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Session 100PD
Medical Underwriting—A Retrospective

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Summary: Panelists discuss the evolution of medical underwriting: where we've been, what we've learned, where we are, and where we go from here. They also discuss the role and purpose of underwriting in the individual market, how societal attitudes have changed, and the resulting legislative challenges to industry practices. Specific states with "innovative" requirements (New York and Florida, for example) and the resulting impact on the health care markets in those states will be reviewed.
Current topics include:
- *Proposed limits on HIV testing*
- *Genetic testing*
- *Issues surrounding privacy and confidentiality*
- *The impact of guaranteed issue and community rating in the marketplace*

Mr. Michael L. Kellen: We have three very knowledgeable speakers. I've been on panels for 20-some years, and I don't think I've ever had the opportunity to participate on a panel with the level of knowledge that these 3 individuals have today.

First, we're going to have John Krinik, who's the publisher of the *Underwriter Alert*. He's the executive editor of *On The Risk* as well. John Clark is the risk selection

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Note: The charts referred to in the text can be found at the end of the manuscript.

director and chief underwriter at Mutual of Omaha, where he oversees the underwriting of individual medical, individual disability, long-term care (LTC), Medicare Supplement, and critical illness products. I've had the pleasure of working with John in the past, and I have the utmost respect for him. He is extremely knowledgeable about these subjects. Finally, we have Dr. Ken Krause. He's a medical director with Lincoln Financial in Fort Wayne. We're going to start with John Krinik and he's going to talk about the history and evolution of medical underwriting.

Mr. John Krinik: We're going to concentrate on 200 years of history about the evolution of medical underwriting, specifically in the health insurance area. I'm going to quickly go over the basic history of the health insurance industry, and then I want to concentrate mostly on the evolution of medical underwriting and societal attitudes about underwriting and how they've evolved to the present day.

Most of you are familiar with the quote from George Santayana: "Those who cannot remember the past are condemned to fulfill it."(Life Of Reason 1905-6, vol. I, ch. xii) We found out from this past century in health insurance that we had quite a lot of people who didn't apparently know something about the history of health insurance, because they repeated some of the mistakes that were made in the first half of the century. In the 1840s and 1850s, two companies in Massachusetts were the first to offer some form of health or accident insurance. Massachusetts Health Company in Boston first insured against the cost of medical care followed by the Franklin Health Insurance Company, which offered accident-only insurance.

As you might imagine, the primary risks in those days were railroad and steamboat travel. There have been quite a few changes, as you might imagine, in the past century and a half. The Travelers became the first U.S. company to offer modern accident coverage for railway mishaps and then expanded it to all kinds of accidents later in the century. The horseless carriage obviously was one of the events that prompted the introduction of more coverage for all other types of accidents. In 1890, the very first policy to cover disability risks was introduced by a fraternal organization. Finally, between the years of 1900 and 1910, companies began to add surgical benefits and hospital expense benefits to disability policies. They were not issuing stand-alone surgical policies or medical expense policies at that time.

The first noncancelable guaranteed renewable policy was issued in 1907. I suspect that within the next five years we may see the last noncancelable policy issued, considering the events that have occurred over the past decade in disability. During the roaring 1920s, there was much individual coverage growth, such as policy liberalization made on the basis of competition without adequate experience data. Don’t overly liberal benefits and excessive amounts of disability remind us of the 1980s?

In the 1930s we saw a retrenchment in products being offered and the benefits being written in disability and other common health coverages, something like what has happened in the past decade. In the 1930s, the very first Blue Cross plans were started. In the postwar era we saw growth in health insurance coverage as

we know it today under group plans that were offered by Blue Cross/Blue Shield. Looking at the experience and the growth of the Blue Cross/Blue Shield marketplace, many life insurers thought that they should enter the group health market because they thought that they could make a profit. From 1950 to 1970, we saw major growth in both group and individual health insurance products, including major medical insurance, guaranteed renewable, hospital/surgical, and long-term disability.

In 1965 the Medicare/Medicaid Program began. That was a major benchmark in the history of health insurance. From 1960 until the present time, we've seen unparalleled advances in medicine, pharmaceuticals, medical technology, and biotechnology. As a matter of fact, during the 1960s the clinical communities remarked that they thought that infectious disease had finally been eradicated from the developed countries of the world.

In the 1980s, we found out that wasn't quite so accurate. From 1975 until the present, despite these unparalleled advances in medicine, pharmaceuticals, and so forth, we have had exponential growth in the cost of health care and health insurance benefits paid. As I mentioned, unparalleled increases in life expectancy are a good thing, but during the next 20 years, with the baby boom generation moving into the geriatric marketplace, there will be a downside to this relative to the expenses insurance companies are going to pay out.

