

## SATURDAY AM – 1<sup>ST</sup> PANEL

KAREN TARANTO: Good morning. For those of you who decided to come early on Saturday morning, welcome. We hope that there will be many more of you because we have an excellent program today. For those who missed it, I understand this is being taped so they will be able to hear but it would be nice to fill up the room because there are going to be many provocative and thought-provoking kinds of things spoken about and we would like good participation. Let me tell you all welcome and thank Skip for putting on this wonderful program, and I'm going to just move ahead and introduce three of our panelists. There is one person not yet here. We're hoping that he will come and will join us as well. I'm Karen Toronto, a consultant from a company that's located in Sacramento that's called PMPM Consulting Group. We're a national health care consulting firm and do lots of work with medical groups, some with health plans, and a lot of community organization work. Let me introduce your panel because that's who you came to hear. You know that the topic is The Perspective on Prevention Techniques – community based public health initiatives, early intervention, health promotion, health education, body mind spirit methods, cost offset affects on covered outpatient mental health. We have a very full agenda for this group that's going to speak for just about an hour. Immediately to my left is Debora Hammond. Debora is a professor and director of the Hutchins School for Liberal Studies here on this beautiful campus. Next to Debora is Judy Coffey who is the area manager for the Sonoma-Marín Kaiser Permanente Health Plan, not a hardship assignment to be here. And Bob Dozor, a physician from an organization that he will I'm sure tell us all about called Integrative Medical Clinic of Santa Rosa. So why don't we begin with you, Debora and as more people come, we'll fill up our room.

DEBORA HAMMOND: Thank you, Karen. As she said, I am currently a professor and completing my third year as director of the Hutchins School of Liberal Studies at Sonoma State, and that is an interdisciplinary and seminar-based liberal studies program, and I feel very fortunate to be there. And I'm going to talk a little bit more about some of the work that I do in that program in a little bit. I'm here to offer kind of a broader sort of whole systems perspective as a context for this afternoon's discussion. And unfortunately I won't be able to stay but I wish I could because this topic is something that's really dear to my heart, and also as a professor in a program where we're really trying to engage students more directly in the community I'm really interested in kind of linking up with people who are involved with health care in the broader Sonoma County community.

I think that the health care crisis is part of a much larger problem that is related to the sort of deterioration of the social fabric in our country and perhaps in the whole world right now. So that's what I'm going to talk about. My own background is in the history of science, and originally I was inspired by Fritjof Capra. In the early 1980s I was involved in the nuclear freeze campaign and really just couldn't understand the rationale for building thousands and thousands and thousands of weapons. And somebody gave me a tape of a talk that he had given. I don't know if you're aware of his work. He started out with the Tao of Physics and wrote a book called "The Turning Point" in the '80s and more recently has written a lot about systems thinking. But at the time – this was in the early '80s – on this taped lecture I heard, he said the problems that we're facing as a society – whether you're looking at poverty, crime, environmental degradation, nuclear proliferation – those are systemic problems and you can't

solve them in isolation. And he said these problems are rooted in what he called a crisis in perception. And that just made so much sense to me. And the way he defined that crisis in perception, he said it's rooted in the mechanistic world view that we've inherited from the scientific revolution, the sort of reductionist, atomistic paradigm. And that just really kind of lit a fire in me. And I went to graduate school to study history of science because I was really interested – one of the things that Capra had said is what we need is a more holistic, a more ecological, more systemic way of understanding the world. So that was what I was interested in. And I was lucky enough to – I did actually write on the history of systems thinking and the emergence of systems concepts in the '40s and '50s as a sort of concept that linked researchers across a whole spectrum of disciplines. And I was fortunate enough to meet somebody at Berkeley by the name of Lynn Duwell. I don't if any of you are aware of his work. He's done a lot of work with the World Health Organization, and most interesting to me was some work he did on a healthy cities concept, starting in Oakland where he was based, working with a number of cities worldwide. I think Tehran was one of the early cities that he worked with, where he pulled together representatives from all facets of the community to talk about what does it mean to be a healthy city. Some of you may be familiar with Curitiba – it's a city in Brazil where the mayor sort of completely reformed the city, worked with the homeless to give them meaningful work, built a transportation system that works for everybody, and reports from this city are that even though they have a relatively low standard of living, they have a very high quality of life. And the mayor who was responsible for a lot of this work was one of Lynn Duwell's students. So I think that concept of healthy cities is something we can think about – what would it take to make a healthy Sonoma County?

