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IS WELLNESS WORKING?

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- o Impact of wellness program on medical plan experience
- o Health status pricing trends
- o Legal implications
- o Future developments

DR. SANFORD M. BARTH: Throughout history, the relationship between good health and a longer, happier life has always been recognized, but the effort needed to maintain good health is not an easy one. In recent times, as medical discovery followed medical discovery, many health experts thought they had the answer to improved health by spending more on modern medical techniques and new technology. To an extent they were right. People today are living better and longer. A recent annual report on the state of the nation's health indicated that life expectancy reached a record high of 74.5 years in 1982. Infant mortality reached a record low of 1.2 per 1,000 live births. Both cigarette smoking and the problems of high blood pressure declined in the 1970s and

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continues to do so. Moreover, there has been a 25% drop in the death rate from heart disease since 1970 and a 40% drop in the death rate from strokes. It was believed that all we needed to do was to maintain the search for advances in medical science and put ourselves in the hands of competent physicians after we got sick, and everything would be made right.

New knowledge, however, has led us to conclude that it is not science but self-control (life-style if you will) that will add to our lives. It comes down to this. Most of us are born healthy and made sick as a result of personal behavior and environmental conditions. It is our life-style, basically, our failure to exercise enough, eat properly, and take care of ourselves that causes many of our current health problems.

Another way to view the issue of major impacts on our health status is in an historical context. If we accept deaths per 1,000 population as our gross indicator of health status, then we can classify the major events associated with the trend toward lower death rates into three eras. The first set of factors addresses the environmental influences on health and lasts from the period 1875 to 1935. The second age, an age of medicine, lasted from about 1935 to the mid-1950s. Medicines, technological advances such as antibiotics, played the biggest role in preserving life and restoring function to the body. Despite continued improvements in medicine, no improvement in mortality was evident for the next 15 years. Then, about 1975, a dramatic drop in mortality was identified. Careful study has related that to changes in life-style and, in turn, labeled it the age of life-style. This is an age in which we are still experiencing health status improvement.

A great deal of emphasis has been given lately to supply side economics. In health care economics, more emphasis is placed on the demand side. How can the demand for health care be decreased? Certainly health promotion, wellness, or simply the individual's responsibility for his own health are things that can decrease demand.

The Department of Health and Human Services, some time ago, documented life years lost before age 75 and they attributed these years lost to four factors: human biology, environment, the health care system itself, and life-style. For human biology, they said 20.4% of the life years lost would be attributed to that

factor. Another 19.4% was attributable to the basic environment in which we live, 10% to the health care system itself, and 50.2% to life-style factors. If we consider those same four factors and look at how health care expenditures are made, we get an interesting comparison. Expenditures for these four factors are as follows: 5.8% for human biology, 12.9% for environment, 80.5% for health care, and 0.8% for life-style. Where are our priorities? We are devoting .8% of our resources to 50% of the problem. We can and must reorder our priorities to better influence life-style changes.

A prominent professor noted that only about 10% of the usual areas for measuring health are affected by the medical system, including doctors, hospitals, and drugs. He defines these areas as follows: whether you live at all (as measured by death at, or shortly after birth), how well you live (as measured by days lost due to sickness), and how long you live, obviously measured by years of life. The remaining 90%, he stated, are determined by factors that doctors can do little or nothing about, such as individual life-style, physiological inheritance and related factors, and the physical environment. We are thus forced to conclude that life-style factors have a major impact on health risks. Most factors are currently beyond the reach of medicine, yet so much of our effort is on that 10%. This strongly argues for a realignment of how we spend health care dollars and the importance of an individual taking some responsibility for his or her own health.

Health promotion is a social movement of major proportions. It is gaining in popularity largely because health care costs are escalating more rapidly than the cost of other goods and services. The past decade has witnessed a renaissance of interest in health education, disease prevention, and health promotion. The public has become increasingly aware of the impact of life-style: smoking or excess drinking, uncontrolled hypertension, poor diet, lack of exercise and the like. Individuals have begun to assume more responsibility for their own health with the understanding that changes in life-style can significantly reduce risk factors associated with premature death and disability.