In terms of underwriting and risk classification, in the 18th and 19th centuries, they really offered benefits to members and refused membership to people who they knew were in poor health. Basically there was no real underwriting—it was either pass or fail. Life and health insurance companies were locally organized and tended to have a physician on their board of directors. What's interesting about this little historical note is that we see the very same thing happening in Russia and the former nations of the Soviet Block in eastern Europe. Most of the new insurance companies in that area are organized on a local basis.

Proposed insureds back in those days were actually required to appear before the board of directors and answer medical questions asked by the board. Some of the early questions were: Are you given to drink or other intemperance? Are you subject to any disorder that might tend to shorten your day?

I can tell you from my experiences as an expert witness from 1990 to 1997, in about 40 cases, about half of which were health insurance cases, these questions wouldn't have flowed. This prompted the beginning of the ordering of statements from the family doctor or doctor's exams. Applicants were proposed by existing members of these organizations who were personally acquainted with them. There were no women allowed in those days. We have come a long way.

It was assumed that members would only recommend good risks, but I have a sneaking suspicion that there were a lot of off-the-books commissions paid to get people on the books of these guilds and other societies. This forced insurers to begin accepting written answers to questions verifying the good health and habits

of applicants. Basically, these were letters being submitted by neighbors, friends, and relatives of the proposed insured.

In 1886, for the first time, insurance companies in the U.K. experimented with nonmedical questionnaires for sales agents to complete. The original purpose was to permit insurance selling in the rural areas where there weren't very many physicians, but the experience proved equal to or better than the examined business and was expanded to the city. What's interesting is we have a parallel in the 1960s with the growth in the paramedical business. In the 1990s, we're seeing a similar trend with the growth in personal history statements, especially the telephone interview from the home office or from a third-party vendor. The experience isn't very bad at all.

In 1921 Canadian insurers adapted nonmedical practices because of a shortage of doctors in rural areas after World War I. In 1925, U.S. insurers began taking nonmedical applications; however, this was because the doctors started to raise fees. This may have been the beginning of some of the tension between the clinical community and the insurance community. In 1940-45, there were again doctor shortages; this prompted further growth in the nonmedical type of application, and, again, nonmedical experience was surprisingly, at that time, favorable.

In the early days of underwriting, as you might imagine, there was no insured life experience. The insurance companies relied on their general observations as members of society and citizens in the community and also their basic reasoning plus clinical medical experience. When I say clinical medical experience, I'm talking about the experience of the doctors who were employed by these insurance companies and also served on their board of directors. In those days, the doctors and the actuaries were the underwriters; there were no lay underwriters as we know them today.

As large numbers of insured lives provided statistical data, the insurers discovered that their experience was better than the general population because they were selecting the risks that they put on the books. The result was that they had very large profits, unexpectedly so. As a result of their large profits, many insurance companies felt that they could get aggressive and begin to become more competitive.

Underwriting knowledge in the very early days was limited. It was known that being overweight led to serious disorders. Life insurers also were able to demonstrate that hypertension contributed to early mortality and excess morbidity. Sugar in the urine had been known to indicate diabetes, but it was also understood that careful supervision and insulin treatment could extend life expectancies and improve morbidity. Insurers began to experiment as a result of this knowledge with formerly uninsurable risks. In fact, as early as 1762, the Equitable began insuring applicants for gout or hernia at 11% over standard, which was, at that time, considered pretty aggressive. In the late 18th century Eagle Life began accepting those with such things as affectations of circulation, respiration, obesity, intemperate habits, poor family history, or want of general

robustness. Now those phrases may not seem adequate to you, but at the time, they were considered very bold and aggressive. We've also learned from the early knowledge of family history, which was generally gained through experience and common sense, that because of the latest findings in genetics, all of our intuitive knowledge of family history has been borne out.

Early experiments in substandard pricing were covered by liens or age rate-ups and endowment policy designs in life insurance. What we found with the experimentation in substandard pricing was that the early pricing schemes were usually inadequate because we didn't have any true mortality data.

In 1892, the Institute of Actuaries, the forerunner of the SOA, attempted the first mortality studies. In 1897, the Association of Life Insurance Medical Directors, the forerunner organization of today's American Association of Insurance Medicine, prepared a bill payable. Around 1912, blood pressure readings first became an accepted component of insurance exams. In 1913, we had the first medical actuarial mortality investigation, which completed the first major attempt at cooperation, on a national scale, between the actuarial profession and the medical directors' profession. In 1918, the report of the Joint Committee of Actuaries and Medical Directors produced the first industry aged and billed mortality payable. Since 1920 periodic individual, company, and industry impairment studies have become the accepted tool for pricing and underwriting.