For the last 30 years, I've been very interested in alternative approaches to health: holistic health care and the whole notion of mind-body, the whole sort of going beyond the conventional medical paradigm, which I'm sure most of you are also interested in. At the point that I decided to go back to graduate school I was trying to decide whether to aim in a sort of academic career or I was thinking about going to study naturopathic medicine, so that's always been a parallel interest of mine. And as a result, one of the courses that I teach in the Hutchins program, we try to offer courses that bridge disciplinary perspectives. So although I try to focus generally on topics relating to science and the role of science in society, I try to bring in a broad range of perspectives. So I teach a course on health and healing. And I tell the students what we're going to be looking at is the economic, environmental, scientific, psychological and spiritual aspects of health and healing. And it's a very transformative course for a lot of those students, and I think they all begin to understand their health in a much larger context.

When I look at health and the issues that we're facing, it seems to me that some of the greatest health problems are rooted in poverty, stress, environmental toxins, and lifestyle issues. And those are not issues that can be addressed sort of in a narrow medical framework. So I think while we need to address some of the immediate health issues that our health care system is presented with, it's important that we begin to sort of look beyond that, and that prevention is not just sort of at an individual level but rethinking our whole social structure. So that's kind of the perspective that I want to share with you. One of the part-time faculty members in our program shared something with me that I was really amazed by. His wife works in the Health Care Center at the University of California at Berkeley, and she said that 50% of the students there are on antidepressants. And that's probably representative nationally. And it's very profitable for the pharmaceutical companies. They don't have any interest in reducing the incidence of depression.

And what we hear often, you know, is, well, this is a biological or it's maybe genetic, it's something that's fixed. But nobody seems to be asking why are so many of our young people depressed? And I think that's a question that we need to ask. And to me it's a symptom of life out of balance. I don't know if any of you have seen the film called "Collanascatsi," it came out probably more like 20 years ago. *Collanascatsi* is a Hopi word that means "life out of balance" or crazy life or a way of life that calls for a new way of living. And I think that's really important to look at these health issues in that context.

My landlady when I was in Berkeley had been depressed for most of her life and had been on antidepressants for many years. And she shared with me that at one point in her early adult career, she was in a position where she could work part-time. So she was getting a lot of exercise, every day she was going out for long walks, and she was not depressed for the first time in her life. And she felt so good, she went out and bought a house and started working full-time. Well, immediately after that she began being depressed again. So that's to me a really important reflection on how our lifestyle sort of contributes to a lot of the health problems we're facing.

