

# RECORD, Volume 25, No. 1\*

---

Atlanta Spring Meeting  
May 24–25, 1999

## Session 11OF Instant Issue for Life Insurance Products

**Track:** Nontraditional Marketing, Product Development

**Key Words:** Marketing, Product Development, Underwriting, Pricing

**Moderator:** EDWARD A. TURNER

**Panelists:** JAMES A. FRITZ<sup>†</sup>  
CHARLOTTE A. LEE, MD<sup>‡</sup>  
BILL L. MOORE<sup>§</sup>

**Recorder:** EDWARD A. TURNER

*Summary: Issue speed is becoming a crucial success factor in today's life insurance market, and actuaries must consider this in the product development process. In this session, attendees hear from individuals who represent the disciplines of product development, new business processing, underwriting, and data processing.*

*Topics of discussion include:*

- *Issue time and other new business service expectations for various distribution channels*
- *Current approaches and turnaround times for policy submission, underwriting, and policy issue*
- *Issue support available from vendors such as paramedical and laboratory services*
- *Recent trends in artificial intelligence underwriting systems*
- *Current and future data processing technology for policy issue*
- *Impact of instant issue on product profitability*

**Mr. Edward A. Turner:** This is technically a panel discussion, but we are going to try to make it more of an interactive forum. Each of our panel members, who

---

\*Copyright © 1999, Society of Actuaries

<sup>†</sup>Mr. Fritz, not a member of the sponsoring organizations, is President and COO of Am Para Professional Systems in Jerico, NY.

<sup>‡</sup>Dr. Lee, not a member of the sponsoring organizations, is Senior Vice President and Medical Director of Osborn Group, Inc. in Olath, KS.

<sup>§</sup>Mr. Moore, not a member of the sponsoring organizations, is Vice President and Chief Underwriting Officer at North American Company for Life and Health in Chicago, IL.

represent a variety of backgrounds, will speak to particular issues, but we're expecting to have a lot of interaction among the panel members and take questions and comments from the audience. We expect that this is a topic that many of you are familiar with and have some interesting viewpoints to share with the group.

I'm with the North American Companies in Chicago. I will serve as the moderator for the panel discussion. Our subject is instant issue, somewhat of a misnomer in that we're not going to focus exclusively on instant issue, but we are going to talk about the process of rapid product issuance and the implications that has from a marketing, underwriting, operational, product pricing, and design standpoint. I think all of you who are close to this subject realize that rapid issue in our marketplace today is becoming a very important ingredient of success from a marketing perspective, and I think a lot of this is being driven by today's customers. Customers are beginning to expect convenience in almost any product that they buy or any service they obtain, and in reality the insurance business is not immune from that expectation. Successful companies are either already delivering policy issuance in a reasonably rapid fashion or they're at least working on it. And I think we're beginning to find that a larger number of customers are beginning to say that 30–45 days to submit, issue, and deliver a life insurance policy is no longer acceptable. Customers don't accept that from other financial services. They don't accept that from other retail establishments they do business with. And I think we're beginning to find that they're not going to accept it from us much longer.

We will talk about what kinds of things are going on within the industry. What are a variety of companies doing in response to this very important aspect of our business? Our first speaker is Bill Moore, who is vice president and chief underwriting officer with the North American Companies. Bill will speak to the issue of internal processing—how companies are organizing and operating in response to this demand for quick policy issuance. Bill will also touch on some of the issues related to underwriting.

**Mr. Bill L. Moore:** I'm going to go way off in the future and then drop back because I think it can put some things into perspective for us. One of the things I see happening in the future is that an individual prospective insured will sit at his or her PC searching the web and be able to touch the screen and have a policy print on the printer right next to his or her PC. That might sound next to impossible to a lot of us, but I certainly think that can happen in the future. Another example of what is coming is what you can do when strolling down the mall. You see this kiosk that says "look in here," and you get an optical scan and out pops a policy. I think that could also happen in the near future because of technology advancements and how rapidly they're taking place. But until we get to that point let's back up into reality.

Let's take a look first at service expectations as they exist in today's marketplace by distribution systems. My experience at North American is in multiple distribution systems—primarily a brokerage environment and financial institutions. But if we look at the brokerage market, I think it's very similar to a personal producing general agent (PPGA) market as well as a career-agency force. Today the turnaround time for a clean case, meaning the time it takes from when the home office or the regional office receives an application to when the policy is actually mailed back out to the agent (for brokerage, PPGA, and career marketplaces) is about five to eight days. It's a fairly quick process on a clean case. If we look at that same situation under a direct response, that expectancy gets a little bit tighter because of a sensitivity to the placement of that case. By direct response we mean Internet sales as well as a tower-marketing-type approach where you have the quoting services in which a licensed staff is actually on the phone calling prospective insureds and getting them to participate in a life insurance program. That turnaround expectancy is somewhere around three days. Two to three days is what would probably work best in a competitive environment for that marketplace.

If we take it to the next level, which is the financial institutions, primarily the bank business, now I think we're no longer in the realm where we can measure their expectancies by days. We have to look at that more as the true instant issue process whereby it's at point of sale. So we're kind of looking at zero days and a true instant issue there. Now, are we there? No, we're not there yet, but that's the direction that the financial institution marketplace is heading, and I know there are probably a few companies that are very close to that point-of-sale approval process. I think the current trend right now is that we can't meet the demand of where the marketplace wants us to go, and a lot of companies are, therefore, looking at ways to be able to meet that process, and that's what we want to talk about today.

The first thing that everyone looks at is technology. Without the technology it's probably impossible to get to a very fast turnaround time. The technology can be broken down into basic categories; the first one is information gathering. How do we go about utilizing technology to get the information that we need and get it in a format that's consistent with our administrative systems and our legacy systems in a home office environment? The second category—and part of the data gathering—is an application upload process, which means that if brokers are submitting information electronically to their PCs, how can we transfer that data electronically into our home office legacy administration system? We also have faxing, which is a form of technology. I think faxing is moving more toward imaging. You'll see more companies stop printing out a fax transmission. Instead, the data will be sent to the agent's PC and appear on his or her screen (as a PDF-portable document format), and the data will be gleaned off of that screen format fairly quickly and easily.

We're also looking at database searches. We have one of those now in our industry—Medical Information Bureau (MIB). It's been around for a long time. Those are the kinds of things that we look at: MIB and motor vehicle reports. The trend is to go to database searching for prescription medications. There's a lot of work going on in the industry right now on how vendors can partner with some of the pharmaceutical companies so that we can access the information on their database. Who takes what meds and what are the dosages and how long are they taking them? We also have Web site information. A lot of people are inputting information sitting at their computer, as I mentioned before. How do we glean that information and put it in as a transmission to the home office to gather that data and do what we need to do? We use the old-fashioned paper methodology, which works well, too.

