AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

S. HRG. 107–818

DISEASE MANAGEMENT AND COORDINATING CARE: WHAT ROLE CAN THEY PLAN IN IMPROVING THE QUALITY OF LIFE FOR MEDICARE'S MOST VULNERABLE?

HEARING

BEFORE THE

SPECIAL COMMITTEE ON AGING
UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

WASHINGTON, DC

SEPTEMBER 19, 2002

Serial No. 107–36

Printed for the use of the Special Committee on Aging

U.S. GOVERNMENT PRINTING OFFICE

83–477 PDF WASHINGTON : 2002

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2250 Mail: Stop SSOP, Washington, DC 20402–0001

SPECIAL COMMITTEE ON AGING

JOHN B. BREAUX, Louisiana, *Chairman*

HARRY REID, Nevada
HERB KOHL, Wisconsin
JAMES M. JEFFORDS, Vermont
RUSSELL D. FEINGOLD, Wisconsin
RON WYDEN, Oregon
BLANCHE L. LINCOLN, Arkansas
EVAN BAYH, Indiana
THOMAS R. CARPER, Delaware
DEBBIE STABENOW, Michigan
JEAN CARNAHAN, Missouri

LARRY CRAIG, Idaho, *Ranking Member*
CONRAD BURNS, Montana
RICHARD SHELBY, Alabama
RICK SANTORUM, Pennsylvania
SUSAN COLLINS, Maine
MIKE ENZI, Wyoming
TIM HUTCHINSON, Arkansas
JOHN ENSIGN, Nevada
CHUCK HAGEL, Nebraska
GORDON SMITH, Oregon

MICHELLE EASTON, *Staff Director*
LUPE WISSEL, *Ranking Member Staff Director*

CONTENTS

	Page
Statement of Senator Larry E. Craig	1

PANEL I

Dan L. Crippen, Ph.D., Director, Congressional Budget Office, Washington, DC	2
Ruben King-Shaw, Jr., Deputy Administrator and Chief Operating Officer, Centers for Medicare and Medicaid Services, Washington, DC	29

PANEL II

Sister Anthony Marie Greving, Director, Area Agency on Aging, Pocatello, ID	46
John Rusche, M.D., Senior Vice President and Chief Medical Officer, Regence BlueShield of Idaho, Lewiston, ID	53
Alan Wright, M.D., Senior Vice President and Chief Science Officer, Centers for Health Improvement, AdvancePCS, Hunt Valley, MD	65
Matthew A. Michela, Senior Vice President, American Healthways, Nashville, TN	75

APPENDIX

Testimony by American Dietetic Association	91
Statement of Richard M. Wexler, Medical Care Development Inc./ME Cares, Augusta, ME	93

DISEASE MANAGEMENT AND COORDINATING CARE: WHAT ROLE CAN THEY PLAY IN IMPROVING THE QUALITY OF LIFE FOR MEDICARE'S MOST VULNERABLE

THURSDAY, SEPTEMBER 19, 2002

U.S. SENATE,
SPECIAL COMMITTEE ON AGING,
Washington, DC.

The committee met, pursuant to notice, at 9:31 a.m., in room SD–628, Dirksen Senate Office Building, Hon. Larry E. Craig (ranking member of the committee) presiding.

Present: Senator Craig.

STATEMENT OF SENATOR LARRY E. CRAIG

Senator CRAIG. Good morning, everyone. The Senate Special Committee on Aging will convene. Thank you all very much for joining us this morning to discuss the topic of disease management and care coordination. A very special thanks to Chairman Breaux who allowed me to facilitate this hearing and to chair it. He will be here in a few moments. I think he just called in tied up in downtown traffic and was there earlier for another engagement, so he will be joining us in a few moments. He is as interested in this topic as am I.

Disease management is an emerging technology with the potential to improve patient quality of life and may reduce health care costs. Disease management can best be described as a coordinated and proactive approach to managing care for patients with chronic illnesses.

Chronic illness is common among Americans on Medicare, and I would like to call attention to some charts that now have been turned in my direction. The yellow bar chart—why do we not spin that around. I have got a copy of it here at the desk so we can show it to the audience. The yellow bar chart shows several diseases with a high prevalence among America's seniors. Two of the chronic diseases shown are found in over half of Medicare beneficiaries.

Even more striking is the fact that almost half of Medicare beneficiaries have three or more chronic conditions. The pie chart shows that 47 percent of those on Medicare have three or more chronic conditions. These citizens are especially vulnerable to medical complications. They also have high medical costs paid out of their own pocket and by Medicare.

Unnecessary hospitalizations are one of the costly consequences that disease management programs are designed to prevent. These unnecessary hospitalizations are often a result of cross-drug interaction, poor medication compliance, deviation with treatment plans, and a lack of patient self-management skills. Lack of coordination and fragmented monitoring of seniors with chronic health conditions can also contribute to unnecessary health spending.

Our population is aging. As the baby boom generation begins to retire, the share of chronically ill seniors is expected to increase. Future Medicare costs are certain to reflect both increased numbers of seniors as well as extraordinary medical inflation.

Evidence-based disease management is a promising technology for helping to reduce avoidable spending and improve the quality of life for Medicare's most vulnerable in the near and the long term.

We are here today to learn more about the opportunity that disease management presents. We hope to learn about the challenges faced in moving these techniques into the Medicare population. We also hope to learn about the breadth of disease management programs and lessons learned from models already underway in the non-Medicare marketplace.

Today's hearing will consist of two panels. The first panel that is before us now, we are pleased to have and to welcome Dr. Dan Crippen, Director of the Congressional Budget Office, and Mr. Ruben King-Shaw, Jr., the Deputy Administrator and Chief Operating Officer at the Center for Medicare and Medicaid.

The second panel of experts includes Sister Anthony Marie Greving, Director of Pocatello, Idaho Area Agency on Aging; Dr. John Rusche, Senior Vice President and Chief Medical Officer, Regence BlueShield of Idaho, headquartered in Lewiston; and Dr. Alan Wright, Senior Vice President and Chief Science Officer, Center for Health Improvement, AdvancePCS, in Fort Hunt, MD; and Matthew Michela, Senior Vice President for American Healthways in Nashville, TN.

Well, ladies and gentlemen, to all of you welcome. As I have said, this is an area that I believe Congress must explore, as we move toward Medicare reform and a prescription drug program for our most needy, and to do both with two thoughts in mind, providing better health care to our seniors and controlling costs through more effective management.

With that, let me welcome our first panel of witnesses, and Dan, we will let you start. Thank you.

STATEMENT OF DAN L. CRIPPEN, PH.D., DIRECTOR, CONGRESSIONAL BUDGET OFFICE, WASHINGTON, DC

Mr. CRIPPEN. Mr. Chairman, thank you. I really appreciate the opportunity to be here today. This is an important topic, not only to me, but perhaps more saliently to my kids and my grandkids. We all thank you for holding this hearing.

I hope to make three points. One, Medicare is a program in need of reform. Hopefully, that point will not take a lot of convincing.

Two, there is a part of the Medicare population that, as you said, Senator, is fairly expensive. The question is, are they the same people each year—or who are these people? There is a concentra-

tion of expenditures within the Medicare population that invites further examination.

Third, disease management, or case management, as is more probably the case with this population, has great potential, we expect, to reform the delivery of Medicare services. We think, however, that it is not yet proven that it will provide significant cost savings in this program. But that is not because we think it does not. We just simply do not have enough evidence yet.

I have, I am sure, imposed this first chart on you, Senator, somewhere else, in some other forum, because I use it all the time. It essentially shows what we are now spending on the programs for the elderly at the Federal level: Medicare, Medicaid and long-term care, and Social Security.

Senator CRAIG. Again, why do we not turn that to the audience who is here to listen and gain information. I have got copies here, and the chairman will also have, so we can share that with everyone. Thank you.

Mr. CRIPPEN. We are currently spending a little over 7 percent of gross domestic product (GDP), or a little more than a third of our budget, on these programs for the elderly. But as my generation retires, we will quickly, over the course of only two decades, drive that up to over twice as much—and those are relatively conservative projections. So we will be spending 15 percent or 16 percent of GDP on these programs—and we are now spending about 18 percent or 19 percent of GDP on the entire budget.

What this means, of course, is there is likely to be a dramatic change in our fiscal policy. We will either need to dramatically raise taxes when the time comes, increase borrowing from the public, or significantly cut other government spending—and we have not seen that kind of tidal change for a long, long time. We could end up with a tax system, for example, that looks a lot more like a European country's than like what we have experienced here.

For example, since World War II, we have taxed at the Federal level at an average of 18 percent of GDP. One could see a future here where that would be 28 percent. So it is a daunting challenge, to be sure, and something we cannot really avoid. The demographics are baked. The folks who will retire are alive today, and most of the folks who will be working are alive as well today. We cannot change those factors. All we can hope to do is change the growth of the economy, which is the denominator here, and perhaps reform the programs so that the numerator is not quite as onerous for our children. That brings us to the topic of today's hearing, Mr. Chairman.

A little over 2 years ago, we began to ask the same kinds of questions you have posed for us today. That is, can we identify high cost procedures as well as high cost beneficiaries in the Medicare population? We quickly discovered that existing data were inadequate to thoroughly examine those questions, so we joined with a team at Stanford, who had received funding from the National Institute on Aging, to take the literally millions and millions of records that the Centers for Medicare and Medicaid Services (CMS) has accumulated over the years and construct a database, which at the moment covers 1989 through 1997. We will be adding 1998 and

1999 soon, so we will have records covering essentially 1989 through 1999.

What we have done is accumulate, over these years and for each Medicare beneficiary, a great deal of detail on the nature of their health care needs and the services that they are using from Medicare. In fact, we have a month-by-month rack-up for each beneficiary over those 10-plus years of data. So we can now identify individuals as they enter the program, as they incur illness, and as they incur expenditures throughout Medicare, which is something we have not heretofore been able to do.

We will soon publish a series of three papers, essentially explaining this database and how it was constructed, as well as the characteristics of the beneficiaries that the database covers. But I can tell you some of the preliminary findings today, which I think will enlighten the discussion of this topic.

First, and of importance to this hearing, we confirm what earlier analysis has suggested—that is that there is a relative handful of beneficiaries each year who incur most of the expenses. Five percent of Medicare beneficiaries account for about 50 percent of the program's total costs, and 25 percent incur 90 percent of the costs.

I am going to repeat that second point because I think it is an important number; that is, in any given year, 25 percent of the Medicare population incurred 90 percent of the program's total costs. That is not a new fact, Mr. Chairman. CMS and others have determined through sampling that it is a very heavy, very skewed distribution.

But we can start from that point and further analyze our data now and see what some of the implications are. First, it might suggest that if 75 percent of the folks are only incurring 10 percent of the costs, we might want to figure out a way to handle them differently than we do the more expensive patients.

That 75 percent might be able to go to any doctor they wanted to fill prescriptions or to do other things that an average Medicare recipient might do today without all of it being funded by the government and without all the current limitations in the Medicare program. Again, because this 75 percent of beneficiaries only incur 10 percent of the costs, it may not be worth imposing all of the limitations of the current Medicare program on them.

But more to the point of today's hearing, that finding suggests that we need to examine the 25 percent of beneficiaries with the highest costs because as Willy Sutton has reportedly said, the reason he robbed banks is because that is where the money is. Certainly if we are going to examine this program from a cost view point, we need to look at that 25 percent. But it is also the 25 percent of the population in a given year that needs most of the health care, and so we can examine them as well from the point of view of determining their illnesses and, how they are being treated, in addition to their costs.

There are questions we might ask as a first cut to look at both the data and the issue you have placed before us. Is it many of the same folks who incur high costs each year because of chronic conditions? If it is, that would suggest a particular kind of approach. What are their clinical characteristics, and can they possibly be treated in another way, such as with disease management, to

produce better outcomes? That is the question you posed at the top of the hearing.

Another question is, are these folks high cost largely because they are at the end of their life? We know that is a phenomenon that can be quite expensive. If it is, the case, what are we buying for those high expenditures? Heroic measures? Extended stays in hospitals? The question then is is there a better way to provide care for these elderly dying patients as well?

Fortunately, we can now begin to answer some of those questions with a little more precision, but before I do, I want to offer a definition of disease management so that my statement, at least, can be taken in that context. Basically, and admittedly simplistically, disease management identifies the best evidence-based protocols and practices for a specific condition and tries to get both the patients and providers to follow those protocols.

It is important to remember, however, that most of the best practices referred to here were developed for a single condition, not for one condition among multiple co-morbidities, and do not often account for unique characteristics of the elderly population, such as dementia.

Many disease managers also try to predict which patients will ultimately become expensive, so as to target preventative measures more efficiently. Generally, the savings accrue because of fewer hospitalizations and emergency room visits.

To begin answering some of the questions we identified, we examined in our data a cohort of beneficiaries for the years 1993 through 1997, beneficiaries who were the most expensive 25 percent in any of those 5 years. We then looked for patterns of expenditures and found that while many high-cost patients do die from one year to the next, a significant number have high expenditures in two or more consecutive years.

It is those persistently expensive patients, Mr. Chairman, that I think disease management or case management might address more straightforwardly. Those patients account for only 20 percent of beneficiaries but nearly 60 percent of all spending.

The clinical characteristics of this population, as you have already suggested, are quite complicated. Most of the spending is accounted for by patients with multiple chronic conditions rather than just, for example chronic heart failure. In fact, nearly 90 percent of spending—to translate the numbers of individuals you have in your charts—90 percent of Medicare spending is incurred by patients with three or more chronic conditions.

Often, one or more of those conditions is among those that have been treated with disease management in a private, younger population, but as I noted above, it is unclear how successfully those protocols developed for single conditions for younger folks could be applied to an older population with several chronic conditions.

An additional complication is that there is not anywhere near a perfect correlation between exhibiting a condition as a patient and incurring high, persistent costs. For example, 50 percent of those persistently high-cost patients that we identified have coronary artery disease, but only 35 percent of the patients with coronary artery disease are persistently expensive.

