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Session 81PD
Current Factors Driving Medical Pricing and Product Design

Track: Health

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Summary: The U.S. economy continues its slow growth, managed care is under attack on both legal and regulatory fronts, defined-contribution plans continue to make inroads, providers have strong pricing power and health-care-cost trends continue at high levels. Panelists discuss how these factors impact the pricing and design of medical and other health insurance products. Participants learn what steps can be taken to mitigate the effects of the recession on health insurance costs and gain an understanding of the factors, including current economic conditions, driving the pricing and design of health insurance products.

MR. JAMES J. MURPHY: This is a panel discussion on current factors driving medical pricing and product design. Our panel will start with Greta Redmond, director of trend management at Ingenix in Minnesota. She manages a team of pricing consultants, working with data and preparing quarterly health-plan-trend-analysis reports. Next will be Dale Yamamoto, consulting actuary with Hewitt Associates. Dale is on both the Academy and the Society of Actuaries Boards of Governors. Lastly, Alan Mills is the president and family practice physician for Calyx Natural Health, a firm that he founded following his 25-plus-year career as an employee benefits consulting actuary. As both an actuary and a physician, he will bring an interesting perspective to this discussion of product development relating to medical trends.

Greta will cover trend, trend drivers and some health plan insurer/provider perspectives. Dale will give us a more of an employee/employer perspective. Then Alan will look at the implications as they relate to the consumer-driven plan

Note: The chart(s) referred to in the text can be found at the end of the manuscript.

movement and health-and-productivity-management programs. We then will have a question-and-answer session.

The economy continues to grow slowly, if at all, some would say. Managed care remains under attack, though it has become a dominant factor in terms of some available plans. The consumer-driven health plans are beginning to have an impact on the health-place market. Providers have a stronger role and more power in pricing decisions. All of this leads to health-care-cost trends continuing at high levels. Now Greta will give us some details.

MS. GRETA REDMOND: I'd like to start with my underlying assumptions. There are really two things that we all need to do. The first is to provide quality health care. Regardless of what our goal is, if we're not providing a good service to the client, we shouldn't be in this business. That's the "altruistic actuary" or, as Jim Weichman said, "doing the right thing," making sure we're doing the right thing for our customer and our client. The second goal for all of us is profit. Most actuaries want a job next year too, so I think those are the things that we need to focus on.

The current factors driving medical pricing and product design have really changed. If everything were a stable state, it would be easy to price for next year; we wouldn't need to change things; our prior designs could stay the same. But what's causing the changes and what's causing us to act? It's really the demands of the users. The insureds continue to want a choice of providers. We've been steering them toward HMOs, but they're moving toward point-of-service (POS) plans because they really want a choice of providers. They also continue to change the covered services that they want. If it were as easy as designating everything that's medically necessary, we might be able to define that. But the consumer keeps changing what they want. Medically necessary isn't good enough. Their wants and needs continue to evolve.

The demands of the providers are also causing changes in our products. They are concerned with how the hospitals are being reimbursed. Are they able to pay for the nurses that they need to put back on staff where they've cut? They want to make sure that their payment schedules are set and that they're given the freedom to choose treatment options. The employer needs are creating changes. We'll talk later about consumer-driven health plans, medical savings accounts (MSAs) and different funding arrangements. The profit needs of the companies also drive where we end up. As the underwriting cycle changes, the pricing changes to go along with that.

In order to react to changes, a planner or an insurance company needs to understand the demands—the consumer concerns of choice, quality and quantity, as well as the provider concerns. That's the first part of our job as actuaries—to understand medical trend and price according to what's going on in other places.

When I talk about pricing for medical trends, I assume that back in the office, if you

change what you think the costs are going to be, you're going to be able to price for that. Your marketing group isn't going to override what you're doing, and your underwriters are going to sell the rates that you propose. The underlying assumption is that when you change trends, you're going to be able to get those pricing changes as well.

The drivers of trend in medical pricing, beyond demographics, are the cost of a given treatment, utilization of the treatment and the change in treatment. The cost of a given treatment is a market-basket comparison of the CPI. The CPI for medical is at 4.6 percent for the last 12-month period, with hospitals being at an 8.7 percent cost trend, physicians at 3 percent and pharmacy at 8 percent. At Ingenix, we consider the cost trends for medical to be about a 5.6 percent adjusted CPI, taking more into consideration what we need to price for, meaning the services that are actually an insurance company's risk, as opposed to all medical services.

Here's a more interesting way to define utilization of treatment. As a 29-year-old woman, there are particular services that I am using this year. For each of you, within your age and gender, there is a set of services you're going to use this year. Next year you'll be a year older; that changes demographics. The services that I use as a 29-year-old one year compared to the services that I use the next year and the next and the next are the utilization changes. So there's an increase in services, in addition to the cost trends.

The final driver of trend is the change in treatment or mix of services. For example, you go one year for X-rays, but the next year you get an MRI. Those are the three pieces that I think of as medical trends: cost, utilization and mix.

For me, it's easiest to start by dividing the costs for medical trend into four pieces: inpatient and outpatient facility or services, physician and pharmacy. There are also four basic perspectives from which to view these trends: a consultant actuary, an insurance company actuary, a health plan or HMO actuary and then all the rest of the positions.

When we talk about inpatient costs and provider contracts, you all have different perspectives based on where you sit. As a consultant, you may work with both sides of insurance companies or providers, the people on the contract side or the people doing the contracting. So a lot of the costs for inpatient are things you can contract for, if most of the plans are a network-type plan, either an HMO or a PPO or POS.

In a network contract, if you have a per diem or per-admission charge, you should be able to tell what your cost trends are going to be. You know what your contract is this year, and you should know what your contracts are going to be next year. If you have contracts based on a percent of charges, it may be a little harder to figure out your cost trends. If you still have an 80-percent discount, that doesn't mean you don't have any trend in your cost; you need to analyze the underlying charge

amounts to make sure you're figuring out those costs.

The final point about the cost for network providers is the outlier provision. All of us know the 80/20 rule: 80 percent of your costs come from 20 percent of your people. It may be 90/10, it may be 70/30, but it's basically an 80/20 rule. In the outlier provision in your contract, you may have a $50,000 stop loss or a $75,000 stop loss specific limit. If you think you're doing well, you may be in for a surprise, because those 20 percent of the people that are 80 percent of the cost are definitely going to be outliers. You need to know what percent of your costs are falling into that outlier position. Make sure you're taking that into consideration as you think about your cost trends for inpatient.

Of course, there are out-of-network cost trends as well. You may be able to contract for some of those, but you may not. The final point about product design is to get people to the right facility for the right kind of treatment. Extended care stays are $350 a day; medical/surgical inpatient stays are over $2,000 a day. If you have people in the right place and the right setting, if your plan design is to move people in the continuum of care, hopefully you'll be able to help control your costs by product design.