Once you have the information what do you do with it? That becomes the analysis part, which leads us into the expert underwriting arena, and there are many variations of how that process takes place today. There are probably four primary companies that offer software technology with respect to how to do expert underwriting, but I think we need to define what that means. Essentially there are two broad bases of expert underwriting. One is a judgment-based processing, and the other is a table-based processing. The original or initial expert underwriting systems done 10–15 years ago were focused more on the judgment processor, which meant that the system actually was taught how to underwrite. It had a human underwriting mentor that would put information into it and all of the cases that would go through the system as if it thought, "I think I know how you want me to do this." And it would make recommendations, such as, "This is the action I would take. Is that what you want?" Artificial intelligence was built into it. The biggest drawback with those types of expert underwriting systems is what happens when it comes time to move to a different distribution channel, a different product mix, or a different pricing mentality. Then you have to change your underwriting to meet some of those pricing assumptions. How do you unteach that judgment processor and teach it something new? Furthermore, how do you have it use two different types of distribution systems at the same time? The judgment processors have somewhat dropped out of popularity because of their inflexibility when making quick changes in the underwriting philosophy or environment.

That leads us to the table-based system, which most of the expert underwriting systems are today, meaning that the company actually sets up build tables, blood pressure tables, all of those processes. The system has this information and knows what the build is. It's 6 feet, 235 pounds. It goes and checks the table and queries, "Is that standard? Is it in the best class? Is it Table 2?" It can assess it from that standpoint. It doesn't have to be taught something. It just quickly checks the tables and then moves forward. It's not really doing artificial intelligence or a thinking-

type process as we see it. I think the other process, which today's expert underwriting systems provide, is an auto approval process, a quick approval process, or a reject process. The instant issue theme obviously is geared for an auto approval process.

How can we build our expert underwriting systems and tables so that we can get the system to actually do the approval and avoid a human underwriter having to intervene with that case? If the expert underwriting system says, "You know what? I can't approve this one because it doesn't meet all the table criteria that you've given me," this is the part that doesn't fit. If it gives that information to a human underwriter to look at, then it frees that human underwriter to only look at what is negatively impacting the mortality instead of the entire case file to know exactly what is good or what is bad about that case. That's kind of what we call our quick approval process. An expert underwriting system really flags the basic problems of a case, so are we focusing on just those issues instead of figuring insurable interest? Is the height and weight right? Those are the kinds of things that are time consuming for a human underwriter to do. We still have advantages. Even though we don't have auto approval, it speeds up and makes the underwriting process more efficient.

Moving onto the next one, which is an absolute reject, that just kicks anything that it can't auto-approve off to an underwriter, and the underwriter has to review it, just as he or she would if there were no expert underwriting system in place. There are three very distinct approaches to that, and I think each company's approach has to depend upon their distribution system and how they want to set up their system. I think the expert underwriting systems had a lot of bad press early on because the expectancy was sold a little higher than what could be delivered. I think originally when they came out they were being sold as replacements to human underwriters, and when the companies began to look at it, there was no way that the system could do the same thing as a human underwriter. It can't analyze if a male has diabetes and his kidneys don't seem to be working really well, and he's just had a stroke in the last six months. There's not an expert underwriting system out there that can really assess those events the same way that a human underwriter can. You have to balance. Do you want it to look at impaired risks? Probably not. Do you want to look at very clean risks? Absolutely. Where the middle falls is up to each individual company's consideration.

Once the approval is in place then we want to look at how the administrative legacy system in the home office moves to a quick policy issue. Most companies have people who are still submitting information and data to that system. But a lot of the technology exists today to make an automated process whereby once your expert underwriting system approves the case, it immediately starts producing that policy,

assembles it, and spits it out the other end. There's an awful lot of talk about imaging and work flow. Some of your companies probably already use imaging in some shape or form. For example, we get a paper application coming in the front door. If we can scan that, glean information out of certain fields, and automatically populate the administration system, then we don't have to have somebody sitting there rekeying that information, which is subject to error and also a very costly and time-consuming process.

Imaging and work flow tremendously improve how an administration department works in a life insurance company, and the work flow piece of it means that that data gets to the right place at the right time in the right format. It doesn't have to be a paper handoff-type process, which oftentimes was the case historically in insurance companies.

One of the challenges that happens in an instant issue process is when you're gathering that information it's no longer in one source. How do you get it from one different geographic location to another? You have a remote access base. Data lines need to be set up. How do you move it quickly, and how does it move effectively? More than anything else, the technology eliminates those handoffs. There were some statistics published a number of years ago from a new business standpoint that said for each handoff that takes place in the department, it costs you one-half day of turnaround time. What is the average number of handoffs? Anyone want to take a guess? It was probably about 5–10 years ago when that survey came out. From application receipt to policy mailed out, anyone want to guess how many handoffs took place there?

**From the Floor:** Eight.

**Mr. Moore:** Eight? It's actually 35. So, the best you can do is seven days. You're the mathematicians. You can do that better than I can. That's a long turnaround time for those handoffs. The power of technology is really addressing that hand-off situation.

The other part that we're going to look at is the speed of that technology. We have an expert underwriting system at North American, and I asked the underwriters how the system worked as far as speed goes. I was amazed when they said it was extremely slow. I said, "Well, can you define extremely slow?" Their response? "It takes almost a full second to go from one screen to the next." I think that's really where we are with technology. It used to be, "Hey, I'll do that in a second," and it meant something. Now all of a sudden you apply that same concept to technology and a second becomes an hour or a second becomes a minute. The expectancies

continue to increase in delivering that technology, which is a real challenge, I think, to the information technology departments.

To focus a little bit more on the underwriting side of things, I think the whole premise of doing instant issue is a balancing act. You have to balance the speed of issue, the cost of issue, and what the protective value is of the information that you've gathered to make sure that the mortality is not negatively impacted. There are varying ways to approach that, all the way from a guaranteed-issue-type basis, which tends to be a little bit more expensive than what the marketplace will bear today, to a simplified-issue process or an accept/reject process to a fully underwritten process. When you move from guaranteed issue being too costly to fully underwritten being too slow, somewhere in the middle lies that compromise for an instant-issue process. Another aspect is structuring the product. What kind of rates are you going to use? Are you going to lump in a table for an underwriter your base price and take all of those risks that were Table 4 into that pricing consideration? Or are you going to go to the other end of the spectrum and say, "I think we can probably even do a preferred pricing scenario and a standard pricing scenario?" That spectrum has to be considered when looking at those kinds of products.

The requirements that we obtain for this business are critical and you'll hear more about that later, but how do we get the information? What's the quality of the information that we're receiving? And what's the speed that we can move that through? For the requirements we're looking at the fluids, the physical measurements, and just basic data about the background of that particular proposed insured. You have probably heard a lot about hepatitis C. The only way to get hepatitis C results right now is to get fluids of some sort. Does that limit our instant-issue process and the speed at which we can deliver that information?