A new philosophy has emerged regarding the role of the employer in promoting well-being or wellness. There is a growing opinion among employers that they have a distinct responsibility in helping to improve the quality of health of their

employees. Company sponsored programs in health education and promotion offer promising means to carry out that responsibility.

We now turn our attention to the question at hand: "Is wellness working?" If by that we mean can we change risk increasing behaviors and thereby reduce the probability of incurring certain diseases or conditions, the answer is an unqualified yes. If we mean that costs will be impacted, then we need to look at the variables within which we choose to frame the question of costs. For example, it is clear that for a given population, reduction of risk factors does indeed lead to less illness, wherein a "cause and effect" have been established. Thus we can speak with the assurance that what epidemiology and other techniques offer us is cost avoidance.

Is that what we mean by "Is wellness working?" I suspect what we really mean and what we are talking about today is whether wellness programs affect the cost of health benefit plans. Again I suggest to you (I suspect somewhat controversially) that the answer is yes. The real question and cause for controversy is how. Certainly if we agree that costs avoided are savings, then there are savings to be measured. However, if we are measuring the cost of a plan of benefits on a year-to-year basis, the complexity of the task is increased almost to the point of impossibility. The reason this is true relates to the time frame and unit of measurement we need to talk about. For the actuary pricing a plan of benefits, the unit of time is a year-to-year basis. And the unit of measurement is primarily the plan's experience. Wellness strategies on the other hand demonstrate their impact over long periods of time. Usually we talk in terms of 3 to 5 years or more, and it is usually viewed retrospectively and, in most cases, without regard to the plan of benefits. Thus we have a situation where the variables of wellness and the benefit plan do not juxtapose very easily with the variable of costs. The reasons for this are many but the most outstanding include: (1) holding the population to be measured relatively constant; (2) defining the baseline health status from which to measure change; and 3) holding constant or factoring out of the plan experience factors other than wellness which might cause the plan costs to increase.

There are, however, measures other than benefit plan expense which will help us determine if wellness is working. To do this, we use what I've termed cost effectiveness analysis. While having limitations, cost effectiveness analysis does

lend itself to measuring savings, at least indirectly. Applied to wellness, cost effectiveness analysis seeks to measure change in predefined areas where a cause and effect relationship can reasonably be expected. In my estimation, these areas include the following:

1. a reduction in absenteeism;
2. a reduction in turnovers;
3. a reduction in disability and workers' compensation claims;
4. improved productivity;
5. increased health awareness and knowledge;
6. improved attitude towards the work environment;
7. measured changes in life-style data (i.e., smoking status, eight reduction, number of participants exercising, etc.);
8. reduction of people with high risk indicators (i.e., uncontrolled high blood pressure);
9. a level of participation and compliance in a health promotion program.

There are some other measures and categories useful in placing into context what we mean by wellness. I'm not going to try to give you a hard definition, but I am going to suggest that as we look at this, the issue of preventing injury or disease, early detection systems, health protection measures such as immunizations, and health promoting or behavior change methodologies all fit within a broad definition of wellness. And moreover, we can arbitrarily assign each of those to what I call the elements of measurement (medical benefits, productivity, absenteeism, workers' compensation, and so forth) and weigh them against each other. The way to use this is to decide which things are most important to you through a weighting system, and then attack those things with specific programs in the specific categories.

Cost effectiveness analysis helps us answer the question of whether there has been a change in the factors identified above and whether the cost associated with achieving that change was worth it. This analysis is retrospective and somewhat subjective. Unlike cost benefit analysis, this form of analysis does permit us to measure cost savings for many of the elements that I have already noted. For example, the direct and indirect costs of absenteeism and employee turnover are well documented. Similarly, reduction in the rate of occurrence

can be easily monitored. From these two elements, the determination of savings is nothing more than simple arithmetic.

The subjectivity of our evaluation enters the picture with these elements where the degree of change is not as easy to measure. This is one of two shortcomings of cost effectiveness analysis. The other is that at best there is a loose relationship between these elements and the level of expenditures for health care services.