Going back to utilization, sometimes it is easier to gauge for disease-specific conditions, such as figuring out what kinds of treatments are happening for diabetics this year and next year and so on. We do our analysis by major diagnostic categories (MDCs). For example, in my data when you look at utilization changes for the circulatory system versus everything else, the trend was about ten points higher. As a result, 25 percent of my inpatient cost utilization increase was due to circulatory system conditions. If you can segment your data and figure out where those costs are or what's driving utilization, you can hone in on those and actually impact it more.

The final point about the inpatient category is the mix of services. Some of you may already do mix-of-service analysis; some of you may not. The easiest way is to take your 2001 data, whether it's by number of units by MDC or revenue code, so you have number of units and cost per unit. Together, those total your inpatient claims. Then you hold those costs from the 2001 study and move them to 2002. You use the 2002 utilization, multiply those together and come up with your total allowed costs for 2002. Then take the relationship from 2001 to 2002, and that's your mix change. If you want to do a sensitivity test, you could rerate them with the 2002 cost per unit and see if it changed a lot. That's one good way to figure out the mix of service, whether people are using higher cost procedures or events. As you contract, you can think about how you are impacting your costs and controlling the costs where you can, but the mix is really hard to quantify.

One side note: don't double-count your demographics. If you're doing a per–member-per-month (PMPM) cost analysis from one year to the next, and you have a change in age/sex factors from the first year to the second year, don't project

that out into the third year. Theoretically in your pricing you're doing age/sex factors. If you're doing lapse ratios, you're going to be fine, but this is just a warning: Don't double-count geographic and age/sex changes.

There is a lot of activity in the pharmacy category. It's difficult to manage and make sure you're staying on top of it. Again, there are the same issues of cost, utilization and mix for pharmacy. When you look at costs, there are drugs that people are taking today and they're going to take again next year—the same drugs, the same dose—maintenance drugs. If the drug manufacturers increase the costs, obviously that's cost trend. Some of the new drugs and the ones that are coming off patent can get sticky. Then there are the rebates under cost. Make sure you're getting the discounts and rebates where appropriate. There are some big dollars just sitting out there that need to be managed.

As far as new drugs are concerned, there's Xolair as an example, which just got approved by the FDA. It's a new injectible asthma drug that's going to short-circuit the attacks, so people won't have asthma attacks. You can think ahead about what that's going to do. They might not need all the rest of the asthma medicine, so they might not use some of the other costs. But it's an injectible drug, so there are going to be different costs. This is just another warning. Is that going to show up in your pharmacy data or your physician data? There are a lot of high-cost injectibles, many of which show up in your physician costs as physician utilization, not in your pharmacy costs, depending on how you have things coded.

Turning to utilization, there are different co-pay tiers impacting how you design your products. The formularies really drive where people are going to utilize the different drugs. That's pretty tricky for the insureds to understand, but there are ways you can structure it to make it easier. Utilization is going to continue to change. For example, as Claritin goes over-the-counter, the utilization of that has changed. You're no longer going to see those prescriptions come through your experience, because a lot of those people are going to go over-the-counter. That may be a good thing, in that the costs are not going to go through the health plan and be covered under an insurance premium. But frequently the doctors prescribe a different antihistamine, often a more expensive antihistamine, so that people still get it covered by their insurance companies. There are a lot of different pricing considerations as a result of these changes. The movement between the different tiers will impact what drugs people get and how expensive they are. The final consideration is high-cost drugs—the factor 8 or factor 9, the anti-coagulants. Those are really big dollars, and you need to make sure that you know where those are coming through in your experience.

I want to touch briefly on outpatients, particularly outpatient surgery. That's been driving a lot of the costs, and I expect that to continue. We have encouraged people to go out of the hospital and to do a lot more things as outpatient surgery. Make sure that that's the most cost-effective place for that knee surgery to be done. If your per diems are low enough, you may actually be paying more

outpatient than you would inpatient. Think about how those things are being structured and make sure you have the product designs set up correctly.

The physicians have a lot of contracting power, especially in the four areas that the medical industry knows all about, that as actuaries you may or may not. Radiology, anesthesiology, pathology and emergency room doctors drive a lot of the health-care dollars. They're driving a lot of the costs in the facilities in addition to the physician costs, so that impacts the inpatient costs. There's a lot of contracting power there, so make sure you look for ways to partner with the hospitals, if you have that opportunity, to manage those costs.

As a side note, we pull the mental health and chemical dependency out of a lot of our experience, because we're able to capitate it in other places. Know where your data is flowing if you have your inpatient data for mental health included with all your med/surg days, because that's another piece to manage.

To conclude, know your plan design. You may be giving people incentives to go to the right place, or you may be encouraging them to go to the wrong place. Know your data. The person with the best data wins. You may not have the most data, but it may be the cleanest data and the best understood data. If you have data, make sure you're looking at it; don't ignore it. Find the time to scrub it and make it useful, because if you can use your own data, you're going to be a step ahead of everybody else. Know your contract with providers. Don't forget about that outlier provision—it's critical in combination with all the different pieces.

Actuaries need to leverage their insight. They understand completion factors. You know when you have completed claims and you know when you don't. You have good healthy skepticism—cynicism maybe, but skepticism for sure. Make sure you use that the right way. Use your good actuarial judgment. Actuaries bring a lot of different, very important angles to the table.

MR. DALE YAMAMOTO: I'm going to talk about what employers and employees think of health care right now and how that might drive some of the plan design decisions people are making. Then I'll turn to who's really responsible for health care in the United States and maybe we can address some of the connections between U.S. health-care delivery and Canadian health-care delivery. Then, I'm going to go out on a limb a little bit with some prognostications, both short-term and mid-term.

Hewitt does a health-care-expectation survey every year that goes out primarily to benefits managers. These are generally people who are dealing with the delivery of benefits on a day-to-day basis. They're the people who are getting complaints from employees about the plans that they have, so there may be a certain bias to the answers. Still, I think it's a good indication of the direction employers are thinking about going with their health plans, because they are the ones making the decisions on the plan designs for the next year.

We asked a lot of different questions in this survey. Chart 1 shows in broad categories some of the general business risks they are seeing in the health-care area for the benefits delivered to their employees. Not surprisingly, a lot of them focused on health-care costs. Health-care cost increases are certainly one of the bigger risks that they're dealing with. They are controlling a very large budget within the overall company. Depending on who you are, payroll costs and benefit costs could be a very major driver in the cost of either services or the product.

