming changes; most revolve around what will happen and when.

This article is Part I of a two-part chronological series concerning the evolution of the individual market. It begins with some background of how we arrived where we are today and concludes with the final regulations implemented by the Obama administration. In Part II, we will discuss the transition from the current market rules to a more decentralized system that seeks to offer coverage incentives with more flexible choices, a likely scenario under a Trump administration. Part II will be featured in a future issue of *Health Watch*.

## PRE-ACA PROBLEMS

Prior to the Patient Protection and Affordable Care Act (ACA), individual health insurance premiums were aligned with risks. Older people paid more than younger people. Young women paid more than young men, and older women paid less than older men. Healthy people paid less than people with chronic conditions. Unless precluded by state regulation, insurers generally had the freedom and flexibility to analyze their data and determine the appropriate factors for these rating variables.

Some individuals had medical conditions at the time of application that caused insurers concern; either the expected risk was difficult to quantify or it was known to be at such a high level that a risk-based insurance contract would look more like prefunding of medical care. From an insurer's perspective, the risk/reward equation was off balance beyond a certain projected claims level (or for certain conditions where costs were either unpredictable or unknown), so the coverage application

was declined. As insurers had similar underwriting policies, a declination from one carrier generally meant being deemed uninsurable by all carriers or being insured only for costs unrelated to a known condition.

However, not all uninsured individuals were in poor health. As medical costs increased faster than wages and general inflation, health insurance became less affordable and less attractive for individuals, and the uninsured rate increased steadily beginning in 1980. Additionally, individual health insurance premiums did not have the tax deductibility provisions that were present in the group market, making the individual market relatively less attractive. The high rate of uninsured Americans, due to personal choices, costs, and pre-existing health conditions, was viewed as a social problem that some policymakers believed required federal attention.

In spite of significant cost challenges, this recognition prompted a divided Congress, with direction from the Obama administration, to inject federal funding into the individual health market and overhaul the market rules and pricing structures in the process.<sup>1</sup>

## ACA PROBLEMS

The ACA increased individual market premiums with guaranteed issue and essential health benefit requirements. Additionally, a three-to-one unisex rated age curve (3:1) increased rates for young adults, primarily young males.

As an offset to the higher costs, premium and cost-sharing subsidies of different amounts were provided to some individuals. Before discussing the mechanics and development of the premium subsidies, it is instructive to consider what they are not.

First, as a nation with a strong belief in liberty, we have historically been cautious about mandating individual behavior. At the same time, we have historically utilized tax laws to encourage some behaviors and discourage others. Prime examples are the interest deduction on owner-occupied homes, something we encourage, and sin taxes on tobacco products, something we discourage. Health insurance is encouraged and tax-favored in the group market. While ACA premium subsidies do in fact use tax law and make coverage more attractive, they are not universally available and were not specifically designed as behavioral incentives.

Second, the subsidies were not developed to offset additional premium costs triggered by the ACA. For example, a young man is not going to be subsidized the difference between the 3:1 rate and his appropriate risk rate. It is important to note this, as the resulting misalignment of risk and net premium rates creates the potential for a skewed market.

The idea behind the ACA premium subsidies was to make individual insurance “affordable.” Affordability was defined as a sliding scale percentage of income up to 400 percent of the federal poverty level. Individuals with higher incomes presumably would be able to afford an appropriate level of coverage at unsubsidized market rates. As the affordability measure was based solely on income, all subsidy-eligible individuals in the same geographic area with the same income would pay the same premium for the “benchmark” plan. An unintended consequence of the mathematics involved is that older individuals actually pay less than younger individuals at the same income level for coverage priced lower than the “benchmark” plan.<sup>2</sup>

In effect, the misalignment of premiums and risk combined with the unequal subsidy distribution created varying degrees of enrollment incentives for different individuals. This has resulted in a skewed marketplace, notably one that is less attractive to young adults at middle- to upper-income levels.

To the extent that gross premiums are not aligned with risk, the risk adjustment methodology is intended to provide balance from the insurer’s perspective. Risk adjustment is inconsequential to the consumer; the relative attractiveness of the market is the consideration of net premiums to risk level. There is interrelation here, as market attractiveness will influence enrollment and the market enrollment will determine the average level of the risk pool, which impacts the results of the risk adjustment process.

## FINAL REGULATIONS FROM THE OBAMA ADMINISTRATION

After a rough implementation start followed by some relatively smooth sailing,<sup>3</sup> problems with the ACA began to publicly arise again in 2016.<sup>4</sup> The Obama administration recognized two major concerns, which it addressed in an annual update of changes to ACA marketplaces. The first is in regards to the risk adjustment model, which has resulted in many surprises and accusations of inequities in the methodology. This is a concern in both the individual and small-group markets. The second is in regards to the individual market dynamics discussed in the previous section. While the majority of regulatory changes primarily occur in 2018, some take effect in 2017 or 2019. At the time of this article, it is too early to anticipate whether the Trump administration will alter or obstruct these regulatory changes; their impact is discussed assuming no interference.

### 2018 Payment Notice

The final Obama regulation is the Patient Protection and Affordable Care Act HHS Notice of Benefit and Payment Parameters for 2018 (payment notice); the proposed rule was published in the Federal Register by the Department of Health and Human Services (HHS) on September 6, 2016.<sup>5</sup> The annual update of technical changes was on an earlier schedule than



prior cycles with the obvious intention of finalizing rules before a new administration takes control. The final rule was published December 22, 2016.<sup>6</sup>

Despite the simple title, the payment notice is much more than an annual update of benefit and payment parameters for the individual and small-group markets. A large part of the discussion (294 pages in proposed rule) highlights ongoing concerns expressed by stakeholders. Many of the substantive proposals are intended to improve the future of the risk adjustment program. The proposals related to risk adjustment principally address concerns that have been voiced since program inception, although the magnitude of the risk adjustment results has surprised health plans and state regulators alike.

In addition to risk adjustment enhancements, the other major goal of these proposals is improving the risk pool and enrollment growth in the individual market. Unfortunately, the proposals ignore the structural problems and are limited to enforcing special enrollment rules and continuing existing “outreach” efforts. Consequently, the remaining discussion is primarily focused on the impact of the risk adjustment updates and the ongoing concerns.

## RISK ADJUSTMENT

The ACA expands access to health insurance by prohibiting insurers in the individual and small-group markets from using

health status as an eligibility criterion or as a rating variable. As insurers are not able to select or appropriately rate for the risks they accept, a risk adjustment mechanism is included to appropriately compensate insurers for the risks they enroll.

This ideal is intended to have insurers compete on their ability to provide quality affordable care and an efficient administrative system, while neutralizing the impact of competition based on enrollee selection. A well-constructed program will foster market stability and predictable results. While largely untested in the commercial market prior to the ACA, risk adjustment programs have existed in Medicare Advantage and various state Medicaid programs for many years.