One of the books I use is John Robbins's "Reclaiming Our Health." And he sort of lambastes the medical establishment. And I try to offer other perspectives to temper his sort of extreme stance. But he starts out his book with a fable I want to share with you because I think it's so insightful. And I won't read the whole thing but I'll just kind of summarize it. "Once upon a time there was a large and rich country where people kept falling over a steep cliff. They'd fall to the bottom and be injured, sometimes quite seriously, and many of them died. The nation's medical establishment responded to the situation by positioning at the base of the cliff the most sophisticated and expensive ambulance fleet ever developed, which would immediately rush those who had fallen to modern hospitals that were equipped with the latest technological wizardry." He goes on to say, some people suggested putting a fence at the top of the cliff, but they were ignored. People thought – you really don't understand the complexity of the issue, and of course the ambulance drivers and the other people who worked in the hospitals didn't have any interest in reducing the number of people falling off the cliff. So he goes on to say, "So no fences were built and as time passed, this nation found itself spending an ever-increasing amount of its financial resources on hospitals and high tech medical equipment. In fact, it came to spend far more money on medical services than any other nation had ever done in the history of the world. Money that could have gone to community services, decent housing, education and good food was not available to the people for it was being spent on ambulances and hospitals. As the cost of treating people kept rising, growing numbers of people could not afford medical care, there were increasing numbers of homeless and ever more hungry people, and families torn apart by stress. As a result of these and similar misallocations of national energy and resources, violence, gangs and inner-city riots welled up as outlets for the frustration and despair people felt." I think this is a beautiful fable and I think we need to go beyond, when we're looking at health care, how to pay for the ambulances at the base of the cliff, or how to get people health care that can pay for their Prozac, and really look at how do we address the fundamental issues. I was talking to somebody recently who said he thought there was kind of collusion between the fast food industry, pharmaceutical industry and the insurance industries.

But anyway, I don't want to go too long, but I just want to say as some questions to think about: What is the steep cliff in our culture? To me, it has to do with the structure of the economic system and the values and priorities of our culture, and the failure to recognize the relationship

between individual health and social and environmental health. And what would a metaphorical fence look like? Just quickly, he says, "I've come to realize that while doctors and medical technology have an important role to play in health care, they do not hold the ultimate secrets to health. Factors such as food we eat, whether or not we exercise, how we give voice to our feelings, etc. . . . It has been liberating to see that health comes from learning to live in vibrant harmony with ourselves, with the natural world and with one another.

And I will stop there. I do have a good example of some ways to start building fences but I know I'm going beyond my time.

KAREN: Excellent and I think it's good segue to now go to Judy and hear her perspective and Kaiser's many contributions.

JUDY COFFEY: Good morning. My name is Judy Coffey. I'm a registered nurse by profession and the area manager for both the San Rafael and the Santa Rosa Medical Centers. I think if you segue to what you just heard, she talked a lot about prevention and a lot about self-care, I'm going to give you some statistics which I think are, in my opinion, are rather alarming. But when you think about it, since 9/11 what the American populus has actually been concerned about is terrorist attacks, potentially anthrax, even with the SARS epidemic when you think of really in proportion the small amount of individuals that did die from the SARS epidemic, and when you really look at what the fear or the risk is that has to do with the chronic diseases. So what I'd like to do is just talk briefly about some statistics regarding the chronic diseases and how important it is for prevention, but you have to have a parallel track. We really need to put more dollars. We need to have – she talked about a healthy community – we really need to work toward a healthy community. But the parallel track has to be what do we do with the millions of Americans right now that have these chronic diseases, and how we can really work to help them through this. So let me just give you some information from the US Department of Health and Human Services. And kind of reviewing this last night I was pretty amazed. 1.7 million Americans die from chronic diseases every year. That's almost 70% of all the deaths in the United States. The five chronic illnesses – and you've heard this over and over again – it's heart disease, it's stroke, it's cancer, it's diabetes, it's what they call COPD which is obstructive lung disease, chronic obstructive pulmonary disease. What is very interesting is a third of this, almost 70%, are people that are under 65 years of age. Pretty amazing. And I guess to me one of the most startling information was that about 125 million people in the United States live with these chronic diseases. So yes, it is so important for prevention. In fact, on the way over this morning I was listening to the talk radio and they talked about a city in the midwest, and I'm sure you know about obesity on the rise and how severe childhood obesity is. And this is a lifestyle change. She spoke much about lifestyle which equals prevention. And it talked about this city who followed for three years in their middle schools, junior highs and high schools, to remove all the sodas from the campus, and how on the average there was a 15 lb. weight loss per child. I mean that's phenomenal because when you consider there are a lot of children that really didn't need to gain weight and a lot of kids that must have been already been at the obese factor. And an obese factor is not just a little bit overweight, it is grossly overweight. And this is what's happening. So we really do need to look on severe prevention but also parallel tracks.