The numbers on the right side indicate the people that answered. The first bar on the right indicates those that have absolutely no concern with that given business risk. One level in from the right, indicates very little concern. Next, the bar means it's a significant concern. Then the far left indicates a critical concern, something that's really on the top of their list. No one said there's no concern in the health-care cost increases, and only 1 percent said that there is little concern. That definitely is the biggest concern out there. The next one down is liability and regulatory exposure. This includes things like HIPAA privacy rules that everyone has gone through this year in painstaking detail to overcome. It also includes the concern of malpractice and how that may attribute to cost, so that really is somewhat related to the cost issue. There were only 38 percent of the people that had little or no concern. The concern level drops off a little bit with that one.

In the middle, employee dissatisfaction that might impact the attraction, retention or engagement of employees is of little concern to 24 percent of respondents. But a good portion—75 percent—are saying that it is a concern. The next item indicates that about 60 percent said that there is some concern about the delivery of the benefits and administrative problems. If we had done this five years ago, administrative issues would definitely have been higher on the list. Cost has far overridden those concerns about the health-care business over the last five years.

The last concern is health-care quality and productivity issues. These numbers varied between industries, so I think this is somewhat industry-driven—the focus in the delivery of health care, why are they delivering, and why they provide employee benefits in the first place. We saw a lot of variability in this answer, but about 68 percent of the responses said they're concerned about health-care quality.

Since health-care cost is a big component and concern of employers, we asked the obvious question: When you're getting instructions from somebody up high—the CEO, the CFO, someone from finance—are you given any kind of maximum cost increase that you need for next year? You see a lot of variations as demonstrated in Chart 2. The average is 8 percent, and only about 20 percent of the respondents said they can bear something more than 10 percent. How many of you think health-care cost increases can be more than 10 percent for next year?

As seen in Chart 3, we asked these same people what they thought their health-care cost increases were going to be going into next year if they did nothing or

even if they tried to do something. The average response was 13 percent. If you take this out into the extreme over the next five years, on average they say that they can tolerate an 8-percent cost increase from year to year from the health plan. But they think over that same five-year period, their health-care costs are probably going to increase 13 percent per year. So there's a real disconnect in where the respondents think health-care costs are going to be and the 8-percent increase the CEO or CFO is allowing. There are a lot of discussions going on now to strategize what the next move can be in order to contain costs and close that gap.

As for the employees' side of the equation, Chart 4 shows an interesting survey result from the Kaiser Family Foundation, a policy action group based in California, not connected with the HMO. They do a lot of snapshot surveys, asking quick questions to different groups of people to get a good cross-section of the American public view. This is what American workers are really worried about. Thirty-six percent said that they're worried about the amount that they have to pay for health care. Whether it's a payroll deduction or the deductible or the coinsurance that they have to pay within their health plan, over one-third of them said they're concerned about health care. Only 13 percent said that they're worried about losing their jobs, and this is in an economy where people are losing jobs. Almost three times more people said they're more concerned about health care than losing their jobs. I find that a very significant statistic that employers and employees really have to wrestle with. The other results indicated that 16 percent are concerned about loss of savings in the stock markets over the last couple of years. Another 17 percent are so concerned about their finances that they're worried they may be unable to pay their rent or mortgage at some point in time.

To get further data on the consumer and employee perspective, we did a survey about the health care that their employers provided. The predominant view is that company-paid health care is really an entitlement. I have a job, so I'm entitled to have good health-care coverage. When most of them think about health-care coverage, they think about it in a very passive manner. They assume that their employer is going to take care of them. They may have to make one decision a year, or when they first were employed they had to decide which health plan to join. Unless they're really unhappy with their health plan, they're probably not going to make any other decisions going into the future, unless something really dramatic happens. So for the most part, they really feel insulated from any kind of health-care cost decisions.

One-quarter of respondents said that they think they have a good understanding of the state of health care, but when you start doing surveys about employer spending on health care, that number goes down a lot. Most are really unaware of the rise in costs. Employers at least have an understanding that health-care costs are going up in the 10- to 15-percent range. Most of the employees understand that health-care costs are going up a little bit more, but they still have no idea. If you told them how much the company is spending on average, most people would find that unbelievable. We stratified the responses based on different salary levels. The most

startling result that we saw is that people making under $50,000 really believe it's the employer's job. If there's a problem with the cost of health care, or a problem with the delivery of health care, it's not their problem; it's the employer's job to fix it. They're really abdicating all responsibility for the cost and delivery of health care to their employers. We have to keep that in mind when we're designing all these programs.

Chart 5 shows where health-care costs are relative to some other things that people are familiar with. Back in 1973, Datsun introduced their new sports car, the 240Z, a nice little slick car that cost about $3,500. I'm going to use 1973 as my basis point, pegging everything at the 100 point to give you a sense of where things have changed since 1973. Plan deductibles are pegged at $100, probably pretty close to the average back in the early 1970s. The cost of the 240Z, which is now the 350Z, introduced last year, went from $3,500 to $35,000. That's a tenfold increase in the cost, which is a pretty modest price increase for a relatively nice sports car. National health expenditures have gone up a little bit more than the cost of the car. I think some people would be surprised health-care costs haven't gone up more than that, but there was a period where health-care costs didn't go up that much. The average plan deductible today is about $250. People think of the deductible as a marker of how much health-care costs have gone up. But to be honest, we haven't kept up with the cost provisions in health plans over the last 30 years to keep pace with the cost of health care. That's an important issue driving some of the costs that happened in the past and some of the entitlement mentality that employees have right now.

So take a look at what employees are demanding out of health care now, what their wish list is. They want seamless delivery of health-care services and information, so they are able to tie everything together. They have to be connected in some fashion. They want state-of-the-art technology. They think of health care as something that's driven by technology. We've made some huge improvements. The huge horse pills from twenty years ago are now something that you just pop in your mouth and they dissolve. My father-in-law died in his early 50s in 1976. He went all over the place trying to get a bypass surgery. He even went down to Houston where they said his condition was beyond the point of performing bypass surgery. If you think about the state of bypass surgeries in the 1970s, very few procedures were being done. There are studies being done by health economists of Medicare data from the 1970s that show 50 or 60 percent of patients with some kind of coronary problem were told nothing could be done about their conditions at that time. They were given drugs to take care of any kind of discomfort they might have and were pretty much told to go home and take care of business.