The risk adjustment program applied to ACA markets, intended to stabilize the new marketplaces, has produced surprising (and arguably inequitable and destabilizing) results for many stakeholders, some of which have been legally challenged. The Centers for Medicare and Medicaid Services (CMS), the HHS agency responsible for the risk adjustment methodology, signaled recognition of the concerns well before the payment notice release. In March 2016, CMS released a white paper and facilitated an industry conference to discuss the ongoing concerns. Many of the proposals in the payment notice related to risk adjustment were introduced in the white paper.<sup>7</sup>

The risk adjustment methodology developed by CMS can be thought of as a two-step process. First, each enrollee in the marketplace is assessed a risk score based on demographics, benefit plan, and any identified high-cost health conditions. Second, to account for risk characteristics that cannot be differentiated by premium rates under the market rules, a “transfer payment” methodology is developed to transfer money from insurers that enroll lower-risk people to insurers that enroll higher-risk people. CMS designed this methodology to be budget neutral; therefore, all transfer payments are offset by transfer receipts. These two phases are discussed separately.

### **Risk Assessment**

As insurers are not able to select risks or set prices based on the risks received, they must rely on the CMS methodology for an appropriate and adequate financial accommodation. It is therefore very important that the operational methodology is precise and impartial. The risk adjustment process should accurately assess risk based on health status and related predicted claim costs, and not be influenced by other factors. A risk assessment model requires both appropriate data and appropriate methodology to function properly.

The historical data used to calibrate a model should be reflective of the expected population. The current MarketScan commercial database utilizes data that are not representative of the expected populations. Individuals in this experience base did

not have a large concentration of the short enrollment durations that are found in the marketplaces. Additionally, medical diagnoses that would result in higher risk scores are less present in the MarketScan data, as insurer revenue was not dependent on this data. For benefit year 2019, HHS proposes to use actual 2016 marketplace data. This should result in a more appropriate approximation of the individual and small-group marketplaces.

The risk-scoring methodology relies on Hierarchical Condition Categories (HCC), which are used to assign a quantitative health-cost risk to each enrollee. The current risk adjustment model overstates the risk/cost for individuals with at least one HCC. As the model is developed to be budget neutral, this necessarily understates the risk/cost of individuals without any HCCs. This bias encourages competition based on enrollee health status and effectively punishes efficient insurers or those who attract health-conscious consumers.

The risk adjustment methodology also fails to recognize measurable performance differences as they relate to care management. In my actuarial practice, I often see wide variances in utilization and claim costs unrelated to risk. A Care Management Effectiveness Index (CME Index) can be used to determine an appropriate measure of utilization. An efficient health plan with a favorable CME Index might be inappropriately associated with lower risk due to quality care management. For example, a plan with a high CME Index might effectively prevent more individuals with diabetes from developing complications that would yield HCC diagnoses. The ACA risk adjustment process will not recognize this occurrence.

HHS does offer potential remedies for the overcompensation of HCCs, including implementing a complicated “constrained regression” approach that is not explained in detail but appears to underpredict young enrollees without HCCs. A simpler, straightforward approach that replaces the biased scores with appropriate coefficients has been offered by former CMS Chief Actuary Richard Foster.<sup>8</sup> An American Academy of Actuaries workgroup also offered comments on these remedies.<sup>9</sup> In the final rule, HHS states no adjustments will be made at this time but different modeling approaches will continue to be explored.

### **Partial-year Enrollment**

The current methodology does not address the impact of partial-year enrollment. In the marketplaces, a larger portion of enrollees are in the market for a short period of time relative to the group market data on which the risk adjustment methodology is based. Unlike the Medicare Advantage program, diagnoses are not tracked by a centralized source, so enrollees that change health plans are subsequently counted as not having any HCCs. As claims are episodic in nature, this is problematic for two reasons:

1. When an individual is enrolled for only part of the year, a diagnosis related to higher health care costs may be missed.
2. Even if the diagnosis is captured, the risk adjustment model assumes a full year of enrollment and accordingly transfers an inadequate amount.

Using a simplified example to illustrate each of these issues, assume that an individual has a medical condition diagnosed in October that will cost \$12,000 in December. If the risk adjustment methodology provided \$1,000 each month, an insurer that enrolled the individual for the full year would receive \$1,000 each month, or \$12,000, which would offset the higher cost for this individual. An insurer that enrolled the individual in October, however, would only receive \$3,000 and would still be responsible for the \$12,000 claim. An insurer that enrolled the individual in November would receive no risk adjustment benefit, as the condition would not be diagnosed, but the insurer would still be responsible for the \$12,000 claim.

HHS recognizes this inequity for insurers that have a larger volume of short-duration enrollees, which are generally new or growing carriers. HHS has proposed durational factors to increase risk scores of short duration periods. Notably, these factors are less adequate than factors that have been used for a similar purpose in the Massachusetts risk adjustment model but extend for longer durations.

### Prescription Drug Claims

There are many benefits to incorporating prescription drug claims in risk adjustment methodology. Pharmacy data are readily available and complete very quickly. They can identify enrollees with HCCs when diagnoses are not coded and also determine severity. Pharmacy data are fairly uniform across the industry and do not have many of the erroneous issues associated with diagnosis data. Inclusion of prescription drug data also results in quicker recognition of high-cost conditions and facilitates a more even playing field for new insurers who don't have medical histories and insurers who are less experienced and less aggressive with financially driven diagnosis-coding techniques.

HHS has been reluctant to use pharmacy data due to gaming concerns. It is a little surprising that HHS appears to be more concerned with pharmacy gaming than the ongoing subjective process of establishing diagnoses, as prescription drug claims cannot be altered after the fact by third parties. HHS intends to cautiously introduce the use of pharmacy data in 2018 with a limited selection of drugs.

This limited selection may overcompensate the predicted costs for the highest-cost enrollees (similar to the HCC concern), and therefore undercompensate the predicted costs for other enrollees. Similar to the partial-year enrollment durational factor, a wider acceptance of prescription drug data levels the playing

The idea behind the ACA premium subsidies was to make individual insurance “affordable.”

field more rapidly and creates a better environment to attract insurers to the marketplaces.

### Transfer Formula

The purpose of the transfer formula is to transfer appropriate amounts based on risk. Even with a perfect model of risk assessment, a biased formula will have equity problems. The applied methodology uses a statewide average premium (SWAP) to calculate transfer amounts and results in imbalanced transfers that harm low-cost and efficient insurers. The formula transfers significant sums of money based on items that are not predictable and not based on actuarial risk.

The “statewide” nature of the formula does not recognize regional practice variations. Regional practices are different and coding patterns are often higher in major metropolitan areas, which causes risk transfer payments to be based on regional physician practice patterns rather than health status or actuarial risk.

The “average” nature of the formula exaggerates risk transfers for efficient insurers by mandating an inflated transfer amount relative to their cost structure. This particularly impacts small insurers who experience the most unpredictability and volatility with risk adjustment results.