In other words, persistently expensive patients—by our definition, patients with high expenditures in two or more consecutive years—are likely to have multiple chronic conditions, but having any one of those conditions does not mean the patient will become high cost in the future. So the conditions are not a good predictor of who the high-cost patients are going to be.

It becomes difficult to identify, therefore, which patients should receive the additional attention of an intervention such as a disease management protocol in order to avoid hospitalizations. For non-Medicare populations, disease management companies use predictive modeling and additional data to increase the likelihood of picking out those with future high costs.

Some of those additional data, such as pharmaceutical spending, are not readily available for the Medicare population, and the models may not fit the elderly very well. Because we do not have a pharmaceutical benefit as part of Medicare today, we therefore, do not have, pharmaceutical data for this same group of elderly people.

We hope at some point in the future to be able to augment our database with things like that. A number of companies have offered to let us try applying their models to the Medicare population, and it is an exercise that we will pursue shortly. As I suggest, though, it is likely that the lack of comparable data on the Medicare population will prove to make these models less effective for predicting future expenditures.

Before I move on, let me simply sum up at this point. While there are Medicare beneficiaries who exhibit persistently high costs, it is not clear that disease management as it is now practiced could be utilized successfully for that population.

But if we assume for a moment that it could, then we can examine what we know about the health results and potential savings, at least, of utilizing disease management as it is currently practiced in the private sector.

A recent study by the Employee Benefits Research Institute found that while case studies of particular programs have shown positive results, there is no—and this is a quote, I believe—"There is no conclusive evidence that disease management programs in general improve health or reduce costs in the long term."

We at the Congressional Budget Office (CBO) are reviewing other research, but many studies examine the process of health care delivery, not the outcomes or the frequency of utilization of services. Admittedly, evidence on quality and cost is difficult to construct, especially for this population, and I know many are loathe to conduct what is usually considered to be a rigorous study—with a control group that does not receive the better treatment, to provide comparisons.

It may well just be that we are going to have to let more time pass to see the results of some of these interventions.

My colleague here on the panel obviously is in a much better position to describe to you in more detail the various studies and demonstration projects being conducted by CMS to begin to answer some of those operational questions and questions of savings.

In the meantime, or at least for the moment, until more clear and compelling evidence materializes on health outcomes and costs,

I cannot tell you how CBO would evaluate a legislative proposal promoting disease management.

First, of course, there are a great many design issues that, as outlined in my written testimony, come into play. But more to the point, we remain to be convinced of significant savings from disease management as it is currently practiced, especially when applied to the Medicare population.

I would hasten to add, however, that we are not agnostic on the issue. We expect that the continued examination of persistently expensive Medicare patients will enlighten us further, and perhaps, if companies offering disease management were willing to take on some of the financial risk for the medical care provided to those patients, as opposed to putting only their own fees at risk—we would be more confident that companies would have incentives to watch those costs more closely.

The key, ultimately, at least to savings is the avoidance of hospital costs through lower admission rates and the avoidance of emergency room visits probably both for persistently expensive patients and for those at the end of their lives. So on both sides of this distribution, Mr. Chairman, we have work to do in identifying both the patients who are likely to become high cost and these who are at the end of their lives and how they are being served through Medicare. Thank you.

[The prepared statement of Mr. Crippen follows:]

CBO TESTIMONY

Statement of
Dan L. Crippen
Director

Disease Management in Medicare: Data Analysis and Benefit Design Issues

before the
Special Committee on Aging
United States Senate

September 19, 2002

This statement is embargoed until 9:30 a.m. (EDT) on Thursday, September 19, 2002. The contents may not be published, transmitted, or otherwise communicated by any print, broadcast, or electronic media before that time.

CONGRESSIONAL BUDGET OFFICE
SECOND AND D STREETS, S.W.
WASHINGTON, D.C. 20515

Mr. Chairman, Senator Craig, and Members of the Committee, I am pleased to be here with you today. This morning, I will be talking about the patterns of spending for and clinical characteristics of Medicare beneficiaries who are highly and persistently expensive—and who thus might be candidates for disease management. I will describe, in general terms, the disease management programs that have been applied in the private sector in an attempt to improve the quality of care and to control its costs, and will comment on the potential for applying similar strategies in the Medicare program. I will also try to review some of the questions that must be addressed in designing a disease management benefit for Medicare. Let me say at the outset that the Congressional Budget Office (CBO) is now conducting a series of studies to examine those important issues. I will present some preliminary results from that work today, but as we proceed with our research, we will continue to refine our analysis.

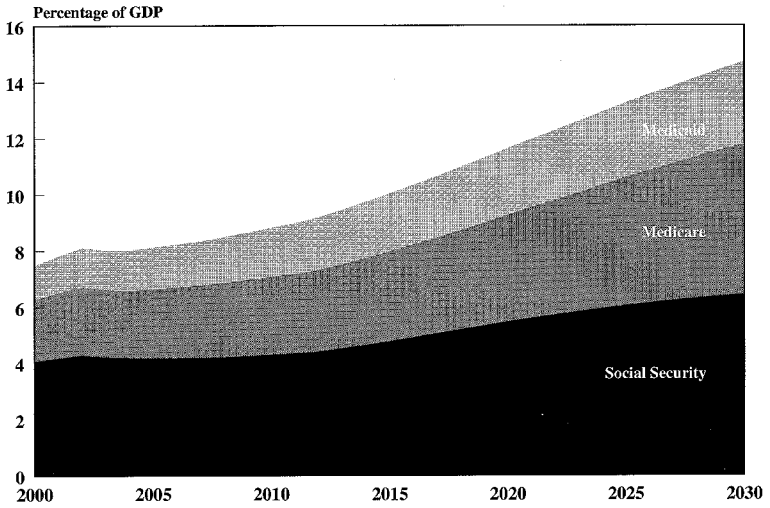
MEDICARE'S SPENDING OUTLOOK

To provide a context for this discussion, I would first like to underscore the long-range fiscal challenges facing the Medicare program. Between 2003 and 2012, Medicare spending is projected to grow much faster than the economy as a whole. Outside of that budget window, the fiscal pressures will only accelerate as a result of the aging of the baby-boom generation. Even if the nation spent the same fraction of gross domestic product (GDP) on each Medicare beneficiary in 2030 as it does today, spending for Medicare would double from its current 2.3 percent share of GDP to 4.5 percent by 2030. In addition, the fiscal implications of the baby boomers' aging are compounded by the fact that health care costs measured per beneficiary routinely grow significantly faster than does the economy measured on a per capita basis. Consequently, if current law remains unchanged, CBO expects that spending for Medicare will more than double, to 5.4 percent of GDP, by 2030.

Also projected to rise is spending for the "big three" entitlement programs—Social Security, Medicare, and Medicaid—taken as a whole. Between 2000 and 2030, such spending as a share of GDP will virtually double. Expenditures for those programs will grow from 7.8 percent of GDP to 14.7 percent by 2030 (see Figure 1). As this Committee knows, paying for those increased costs will require dramatic reductions in other spending, sizable increases in taxes, or large-scale borrowing.

Addressing these fiscal pressures is one reason policymakers have expressed interest in adding a disease management benefit to Medicare. Proponents claim that such a benefit would improve the quality of care that beneficiaries receive and at the same time reduce federal costs. Clearly, the opportunity to enhance beneficiaries' health while saving money is a tantalizing prospect for the Medicare program, but substantial

FIGURE 1. FEDERAL SPENDING ON SOCIAL SECURITY, MEDICARE, AND MEDICAID, 2000-2030



SOURCE: Congressional Budget Office.

uncertainties exist on both counts. In particular, estimating the net budgetary impact of adding a disease management program to Medicare would require determining both what those disease management services themselves would cost and whether they would reduce the costs of providing other covered health services. Unfortunately, the available information is limited in both of those areas, and as a result, my testimony may raise more questions than it answers. Nevertheless, I hope to help the Committee in its deliberations by addressing four key points:

- First, I will try to define what is meant by "disease management" and discuss how it is provided in the private sector.

- Second, I will describe CBO's ongoing analysis of the spending patterns and clinical characteristics of Medicare beneficiaries over a period of several years—focusing on whether beneficiaries who account for a large share of Medicare's program costs over time can be identified early enough to permit

cost-saving interventions. (I will also talk briefly about how CBO's longitudinal database was constructed and describe some steps that could be taken to improve the utility of those data in the future.)

- Third, I will discuss the existing evidence about whether disease management programs have actually reduced health costs in the private sector and will note questions about the applicability of those results to Medicare.

- Finally, I will talk about the issues to be considered in designing a disease management program for fee-for-service Medicare beneficiaries and how Medicare's existing payment systems might affect the potential savings from such a program.

WHAT IS DISEASE MANAGEMENT?

The term "disease management" covers a wide range of activities that affect individuals' health status and use of health care services. There are at least two limitations in current medical practice that a disease management program might address:

- First, patients with multiple medical conditions may receive care from many different physicians or providers at the same time, take a number of different drugs to treat their various conditions, and often be called on to manage their own care at home. Frequently, the responsibility for coordinating care among physicians and other providers falls on the patient, who may have a limited ability to carry out that function.

- Second, medical research has contributed to a growing body of evidence on the most effective protocols for treating particular diseases. However, reports by the Institute of Medicine and others have observed that a large gap often exists between such evidence-based treatment guidelines and current patterns of practice. Indeed, the number of medical studies has grown tremendously in recent years, making it ever harder for physicians to keep up with the latest developments.

In light of those limitations, a separate entity that coordinated care across providers, ensured that patients complied with their treatment regimens, and encouraged adherence to evidence-based treatment guidelines could improve the quality of care that individuals received.

The steps taken by a disease management program to improve the quality of care could also reduce health care costs for its enrollees. As an illustration, consider the case of a patient with diabetes, a disease characterized by a lack of control of blood sugar resulting from an inadequate supply of insulin. Patients with the disease may take synthetic insulin or use other medications to help control their blood sugar levels. That practice gives patients a large role in providing their own care, but many patients may have difficulty in doing so. Moreover, diabetes has a number of long-term complications including damage to the nerves or blood vessels in a person's lower legs and feet, which can necessitate amputation, and damage to the eyes, which can result in blindness.

A disease management program could try to ensure that enrollees received recommended foot and eye exams annually, either by contacting their physicians directly or by encouraging patients to request those tests. In addition, since diabetes is associated with an increased risk of heart disease, better monitoring of a diabetic's cholesterol levels--which could be part of a disease management program--could aid in preventing heart attacks or strokes. By helping diabetics manage their own care and by detecting problems earlier, those interventions could prevent much more costly treatments, such as hospitalization or surgery. If the total savings from avoided hospitalizations exceeded the costs of additional screening tests plus the administrative costs of the disease management services themselves, then total health care costs would be reduced. It is this potential for savings that has probably led many employers to embrace disease management in recent years and thus contributed to the rapid growth of the disease management industry.

Yet disease management is not the only intervention that has been developed to address these problems. "Case management" represents an alternative approach to coordinating care that may also warrant consideration by the Congress because it could address the complex needs of the Medicare population. The differences between the two approaches are described in Table 1 and can be summarized as follows:

- *Disease management* programs have been focused on treating patients with specific diseases—particularly patients with prevalent and relatively well-defined chronic illnesses like coronary artery disease, congestive heart failure, diabetes, chronic obstructive pulmonary disease, asthma, and end-stage renal disease. Those programs often rely on the similar needs of their enrollees, which allows standardized approaches to be used.

TABLE 1. BROAD DIFFERENCES BETWEEN CASE MANAGEMENT AND DISEASE MANAGEMENT

	Case Management	Disease Management
Characteristics of Patient Population	People at high risk for costly, adverse medical events and poor health outcomes	People diagnosed with a specific disease
Methods for Identifying Patient	Mailed questionnaires; data on use of hospitals and emergency rooms; referrals by physicians using criteria to identify "high-risk" patients	Data on presence of a particular diagnosis; prescription for certain drugs used to treat a disease; referrals by physicians who treat many patients with that disease
Patient Education	No standardization of curriculum or educational materials; highly individualized	Standardized curriculum and educational materials for a specific disease
Reliance on Evidence-Based Treatment Guidelines	Low	High
Reliance on Protocols and Standardization	Low	High
Importance of Using Social Support Services	High	Low
Importance of Engaging Family and Caregivers	High	Low
Reliance on Care Coordinator	High	Medium

SOURCE: Congressional Budget Office based on A. Chen and others, *Best Practices in Coordinated Care*, report prepared for the Centers for Medicare and Medicaid Services (Princeton, N.J.: Mathematica Policy Research, March 22, 2000).

- *Case management* programs generally enroll patients with complex combinations of medical problems—combinations that put them at high risk of adverse medical events and that require interventions tailored to the specific needs of each enrollee. Those interventions could even include such steps as coordinating transportation to medical appointments or teaching family caregivers to identify problems that require medical attention.

The distinctions between those two approaches appear to be blurring, however, as disease management firms have begun to focus on patients with multiple diseases—partly in response to the demands of employers who desire a single point of contact for enrollees with multiple conditions. Indeed, the definition of its services developed by the Disease Management Association of America appears to encompass both types of care coordination. Thus, the remainder of my testimony will refer to disease management, but the Congress may want to include case management approaches in its deliberations.

PROFILES OF MEDICARE BENEFICIARIES

The discussion above focuses on the means by which savings could be achieved through disease management, but the extent of those savings would depend in no small part on whether disease management programs could address the needs of beneficiaries who accounted for a large share of Medicare spending. In turn, answering that question would require knowing which beneficiaries accounted for a large share of spending, whether their spending was sufficiently persistent or predictable to allow successful management, and whether the diseases they had were amenable to management. I will attempt to shed light on those issues by using some preliminary results from CBO's own internal study, which primarily analyzes data on Medicare claims covering the years 1989 through 1997.