I mentioned the information-gathering quality, not so much where it comes from, but the quality of that information. It's a lot different if you have a teller who knows nothing about life insurance asking a proposed insured the health questions, not knowing exactly even what the impairments are that they're asking the person to respond to. First, we need a fully qualified paramedical examiner to gather that same information from the proposed insured, which will yield very different equations. With respect to costs I think the speed that comes into play means that we'll place more cases, which means we have more funding there to cover the acquisition costs so we can balance some of the pricing with that theory and that process. Also, I think the technology tends to improve the protective value. All of the information that you need is there every time because the system won't work without it, and also the type of information you're getting is analyzed consistently

the same way every time it comes through. I think the protective value goes up as the technology increases and improves.

Looking at some of the challenges associated with instant issue, I think the biggest one that we're faced with right now is a regulatory situation. Between the regulatory environment and the legal environment, how do we get wet signatures versus dry signatures? When do we have authorization to do something, and when don't we? When you're transmitting electronic information again, we don't have that hard signature on paper, and I think that's going to be a long process for our environment to overcome that challenge. I had an interesting situation with one of my former companies. They would not allow faxing of applications, yet the company was bought and sold based upon the faxing of the contracts and the agreements to buy the entire company. I think that that shows that in certain circles we're willing to do certain transactions from an image standpoint but, when it comes to other things like life insurance authorizations, we still have a paper-traditional and hard-signature mentality.

The other major issue that we have to look at is security. How do we get information from one source to another without somebody seeing it in between? The firewalls that are built into Web sites have to exist. Do we allow customers access to our system? If so, how do we make sure that it's secure; that they're only seeing their information versus others' information? I touched a little bit on the quality of information. Just as an aside, that quality of information became clear to me when I was at one company and we did a credit life business whereby the incentive was the number of applications taken per month. There were bonuses. The individual who sold the credit business was given a bonus based on the number of applications. It didn't matter what the quality of the applications was or if they did field underwriting. It all came down to how many you could get through the door. We would see applications literally coming in that said this person is in excellent health. They may have neglected to say that they came in a wheelchair or that two people carried them in. Those are the challenges we are faced with in an instant-issue-type process. You tend to have a different marketplace and a different mindset, and it's going to take some time for that education and training to take place.

**Mr. Turner:** Bill brought you the perspective of an underwriting company in this instant-issue process. Our next speaker will bring the perspective of a service vendor, who is providing all service in this marketplace. Jim Fritz is president of APS, which is a paramedical services vendor, and Jim will provide you with the way APS is working to try to help their clients shorten the issue cycle.



**Mr. James A. Fritz:** I represent APS Paramedical Service. We're a national paramedical provider that performs, among other services, medical examinations, paramedical examinations, electrocardiograms, and blood profiles. Our industry is about 30 years old. We were born basically to make the process a little easier for the insurance carriers and their applicants, to reduce the need to use physicians for all services, and to reduce pricing, of course, which is very important. As our industry has moved along, there have been a lot of changes. In looking at the history, first we perform examinations through a national network of offices, as do all the paramedical companies. There are four national paramedical companies serving the life insurance industry right now, and we're all national. There are some smaller companies that provide more localized services, but mostly it's the national companies that have about 95% of the market.

For many years our local offices would serve the local agents. The local agents would pick up the phone, call our local office to do a paramedical exam, and then our examiners would call the applicants. They scheduled appointments to go out and visit with them. They then went out and performed the various services, whether it was a paramed exam, blood draw, or an EKG. Then our examiners took the paperwork and submitted it back through our field offices. Our offices checked the paperwork for completeness to make sure everything was OK.; if so, they forwarded it to the insurance carrier. At the same time, when we drew blood our examiners actually took the blood back with them to their homes. They centrifuged in their homes, spinning down the blood, and sent it off to the laboratory. That's where we are right now, and that's been the traditional way of doing business. But what's happening now is the traditional agents don't have the corner on the market anymore. There are a lot of alternative distribution processes taking place, and it has us taking a different look at the way we provide our services.

Technology is really transforming the process that we utilize in the industry. Our core goal remains the same: provide efficient and quality information to our clients. But the way we're doing that is starting to change. We can now receive requirements and actually perform examinations electronically; that's what I'd like to talk about. Back in the early 1990s insurance companies started to ask for more technology from companies like APS, and companies stepped to the table with ideas such as tent-based computing. We had several competitors who stepped into the market, started to equip their nurses with tent computers to do examinations in the field electronically, and provided that information back to clients. It was a very noble effort.

Unfortunately, at the time, the idea was probably ahead of the technology to support it. They had a hard time because tent-based technology, for those of you

who are not familiar with it, is improving, but it's far from accurate, and it was too labor-intensive to actually prepare the form itself to get it back to the clients.

Tent-based didn't take off in that format, but what evolved from that was a process of collecting examination information, tent-based medical history, electronically through a central process, which we call paratel. Other companies call that telemed. With that process we have a central unit, that is staffed with medical interviewers who actually contact the applicant and take the medical history over the phone. As they're doing that they're entering the responses into a computer system. And a really good thing about the process is, as the applicant is providing affirmative responses, the computer system actually can ask more questions.

What happens is we're able to obtain what we believe is more thorough information through that process. That's not a shot at our nurses in the field because, of course, I'm biased but I think our nurses by and large do an excellent job of obtaining information. But with a paratel it's not only their knowledge base, it's also on a screen and it's constantly prompting for more information. Through that process we can also take application information. It's not just the Part II, but now it's the application.

We have clients who are taking the application and splitting it off and allowing the agents to collect certain marketing information, but they are having us collect more of the underwriting information on the application. We can transition from that application to the Part II, and we can take it one step further and actually complete an inspection report all at the same time. This is all done over the telephone. In addition, the process allows us to do reflexive questioning. If there are certain areas that the company wants to focus on or if there is an affirmative response to a history issue, we can actually tailor additional questions to meet that client's need. We can also reflexively order additional requirements, such as an attending physician's statement (APS). The inspection report, as I said, also provides assistance.

The difference right now, and one of the important parts of this whole issue, is the time it takes. When we send an examiner out to the field to do a traditional examination, it can average anywhere from 10 to 12 days. The agent must pick up the phone, call, and order the examination and when the examination is completed, mail it back to the insurance carrier. When we underwrite a paratel case and we actually do the interview over the phone, the turnaround time to put that information into the hands of the insurance company is running at about two-and-a-half days. When the carriers are looking to reduce the processing time, we can cut a lot of time just by doing the case over the phone. That doesn't reduce the need to go out, get a signature, and still get that paperwork back to the client and that still

takes time, but in terms of providing initial information, we can get that back to the clients much faster.

Once we've completed the interview process, that paperwork is forwarded out to our field offices because there is a hard-copy signature still required. At that point our examiners take the paperwork, actually go out, and have the applicant review it. The applicant signs the paperwork, and then they go through the usual process of collecting some form of a body fluid. The paperwork then either goes back to the insurance carrier or now more and more insurance carriers are asking us to forward that paperwork in the lab kit. And in more and more cases the laboratories are imaging paperwork and then providing that image back to the insurance carrier, or they're just collecting all the paper and then forwarding it overnight back to the insurance carrier. They're trying to get away from the U.S. Mail and more into Airborne and FedEx to speed up the process and also have a tracking process for lost paperwork. When we do these cases by phone we also preset the appointments, which is important because when you go through the process of getting the applicant on the phone it is an additional step in the process. You want to try and lock the applicant in. We try very hard to preset appointments so that when our examiners get the paperwork that appointment's already been set. They just have to go out and visit with the applicant and finish the process, and then it's done.