The “premium” nature of the formula necessarily incorporates nonrisk items into the calculation. The inclusion of administrative costs in the formula penalizes efficient insurers. As transfer payments are based on premium amounts rather than claims, low-cost insurers pay an inflated amount based on reasons unrelated to claims risk. Many other risk adjustment methodologies, including Medicare Advantage, recognize only the claims portion of the costs. In the final rule, HHS implemented a SWAP formula change to recognize 14 percent of the premium as administrative expenses not related to actuarial risk. This policy is effective for plan year 2018, and reduces transfer payments by 14 percent.

Low-cost insurers often offer plan options that attract the type of individuals that improve the overall risk pool, yet they are penalized by a methodology that necessitates price increases.

This unintended consequence may limit insurers' ability to attract low-cost enrollees.

To illustrate these dynamics, we begin with an American Academy of Actuaries subcommittee example,<sup>10</sup> then change some variables to demonstrate the formula impact. Table 1 shows the impact of using a SWAP rather than an insurer's own premium. From the perspective of Insurer A, a premium PMPM of \$270 and a relative risk of -10 percent should result in a risk adjusted premium of  $\$270 * (1 - 10\%) = \$243$ . Since the SWAP is \$300, the Insurer A transfer payment is \$30 ( $\$300 * 10\%$ ) and the risk adjusted premium is \$240, resulting in a \$3 inadequacy.

Table 1  
American Academy of Actuaries Example of Risk Adjustment Payments and Receipts

	Insurer A	Insurer B	Insurer C	Entire Market
Market share	15%	70%	15%	100%
Premium	270.00	300.00	330.00	300.00
Relative risk	-10.0%	0.0%	10.0%	0.0%
Expected net premium	243.00	300.00	363.00	300.90
Transfer PMPM	-30.00	0.00	30.00	0.00
Actual net premium	240.00	300.00	360.00	300.00
Required transfer PMPM	-27.00	0.00	33.00	0.90
Excess/(shortfall)	(3.00)	0.00	(3.00)	(0.90)

The pricing obligations of the ACA risk adjustment methodology require insurers to base rates on the market profile rather than their own population. For small insurers, this is a monumental challenge as they are not privy to other insurers' enrollment data. Tables 2-4 illustrate the elements that could cause the risk adjustment results to change, each of which are not relevant to the risk of an insurer's population nor reasonable to project in the pricing process.

Maintaining the perspective of Insurer A, consider the scenario where Insurer B exits the market and all of Insurer B's members enroll with Insurer C. Insurer A's population does not change, but the SWAP is increased as members move to a higher-cost insurer. Insurer A's PMPM risk adjustment transfer assessment increases from \$30.00 to \$32.10 with no changes in the risk pool, simply due to differing enrollment decisions amongst other insurers. Note that this concept is also true if Insurer B remained in the marketplace and there was simply migration of members from Insurer B to Insurer C or vice versa.

Table 2  
Impact of Insurer B Exiting Market on Risk Adjustment Transfer Payments and Receipts

	Insurer A	Insurer B	Insurer C	Entire Market
Market share	15%	0%	85%	100%
Premium	270.00	300.00	330.00	321.00
Relative risk	-10.0%	0.0%	1.8%	0.0%
Expected net premium	243.00	300.00	335.82	321.90
Transfer PMPM	-32.10	0.00	5.66	0.00
Actual net premium	237.90	300.00	335.66	321.00

Now consider if Insurer C has a premium rate of \$350 rather than \$330, as illustrated in Table 3. As the SWAP is increased, Insurer A's PMPM risk adjustment transfer assessment increases from \$32.10 to \$33.80. There has been no change in the risk population of either Insurer A or Insurer C, yet both have different risk adjustment transfer settlements solely because of the premium change for Insurer C. It is also troubling that Insurer C could increase its risk adjustment payment simply by increasing its premium rate.

Table 3  
Impact of Premium Changes on Risk Adjustment Transfer Payments and Receipts

	Insurer A	Insurer B	Insurer C	Entire Market
Market share	15%	0%	85%	100%
Premium	270.00	300.00	350.00	338.00
Relative risk	-10.0%	0.0%	1.8%	0.0%
Expected net premium	243.00	300.00	356.18	339.20
Transfer PMPM	-33.80	0.00	5.96	0.00
Actual net premium	236.20	300.00	355.96	338.00

The final illustration (in Table 4) hypothesizes the first change in the risk pool. Assume that Insurer C's 85 percent market share is made up of 60 percent of the market with a relative risk of 6.7 percent, and 25 percent of the market with a relative risk of -10.0 percent. Due to the high rates, the 25 percent with a relative risk of -10 percent exits the marketplace. Insurer A has a larger market share in the reduced market. Since enrollees with a low relative risk have left the market, Insurer A's relative risk profile is now lower, even though its enrolled population



did not change. The PMPM transfer is now \$43.10 due to changes in enrollment in the overall market.

Table 4  
Impact of Risk Pool Changes on Risk Adjustment Transfer Payments and Receipts

	Insurer A	Insurer B	Insurer C	Entire Market
Market share	20%	0%	80%	100%
Premium	270.00	300.00	350.00	334.00
Relative risk	-12.9%	0.0%	3.2%	0.0%
Expected net premium	235.16	300.00	361.29	336.06
Transfer PMPM	-43.10	0.00	10.77	0.00
Actual net premium	226.90	300.00	360.77	334.00

With the current fluctuation in the markets, these examples illustrating insurer exits and enrollee migration between plans and on and off the marketplaces are very realistic and yet unpredictable. The risk adjustment methodology applied by HHS has introduced many more variables to the transfer formula that are not related to claims risk and are unreasonable for pricing actuaries to project.

### Unpredictability

The unpredictability of risk adjustment transfer amounts continues to put upward pressure on premiums. The timing of risk adjustment determinations relative to premium submission due dates continues to cause concern. The lack of health plan stability in markets and transfers of membership exacerbate the unpredictable nature of risk adjustment transfer payments.

Many insurers have exited the market, have contemplated such a decision, or have become insolvent due to financial results and predictability concerns. The risk adjustment results have often been cited as the “surprise” financial item in poor results. The marketplaces initially attracted new health plans, and these have been subject to transfer amounts that represent a significant portion of their premium.

As it exists today, the unpredictability of the risk adjustment methodology is arguably having a destabilizing impact on the ACA marketplaces. Some health plan executives are so disillusioned by these results that it is difficult to even begin a general conversation about the methodology mechanics. State regulators have also struggled with comprehension, as they have assuaged many new solvency concerns that caught them by surprise. The state of New York released an emergency regulation to reverse stabilize the ACA impact on the small-group market.<sup>11</sup>

The use of a SWAP adds to the predictability challenges and creates a very difficult situation for insurers that do not command a large market share. Due to their size, large insurers strongly influence both the average premium and the risk score. They make a large contribution to both the average risk score and the SWAP, which results in less volatile consequences. Notably, even some large insurers have been surprised by the formula results. The inequities and volatility created by use of a SWAP need to be addressed for the markets to succeed.