Just to talk about when you realize the high cost, if we basically said that 70% of the population accounts for only 10% of the total cost for health care, and then you talk about a little bit less

than 30% is 90%. But 1% of the population accounts for 30% of the total health care costs in the United States. That's pretty phenomenal. And I know just in northern California, and this is just within Kaiser Permanente, 6% of our members have multiple chronic diseases, which usually is diabetes which then will go to heart disease or even congestive heart failure, so on and so forth. 27% of our members have at least one or more chronic conditions. Now for Santa Rosa alone, 22% of our members account for half of all of our emergency room and primary care visits. And 1/3 of the inpatient hospital days account for individuals with chronic disease. If you look at what it would cost, according to the Health Department, 80% of the total health care spending will be the year 2006. And I can't even count this, I don't even know how many zeros, but by the year 2011 it will be \$2.8 trillion if we do not do something regarding prevention.

So when we talk about what we can do regarding the lifestyle changes, I kind of wonder just even around the room or in your family, how many people really don't understand how important it is to change lifestyle and how many people really don't even move forward to make lifestyle changes? Probably – and you had spoken about behaviors – probably the three most damaging behaviors are tobacco, decreased physical activity and poor eating habits. If you look at right now \$33 billion are spent on chronic conditions. We spend \$150 billion a year just between individuals with tobacco, decreased physical activity and poor eating habits, which equals obesity. So I really think that there's a lot we can do. It's very, very important that we really all try to work with prevention, parallel track and a lot of self-care. I really think that's very, very important. So even though I honestly believe Sonoma County needs to pull sodas out of their schools and we need to have a community self-worth action to prevention and some type of public reform, we really need to work with the chronic condition individuals that we have here. They are here because of the pharmaceuticals, because of the great technology, and you're going to hear a lot about technology from Dr. Dozor. We are keeping people alive a lot longer, so we need to be able to work so that they can live a healthy lifestyle. So I'd like to just give you a little bit of information about what we've done at Kaiser Permanente, and this is probably done in a lot of other places but we're very proud of our population management program, which takes the population of chronic condition management.

So what is population management? It is a long-term proactive strategy in which resources are organized to improve quality of care, health outcomes in populations that have well known and well understood medical needs and chronic conditions. What we do is we sort of segment it into three populations. The ones that we really can work very well, that need to be self-trained, self-educated, and we do a lot of group visits. Group visits are really amazing because you sit down next to an individual that has the same chronic disease and you learn about what they've done, how it's gotten them into balance in life, how they work with their families. It's very difficult if you're a family of an individual and you need to walk with them and they need to carry their oxygen with them. How do you cope with this as the family at large? So the group visits work very well. We then move into level 2 and level 3, where you really have a lot of assistance. What we really try to leverage is to decrease the physician activity, and we really bring in nurses, social workers, pharmacists, all the people that can really help you and they spend copious amounts of time working with their individuals with chronic conditions.

Why did we decide to do this? Number 1, it really helps slow down the disease process. Because of technology, because of drugs, we are living longer. And so they are driving, they're living in the community, so we really want to slow down disease. It really helps enhance their self-

management skills and the families' self-management skills regarding these diseases. It's actually more cost effective for the population and it really helps leverage the physicians. The physicians have a tremendous burnout dealing with patients that come in with their little brown bags with 13 medications and figuring out what they're supposed to take at what time, while they're sitting there with their donut and their diet Coke. Does it make a lot of sense? No, it doesn't. So basically the idea is if we can do this, we're really hoping to then sort of reduce the costs, because if we can keep one patient out of the emergency room and out of the hospital, that helps overall reduce the cost of health care in general.