The telemed process is moving along. I remember back in 1994 when we first started it. It looked like it was going to sweep the industry. It was going to become the industry standard. And I think it still will, but it will take time and it also depends on the market that's using it. We found that the traditional agents, who typically picked up the phone and called our local office to have the paperwork done in the field, have not embraced it. I think there are several reasons for that. First of all, there's a comfort level. The local agent deals with our local manager. They're comfortable with our local manager. They feel their cases will get handled the right way. They like to know with whom they're talking. They like to continue that process.

There also hasn't been a tremendous incentive to move to this new process. Bill mentioned expert underwriting systems. I think the expectation level for the electronic examination process may also have been oversold a little bit at first. Agents thought that they were going to get incredible turnaround time on the entire process. From the time the case was taken to the time the paperwork was back into the insurance carrier's hand, it was going to be several days. In reality, the process to get the paperwork back into the hands of the insurance carrier is still time consuming because once we've done the process of the electronic exam we still

have to get the paperwork to the field. The applicant still has to sign that paperwork, and then it has to come back to the insurance carrier.

The overall process, in terms of paper-flow time, has not necessarily been reduced that dramatically. But the process of getting information into the hands of the underwriting department has changed dramatically because you've gone from 10–12 days to 2.5 days. As more alternative market processes take hold and grow, such as the quote services, the banks, and the national marketing organizations—where there's not necessarily a local agent in a local town—I think we're going to see more of the electronic examination process because it is actually a convenience to those marketing organizations. They don't have any ties to our local offices. There's no incentive for them to use our local offices. And, if we use an electronic process, the case. It can be ordered electronically, which reduces, first of all, spelling errors, which can be actually a major problem, especially for matching purposes. And it also reduces improper requirement ordering, which can be a real time waster for insurance carriers. Just the electronic order itself helps, and, following the process through, I think there are tremendous benefits for those markets. I think the traditional agents need a little bit more work. We'll keep working at them.

**Mr. Turner:** Our final speaker will be Dr. Charlotte Lee, who works with the Osborn Group. Charlotte will bring the perspective of a lab services vendor to this matter of quick issue of policies.

**Dr. Charlotte A. Lee:** I am medical director for Osborn Laboratories. Before I was medical director for a laboratory I was the medical director of several life insurance companies for 20-some years, most of which were in Minneapolis, Minnesota. Most recently, before the lab, I was at Lincoln National Reinsurance Company. So I've seen insurance from all sides—from filling out the little form for the APS when I was in private practice to actually reading those APSs when I was a medical director for insurance companies to seeing it from the laboratory side. I think I have an advantage having already been a medical director (or an underwriter-type person) before going to the lab. I can foresee the problems that the underwriters have. I can anticipate the types of questions that they might have about the lab studies that come in. I've run the whole gamut of the laboratory and the medical director and the whole insurance medicine realm.

We used to think, and we still do think, that in all the time that it takes from application to actually issuing the policy, a large part of that waiting period was for APSs to come in. We're going to talk about APSs later and how we hope to do more and more without the actual APSs. But another part of the holdup, even though we're trying to make it shorter and shorter, is the laboratory processing for the applicants. There are three main test matrices—we actually call them the

analytes which are the actual blood tests, urine tests, or oral fluid tests that are done. A matrix is just the substance that the test is run on, and those three main matrices are blood, urine, and oral fluid. We used to say saliva. Now we dress that up a bit to call it oral fluid. But still at the lab we call the testing facility the spit pit. We still are back to basics in the lab itself.

The hallmark of laboratory testing has always been blood testing. But, as you know, blood testing is somewhat invasive, whether it's from a needle stick in the arm or the finger stick for the dried blood spot. And, as many of you know, you'd rather have the actual blood drawn from the arm than a finger stick because that's not pain-free either. It used to be that almost everybody who applied for insurance had a full-blood specimen drawn. A "full-blood" just means we get a full-blood panel with things that the underwriters want to know and things that they don't want to know. There were some test procedures that were actually printed out that the underwriters really didn't deal with on a day-to-day basis. Then it came to be that some companies were attempting to underwrite, and successfully so, using urine only because urine was the next most favorite analyte as far as what you could get from what we call the menu. The menu just means a list of things that we can get from a certain substance. It went from blood only at some companies to the very, very high-dollar-amount cases where blood and urine were required on the same applicant. Then there were some companies that tried to do as much as they could with urine only, but now the testing analyte du jour so to speak is the oral fluid test.

The oral fluid test is, in some areas, thought to be a not-so-pleasant type of substance to handle, but this isn't really handled by more than one or two people in the total process. The reason oral fluid is coming to be a substance that is going to gain more popularity is that the menu is being worked on now so that more and more substances will be able to be found in the oral fluid itself. Theoretically, oral fluid should contain most of the same things that the blood and the urine contains. I'm not going to get really chemical about this, but anything that's water-soluble usually shows up in most of the body fluids. The popularity of oral fluid has suffered, and this is a quote from the *Journal of World Pathology*, because "it lacks the drama of blood, the sincerity of sweat, and the emotional appeal of tears." This is just saying that we don't look upon oral fluid quite as we should yet. By the way, the speakers before me had all mentioned how we can do so much more electronically. We can do things. We can gather information by telephone and send information by fax. We can get information off the Internet. But so far, testing body fluids can't be done by phone yet.

What's the advantage of oral fluid? One of the main advantages is the ease of collection and the relative lack of expense because of this. The patient or client can collect an oral fluid sample. Agents can collect the oral fluid samples. I'm going to

talk a little bit later, too, about agent-collected versus paramed collection and what the implication of each collector might be. It can be collected, in the workplace, or any place where you don't really need a lot of privacy. As you know, for urine collection it's a simple process to void into a container, but there still needs to be at least another room for privacy there. Oral fluid can be collected in the middle of Grand Central Station and hardly anybody would even notice or care. That's a great advantage.

The specimen collection containers are small. They're not very bulky, so we don't have to have crates for shipping the little containers that contain the oral fluid collection system. The secondary advantage is that it's a time-saver. It's quick and easy. It only takes a few minutes to collect the sample. It's noninvasive. Nobody gets hurt. It's pain-free. There are some people who do note a little bit of tingling sensation in the mouth because of the re-agents that are used in the pads. It used to be that some of the pads had saline on them or something that was a little sour because it improved or increased saliva flow. Some people noticed that, but it's not a painful sensation at all. It's difficult to adulterate an oral fluid specimen, and adulterate, as you know, means adding something to it or somehow changing it so that it produces false results. If someone is given a urine container and is asked to go into the toilet and void the urine, they can easily replace it with another vial of someone else's urine from home or just add plain water to it and adulterate the specimen so that accurate results aren't obtained. But if a paramedic or someone else is obtaining an oral fluid specimen, they're sitting there actually looking at the person. It's very difficult for them to adulterate it.