CBO's Longitudinal Database of Medicare Claims

The source for CBO's analysis is a longitudinal database that contains information on Medicare spending for covered services used by a random sample of fee-for-service (FFS) beneficiaries between 1989 and 1997. CBO's longitudinal database was derived from Medicare claims records maintained by the Centers for Medicare and Medicaid Services (CMS). The sample comprises 5 percent of beneficiaries—nearly 3 million people—who were enrolled in Medicare on January 1, 1989, or who became eligible for Medicare through December 31, 1997. CBO studied only beneficiaries in the FFS Medicare program because information on expenditures is not available for beneficiaries during the periods in which they are enrolled in managed care plans. The number of people in the sample who were enrolled in the FFS program in any given year fluctuated between 1.7 million and 1.8 million (representing 34 million to 37 million beneficiaries overall). Attrition from the sample occurred when beneficiaries enrolled in managed care, disenrolled from Part A or Part B of Medicare, or died. Total enrollment figures from CBO's longitudinal database closely track published CMS data.

The beneficiary-level files contain one record for each person in the sample who was enrolled in the Medicare FFS program at any time between 1989 and 1997. For each beneficiary, the record contains the person's date of birth, race, sex, state, county, and zip code of residence; it also contains the date of death, if applicable. For each month between January 1, 1989, and December 31, 1997, that the patient was alive and enrolled in the FFS program, the record includes total monthly expenditures for Medicare-covered services, by service type.[1] Those expenditures include payments made by Medicare on behalf of beneficiaries as well as beneficiaries' copayments (which are often covered by third-party payers). Again, spending totals from CBO's longitudinal database and published CMS data track closely.

CBO's database also includes both information on the diagnoses for which beneficiaries received medical care and data on the medical procedures (such as surgery) that were performed. Those data were derived from Medicare claims files for inpatient hospitals, skilled nursing facilities, physician visits, and outpatient hospitals.

CBO's effort represents a significant enhancement over currently available data. It builds on work initially funded by the National Institute on Aging and conducted by a team of economists and physicians at Stanford University. Thus, our longitudinal database is a rich source of information on patterns of Medicare spending over time and the clinical characteristics of Medicare beneficiaries who use medical care. Although CMS routinely releases data files to researchers, the files generally cover only a single year and consist of separate files for enrollment and for the use of each type of covered service. Combining those files to generate a single person-level record of all spending for each beneficiary is an extensive undertaking. Under a data-use agreement with CMS, CBO obtained information on a continuous sample of beneficiaries enrolled in the Medicare FFS program over the entire 1989-1997 period, allowing analysts to follow the experience of beneficiaries from year to year.

Yet despite its advantages, the database has some limitations. First, a significant lag exists between when medical services are rendered and when data about spending on those services become available to researchers. Providers submit bills to Medicare's fiscal intermediaries and carriers, who compile the data and send them to CMS. CMS then constructs and validates separate files for each provider for each year. Currently,

---

1. Service types are inpatient hospital care paid under Medicare's prospective payment system (PPS); care received at non-PPS hospitals, such as psychiatric and rehabilitation hospitals; skilled nursing facility care; physician visits and services by other medical suppliers (for example, laboratory and x-ray services); outpatient services (such as ambulatory surgery); home health services; and hospice care.

CMS is releasing initial data for 2001—nine months after services were rendered in December 2001. The gap is even longer for services rendered in previous months. Because it takes time to construct a longitudinal file combining all of the provider-level files and beneficiary demographics, CBO will be unable to analyze data for 2001 for at least another year. Because complete data for 1998 and 1999 were not available, the most recent year of data for the analysis I am discussing today is 1997.

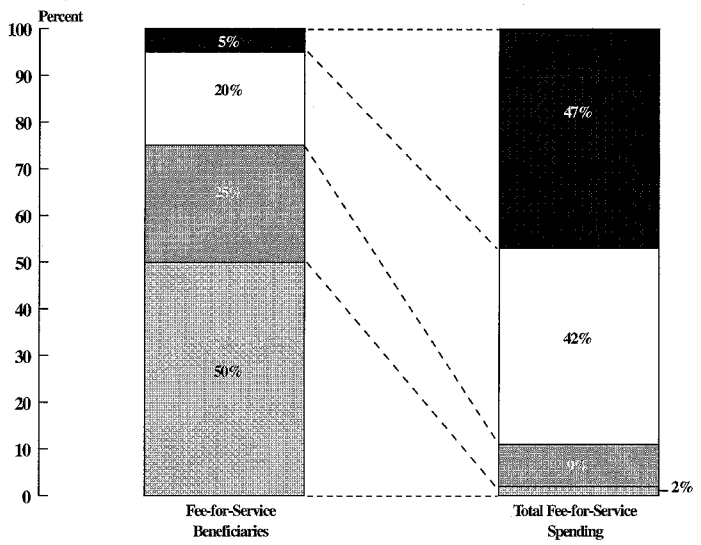
Additionally, the data that are available from CMS do not include a number of important elements, including information on the use of medical services by Medicare beneficiaries who are enrolled in managed care plans and information on the use of outpatient prescription drugs. (Even though Medicare does not cover prescription drugs, many of its beneficiaries have drug coverage from other sources.) The data also do not include information on spending by Medicaid, which is a source of drug coverage and represents a significant amount of spending on beneficiaries who are eligible for both programs (particularly those who live in nursing homes). Data from other payers on the use of services that are not paid for by Medicare would significantly enhance the utility of CBO's database but might be difficult to obtain. Finally, the data include neither information on beneficiaries' socioeconomic status nor self-assessments of their health status, both of which are important predictors of their use of health services.

Concentration of Expenditures

As many analyses have found, payments for Medicare-covered services in any given year are highly concentrated among a small number of beneficiaries whose medical care is extremely expensive (see Figure 2). In 1997, the costliest 5 percent of beneficiaries consumed about half of total Medicare spending, and the costliest 25 percent consumed almost 90 percent. By contrast, the least costly 50 percent of beneficiaries consumed only 2 percent of all Medicare spending.

As might be expected, the spending on beneficiaries is strongly correlated with their use of inpatient hospital services. CBO's analysis of 1997 claims data suggests that for the most expensive 5 percent of Medicare beneficiaries, more than half of their spending went to pay for inpatient hospital services. By contrast, the least costly 50 percent of beneficiaries used virtually no inpatient hospital services—that is, nearly all of their spending was on outpatient and physician services. That correlation might suggest that beneficiaries who were hospitalized would be candidates for disease management. However, if those patients had already incurred significant costs by the

FIGURE 2. DISTRIBUTION OF FEE-FOR-SERVICE MEDICARE SPENDING AMONG BENEFICIARIES, 1997



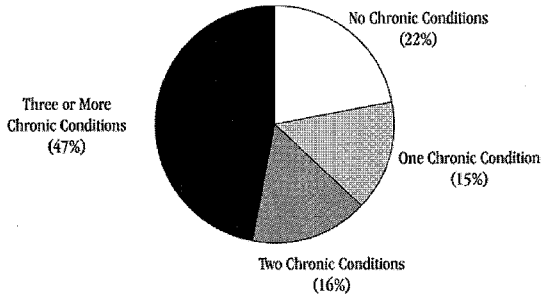
SOURCE: Congressional Budget Office.

time they were discharged or if their diseases had already progressed to a point where disease management interventions were less effective, then the savings that could be achieved would be limited. A key question, therefore, is how predictive is hospitalization of future expenditures.

Persistence of Expenditures

The degree to which Medicare beneficiaries continue to be expensive over time is an important factor in this discussion, for two reasons: first, because beneficiaries who are persistently expensive account for a large share of the program's costs, and second, because there is a longer window of opportunity to manage their costs. CBO's preliminary work has examined the issue by focusing on the most expensive 25 per-

FIGURE 3. PERCENTAGE OF MEDICARE BENEFICIARIES WITH CHRONIC CONDITIONS



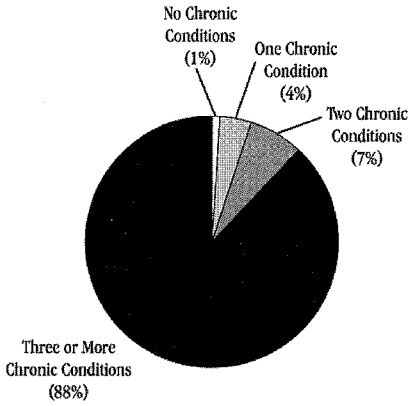
SOURCE: Congressional Budget Office based on the statement of Gerard Anderson, Director, Robert Wood Johnson Foundation, Partnership for Solutions: Better Lives for People with Chronic Conditions, before the Subcommittee on Health of the House Committee on Ways and Means, April 16, 2002.

cent of Medicare beneficiaries in any year between 1993 and 1997.[2] While such beneficiaries are more likely to die than is the average beneficiary, many of those who live continue to have high costs in later years. For example, among the most expensive one-fourth of beneficiaries in 1993, 13 percent were dead by January 1, 1994—a mortality rate three times that of the average beneficiary. Yet of those who survived, over half remained in the highest quartile of spending in the next calendar year—a rate twice as high as would be expected by chance.

Focusing in further on beneficiaries who were among the most expensive quarter of enrollees for two or more consecutive years allowed CBO to look at beneficiaries who were persistently expensive over time—and whose care might be amenable to better coordination. That group accounts for a large amount of Medicare spending. In its preliminary work, CBO found that from 1993 through 1997, such persistently expensive beneficiaries accounted for 19 percent of enrollees but 57 percent of Medicare spending. In other words, their spending was three times the average for all beneficiaries and nearly six times the average for beneficiaries who were not persistently expensive. Over that period, total Medicare spending amounted to $775 billion, which

2. To be considered persistently expensive, beneficiaries also had to be among the most expensive 28 percent of enrollees for the 1993-1997 period (who together accounted for 75 percent of Medicare spending in those years).

FIGURE 4. DISTRIBUTION OF MEDICARE SPENDING BY NUMBER OF BENEFICIARIES' CHRONIC CONDITIONS



SOURCE: Congressional Budget Office based on the statement of Gerard Anderson, Director, Robert Wood Johnson Foundation, Partnership for Solutions: Better Lives for People with Chronic Conditions, before the Subcommittee on Health of the House Committee on Ways and Means, April 16, 2002.

means that spending on this persistently high-cost group totaled $442 billion. (Those figures are expressed in 1997 dollars.)

Clinical Characteristics

In general, Medicare beneficiaries are more likely than younger populations to have a chronic medical condition like diabetes or heart disease. In addition, Medicare beneficiaries are more likely to suffer from several chronic conditions at the same time. The presence of multiple chronic conditions is an important consideration because it is associated with a variety of poor health outcomes. Research performed by Gerard Anderson, of Johns Hopkins University and the Robert Wood Johnson Foundation, shows that only 22 percent of Medicare beneficiaries have no chronic conditions, while almost half have three or more chronic conditions (see Figure 3). Additionally, Anderson has shown that beneficiaries with multiple chronic conditions account for the vast majority of Medicare spending: beneficiaries with no chronic conditions account for less than 1 percent of total Medicare spending, whereas those with three or more conditions account for almost 90 percent (see Figure 4). (Those data cover

all spending for the two groups of beneficiaries, not just spending associated with their chronic conditions.)

To expand on the previous work in this area, CBO is in the process of examining beneficiaries who are persistently expensive over time to determine whether their clinical profiles match the profiles targeted by disease management firms. Preliminary findings suggest that persistently expensive beneficiaries (as defined above) are indeed more likely to have those profiles—that is, they are more likely than other beneficiaries to have been diagnosed with coronary artery disease, congestive heart failure, diabetes, chronic obstructive pulmonary disease, asthma, and end-stage renal disease. By itself, this finding would suggest that the disease management strategies developed for use in private health plans could also be applied to persistently expensive Medicare beneficiaries. However, other features of the Medicare population may complicate the picture. For example, persistently expensive Medicare beneficiaries are somewhat more likely to have been diagnosed with dementia—which could make it more difficult to apply strategies that relied on educating beneficiaries to manage their own care.

Because many persistently expensive Medicare beneficiaries have medical conditions for which care coordination programs exist, the presence of one of those conditions might be used as a method of identifying potential candidates for a Medicare-approved care coordination program. But CBO's preliminary research also indicates that the presence of a particular diagnosis alone may not effectively predict an individual's likelihood of becoming persistently expensive (that is, being among the most expensive 25 percent of beneficiaries in two or more consecutive years).

For example, although about half of the beneficiaries who are persistently expensive have coronary artery disease, only 35 percent of beneficiaries with the disease are persistently expensive. This suggests that other factors besides diagnosis would need to be used to target disease management interventions in the most cost-effective manner. Reflecting that fact, programs in the private sector have developed proprietary models that use information on a beneficiary's diagnoses, the types of services used, and measures of functional impairment to determine how likely the person is to incur high costs. Data used by disease management firms may also include information collected by contacting patients or their physicians. CBO intends to investigate the potential of such multidimensional models to identify Medicare beneficiaries who are likely to become high-cost patients.

EVIDENCE ON COST SAVINGS

Disease management firms serving enrollees in commercial health plans claim that their programs simultaneously improve quality of care and reduce costs for the population of patients that they manage. A recent report by the Employee Benefits Research Institute (EBRI), however, found that while case studies of particular programs have shown positive results, there is no conclusive evidence that disease management programs in general improve health or reduce costs in the long term. EBRI also concluded that improved health and cost-effectiveness may take from several months to a few years to become apparent in a disease management program, making it difficult to prove that particular health outcomes were the result of such a program. Given that uncertainty, CBO is currently reviewing the available studies of both disease and case management programs to examine the evidence on cost savings. (Those programs could also improve the health of enrolled beneficiaries, but CBO's analysis has devoted less attention to measures of quality.)

One reason for the difficulty in assessing the impact of disease management on costs is that the effect would be indirect. As discussed earlier, disease management firms directly affect only processes of care, such as increasing the number of patients who receive recommended screening tests. Those effects on process could be expected to improve health outcomes—for example, by reducing the number of heart attacks that occur—but the effects are either uncertain or could take several years to become evident. If the rate of heart attacks decreased, one might also expect rates of hospitalization to fall as well—and only at that point would cost savings be achieved. Of the studies that CBO has reviewed, most have examined how disease management affects the process of care; far fewer have explored the effects on health outcomes or on the use of health services.