Another form of measurement is goal achievement analysis. This is similar to cost effectiveness analysis except that for each specific program or strategy, a goal is present (i.e., a certain percentage reduction in the number of smokers, a certain percentage of the population achieving their ideal body weight, a certain level of participation in aerobic exercise). Clearly this category is the easiest to measure. Its biggest drawback is that it is process rather than outcome oriented. Actual savings are presumed to accrue from a specific program. The intent of this analysis is to measure the degree of participation relative to the effort needed to get that participation.

We now turn back to the original question. Is wellness working? I have suggested some ways to view wellness and how its impact might be measured. Savings are being documented in many employer settings. However, many factors are at work which differ from one employer to the next and even within different locations of a single employer. Availability of existing programs and resources in the community, the degree of motivation necessary, and other aspects all play a role in deciding whether it is working. Each wellness program must be evaluated on its own merits. In short, there is no guarantee of savings, but the potential is real based on today's experiences. The challenge I leave you with is how do you value that potential.

MR. HARRY HARRINGTON: The winds of change are blowing strongly and the direction of the force is clear. We entered this century in an era of acute infectious disease with over 70% of the illness burden resulting from such conditions. In 1900, life expectancy was 47.5 years from birth. Tuberculosis was the number one killer, accounting for 25% of all mortality. Smallpox, typhoid fever, syphilis, tetanus, diptheria, and polio were prevalent problems. Now, deaths from these causes are down over 99%. From the standpoint of the

national illness burden and from the viewpoint of the public health, the era of acute infectious disease is over.

Contrast this situation with the second era in which we presently find ourselves. Life expectancy from birth is 74.5 years and nearly 90% of white females can expect to live to age 70. The illnesses have changed and the illness burden has shifted. Now the problem is chronic noninfectious illness. These illnesses not only last a long time, but they require more care and their increased prevalence is in large part the reason for the increase in medical care costs during this century. But the era of chronic disease is also beginning to fade. Thus the stage is set for the third era, one in which we will be thoroughly immersed within the next 25 years. This is a world in which the major health burdens are those that are related to our aging population. In this era, the frailty of the organism becomes the immediate cause of death and the major cause of dependency upon others.

The medical model of disease grew out of and is most appropriate to the acute infectious disease era. In this simpler world diseases have causes: germs. The task of the bioscientific enterprise is to identify the cause and to devise an appropriate and specific cure. The success of this approach mediated both through personal medical care and through medical health measures is dramatically seen in the 99% reduction in frequency and severity of those conditions at which it was targeted. The rise in human life expectancy during this century as a result has been greater than the increase in life expectancy from the bronze age to the beginning of this century. There is a happy sense in that the new problems are a result of our striking successes with the old ones. The present national health problems will not succumb to direct application of the existing medical model. They require in large part the collaboration of social scientists with medical scientists just as the previous era required the incorporation of biology, chemistry, and physics into the realm of medical science. The social and behavioral routes of the current problems run deep and our institutions, our training programs, and our patterns of care must adopt to new imperatives.

Efforts to improve the national health in the coming decades must focus on health risk reduction. A strategy for risk reduction and consequent chronic disease control could be directed by a number of agencies: the government, schools,

hospitals, the employer, or the health insurance carrier. Of these, worksite programs supported by the health insurance carrier appear to offer the greatest promise. This combination has the advantage of broad penetration (at times almost 96% of the population), sufficient resources, strong incentives, and credibility in the health field.

The following criteria have set for us a stage for what we can eventually call solid or good wellness programs and the potential to measure them. The program must be based on established behavioral techniques. The literature of health behavior change indicates a necessity for providing both the information and the tools required to make the change. It emphasizes gradual sustained change which is neither threatening nor too costly at any one time. Effective programs will reward change and support integration of the new behavior over a long term yet will emphasize short-term incentives as being more effective than long-term goals. And finally, successful programs will build the participant's confidence in the ability to change. Each increment of positive change, however small, when measured and reported to the participant serves to increase confidence in the ability to improve.

Effective programs will not obscure their impact by emphasizing negative or statistically confounded and unchangeable variables or by attempting to quantify incalculable effects. In other words, in our findings, the old risk assessment format of an 18-page written multiphasic document became very confusing to an individual and the majority of it can never be factored into an algorithm with which to predict someone's propensity to illness anyway. So what we have done is to try to assess it in very direct fashion: "Do you smoke?," "Do you drink?," and so on.