Nowadays, things have been reversed. You see 50 or 60 percent of these individuals getting coronary bypass surgery; you see another 10 to 20 percent getting actual heart transplants. The whole nature of the treatment of coronary artery disease has advanced in the last 30 years, as well as each of the different procedures. The cost to do a coronary bypass has gone down in that 30-year

period, but because more of them are delivered, total cost has gone up. People are remembering history; their fathers weren't able to get a certain technology, but if he were alive today, he'd be able to get that. They think that medical technology is driving the same way all the other Internet technology is driving, so there has to be some way to make it coordinated and work together. They'd like to have that state-of-the-art technology so they can research their own options. A lot of people are doing that now on the Internet and making some of these decisions at enrollment with the tools available so they can help make those decisions. They know what happened to them last year; they have a decent expectation what's going to happen next year, so they want the tools available at their fingertips to understand better which plan to take. We're dealing with a more educated consumer in some respects, which is going to drive some of the health-care cost utilization. If we have multiple options available, they can make better decisions because of these tools. I think it changes the whole paradigm of how we price the programs and put the designs together.

Employees want accessibility of health-care information from both home and work. They want to be able to spend time not just at the water cooler but at their desks, understanding what their health-care alternatives are. They also want to be able to do that in the privacy of their own homes and have that information and the tools available. If they have a computer at work or at least access to a terminal where they have this kind of health-care information, they also want to have the convenience of being able to do this at home. You may have two different kinds of people, too. Some want it at home; some want it at work. They want innovative products that are going to address their specific needs. If they have an allergy, they want to understand their specific conditions. If they have asthma, they want to understand what their options in care are, and they want to have access to the latest and greatest.

Chart 6 ties everything together, showing how the employees' and employers' thoughts are diverging and what they're expecting for the next year. Each of these is paired up: The top lines are the consumers; the second lines are the employers, showing results from two different surveys. The first pair of lines is about choice in health plans. Overwhelmingly the consumers want more choices in health care, but employers don't want to give more choices, and most of them are scaling back. If they're currently offering two PPO options and three HMOs, most of them are scaling the HMO selections back to one. So employers are going in the opposite direction of where employees want to go.

You see other variances in access to experts in the next line down. The middle line shows access to Internet data and information. Second to the bottom details access to advocates who can help them deal with not only professional care and treatment patterns and discussions with their own physicians, but also with health plans for certain conditions. This includes what the health plan pays for, what kind of options can be most cost-efficient from the employee's perspective and, secondarily, what's going to be the most beneficial to the employer. The very bottom one shows

options that allow employees to reduce the cost of their coverage, whether it's the cost of the coverage on the monthly payroll basis or overall expected cost when you fold in out-of-pocket costs within the health plan.

If you think of current health-plan designs right now, you have plans that pay 80 percent for a period of time, usually with an out-of-pocket maximum. If you were to design a car loan program that was going to pay 80 percent of the cost of the car, what kinds of cars are people going to have in the parking lots? If there's no out-of-pocket maximum, there's probably going to be a limit to some extent on buying that Mercedes. You probably won't see a lot of Rolls Royces in the parking lot, because they have to pay that 20-percent coinsurance on a $300,000 car. If you had an out-of-pocket maximum, maybe you would see more Rolls Royces. The kind of medical-plan design that we put out right now doesn't invoke a lot of consumerism when you get to the higher end of health-care costs (i.e., 100-percent coverage).

I was just in a conversation with one of our health-care consultants over lunch. She is cognizant of health-plan costs and the issues with the delivery of health care. She was asked by the doctor whether or not they should just X-ray her leg for a blood clot problem using dye, or should they do an MRI. She said, "I'm past my out-of-pocket max, so it doesn't cost me anything. We'll do the MRI." Again, this is someone who's really cognizant of health-care costs and the problems that we have with our current health-care system, but if you're at the point where there's no out–of-pocket for you, that's the kind of decision that gets made.

How do we invoke some of these responsibilities of delivery of health care in consumers or employees and help them to become better consumers and reduce costs overall? I think one of the best ways is education, providing some clarity around what health-care costs are, what it's costing the company, what it's costing you on a secondary basis. Help them understand that we may be invoking some higher cost sharing on their part, partly to get the sense that they have to share some of the risks and responsibilities of health care, more so than maybe how we protected them in the past. This will help people get over their fear of financial risk and of making bad decisions or getting poor coverage. Give them the information so that they can get good health-care delivery. A lot of people actually do have a fear of questioning a doctor. "Do you really have to do this? Can't we do something else?" Many employees don't want to get their doctors upset at them. You have to get people to overcome that fear and make requests. Doctors are used to answering questions; they're real people.

In the very short term, over the next year or two, we're going to see more aggressive cost shifts on the part of the employers. They will really try to get more choice and to make support available to employees so that when they shift the cost, employees will have the information available to understand what the potentially lower cost alternative is. We're going to see larger employers move from the best-in-market strategy of pricing the programs. They're looking at the lowest

cost program in a given market area as their target cost. A lot of them are going to consolidate their larger carrier contracts over the next few years. This could result in some closures of the more local and narrow HMOs around the country, with maybe more expansion of the larger regional and national HMOs.

I think we're going to see some of the larger employers move toward self-insurance, thinking that they need to put together all their risk pools in one place. I'm seeing some of that already. We're going to see the design delivery innovation that's coming from a lot of the national and regional carriers attract employers a little bit more. The newer designs are going to gain a little more attraction over the next few years. It's going to be there for the long term, but I think you're going to see that at least in the short term.

You're going to see continued consolidation in the hospital industry. There's going to be some incremental legislation, including the action that is taking place in Congress right now on Medicare reform. Until recently I would have placed Medicare reform at maybe a 25-percent chance of happening, but I'll put it up to 50 percent right now. I also think there's going to be a continued decline in retiree health care.

In the mid-term, I think we're going to see the health-plan market stabilize as the survivors out there gain more significant market share. After the large employers go through that self-funded route in the next two years, we're going to see some of them backing away from that and going back into the fully insured market, primarily on the HMO side. We're going to see some ongoing enrollment in the consumer-driven health plans and consumer-directed health plans. My guess is it's still not going to be a major market segment, but we'll see continued enrollment there. What may happen is some HMOs may lose position as the dominant delivery system in several markets around the country. This is definitely going to be a regional issue. There will be convergence of health-care designs and financial services and investments. They are going to start mixing and matching things together so that you can make choices between retirement programs and health-care delivery and the health-care program that's available.

I do have one concern, though almost tongue in cheek. The Congressional Budget Office expects to see the uninsured numbers rise from 21 to 31 million people who are uninsured for an entire year. If we keep on seeing these numbers increase, I have to believe that there is that sector out there for national health care.

DR. ALAN L. MILLS: With your product designs, you have an opportunity to dramatically improve the health of employees and their families.

To begin, I'd like to tell you about a patient. Let's call the patient Mike. Mike is an executive with Microsoft Corporation. He came to me two years ago with a number of health problems, among which were obesity and Type II diabetes.

