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## Session 109PD Integrative Medicine

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**Moderator:** STEPHEN ROSENBERG, M.D.<sup>†</sup>

**Panelists:** DONALD CHANGIT, M.D. (played by DR. STEPHEN ROSENBERG)  
YEVGENI KNOTT (played by DR. STEPHEN ROSENBERG)  
URIAH SHOWME, F.S.A. (played by DR. STEPHEN ROSENBERG)

**Recorder:** STEPHEN ROSENBERG, M.D.

*Summary: Alternative care and medicine is a topic that sparks a considerable amount of interest today. In this session, panelists discuss the results published in Dr. David Eisenberg's paper entitled, "Integrative Medicine," In addition, the presenters provide an update on the data collection efforts of the SOA Task Force on Alternative Care.*

**Dr. Stephen Rosenberg:** I am a physician—a regular, conventional medical doctor. I am the director of clinical services at PricewaterhouseCoopers (PWC) and have done a number of projects involving alternative medicine. Actually, this session was scheduled to be a panel discussion with three members on the panel. The panel was supposed to be moderated by Lee Launer, but Lee couldn't be here, and asked me to take over. I'll be playing the part of the advocate of alternative medicine, the critic of alternative medicine, and the actuary as well.

Let me begin by playing the part of Lee Launer and introducing you to alternative medicine.

The program schedule says that most of you are not experienced in the area of alternative or integrative medicine, so I'll start by defining alternative medicine. The only reasonable way to define alternative medicine is to say that it is a collection of all those approaches to preventing and treating illness that are not widely accepted by mainstream medical practitioners in this country. Of course, of great importance to the actuarial profession is that these are not approaches to prevention and

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†Dr. Rosenberg, not a member of the sponsoring organizations, is the Director of Clinical Services at PricewaterhouseCoopers in New York, NY.

treatment that have traditionally been covered by third-party payers. Therefore, we have virtually no experience with what they cost, how they contribute to health care premiums, etc. In recent years, as more and more insurance companies and managed care plans begin to offer alternative medicine or alternative medicine together with conventional medicine in what we call integrative health care, it's very important that actuaries have some background so that they can begin to figure out the impact of these new kinds of treatments on what health care will cost, as well as on outcome for patients.

It's important to note that the content of alternative medicine changes over time. In other words, the approaches that are not accepted by mainstream medicine in this country change over time. There are some types of alternative medicine which, after a few years, will be accepted and become part of conventional medicine. I think that the whole field of chiropractic over the last three decades has slowly been moving in that direction. On the other hand, there are parts of conventional medicine that were widely accepted in the past, but which fall out of favor and have been disproven. Thirty or 40 years ago, Vitamin B12 injections were widely used by mainstream physicians for people who were diagnosed with general lassitude or lethargy. It was thought to sort of perk up the body's systems in general. This usage was eventually found by Western medicine to be totally without basis, and has fallen out of favor. Vitamin B12 is now only used in conventional medicine to treat a very specific kind of anemia. However, it is still used in so-called alternative medicine by practitioners who believe that it is still a valuable, general tonic. What's included in alternative medicine as opposed to what's included in mainstream conventional medicine does change over time.

Some of the synonyms for alternative medicine are "unconventional medicine," "unorthodox medicine," and "complimentary medicine." The last is a synonym that you hear a lot, perhaps more often than you hear alternative medicine. There are other less flattering synonyms used by its critics.

Alternative medicine is comprised of many very different kinds of modalities and treatments, but they tend to have certain things in common. One is a stress on prevention and wellness. I happen to be a physician with my specialty boards in public health and preventive medicine, and I believe in this very much. I think it's a very valuable feature of alternative medicine. Second, most approaches in the alternative medicine field tend to be holistic. They treat the whole patient—not just the body but the body, the mind, and the spirit. They tend to be "natural" approaches. If they involve nutrition, they generally involve organic or natural food. Quite often they involve natural herbs as opposed to manufactured medication. There's a lot of stress in alternative medicine on self-care, on educating patients and their families so they can take care of themselves, on educating patients

about their own responsibilities for their health, and on changes in life styles. Many of the kinds of alternative medicine that are becoming popular today in this country are derived from other cultures, particularly Asian cultures, that perhaps have the cache of being more spiritual or natural. There are several kinds of Chinese traditional medicine and several kinds of Indian traditional medicine that are part of alternative medicine in the U.S. today.

I'd like to illustrate the wide-ranging and diverse field of alternative medicine by briefly defining just a sample of some of the common types. Acupuncture was perhaps the first in this current wave of alternative medicine approaches that are becoming popular in the U.S. Almost 20 years ago, practitioners of modern western medicine began to explore the potentials of acupuncture, and it was one of the first that was imported to begin this wave of popularity for alternative medicine. Acupuncture is actually a set of different techniques that have been in use for 2,500 years as part of traditional Chinese medicine. The theory among the practitioners of acupuncture is that acupuncture restores balance to the flow of energy in the body. The part of that practice that most of you are probably familiar with is that acupuncturists insert very fine stainless steel needles in certain points on the body that they call acupoints. Each acupoint corresponds to an organ or a part of an organ, or to a channel through which energy is said to flow to some organ. The insertion and rotation of needles is not the entirety of acupuncture. Acupuncturists also use herbs, not only prescribing herbs for people to take internally, but warming herbs to give off an aroma while they are using their needles. They also use massage techniques.