### Pricing Implications

As mentioned earlier, insurers have historically based rates on their own risk profile. An ideal risk adjustment methodology should allow an insurer to change from pricing a specific risk to an average risk and rely on risk adjustment payments to bridge only that difference. The HHS risk adjustment methodology introduces many other variables and creates unreasonable predictability expectations. Even with an accurate and impartial risk-scoring methodology, insurers would need to be able to project a considerable number of extraneous variables to fully and appropriately consider risk adjustment transfers in pricing formulas. To accurately project actual revenue, the pricing actuary needs to estimate each of the following factors that currently influence risk adjustment transfer payments:

1. Risk profile of eligible enrollees
2. Risk profile of who enrolls in the market versus who does not enroll
3. Insurer’s relative risk to the market
4. Premium rates of all other insurers
5. Enrollment by benefit plan and region of all insurers
6. Health status of each insurer
7. Coding efficiency of each insurer

### Summary

Successful risk adjustment models foster predictability and eliminate incentives for enrollee selection based on specific health conditions. They equitably adjust premium levels to reflect the health status or actuarial risk of an enrolled population. They provide impartial treatment for all health plans and do not offer advantages based on size, growth patterns, breadth of network, efficiencies, medical management or cost structure. The current risk adjustment results are altered by including multiple variables unrelated to claim cost risks. The current methodology systematically harms cost-effective insurers, and the penalty is magnified for smaller insurers. The methodology effective through 2017 further inflates the damages by including the full amount of administrative expenses in the formula.

As it exists today, the risk adjustment methodology is preferential to existing health plans that enroll high-risk individuals and charge high premiums. The exclusion of prescription drug claims and the lack of recognition for partial-year enrollees

further misestimates the relative actuarial risk between new and existing insurers. These imbalanced assessments penalize the type of insurers and enrollees that the ACA seeks to attract.

Some of the stated concerns with the current risk adjustment methodology are conceptually addressed in the payment notice, which should improve the accuracy and equity of the model. The incorporation of adjustments for partial-year enrollment, prescription drug data, and potentially HCC scoring based on marketplace data are tentatively planned to be phased in over the next several years. HHS has not signaled a change to the statewide average premium methodology, which is a key component in the desire of HHS to maintain budget neutrality with this program. While the relevance of the data and the methodology are expected to improve over time, some of the program dynamics responsible for the volatility and inequity assessments will likely remain without further modifications.

## INDIVIDUAL MARKET SUSTAINABILITY

The individual market is more fragile than the small-group market due to the underlying incentives for prospective enrollees that are present in the net premium calculations. This fragility adds to the instability in the individual market and creates an even more challenging and unpredictable risk adjustment environment.

It was recognized from the beginning of the program that adequate participation from young and healthy individuals is required for success, so targeted promotional efforts and outreach have focused on a younger demographic. These efforts continue as young adults are offered the lowest value proposition and remain the eligible demographic with the highest uninsured rates. The dynamics of the rating rules and the premium subsidy allocation are attracting a skewed enrollment mix and creating significant financial challenges for health plans.<sup>12</sup> The underlying mechanics of the subsidy provisions continue to produce results that make the program relatively unattractive to younger enrollees. This is highlighted by the fact that a market-based insurance product—one that has always been available and now includes an easier process to secure coverage (exchange, no medical questions), government subsidies to reduce costs, and a tax penalty for not purchasing coverage—still requires heavy promotion by external entities to obtain sufficient participation.

### Risk Adjustment Impact

As discussed, the risk adjustment methodology requires the pricing actuary to predict many things that are outside the scope of traditional pricing mechanics and that are unrelated to the risk profile of the insurer population or the market population. The current individual marketplace is unattractive to insurers and young healthy individuals alike. Accordingly, there is significant

turmoil in the market, with insurers leaving the market and individuals staying for only a short time or changing insurers. This market volatility adds to the unpredictability of the risk adjustment calculations and magnifies the existing concerns.

In a budget-neutral environment, the enrollment of varying health risks cannot be solved by the risk adjustment process alone. An application of the current risk adjustment methodology only allows HHS to transfer money between insurers; it does not begin to compensate for a higher-than-average-risk market enrollment. It is important to achieve a stabilized risk pool that allows insurers to understand the ongoing health status of the overall market as well as the relative risks of their own populations.

### Potential Short-term Solutions

It is recognized that all of the enrollment challenges related to the underlying enrollee incentives cannot be resolved through federal regulations. From an administrative standpoint, HHS could work proactively with states and interested stakeholders to facilitate state innovation waivers under Section 1332,<sup>13</sup> which allows states to use existing federal funds to create a broader market appeal. This is a more constructive use of time and resources than merely continuing the outreach efforts to introduce the new markets.

## GOING FORWARD

The individual market represents less than 6 percent of the population. It is a small market, yet it is a very important one. You may have noticed that it receives a disproportionate share of attention relative to its size. It is often a last resort for those seeking health insurance, and it is the only major medical insurance option available to individuals without coverage through government programs or their employers. It is, therefore, important to develop and maintain it in a way that is attractive to both insurers and consumers.

For all of its faults, the ACA certainly increased awareness of the individual insurance market. As we move forward, we should learn the appropriate lessons from the ACA experience and remain grounded in actuarial principles. It is important that the policies that are enacted strengthen and stabilize markets, and that appropriate incentives attract eligible enrollees across the age/income spectrum. It is also necessary for the marketplace to allow insurers to offer efficient, quality coverage without unnecessary volatility or disadvantages.

During the initial years of the ACA, the majority of comments that reached a general audience were not from objective sources and often diminished public understanding. It is disheartening to see that pattern emerge with other legislative proposals that have been discussed in recent months. I would rather see honest, objective actuarial input considered at the forefront of the discussion.

Within our political framework, cultural and financial limits prohibit some proposals from taking shape. Within these bounds, we have opportunities to offer innovative solutions and ground rules. I will suggest two. Insurance markets do not work without attention to actuarial principles, and for any market to work, it has to make market sense for both buyers and sellers.