Any study that sought to demonstrate cost savings would also have to address a number of important methodological issues. In particular, a well-designed study must compare patients who received the disease management intervention with similar patients who did not. Yet that standard might not be met, for several reasons. One reason is that if study participants were chosen on the basis of having particularly high costs in a previous period, their costs would be expected to fall regardless of whether they participated in a disease management program—a phenomenon known as regression to the mean. Alternatively, if the disease management program served all enrollees who wished to participate, their costs could be lower than those of nonparticipants simply because volunteers are likely to be healthier or to take a more active role in managing their own care. These problems could be addressed by assigning enrollees

randomly to treatment and control groups, but few studies have even attempted to use such rigorous methods.

For most studies of disease management, difficulties also arise in applying their results to Medicare. For example, few studies have examined an elderly population in a fee-for-service delivery system; instead, most research has looked at younger patients who also have prescription drug coverage. Drug coverage is an important element of those studies because data on drug claims are sometimes used to identify potential candidates for disease management and because some interventions monitor and encourage adherence to drug regimens. An additional difficulty is that few studies have looked at patients with multiple chronic conditions.

Another important difference between Medicare and private health plans that affects attempts to extrapolate research results is the duration of the average member's enrollment. Enrollees in employer-sponsored health insurance often switch health plans, encouraging a focus on short-term costs and savings. Because beneficiaries remain in Medicare for many years, longer-term savings for the program are more likely to accrue, but they could be partially offset by spending on other medical conditions that enrollees developed over the remainder of their life.

To address some of the limitations in the data on the effectiveness of disease management, the Centers for Medicare and Medicaid Services has been conducting demonstration programs using that approach. For example, CMS recently announced a three-year demonstration project mandated by the Congress under which several disease management organizations will develop strategies for managing patients with advanced-stage congestive heart failure, diabetes, and coronary heart disease. A particularly interesting aspect of the demonstration is that it will provide an integrated package of Medicare benefits, including coverage of prescription drugs for participating beneficiaries. You will receive detailed testimony on that project today, and I look forward to hearing more about its results and those of other demonstrations as they become available.

DESIGN ISSUES FOR A DISEASE MANAGEMENT BENEFIT

As policymakers consider options for incorporating disease management programs in Medicare, they will need to address a number of questions, including how beneficiaries would be identified and enrolled in the programs, how Medicare would pay for disease management services, and how it would capture any savings that resulted. Those

issues constitute the three major components of the budgetary impact that a disease management benefit would have.

Eligibility and Enrollment

The first issues to be decided in designing a disease management benefit in Medicare are how to identify the beneficiaries that should participate in the program and what approach should be used to enroll them.

Identifying Medicare Beneficiaries as Candidates for Disease Management Programs. Examining the practices of disease management firms suggests that at least three options exist for identifying potential candidates: using claims data on diagnoses or the use of medical services, relying on referrals from physicians, or contacting beneficiaries directly. (Those options could also be used in combination.) On the one hand, the third option could be administratively complicated and, like the option of physician referrals, might fail to identify many beneficiaries who could potentially benefit from disease management. On the other hand, claims data for fee-for-service Medicare enrollees have many limitations, including lags in reporting and limited incentives for accurate reporting of information that does not affect payments. Even if information about beneficiaries that would allow identification could be gathered, using the presence of a particular diagnosis as a criterion, as discussed earlier, would identify many beneficiaries who would not become persistently expensive. Alternatively, using data on hospitalizations could be more accurate but would come too late to permit effective intervention. Finally, since Medicare does not cover prescription drugs, there are no readily available data on their use by beneficiaries—a difficulty not faced by private health plans, which often use such data to identify candidates for disease management.

Enrolling Medicare Beneficiaries in a Disease Management Program. Once potential candidates have been identified, the next question is how to enroll them in the disease management program. Because this benefit could be made available to about 35 million beneficiaries in the fee-for-service program, the total number of enrollees in disease management could be substantial. In private-sector health plans, both active (opt-in) and passive (opt-out) enrollment methods are used. Programs using active enrollment generally offer more-intensive disease management interventions in which members must agree to participate; programs using passive enrollment provide the intervention to all eligible patients except those who elect not to participate. Programs using active enrollment generally have much lower participation rates, and some observers have noted that they may actually target people who are

likely to be taking an active role in their health care already and thus are not the beneficiaries who would be most helped by disease management. In Medicare, using a passive enrollment method would ensure the participation of beneficiaries for whom disease management would be most useful, but it would also raise the total cost of providing disease management services. For those reasons, it is unclear whether net savings would increase or decrease as enrollment in the disease management program rose.

Other important questions concern the choices offered to beneficiaries and the incentives they would have to enroll. For example, would Medicare choose a single disease management firm to serve all beneficiaries in a geographic area, or would beneficiaries be given a choice among several programs? Allowing beneficiaries to choose a program would increase the complexity of administering the benefit but at the same time allow competition among firms and be more consistent with the way beneficiaries receive other services in Medicare. Another question is whether beneficiaries would be given explicit incentives to enroll in disease management—either by reducing, below statutory levels, the cost sharing they face for currently covered services or by adding benefits that are not currently covered under the fee-for-service program. Providing such incentives would tend to increase enrollment but would also raise the government's cost per enrollee.

Paying for Disease Management Services

Policymakers have a wide array of options to consider in developing a system to pay for disease management benefits in Medicare. In any case, it will be necessary to determine a basic payment rate for the disease management services themselves. Those administrative payments could be adjusted on the basis of a disease management firm's performance in reducing the overall health costs of its enrollees. Alternatively, payments to those firms could reflect the cost of the health services that their enrollees use—that is, the firms would bear partial or full insurance risk for those costs.

Setting the Basic Payment for Disease Management Services. Typically, private-sector health plans pay for disease management services on a per-enrollee, per-month basis. But paying for services in that way requires defining the bundles of services that the disease management firm will provide and establishing a price for each bundle. To define such bundles, policymakers would need to establish a mechanism for determining the amounts and types of individual services (such as educating beneficiaries or monitoring physicians' adherence to treatment protocols) that each bundle should comprise. Another consideration would be the amount of flexibility disease

management firms should have in designing a unique package of services. That issue is especially important considering that the disease management industry is relatively young and rapidly evolving and that appropriate bundles of services could vary on the basis of a number of characteristics of beneficiaries.

Determining how to set an appropriate payment rate for each group of services would also be difficult. In developing other Medicare fee schedules, policymakers have used historical cost data to set both the individual payment rates and, in some cases, a global limit on payments—but obviously, such data would not be available for disease management services. Alternatively, payment rates could be established through a competitive bidding process. However prices were set, bundling services together would provide incentives for disease management firms to control the cost of the services in each bundle, but it might also give them a financial incentive to provide too little of each service within the bundle and to increase the number of bundles they provided. Given the difficulties involved in measuring outcomes, it would be hard to tell whether too many or too few services were being provided. An additional consideration is that if the costs per enrollee of providing a bundle of services differed substantially on the basis of beneficiaries' health status or other factors, Medicare might have to develop methods to adjust payments accordingly (as has happened with other payment systems in the program).

Adjusting Payments for Performance. One way to address the incentive problems discussed above would be to use a "pay-for-performance" model. In that type of payment system, the administrative fees that disease management firms received could be tied to their ability to reduce total Medicare costs for their enrollees below what they would have been in the absence of disease management. This option would differ substantially from the way that Medicare pays for most medical services but would closely match the way that private employers pay for disease management. In principle, the option could be structured to allow the government to "get its money back" if a disease management company failed to cut costs for its group of enrolled beneficiaries. However, defining an appropriate comparison group (that is, beneficiaries who were not enrolled in disease management but were similar to those who did enroll) would be difficult, for the reasons discussed earlier. In addition, measures of performance would need to be clearly defined, and the data required to allow CMS to determine whether performance objectives had been met would need to be collected and processed in a timely way.

Requiring Disease Management Firms to Bear Insurance Risk for Their Enrollees. Under this option, payments to disease management firms would be tied

even more closely to the health costs of their beneficiaries: the firms would bear risk not only for the administrative fees they received for delivering disease management services but also for the costs of other covered medical services (such as hospitalizations or emergency room visits) provided to their enrollees. This option would provide strong incentives for disease management firms to control costs, going beyond the types of contracts that are currently used in the private sector. Those contracts typically call for disease management firms to put their administrative fees at risk and require them to face the risk of not having their contract renewed, but they have not demanded that the firms share insurance risk with the enrollees' health plans.

To be willing to accept such risk in the Medicare program, however, disease management firms might want to have at least some degree of control over payments and access to doctors, hospitals, and other health care providers. (The means of exerting that control already exists in private health plans—the vast majority of which use some form of managed care—but is not present in the fee-for-service Medicare plan, which accounts for more than 85 percent of total program enrollment.) Such an approach would give disease management firms both the incentives and the tools to control costs, but it could meet with strong resistance from providers. At the extreme, this approach could require beneficiaries to enroll in an integrated health plan and might resemble a managed care model for delivering services.

Interactions with Traditional Fee-for-Service Payment Systems

Unless disease management firms had to bear the full insurance risk for all of the health services that their enrollees received, policymakers would need to consider how Medicare's current payment systems for medical services would affect the extent and nature of the cost savings that could be achieved by a disease management program. Disease management could save money for Medicare in two ways. First, it could reduce the number of bundles of medical services that Medicare currently pays for or change the mix of bundles that are provided. Savings gained from those approaches would accrue to Medicare automatically. Second, it could save money through mechanisms that would only cut the costs to providers of delivering the services but would not yield automatic savings for the program because of Medicare's payment structure. In that case, capturing any resulting savings would probably require additional legislation.

The following are examples of each option.

- Disease management could generate direct savings for Medicare by reducing expenditures for inpatient hospital services, in several different ways. One method would be to keep beneficiaries from needing to be hospitalized, thus averting a payment for the hospital stay. Another would be to reduce the rate of readmission of patients. Of course, providers could respond to a disease management program in ways that might offset those savings; for example, if admissions for heart surgery declined, admissions for elective surgery might increase.

- Other features of Medicare's payment systems might reduce the costs to providers of delivering services but not lead directly to a drop in Medicare's payments. In general, for inpatient hospital services, disease management interventions that reduced a patient's length of stay would not produce direct savings for Medicare since payments do not vary with length of stay. Similarly, interventions that reduced the number of home health visits that a beneficiary required would not shrink Medicare's payments because home health agencies are paid a fixed amount to cover all services provided during a 60-day episode of care. In those cases, providers' costs would be reduced, but additional legislation might be needed for Medicare to capture those savings—for example, legislation to reduce the annual updates in hospital payments below their statutory levels to recoup savings from reductions in lengths of stays.

CONCLUSION

My remarks today can be summarized as follows:

- Medicare's expenditures are concentrated on a small number of high-cost beneficiaries, some of whose high levels of expenditures persist over time.

- The disease management industry has developed programs that claim to improve the quality of health care services and reduce their costs, but because of the limited number of available studies and the methodological issues they raise, it is not yet clear whether those programs can improve health outcomes, much less produce long-term cost savings.

- Additional research is needed to learn how to apply disease management principles within Medicare. Some of those answers may be provided by the demonstrations currently being implemented by CMS.

- In addition, more-complete and timely data on Medicare beneficiaries' use of medical services would be helpful for examining the potential of disease management and might also be needed to successfully implement such a policy.

- In designing a disease management benefit, policymakers would need to address additional questions, including how to identify and enroll beneficiaries; how to pay for disease management services; how to ensure that the interventions are cost-effective; and how any savings from a disease management benefit might accrue, given the payment systems now used in the fee-for-service Medicare program.

Senator CRAIG. Well, Dan, thank you very much. Before I ask questions of you, let us hear from our second member of this panel, the Honorable Ruben King-Shaw, Deputy Administrator, Chief Operating Officer, Centers for Medicare and Medicaid Services.

Ruben, welcome before the committee.

STATEMENT OF RUBEN KING–SHAW, JR., DEPUTY ADMINISTRATOR AND CHIEF OPERATING OFFICER, CENTERS FOR MEDICARE AND MEDICAID SERVICES, WASHINGTON, DC

Mr. KING-SHAW. Thank you, Mr. Chairman. I appreciate being here. It is always good to talk about what we are doing over at CMS, and particularly on this very important topic as it relates to our overall strategy to modernize Medicare for all the people that we serve.

As the Chief Operating Officer of CMS, I am very much, you know, responsible for the day-to-day operations of the nation's, if not the world's, largest insurance company and financial services firm.

In that sense, I have got two major product lines in the insurance business, an indemnity fee-for-service Medicare product and Medicare+Choice product. My comments in the oral testimony will be focused on the fee-for-service, or indemnity environment. The written statement does have more information on what we are doing on managed care.

But, as you can appreciate, most of the world outside of Medicare has moved away from the indemnity model toward more types of managed indemnity or managed care or care coordination. In the insurance benefit administration field we are a good 20 years if not more behind in that.

So there are implications for that for Medicare, and as you heard from Dr. Crippen's testimony, in fact, a relatively small number of beneficiaries do account for a disproportionately large amount of our expenditures, and so we are looking at the possible ways that a disease management, population management, care management strategy can impact those costs, and beyond that improve our product, again, referring to the fact that we are very much an insurance company among other things.

We need to make sure that we continue to improve our product, better serve our beneficiaries and deliver on the true promise of Medicare, and so disease management gives us an opportunity to talk about ways we will do that.

My comments will go through some of the environmental factors that we are looking at and the demonstrations we are currently pursuing to answer some of the very same questions that we have talked about already here this morning, keeping in mind that the promise of disease management is most realized in having a positive impact on both the performance, the outcome, the clinical condition of the patient, as well as the cost, the overall cost of care.

So it's the integration of resources, of information, of strategies, of data, the elevation of evidence-based practices, best practices, in a patient-centered way where these outcomes and cost savings can be realized.

So we do look to disease management as a way of identifying the best ways to improve or increase access to care, the best strategies

for intervening in the development of disease or the maintenance of illness—I'm sorry—of wellness for beneficiaries.

We are looking for ways we can improve the clinical outcomes by having clinical performance of caregivers and physicians and patient participation brought to the mix so that we can produce a better outcome for the patient, the Medicare system overall.