His immediate concern, though, was an acute attack of diarrhea. The physician who diagnosed him with diabetes had prescribed a drug called Glucophage, a common drug for treating diabetes. But the drug gave Mike diarrhea. Mike first went to his original physician for help with the diarrhea. The physician spent five minutes with Mike and gave him another drug for the diarrhea. During our meeting Mike shook his head, laughed, and wondered, "What's going to be the next drug to control the side effects of the antidiarrhea drug?"

Mike wanted a different approach, so I began working with him. First, I helped him "connect the dots" between his sedentary lifestyle at Microsoft, his lack of exercise, his unhealthy diet, his weight and his Type II diabetes.

Next, I showed him that there are excellent alternatives to Glucophage. For example, there is an herb called Fenugreek that is commonly used in North Africa and India as a food spice. It has also been used for centuries to balance blood glucose in people with conditions like diabetes. Moreover, it has no side effects.

Mike decided he'd had enough of diarrhea and drugs. He wanted to try another way. So, he changed his diet; he changed his lifestyle; he started exercising; he started stress-reduction techniques; and he started taking Fenugreek. Two years later, Mike has normal blood glucose levels. Whereas at one point he was worried about being fired, he is now a productive and successful employee at Microsoft. And he is very happy about his health generally.

In this example, we looked beyond the fact that Mike had high glucose. We looked beyond his obvious symptoms. We looked for the cause of his health problem. We followed the advice of Hippocrates and treated the cause of Mike's condition. As a result, Mike became a winner—his health improved dramatically.

Microsoft also became a winner. With the Glucophage approach, Microsoft would have paid about $10,000 over Mike's career for the drug. And that's just the tip of the iceberg. With complications from diabetes and with additional drugs to take care of the side effects of drugs, Microsoft's costs could have easily reached $100,000. The expected cost of our treatment was less than $500 over his career. Actually, Mike will probably stop taking this herb soon; so the cost to Microsoft will be practically nil.

Profits will increase for Microsoft not only because of reduced medical costs, but also because Mike became a more productive employee. Mike was a winner; Microsoft was a winner.

With our current health-care crisis, instead of looking at symptoms, instead of looking at cost and utilization, I ask that you start looking at underlying causes, and then treat those causes. Managed care and similar endeavors are focused on the symptoms of our health-care crisis. They are focused on cost, on utilization and on the providers of health care. I submit that cost and utilization are simply symptoms

of more fundamental problems, and that the approach of treating the symptoms of our health-care crisis has largely failed.

Health-care costs in the United States are the highest in the world. The United States spends 13.7 percent of GDP on health care. By contrast, in Canada it's 8.7 percent, and in the European Union the corresponding number is 8.2 percent.

The World Health Organization has rated U.S. health-care quality at 37th in the world and the health of the U.S. population as 24th in the world.

Clearly, our approach is not working.

Interestingly, user satisfaction with U.S. health care is still relatively high. But I can tell you from day-to-day interaction with patients, people are becoming extremely frustrated with their current health care. People are beginning to demand a change.

Let's look for a moment at cost control. What are the underlying causes of excessive health-care costs? Of course, excess utilization leads to excess costs. But as we look more deeply, we find that inappropriate medical treatments and interventions also lead to higher health-care costs.

In my practice, I hear patients complain about inappropriate medical treatments and interventions almost daily. Drugs are given when they are not needed; surgeries are provided when they are not helpful; high-tech diagnostic techniques are used unnecessarily.

For example, the largest single medical cost item for Medicare is cataract surgery. In U.S. society it is accepted that part of becoming older is developing cataracts and eventually having cataract surgery. However, cataract surgery is not always necessary. There are non-invasive and inexpensive treatments that can prevent cataracts and even reverse them once they have formed. But we've followed the high-tech, high-cost treatment path in the U.S. culture.

A second fundamental cause of excess cost is unhealthy user behavior. It's now well known that over 50 percent of deaths in the United States are directly attributable to unhealthy lifestyle and behavior patterns. Over 80 percent of chronic disease is also directly attributable to unhealthy lifestyle and unhealthy behavior.

So, following the advice of Hippocrates, I suggest that we pay more attention to these two fundamental causes: inappropriate medical treatments and interventions, and unhealthy behavior. Further, I suggest that we change our focus from providers to users.

Now that we've isolated two fundamental causes of our health-care crisis—unhealthy behavior and inappropriate medical treatments and interventions—how do we treat these underlying causes?

First, for inappropriate medical treatments and interventions, rather than educating physicians, I suggest that we educate patients. In Mike's case, after two years he actually went back to his original physician and told him how he regained his health. The physician may have seen this as a statistical aberration. But the second or third time a patient comes in and tells the physician something similar, you can bet that physician is going to order the book called the *Physician's Desk Reference for Herbal Medicines*. Then, after the fourth or fifth times such patients come in, the physician may even read the book! The sixth or seventh times, perhaps, the physician will take a course in herbal medicine and begin prescribing something like Fenugreek.

Incidentally, Fenugreek is readily available, as most herbs are, and easily prescribed. Natural medical therapies—such as herbal therapy—are an area that physicians can easily learn. Physicians around the world have been using natural therapies for centuries.

Changing participant behavior, the second fundamental cause, is a little trickier. It's clearly important to change employee and participant health behavior, but the question is, "How?" I can tell you that simply providing information to a participant is not enough; information by itself does not change behavior.

I have found in my practice that changing behavior is a multi-faceted process. You need to include all of the following keys to behavior change:

- You need to provide the participant with a vision of how that person's health can improve;
- You need to provide a real incentive for him or her to make a change;
- You need to provide knowledge and skills;
- You need to provide resources and, importantly,
- You need to provide an action plan.

Certainly, Mike's initial physician told him to change his diet and get some exercise. But it didn't work. All of these keys are necessary to actually change behavior.

Also, you have to recognize the person's so-called "behavioral stage of change." You have to understand whether a person is at what is called a "pre-contemplation stage," where the person is only ready for gentle education, or if the person is at a stage where he or she is ready to act.

Lacking any one of the keys to behavior change, you fail. For example, if you don't provide a vision, your result is confused participants. If you don't provide effective incentives, participants will generally not make an effort to change, and so on.

Now, practically speaking, what can you do with this information?

Three tools now exist to implement effective treatments—on an institutional basis—

for the underlying causes of our health-care crisis. Certain companies—Definity, Luminos, and a few others—have seen the potential power of these tools and they are beginning to implement them, with what appears to be great success.

These tools are health-and-productivity-management programs; consumer-directed health plans; and effective employer leadership.