I'll just go ahead and basically say what we have. We have the asthma, cardiac rehabilitation, we have diabetes, heart failure, cholesterol management. Our highest number of people in our population management have cholesterol issues so we really need to work with this population so they don't develop congestive heart failure, so they don't move into diabetes. We then have complex chronic conditions. This is a very amazing group that costs millions and millions of dollars for health care. They are our frail elderly, they many times live alone – that really can't help. They are individuals with chronic issues that the reality is, how do you help them live with their chronic conditions, because you really need to work with them. It's almost like you have chronic back pain from whatever injury you had, we need to help you live through that. And our individuals that are actually hypochondriacs and people that are drug seekers. So there's just a lot that can be done.

I just want to give you a little bit of a case study because we just finished doing this in the last year. This has to do with asthma. Everyone hears about asthma and in Sonoma County asthma is very prevalent because of the high allergy rate that we have. But in the United States in 2002, 2 million emergency room visits for asthmatics, 500,000 hospitalizations and 5,000 deaths from asthma, and that's just unbelievable. So what we have done at Kaiser is that we've looked at our population of 92,000 members, just in 3,000 members 92 of these have chronic asthma. And so we have really worked with medications, with physicians, with the chronic condition management program both in our pediatric and in our adult program, to really reduce our emergency room visits. And we have decreased them by 40% for children and 48% for adults. So there really is a huge challenge as far as I'm concerned to meet the chronic diseases that we're facing. Prevention is overwhelmingly very, very important, but also we need to work this parallel track to work with our individuals that do have these chronic conditions. And so not only in Sonoma County or in Marin or in northern California, but also within Kaiser, the chronic condition, how to work with these individuals, is very, very important. And we need to meet the challenge of this because if we don't, what I said earlier, we will have \$2.8 trillion – I don't know how many zeros that is – worth of health care by the year 2011.

KAREN: We have Bob Dozor next. (He's going to go last.) Let me introduce the person that has joined us that I didn't get to introduce, and that's Michael Allen who's the Chair of the Central Labor Council and General Manager of SEIU Local 707. Welcome.

MICHAEL ALLEN: I think I bring a different perspective to this and that's good because it's good to have a variety of viewpoints. My background is I'm a registered nurse and I'm an attorney and I've been doing collective bargaining on health care for at least 25 years – it seems longer but at least 25 years. I was looking at the title of this conference, which is The Health Care Crisis. Well, obviously the health care crisis is a national crisis, it's a state crisis, it's a local

crisis. I also think that most of you in this room who have attended other conferences know that for instance, this issue of health care has been studied to death in terms of every time they do a blue ribbon commission study on what are the answers to health care they come up with the idea of universal health care, having economies of scale by having some control over the system, being able to bid for pharmaceuticals through one particular buyer. As a matter of fact, it's taking the Kaiser system and actually applying it on a statewide or national basis, because Kaiser is probably one of the more successful models in terms of having an integrated model of care. From a local standpoint, I would say that the most important things you would get out of this conference today is to number 1, make sure that you either get the business card or that we get an e-mail list of everybody in the room and what their area of expertise is, because I have found that locally, if you want to do something locally you need to network with other people, because I know that there's a huge body of knowledge in this room of people who've thought a lot about health care, who care about health care, or they wouldn't be spending their Saturday mornings here thinking about it and talking about it. So as I look around the room I know there's a lot of intelligent people who've given this a lot of thought. So number 1 is networking locally.