Programs must employ repeated risk assessment for reinforcement. Behavioral scientists are going to tell you time and time again that doing the best thing in the world once is not going to work. You don't even see effective behavior change for 18 months to 3 years. So when you choose to go into a wellness program, you're in it for the long run.

There must be rigorous internal and external evaluations of the program. A program that does not repeat itself in terms of questionnaires and collecting the data obviously doesn't have data that is effective. To build that into a program

is essential. In our case, we have built it into the risk assessment program. Individuals are entered in a medical format and tracked forever over time. Presently we are using a subscriber ID number so that individual can be tracked if they leave a plan and later return.

The programs also must compliment an existing corporate program if they are going to be effective. Again there has to be an allegiance between an insurance carrier and the company. Often times there is a threat from one side or the other when programs like this are going on.

The programs should involve the entire family up to and including seniors. Our most recent programs do that. Of course the data supports having that collective effort, and groups that have that tend to do better in terms of reducing their risks.

And finally, the programs must have a low cost because there still is not substantial data that would support an expensive $200 - $700 per person program. I realize that there has been a very effective and interesting study by Johnson & Johnson and we're looking at that very carefully. But for the most part, in dealing with the Blue Cross and Blue Shield plans, 70% of the business is in groups of 30 or less, so you don't really have that type of potential with those groups.

DR. CURTIS S. WILBUR: I'm a psychologist, and I can feel the ambivalence that many of you have about health promotion. Intellectually you know that keeping healthy and out of the health care system has to be the most effective cost containment mechanism ever built. You know, yet you are skeptical. Why? I suspect for some of you the basis of skepticism is personal. You try to stop smoking, but haven't, or you thought about exercise, but it's always for the other guy. So trying to change your own life-style has been difficult. So if I can't change, how can anybody else? I also suspect for many of you the skepticism is rooted in a professional concern. You have not seen any actuarially credible information to let you believe and support the idea that investing in the health of employees actually pays off in lower hospital costs.

I now want you to suspend that skepticism. I want to address the professional skepticism in terms of the results of studies that have been done for us by

prominent medical and economic experts looking at the impact of our efforts to keep employees healthy.

As stated earlier, the fact is that how we lead our lives has an impact on our health status. The evidence is overwhelming, and I won't spend a lot of time other than to reemphasize the point that in America over half of the reasons for premature death and disability have to do with how we choose to lead our lives. So it makes sense that if we can change those aspects and improve them we can do something about our health.

Strategically what's necessary to change is the culture. In fact, if the culture is not changed to make it more supportive of good health, you're not going to sustain the change over time. You are going to get people to temporarily change, but if you stick them right back into the same milieu and encourage them to resume bad habits you are not going to get much of a return. In fact the persons are going to go right back to the way they were before.

You need to get high-sustained participation over time. You have got to constantly sell the idea of participating to the employees. That really is a strength for Johnson and Johnson because above all else, we're primarily a consumer marketing company and employees are consumers. They don't have to participate. People don't break the door down to get in health promotion. You have to sell it to them like consumers and encourage them, reward them, and support them over time.

Now I'm going to review the results that we got from high participation among our employees. At our worksite 80% to 90% participate in the health assessment part, and then on an annual basis we get 50% to 60% to actually participate in health improvement programs such as exercise, weight control, and so on.

So all important for us as consumer marketers in health promotion is high participation. The results have been measured by a whole host of prominent medical and economic researchers and here's what they found. First of all, the important part about our studies is that we measured everybody. That's one of the advantages of doing studies at the worksite. If they don't show up to be measured, you know where they are and you can go get them. In this study we did that. There were basically two studies that were done. There was a

two-year epidemiological study that looked at the impact of the Live for Life program on the health habits of employees, and then a five-year look at the impact of this program on the hospital costs associated with people exposed to this program. It's a very complete look at the health habits of everybody at the worksite. That's important in this business because most of the research that has been done has a very strong self-selection bias.