Health-and-productivity-management programs have existed for more than 20 years. The basis of these programs is stratification of a population according to health risk and application of health improvement interventions appropriate to each risk category. Risk stratification is based on assessment of participant behavior as well as biometric measurements. For example, the use of alcohol or tobacco is a behavior that affects risk stratification, and blood pressure is a pertinent biometric measurement. So, for example, special knowledge and skills might be provided for a particular risk group with high blood pressure to teach participants about healthy behaviors and natural self-care treatments to reduce blood pressure.

Health-and-productivity-management programs also provide resources such as 24/7 hotlines to a nurse or a physician, disease management, centers of health-care excellence for high-risk and critical care and individualized health-action plans. An online questionnaire, the so-called Health Risk Assessment (HRA), is used to gather information about each participant's health behavior, in order to develop an individual health-action plan. The HRA determines the health behaviors of a particular participant, as well as the stage of change of the participant. Health- and productivity-management programs have been used for 20 years by many corporations in the United States; their efficacy has been studied and proven.

Health-and -productivity-management programs are one critical tool to treat the causes of our health-care crisis. Another is consumer-directed health plans.

Consumer-directed health plans are a hot topic these days. These plans play an important role in providing financial incentives for behavior change. Proper design of the year-end roll-over component of these plans can provide powerful incentives for participants to change their behavior. For example, instead of rolling over 100 percent, you might design the plan to roll over 75 percent and make 25 percent payable to a participant if that participant satisfies certain health goals in the person's health-action plan. The inherent message of consumer-directed health plans is a vision of self-care responsibility for the employees of an organization.

The third critical tool to cure our health-care crisis is employer leadership. It is absolutely essential that employer management communicate the importance of participant self-care, and the importance of improving participant health behavior.

These three components—employer leadership, consumer-directed health plans and health-and-productivity-management programs—can provide the tools to effect health behavior change among participants. Not one of them can do it alone; you

need the combination of the three.

Chart 7 shows the results you might expect if you implement these tools in an organization. Rather than simply keeping health costs steady or minimizing the increase in health costs over a number of years, my view is that you can expect to substantially *decrease* health-care costs for an organization—on the order of 30 to 50 percent over a period of five to 10 years.

This diagram illustrates a health-risk profile for a hypothetical employee group of 5,000 employees, with a total health-care cost of approximately $20 million. The bars on the chart represent the stratified risk groups for the employee population: low, medium, high and critical care risk groups. Each bar is divided into drug costs and direct medical costs. The line represents the total number of participants in each of these risk groups. This is a fairly typical risk profile for an employee group in the United States.

If you apply a health-and-productivity-management program, a consumer-directed health plan and strong employer leadership, I believe that you can expect at least a 10-percent decrease in costs in each of these groups per year, and you can expect movement of participants from higher risk groupings to lower risk groupings.

Charts 8 and 9 show what can happen to annual health-care costs with such programs. By the end of the third year, the hypothetical employer could potentially drop costs from $20 million a year down to $11 million a year. The cost for a health-and-productivity-management plan is typically $300 to $500 per participant per year. So for an investment of $1.5 million to $2 million per year, you can achieve an $8 or $9 million savings in your health-care costs per year. These programs are one of the few employee benefits that actually provide a tangible positive return on investment.

To learn more about health-and-productivity-management programs, there is a wonderful book called *Health Promotion in the Workplace* by Michael P. O'Donnell, third edition. I recommend that you take a look at this if you are interested in reducing health-care costs. Secondly, the University of Michigan does a retrospective study every year of a population of over 2 million employees within organizations that have health-and-productivity-management programs. It is a very interesting report with plenty of data.

The Employee Benefit Research Institute (EBRI) had a forum on consumer-driven health plans. They published a booklet called *Consumer Driven Health Benefits: A Continuing Evolution*. It is a good discussion of consumer-driven health plans.

The Chinese pictogram for "crisis" consists of two distinct elements. One element means "danger"; the other element means "opportunity." With the current health-care crisis in the United States, there is great danger, but also great opportunity. The opportunity is to change participant health behavior to dramatically increase

their health, while increasing the profits of their employers.

Paul Fronstin, the health research director for EBRI, has said that his great fear is that ten years from now we'll all be back—a little grayer—talking about why consumer-driven health care didn't work either, and what the next latest and greatest thing is that we think will solve the health-care problem.

Please, remember to treat the cause.

FROM THE FLOOR: I have a question for Greta and Dale. Some managed-care organizations have reported lower-than-expected medical trends for Q1 of 2003, including medical deferral impact due to Iraq and France and a weak flu season. One company even came out and said they found the magic bullet to stop trend. I'm curious to know whether this is a one-time blip or a trend issue. What do you observe with respect to your clients and what's your trend outlook for remaining 2003 and 2004?

MS. REDMOND: We had seen a decrease for first quarter, too. I think some of the things you mentioned are true. The flu season was lighter. I did some research into how often people go to the doctor. As many as 1 percent of all the visits during flu season are actually due to the flu, or 3 to 4 percent, and it was significantly lighter this year. One of the other things that maybe doesn't get as much press—or you hear about it, but how do you quantify it—is the impact of the migration of Claritin from prescription to over-the-counter. That may have as much as a half a point decrease in trend. So that alone could have an impact. I see that some of those things will continue to have an impact going forward.

MR. YAMAMOTO: We have noticed for some of the larger clients, where we do keep track of our cost trends on a quarterly basis, that first quarter trends have been down. It seems like it's been down on the prescription drug side and the hospital side, but I haven't analyzed it to understand what the drivers really are. As far as projections, with our self-funded plans we have lowered trends from what we were using last year, but not significantly. The stories that you're hearing are people that have received 15- or 16-percent trends and are reacting to an 8 to 10 percent kind of annualized trend for the first quarter of this year. We haven't lowered our predictions that much yet.

MR. DAVID ELIAS: I have a question for Alan concerning your admonition to educate users. As you're well aware, doctors are revered in American culture, and actuaries aren't as revered as doctors. It seems your admonition for us to change the health-care picture in our society by educating users is tantamount to having financial advisors educate insurance policy holders to question actuaries about how to be an actuary. How do you propose that users gain enough knowledge to oppose professionals whose job and training and financial resources and lobbies would fight against that?

DR. MILLS: It's already happening. Patients are tired of what's happening with their health care, and they are going online. Patients often come into my office better prepared for their condition than I am. On the Internet they research their condition and the alternatives available for care. And when I make a mistake, they let me know.

It's very different when your health is on the line, or the health of your child or other loved one. You go to great lengths to determine what is correct, what works, and what the alternatives are. There is extremely good health information on the Internet and people are using it.

As far as honoring physicians, I see that changing as well. In the United States, physicians are revered unlike anywhere else on earth. Perhaps it is time that physicians are taken off the pedestal and challenged.