A second very different kind of alternative medicine is nutritional counseling. Certain types of nutritional counseling are very widely accepted in conventional medicine. In this day and age of alternative medicine, there's growing emphasis on nutritional counseling about *natural and whole* foods, as opposed to processed food, about vegetarian diets, and even about diets that are fairly extreme. One such diet was developed by Dr. Dean Ornish to slow the progression and even reverse cardiovascular disease (arteriosclerosis) through the use of an extremely low-fat diet that is almost entirely vegetables and fruit. A related kind of alternative medicine is the use of megavitamins. By megavitamins I mean vitamins in much higher dosage than the recommended daily allowance of a multivitamin pill. One type of mega vitamin that is becoming more and more popular is antioxidants such as Vitamin E, Vitamin C, and beta carotene, which are thought to reduce certain oxidative chemical reactions within the body. They have a beneficial effect on the development of arteriosclerosis, heart disease and stroke, and a preventive effect for certain types of cancer. In fact there are quite a few studies that seem to show that there may be a scientific basis for this.

There's a whole field of therapeutic massage as part of alternative medicine: manipulation of the muscles and other soft tissues to relieve pain and physical stress and emotional tension as well. There are several very different schools of therapeutic massages: Swedish massage, oriental massages, modern western body work massage, and something called Rolfing. Many practitioners of therapeutic massage will explain their craft in physical terms; in terms of releasing tension in muscles that are in spasm along the spine. Other practitioners of massage will claim that they are also releasing certain energy flows or creating some sort of metabolic or spiritual balance.

Homeopathic remedies are quite popular within alternative medicine and have been around for a long time. There used to be large numbers of homeopathic physicians in the U.S. who believed in a very different theory of how diseases are caused and treated than do conventional, "allopathic" physicians. I don't believe there are any homeopathic medical schools left in the U.S., but homeopathic medications remain on the shelf, and you could always buy them in drug stores and in health food stores. Homeopathic medications are actually the opposite of traditional allopathic medications in two ways. First, we generally think, if the dose of medication is higher, it's stronger. If you need a really strong antibiotic, you give a higher dose. With homeopathic medication, the theory is that the more dilute it is, the stronger its effect on the body will be. The other way that it's the opposite of conventional medicine is that in conventional medicine we generally give medications that combat or reverse the symptoms that a patient has. The theory in homeopathic medication is similar actually to the theory of immunization: if you give someone a very dilute dose of a substance that, in high dose, would cause a certain symptom, this somehow helps the body immunize itself against that symptom. If a child who takes an overdose of a poisonous substance comes into the emergency room, a conventional physician might give the child syrup of ipecac, which is a plant derivative that causes vomiting. A homeopathic medication would have a very, very, very, very dilute solution of ipecac that would be given to people who already have nausea in order to combat that nausea. This would immunize them against it.

Chiropractic is a part of alternative medicine that is still very highly controversial among many conventional physicians, but very widely accepted by the public and in fact, very widely accepted by state-licensing authorities and by insurance companies. In fact, until a few years ago, it was the only type that was widely covered by insurance policies. Chiropractic involves the manipulation of the spine and the joints to relieve muscle pain. It is also used to correct what chiropractors call subluxations of the spine, which are malalignments of the spine that they believe block the flow of energy (and that conventional physicians looking at chiropractor x-rays do not seem to be able to see at all). Until a few years ago the

chiropractors were feeling happy about the fact that they were moving into the mainstream and being covered by insurance. With the recent popularity of alternative medicine and the demand for coverage for alternative medicine, many chiropractors are reversing course, and wish they were still part of alternative medicine and not becoming part of the mainstream.

Mind-body medicine is again a set of several different kinds of approaches such as meditation, biofeedback, relaxation techniques, stress reduction, and hypnosis. In all of these techniques, patients learn to control certain physiologic functions, certain bodily functions that are usually beyond conscious control, such as blood pressure. In biofeedback, for instance, one would be hooked up to a blood pressure machine and by concentrating and meditating, one would learn to actually lower one's blood pressure.

There are many kinds of herbal medicine that are popular as part of alternative medicine. There is traditional Chinese herbal medicine and traditional Indian or Ayurvedic herbal medicine. Herbs and natural plants are used in these various traditions as dietary supplements to enhance health in general, but also to substitute for or to supplement conventional drugs in treating specific diseases. It's important to remember that many of the drugs that are used in conventional medicine are extracted from plants and had long traditions of being used in their natural form before they began to be manufactured by pharmaceutical companies. Digitalis for heart failure, or colchicine for gout, or quinine for malaria, or theophylline for asthma are all natural plant derivatives that are now made by pharmaceutical companies. Herbal medicines that are gaining popularity today include garlic and ginseng for reducing fat and cholesterol in the blood, ginkgo for improving memory, St. John's wort for depression, and saw palmetto for treating enlarged prostates.