Number 2, for those of you who actually serve as board of trustees for health care plans, who serve on labor management committees that review health care plans, I think it's absolutely essential that you break through what I call the black box syndrome. And the black box syndrome is they present you a bill every year for what health care is going to be, what the premium is going to be, without knowing where the health care dollars are going. And it's incredibly important to get utilization data, to get the data to find out where the dollar is going, how the dollars are being spent. You're hearing from experts in the room. I mean to me, for every dollar that a health care plan could put into wellness, prevention, disease management, lifestyle changes, are tons of dollars that are saved in the back end of your health care plan. This seems like to be such a straightforward proposition but look at how few of the health care plans actually load up on the wellness aspects of a health care plan, to prevent the disease process in the first place or to encourage the lifestyle changes. So I think that's something that could be done locally. I also know that the attitude changes from administration to administration, and I do know that right now it's a very difficult thing to get permission from the federal government to do experimentation on a local basis but that changes from administration to administration. And I would like to share with you a story that many years ago I was told, and I was very privileged to spend about an hour when I was at a convention in Toronto, Canada many years ago. And this lady I was talking to happened to be the daughter of the Prime Minister of Canada who was with her father when they brought in universal health care into Canada. And she told me the story of how they did it in Canada. And basically the way they did it in Canada was that there was one little town in Canada, I think it was called Raging River, and Raging River basically put in their own integrated health care system for that town. And they refined the model. And when they refined the model providing health care for that town, they expanded it to a province in Canada and eventually it went nationwide. And I would submit to you that whether it's going to be Sonoma County or some other place in the country, the answers on health care in terms of how we're going to do this on a rational basis, on a humane basis, are going to come from the local level. I'm a great believer in the saying that if the people lead, the leaders will follow. I don't believe that national health care is going to come from Washington DC or out of Sacramento. I think it's going to come out of the grassroots, people like ourselves getting together, finding a model that works on a local level and then people going, my God, this really works, I guess maybe we could do this. So I would just say to all of you is that I'm a great

believer in the power of one and the power of many working together and that I think that most of the answers to health care are out there already, we know a lot of the answers, there are no magic bullets. But a lot of times what we lack is political will. We also lack sometimes the ability just to continue working on this together. And so if nothing else, if you get out of today's conference, is get people's e-mail addresses, their phone numbers, find out what their area of expertise is and do networking today. Because I have just found that you can accomplish so much because there is so much knowledge available out there. And I really honestly believe all the answers in terms of – maybe we're not asking the right questions, but I think in terms of data and trying to figure this out. In your materials, we're talking about spending way over a trillion dollars already. We spent 25% of that on administration. I don't think it's a lack of dollars, I just think it's a lack of will. Anyway, thank you.

SKIP: Jeremy, who's been our liaison, who's got his hand up back there, asked that those of you who would like drop your business cards to him before you leave so that we can build on the suggestion that we network. Also, I've got a list that's starting around the room to put your name, your e-mail address and phone and your area of expertise or your area of interest. Just one other thing. During the day, there are four easels, each with two pages, on the 8-page report on vehicles that are possible avenues for humane cost containment. And if you would, take a couple of minutes to look over that. You also have a written copy of it. It's one thing that's important from today, and what we'd like is for people to add their estimates of how much we might be able to save in health care dollars if a particular issue on that board were used. And if you'll just put a savings figure and your initials, that'll be great. You're going to enjoy Bob. It's a very special thing about prevention and the whole approach that's then begun by the panel.

BOB DOZOR: Essentially the challenge Skip gave me was to put some numbers on my frequent assertion that prevention is the key to reforming our health care system. Of course these are 1992 dollars, it was only 838 billion in 1992. Obviously we're talking 3,4, \$5,000 per person per year in the United States. And what I'm trying to emphasize here is the approach that reduces the need and demand for medical services. These strategies have been shown in various studies to save money – treating hypertension, reducing low birth weight infants, smoking, nutrition, exercise and health risk appraisal. I'm essentially going to emphasize three things: nutrition, exercise and stress management. It's ultimately a very complicated question and very debatable as to whether prevention actually saves money. Even if it isn't, it's the right thing to do.