For the first 30 years of this century, life insurers began using lay underwriters. Generally, people who had been in clerical positions were not actuaries or doctors, but they were being trained to review applications because of the increase of the volume of new business. It was simply impossible for the company's actuaries and medical directors to review every single application coming in the door. At that point, actuaries and medical directors began their present role of consultants to the underwriting department. From 1910 to 1930, we saw the introduction and reassignment of what we call the numerical risk classification system. Between 1900 and 1930, we saw the first introduction of exclusion riders for risk and impairments in disability underwriting, such as any disease or disorder of the gastrointestinal system or any injury to or disorder of the spine and its muscles, ligaments, disks, or nerve roots. The reason I know that so well is because I underwrote disability for 20 years.

From 1910 to 1950, life insurers offering health insurance benefits and products used their life underwriters for the risk appraisal process. Health insurance training was typically informal and learn-as-you-go, which meant learning by mistakes. The claims experience tended to dictate the health underwriting guidelines. Since 1950 the life insurance companies that were in the health business began establishing separate health insurance departments.

The health underwriting manuals that they were using were typically derived from the setup and layout of a life underwriting manual. The recommended actions or ratings were usually shown side by side for both medical expense and disability. For example, for a certain hypertension rating you might have a +20 for disability

income and right next to it, in the rating manual, would be a +30 for medical expense coverage. The lack of impairment-specific morbidity data forced the reliance on simply underwriting judgment and common sense to build these health manuals.

However, since the 1980s widespread growth in electronic database systems has now permitted more accurate reliance and recommendations for your health manuals, especially your new online manuals in this decade, and much less reliance on subjective judgment. We might actually see experience in the underwritten business and health insurance improved as a result of this technology.

From 1950 to 1990 we saw growth in the use of exclusion rider usage as a means of offering policies that would otherwise have been declined because the impairment rating would have been prohibitive. However, agents and applicants typically still prefer affordable ratings or higher deductibles because they want to be covered for the impairment that is being excluded. This is really adverse selection 101, but it's very fundamental to understanding some of the societal attitudes that we're going to talk about very shortly.

Impaired risk, life, and health underwriting began to enter the public consciousness around 1950. Life underwriting has always been more accepted in the public's mind than health insurance underwriting. We'll discuss this further. Morbidity underwriting, as you all know, concerns itself with the risk of multiple conditions and varies among clients. It's a little harder to work with because mortality underwriting concerns itself with the risk of one claim for a fixed amount.

When you look at the numbers for the adverse actions on life versus health, you begin to get into the area that explains why the public has such a hard time accepting the underwriting of health insurance. Only 3% of life business is typically declined in any company. That means that 97% of all the applications that come in the door are approved. In health insurance, as much as 15% or more of health insurance business may be declined, and that creates a lot of problems because there are more adverse responses to the customer's application.

Rated or modified applications. We get more dramatic here because only 7% of life business is typically rated or modified in some way, but up to 45% or more of health insurance business can be rated or modified. This creates some real problems because a lot of people in the general public don't understand the way that underwriting works. They think that if they've been offered a modified or rated contract, they've been turned down. We get a lot of problems in terms of understanding that language that's being used.

From 1970 to 1980, we saw the introduction of widespread biochemical laboratory testing as an underwriting tool. Originally, it was used for high-limit disability or life insurance coverages only. But in 1984, with the growth in the AIDS epidemic, we had widespread biochemical testing at low amounts or all amounts. We tend to understand that there are a lot of other benefits, in addition to AIDS testing, from screening in biochemical testing. As a result of the AIDS denials and the widespread

testing that was being done, there were political firestorms. Most of those political firestorms dealt with the health insurance question.

Now we get to the real serious issues we want to talk here, one of which is societal attitudes about underwriting. During the period from 1900 to 1920, we had the Armstrong Committee era where we had the rise of public distrust of insured practices. This was very similar to the market misconduct problems in this decade. Insurance regulations were strengthened as a result. We moved on to the 1930s where we saw the introductions of social programs and the birth of public feelings of entitlement relative to insurance, especially health insurance.

In the 1950s, the growth in employer-paid or employer-sponsored group health insurance gave feelings to the general public that health insurance was a basic necessity of modern life. The civil rights struggle introduced a new definition to the words "discrimination" and "discriminating." We understand that there is no such thing as fair discrimination in the general public's mind. There is only discrimination, and if we practice it and try to explain underwriting, we have a losing battle. From 1970 to 1980 the issues tended to be intolerance over the perception that there was low availability of affordable health insurance.

Since 1990, we've seen Health Insurance Portability and Accountability Act of 1996 (HIPAA) regulations introduce the concepts of guaranteed issue, portability, and renewability, which was furthered eroded by extension support for health underwriting by insurance companies.