So as we are looking at the ways to do this, we have a few demonstration programs under way. One of these consists of 15 different demonstrations that are the more the disease management variety. These demonstrations are focused on conditions such as congestive heart failure or coronary heart disease or hypertension or asthma.

These individual vendors come from a variety of sources. Some of these are proprietary, commercial vendors that have been successful in the commercial market. Some of these are academic medical centers including historically black colleges and universities and other types of institutions. Some of these are not-for-profit entities that specialize in, for example, coronary heart disease.

But through a variety of combinations of expertise, these vendors, if you will, partner with us to bring these best practices to organize a delivery system on behalf of the patient in a way that they believe will have a positive impact on the cost and the outcome of the patient.

They are free to use various degrees of technology. Some of them are quite technologically advanced in their applications; some of them use a more traditional model of coordination of care. Some of these are telephonic. Some of these are face-to-face.

Our objective here would be to have these 15 different demonstrations that serve currently over 3,000 Medicare beneficiaries explore the different strategies so we can collect data at the end of demonstration to identify some of these best practices and what the cost implications were, what the performance measures were, as a result of different interventions, different types of organizations, different populations, and, in fact, different parts of the nation.

Another type of these demonstrations were enabled by BIPA legislation, where again these demonstrations do give us an opportunity to include a prescription drug benefit, not just for a specific disease, but for all of the prescription drug needs of the enrolled population. It is commonly known that if you are going to do an effective job at managing the overall care of a patient, then a major part of that care plan would be the inclusion of the appropriate prescription drug therapies.

So by including prescription drugs in the mix, the attempt here would be to have a disease management organization work with the entire continuum of care including pharmacology to produce this outcome. We have just, you know, recently gone through a process. We are finalizing that information. We hope to get those underway very quickly, but again that is a second variety of demonstrations that we are pursuing.

We are looking soon to move into a demonstration environment for various strategies to better improve the performance of the ESRD, end-stage renal dialysis patients, a significant cost factor in the Medicare program, and also one that is very ripe, we think, for

the kind of interventions a disease management program can bring.

So in a very few words what I hope I have done in this introduction is give a sampling of what we are doing in this field of disease management with the understanding that we at CMS, the Federal Government as a whole, the trust funds, are at full risk in the fee-for-service environment. There is no intervening force, and so if you have a disorganized, if you will, non-coordinated system of delivering care, which is what we have in fee-for-service, and you have a small number of people who are disproportionately consuming your resources, one of the strategies would be to have an integrator, a coordinator, use data techniques to identify those individuals and build a community of care, a system of care, coordination of care, to have a positive impact on those individuals, but again the Medicare program overall.

Thank you very much, Mr. Chairman. I would be happy to answer whatever questions you and others may have.

[The prepared statement of Mr. King-Shaw follows:]

STATEMENT OF

RUBEN J. KING-SHAW, JR.

DEPUTY ADMINISTRATOR AND CHIEF OPERATING OFFICER

CENTERS FOR MEDICARE & MEDICAID SERVICES

ON

PROMOTING DISEASE MANAGEMENT IN MEDICARE

BEFORE THE

SENATE SPECIAL COMMITTEE ON AGING

September 19, 2002

TESTIMONY OF
RUBEN J. KING-SHAW, JR.
DEPUTY ADMINISTRATOR AND CHIEF OPERATING OFFICER
CENTERS FOR MEDICARE & MEDICAID SERVICES
ON
PROMOTING DISEASE MANAGEMENT IN MEDICARE
BEFORE THE
SENATE SPECIAL COMMITTEE ON AGING

September 19, 2002

Chairman Breaux, Senator Craig, distinguished Committee members – first, thank you for inviting me to discuss the significant role that disease management can play in improving people's lives. And thank you to the other members of the Committee for your leadership on this issue. Analysis of disease management is an integral part of the Centers for Medicare & Medicaid Services' (CMS) efforts to improve and strengthen Medicare and to improve the health care services provided to all Medicare beneficiaries and ultimately the health care of all Americans. As the delivery of health care has evolved, we all know that individual health care providers routinely plan and coordinate services within the realm of their own specialties or types of services. However, rarely does one particular provider have the resources or the ability to meet all of the needs of a chronically ill patient. Ideally, as part of a disease management program, a provider or disease management organization is dedicated to coordinating all health care services to meet a patient's needs fully and in the most cost-effective manner. I want to discuss with you in greater detail the challenges and opportunities in integrating disease management concepts into Medicare. The demonstration projects we are developing and implementing can help achieve the President's goal to improve and strengthen Medicare while ensuring that America's seniors and disabled beneficiaries receive high quality care efficiently.

The President proposed a framework for strengthening and improving Medicare that builds on many ideas developed in this committee and by other Members of Congress. That framework contains eight principles to guide our efforts:

- All seniors should have the option of a subsidized prescription drug benefit as part of modernized Medicare.

- Modernized Medicare should provide better coverage for preventive care and serious illness.
- Today's beneficiaries and those approaching retirement should have the option of keeping the traditional plan with no changes.
- Medicare should make available better health insurance options, like those available to all Federal employees.
- Medicare legislation should strengthen the program's long-term financial security.
- The management of Medicare should be strengthened to improve care for seniors.
- Medicare's regulations and administrative procedures should be updated and streamlined, while instances of fraud and abuse should be reduced.
- Medicare should encourage high-quality health care for all seniors.

The President, the Secretary, the Administrator and I are determined to work constructively with Congress to achieve these goals. We are currently undertaking a series of disease management demonstration projects to explore a variety of ways to improve beneficiary care in the traditional Medicare plan. These demonstrations provide beneficiaries with greater choices, enhance the quality of their care, and offer better value for the dollars spent on health care. The almost complete absence of disease management services in the traditional Medicare plan is another striking indication of how outdated Medicare's benefit package has become. We appreciate your efforts to modernize, improve and strengthen the traditional Medicare plan, and we look forward to working with you on efforts that will make disease management services more widely available.

Disease management is a good example of why the President and Secretary Thompson have advocated immediate action to give seniors reliable private plan options in Medicare, and to prevent further pullouts of private plans from the Medicare program. Disease management services have been available to millions of seniors through private plans, yet inadequate and unfair payments are threatening those benefits. The most important step that Congress could take right now to allow seniors who depend on disease management to keep these valuable services, and to provide rapid access to such services to many more seniors who need them, is to fix the problems with the payment system for private plans.

BACKGROUND

A relatively small number of beneficiaries with certain chronic diseases account for a disproportionate share of Medicare expenditures. These chronic conditions include, but are not limited to: asthma, diabetes, congestive heart failure and related cardiac conditions, hypertension, coronary artery disease, cardiovascular and cerebrovascular conditions, and chronic lung disease. Moreover, patients with these conditions typically receive fragmented health care from multiple providers and multiple sites of care. We need to find better ways to coordinate care for these patients and to do so more efficiently. Such disjointed care is confusing and can present difficulties for patients, including an increased risk of medical errors. Additionally, the repeated hospitalizations that frequently accompany such care are extremely costly, and are often an inefficient way to provide quality care. As the nation's population ages, the number of chronically ill Medicare beneficiaries is expected to grow dramatically, with serious implications for Medicare program costs. In the private sector, managed care entities such as health maintenance organizations, as well as private insurers, disease management organizations, and academic medical centers, have developed a wide array of programs that combine adherence to evidence-based medical practices with better coordination of care across providers.

We are already taking advantage of private sector expertise in disease management to give Medicare beneficiaries more services for their premiums, often with lower cost sharing and more benefits than are available under traditional Medicare. For example, Medicare+Choice plans provide many benefits that are valuable to seniors with serious and chronic health conditions, such as:

- *A Medicare+Choice plan in Boston that has a comprehensive disease management program for its enrollees with diabetes.* This has resulted in significant increases in the share of enrollees who received annual retinal eye exams and are monitored for diabetic nephropathy and substantial improvements in the management of their Hemoglobin and cholesterol levels.
- *A Medicare+Choice plan in Florida that has a comprehensive disease management program to monitor, facilitate, and coordinate care for enrollees with cancer.* As a result, the number of acute hospital days per cancer case dropped by about 15% over two

years and the share of inpatient admissions for complications with cancer has declined by 10 percent.

- *A Medicare+Choice plan in New York that has a case management program for those hospitalized for mental health disorders and nearly doubled the share of its enrollees who received follow-up care within 7 days of their hospital discharge.* This is consistent with research that has shown that individuals who receive after-care following hospital stays for mental illness are more likely to be follow their treatment regimens and less likely to be readmitted to the hospital.

Several studies have suggested that case management and disease management programs can improve medical treatment plans, reduce avoidable hospital admissions, and promote other desirable outcomes. In a rapidly evolving health care environment, the best disease management programs fuse the strongest aspects of both disease management and case management. In the largest sense, both disease management and case management organizations provide services aimed at reaching one or more of the following goals:

- Improving access to services, including prevention services and necessary prescription drugs.
- Improving communication and coordination of services between patient, physician, disease management organization, and other providers.
- Improving physician performance through feedback and/or reports on the patient's progress in compliance with protocols.
- Improving patient self-care through such means as patient education, monitoring, and communication.

These goals echo the President's principles of improving the Medicare program through better care for serious illness, delivering higher quality health care, and protecting Medicare's financial security. We are exploring a number of ways to pursue these goals in both the Medicare fee-for-service program and in the Medicare+Choice program.

DEMONSTRATION PROGRAMS IN FEE-FOR-SERVICE MEDICARE

The outdated benefit package in fee-for-service Medicare does not include disease management, and so beneficiaries in fee-for-service have not had access to these valuable services. To identify

innovative ways to include coordinated disease management services in an inherently uncoordinated fee-for-service system, we have a number of demonstrations both underway and in development.

In fact, we are close to finalizing a pilot project to test whether providing disease management services to Medicare fee-for-service beneficiaries with advanced-stage congestive heart failure, diabetes, or coronary heart disease can yield better patient outcomes without increasing program costs. Mandated by the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act (BIPA) of 2000, the project will include payment for all prescription drug costs, whether or not they relate to the chronic health condition, without increasing costs to the Medicare program.

In addition to this new project, we are currently implementing a demonstration in 15 sites – including commercial disease management vendors, academic medical centers and other provider based programs – to provide case management and disease management services to certain Medicare fee-for-service beneficiaries with complex chronic conditions. These conditions include congestive heart failure, heart, liver and lung diseases, diabetes, psychiatric disorders, major depressive disorders, drug or alcohol dependence, Alzheimer's disease or other dementia, cancer, and HIV/AIDS. This demonstration was authorized by the Balanced Budget Act (BBA) of 1997 to examine whether private sector case management tools adopted by health maintenance organizations, insurers, and academic medical centers to promote the use of evidence-based medical practices could be applied to fee-for-service beneficiaries. This program was designed to address important implications for the future of the Medicare program as the beneficiary population ages, and the number of beneficiaries with chronic illnesses increases. We are testing whether coordinated care programs can improve medical treatment plans, reduce avoidable hospital admissions, and promote other desirable outcomes among Medicare beneficiaries with chronic diseases.

To date, the 15 demonstration sites have enrolled over 3,000 Medicare beneficiaries in both intervention and control groups in care coordination and disease management programs. The statute that authorizes these projects allows for the effective projects to be continued and the number of projects to be expanded based on positive evaluation results -- if the projects are

found to be cost-effective and that quality of care and satisfaction are improved. In addition, the components of the effective projects that are beneficial to the Medicare program may be made a permanent part of the Medicare program. These initial projects are varied in their scope, include both provider organizations as well as commercial companies, utilize both case and disease management approaches, are located in urban and rural areas, and provide a range of services from conventional case management to high-tech patient monitoring. As part of the evaluation, we will be looking at mortality, hospitalization rates, emergency room use, satisfaction with care, and changes in health status and functioning.

In another fee-for-service demonstration, at Lovelace Health Systems in New Mexico, we are testing whether intensive case management services for CHF and diabetes mellitus can be a cost-effective means of improving the clinical outcomes, quality of life, and satisfaction with services for high-risk patients with these conditions.

PROVIDING RELIABLE COVERAGE OPTIONS THAT INCLUDE DISEASE MANAGEMENT

We are also undertaking several demonstration programs that may offer the disease management that is available to seniors in private plans. The projects represent a wide range of programs and approaches, and they address a number of chronic conditions. For instance, we recently announced that a total of 33 new health plans in 23 states will participate in the demonstration modeled after the preferred provider organization (PPO) coverage available to the vast majority of Americans under age 65. PPOs have been successful in non-Medicare markets in providing disease management services and other valuable benefits for patients with chronic illnesses, yet they have been almost nonexistent in Medicare. This demonstration is designed to evaluate the effectiveness of the PPO health care option in the Medicare market. The goal is to expand options and choices in the M+C program for Medicare beneficiaries.

Under this demonstration, networks of preferred providers (hospitals, physicians and other providers) will provide all of the basic Medicare benefits, plus additional benefits such as annual physicals, other preventive services, disease management, and prescription drugs. This new PPO option will be available to about 11 million Medicare beneficiaries—30 percent of all seniors—

in parts or all of 23 states: Alabama, Arizona, California, Florida, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Missouri, North Carolina, Nevada, New Jersey, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Tennessee, Virginia, West Virginia and Washington.

Additionally, as required by BIPA, we are developing a physician group practice demonstration encouraging coordination of Part A and Part B services, rewarding physicians for improving beneficiary health outcomes, and promoting efficiency. Under the 3-year demonstration, physician groups will be paid on a fee-for-service basis and may earn a bonus from savings derived from improvements in patient management.

BUILDING FOR THE FUTURE

We are also considering future demonstration projects that will expand options for Medicare beneficiaries in the Medicare+Choice program and the traditional Medicare program. In addition to stabilizing the existing Medicare+Choice program and providing more health plan options, like our PPO initiative, we want to develop specific health plan options for those beneficiaries with chronic illnesses. We are investigating disease management projects that would work with a diverse group of organizations, including Provider Sponsored Organizations (PSOs), integrated health care systems, disease management organizations, and Medicare+Choice plans. We want to enhance the clinical management of care to better serve the patients, provide for more effective coordination of services, and improve beneficiaries' health clinical outcomes and not increase costs to the Medicare program.