MR. MARTY HILL: Dale, you mentioned earlier that employers are starting to reduce the number of health plans offered to employees. I was wondering if you had any idea why?

MR. YAMAMOTO: A lot of reductions, frankly, are coming on the HMO side. You're looking at people that have been managing three or four HMOs in one market area. Is that necessary? It's a traditional view that you need a group staff model, and an Individual Practice Association model, and you may need a couple of each to provide some variations. I think a lot of people are going away from that, to just thinking that offering any HMO is enough. You have the backlash that we've been seeing again from managed care in general over the last two or three years. They're making people rethink what they should be delivering for a health program. Some are taking a combination of offering PPOs, HMOs and POS plans to a group of employees and asking if they really need this. With a lot of the POS plans, they are taking away the primary-care requirement in their programs, which essentially is a PPO. If you're offering both a POS and a PPO network program in that market area, do you need both? When you look at the benefit staff of large corporations now, they're dramatically down from where they were 10 years ago. There are fewer people working on benefit programs in general and on the administration of the plans as well. We're seeing a reduction in staff that requires, from an administrative perspective, a reduction of the administrative burden on those that are left. So I think that's another driver.

MR. HILL: So they don't see the benefits of offering the different plan designs; they see lots of managed-care options.

MR. YAMAMOTO: They're dealing with the administrative burden and how to wrestle with that, given the constraints that they have on their staffing. That is one reason, plus dealing with the managed-care backlash, if you will.

MS. MONA PANTANO: Alan, I agree with a lot of what you just said. I think the

difficulty in a health plan is how much you can really change people's behavior. At Aetna, we have a product exactly like what you just described. I've done it personally: gone online, done an HRA, had them tell me the things that I should do. But to really change it in your life, unless you have a significant event like you described earlier, there's not a lot of incentive. So how do you really incent people before they have significant events to make a change in their life?

DR. MILLS: You're right. Incentive is a critical component of making it happen. It's one of the five keys to behavior change that I described. And it has to be a real incentive. Money tends to work, which is why the consumer-directed health plans are important in an effective design to change health behavior. Using these plans, you can actually provide an incentive for participants that is real. If you have an incentive of $200 or $300 at the end of a year, around holiday time, you are more likely to do the five or six things in your health-action plan.

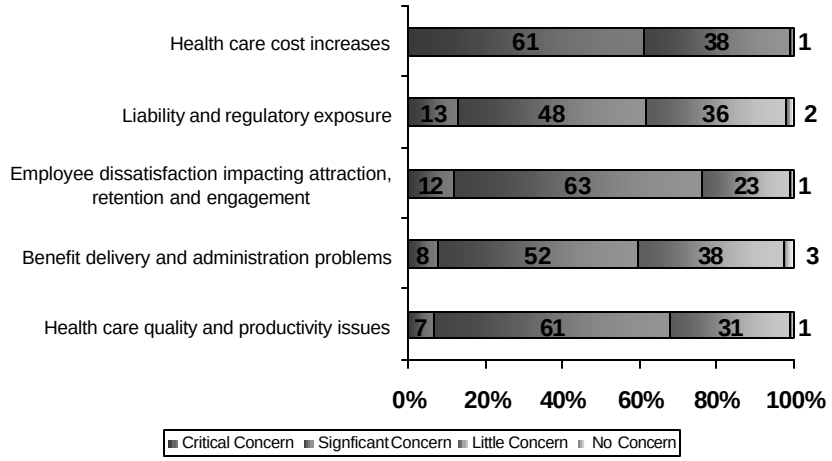
MS. PANTANO: How are you going to prove that they did it though, that people aren't just going to lie on their survey?

DR. MILLS: There are approximately 50 companies providing sophisticated HRA software and implementation programs. I'm not familiar with Aetna's program, but many of the more sophisticated HRA programs require participants to go online and report progress on a regular basis. Such an approach increases the degree of truthfulness.

Chart 1

Employer | Employee | Responsibilities | Prognostications

Greatest Healthcare Business Risk

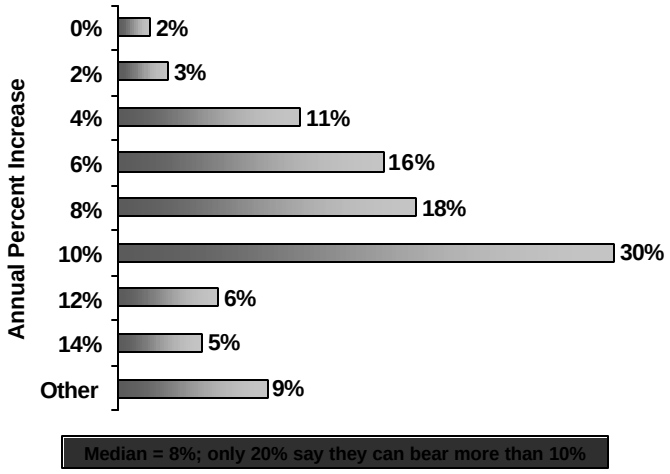


Source: Hewitt Associates' 2002 Future Health Care Expectations Survey

Chart 2

Employer | Employee | Responsibilities | Prognostications

Employers' Maximum Cost Target

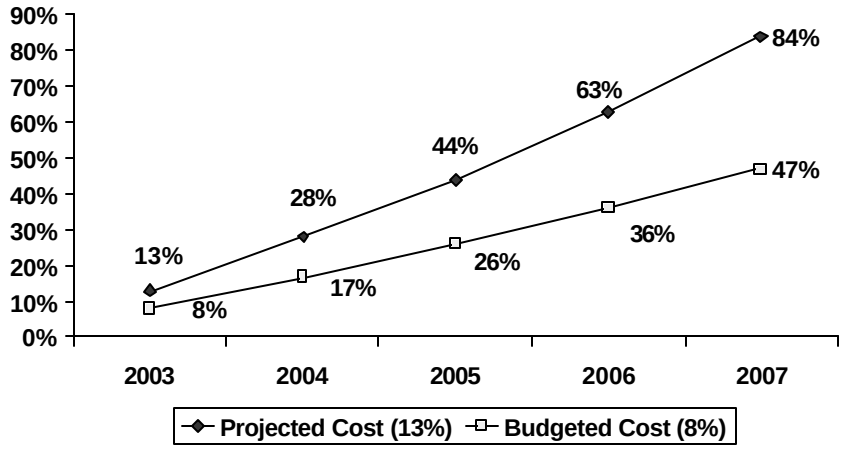


Source: Hewitt Associates' 2002 Future Health Care Expectations Survey

Chart 3

Employer | Employee | Responsibilities | Prognostications

"Cost Gap"