So cardiovascular disease is about \$128 billion in 1994 so we're talking 15-20% of the health care budget is really around cardiovascular disease. And this is equally true of women and men. This is probably the most important slide in this whole presentation. Walter Willett is a Professor of Medicine at Harvard and Chairman of the Department of Nutrition. This article was published in JAMA. This is based on really very robust data sets. Moderately easily achieved lifestyle intervention results in 82% reduction of coronary disease. Heart disease is 82% preventable. This is much more important than statins, which are the very expensive drugs. I'll leave it up here for a second. It's really also important, and I'll show you some data to this effect, that the same lifestyle changes also reduces cancer risk in approximately the same order of magnitude. So here I'm making an argument that we could save 15-30% of our health care budget right off the top. So, food. Nutrition is the keystone of prevention. Well, maybe it is, maybe it isn't. People do assert this. I think that actually exercise – it could be that handling our stress is the most important. But be that as it may, nutrition really matters, big time. And I've got to say, getting to

that 82% in reduction, potential reduction in cardiovascular disease, the American Heart Association has targeted a 10% reduction by the year 2010. And obviously, getting to that 80% goal is going to be difficult, and to make my slam on those donuts, I realize that we have a lot of work to do because donuts have got trans fats in them, they're really, really bad. So what it is it about nutrition that we need to talk about? Well, it's fruits and vegetables. They are our friends. They reduce – really – big time. Now I want to sort of give you a little bit of the data that Willett was drawing from to come up with that assertion. One of the most important studies was the Leone heart trial, where they took people who had a heart attack and they put them on the Mediterranean style diet. So we're not necessarily talking about rice and beans and just this very, very unpalatable diet, but the Mediterranean style diet, which is – I could live with that. And what they showed very quickly – again, these are people who had had a heart attack, that the adjusted risk ratio for further cardiovascular events was somewhere between half and 72% less, and that this protective pattern was maintained for up to 4 years after the first heart attack. But even more exciting – this just really excited me when I saw this – they did another study on the same patients essentially, and they showed that these same patients also were getting dramatic reductions in cancer, 61% less cancer, 56% less deaths. And this was quick. I mean this was in the first four years after a heart attack in older people. This isn't starting young, this is starting now.

Supplements, vitamins. Here's a thought experiment that shows that taking vitamins can save 25% - all kinds of health care costs. Possibly I'm going to add one piece of exciting data on this. There was an article in the Annals of Neurology published in 2004 which showed that regular users of vitamin C and vitamin E have 76% less Alzheimer's disease. And Alzheimer's is the big dark side which we've yet to really even come close to facing, because of the aging baby boomers. There's going to be a tremendous exponential increase in Alzheimer's disease in the coming decades and it is preventable, or largely preventable.

This slide could be interpreted as how beauty and serenity and so forth are related to health, but this was supposed to be about exercise. And I can tell you that this is the top of Yosemite Falls, this is really exercise to get to this spot – big time. So anyway, exercise is huge. And actually I think that exercise covers a multitude of sins and you can actually offset a good deal of the harm (over there) with adequate exercise. And in the interests of time I'm not going to totally expand this but let's just say that it doesn't have to be a tremendous amount of exercise. Self-directed, moderate level physical activities, which includes gardening, yard work, and walking with a goal of 30 minutes 5 days a week – 150 minutes a week of moderate exercise, is actually, I'll show you the data in a bit, is effective. Coronary artery disease in whatever year this was was \$50 billion. The cost of physical inactivity was \$5.7 billion, if that makes sense to you to put a price tag on that. Cholesterol \$7 billion. Here's some dollars. \$1400 for every quality adjusted life year, which is way cheaper than most medical interventions.

They did some studies and this is a number that you'll see frequently quoted that you can save \$6.85 on each dollar invested. Well, I don't know if that's true in the health care system on the whole but there have been a number of studies where they've implemented pretty aggressive prevention programs and showed quick returns in dollars. This is where basically dealing with stress matters. There is a tremendous correlation between negative emotional states and bad medical outcomes. In fact, this is probably the single most important variable. So specific emotional factors are six times predicted. Now that doesn't show how we're going to intervene,

can we really reduce this by six-fold. But we've got to start looking in this area. Again, very high likelihood of death and bad medical outcomes for people who are depressed. So this was depression. Job stress – here's data showing the relationship between job stress and coronary heart disease. And I think the important point is, low job control was strongly associated with new disease. I think we could reorganize the workplace that would make people both more productive and save a lot of illness. I think the real central emotional component that kills is hostility.