For example, we plan to test capitated payment arrangements with qualified organizations that will use the case management techniques to treat chronic diseases such as congestive heart failure, diabetes, and chronic obstructive pulmonary disease. This would allow a plan to specifically target treatment and coordination for chronic diseases. The payment models are intended to improve the coordination and quality of care for Medicare beneficiaries and to reduce costs to the Medicare program. The targeted populations could include beneficiaries eligible for both Medicare and Medicaid, as well as the frail elderly.

In another future demonstration, we intend to provide our beneficiaries with end-stage renal disease (ESRD) the opportunity to join an integrated care management system, building on lessons learned from our successful ESRD demonstration created under Social Health Maintenance Organization (SHMO) legislation. SHMOs are plans that offer special managed care services aimed at helping chronically ill beneficiaries maintain their independence. Our experience taught us that this approach can maintain or improve the quality of care for ESRD beneficiaries, and can result in high patient satisfaction and quality of life. Our demonstration will test the effectiveness of disease management models to increase quality of care for ESRD patients and reduce costs. We are exploring a model in which the ESRD providers would be paid a capitated amount for all health care of the enrolled beneficiaries based on the M+C rates that are currently in use for ESRD beneficiaries. These payments would be modified as risk adjustment methods for ESRD beneficiaries are developed over the next year or two. An incentive payment for quality is also being considered for the demonstration.

Additionally, we are investigating the feasibility of a larger scale population-based demonstration in the traditional fee-for-service Medicare targeted at specific chronic diseases like congestive heart failure, diabetes, and chronic obstructive pulmonary disease (COPD). Our emphasis will be on early detection, patient outreach, patient education, and lifestyle modification. Wanting to target selected geographic areas in this effort, we are particularly interested in underserved and disadvantaged populations in urban or rural areas. The solicitation could target organizations that are expert in reaching the designated populations and also have expertise in lifestyle modification and disease management. The payment method for this demonstration has not yet been developed, but we want to focus on holding contractors accountable for clinical and financial outcomes.

Our evaluations of all of these projects will inform our future efforts. In disease management, we are evaluating health outcomes and beneficiary satisfaction, the cost-effectiveness of the projects for the Medicare program, provider satisfaction, and other quality and outcomes measures. We anticipate that better outpatient care and monitoring through the dynamic disease management model will reduce avoidable hospitalizations, avoid unnecessary services, and improve outcomes. The Agency also is exploring various payment options, including bundled,

case-rated methodologies for treating particular conditions, such as stroke or hip fracture, that may lend themselves to this type of payment system. We recognize, however, that costs for some individual cases, particularly those in which appropriate medical services were previously underutilized, could increase with coordination of services. In each of these approaches, we expect that the costs to Medicare will be the same or lower through the efficiencies that will result in providing the most appropriate care and this will more than offset the added expenses.

While these new demonstration programs hold promise, they are not yet fully tested and they are no substitute for the comprehensive coverage that many beneficiaries prefer through private plans. The most important step for helping Medicare build for the future, in terms of providing integrated benefits that keep patients healthy, is to create a stable and fair payment system for Medicare+Choice plans. In the meantime, through these demonstrations, we will continue testing and exploring new strategies for improving care and efficiency.

CONCLUSION

Disease management is a critical element for improving the nation's health care and its delivery system. Along with the Secretary, the Administrator and I want to take full advantage of all of the opportunities for increased quality and efficiency that disease management offers. Unfortunately, seniors are far less likely than other Americans with reliable access to modern, integrated health care plans to have access to disease management services. Through changes in Medicare's unfair payment system for private plans, we are working to give seniors the same access to modern disease management services that other Americans enjoy. We also are working to address the difficulties of providing effective disease management services in the fee-for-service plan. Our goal is to make disease management services widely available, enabling beneficiaries to enhance their quality of care and get better value for the dollars they spend on health care. We look forward to continuing to work cooperatively with you Chairman Breaux and Senator Craig, and this Subcommittee, and the Congress to find innovative and flexible ways to improve and strengthen the Medicare program while making sure that beneficiaries, particularly those with chronic conditions, have access to the care they deserve. I thank you for the opportunity to discuss this important topic today, and I am happy to answer your questions.

Senator CRAIG. Well, thank you very much. I appreciate both of your testimonies and let me ask several questions of you. Dr. Crippen, you have provided I think an excellent testimony on what appears to be a fairly complicated issue, trying to understand if, in fact, you can affect the current trends significantly.

You discuss the problem of identifying best candidates for disease management and referred to the concept of regression to the mean. Now that sounds a bit like an economist speaking.

Mr. CRIPPEN. It is.

Senator CRAIG. I am not. From the testimony I was not sure if this theory applied to the Medicare population because you did identify a persistently expensive group in your analysis. Question therefore is: does the regression to the mean concept apply to Medicare enrollees?

Mr. CRIPPEN. The answer is yes, but probably not in the same way. The term regression to the mean is roughly saying that a person will over their lifetime, exhibit average spending. These, if we had a Medicare recipient who in one year was a very high-cost patient, there is some probability that over the next year they will be a low-cost one—that is, if their are expenditures episodic, or acute expenditures and not for chronic conditions.

There are certainly many of those folks in this population. Indeed, there are two things that you need to look for as we look at the data. One is unfortunate but true: those folks who die are not representative of the future costs of beneficiaries of the program, for an obvious reason: and those who incur high costs in one year may not be representative of those who will incur high costs in following years. That is why we looked for people who had high costs in at least two consecutive years.

That is the population that we think you would first want to look at to say do they have chronic conditions, are they treatable in a different way like disease management or case management, because if they are just an acute health problem, there is no use trying to manage that very much. You are going to experience expenditure in the next year that will be out of this group.

Likewise if folks die. But it's a very important thing, as you pointed out, to keep in mind. Some of the studies frankly that have been done over the years looking at this population have done things, partly because of data necessity, like throw out anyone who died during the course of the year, and then look at costs. That is not a representative sample certainly for this population.

So your question is very much on point. We do not have the complete phenomenon of regression to the mean, but we certainly do have that show up to some extent here as well.

Senator CRAIG. OK. The end of your testimony lays out several obstacles for achieving direct scoreable savings with any Medicare disease management program. If successful, will the Medicare demonstration projects that Mr. King-Shaw is talking about provide enough evidence to show a scoreable savings; do you think?

Mr. CRIPPEN. I expect so; it always seem too soon to tell, particularly for those that are being designed with capitated payments. That is important so that providers have some financial risk as well, in looking at the costs, but any additional data on how much

it takes to support this population and how these disease management concepts could apply will enlighten this discussion.

As I said, part of our reluctance at the moment to say that we know this is going to save money is not because we do not think it will. It is because we do not have enough evidence, and these demonstration projects should be quite informative in that as well as other research we and others intend to do.

Senator CRAIG. OK. Is there a way to design a Medicare fee-for-service disease management program without creating adverse incentives among providers?

Mr. CRIPPEN. The answer is yes. I suspect, however, that there are a lot more ways to create a program that does have adverse incentives, so it is important to keep our eye on that—as you are suggesting by this question.

Let me digress for a minute, if I might, because I think, as my colleague here suggested, that we do not often think of this population as an insurable pool, even though we are effectively providing some types of insurance. We think of it more as the Federal beneficiaries who are participants in this program, and the benefits we are providing, and how to pay for them.

But if you think of these groups as risk pools, it can sometimes be informative. We have, by our simulations, estimated that it takes about 100,000 Medicare recipients to have a pool with average risk. We do not have insurance pools that are in the country, that large although clearly we could, because we have 39 million, roughly, people in this program. But given the division between providers and geography and other factors, we do not have pools that large.

So you need to look at the risk within the pools, which is one of the things that drives our interest in this topic. If you look for high-cost procedures or patients, that is the risky tail of this pool. If you devise a system for removing those beneficiaries from the risk pool—because you are paying for them differently, independently—you would then create a much more average risk for the remainder of the pool. We are convinced that it takes some financial risk by providers and probably beneficiaries, as well, to get the incentives right. By bearing some risk, everyone has a bit of an incentive to watch how much of a service they use.

That is not to say there has to be a large risk, but at least there needs to be some. So, until disease management companies are part of a provider system that bears some financial risk, they will not have those incentives that we as economists think are important to control costs.

It is entirely possible, I think, to construct a system that could avoid adverse selection—or the incentives that encourage. We also have an opportunity here—and it is one of the few silver linings to the cloud that is the doubling of this population, from 40 million to 80 million, over a relatively short period of time. With all those new entrants, we would have the ability to assign them to risk pools in, say, a random fashion.

As a result, there may be some opportunities with the rapid expansion of this population to compensate for any selection that becomes evident; even after the fact, a risk pool that showed lower-than-average spending, for example, or a healthier population could

be repopulated with random assignment of folks who are coming into the program.

Senator CRAIG. OK. I thank you not only for your interest in this and the involvement of the Congressional Budget Office. I think that is critically important because those of us who are spending time looking at these issues and seeing this phenomenal explosion of costs out there——

Mr. CRIPPEN. Yes.

Senator CRAIG [continuing]. Trying to understand how we get this all done, and I think your example of talking about moving from the, well, nearly doubling, 18 to 28, is a very high factor here.

Mr. CRIPPEN. Absolutely, and this kind of approach might also be useful as you develop other policies on pharmaceutical benefits——

Senator CRAIG. Yes.

Mr. CRIPPEN [continuing]. As my colleague here suggested. It is entirely possible that you could give pharmaceutical benefits through a disease management protocol where most of the pharmaceutical costs probably are anyway.

Senator CRAIG. Well, in one of the versions of the pharmaceutical effort, at least here, prescription drug effort in the Senate this year, a piece of legislation I supported dealt with allowing pharmacists to become skilled in education, training, cross-referencing, really working with, if you will, the client or the patient in a much broader knowledge of the use of, the application of pharmaceuticals as an important part of not only understanding and creating and disallowing the problems that can result, but also bringing down some of those costs. So, thank you.

Mr. King-Shaw, you talk about, I guess I would have to say, quite a few different management demonstration projects. Why so many?

Mr. KING-SHAW. Well, I think it is important as we go down this road to have really good research, good information on what works and what does not. I think it is also true that different approaches have been successful in the commercial sector or in the Medicaid sector. They may not all be successful in the Medicare space, and so it is important, we think, to have very good credible data about the range of activities that are possible before we would select any one or even a few to become the mainstream effort in disease management.

I think it is also important for us to stay current with the developments of technology. For example, one of the realities in the Medicare program is that there is no natural coordinating force. We have many different people paying claims, organizations paying claims on one individual. There is no easy way to pool data together on either patient performance or outcomes or utilization or anything like that, and so when you do not have anyone in the system who has the ability to coordinate across the system, obviously you have weaknesses and concerns from that alone.

There are different strategies underway to organize or galvanize or centralize information and coordination on behalf of patients. We need to know which ones work better than others and with which populations.

Senator CRAIG. OK. In January, you selected 15 demonstration sites for coordinated care projects, as I read it, four rural, one rural

urban, ten urban. The reason I ask this particular question, my State by definition is a rural State, is the availability of Medicare+Choice programs is very low. As an appropriator and a senator from the rural State, I have worked hard to develop a couple of demonstration projects to try to bridge this urban-rural gap, and one of those that is developing a good deal of interest is the tele-health demonstration projects.

Can you tell me if any of your disease management demonstration projects are using tele-health or tele-monitoring devices?

Mr. KING-SHAW. We believe that there are programs out there, disease management vendors, who will use and, in fact, are beginning to implement those strategies. All of them will not. We have encouraged these disease management demonstration proposers to come up with the best approaches based on who they are and where they are. The tele-medicine/tele-health capabilities are extremely applicable in the rural areas and in some of the urban environments as well. So it is our understanding, it is our belief, and, in fact, our expectation that those tele-medicine/tele-health applications will be used in some of the demonstrations, and at least one of them in the rural areas.

Senator CRAIG. OK. Your written testimony discusses potential payment options and the idea of a competitive bidding process is notably absent. Is this an oversight or an omission by design?

Mr. KING-SHAW. Actually neither.

Senator CRAIG. OK.

Mr. KING-SHAW. There is a competitive process that we use for identifying these disease management programs. We have a process that can work in two ways. We can actually release a statement saying we are interested in proposers in this way, and so individuals can submit their responses to us. They are vetted thoroughly. We select the best ones. There is a series of criteria that we use. There is a panel of experts that we bring together from throughout CMS, and at times we will consult with entities outside of CMS.

But there is a competition for the best, most robust, most tested proposals. Now, that is slightly different from competitively bidding for a commodity where you would just pick the lowest price or the best deal, so to speak. Many of these proposals are submitted with nuance and strategies and different approaches, and so you are comparing the various strategies that people will use to achieve an outcome.

So a commodity like competitive bidding process is probably not well suited, but they are quite competitive. The selection criteria, you know, is quite intense, and so when we do have a series of winners, they have been thoroughly vetted.

Senator CRAIG. OK. Of course, the ultimate question is how long? How long before we see any published final results in these demonstration projects?

Mr. KING-SHAW. We think that the final results are about 2 years, at least a year beyond the completion of a demonstration. So we have these demonstrations that are running from 1 to 3 years, more often 2 to 3 years in length. So a year after that, we would have some conclusive data. They are staggered, and so we will begin to have some data coming in over a period of time.

I think what is also important to note is that many of these disease management demonstrations, population management demonstrations, are built around evidence-based practices, and once evidence-based practices are made available and disseminated to the delivery system, there tends to be relatively rapid adoption of them among the caregivers, the clinical community.

So you can begin to see very quickly changes in behavior, patterns of utilization, some outcome data. We will be getting regular reports from these disease management demonstration projects that we can compile into some type of interim report card or update. But for something final and conclusive, that would take longer and it would include some external verification as well.