As we move forward, we should be encouraged that any proposed ACA market change will be heavily scrutinized. I am hopeful that we can constructively add to that debate. Part II of this series will discuss the latest market transition and include some thoughts and perspectives from health actuaries. I would love to hear your ideas. ■



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## ENDNOTES

- 1 Greg Fann, "The Sustainability of the New American Entitlement: Actuarial Values and the ACA," *In the Public Interest*, September 2016, <https://www.soa.org/sipf/>.
- 2 Greg Fann, "Implications of Individual Subsidies in the Affordable Care Act—What Stakeholders Need to Understand," *Health Watch* 75 (May 2014): 5-21,
- 3 Greg Fann, "The True Cost of Coverage," *The Actuary*, December 2015/January 2016, <http://theactuarmagazine.org/the-true-cost-of-coverage/>.
- 4 Greg Fann, "ASOPs, Anti-Selection, Affordability and ACA Alternatives," *Health Watch*, November 2016, <https://soa.org/news-and-publications/newsletters/health/pub-health-section-newsletters-details.aspx>.
- 5 <https://s3.amazonaws.com/public-inspection.federalregister.gov/2016-20896.pdf>
- 6 <https://s3.amazonaws.com/public-inspection.federalregister.gov/2016-30433.pdf> (Publication of this article was undergoing final edits at the time this regulation was finalized. The final rule was reviewed for consistency but the article may not address all updates in the final rule.)
- 7 "March 31, 2016, HHS-Operated Risk Adjustment Methodology Meeting: Discussion Paper," Centers for Medicare & Medicaid Services and the Center for Consumer Information & Insurance Oversight, March 24, 2016, <https://www.cms.gov/CCIIO/Resources/Forms-Reports-and-Other-Resources/Downloads/RA-March-31-White-Paper-032416.pdf>.
- 8 Richard S. Foster to CHOICES Executive Committee, "Method to Address Estimation Bias in the HHS-HCC Risk Adjustment Model," memo, July 15, 2016, <http://www.choicescoalition.org/documents/HHS%20HCC%20RA%20model%20bias%20adjustment%20memorandum.pdf>.
- 9 American Academy of Actuaries' Risk Sharing Subcommittee, "Insights on the ACA Risk Adjustment Program," April 2016, p. 12, [http://actuary.org/files/imce/Insights\\_on\\_the\\_ACA\\_Risk\\_Adjustment\\_Program.pdf](http://actuary.org/files/imce/Insights_on_the_ACA_Risk_Adjustment_Program.pdf)
- 10 *Ibid.*
- 11 Seth Chandler, "New York Revolts Against Obamacare Component," *Forbes*, September 15, 2016, <http://www.forbes.com/sites/theapothecary/2016/09/15/new-york-revolts-against-obamacare-component/#23d6d1313c0a>.
- 12 Greg Fann, "Implications of Individual Subsidies in the Affordable Care Act—What Stakeholders Need to Understand," *Health Watch* 75 (May 2014): 5-21, <https://soa.org/news-and-publications/newsletters/health/pub-health-section-newsletters-details.aspx>.
- 13 Greg Fann, "Section 1332 Waivers. Coming Soon to a State Near You?" *Health Watch* 80 (May 2016): 33-35, <http://healthwatch.soa.org/?issueID=1&pageID=33>.

# Republican Health Care Reform: What the Repeal and Replacement of the Affordable Care Act Will Look Like

By Joe Slater, John Culkin and Josh Strupcewski

*Note: This article focuses on major provisions of the expected Republican replacement plan for the Patient Protection and Affordable Care Act (ACA) that impact health insurers. The opinions expressed in this article are those of the authors and not necessarily those of Axene Health Partners LLC, the Society of Actuaries or the American Academy of Actuaries. This article was completed in early December 2016 and was based on information available at that time.*

In the early hours of November 9, 2016, billionaire real estate developer and reality TV show host Donald Trump became the president-elect of the United States of America. While much of the presidential campaign focused on the two candidates' legal and behavioral issues, President-elect Trump made it fairly clear that he intended to repeal President Obama's signature legislation, the Affordable Care Act (i.e., the ACA). President-elect Trump's presidential campaign website had a short policy paper on health care reform, which stated: "On day one of the Trump Administration, we will ask Congress to immediately deliver a full repeal of [the ACA]."<sup>1</sup> Additionally, Trump's health care plan included the following general policy prescriptions:<sup>2</sup>

- Eliminate the Individual mandate to purchase health insurance
- Allow insurers to sell plans across state lines
- Allow individuals to fully deduct health care premiums from their tax returns
- Expand the tax effectiveness of HSAs
- Require price transparency from health care providers
- Block-grant Medicaid funds to the states to allow the states to spend the money as they see fit
- Allow the importation of pharmaceuticals for sale in the United States

We consider President-elect Trump's plan to be a series of guiding principles rather than a comprehensive policy proposal

inclusive of necessary details to assess what a complete ACA replacement would entail. However, many Republican lawmakers and market-friendly think tanks have developed ACA replacement plans that, along with Trump's guiding principles, can be used to develop a reasonable estimate of what the repeal and replacement of the ACA will look like. Over the rest of this article we will provide our best estimate of how and when the ACA would be repealed, what Trump's replacement plan would be (i.e., the Republican health care reform plan), and what sort of disruption and risks health insurers would face as a result.

## REPEALING THE ACA

Under the current rules of the Senate, a full repeal of the ACA is unlikely without at least eight Democrats voting with the expected 52 Republican senators.<sup>3</sup> This is because the Senate allows for the filibuster, a tactic used to delay or entirely prevent a vote on a bill by extending debate. A vote can only be brought by having at least 60 senators invoke cloture to end the debate.<sup>4</sup> While the ability to filibuster a bill or judicial nomination can be overridden in some cases by the so-called nuclear option, which requires a simple majority,<sup>5</sup> we assume that the filibuster will be used by Senate Democrats to deny a majority vote on a full ACA replacement bill in early 2017.

However, major portions of the ACA can be rendered meaningless through a process called budget reconciliation. Budget reconciliation allows a simple majority vote to be used to defund the provisions of the ACA that are related to spending, revenues, and the federal debt limit.<sup>6</sup> Therefore, the Republicans could repeal the following provisions, among others, of the ACA through the budget reconciliation process:

- Premium and member cost-sharing subsidies
- The ACA insurer fee, the medical device tax and other ACA taxes
- Medicaid expansion
- The individual and employer mandates

While there is some disagreement, it appears that repealing the rating rules, plan design rules, and benefit mandates will not be possible without a full repeal of the law. Additionally, immediate elimination of the subsidies and mandates while still having the guaranteed issue requirement would mean the end of the individual insurance market in the United States. Combining that with a simultaneous rollback of Medicaid expansion would guide Republican lawmakers to the politically suicidal situation in which twenty million or more people would lose their health insurance under their watch. We don't expect this will happen for obvious reasons.

Instead, the most likely approach will be to repeal the ACA provisions listed earlier through budget reconciliation, while

sunsetting the coverage expansion provisions of the current law through the end of 2018 and providing transitional support to insurers so that they do not pull out of the ACA markets. This will give Republicans time to develop a suitable replacement for the ACA that incorporates market-based solutions while providing low-cost health insurance to as many people as possible. The conventional thinking is that such a bill will satisfy Republicans and enough Democrats to pass the Senate before the end of 2018.

### REPUBLICAN PROPOSALS TO REPLACE THE ACA

There are more than a dozen Republican plans to replace the ACA. Some of these plans have been submitted as legislative proposals in the House of Representatives and/or the Senate. Others were developed by Republican presidential candidates during the last election cycle. Finally, several right-leaning think tanks have developed health care reform proposals to replace the ACA.