Last, as a very different kind of alternative medicine, I would just mention prayer. There is a growing use of organized prayer by the clergy, by family members and by patients themselves in order to recover from a wide range of illnesses.

Now that I've introduced this subject a little, I'd like to introduce our panel members and ask them for their basic positions on this topic. First, I'd like to briefly turn to our critic, our skeptic of alternative medicine, Dr. Donald Changit who is a professor of medicine and a widely published critic of many of the recent changes in medical care, and is most recently author of the book, *Family Medicine and Family Values*.

**Mr. Don Changit (played by Dr. Rosenberg):** Give us a break! This New Age stuff is basically a fad and that's all it is. Counseling on better nutrition makes sense. Homeopathic medicine was totally debunked over 100 years ago. I stopped in a

local health food store a few blocks from here yesterday and picked up this *Directory of Holistic Practices and Providers*. The book has physicians, medical doctors, dentists, and even two "aestheticians" who practice aromatherapy. I imagine they smell the money in this field! They've got a guy doing alpha-biotics, which unifies the brain hemispheres. There are three astrologers in this book. There is a psychic who does channeling of past lives, and two specialists in past-life regression and the inner child. With all apologies to Shirley MacLain fans, this is going a bit too far. There's a gifted mentalist in here who does color therapy, and there are two holistic veterinarians. Don't laugh because I probably would go to one of them if I was "hoarse."

The question is, what ever happened to scientific medicine? When the public sees a list like this that mixes in medical doctors and dentists along with color therapy and rebirthing, they think that these are all equally legitimate types of treatment, and that really isn't so.

**Dr. Rosenberg:** We're all looking forward to the details of your views, but first let me introduce the next member of our panel, Professor Yevgeny Knott, who's chairman of the Change Management Department at the Open University and a very vocal advocate of alternative medicine of every conceivable type.

**Mr. Yevgeny Knott (played by Dr. Rosenberg):** With all due respect to Dr. Changit, there are at least three reasons why what he says is really not correct. First of all, we are coming to realize that there are great benefits to patients when we deal with the psychological and spiritual aspects of their disorders. One way is helping people to come to terms with a terminal illness, for example. We can help people to cope with chronic pain when even the best medications can't totally relieve something like arthritis or where the pain comes from metastatic cancer. So-called scientific, western medicine, for quite a few decades, really has ignored those aspects of patient care. I think large numbers of people in the general public resent the fact that conventional, western physicians are becoming more and more technicians and less involved with understanding what diseases mean to their patients, how they are suffering, and how they can be helped to cope. Just recently, many doctors who don't view themselves as part of alternative medicine are beginning to pay attention to the psychological, to the mental, and to the spiritual aspects of their patients' care.

The second reason I think Dr. Changit is wrong is that there is enormous evidence about the effectiveness of the placebo effect. I'm sure you are all somewhat familiar with the placebo effect. For thousands of years, physicians have given sugar pills to patients. Very often patients would come into the doctor's office and if there is not any medication that will help them, they're very unhappy and they really demand

something. So doctors will very often give them a harmless sugar pill or placebo. It turns out that if you give patients harmless pills made of sugar or starch, and the patients really believe that it's an effective medication because they've been told it's an effective medication by a physician they trust, it not only has psychological effects, but physiological effects as well. If you give a patient a placebo and tell him that it might help lower his blood pressure, or enhance his immune system, studies have shown that, compared to people who are given nothing, the blood pressure does go down somewhat, and the antibody production does go up. We really don't yet understand how this happens, but it's very well documented.

The third point that I would make is that there is mounting evidence that specific alternative modalities—maybe not the aestheticians or the alpha-biotic practitioners, but many kinds of alternative medicine—are beginning to be shown in rigorous scientific studies to have specific effects for certain illnesses. The anesthesiologists were probably the first conventional practitioners to advocate a nontraditional, nonwestern practice, namely acupuncture. Fifteen or 18 years ago, a number of anesthesiologists began to travel to China to observe and learn acupuncture techniques. They then came back to this country and were able to demonstrate that they were able to use much lower doses of pain medication and anesthesia when patients also got acupuncture. There were well-documented cases of doctors who carried out fairly major surgery on patients, and the only anesthesia that these patients received was acupuncture. These patients reported that they felt no pain at all. There have been a number of very good studies of chiropractic manipulation in the U.S. also in the U.K. that have shown that chiropractic is at least as effective as medical and surgical approaches to patients with low back pain. We are starting to see controlled trials of herbal remedies, particularly in Germany, that are beginning to produce scientific evidence for the safety and effectiveness of a number of alternative herbal medications, such as saw palmetto, for the reduction of benign prostatic enlargement. So, it's a mistake to dismiss all alternative medicine out of hand, when in fact there is mounting evidence.