Senator CRAIG. Well, gentlemen, thank you. Thank you both very much for your time and your valuable testimony this morning. Of course, as you all know, this committee is not an authorizing committee; it is an investigative committee, an information-gathering committee, a record-building committee, that we hope can supply information and evidence to authorizers as we get into these critical areas of policy design and decisionmaking. Thank you both very much.

Mr. KING-SHAW. Thank you.

Mr. CRIPPEN. Thank you.

Senator CRAIG. I would ask our second panel and panelists to come forward please. Thank you all very much. That is the difficulty of cell phones when you do not turn them off. I apologize.

Let me welcome our second panel and let me start with Sister Anthony Marie Greving, Director of the Pocatello, Idaho Area Agency on Aging. I always foul that up, Sister. I apologize. We welcomed you before the panel. Please proceed.

STATEMENT OF SISTER ANTHONY MARIE GREVING, DIRECTOR, AREA AGENCY ON AGING, POCATELLO, ID

Sister GREVING. Thank you very much. I appreciate the opportunity to showcase our health promotion program in southern Idaho. As Senator Craig says, I am Sister Anthony Marie Greving, Director of the Area Agency on Aging in Pocatello, ID.

The southeast Idaho area encompasses 9,200 square miles of rural and desert areas, sagebrush and juniper trees. The area is dotted with people not in large metropolitan areas or cities, but in small rural towns. Elderly in southern Idaho number a little over 22,000 or 15 percent of the total population.

I come today to share with you our health promotion program for the low income elderly. The Area Agency on Aging contracts with the Southeast Idaho Community Action Agency, Retired and Senior Volunteer Program, to provide health promotion services to some 1,500 rural elderly. This program has seen a monumental growth.

Over the past 7 years, the Southeast Idaho Health Promotion Program has received a total of some $90,000 in Older American Act funds, an increase of 38 percent since initial funding in 1996.

The current year contract, however, with the RSVP program is not $90,000, but a mere $18,300. In service numbers, 176 people were served the first year, and now over 1,500 rural elderly are being served, a monumental 752 percent over the past 7 years. We

are talking about commitment of dedicated staff and volunteers who see the need for services to the underserved and vulnerable.

This program began with medication reviews called brown baggers in local senior centers, and has now grown beyond belief in assisting the homebound elderly with home safety checks, as well as a medication assistance program for those elderly who cannot afford the full cost of prescription drugs.

Permit me to cite an example here which happened in southern Idaho. We have an elderly gentlemen who is 66 years of age, who has no primary physician, yet he has many diseases for which he takes many medications daily. On his kitchen table were two coffee cups. He would fill each coffee cup with 23 medications, take one cupful in the morning with breakfast, the other cupful in the evening with dinner, whether he needed them or not.

Through our health promotion staff medication review, we assisted him in getting a primary doctor, who prescribed only seven medications on a daily basis. I am here to say that now he is serving as a volunteer within his local community.

Elderly people have voiced to me that greater coordination is needed between physicians and pharmacists on prescribing drugs for elderly people. So many doctors do not take the time to know what drugs elderly people are now taking, all the while prescribing another better pill to ease the pain.

They have also stated that pharmacies need to write not only in large print, but also give very specific directions on the medication label when to take the meds, not just the phrase "take as directed." Those are two of the concerns that local elderly people have.

Besides the standard health promotion program, the RSVP staff coordinate with Idaho State University Senior Health Mobile Clinic to provide medication review for the rural Idaho homebound elderly.

This interdisciplinary mobile team travels the isolated areas of southeast Idaho in a van clinic that is equipped with health-related supplies, equipment, and educational resources. Yes, Idaho is a very rural State. Its population is made up of a shifting trend from those who have aged in place to those who are moving around the country as they age.

In our health promotion program, we are seeing a number of older adults who are taking 16 to 18 medications daily, prescribed by a number of health care professionals to make the individual feel better. But the picture is by no means bleak. I highlighted what one health promotion program can do with drive, determination, and a readiness to solve problems in small rural communities.

Disease management is possible in some rural areas, especially to those elderly desirous of a home and community-based service system, those who are homebound and those who wish to remain independent. I have given you a brief portrayal of how southeast Idaho has utilized the Older Americans Act funds to implement an effective health promotion program with a limited budget.

There is always room for more services to our vulnerable elderly. I would ask for greater support of a disease management program like health promotion and medication management under the Older Americans Act, so elderly as Medicare beneficiaries can continue to

maintain their health and quality of life and gain greater longevity and independence. I thank you for this opportunity.

[The prepared statement of Sister Greving follows:]

U.S. Senate Special Committee on Aging

Sister Anthony Marie Greving
Disease Management and Coordinating Care:
What Role Can They Play in Improving the Quality of Life
for Medicare's Most Vulnerable?
September 19, 2002
628 Dirksen Senate Office Building
Washington, D.C.

Good Morning. I am Sister Anthony Marie Greving, Director of the Area Agency on Aging in Pocatello, ID. The southeast Idaho area encompasses 9200 square miles of rural and desert areas, sagebrush and juniper trees. The area is dotted with people, not in large metropolitan cities, but in small rural towns, unincorporated in some instances, but mostly of 3,000-3,500 populations. The number of elderly in the seven county area is 22,131 or 15% of the total population.

In preparation for this testimony, I reviewed the Older Americans Act, which Congress passed in 1965. The program has changed immensely in 37 years! Growth of the older population in rural America has become a cause for both concern and opportunity.

I am here today to share with you one such opportunity - our Health Promotion Program for the low-income elderly. The Area Agency on Aging contracts with the Southeast Idaho Community Action Agency/Retired and Senior Volunteer Program to provide health promotion services to 1500 elderly. Just as those who built senior center programs in 1965 have matured to age 97 and beyond, and are still active or homebound, so our Health Promotion Program has seen a monumental growth. Many more people these days are served with a lot less money. The commitment of the staff and volunteers make this program an unparalleled success.

In 1996, we began with $ 13,200 of Older American Act federal funds. With this money, we provided community-wide medication reviews called "brown baggers". The elderly brought their meds in one bag to senior centers, and a local pharmacist and pharmacy students from Idaho State University in Pocatello assessed the meds and discussed drug interactions. If red flags were raised, then the pharmacist referred the client to his/her primary physician for consultation.

The Health Promotion staff also initiated an Exercise Library during that same year. This was a lending library whereby the center or facility took an exercise video and kept it for a month to provide exercises in a given location. This service has increased by 38%.

There was a great need in 1996 for someone to assist elderly with Living Wills. The Health Promotion staff developed a program to fulfill this need. Service was provided on a donation basis, and again the people served increased month after month.

In the following year 1997, the homebound elderly were targeted for medication reviews, exercise programs, and Living Wills. These vulnerable were those 60 years of age and older who could not get out of their homes and fend for themselves. The community health clinics continued with medication reviews at small local health fairs. The Exercise Lending Library continued as well, and nursing homes and assisted living facilities began exercise programs. The emphasis was to get "limbered up" 1 to 3 to 5 times a week in place of just sitting in a chair all day.

Home Safety Checks were begun in 1998 for the homebound elderly. With the emphasis to keep elderly in their own home for as long as possible, the home safety check program was initiated. Homes were evaluated for safety and the prevention of falls. Smoke detectors were installed for a small cost to the homeowner, but if payment could not be made, local fire departments contributed to the cost and installed the detector free of charge.

In the following years since 1998, the growth of the Health Promotion Program in southeast Idaho has tripled. The Area Agency on Aging now contracts $ 18,300 with the RSVP Program for the service, and in the six years in operation, over 1500 elderly have received this much-needed service.

At the present time, with money being stretched so tightly, the Community Action Agency/RSVP staff has improvised and coordinated with various agencies to "get the job accomplished". A Medication Assistance Program was inaugurated in 2001, and with the high price of new medications, many elderly people took advantage of the Needy Meds Program. For those who have access to the Internet, they fill out their own forms and by-pass the $ 5 fee per prescription. The Pfizer Share Card and the Well Partner Program are incorporated into the service. These are benefit plans for seniors who cannot afford the full cost of prescription drugs. There are many instances where a low income, vulnerable adult has had to forego taking prescribed medications in order to eat a meal.

The Health Promotion staff assist elderly with information from the Physicians' Desk Reference. Printed information is given to each client. In this client-consumer choice society, there are alternative means to securing prescription drugs at low cost or no cost to the consumer. Sometimes it just takes a little assurance from the assistance of the Health Promotion staff to get the job done. Through the Medication Assistance Program, some of the following concerns have surfaced:

- Greater coordination is needed between physicians and pharmacists on prescribing drugs for elderly people. So many doctors do not take the time to know what drugs elderly people are now taking, all the while prescribing another "better" pill to ease the pain.

- Pharmacies need to write not only in large print but also give very specific directions on the medication label when to take the meds, not just the phrase 'take as directed". This directive is very confusing to the senior taking the medication.

- Generic Drugs need to be included in the Drug Plans to help Medicare Beneficiaries with their drug purchases.

The RSVP Health Promotion Program also partners with Idaho State University Senior Health Mobile Clinic to provide medication reviews for the rural Idaho homebound elderly. This van/clinic trains Idaho health profession students and practicing health professionals in an interdisciplinary approach to geriatric care, delivers health care services to rural older adults in non-traditional home and community-based settings, and works to recruit and retain health care practitioners in the rural underserved areas of Idaho. The interdisciplinary mobile team travels the isolated areas of southeast Idaho in a van/clinic that is equipped with health related supplies/equipment and educational resources.

Closing

Idaho is a very rural state. Its older population like that of any rural community in America is made up of a shifting trend from those who have "aged in place" to those who have moved around the country as they age. Some rural statistical facts:

- Older rural and minority adults have more health risk factors than elders living in large urban areas, where means to care may be more accessible.
- Older people living in rural areas are more likely to be women who sometimes have access to fewer resources for supporting independent living.
- The economy of a rural community is fragile, often dependent on retirement incomes.
- Small rural towns often live with the fear of looming business closures.
- Older minority women have likely experienced many challenges, including re-location and a life of poverty.
- A rural older adult is likely taking 16-18 medications daily, prescribed by a number of health care professionals to make the individual feel better.

The picture painted with the above statistics is by no means bleak. This morning I highlighted what one Health Promotion Program can do with drive, determination and a readiness to solve problems in small rural communities. Disease management is possible in small rural areas, especially to those elderly desirous of a home and community-based service system, those who are homebound and those who want to be independent.

I have given you a brief portrayal of how southeast Idaho has utilized the Older Americans Act funds to implement an effective Health Promotion Program with a limited budget. There is always room for more services to our vulnerable elderly. I would ask for greater support of a Disease Management Program, like Health Promotion and Medication Management under the Older Americans Act, so elderly as Medicare beneficiaries can continue to maintain their health and quality of life, and gain greater longevity and independence.

Area Agency on Aging, Pocatello, Idaho 83201

Senator CRAIG. Sister, thank you very much for that very valuable testimony about effective utilization of resource.

Now, let me introduce before the committee Dr. John Rusche, Senior Vice President and Chief Medical Officer, Regence BlueShield of Idaho, headquartered in Lewiston, ID. Doctor, I am traveling to Lewiston, ID tomorrow morning.

Dr. RUSCHE. Say hi for me.

Senator CRAIG. I will do that. I think I am going to beat you home. Welcome before the committee. Please proceed.

STATEMENT OF JOHN RUSCHE, M.D., SENIOR VICE PRESIDENT AND CHIEF MEDICAL OFFICER, REGENCE BLUESHIELD OF IDAHO, LEWISTON, ID

Dr. RUSCHE. Thank you, Senator. I appreciate the opportunity to give testimony to the committee. I am Senior Vice President and Chief Medical Officer of Regence BlueShield of Idaho. We are a mutual health insurer and an independent licensee of the BlueCross BlueShield Association.

We are a member of the Regence Group, which is four northwest Blues, BlueCross BlueShield of Utah, BlueCross BlueShield of Oregon, Regence BlueShield in Washington, and ourselves.

I appreciate this opportunity to discuss disease management programs from the health plan point of view. I believe that this model of care coordination will be an important tool over the next few years as we continue to struggle with the issues of cost and quality.

Disease management works by focusing effort and limited resources on those individuals who are most likely to utilize services and whose clinical course can be improved by the intervention. You saw from the charts before that in the Medicare population, half have three chronic diseases. From an analysis of our population, 2½ percent of our insured population account for 60 percent of the cost. It really is concentrated.

The range of interventions can extend from patient education and self-management to medication and therapy management and reminders to intense, individually crafted care plans involving the entire array of physician, facility, drug and nursing care available.

In our experience, there are four components of a successful population health program. First is identification. Of any population, only a subset has a condition.

Second is stratification. Once you have identified the members with the condition, you need additional data. Not all people with a condition are of the same likelihood to incur expense.

Third, the intervention has to be palatable. The program must be acceptable to the members and providers it supports. Simplicity, ease of service, and customer service are really important.

Finally, outcome data. Any program needs to be able to show that the end effects are there in order to be able to judge the value of the intervention, or if you make later changes, that you have had a positive effect.

In my more than 15 years of clinical practice, it has become clear that optimum care of complex chronic disease could be handled in better ways than our current one-on-one physician and patient behind a closed door system. As the managed care organizations of the 1990's become the care management organizations of the fu-

ture, we will be doing a lot less utilization management, the authorization and approval approach, and more guidance in the best evidence-based approach to care.

We will be more focused on the opportunities for greatest success. The written testimony I have provided describes our use of a cardiovascular program and a high risk psychosocial program for our Medicare HMO population. We will be looking at other chronic conditions that have modifiable courses. Currently, we are evaluating renal disease, cancer, depression, and arthritis programs.

Some will be internally managed with our staff. Some will be contracted with vendors. The nature of the population served really defines the best model, I believe, for financing these programs.

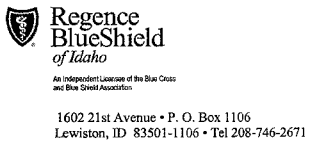
For example, we operate our maternity program internally. We could get a good result at as low or lower cost than from a vendor. The services and expertise in our cardiovascular program provided by QMed could not be replicated internally, so contracting was our best bet.