Our review of the Republican proposals eventually focused on five specific plans. We chose these plans for our review because they are comprehensive (e.g., did not just deal with commercial market insurance, but also Medicare, Medicaid, and the overall cost of care), are championed by people who we expect to have power or influence in the new government, and are in alignment with President-elect Trump’s broad health care reform campaign proposal. While these plans are Republican plans and feature many free-market-type reforms, they still involve a heavy dose of federal government control and expenditures. We do not believe a plan that just repeals the ACA and returns to the pre-ACA status quo would ever pass. In other words, the repeal and replacement of the ACA will go hand-in-hand.

We considered in detail the following five Republican plans:

- “A Better Way,” by Speaker of the House of Representatives Paul Ryan<sup>7</sup>
- “Transcending Obamacare: A Patient-Centered Plan for Near-Universal Coverage and Permanent Fiscal Solvency,” by the Foundation for Research on Equal Opportunity<sup>8</sup>
- “Empowering Patients First Act,” by secretary of Health and Human Resources nominee Tom Price<sup>9</sup>
- “Improving Health and Health Care: An Agenda for Reform,” by the American Enterprise Institute<sup>10</sup>
- “The World’s Greatest Healthcare Plan,”<sup>11</sup> by Representative Pete Sessions (R-TX) and Senator Bill Cassidy (R-LA)

Our review of these plans found many common health care reform themes. In general, the Republican plans favor the lessening of federal control over insurance markets, the creation of interstate markets for health insurance, restrictions on the tax favorability of employer-sponsored insurance, the expanded use of HSAs and market-oriented reforms of Medicaid and Medicare.



### WHAT THE REPUBLICAN HEALTH CARE REFORM PLAN WOULD LOOK LIKE

The Republican health care reform plan that ultimately replaces the ACA will likely be based on the common policy provisions found in Republican and right-leaning health care reform proposals and the high-level guidelines provided by the Trump campaign health care reform position paper. It will likely also take into account current and near-term political realities; the desire to strengthen the private individual insurance market, Medicare, and Medicaid; and the long-term Republican goal of ensuring that single-payer health care never becomes a reality in the United States.

In our estimation, the Republican health care reform plan will contain the following major policy provisions.

#### Modified Guaranteed Issue

President-elect Trump stated in his postelection interview with “60 Minutes” Lesly Stahl that the Republican health care reform plan will not remove the most popular provisions of the ACA, including allowing child dependents to stay on their parents’ health plans until age 26 and the guaranteed issue requirement for health insurers.

While guaranteed issue is popular, it is also one of the main contributors to the rate and pool instability in the Individual ACA markets. Additionally, the Republican health care reform plan will not include an individual mandate provision, which will only exacerbate the adverse selection issue. To help offset the risk of adverse selection, the Republican health care reform plan will

contain a continuous coverage modification to its guaranteed issue provision. What this means is that if a person develops a condition while being continuously insured (e.g., no more than three months uninsured over the previous 36 months), insurers would be required to continue to offer him coverage and could not rate him based on his changed health status. People who do not maintain continuous coverage as the law defines it would still be able to obtain coverage but would be rated based on health status.

### **Permanent Risk Adjustment and Reinsurance Programs for the Individual Market**

Like the ACA, the Republican health care reform plan will utilize premium stabilization programs to offset excessive risks to health insurers selling insurance in the individual market. The first will be a risk adjustment program. Unlike the ACA's current risk adjustment program, the Republican health care reform plan's program will not be a zero-sum payment system between carriers. In other words, the government will provide additional risk adjustment payments to compensate insurers for non-ratable risk liabilities. Additionally, the Republican health care reform plan will utilize a reinsurance program and/or high-risk pool to protect insurers from the risk of very high cost individuals.

### **Means-Tested, Defined-Contribution, Refundable Tax Credits for Individual Insurance**

Also like the ACA, the Republican health care reform plan will provide premium support subsidies for individual insurance for low-income individuals not able to, or who decline to, obtain coverage through Medicare, Medicaid, other government insurance programs, or through an employer-sponsored plan. The form of these subsidies will be fixed refundable tax credits, adjusted for income, age, and general (not medical) inflation. In this way the premium subsidies will be of a defined contribution, not the defined benefit subsidies linked to the premiums charged by insurers under the ACA. The expectation is that defined-contribution premium subsidies will reward recipients for selecting, and insurers for offering, cost-effective and sustainable products.

### **Medicaid Reform**

The Republican health care reform plan will probably end and roll back the ACA's Medicaid expansion. Instead, premium support subsidies will be made available to allow low-income individuals either not covered by, or who opt out of, other programs to obtain coverage in the individual market. For the remaining Medicaid population, there will likely be revisions to the current Federal Medical Assistance Program (FMAP) formula used to determine the portion of program expenses covered at the federal level. Under the current FMAP formula, federal Medicaid reimbursement varies between states based on

both state per capita income relative to the national level and a state's actual expenditures on the program.

Two common proposals to stabilize the federal budget for Medicaid are the use of either a per capita or a block-grant funding approach. Under a per capita funding arrangement, the federal government provides each state with a PMPM payment for each Medicaid enrollee. These PMPMs would vary by Medicaid eligibility category but would not vary between states. Under a block-grant approach, states would be eligible for a set amount based on historical costs and enrollment in a set base period and would be liable for cost and enrollment increases in the future. States would be given far greater discretion for both spending block-grant funds and setting eligibility requirements.

### **Medicare Reform**

We expect that President Trump and congressional Republicans will make an attempt to reform Medicare. While the details of such a reform effort are beyond the scope of this article, we expect the Republicans' Medicare reform plan will include some basic provisions. The first will be to move Medicare to a premium-support model. In this model, Medicare-eligible persons would be given premium subsidies to purchase private insurance, Medicare Advantage, or Medicare FFS plans. The premiums would be available to Medicare enrollees on an exchange that would allow the enrollee to compare and purchase different plan options. Additionally, a Republican Medicare reform plan would include a provision to gradually raise the Medicare eligibility age to at least 67. Finally, we also expect that any Republican Medicare reform will eliminate both the Independent Payment Advisory Board (IPAB) and the Center for Medicare and Medicaid Innovation (CMMI). The Republicans believe that both of these entities have too much discretionary power to make top-down decisions on Medicare reimbursements.

### **Expanded Use of HSAs to Encourage Consumerism**

The Republican health care reform plan will likely expand the tax-favored status and, therefore, the expected use, of health savings accounts (HSAs). Republicans see the use of HSAs as a necessary part of making the health care system more consumer-oriented. As such, the Republican health care reform plan will expand the use of HSAs by doing the following:

- Providing a one-time refundable tax credit for HSA contributions
- Increasing the maximum HSA annual contribution limit
- Allowing HSA rollovers to surviving children or parents (not just surviving spouses, as current law allows)
- Expanding the availability and use of HSAs in Medicare, Medicaid and other government insurance programs
- Providing contributions to people receiving premium-support tax credits in the individual market. This item is meant to serve as a replacement for the ACA's cost-sharing subsidies.