**Dr. Rosenberg:** Our third panelist is a member of the actuarial profession who many of you probably know, Uriah Showme FSA, a partner at Dewey Cheetum and Howe.

**Mr. Uriah Showme (played by Dr. Rosenberg):** As an actuary, I'm afraid that I can't really agree with either of the previous speakers entirely. We don't have enough evidence yet to really know the value or the dangers of alternative medicine. The public is using alternative medicine at a growing rate, and insurance companies and HMOs all over the country are beginning to cover these practices. Some of the clinical studies that have been mentioned are fairly solid, but there haven't been many rigorous, large-scale studies to look into the questions that actuaries are really

most interested in. What is the impact of these alternative modalities on the cost of health care? What is the impact on outcomes for the patients, such as mortality? And that is why the SOA formed its Task Force on Alternative Medicine.

The task force was set up by Lee Launer as a way to answer four key questions from an actuarial perspective. One, what is the true utilization and cost of alternative medicine when it is covered by insurance? The only studies that have been done so far, primarily by Dr. David Eisenberg at Harvard, have been surveys of the use of alternative medicine by Americans when most of them are paying out of pocket. We really don't know whether use will go up significantly if people have insurance coverage, so it's very hard to predict claims costs. Second, we need studies on the impact on health status and mortality outcome of a variety of alternative medicine approaches. Third, what is the impact of alternative medicine on the use and cost of conventional medicine? The key subquestion here is to what extent will people with insurance use alternative medicine as a substitute for conventional medicine, perhaps at a lower cost? To what extent will they continue to use conventional medicine but also use alternative therapies at additional cost? Finally, what is the impact on total cost and on outcomes when alternative medicine is used alone versus its impact when alternative medicine is used in combination with conventional medicine? These outcomes would have major implications for the various reimbursement arrangements for these two types of care.

The task force is chaired by Lee Launer and has five other actuaries on it. In addition to the actuarial members, there are two physicians on the task force. One is Dr. David Eisenberg, whose name I just mentioned. Dr. Eisenberg is assistant professor of medicine at Harvard Medical School. He has carried out the largest surveys of alternative medicine use in this country, and he's also director of the Center for Alternative Medicine Research at the Beth Israel Deaconess Medical Center in Boston. The second physician who is on that task force is Dr. Joseph Jacobs, who was the first director of the Institute for Alternative Medicine at the National Institute of Health. So far, the task force has met around four times. The last meeting was two or three months ago (Spring 1999). They hoped to answer the questions about utilization, outcomes, and cost by doing a meta-analysis of published studies. They were able to collect roughly 5,000 published papers about alternative medicine, but it turned out that most of them were either anecdotal or they were very small-scale clinical reports. Very few of them were large-scale clinical trials, and very few of them provided the kinds of data that actuaries could use to estimate the impact of alternative care on health care costs, on premiums or on outcomes. There is some utilization data, particularly by Dr. Eisenberg, and also a study done by the government of Saskatchewan and another study supported by the Robert Wood Johnson Foundation. Professor Knott will be presenting some of the results in a few minutes.



Because of the paucity of published data that are relevant to actuaries, the task force of the SOA decided to organize a major data collection effort of its own. The primary focus of the task force will be on collecting basic actuarial data concerning utilization, cost, and mortality for as many types of alternative medicine as possible. A secondary focus will be on other kinds of impact for selected diagnosis. For instance the impact of alternative care on the use of conventional care, the impact of alternative care on overall costs of alternative-plus-conventional care and the impact on outcomes other than mortality, such as disability, cure rates, return to work, etc. At their last meeting, the task force had actuaries from six insurance companies that all cover some form of alternative care, and all six representatives expressed an interest in collecting these kinds of data from their own health plans in a uniform format. Today it can be aggregated and analyzed in a large-scale way. The task force is currently trying to enlist other insurance company actuaries in this data collection effort. If anyone is aware of companies that might be interested in cooperating, they should contact Lee Launer at PWC in New York. The task force is also resolving issues of confidentiality and how they are going to fund this analysis.

I'd like to hand the microphone to Professor Knott again, to talk about some of the information that has been collected—even though it is not as much as we would like—on the utilization of alternative therapy.

**Dr. Knott (played by Dr. Rosenberg):** In 1990 Professor Eisenberg at Harvard conducted a nationally representative random household telephone survey of adults, and he had 1,539 respondents. In 1997, he repeated this survey with a few additional questions, and he received 2,065 responses. It is important to note that these studies were published in the *New England Journal of Medicine*, probably the most prestigious medical journal in this country. An analysis of the respondents showed that they were representative of the U.S. population in terms of age, sex, income, education, and geographic distribution.