Putting it all together, essentially, here's the Willett's slide because of its importance, but Dean Ornish is what I want to get to. Dean Ornish has put this all together. He has a four-part program which is a very low-fat diet – it's not the Mediterranean diet, it's a very low fat diet. I don't have time to argue about the distinctions there. A meditation program and an exercise program and a support group. So it's a four-part program. And Dean has shown angiographically documented coronary disease reversal, and quickly. Essentially he can take patients who are sick, not just mild but sick angina patients who in our medical world here would unequivocally be catheterized and angioplastied and drug alluding stents and bypass surgery and all that stuff that we do. But rather than do that, he puts them in this program. And in 28 days shows a 90% reduction of symptoms, in several months shows reversal of coronary lesions, saves in the first year \$7,000 per person. This study has been done again and again. Medicare is now piloting this in various areas. So I think this is the most solid real-world demonstration of what can be accomplished.

This slide is really crucial to ultimately getting a handle on whether prevention saves money or simply delays costs, which is the debate that I was alluding to earlier: Does prevention really save money or is it just the right thing to do? The bottom curve is essentially what's going on now. At birth and then clearly people, our friends and colleagues are dropping off I'm afraid, and by the time 100 or so, none of us are here. This is what could be done with prevention. This is a theoretical curve. The question is whether or not we're talking about a compression of morbidity, so that essentially the shape of this curve is critical. If it just follows in parallel but just is shifted to the right, then all we're going to probably accomplish is moving the cost 10 or 20 years down the line but we'll still end up with the cost. If, on the other hand, this curve diverges and then drops off rapidly, then we're going to save tons of money in the end. And there's no way to know how that's going to be. I think actually that there is a biological limit to how long we can live, and that what we can really accomplish is squaring out this curve, thereby compressing morbidity and actually tremendously saving money. But that's an assertion that's far from provable.

So what's it going to take to change? I think Michael already started this conversation. It's obviously going to be a collaboration which is unprecedented that we have not yet come close to achieving. There's universities, so that's schools, but obviously it needs to start at every level of our society. It's a tremendous paradigm shift that we have to pull off. So a lot of material in a quick time.

Q: (inaudible - about schools – policy about school lunches)

KAREN: We're running pretty close to time but we did have a question for Judy so I'd like you to be able to ask that.

Q: My name is Cindy Young and I work in the schools, and the issue that I wanted to raise about the schools and first of all I want to compliment Kaiser on the programs that it's offered because it does an excellent job. But we have folks who make on average \$30,000 a year. As health care inflation continues to go up, more and more money out of their paycheck is being allocated towards the premium. And so we have people who are saying the weight loss program at Kaiser costs me \$90 and I can't afford it. And so when we look at the savings that those types of programs provide or are projected to provide, we also have to think about the cost implications of low income folks and what it means as a barrier. And I don't know what the solution is, but it's been raised to me a couple of times what a great job it is, once they finally get in, what a help it is. But there are folks that can't get in because of cost.

SKIP: We'll take a brief break. I want to mention just one other study. I did my doctoral dissertation in psychology on the subject of outpatient covered mental health treatment, and what I found, among the things that I found was that appropriate mental health treatment that should be covered by the health plan can literally affect 30 different kinds of health problems, and these 30 have been very well documented and there are many others that aren't so well documented but we're sure have a real effect. So the idea of knocking out mental health benefits from a health care plan is really classically pennywise and pound foolish. All right, if you'll take a brief break, we'll come back and we'll have another exciting panel coming right up.