In the area of smoking, if you don't do anything 8% of the people at your work-site will no longer be smoking two years from now. There is a natural attrition in smoking habits. But we found over two years, by exposing people to an annual health assessment, we were able to double that underlying quit rate. Then for those couple thousand employees who work in companies that had the full Live for Life program, we were able to triple the quit rate.

Let me point out a couple things about the above study. First of all, this is not based on self-reported data, but was determined through blood tests for a biochemical marker indicating whether people were smoking. Second, this is a long-term stable quit rate. The mean duration of quitting for these employees who quit was 14 months. The third thing that's very important about this data is who quit. It is not an important result in terms of the economic benefit to get people at low risk to change their health habits. Over 30% of the people at highest risk of cardiovascular disease exposed to this Live for Life program stopped smoking. So we were able to get at the people who, by definition, were at the highest risk of having a heart attack.

Smoking is very important. We found in our studies that employees who smoke were absent from work 45% more than employees that didn't smoke. A recently completed study showed us that the inpatient costs for smokers was $1,033 per employee compared to the inpatient costs for nonsmokers of $333, and these are all adjusted for age, sex and social economic class. There is absolutely no doubt that smoking has a tremendous impact on health care costs.

In the area of exercise, a study looking at the impact of Live for Life on exercise habits of our employees was published last February in the *Journal of the American Medical Association.* What it shows is on this particular measure there is a biological upper limit as to how much we can improve the efficiency of the heart pumping oxygen to the blood. We found in the companies that offered the

full Live for Life program the average employee got more than half way to the maximum. What's important here is again who made the changes. You have often heard the charge that all you are doing is saving the saved. That's not the case. In fact, the changes were equally found among all employees in every strata within the organization. Blue collar employees composed about 35% of the total mix, and they improved as much as white collar employees.

In the area of blood pressure, what happened to those employees not exposed? They are two years older and their blood pressures went up with age. I don't have to tell you what the implication of that is over five or ten years. Those employees who work for companies that offer this opportunity are also two years older now, but their blood pressures are significantly lower. We are turning back the hands of time of these individuals and the incidence of hypertension over time will be much lower in this population.

Where does all this lead economically? We saw a baseline relationship between health characteristics as to whether you exercised or not, whether you smoked or not, and absenteeism. No surprise then that when we get widespread changes in exercise and smoking habits that you see some changes in absenteeism. At the end of two years, those employees who worked in companies with the Live for Life Program (again these just aren't participants -- this is everybody in the company) had an 18% lower absenteeism rate. The biggest changes occurred among the production, clerical, and secretarial employees.

A study done for us shows the results of a Live for Life program on two groups of employees. One group represents 5,000 Johnson and Johnson employees, employed during the time frame of 1979 through 1983. Another represents a different group of 3,000 Johnson and Johnson employees. The results were published in the *Journal of the American Medical Association* in December, showing the following. At baseline in 1979 and again in 1980 there was no difference in hospital costs per employee. These are employee costs that the company paid. The 5,000 employees started to be exposed to a Live for Life program sometime between 1980 and mid-1981, so we can say in 1981, at the end of the first year of full exposure, there was no difference in hospital costs. At the end of 1982, after two years of full exposure, there was a 17% lower hospital cost experience and at the end of 1983 there was a 34% lower hospital cost experience. This study did all the kinds of number crunching you'd be proud

of, adjusting for age, sex, social economic class, job classification, exposure to DRGs, and intergeographic differences of hospital inflation rates. Taking all these factors into account, the only difference was whether somebody worked for the company that offered this Live for Life program. That doesn't mean they had to participate; they just had to work at that company.

The men and women who make decisions about the kind of benefits that they offer their employees know the importance of the employee relations benefit that you get from these kinds of programs. As we all can say, a program like this is the one health care cost containment program that the employees will love. At the end of two years, Research Triangle Institute measured significant differences in the attitudes of employees who worked in companies that had this opportunity compared to their counterparts. The employees exposed to Live for Life were significantly better off.

So you see a very consistent pattern begins to emerge. You start with high participation so that everybody around you is doing something and that involvement is sustained over weeks, months and years. In the context of that you see significant changes in health habits that we know today are related to health care costs. Then you begin to see economic changes in terms of absenteeism, you begin to see moderate term changes in hospital costs, and you begin to see right away the clear cut impact this has on the employees' attitudes toward their jobs and toward their employers.