First of all, this telephone survey asked respondents what health conditions they had had within the previous 12 months. Then they asked respondents which of 16 types of alternative therapy they had used for these conditions in the last 12 months (and people might have used more than one type of therapy). They asked respondents whether they had also seen a conventional medical doctor for these same conditions and, if so, did they tell the conventional medical doctor that they were using alternative therapy or not. This question produced some of the most interesting results. Finally, they asked if the insurance that people had paid for any, all or none of the alternative therapy that they received.

A total of 42% of the respondents indicated that they had used at least one of the 16 alternative therapies in 1997. That's a very high percentage and, remember, it's a

representative sample of the U.S. population. That's up from 34% percent in the 1990 survey, which is very statistically significant.

The 16 therapies that were explored included the following, in descending order of popularity:

- There were several relaxation techniques that people reported using, and meditation was, by far, the most popular of these.
- Among herbal medicines, the most popular was Chinese herbal medicines.
- Massage therapy
- Chiropractic
- Spiritual healing covered by the survey included only prayer by others -- members of the clergy or family members praying for the patient.
- Megavitamins
- Self-help groups
- Imagery
- The commercial diets that were included were weight loss diets, such as Jenny Craig or Weight Watchers.
- Folk remedies
- Life style diets were looked at separately, and included things like vegetarian diets and macrobiotic diets.
- The most commonly reported type of energy healing that respondents reported was the use of magnets. People also used things like healing touch.
- Homeopathy
- Hypnosis
- Biofeedback
- Acupuncture. I was very surprised that acupuncture was down at the bottom of the list with only 1% of people using it because, among health plans, acupuncture seems to be one of the most popular kinds of alternative medicine to be covered.

Fifteen out of the 16 kinds of alternative medicine showed an increase in use between the 1990 survey and the 1997 survey: all but biofeedback. And 10 out of those 15 increases were statistically significant.

Projecting from Dr. Eisenberg's sample, 42% percent of the U.S. population is using at least one kind of alternative therapy. That's equal to 83 million people in the U.S. in a given year using at least one kind of alternative therapy.

Of those survey respondents who said they used alternative therapy, 46% saw practitioners of alternative medicine in 1997. That's 46% of 83 million, or 39

million people in the U.S. The majority of people who used massage, chiropractic, hypnosis, biofeedback, and acupuncture saw practitioners of those specialties, while most of the people using the other kinds of alternative therapy did so on their own. They got homeopathic medicines from the drug store (you don't need a prescription), or they adopted vegetarian diets on their own.

Among those who did see practitioners of alternative medicine, the average number of visits per year in 1997 was 16.3. That average includes people who saw three or four different kinds of practitioners. The total number of visits to alternative care practitioners went up 47% from 1990 to 1997. Eisenberg projects that 628.8 million visits a year were made in 1997 to alternative care providers. That is something like 40% more than the annual number of visits to primary care physicians. Americans in 1997 made 386 million visits to primary care doctors. They made 629 million visits to alternative care providers.

The conditions for which respondents most frequently used alternative therapy (and I'm just going to name the one where more than 20% of the people who had these problems said they went to alternative practitioners) were neck problems, back problems, anxiety, depression, headaches, digestive problems, fatigue, arthritis, insomnia, and strains and sprains. This is a rather wide mix of problems.

Based on Eisenberg's study, Americans spent in 1997 somewhere between \$21–33 billion on the services of alternative care practitioners. That's up 45% since 1990. They spent another \$14 billion on alternative care products: mega vitamins, dietary products, herbal remedies, alternative medicine books, classes, equipment, etc. So, in 1997, people spent a total of between \$35 and \$47 billion on alternative care in general.

And Eisenberg estimates that at least \$34 billion of that was from out-of-pocket payments. This is equal to the total that Americans spend out-of-pocket for all physician services. Not just physician visits, but surgery as well. This huge cash expenditure on alternative care explains the eagerness of HMOs and insurance companies to begin entering the alternative care market.

A significant number of employee health benefit plans are beginning to cover alternative therapy. A 1998 survey found that the most widely covered benefit was chiropractic, followed by acupuncture. But there is also some coverage for less well-known things like biofeedback, homeopathy, and massage therapy. All kinds of health plans, such as PPOs, point-of-service plans, HMOs and traditional indemnity plans, have significant levels of coverage. The coverage is usually higher in large plans (500 plus employees) than in smaller plans, regardless of whether

you're talking about PPOs or traditional indemnity plans. In general, the larger plans tend to be more likely to offer alternative medicine.

An even more recent survey backs this up and takes it a little further. In the June 7 issue of *American Medical News*, which is published by the American Medical Association, they did a survey just of HMOs, and they found that nearly two-thirds of the HMOs in this country covered at least one alternative modality. Again, they found it was usually chiropractic and/or acupuncture, and usually as an optional rider to their basic health policy.