There are some people who have religious objections to having their blood drawn or having their blood processed in any manner. Usually there is no objection to using oral fluid as the testing medium. Another advantage is there is less stress. There are some people who get really uptight when they know they're going to have blood drawn. They just hate the thought of being stuck with a needle, so oral fluid sounds a little easier. By the way, the device looks like a little toothbrush with a little pad at the end that's inserted between the cheek and the teeth. It just sits there, and the oral fluid just naturally goes into the collection pad. There shouldn't be any nervousness about this procedure being done. There's no risk of anemia, although we don't bleed people with quarts when we actually do blood draws, but some people see those three tubes of blood as being literally quarts. There's no risk of someone who might already be a little anemic being more anemic just because blood is drawn. There's no risk of infection because nothing is invaded. The body is not really invaded at all—just the oral cavity is. That's where the device is. There's no risk of blood clots as there might be with blood drawing. It doesn't really require a lot of training but, as I said, the more trained a person is, certainly the better quality specimen he or she's going to get.

Cost is an item, and the bottom line is going to be a big part of it. It's relatively inexpensive to do this type of testing. I'm not going to go into the science of the different collection methods, which is the flow method. Actually, you suck out the oral fluid by an absorption method because the pad, the oral fluid pad, actually absorbs the oral fluid. So the person being tested doesn't have to do a thing.

Theoretically, anything, as I said before, that can be found in urine and in blood can be found in the oral fluid. There are certain things, though, that the oral fluid enzymes might change just a bit because, as you know, digestion begins in the oral cavity. So, there are digestive enzymes that sometimes might play a part on those analytes, but usually those are not the things that we'd use at insurance companies anyhow. The concentration of any substance in the oral fluid is much less than that same concentration would be in the blood or the urine. Now, there are some instances where it's a little confusing about why one body fluid showed one concentration and at the same time another body fluid showed a different concentration of that same substance.

What happens when an underwriter calls in and asks, "How come the oral fluid was positive for this substance, but the blood was negative?" I give this as an example. Cotinine is the metabolite that we test for tobacco usage or nicotine. If a person has just smoked a cigarette on their way into the examining station, then they're certainly going to have a high concentration in the oral fluid because the smoke, the tar, and nicotine, goes directly through the oral mucosa into the saliva. If a person is asked to void a specimen of urine at that same time, that urine may be totally negative because if that person hasn't smoked in two or three days, it might have gone negative by then. Anyhow, it takes time for the metabolite to go from the oral fluid into the bloodstream and then be filtered into the urine, which is sort of the final common pathway. There are going to be instances where an underwriter would expect the same type of showing in all the body fluids, but it takes time to process. We're not going to find the same levels of the same metabolite in all the body fluids. Oral fluid requires a greater sensitivity of testing just because these analytes are in such smaller quantities—it's the quality that matters and not the quantity. If the lab is able to actually test these analytes, we don't need a big quantity of them to be tested.

Would you believe, and this astounds people, that we produce one to one-and-a-half liters of saliva every day? If you can think of saliva in quarts—I know that's kind of gross—that's about the same amount of urine that we produce. We produce one to one-and-a-half or even two liters of urine per day. To say that we produce one to two liters of saliva or oral fluid a day then really isn't that astounding. What happens with saliva is we swallow it and then sort of recycle it. That's why you're not aware that you're producing as much as you are. But 99.5% of this is water.

Testing fluids that contain a lot of water are good for analytes because it's easy to test an aqueous solution. The salivary glands are all in your mouth. There are three pairs. I'm not going to get into the science of that. Some people in the hospitals do make a distinction between whether it's oral fluid or spit versus saliva versus mucus secretions, and that's from hacking up when you have pneumonia versus giving a nice oral fluid sample. But all we need in the insurance-testing industry is the oral fluid sample and nothing deeper from that. We don't need people to cough or anything to get good samples.

The only thing that we need to watch out for in collection of oral fluid samples is if a person is bleeding in the oral cavity; perhaps they've recently had a tooth extracted or they've just bitten their tongue on the way into the collection facility. Blood, in itself, if it gets mixed with the oral solution, will change some of the analytes. Blood in itself can contaminate it, but no blood is produced by the oral fluid device itself, and rarely is there going to be somebody who has some reason to be bleeding in their mouth at the time that we're collecting. Still, that does tend to alter the results. There are some more lab-related things—the pH, and the effect of that on the oral fluid.

Let me get to what we can actually test on the oral fluid. We can test for cocaine. We can test for cotinine, which is the by-product of nicotine and detects smokers or tobacco users. And we can test for HIV. In Canada the underwriters and all of the companies have the advantage that hepatitis B and C can be tested for on oral fluid. But as yet in the U.S. we don't have Food & Drug Administration (FDA) approval for those analytes on oral fluid. We can, however, test for hepatitis on urine. As you know, that's the latest thing as far as hepatitis testing. You can get that on urine, but so far that's not available on oral fluid. And for some of the underwriting, if for example you are able to get HIV, cocaine, cotinine, and hepatitis, these are the biggies as far as any insurance is concerned, especially for the lower amounts, which tend to be used for guaranteed issue or guaranteed underwriting.

Now, I'd like to say one other thing about the quality of the paramed service, and I'm sure this is very near and dear to Jim's heart because he knows that the insurance companies rely very heavily, and thus the labs rely very heavily, on quality collection of specimens. Let me give you one little anecdote. We got a call from one of our Canadian client companies, a huge company, asking what had happened to the specimens that were collected on one customer and gave the numbers for us to look it up. When we tracked it down it turned out that it was another one of the paramed companies—it wasn't APS or Jim's paramed company. As you know, the labs don't know where these specimens are coming from because different companies use different paramed facilities, and some use three or four different facilities. Well, anyway, this paramed collected the specimens in Canada.



Somehow these specimens were found in a snowbank still in their big plastic containers, and it was about three weeks after the specimens had been collected. Somebody found them and shipped them to the lab, and the lab asked, "Do we test this?" If you test them, there are things that happen in transit if a specimen is very, very old. The lab had nothing to do with how long it took that specimen to get there.

There was another instance, involving a lawsuit. Again, it was not Jim's company. A paramed put the specimens out on her porch to be picked up. The specimens weren't picked up by a courier, like Airborne or FedEx, but by a little neighborhood kid who took them to his house. His mother found them a couple of weeks later under his bed. There's a lot that goes into these specimens that people really don't realize: How they're tested, why they take so long to get to the lab, and, thus, to get back to the companies. But those are just anecdotal situations that let you know how important the paramedical facilities are to you and to the laboratory.

That's all about the newest thing we're going to be using for instant issue. And, as I said, we have only to perfect getting the hepatitis test. Once that's done, I think we'll have a very good medium for getting a lot of information on a small amount of noninvasive body fluid.