As we look into the future, fears of access to genetic information by insurance companies tend to be focused on health insurance availability. LTC underwriting is on the horizon as a potential political issue. The geriatric market is politically very organized, very active, very vocal, and very large. I would recommend all of my references to you if you want to pursue more information on the history of underwriting.

Mr. Kellen: John Clark is the risk selection director and chief underwriter for Individual Health Insurance for the Mutual of Omaha Company and is responsible for individual major medical, disability, LTC, Medicare Supplement, and critical illness products.

Mr. John Clark: As John has eloquently stated, I will take the history of underwriting from this particular point and talk to you a bit about underwriting as it exists today. For purposes of this discussion, I'm going to focus on individual major medical underwriting to give you an example of how the environment exists as we see it today. I'll reference the underwriting at Mutual of Omaha.

Although I don't want to minimize it, I'm not going to spend a great deal of time on the health issue. It goes without saying, in individual medical-expense underwriting, that health is a very important issue. I would probably focus at this particular point on the changes in health underwriting that I've seen in the 30 years that I've been in the business. I had the opportunity, a couple of years ago, to give a

presentation to an International Conference of people from the Pacific Rim and the Indonesia-Malaysia area. It was interesting to note the differences in the medical underwriting and the actual health underwriting that exist there versus here. I had a two-hour presentation that went almost seven hours because of their questions. It went back to exactly what they wanted to underwrite and the simplistics and basics of underwriting.

They were worried about diphtheria, dysentery, and the things that we don't even think about in the medical expense underwriting arena. In today's environment in America, we have to worry about the cost associated with some of the medical endeavors or the conditions or the treatments that exist today. For example, the HIV virus that John mentioned earlier can be a very expensive issue. Has anybody read *USA Today?* It contains a very good article on the hepatitis virus C, D, and E and how expensive it can be, which could lead to failure to the liver, cancers, or transplants that can run $250,000 in a heartbeat.

In this high-stress society we have gotten to the point where we limit how much we will pay for mental- and nervous-type conditions. In addition, we must worry about the occupation. John talked about the railroad business, and we still have some occupations today that do cause concern. We have to be aware of the environmental situation. Coal miners are still a risk. Those who work in the asbestos-removal business are still a risk. You must worry about how you rate those people.

Finally, something fairly new is income. It's a catch-22 of sorts. You know the public demands for insurance for everyone and the focus is on the 40 million uninsured. At the same time, as an underwriter, you must be aware and ask why someone would spend 30% of their annual income to buy an individual major medical product, especially if they're 45 years old and have never owned coverage before. You must dig down deeply and ask, why would they spend that kind of money? If they give you no history, it must cause you concern and you must take that into consideration at the time of underwriting.

In addition, underwriters are involved in product development today more than ever. At Mutual of Omaha, for example, I am a member of several product teams. Mike mentioned the great products that I work with. The product teams consist of actuaries, claims people, people from the underwriting arena, and everyone who's involved in the financial arena. We make these decisions together. I can remember the day when I would see a product and the first time I knew that product existed was when the application hit my desk. I'm embarrassed to say that, but that was the real world. That's not the case anymore. You need to get involvement from all the separate entities and make sure that they have their input before the product hits the street.

Underwriting guidelines. It's important that you put guidelines out. The people within the company need to know your underwriting standards and, wherever possible, you need to put those in the hands of the writing agent. I mentioned policy language before. The underwriters and the people in the claims area, more

than ever, need to be involved to make sure that you get, if necessary, protective and restrictive verbiage in your contracts where you can.

Compliance is a big word. It is something that I don't think we worried too much about 30 years ago, but it's probably the lead item today when you pick up an application. Underwriters have become gatekeepers, and by a gatekeeper I mean we are the lines of first defense when an application is submitted. You must be in the position to check that application to make sure that it is not only in compliance but, not out of compliance. There's an awareness in the underwriting arena that has never existed before. You have to take that down to the lowest level of underwriting, and everyone has to be aware of the importance of the compliance issue.

Underwriters have become educators, and when I say an educator I mean we have reached the stage where the underwriter can be the primary contact for numerous people, not the least of which is the agent. We'll talk about some of the compliance- or legislative-type issues. Many of the agents are carrying a huge portfolio of products. With the various life products available, such as a new critical illness, LTC, Medicare Supplement, and major medical disability, they don't know all the ins and outs. Many times the underwriter can be their contact to get their answers to questions associated with compliance, the product, or underwriting in general.

As for the end customer, the agent is quick. When he or she does not know the answer to an issue, he or she refers them to the underwriters. Again, I refer to the past. I very rarely spoke to the general public in years gone by. Now I never go through a day without a call from a consumer where the agent doesn't know the answer and has referred them to me for response.