Look at the whole picture and you see that everything hangs together. How does it work? It's a management system to get high participation. Three basic elements are present: health assessment, intervention, and very importantly, support. There are multiple ways to do the health assessment, but we tend to use the nurse administered one. It's very important that that nurse be carefully trained to deliver this because she is dealing with an employee who is a consumer, not a patient. They are not patients because they are not sick and they like to be treated like they are healthy. A lot of biometric measures and a lot of health education are employed. Very importantly the results are given right there on the spot because we like to get people in what we call a "hyper-suggestible" state, and we can convince them to take the next step. This is a very fun, well-promoted, and well-marketed program. Furthermore, this leads to people enrolling in a series, and they are offered this opportunity on a

regular basis. Our philosophy is that if we don't get you today, that's all right; we will be around tomorrow. And if tomorrow isn't convenient for you we will try next month, and then the next quarter and then next year. We are there when you want to make the change.

We found that to be successful with adults and to get high participation you need multiple ways of delivering the program. Group programs work fine for a minority of employees. You need self-paced approaches. We deliver them over the telephone, and we are experimenting with computer based delivery. The moral of the story is that with adults, if you want to get high participation in the health promotion business, you have to offer multiple channels, multiple ways that they can participate.

Finally, I can't overestimate the importance of support programs. A lot of times health promotions just give people information and that's it. We found it's very important to give people support over time at the worksite. There are a lot of ways you can do that: scales in the bathrooms, well-publicized promotional events using first class materials, etc. You know if you get something on your desk that's kind of a well-distributed copy of the fact there is going to be a health promotion program at noon, how much importance are you going to give to that? But if it is delivered in a first class way you say "Gee, this may be worth my time because my time is important." Cafeteria programs, information in the cafeteria, and an incentive program in which people can earn Live for Life dollars are methods we use. It's kind of a fun thing and it's always amazing for me to watch what men and women like you and I would do for a frisbee, for a T-shirt, or Live for Life dollars. We find this kind of approach can help contain health care costs, improve employee moral, reduce absenteeism, improve productivity, improve health, and, very importantly, provide the employee with a sense that the company is surrounding them with the opportunity to stay healthy. I think the long and the short of this is that the success that you have from health promotion stems from the fact that you literally surround the employee with the opportunity to stay healthy day in and day out. That's the very exciting part. The very important part of this is to get high participation, and to get that you need to stay with that employee over time.

MR. NICHOLAS KLESZCZEWSKI: I heard a lot about this program, and I would like to know what the cost is per employee per year for Live for Life?

DR. WILBUR: We invest about $150 per employee per year. Our cost benefit study, just looking at the changes in absenteeism and health care cost alone, shows us that the break even is in the second year and we make money from that point on.

MR. KELLOGG: I'm very curious about the use of the rewards for participation and the reward used for improvements in health status, especially monetary rewards.

MR. HARRINGTON: We don't use an incentive, we don't have that built into our program. The Healthtrac program is a monitoring program and provides information to people and therefore, it is much less costly. I think it's anywhere from $15 to $18 per employee. The return that we are seeing is about six times that based on fewer absenteeism days and so on. In terms of a reward or incentive, that's something that we would build into a program that an employer may want to put in should they have some need to provide that incentive.

DR. BARTH: Our experience with rewards is that they are very important when people start a program and to help them get over that initial two to three-month hump. They like the idea of getting rewarded for investing the sweat equity as we call it in making the changes. We all know that lifestyle changes are very difficult to make and in many cases painful to make. It brings them a sense of recognition and it also helps to better market the program.

DR. WILBUR: I think the question you asked relates to monetary versus other kinds of rewards. I would agree that within our own program and others that I have viewed, that rewards tend to be a reinforcing mechanism, and value is placed on nominal rewards, i.e., the psychic value associated with them because of the achievement needed to qualify for them. Monetary rewards, on the other hand, take from what should be an important goal in its own right and we don't endorse them.

MR. ALFRED A. BINGHAM, JR.: I am curious as to what the base is that an employer would have to put in, in terms of equipment and the approximate cost of that equipment?