**Mr. Turner:** I'm going to touch on a couple of other subjects, and then we'll open it up for comments and questions of the panel. I guess being the token actuary in the panel group I feel like I have to say something about the pricing issues here. I think people who are in the term business today, and certainly functioning in this marketplace, have had to focus a great deal of energy on the pricing considerations with this product and the impact that instant issue has on the product. I've heard the comment made before that underwriting begins at age 45. Bill might disagree with me there, but I think certainly from a pricing perspective, what we have seen with many of the mortality issues is that the traditional underwriting function is certainly important at all ages. But, certainly, at the older ages it seems to have the greatest impact on pricing. At the younger ages, and certainly at the smaller face amounts, the expenses of putting the business on the books, in our view, is becoming a bigger and bigger issue. And if you're going to be competitive, if you're going to make money at the younger ages and the smaller amounts, managing your expenses is a very key component to that success.

As an organization, one of the things that we focus on is what I would call paid ratios. We do business through independent producers. They can send their business to anyone. In fact, it's arguable that today every producer is independent to some degree, but some are more openly acknowledging that fact. In the marketplace, certainly in today's term marketplace, many producers will

multisubmit the business to a variety of carriers. They do that for a couple of reasons. One is they're obviously trying to get the very best rating class for their customer, and in some cases they're simply trying to anticipate time response. Some companies are faster in the business than others, so a broker or an agent might multisubmit the case in order to protect his or her client and to get the best opportunity. That, as you can imagine, is a very expensive proposition. If you go through all the effort and all the energy to underwrite this business, you pay for internal underwriting, lab services, and the paramed, and if the case never gets paid, obviously you have a lot of waste in your operation. And so I think it's very important today as pricing actuaries that we watch this very closely. There's probably a point in time where you could probably price the expenses on a single ratio across all the ages and all the amounts.

Certainly from my experience there's a big variation between business that's submitted and business that eventually goes in force by age, face amount, and underwriting class. I think you should probably build that into your pricing, particularly if you're going to be competitive at the young ages and the small amounts. The companies that are doing so in those situations are able to be competitive, probably not because they have superior mortality but because more of the business that gets submitted gets paid for, and that's a major, major consideration.

In addition to the paid ratios I think you need to work very closely as pricing actuaries with your new business and underwriting areas, getting a very clear understanding of what various services cost you. Most companies are using paramed vendors for their services. Most companies are using lab vendors for their services. You need to be very comfortable and very knowledgeable about what those services are costing and build those into your pricing. Obviously there's a time where some negotiating for those fees and services is very important, particularly if you're a large volume operation. Many companies today are finding, besides salaries that they pay their employees, that the next biggest costs they have are underwriting costs—the actual fees that they pay to outside vendors or other service providers to handle their business. Getting a very firm handle on those expenses is very important.

You can certainly find in the instant-issue process what—back to Jim's commentary about the telemed-type processing—the difference is in what it costs you. You obviously have to pay for the telemed service. You either pay a vendor to do that or you do it yourself, but the remaining portion of the paramed fee itself is different. If the paramed goes out in a face-to-face area and does the full process, they'll do all of the Part II—they'll gather the fluids and get all the signatures. That's typically a more expensive process than when the paramed does not do the questioning in

person, which is what is done in the telemed process. That's another expense difference that you should factor into your pricing.

Certainly, as Charlotte mentioned, there's a considerable difference in the pricing between whether you use a full-blood profile, urinalysis, or saliva. The kits cost different amounts in each situation. There is a certain amount of waste, even though I understand the waste on the oral fluid has greatly improved as people applying that have learned how to use it. I think that has really helped reduce the cost, but once again, depending on your age and the face amounts you need, I think, to be fairly precise in the pricing of these activities we need to get very competitive in today's marketplace.

And last, but not least, is the issue of APSs. Historically, well maybe just two or three years ago, I think it's reasonably safe to say that the underwriting profession relied very heavily on APSs as their primary underwriting tool. It provided a lot of information, maybe not as current as it needed to be, but in times when the pricing and the timing pressures were not as great, I think the APS was a very valuable tool. In many cases it predated the paramedical services and the lab services in terms of information they provide, so I think the APS, particularly with the older underwriters, was their security blanket. It was the thing that they felt the most comfortable with.

In today's marketplace, I think we're beginning to find that APSs are very expensive. The range of pricing for APSs can be across the board (I'm talking about the traditional APS where you send a form out to a physician). The physician completes the form and sends it back to you. Whether you use an agency to help collect that or not I think is an issue in that pricing. But clearly that's very time consuming and, in many cases, the single biggest expense that you might have in the underwriting process. I think what we're beginning to see is that, at the younger ages and the small amounts, the actual cost of that process is probably greater than its protective value. I know that's a generalization that some people might dispute, but our experience has been that at the younger ages and the small amounts the APS tends to be a very expensive proposition, and the information in some cases is dated. We commented earlier that that information, when you go back out to the physician, hasn't been there in two years. That information isn't as current as the paramed exam or the lab services information.

The other very big issue, at least in our experience, is the direct relationship between APSs and paid ratios or placed business. The greater the number of APSs you request, the greater the likelihood that the case may never eventually be placed. That isn't necessarily a bad thing, but that's certainly an expense that you have to factor into this. And so I think what you're going to be seeing, and some companies

in the marketplace have made a very major effort, is a move away from APSs to more of what I would call current sources of information on the medical condition of the applicant. Panelists, how do you as a group feel about APSs, and what are some of the plusses and minuses of that in today's business?

**Dr. Lee:** As I'd mentioned earlier, I've been on both sides of the APS picture, the side where I had to fill out APS forms and then the side where I was given the task of actually reading and interpreting some of the APSs. If all physicians knew what was going to happen to the information, maybe even years down the line, I think they would all have different approaches to how they put material in the APSs. Traditionally, I think, physicians put down material and information on their patients for themselves so they could look back at the last visit and see what happened to the patient. That's why this handwriting is meant only for them to read and interpret as opposed to someone else. But I have found over the years that it takes a lot of underwriting to even interpret the value of a given APS. And that's why a lot of the in-house seminars for underwriters actually give pointers on how to extract information from APSs because there are good APSs and there are horrible APSs. And it's very costly to get a bad APS. With guaranteed-issue underwriting the issue now is, how can we get more and more information without even getting APSs? What happens now is, with some of the phone call information gathering it is done electronically and then put into the computer. Then, because of the questions that are answered by the applicant, this information cascades down to a final common denominator—do we still need a written APS on this person or can we extract from the actual interview with the client? This information, plus the blood work, plus the Motor Vehicle Record (MVR), plus the inspection report, along with the background check, can be used instead of APS. I think the trend today is to try to do more and more with less and less—with fewer APSs. You get the multi-million dollar case. Of course we're going to want as much information as we can, even if that APS is several inches thick, but that's just the nature of the game as far as information gathering is concerned. A general trend in all of your companies, trying to do more with less, of the actual paperwork, will be a move away, from APSs as long as we can assure ourselves that we're still getting the necessary information that we need.