Has anyone heard of expense control before? I think that's one you'll hear in about every arena within the company, and underwriting is no exception. I'll give you an example in the issue of Omaha and what we're trying to do to promote that expense control. We took a good look at all the pieces, components, and processes of underwriting an individual medical application.

There was a redundancy in the number of times we asked questions. We saw expenses that we might be able to avoid, so we went to a teleunderwriting-type process. It's a little bit different in that we allowed the agent to connect the applicant directly with the underwriter at time of sale. We record the interview. There are only five health questions on the application. They're general-type questions. They refer to symptoms more than a specific condition. The underwriter, the one who makes the final decision, goes through the interview with the applicant to determine that person's health history, because we feel no one knows that history better than the applicant.

We've eliminated, by doing that, the number of profiles that we need: blood, urine, attending physician's statements, and exams. Those of you who are familiar with that know you can pay $80-100 per exam for those particular tests. Instead, we

have gone to an increase in the use of oral fluids, which are about one-fourth the cost of that particular exam. There's a test for nicotine to find out whether they use tobacco, an HIV test, and a test for cocaine. I don't believe you can substitute that in all areas.

You must be careful with age. As a person ages, the older applicant (age 50 and older for example,) you may run into more problems with diabetics, people with liver function problems, etc. But for the 25- to-45-year-old applicant, I think you can really cut your costs if you will focus on some of those items. We've gone to a one-stop shop, so to speak. The person can call in; we are that far away from having the electronic application so we will have it all on the workstation with the underwriter very shortly.

Underwriters are involved very heavily in experience monitoring. We're involved in the claims analysis, and the same product groups form risk groups. From the same entities, we get together and talk about our overall experience. You can't learn from your mistakes or know what you're experience is if the claims people don't let you know what they are seeing on the backside.

One of the biggest impacts on the underwriting arena today had to be the HIPAA legislation. It was introduced and passed into law in 1997, and it probably had a greater impact than the health conditions that we work with today. I'm sure most of you in this room sometime through high school or college took a civics class, right? You remember studying how a bill becomes a law? There is a roundtable discussion, and they go back and forth. You can throw that out the window with this HIPAA legislation.

I recall that at Mutual of Omaha there was a rather prominent lobbying force, and there was a threat that this legislation was going to pass. People were reporting back to us on a Friday that we didn't have to worry, because it was dead. They came back to work on Monday morning and it was a law.

The law hadn't been written. For those of you who don't know the history of this, they passed the legislation and said, "Now we're going to get the right people together and write it." We're still experiencing the effects of that to some degree.

The HIPAA legislation basically broke this down into three particular sections. It made provisions to cover those people who are going from group insurance to individual insurance. There were fall-back states. There were state pools that existed in many states before the HIPAA legislation. Finally, there is an "other" category that I'll touch upon a little bit later. The people affected by the guaranteed renewability provision of HIPAA are uninsurable, and that's the bottom line. They can't buy insurance. They left the group environment and they, by legislation, must be offered coverage.

In the fall-back states, there was legislation passed by the federal government and if you did not act as a state or the state did not pass their own legislation, they were subject to these federal fall-back guidelines. Those guidelines were basically

that a person, if they had 18 months of continuous coverage, exhausted COBRA, and applied to your company, you must take them. At Mutual of Omaha, for example, we're restricted on what we can do to limit that coverage. We were able to charge higher deductibles.

The legislation did say that you must offer your two most frequently sold plans prior to the legislation. We had a singular plan that we offered, but we were able to remove some of the riders because they were not sold on our most frequently sold plan. Examples were copayments for the doctor and maternity, and we were able to offer a minimum deductible of $2,500.

The second pool of states in the legislation were the risk-pool states. That's about 40% of the states, and most or many of those had risk pools in existence before this legislation came into effect. We at Mutual of Omaha, and most companies that are in this market, would say this is probably the fairest way to go about it. It's based upon your participation and your sales. In Nebraska, for example, where Mutual of Omaha is domiciled, you take the percentage of business that you sell in that state, and if Mutual has 25% of the business, then it foots 25% of the pool. I think that's fair. The risk is spread evenly.

The other states that I mentioned are ones that did something completely different. Ohio, for example, took a combination of both. Ohio has a quota pool where you have to take so many uninsurables. It is based upon the percentage of the sales you had the previous year. In 1999, Mutual of Omaha has taken 27 risks on an open enrollment. Then we go to a state risk pool. If we had sold twice the business, we would be taking 54 risks, so it's spread evenly.