**Dr. Rosenberg:** I think our skeptic would like to respond to a few of these points. Dr. Changit?

**Mr. Changit:** If alternative or complimentary medicine is going to be fostered by health insurance, it ought to be at least in combination with conventional medicine—real medicine. I read Dr. Eisenberg's articles also. What Professor Knott didn't mention is that almost one-third of the people in Eisenberg's 1997 study who consulted real doctors also used alternative therapy. But only 38% of these people discussed the alternative therapy with their medical doctors. Sixty-two percent of the alternative therapies that people were using were not discussed with the medical doctors that they were also seeing for the same condition. And that is very dangerous.

Herbal remedies and mega vitamins can interact with real medication, so that if you're being treated by an herbalist and a cardiologist, you could get into trouble if the cardiologist doesn't know you're taking certain herbs. High doses of certain vitamins, particular fat-soluble vitamins like Vitamin D, Vitamin E (which is very common now), Vitamin A, and Vitamin K can be very toxic. If you take an overdose of these fat-soluble vitamins, it's stored up in the fatty tissue of your body, and you can build up very high toxic levels.

Even if physical manipulation by massage therapists or chiropractors perhaps can be helpful to some patients, it can also be dangerous to others. You don't want to have some sort of vigorous massage of the spine if in fact you've got cancer with metastases to the vertebrae; the massage is going to result in a fractured spine.

I know of at least one health plan, Blue Cross/Blue Shield of Greater Rochester, New York, that offers insurance coverage for acupuncture, but it requires the acupuncturist to notify the patient's primary care physician that they are sticking needles into them. Most insurance plans that cover alternative care do not require that kind of interchange of information, and if it's going to be covered, there ought to be that kind of sharing of information. Eisenberg says in his study that 96% of the

people who saw alternative care practitioners also saw real doctors for the same condition. Obviously, a lot of people want access to both kinds of care, not just to one versus the other.

The worst scenario, and I've heard of several cases like this, is when someone with a potentially life-threatening disease decides to take a mega vitamin or go to that guy who unifies the brain hemispheres instead of getting the surgery or chemotherapy that could save his or her life. It is better if the person is taking the mega vitamins and going to a conventional physician for a serious disease. Therefore, if some of these complimentary practices are going to be included in health care plans it ought to be what's called an integrative health plan.

Integrative Medicine is the title of this session, and we haven't really gotten around to it yet. Integrative medicine is the coordinated provision of conventional, regular, western, scientific medical care with alternative care. And, certainly, as a skeptic, I would feel that's the only way to do it. If you have your mind set on providing insurance coverage for alternative care. Health plans are beginning to do this in a number of ways. Some health plans provide insurance coverage for conventional care and they provide discounted access to an alternative care provider panel. They simply say, "If you're a member of our health plan, show your card to any one of the doctors in this book. They have agreed to give you certain discounts." Other health plans offer insured coverage for conventional care and insured coverage for alternative care. The Rochester Blue Cross plan that I mentioned before has insured coverage for acupuncture. Highmark Blue Cross/Blue Shield has insured coverage for the Dr. Dean Ornish nutritional program for cardiovascular disease.

Some health plans have both of these options. Since 1997, The Oxford Health Plan in New York, New Jersey, and Connecticut has offered all of their point-of-service (POS) members access to a discounted panel of acupuncturists, massage therapists, chiropractors, dieticians, nutritionists, yoga instructors, and (only in Connecticut) naturopathic physicians. And all of these panel members have agreed to give discounts to Oxford members. (Naturopathic medicine is only offered to the Connecticut part of the health plan because it is one of those professions that is licensed in some states like Connecticut, but not licensed and not allowed to be practiced in New York and New Jersey.) The discounted access for all the POS members in the Oxford network is at no additional charge, there is no increase in the premium. Oxford also has a second kind of alternative medicine product, as well. They offer a rider, and each individual employer can decide whether its group wants to purchase this rider or not to provide insured coverage for a narrower panel of chiropractors, acupuncturists and (again, in Connecticut) naturopathic physicians. It's the employer that must decide for the group whether they are going to buy this rider or not, not the individual employee. Obviously, there would be an awful lot

of adverse selection if the individual employee made the decision. In addition, all Oxford members have access to mail order mega vitamins, herbal remedies, educational books, and tapes on complimentary medicine, and they can attend seminars that Oxford runs on alternative medicine.

Some HMOs that offer insurance coverage for complimentary care use a gatekeeper for access and some don't. In a classic HMO, you need to go to your gatekeeper primary care physician in order to access any specialist, such as a cardiologist, orthopedist, or whatever. And many of these HMOs use that same model to get a referral for massage therapy or acupuncture. A number of HMOs recently have been giving up the gatekeeper model altogether because there's a lot of public backlash against it. A lot of HMOs have been touting themselves as "open HMOs," which means you can go to any specialist on their panel without going through your primary care doctor. Similarly, these HMOs may offer alternative care and allow you to go to the acupuncturist, the chiropractor, or the massage therapist directly without going through your primary care doctor. And then there are a few HMOs that say you have to have a gatekeeper primary care physician, and you can also choose a second, primary care alternative practitioner.