**Mr. Fritz:** I think I can say that, just in dealing with our clients, that there is a trend to ask, "How can we get by with fewer APSs?" And there's a group, in fact, I think it's called Task Force 72, that's actually a collection of insurance carriers and vendors, who are trying to find ways to rely less on APSs. And I do know that Charlotte and I share a mutual client who is actually utilizing more of Charlotte's services, which means our services, in lieu of APSs, and they've actually gone to collecting more blood profiles in response. There's definitely movement to see how you can get by. I also know that, as Charlotte said, in the telemed process there is a

hope and expectation that with the additional probing we can get better information and more current information and reduce the need for an APS.

**Mr. Moore:** I think a lot of the ways that the APS is utilized today is different, and there are a couple of ways that underwriters typically approach it. Anytime that an underwriter doesn't feel that there's enough information to make an adequate decision on a case, the end result usually is an APS. And I think that mentality is beginning to shift because of the quality of information that's available from other sources, such as those mentioned before. I think a lot of companies are looking at ways to say, "How can I give up the APS and yet maintain a protective value to keep my mortality somewhere in line with the pricing assumptions?" There are vehicles in place that are being looked at to do that. Most of them are using the database technique, like I'd mentioned, doing pharmaceutical database checks to find out if an individual has either gone through a test-pilot program for a pharmaceutical company or is being prescribed drugs, and trying to work with pharmacies in general. If you work with a Walgreen's, for example, you can do a quick database check on their records as far as prescriptions go.

There are also database searches with health claims. Has this individual submitted any health claims in the last three years? Five years? There are a lot of different ways to get information quickly, effectively, and much more cost-effectively than utilizing the age-old "let's go get an APS and find out what the doctor says." In a lot of the cases, especially with the younger ages, you're not going to get much information. Usually that APS is going to come back "in good health," which is rather subjective. "In good health" considering what? That they have heart disease? "In good health" considering they have diabetes? So a lot of the times even the quality of information you're getting in the APS today is not that great.

There's another physician group in California that's currently working on Web sites for their patients. They're putting all of the medical data and information perspective for that patient on that patient's Web site so that a patient can access his or her medical information from his or her home PC. If it's on the Web, then you can see the chest x-rays. You can see lab results. You can see the physician notes. All of that information's on the Web site. If we can get over the security hurdle, of big brother and database checks, the underwriters have a powerful tool at their desktop. They can instantaneously access that patient's Web site and get all of the information that they need. There are a lot of ways to look at how to get around those APSs, but I think absolutely the trend is that in the future APSs will not be much of a tool to use because of these other avenues available.

**From the Floor:** How far away are we from the technology and economic viability of using the hepatitis test with the oral fluids? And then, assuming that that is

indeed possible, what would discourage companies from largely moving to oral fluids as the preferred lab-testing approach?

**Dr. Lee:** First of all, the testing for the oral fluid hepatitis B and C test has been accomplished and is in place. It's just a matter of the FDA approving it for use in the U.S. This same thing happened with urine-HIV testing. The FDA approved the screening test long before the confirmatory test; no lab wanted to put out an HIV result unless it had been confirmed. I think there were more than a couple years between the screening test for HIV urine and the confirmatory test being approved by the FDA because they didn't do them simultaneously. That is probably going to be the way with oral fluid. We've perfected the technology, and in Canada it's working very, very well just because they don't have an FDA-type body that has to approve it, but here we just have to wait for the FDA. It's in process. We don't know whether it'll be two weeks or two years. And we do have lobbyists for the General Laboratory Association—not just insurance testing labs, but any labs that want to do that on oral fluid—lobbying to get the FDA to go ahead and approve it quickly.

There's one area that they really would like the government to go ahead and speed up on and that is now what's called a look-back program. It's a government-sponsored program where the government is insisting that all states contact all of the people who have received blood products over the past several years and then offer them free testing for hepatitis C. And so far the cheapest way they can complete that is with urine tests. There are certain labs that have been approved to actually do that. They're now looking into home testing for hepatitis C for urine, but so far still with oral fluid that's where the foot-dragging is occurring. As soon as we get that, many more avenues will open up, especially for instant issue or a guaranteed issue, just because that's the final piece of the puzzle that we need to get, with just so much information about these people.

Now what I think is happening is that some of the companies are doing urine only because that, so far, is the medium that they can get most of what they want for the least amount of money. But if oral fluid comes on with hepatitis C, that would even be better as far as a quick, simple, easy method that would still give them the information. So it's not a matter of perfecting the test. It's perfecting the FDA to approve it.

**Mr. Fritz:** Lots of luck with that. In terms of collection, whether it's blood, oral fluid, or urine, our examiners are well-versed in any fluid collection that's out there. So we're prepared. It's just a matter of the FDA approval. Truthfully, if it's going to be agent collection, we hope it takes 15 years for FDA approval. If it's paramedical collection, tomorrow's OK.

**Mr. Moore:** I think the consideration for moving from oral fluid to a full-blood is that there's a give-up there and, in essence, the full-blood panel now gives you screening for diabetes. It gives you screening for kidney, liver, alcohol, and prostate cancer. Those are all factors that have to do with protecting the mortality. I think it comes down to a product-pricing situation. I think that's where the pricing actuary needs to sit with the underwriter and ask, "Where is the market? Where do we need to be from a price standpoint, and how do we set those standards based upon those testing criteria?" The other aspect that you have to look at, if you're in a preferred block of business, is that a full-blood panel becomes critical to being able to price adequately the different classifications that you have set up for a preferred standpoint.

On hepatitis C, I think the other issue there is once we screen for it, what do we do with it? Today I think most companies will be in a situation where they're going to probably reject that because the way to get to hepatitis C is to know where you need to be from a mortality standpoint. You have to know when they actually contracted the virus, and that's extremely difficult information to obtain. A lot of people don't know. You could assume that it was based upon a previous surgery they had that prompted a transfusion, but in the absence of any other things pointing to it, a positive hepatitis C probably doesn't give you anything more than saying that you can't do anything with that case.

**Mr. Turner:** Bill, I guess, just for the sake of the audience, when you say a full-blood profile, the additional testing comes with additional cost, right? If you're going to do all, the test for all the things you referred to, you can spend a lot more money than just the more basic, right?

**Mr. Moore:** It is more expensive than an oral fluid-type test based upon the parameter for the tests. An alcohol marker costs you above and beyond a base price level. The hepatitis C profile costs you above and beyond the basic profile. When you're all said and done with this, a full-blood profile just for the results alone, forgetting about the kits, could cost you roughly three to four times what an oral fluid is going to cost you.

**From the Floor:** Bill mentioned earlier selling through financial institutions and the fact that the expectation for issue time is approaching instantaneously or zero days. How do you balance that with the need for competitiveness in pricing and also the fact that bank employees don't want their clients rejected or declined either? You want to have a reasonable rate of actual issuance. It seems like it's a very difficult problem.