There are state basic and standard plans in some of these states. There are those like Virginia where you must sell all of the plans to all the people. I mentioned before that we were able to not sell certain riders, but Virginia says, "No, you can't do that. You have to offer them everything." There is immediate coverage. Let's say a farmer in Indiana, which happens to be one of the Prior Coverage Immediate Benefits states (of which there are 19), has individual insurance. Let's say the individual coverage is with a competitor, like Mutual of Omaha. You have to take that particular applicant and waive the pre-existing exclusion and insure the risk. It becomes another piece to deal with.

Then you have the innovative states. New York is probably the greatest example. New York passed legislation that was truly open enrollment and community rating. That means, one size fits all. Whether you're 22 or 58 years old, you pay the same premium. We had to take everyone. In New York, residency laws were 24 hours. It's a tough piece of legislation to deal with.

Who makes up the largest group who doesn't own insurance (and there are 40 million of them)? I have one of them at home. He's 25, and about to come off my group insurance. He tells me, "It's not important in my grand scheme of things. I'm in great health, and I can't afford this." There is a large group of people 25 to 40 years of age who can't afford the insurance. They don't have the disposable

income, so if mom and dad don't help them out they don't buy it and they're invincible.

Who pays the higher rate? The 60-year-old might have diabetes and some of the complications that come with older age and probably got a price decrease. The 25-year-old kid that couldn't afford it before the legislation doesn't have a chance now. That's what happened in New York.

Another thing that has entered the picture recently, and I think the good doctor will probably comment on this a little bit more, is genetic testing. Genetic testing, not very long ago, was truly just genetic testing. The legislation was such that you could not go out and require someone to conduct a test that required DNA, RNA, and chromosomal-type situations to determine whether or not a person is going to probably contract a specific disease.

Then it moved to genetic-type information. There have been arenas recently at the federal level where many of the Congressmen and women want to consider genetic testing. We find it extremely valuable as we write individual business. Like high-blood pressure, they say that's genetic. They want to include things such as obesity, elevated lipids, cholesterol, and triglycerides; these are the things that are precursors to coronary-type problems and they are genetic. There has been a great deal of debate taking place in Washington. Our company has been active in that arena as many of your companies have been, too. We silenced that a bit, but I guess the point I would leave you with is you can't rest.

Like I said earlier, I thought it was dead on Friday, and when I came back on Monday, it was law. Family history, on this particular point, is one thing we don't underwrite. We've never done that at Mutual of Omaha, and I'm sure most of your companies don't either. The last thing that enters in this picture becomes state mandates.

We get about a dozen state mandates a month. You can debate whether these state mandates are good or bad. I think many of them are good. We already had many of them at Mutual of Omaha. For example, we had the 48-hour stay for maternity before it became a mandated-type benefit. I think that's a good one. I think another good one would be paying for the immunization shots for babies at 18 and 24 months. Required mammograms and the prostate-specific antigen test are early detection wellness-type benefits, and I think they're very important and beneficial. There are many benefits that are mandated. For example, there is a state that requires you to pay benefits for a hair transplant. I don't think that's really something that is fair in the insurance arena. It's just an example of the things we run into.

Dr. Ken Krause: I'd like to talk about what we might expect in medical underwriting in the first decade of the 21st century. The role and purpose of underwriting is going to be shaped by the changes that are taking place in our health care system right now. Industry practices will be shaped by changes in the underwriting process that are going to be driven by technological, legislative, and

regulatory changes that are affecting certain aspects of medical information collection and interchange. We're currently in another transition period with regard to our health care system.

Many of the issues that surfaced during the Clinton health care debate of the early 1990s have again resurfaced. Chief among these are the issues of rising healthcare costs and uninsured individuals in our population. Because of the strategies taken to address these issues to date, individual market underwriting is severely restricted, primarily by the state regulations meant to intercede on the cost and accessibility issues.

Right now individual market underwriting activities are primarily limited to states where there is not a guaranteed issue requirement and where there is a high-risk pool mechanism that is capable of stabilizing cost. I was able to locate at least 15 states that have some sort of guaranteed issue requirements in the individual market and 28 states that have some sort of risk pool mechanism. Many of those do antedate the HIPAA regulations. Individual underwriting activities are primarily limited to underwriting discretionary coverages, such as coverage for supplemental or enhanced levels of service, critical illness coverage, and some aspects of excess risk coverage.

We heard and are aware of the 40-45 million people who are currently without health insurance coverage. If this trend continues and leads towards a fully nationalized health care system, the potential for individual underwriting activities will be limited to fringe coverages, such as those that occurred in the U.K. system. Coverages in the private market are limited to supplemental coverages for enhanced levels of service; that is, coverage for cue jumping, jumping out of line for operations, and other services for which there are waiting lists in that system and for the direct acquisition of other medical care services in a separate private medical care system.