There are a couple of other ways that health plans try to integrate and coordinate their conventional and alternative care. One is the so-called "integrative assessment." There are plans that say that every new member of the health plan has the opportunity, or maybe even the requirement, to have an intake visit with a holistic practitioner. They'll have a small group of physician or nurse practitioners or other health professionals who are familiar with both conventional care and a wide range of alternative care. They will do an integrative history and physical exam on the patient and then will offer the patient a series of referrals to a combination of conventional and/or alternative practitioners who meet the patient's particular health care needs and preferences.

Another approach used by a few health plans is the integrative medicine clinic or health center. The Advocate Healthcare Plan in Illinois has a clinic in which they have conventional practitioners and alternative practitioners in the same clinic working together. Harvard Vanguard Medical Associates in Boston actually has seven of these clinics in which physicians, chiropractors, massage therapists, and acupuncturists all work together. At PWC, we're doing some work with a YMCA in the Midwest that is sponsoring a series of centers in their YMCA buildings that would have physicians and alternative care practitioners linked to the health clubs in the YMCA.

**Dr. Rosenberg:** Lastly, I would turn this back over to our actuarial representative to say a few words about the quantitative impact of alternative medicine on claims costs.

**Mr. Showme:** As I said before, we really don't know enough to calculate, with any degree of precision, the impact of alternative medicine benefits on claims costs because there just isn't the kind of historical experience in paying for these things that you're all used to using when you calculate the cost of health care plans in general. Instead, we have to make rather rough estimates based on the kind of factors that people have been talking about this morning: the expected utilization rate, the extent to which we expect alternative care to replace or to supplement conventional care, and, of course, all kinds of details in the design of the insurance in terms of what's covered, what kind of referral mechanisms are necessary, and whether you have to go through your PCP, etc.

PWC is working with a health care plan to help them develop a premium for a new product that will feature four kinds of alternative medicine: acupuncture, nutritional counseling, massage therapy, and mind-body medicine. This is a fairly wide range for an insured product.

The very first thing that they did at PWC was to work with the health plan to develop the plan design. What was decided on eventually was to take the plan's existing POS model, which was a fairly successful POS model, to make a few minor changes, and to add insured coverage for these four kinds of alternative care. In this plan design, in order to access three types of alternative care (acupuncture, nutritional counseling, and massage therapy) the patient will need a referral from his or her primary-care doctor, *with a specific diagnosis*. They have a list of diagnoses that they have determined to be relevant to each of these three types of care. There is a \$15 copayment for each visit for acupuncture, nutritional counseling, and massage therapy. The yearly maximum is eight visits to the acupuncturist, eight visits to massage therapy, and four sessions with the nutritional counselor.

Mind-body medicine is treated somewhat differently in this health plan. It is largely replacing the outpatient mental health benefit. (There are still inpatient mental health, outpatient drug and alcohol abuse benefits.) As with most mental health services, there is no referral needed from the primary care doctor. There's a copayment of \$15 per visit for the first seven visits, starting with the eighth visit, the copayment jumps to a higher level, but there isn't any maximum number of visits that are covered each year. Mind-body medicine can be accessed out-of-network, which of course would be subject to the plan's deductible. The other three complimentary services are only available in-network and there is no deductible.

After settling on this plan design, PWC estimated the cost of each type of alternative care visit, the frequency and duration of treatment, and the proportion of plan members who would be expected to seek care from acupuncturists, nutritional counselors, massage therapists, etc., per year, based largely on Dr. Eisenberg's studies. From these estimates come the per-member per-month (PMPM) cost in terms of claims cost for actually paying for the alternative care.

Then the next task was to figure out the reduction, if any, in PMPM claims cost for visits to conventional doctors, tests by conventional doctors, x-rays, and prescription drugs. There are conventional services that would be replaced by alternative care. That was calculated based on which diagnoses are covered for each of the alternative modalities. Acupuncture and nutritional counseling, for instance, would be expected to add a relatively small new PMPM cost but to reduce the use of conventional medicine by even smaller amounts, so that they end up with a net increase in the PMPM claims cost. It's expected that members of this health plan will be using acupuncture mainly for the relief of symptoms like low-back pain and, therefore, may be seeing physicians somewhat less frequently for that and thereby getting fewer x-rays and prescriptions for pain medicine and muscle relaxants. Patients with high-blood pressure, diabetes, or high cholesterol would be receiving referrals for nutritional counseling. If this counseling helps them control their blood pressure, their diabetes, or their cholesterol, they will probably need fewer physician visits for follow up, maybe fewer drugs for lowering cholesterol, and fewer drugs for lowering blood pressure. There would be some offset there, although it would be rather small.