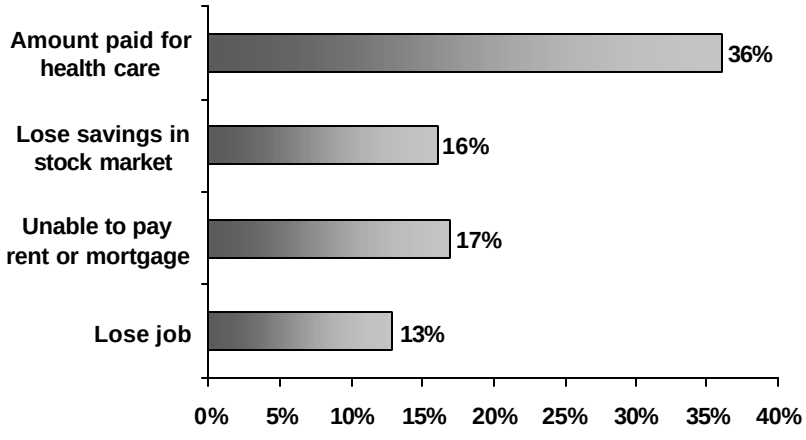


Source: Hewitt Associates' 2002 Future Health Care Expectations Survey

Chart 4

Employer | Employee | Responsibilities | Prognostications

Americans' Worries



Source: Kaiser Family Foundation, April 2003 Health Poll

Chart 5

Employer | Employee | Responsibilities | Prognostications

Consumer Realities

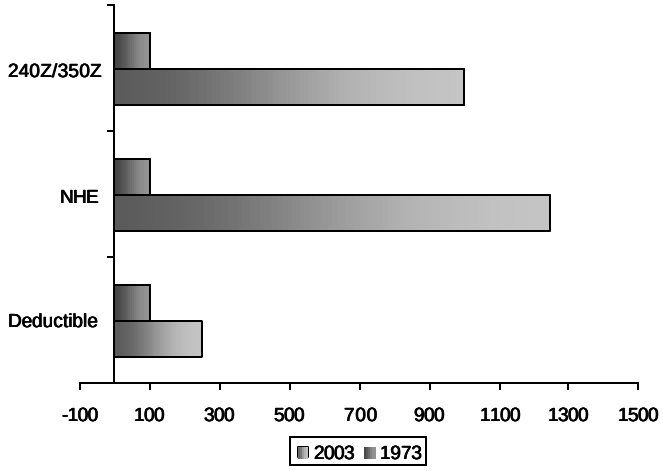


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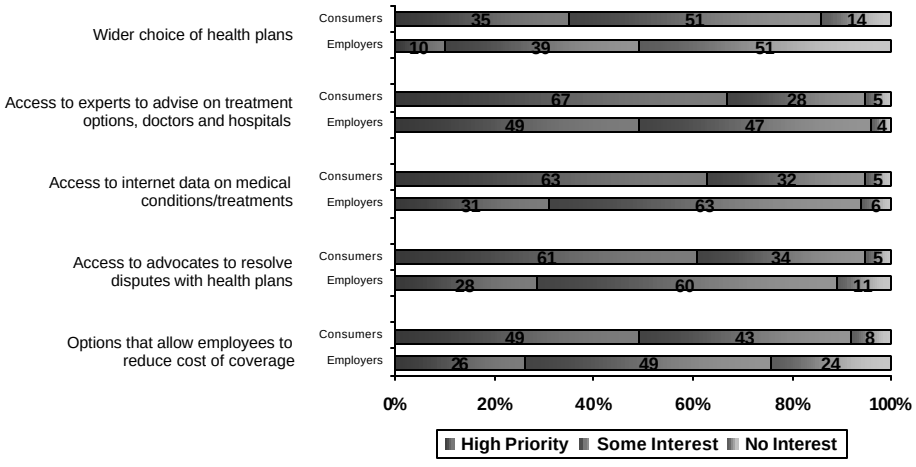
Chart 6

Employer | Employee | Responsibilities | Prognostications

Employers and Consumers Diverge



Source: Health Care Expectations: Future Strategy and Direction (2002)
Hewitt Employee Health Care Expectations Survey (2001)

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Chart 7

Expected results
Prior to implementation

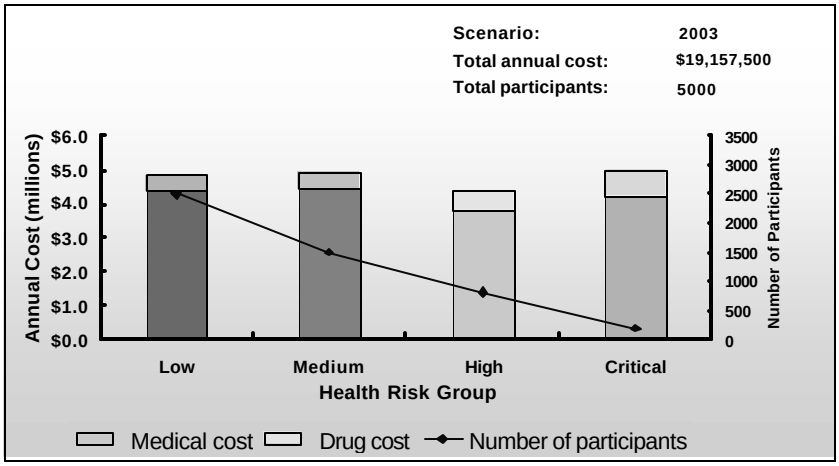

Chart 8

Expected results
First year

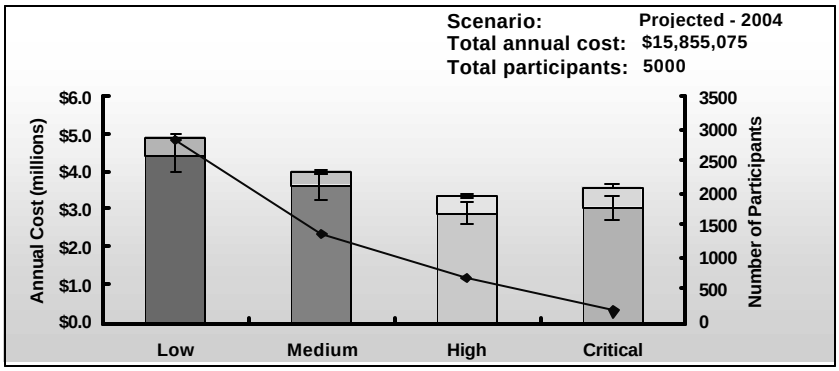

Chart 9

Expected results
Third year