On the other hand, if incrementalism goes in the direction of preserving a layer of privately financed health care coverage in combination with a nationally financed safety net coverage, a set of risk tiers could be constructed in order to preserve the affordability of such coverage. Risk classification of individuals would be a key to establishing and maintaining the integrity of such a risk-tier structure. The tiers would serve to fairly distribute medical risk and facilitate the development of a high-risk mechanism that could be uniform, rather than fragmented, as it is now throughout the entire system. In a central system, there still could be a layer of supplemental coverages that could be optionally purchased by individuals. These would still be subject to traditional individual medical underwriting practice.

For such a system to occur and function, there would need to be a uniform and stable regulatory environment. For this to be affordable, medical management and other cost control strategies would have to be retained. It would be essential to involve consumers and purchasers in decisions concerning the content of the coverage, the content of this private layer of coverage, as well as involvement in

decision making on the cost of the care that would be covered under such an umbrella.

I'd like to turn now to aspects of the underwriting process that will change industry approaches and practices. Things I'd like to cover are expert underwriting systems, population underwriting, and the electronic medical records.

Expert underwriting systems utilize health status markers that can be obtained through health assessment instruments, such as questionnaires, or through the assessment of existing medical claims and service data repositories. By applying rules or algorithms to this source help data, individual risk can be assessed in several ways. It can be assessed relative to a standard medical cost level. It can be assessed in relationship to a distribution of impairment-related medical expenses, or it can be used to predict actual costs in chronic medical-care conditions. The complexity to these approaches can range from the simple, using linear-type reasoning, to the very complex, using artificial intelligence techniques, such as neural nets.

Current applications of expert predictive models include the calculation of perspective risk payments, capitation payments, and for the assessment of individual risk in chronic and catastrophic cases. The best predictive models that are currently available can only explain 20-25% of medical expense variance. There are disease- and condition-specific predictive models used for chronic and catastrophic conditions that can explain up to 80-85% of medical-expense variance. These tools may be of particular value in helping to construct pricing models that can provide for an affordable, privately funded intermediate level of care as our health care system evolves.

Population underwriting is a concept rather than a practice at this point. But this would be, in effect, reversing our current managed care cost containment strategy by applying rules and algorithms and expert predictive models to group data, which can be used to develop groups of similar risk on a population group basis rather than an individual basis. The object, again, is to effectively identify and stratify high-risk groups in order to establish a pricing mechanism that matches experience. We are looking towards a way of developing a pricing model that could allow a privately funded layer of health coverage to continue.

The electronic medical record is intended to be a replacement for the current paper system. It is meant to be a way of capturing the information a clinician obtains during a clinical medical visit. There are a number of obstacles to the development and acceptance of such a system. If it is accepted in the next decade, it could be a valuable tool that could drive a medical assessment process.

Some of the limits and obstacles to electronic medical record development and adaptation include the need for a uniform medical language at the summary level. The uniform summary medical language is one that captures all the detail that's captured in a current clinical visit, including diagnosis codes, procedure codes, and detail that the clinician writes in prose of his or her clinical medical record. There are

a number of efforts going on right now, but none are close to having a final product that would be acceptable for general use.

The second major obstacle is the need to have buy-in by clinicians using a medical record system. It has to be proven to them that such a system would be an improvement over the existing paper system. There are also regulatory issues that must be overcome before an electronic medical records system could become broadly used—certainly before it could be used in the context of risk assessment. Standards need to be developed for backups and archiving of the medical records information, which is captured by these systems. There need to be standards for preserving data integrity. Once information is entered, there must be a way of preserving that and avoiding any changes that others might make. There are also liability issues that must be overcome concerning technologic failures that might occur because of a general use of an electronic medical records system.

Finally, the most important hurdle is the need for national and uniform privacy and disclosure rules that supersede state standards so that there can be free interchange of medical information. Using that deterrent to the specific legislative and regulatory issues, the outcome of the medical privacy debate will certainly be one that'll have major impact on medical underwriting, especially in the health arena.

In this debate, HIPAA has been a major force and a major influence. John talked about it before and some of the coverage issues related to HIPAA requirements. HIPAA also required the development of comprehensive health privacy legislation. Congress failed to enact legislation by August 1999, which would develop a framework that such privacy rules could follow. The act specified that the Secretary of the Department of Health and Human Services (HHS) would then be responsible for developing such regulations. The department is currently developing a draft version of those regulations, and there's some expectation that they may be available for public review by the end of this month.

In any event, the HIPAA act requires that they be enacted by February 2000. HIPAA also provides that if Congress does get around to developing legislation that complies with the HIPAA requirements, those congressionally mandated rules would then supersede the rules developed by the Secretary of HHS. In terms of any activity that deals with medical information that's private, these regulations that are forthcoming will have a major impact.