**Mr. Moore:** I think the question is, how do you balance instant issue in the financial or the bank marketplace with competitive pricing? Is that pretty close? That is, in a nutshell, the challenge that we're faced with, and I don't know if there's a right answer for that right now. I think a lot of it has to do with the insurance industry needing to really communicate effectively and help the banking industry understand life insurance principles versus opening a checking account; they're completely different. The more those conversations take place, the greater the understanding becomes that it's not really invaded at all. The bank understands they have to give up something for that. As for the price, if they want instant issue they know it's going to cost them a lot more than if they had more adequate underwriting requirements in there to make sure that the mortality was adequately protected. So I think that conversation between banking and life insurance is where the solution is to that. It has to be an understanding situation because there are no miracles. I certainly haven't found the miracle answer for that yet anyway.

**Mr. Turner:** Just to amplify on that, I guess our experience has been that it does take a while to develop this dialogue with a bank, but usually the ones who are in this for the long term can develop empathy for the issue. What we're finding is that they do understand that there is an obvious trade-off, and they're trying to explore ways to deal with that. I think our experience with them has been that they want as few contacts back to the customer as they can get away with. They'd like to be able to issue them a policy when the individual comes in to open a checking account in the branch, but they also want the product to be within 10–15% of the market's best rates. We haven't yet been able to find a way that we could deliver that, at least not if you want to make any money selling it. But I think the banks are probably going to push us in this direction because they're looking for fast service, and they're being relatively flexible on their side in terms of how we get to that point faster. That's like the Holy Grail, I think, in this market. If anyone can actually find a way to do that, they're going to be very successful, I think, in the banking business.

**From the Floor:** One comment on that. It's my understanding, if our street talk is true, that there is a major company in the banks who's promising to issue a product in ten minutes. It's contingent upon the application being clean, and they do an electronic connection to the MIB to make sure that they don't have a problem there. But it's pretty close to reality based on that, and that is for one particular product type that they're protected a little better on—a single premium life product. I also have a question. Bill, I think you mentioned that there's some ability to look at pharmaceutical information. Can you elaborate on that?

**Mr. Moore:** I would say that there's some ability to access pharmaceutical information. The potential is there. The ability is not. In other words, that doesn't exist today, but that is what some of the people in the underwriting and vendor



communities are working on. In essence, the pharmaceutical companies keep wonderful records with respect to any drug trials that they do. Any individual who applies for insurance who perhaps has undergone one of those drug trials is in the pharmaceutical company's database. If we could have a situation similar to MIB and have the appropriate authorization, which again is the big hurdle, then we could instantaneously check the pharmaceutical company's database to see if this proposed insured has been listed as a participant in one of their studies. Then we could obtain additional information with respect to what was the drug. What was the dosage? How long were they on it? Again, a lot of that might be wishful thinking from an underwriting perspective because I think the hurdles over getting the authorization are big, but we continue to work in that realm to see what we can do to move that along.

Your previous comment about the fact that there are companies in the marketplace now doing a ten-minute turnaround time, yes, that is correct, and that has been the case in some of the credit branches of other companies for the last five to eight years. The difference is the pricing. The instant issue previously has been more along the lines of a guaranteed issue rate. Now the demand in the marketplace is, as Ed pointed out, 10% of what the best class is in the marketplace on a term product right now. That becomes the challenge.

**Mr. Turner:** The challenge is that, at least in the term market today, even though the bank thinks they have a strong affinity relationship with the buyer, the buyer now has access to a very efficient marketplace, and if they don't know when they walk in the door at the bank, they can certainly know within 30 days of leaving the bank whether they paid a good price for that term product or not. And so I think the banks are now understanding that if they're going to be in that marketplace, being off the best market rates won't lead to very profitable business for them.

**Mr. Moore:** And the face amounts historically were definitely in the under \$100,000 category, whereby most companies weren't testing for HIV. Now the demand has shifted. You have a consumer who is looking at the Internet and realizing that \$250,000 of term-life insurance today costs next to nothing. That's really where we're being driven, and that's the dilemma that we have and why we're looking at oral fluid and other techniques. If you're going to go from issuing a \$50,000 policy to a \$250,000, that comes with a completely different set of circumstances from an underwriting protective value perspective.

**From the Floor:** How long does it take to get MVRs and MIBs back if those do indeed exist as databases?

**Mr. Moore:** Yes, they do indeed exist today and have for quite some time. MVRs typically are going to vary by state because it's actually up to each state motor vehicle department to respond, but on average you can obtain a MVR within about 24–48 hours of the time that you've requested it. Some states are much slower than that, but that's about the average turnaround time. Typically, MIB responses are basically up to the company to batch as to how frequently they want the answers to come back. Most companies are in the 10–15 minute category. In essence, if a person walked into a bank to open a checking account, while they're doing the checking account transaction the life insurance piece of it is operating in the background and going through all of those database checks to then bring that answer back. Then the two come together in delivery within the one visit, whether their policy can be approved or not approved while they're opening up the checking account.

**From the Floor:** If you had one test, and cost were no object, which would you choose? And if cost were an object, which would you choose?

**Mr. Moore:** It's kind of difficult to say. If we're talking about the bank market, that will dictate what test I want to look for. But if it's in the financial institution market where it's hard to separate HIV versus cocaine, it would be one or the other of those and probably in both circumstances whether cost was a factor or not.

**From the Floor:** I meant of the ones we've talked about here today—the method as opposed to the specific tests.

**Mr. Moore:** I don't really think that any one methodology makes that much of a difference once you've identified what information you're looking for in that marketplace. In other words, an HIV test on an oral fluid is just as valid as it is on a blood test. It's just as valid as it is on a urine test today. The methodology of collection or the type of fluid that you're analyzing doesn't have nearly the impact as it used to, historically speaking.

**Dr. Lee:** I'd say if cost were no object, then the full blood would be it, and usually nowadays anybody who gets a full blood gets a urine anyway. It's just kind of a package. If cost were no object, I'd say the full blood. If cost were an object, then in today's world probably urine only would give the most information for the dollars spent.

**From the Floor:** I have a question for Dr. Lee. I've heard some rumblings recently about being able to test for cholesterol through oral fluid specimens. How viable do you think that would be?

**Dr. Lee:** I'm glad it's just rumblings because cholesterol being one of the lipids is not nearly as easy to collect or easy to measure on oral fluid as a water soluble. That's one other category that is very difficult to test for in an oral fluid. Now, we can get what's called some of the proteins that actually carry the cholesterol. As you know, all the lipids, the HDL cholesterol, triglycerides, are all carried around on proteins. Theoretically, if you were able to test for a certain type of protein, then that would give some idea that that protein is present or not. If we know that a certain type of protein carries cholesterol and we measure for that protein, and it's high you can assume the cholesterol is high. But that's just a generalization, and it's not nearly as specific as we'd like it to be. I know cholesterol is a biggie for a lot of companies, and rightfully so, as a cardiac marker or just generally a marker. But oral fluid as a testing medium for cholesterol is not going to be easy to do at all.