Massage therapy is expected to be much more widely used in the particular population in this health plan. It is not just for physical problems like back pain and headaches, but also for stress reduction. It is anticipated that it would be used in addition to conventional care for back pain, and not as a substitute. It would add considerably more to PMPM claims cost than the first two therapies we talked about. On the other hand, mind-body medicine is expected to largely replace conventional outpatient mental health care, so there is a big reduction in conventional costs here. If you tally this all up, you basically have a fairly modest impact of about \$1.50 PMPM for adding alternative care. That's 1.26% of the total current claims cost in the plan before adding alternative medicine. But even this would be lowered somewhat because they expect employee groups that have somewhat younger demographic characteristics to be interested in this alternative medicine package, and therefore, they expect a small demographic adjustment downward in the claims cost PMPM.

These are obviously rough estimates, and the health plan realizes that as they begin to gain experience with actual use, there will need to be an adjustment for the



second year. This is an example of the varying impact that different alternative modalities can have, depending on whether they're expected to substitute for or add to conventional care and how widely they're expected to be utilized.

**Dr. Rosenberg:** I think that “all members of the panel” would be more than happy to answer any questions that you may have.

**From the Floor:** Which health plan is experimenting with this?

**Dr. Rosenberg:** I'm not at liberty to mention the name of that health plan since they're in the midst of trying to get their state approval. I'm sorry.

**From the Floor:** In any studies like this, is anybody looking at the impact of the alternative therapies on morbidity, like short-term and long-term disabilities?

**Dr. Rosenberg:** It is hoped by the SOA Task Force on Alternative Medicine that the six health plans that are participating so far, and the others that they hope will join, will be able to provide information that will look at not only mortality, but also short-term disability as well, for selective conditions where there may be significant impact. We need to keep an open mind because the significant impact could be negative as well as positive.

**From the Floor:** I was pleased to hear presentations by Dr. Dean Ornish last year, and he actually had a cartoon. It showed a small room with water on the floor and two physicians mopping up the water, but behind them you see a small sink with the faucet still turned on. The obvious meaning of that is physicians today, especially in the area of cardiovascular disease, treat the result but they never treat the cause. I know that he has worked with some insurance companies promoting his new plan as an alternative to coronary artery bypass graft (CABG). What do you think insurance companies can do to help promote things like that as alternative treatments, especially in the area of cardiovascular disease?

**Dr. Rosenberg:** I think that's an extremely important point. I mentioned stepping out of all these roles. I happen to be a physician trained in public health and preventive medicine, so I think it's extremely important. It's very interesting that over the last 20 years or so, there has been a marked decrease in mortality in this country from stroke and a marked decrease from arteriosclerotic heart disease, and neither of those decreases is primarily due to curative interventions. It's not that the same number of people are having heart attacks but now we have these wonderful \$2,000 doses of thrombolytic agents that can bust up the clots and save the patient's life. We can do bypass surgery and angioplasty and heart transplants. All that stuff, which costs millions of dollars, is having a minor impact on mortality. The major

impact is that fewer people are actually having heart attacks, and fewer people are having strokes, largely because of the kinds of changes that are consistent with alternative medicine. There has been much change in the American diet. There has been a change in the number of people who are exercising. Many risk factors for cardiovascular disease are being impacted by lifestyle changes even though the health care system has not been paying for those. I would agree that if the health care system, through private insurance and also perhaps through Medicaid and Medicare, began to actually reinforce and enable people to make those lifestyle changes by contributing coverage, they could have an enormous impact on mortality and on chronic disease morbidity. I would certainly agree with that, and I think insurance companies should do that. This type of prevention is said to be outside of the traditional purview of insurance. You folks know this more than I do, but insurance executives will say that paying for somebody to go for exercise or for preventive care is not insurance. Insurance is providing people with coverage for unexpected, expensive, catastrophic events that are outside of their control. Now that managed care has grown so much, certainly many insurance executives would say that an HMO is not really an insurance plan. It's not just providing that kind of insurance against untoward events. It's providing first-dollar coverage for primary care and prevention. These approaches are more in line with the payment philosophy of HMOs than with traditional indemnity insurance. I think we're moving in that direction. I think it's a very important thing.

**From the Floor:** I'd like to respond to your last comment. The more we think of those things as insurance, the more we kind of box ourselves in. We think of them just as employee benefits. Maybe that would be a good way out of it. Do you have some references that you could suggest to us? Now that you've kind of piqued our interest in this, where do we go from here?

**Dr. Rosenberg:** I certainly would recommend three papers by Eisenberg very highly. I happen to have them here and people can look at them if they want when we're finished. I'll read you the references on them. His most recent paper is called, "Trends in Alternative Medicine Use in the United States 1990–97" and it was in the *Journal of the American Medical Association* on November 11, 1998. It's a follow-up to his original study, "Unconventional Medicine in the United States" which was in the *New England Journal of Medicine* on January 28, 1993. That gives the results of his 1990 study. The article in the *Journal of the American Medical Association* compares that with the 1997 study. He also wrote a very interesting article called, "What Physicians Should Advise Their Patients About the Use of Alternative Medicine."