The health insurance industry has promulgated a number of position statements, positions that it takes in the medical privacy debate, and it would regard those as important positions. The first one is that any privacy regulation that's passed will reach into the heart of the health insurance transactional process. The second is that the health industry is in full agreement that all sensitive, personal health information must be kept confidential. The health and life insurance industry have been unwavering in maintaining the principle that that information is confidential. A third is, as I mentioned before, the important need to have a uniform standard for electronic transmission of medical information. This is an obvious need that

must be put in place so that the industry can keep pace with technologic developments in business and health care. Finally, legislation at the state level results in a patchwork of different and potentially conflicting rules that inhibit or actually prevent us from conducting the health insurance business.

Key among central transactional activities of health insurers that require personal medical information is the need for this information to determine a risk-adjustment mechanism. There is a sampling of state legislation that might impact medical information needs for risk assessment. There are a number of themes among these regulations that include prohibitions pertaining to certain classes of medical information. There are prohibitions concerning certain redisclosures of medical information. Requirements for redisclosure procedures, limitations on pharmacy and prescription information, and statements limiting use of medical information in venues other than medical care and health insurance might have unforeseen impact on risk assessment.

Several of these regulations open up new fronts in the medical privacy debate. Regulations pertaining to pharmacy use are one of these. Restrictions on the use of these data could impact predictive models that utilize drug utilization patterns to: (1) predict future medical costs and medical risk, regardless of the nature of the future health care system, and (2) access this private medical history, regardless of whether it's a private government or a blended financing mechanism. Regardless of the funding mechanism, private medical information will be needed for the transactional processes.

Turning to medical testing issues, genetic and HIV testing has probably been the most prominent issue of our time. Developments in the biosciences will continue to put genetic testing in the forefront for the next decade. *The Wall Street Journal* published an article about a drug company that is announcing the discovery of genes for three additional diseases and is working on therapies for those diseases based on that discovery. I believe diabetes, migraine headaches, and psoriasis were the diseases that they spoke to.

I will talk about HIPAA in two other contexts. John mentioned that HIPAA already prohibits the use of genetic testing results in employer-sponsored plans and the transitional individual plans that it specifies. Beyond that, there are additional state-specific restrictions that extend the prohibition of the use of genetic testing and genetic information in at least 29 other states separately. There continues to be controversies in this field over proposals for legislation that further expand the definition of genetic testing beyond just the definition that specifies that a genetic test, such as a DNA-based test, identifies a specific gene.

As John mentioned, there are a number of efforts to expand the definition to biochemical end products of genes, such as cholesterol or blood sugar, which could be construed as genetic tests under these definitions.
There continues to be a need for a uniform health technology assessment process for genetic tests. This is important because all users of genetic information from medical practitioners to underwriters and health insurance organizations need to

have good information on how to determine the medical applicability of a genetic test and also the predictive value of these genetic tests.

HIV testing continues to be important. Recent developments in HIV therapy have resulted in a marked downturn in the disease severity of AIDS and what seems like a decrease in the mortality that results from AIDS. Some experts believe that this trend is temporary; once resistance to the newer antiretroviral HIV therapies develops, there will be a return to the previous trends of high mortality and high morbidity from HIV-related disease. HIV testing is still performed in the individual market and, when it's done, it's generally based on the business needs of specific carriers. HIV-positive status is also used with the qualifier for high-risk pools in some states. The legislation concerning HIV testing has focused on redisclosure of positive HIV results. In many instances, these restrictions on redisclosures are tied to state-mandated screening programs for public health purposes. In locations where this does occur, however, the restriction on redisclosure could be an issue that needs to be taken into consideration by medical underwriters.

I'd like to summarize the future outlook for medical underwriting. There will continue to be change with respect to underwriting activities in the health insurance industry. First is the evolution of the health care system, which is moving towards a national system and has clearly diminished the role of individual medical expense underwriting. The importance of risk assessment and selection can be restored if a risk-based pricing structure can be included as a way to maintain private involvement in a health care system by providing affordability and consumer responsibility.

Second, underwriting activities can utilize new technologies. Uniform information structure and process are essential to accomplish this. Third, further legislative limits on medical data privacy can have a major impact on all health insurance transactional activities. If not carefully designed, such restrictions will serve only to limit the conduct of business, increase coverage costs, and limit access. In essence, it will not provide affordable health care for all, as is intended and as is desired.

We all need to be vigilant for continuing changes in the evolution of our health care system. We need to be vigilant in looking for technological advances that might revolutionize the underwriting process. We will need to be very vigilant for regulatory changes and challenges that strike at the medical information needs for any current or future medical underwriting process.