## Expansion of Pooling Vehicles for Individuals and Small Groups

It's probable that the Republican health care reform plan will establish independent health pools (IHPs) and association health plans (AHPs) to allow individuals and businesses to come together for the purpose of purchasing health insurance. These pools would not be subject to state mandates and would be expected to increase the bargaining power and lower the administrative costs of the pool's membership.

## Creation of Interstate Markets for the Purchase of Health Insurance

Under the Republican health care reform plan, much of the regulatory authority assigned to the federal government by the ACA could be returned to the states. As such, federal rating rules, benefit mandates, and plan design requirements would go away. Additionally, the Republican health care reform plan will allow for the purchase of insurance across state lines. Their expectation is that this will increase competition among insurers and state regulators, thus leading to lower-cost options for people across the country.

## Medical Liability Reform

Missing from the ACA, reforms on liability for medical malpractice will likely be included in a replacement plan. As tort laws are the domain of the individual states, reforms at the state level, such as establishing medical review tribunals, limiting damages based on proportional liability, and establishing a statute of limitations for malpractice cases, would be encouraged through federal grants. Direct reform at the federal level is also possible, including placing limits on noneconomic and punitive damages for patients receiving either premium support in the individual market or health care through a federally funded program.

## Caps on the Tax-Favored Status of Employer-Sponsored Insurance

The Republican health care reform plan could place a cap on the tax-favored status of employer-sponsored insurance (ESI). The ESI tax exclusion allows employees to pay for their employer-sponsored health insurance coverage using pretax dollars and for employers to deduct their premium contributions from corporate taxes. As a result of the exclusion, there has been an incentive for employers to offer richer and costlier health plans. This "overinsurance" is believed to have led to an excessive increase in health care costs over the past 70 years. Under the Republican health care reform plan, if an employee's health insurance costs exceed a specified cap, then the portion of the cost exceeding the cap will no longer receive the ESI tax exclusion. The expectation is that incentivizing employers to offer less rich health plans will lead to lower future health care cost trends.

Under the Republican health care reform plan, much of the regulatory authority assigned to the federal government by the ACA could be returned to the states.

## RISKS AND OPPORTUNITIES FOR INSURERS UNDER THE REPUBLICAN HEALTH CARE REFORM PLAN

Another important question is how all of the changes associated with the expected Republican health care reform plan will impact health insurers. The rollout of the ACA provided insurers with many challenges, and we expect the same for the Republican health care reform plan. We believe that insurers will also be presented with opportunities if the Republican plan is sustainable and effectively rolled out.

The first risk related to the Republican health care reform plan for health insurers concerns the effectiveness of new premium stabilization programs, given that health status rating will be limited and there will be a modified guaranteed issue requirement. Risk adjustment programs are great in theory but, in our opinion, have not worked well in the ACA markets. We do think that having mechanisms to pay for the costliest members outside of the risk adjustment program (i.e., the reinsurance programs and/or high-risk pools), along with making risk adjustment a non-zero-sum game, will help. However, we are unsure of how these programs will work in practice. If the Republicans do not establish effective risk mitigation programs, we expect the individual market to flounder under the Republican health care reform plan.

We believe that many of the Republican plan's reforms increase participation in the individual and group insurance markets. The premium-support program under the Republican health care reform plan, combined with the expansion of HSAs and the removal of the ACA's strict rating rules, should incentivize many previously uninsured people, including the so-called young invincibles, to enter the individual market. We also believe that the IHPs and AHPs will allow many previously un- or under-insured to obtain meaningful health insurance coverage. However, the defined-contribution nature of the premium subsidies, along with the change in the tax treatment of employer-sponsored insurance, have a very real chance of decreasing the amount of insurance coverage per contract that is purchased. In isolation, these changes could profoundly reduce revenue and profits earned by insurers.

We do not think that the selling of insurance across state lines will have much of an impact on insurance markets, at least not in the near term. Although increased competition usually leads to lower costs, we do not think that insurers can successfully enter out-of-state markets without great effort. The vast majority of commercial health insurance products utilize provider networks. Therefore, an entrant into a new market must develop an attractive network with meaningful discounts to offer competitive rates. Even with a competitive provider network, it takes time to build up a risk pool of enough size to gain the administrative efficiencies necessary for profitability. We expect that few insurers will be willing to undertake such a costly and time-consuming effort.

Finally, we expect that Medicaid and Medicare reforms will be a net positive for health insurers. The Republican efforts to reform Medicaid and Medicare will expand the markets for health insurers, since the reforms encourage a continued move away from traditional Medicaid and Medicare to private insurance alternatives for many enrollees. However, efforts to lower the expected cost increases in the two programs will similarly lower revenues and profits for health insurers on a per contract basis.

### WILL REPUBLICAN REFORM MAKE HEALTH CARE “GREAT AGAIN”?

While many of the provisions of the Republican health care reform plan will cause risk and opportunities for health insurers and participants in the health insurance market, many are optimistic that these reforms will be the first major step in addressing the shortcomings of the ACA. While we feel comfortable predicting what form the Republican health care reform plan will take, we are ultimately unsure of its impact. On a non-partisan note, we wish to point out the underlying goal of the Republican health care reform plan is the same as the ACA: to ensure affordable health care coverage for as many Americans as possible. Hopefully, this iteration of health care reform will meet that goal. ■



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#### ENDNOTES

- 1 “Healthcare Reform,” undated, <https://assets.donaldjtrump.com/HCRreformPaper.pdf>.
- 2 *Ibid.*
- 3 “Filibuster in the United States Senate,” U.S. Senate, [http://www.senate.gov/artandhistory/history/common/briefing/Filibuster\\_Closure.htm](http://www.senate.gov/artandhistory/history/common/briefing/Filibuster_Closure.htm)
- 4 *Ibid.*
- 5 “‘Nuclear Option’ for Supreme Court Nominees Will Damage Senate” The Hill, <http://thehill.com/blogs/pundits-blog/lawmaker-news/306330-nuclear-option-for-supreme-court-nominees-will-damage-senate>.
- 6 David Reich and Richard Kogan, “Introduction to Budget ‘Reconciliation,’” Center on Budget and Policy Priorities, November 9, 2016, <http://www.cbpp.org/research/introduction-to-budget-reconciliation>.
- 7 “A Better Way,” June 22, 2016, [http://abetterway.speaker.gov/\\_assets/pdf/ABetterWay-HealthCare-PolicyPaper.pdf](http://abetterway.speaker.gov/_assets/pdf/ABetterWay-HealthCare-PolicyPaper.pdf).
- 8 Avik S. A. Roy, “Transcending Obamacare: A Patient-Centered Plan for Near-Universal Coverage and Permanent Fiscal Solvency,” The Foundation for Research on Equal Opportunity, <https://drive.google.com/file/d/0B4VpAFwBu2fUYk5aV3Rud3NsUTg/view>.
- 9 Empowering Patients First Act of 2015, H.R. XX, 114th Cong. (2015), <http://tomprice.house.gov/sites/tomprice.house.gov/files/HR%202300%20Empowering%20Patients%20First%20Act%202015.pdf>.
- 10 Joseph Antos et al., “Improving Health and Health Care: An Agenda for Reform,” American Enterprise Institute, December 2015, <http://www.aei.org/wp-content/uploads/2015/12/Improving-Health-and-Health-Care-online.pdf>.
- 11 World’s Greatest Healthcare Plan Act of 2016, H.R. 5284, 114th Cong. (2016), <http://www.goodmaninstitute.org/wp-content/uploads/2016>