DR. WILBUR: We have done over 50 of these throughout the United States, Puerto Rico, Canada, and the United Kingdom where an exercise facility has been in place. What we request the management of that operating company to do is to provide some kind of support for the exercise habits of those employees. That often may be showers, lockers and some exercise space, or it may be arrangements with a local provider such as a YMCA or a high school. Over time companies gradually do, we find, bring in house the exercise component and the cost of that can vary tremendously based on where the facility is and how big the facility is. I suspect the companies spend anywhere from $50,000 up. In our experience it has been around $50,000 to one half million, or something like that. But it is often done in the context of refurbishing old warehouse space or a meeting room space or altering part of a new building design.

MR. HARRINGTON: Our program obviously requires none of the resources that a Johnson and Johnson program does, but when you do provide that requirement or when it's a necessity, our concern is that it effectively attracts the person who most needs the care.

MR. DAVID V. AXENE: I'm a great believer in provider incentives, and what we are working with in some of our wellness programs is actually incorporating this into the provider incentive in an HMO setting. The providers are motivated to maintain the positive activities of the wellness program, and the initial results we are seeing are very outstanding. It's almost like an amplifier to the wellness program and we are seeing that when you get the provider, like the primary care provider, involved in the process and motivate him to work in conjunction with these programs, it works very effectively. At least we are seeing some preliminary results that seem to suggest that. My question is have you tried to incorporate the actual providers in the delivery system with these programs and motivate them to support them at all, or is this sort of a fluke?

MR. HARRINGTON: They have found, in terms of their senior population, they built it into the rate. If you are a senior in California and you buy their program you get senior Healthtrac. For groups of 10 to 99, they give a 5% discount if you choose to purchase Healthtrac. There have to be some other things that are met there. The same thing is going to happen in Mississippi with individual subscribers below age 65. In Arizona and Kansas City it is part of the program. There has to be no sale; it's just in the program. With

reference to the HMO, I think the ones that didn't take care of themselves didn't dramatically impact that group. With an HMO group, there is a direct incentive for these people, particularly the seniors, but with the general population as well, to participate in a way to have some sort of wellness program. Again, these are more or less individual subscribers so you don't have a group setting in that case.

DR. BARTH: One of the things that we have done in screening, especially our primary care providers, is to look for philosophy that imbues this. The reason we do that, is that the program the three of us are alluding to really is an individual behavior change program. It needs a lot of support and one of the things providers can do is provide that support. We look for those kinds of providers in the first place and hopefully build that philosophy right into our managed care programs right from the start.

DR. WILBUR: As Johnson and Johnson looks out into the commercial arena in this health promotion business, our focus is on the consumer and we believe there are three ways to reach the consumer. One is through their employer and this is an example. You leverage all the kinds of leverage points that can have an influence on what an individual consumer tends to do; either directly to them or to their family, through what their provider recommends and through what their employer makes available or recommends to them. So we think the provider is very key in the overall strategy.

MR. ROBERT SHAPLAND: I would like your judgment as to the success of having a program that only entails employees paying their share of the group insurance health premium based on blood pressure, weight, etc. Do you think that that kind of financial incentive system would be successful in improving health?

DR. WILBUR: I would be a little concerned about blaming the victim. I think with smoking you could probably make a pretty good case, but I think in some of the other things you mentioned, there are variables over which people do not have control and I think it's a mistake to think that we have total control over factors that are often associated with life-style.

MR. SHAPLAND: I wasn't concerned about the morality of it, but what do you think the success of getting people to change could be by having this kind of system?

MR. HARRINGTON: Let me address it from another angle here. In the Health Improvement Program study in Mendocino County, they put a certain amount of money in the bank and said if you don't go see your doctor and you don't use the care, you'll get this money back. What they found is that there are differences in the various cohorts. If it's an upper middle class person, it really didn't matter; if they were poor people they didn't go at all. To a certain extent there was motivation and there was a direct response to that. What's happened now, five to ten years after, is that the upper middle class peoples' health stayed relatively clear and good and the same. Poor people are going to cost the carriers more than they would have if they had gone because they didn't get necessary care.