# Health Highlights from the 2016 SOA Annual Meeting & Exhibit

By Greg Fann

Actuaries in Vegas during a desert rainstorm? What are the odds? The 2016 Society of Actuaries (SOA) Annual Meeting & Exhibit was held October 23–26 at The Cosmopolitan on The Strip in Las Vegas. It was brought to my attention several times but never resolved—is it a loss leader week for the gaming industry when the actuaries come to town? The meeting registration level set a new high mark, following a record attendance at the Health Meeting in Philadelphia in June. The Health Section sponsored 22 relevant and timely presentations at the annual meeting. The initial feedback on the quality of the health sessions has been overwhelmingly positive.

The meeting kicked off with a presidential address from Craig Reynolds, followed by a keynote speech from Sal Khan, founder of Khan Academy. We learned that Khan Academy’s mission is to “provide a free, world-class education for anyone, anywhere.” As outlandish as that sounds, Mr. Khan and his team are actually doing just that, through a vast network of YouTube videos.

Mr. Khan began this endeavor by casually providing tutoring to family members. Word traveled within his family in other geographical areas that he was pretty good, and he was asked to provide video lessons that could be viewed over the internet. Interest outside his family developed by word-of-mouth, and he eventually left his day job to develop educational videos full time.

His discussion was insightful and full of humor. I give kudos to the planning committee for recruiting Mr. Khan and for bringing his good work to our attention. It certainly provided a healthy dose of inspiration to kick-start our meeting.

The SOA Outstanding Volunteer Award recipients for 2016 were also recognized during the opening session. Congratulations are in order for Health Section members Jeffrey Drzazgowski, Ian Duncan, Jennifer Gerstorff, Brian Louth and Karen Shelton.

The Monday morning health sessions consisted of a discussion on genetic testing and another on accountable care organization (ACO) challenges. The afternoon sessions included payment reform and Medicaid rate development, Affordable



Guest room balcony view of the world-famous Bellagio fountains.

Care Act (ACA) case studies, all-payer claims databases and provider payment benchmarks. Before the customary evening reception, the group of Health Section council members in attendance braved the rainy weather and the Las Vegas pedestrian logistics to cross several streets and have a casual dinner inside the Paris hotel. While waiting for our table to be prepared, we huddled outside the restaurant around one of those fountains where well-wishers sometimes throw loose change. During that time, we could not help but notice a young gentleman enter the fountain carrying a small bucket and, well, let’s just say, proceed to conduct himself in a manner not in accordance with Precept 1, Annotation 1-4.

We learned that Khan Academy’s mission is to “provide a free, world-class education for anyone, anywhere.”



Outstanding volunteers being formally recognized in opening general session.

Tuesday morning started early with several presentations at the Health Section breakfast. The outgoing Health Section council chair, Elaine Corrough, welcomed attendees and shared an overview of the council's activities and achievements for 2016. She also expressed gratitude to outgoing council members and staff partners for their work over the past year. As the session coordinator and the Health Section's representative to the annual meeting committee, I then had the privilege of introducing the new council chair, Brian Pauley. Mr. Pauley emphasized several points for the 2017 council: engaging the strong new class of council members; supporting *Health Watch* and the editorial board concept; focusing and aligning strategic initiatives; invigorating the sub-groups and continuing education platforms; and looking forward to 2017 events building on the success of the 2016 Health Spring Meeting and other section-sponsored activities.

David Axene was the scheduled featured presenter for the breakfast, sharing his thoughts after 45 years as a health actuary, prolific writer and speaker, and thought leader in our profession. Mr. Axene was unfortunately not able to attend the annual meeting due to an unexpected event. While attendees were disappointed to miss Mr. Axene's presentation, they still had the opportunity to hear the general subject matter Mr. Axene had planned to present. An edited version of his original presentation, "Actuarial Profession at Risk?" was presented by Elaine Corrough on his behalf, focusing on protecting the integrity

and rigor of our work as health actuaries in a rapidly changing environment. We are grateful to David Axene for raising these issues and providing fodder for extensive postsession discussions among attendees.

Tuesday morning sessions were focused on hospital indemnity pricing considerations, advantages and challenges for provider-led health plans, next-generation ACOs and what we have learned from the first two years of the ACA.

The Presidential Leadership luncheon began with a passing of the gavel from Craig Reynolds to Jerry Brown. Mr. Brown delivered a presidential luncheon speech that included a discussion of the recently updated SOA strategic plan. Mr. Brown's address was followed by a keynote speech from Nick Bilton, a technology journalist at Vanity Fair. Mr. Bilton briefed us on new advances in technology, which was very interesting and conceptually quite astounding at times, even for tech-savvy meeting attendees.

Tuesday afternoon provided sessions on ACA coding improvements, Medicare Advantage minimum loss ratios, ACA lessons learned, chronic diseases and mortality rates and an informative update on SOA Health research.

Wednesday, the final day, opened with sessions on behavioral solutions to ACA risk coding and opportunities to improve

long-term disability performance. The behavioral solutions session was presented by Andrew Sykes and provided insight into habit creation and behavioral influence methods. This session and the update on SOA Health research session, presented by Elaine Corrough and Geoffrey Hileman, were two of the five recipients of outstanding session awards. The following sessions included more discussion of value-based care, Medicaid managed long-term services and supports, profitability for group life and disability and key issues of Medicare Supplement profitability. The conference concluded at 1:15 p.m., which was about the same time that meeting attendees had mastered the conference floorplan and discovered the most direct route back to their guest rooms.

Before driving home to California, I persuaded my wife to join me on a challenging and rugged hike to the peak of Turtlehead Mountain in the Red Rock Canyon National Conservation

Area. Upon arrival at the peak, I snapped a “Leaving Las Vegas” picture for good measure. On the second half of our descent, I progressively learned that hiking under the stars in unfamiliar territory was not my wife’s favorite activity. I will remember that next time. Speaking of next time, the 2017 Health Meeting will be in Hollywood, FL, June 12–14. Details are available on *SOA.org*. 2017 is expected to be another quiet year in the health insurance world; there won’t be that much to discuss (only kidding, of course). Planning is well underway and it looks to be another fantastic meeting. I hope to see you there. ■



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Las Vegas from peak of Turtlehead Mountain in Red Rock Canyon.



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