A predictable rate of complications or disease incidence in a large population ordinarily allows a health plan to accept risk or retain the risk. Unpredictable risks, small populations, make risk-sharing or guaranteed return contracting with a vendor more attractive.

Chronic disease increases with age. Complications and comorbidities increase with age. Our senior population is what one might call a target-rich environment for disease management tools. If there is any population that the tools will benefit, if there is anywhere they will prove their value in health improvement and cost avoidance, it is among seniors.

Senator, this concludes my oral comments. I would like to thank the committee for this opportunity to discuss disease management programs, and would be happy to answer any questions that you might have.

[The prepared statement of Dr. Rusche follows:]



Good morning, I am John Rusche, Senior Vice President and Chief Medical Officer of Regence BlueShield of Idaho. Regence BlueShield of Idaho is licensed as a mutual health insurance company and holds a certificate of authority to operate a health plan throughout the state of Idaho. We belong to the Regence Group, the Pacific Northwest and Intermountain Region's largest affiliation of health care plans, including Regence BlueCross BlueShield of Utah, Regence BlueShield (Washington state) and Regence BlueCross BlueShield of Oregon.

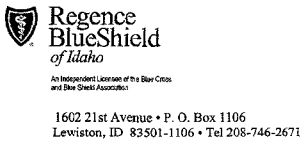
Regence BlueShield of Idaho finances health care for almost 270,000 Idahoans—about one resident in five—through traditional and managed care benefit plans and administrative services agreements.

I am pleased to have the opportunity to speak with you today about disease management. Regence BlueShield of Idaho believes in disease management because we are committed to offering the finest in preventive medicine to our members, and to seeking the most advanced and most medical-practice-friendly programs for our providers.

Disease management for seniors is an especial interest of Regence BlueShield of Idaho because of our strong commitment to Medicare. We offer a wide range of Medigap supplemental insurance options—packages A, C, F, G, and J—to Medicare beneficiaries. And we enroll about 6,000 seniors in our Medicare cost contract HMO, "HealthSense 65."

My testimony today will cover four points:

- Our view of disease management—what it is, and what it can do;
- How we use disease management in our plan;
- The effects of our disease management program; and
- The potential for disease management in Medicare.



Background on Disease Management

In any population, a high percentage of health-care dollars are spent on a relatively small percentage of patients, many of whom have chronic diseases such as asthma, diabetes, or coronary artery disease. For instance, in Medicare 12 percent of all Medicare enrollees accounted for more than 75 percent of all Medicare fee-for-service program payments. In our population, 2.5% of our members account for 40% of our healthcare costs, 5% for 65% of costs. Many of these high-cost beneficiaries are chronically ill with certain common conditions. If we as a health-care system can identify and actively manage these patients' chronic diseases through education, prevention, and follow-up, then patients can be expected to experience fewer complications and may be able to avoid hospitalization or invasive treatments. That, in a nutshell, is the premise of disease management.

More formally, the Disease Management Association of America defines disease management as "a system of coordinated healthcare interventions and communications for populations with conditions in which patient self-care efforts are significant." A comprehensive disease management program should:

- Support the physician-patient relationship and plan of care.
- Emphasize prevention of exacerbations and complications using evidence-based practice guidelines and patient empowerment strategies; and
- Continuously evaluate patient outcomes with the goal of improving overall health. (DMAA, 2002.)

In general, disease management programs are designed to work by helping the chronic-disease patient to be an active participant in his or her care (patient self-management) and by providing the care providers with the most up-to-date medical information and support. The main goal is to keep

Regence BlueShield of Idaho
An Independent Licensee of the Blue Cross and Blue Shield Association
1602 21st Avenue • P. O. Box 1106
Lewiston, ID 83501-1106 • Tel 208-746-2671

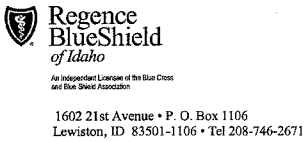
chronic diseases under control, to prevent acute episodes or complications that require hospitalizations or other expensive interventions.

By reducing a patient's need for expensive hospitalizations and other health treatment, disease management offers the possibility of not only improving health, but also saving money. That makes disease management especially appealing to employers who are facing continued rising costs of giving health benefits to their employees. In Idaho, as across the country, employers are expressing interest in adopting disease management programs to improve employee health and quality of life, avoid unnecessary health care expenditures, increase employee satisfaction, improve worker productivity, and retain workers. (EBRI, August 2002).

Disease Management in Regence BlueShield of Idaho

On a national level, disease management programs may be enjoying an unprecedented level of acceptance, taking their place as permanent fixtures in many benefit plans, but in rural pockets of the country, such programs are still uncommon. (Managed Care Week, July 15, 2002.) The distributed population and lessened delivery capacity makes it more difficult and less efficient for many models of disease management.

None-the-less, it is in the rural areas, those with less opportunities for patients to find the best care themselves that care management programs make sense. Programs tailored to identified high risk populations makes sense, helping the providers and receivers of care recognize how "best medical evidence" of services improves the clinical outcome and lowers the cost. In the summer of 2001, Regence BlueShield of Idaho sought to remedy this deficit in Idaho by undertaking a comprehensive disease management program for Coronary Artery Disease (CAD) and Stroke.



Why coronary artery disease? Cardiovascular disease is the leading cause of death in this country, and costs associated with its treatment comprise the largest percentage of health care expenditures in the United States. According to the American Heart Association, in 1998 cardiovascular disease will account for 42 percent of all deaths and approximately $235 billion in total costs in the United States. CAD will represent 50.1 percent of these costs or $118 billion. Our Regence BlueShield of Idaho population is quite similar, with Cardiovascular diseases and their treatments representing the single highest category of claims costs. A significant portion of these dollars pays for hospitalizations that may be preventable by the simple application of current best practice standards.

Having targeted CAD for disease management, we next undertook to decide the best way to carry out a disease management program. Disease management programs may be owned and administered by various types entities: not only health plans, but also specialty disease management companies, pharmaceutical firms, pharmacy benefit managers (PBMs), or medical provider groups. Because Regence BlueShield of Idaho is in the business of financing coverage—not delivering care—we decided to team up with an outside vendor for this program.

After exhaustive analysis we concluded that QMed's clinical information technology approach precisely matched our mission. Their capabilities, first, to find patients who are at risk of these conditions, but who may be without symptoms, and second, to help our physicians manage them via a state-of-the-art information technology, are unique. In fact, CMS has selected QMed to provide disease management for coronary artery disease under one of the Medicare Coordinated Care Demonstration projects.

Regence Cardiovascular Program Summary

The goal of our disease management program is to aid primary care providers in modifying the current approach of acute and episodic intervention for the treatment of CAD and stroke toward a

Regence BlueShield of Idaho
An Independent Licensee of the Blue Cross and Blue Shield Association
1602 21st Avenue • P. O. Box 1106
Lewiston, ID 83501-1106 • Tel 208-746-2671

greater focus on preventive therapy. Once a patient is enrolled in the program, a coordinator manages the program's operations, ensuring little additional work for the physician or office staff.

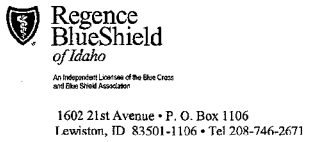
Identify Patients

Focusing the effort is an essential requirement of successful program. We felt that a critical first step was selecting patients who would most benefit from a CAD disease management program. We determine eligibility by the following criteria, some of which is obtainable from our claims data systems, the rest extracted from patients' medical records (with the patient's consent):

- Documented CAD defined as those with a history of myocardial infarction, stroke, TIA; angiographically documented coronary obstructions;
- CABG , PTCA and /or CEA;
- Stable angina pectoris or a history of angina in the past; or inducible ischemia, whether symptomatic or silent; or the detection of ambulant ischemia during a previous ambulatory ECG recording;
- Positive carotid vascular studies;
- Recent onset of chest pains consistent with angina.

Males and females over the age of 40 with any two of the following risk factors:

- Family history of coronary artery disease appearing in a first degree relative before the age of 60.
- Hyperlipidemia and elevated lipoprotein
- Diabetes
- Hypertension
- Smoking



1602 21st Avenue • P. O. Box 1106
Lewiston, ID 83501-1106 • Tel 208-746-2671

Stratify Patients

With the aid of a medical database based on national guidelines, cardiologists working for QMed risk stratify patients into high and low-risk groups, and put together patient-specific treatment plans. One unique feature of our program is that the risk stratification of patients is monitored 24 hours day, and quickly changed when patients experience cardiovascular disease events.

Intervention

I mentioned earlier that disease management programs are designed to work by (1) giving the care providers the most up-to-date medical information and support, and (2) by helping the chronic-disease patient to be an active participant in his or her care.

To help primary care providers, we send reports that indicate for each eligible patient a high, moderate, or low risk stratification, and patient-specific recommendations to optimize medical therapy. Following national guidelines, the goals are to eliminate ischemia, normalize lipids, improve blood pressure, increase use of anti-thrombotics, and use beta blockers for post-myocardial infarction patients.

We also offer extensive support physicians through one-on-one meetings, an active physician advisory group, and continuing medical education opportunities.

To promote patient self-management, we schedule face-to-face nurse and patient encounters where patients receive one-on-one training. We also send patients training and educational materials tailored to their diagnoses, a regular newsletter, a monthly status report, and automatic reminders for follow-up care.

Regence BlueShield of Idaho
An Independent Licensee of the Blue Cross and Blue Shield Association

1602 21st Avenue • P. O. Box 1106
Lewiston, ID 83501-1106 • Tel 208-746-2671

Physician Buy-In

Obviously, this type of disease management program can only work if physicians buy into it. In addition to valuable educational support, we offer physicians modest financial remuneration for participating. We pay attending physicians $25 per member enrolled for time involved with identifying eligible members and reviewing medical charts. We pay an additional $50 per member enrolled for following each member's test results after subsequent visits and reviewing recommendations.

Program Effectiveness

In the year since starting the program, we have been fairly successful in recruiting physicians. Two months before the program's start, we sent special recruitment letters to the 440 or so primary care providers in our network. To date, more than one-half of those providers have agreed to participate; 12 percent have declined to participate; and the rest have not yet decided whether or not to participate.

Aside from reduction in expensive health-care costs, we plan to track the effects of the CAD program on (1) quality of life outcomes; and (2) physician satisfaction. Quality of life comprises the program's ability to help the member better understand CVD, to improve patients' energy level, and to do other physical activities. Improved quality should show up as perceived improvements in the quality of care and services provided.

To track physicians' attitudes, we will measure satisfaction with the following aspects of the program:

- Timely scheduling of patients once identified;
- Efficient and professional handling of telephone and face-to-face contact ;
- Quality of content of written patient reports;
- Utility of the recommendations made to assist physician in the management of CVD patients.

Regence BlueShield of Idaho
An Independent Licensee of the Blue Cross and Blue Shield Association

1602 21st Avenue • P. O. Box 1106
Lewiston, ID 83501-1106 • Tel 208-746-2671

As the program is little more than one year old, it is too soon to measure its effectiveness. But we do know that for another commercial HMO population, QMed's program appeared to reduce heart attacks by 32.7 percent; it reduced bed days per thousand CAD patient by 31 percent; it abolished ischemia in 60 percent of patients, and it reduced angioplasties by more than 20 percent.
In addition, we know that research and case studies show positive results from other individual disease management programs. Though there may not yet be conclusive evidence that disease management programs, in general, improve health or reduce costs in the long term, many employers have seen improved health and decreased costs as a result of their programs, and growing numbers of employers are convinced that disease management will help save money. (EBRI, 2002).

Disease Management in Medicare

The five million or so Medicare beneficiaries enrolled in HMOs already benefit from varying approaches to disease management, not least because CMS requires that all Medicare HMOs conduct a baseline and establish a treatment plan for people with complex or serious medical conditions.

For instance, in our Medicare HMO, HealthSense 65, we use predictive algorithms to perform psychosocial and medical needs assessment on the highest risk enrollees. We have found that among our highest risk members, all enrollees had adequate access to medical care, but almost two-thirds had unmet psychosocial needs, from isolation to transportation to hunger and nutrition. Using a social worker, we were able to integrate high-risk patients into available community programs at a relatively low cost.

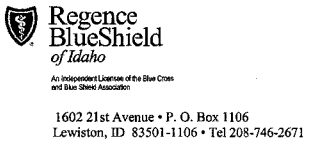
We see great potential in extending similar disease management approaches to the 35 million beneficiaries in traditional, fee-for-service Medicare. Currently, one major obstacle to disease

Regence BlueShield of Idaho
An Independent Licensee of the Blue Cross and Blue Shield Association
1602 21st Avenue • P. O. Box 1106
Lewiston, ID 83501-1106 • Tel 208-746-2671

management in the Medicare fee-for-service population is identifying and recruiting suitable beneficiaries when their risk is highest. Our CAD disease management program offers one model for maneuvering around this obstacle—partnering with physicians to review charts, and using sophisticated algorithms to identify the highest risk patients.

Though we pay physicians on a fee-for-service basis for participating in the disease management program, disease-based contracts with providers may be priced in a variety of ways. A case manager or disease management organization may receive a sum per member per month to work with high-risk patients (without taking risk for health care costs). A "per case" program would provide an individual health adjustment or a flat rate payment for a condition such as cancer. This is how we pay QMed for our cardiovascular program. And many disease management organizations put their charges "at risk," receiving decreased payments unless cost savings and quality parameters are met. Some health plans even pass the entire insurance risk for identified members to specialty care management vendors.

Physician and provider organizations often participate as both vendor and provider of care. Under "diagnosis capitation," a primary care physician might receive a higher capitation rate for a patient with a condition like diabetes or asthma, or a specialist might become the gatekeeper. "Episode of care capitation" is a sum paid to a specialist to cover the patient's health care costs over a defined period of time or spell of illness. Similarly, under "contact capitation," a specialist may receive a capitated payment to cover services from the time the patient is referred by the primary care physician to the end of a treatment or payment cycle. "Treatment capitation" often covers all health care costs related to a finite course of treatment, such as the care of a high-risk neonate. Other disease management program shift financial risk to physicians by seeking guarantees of improved patient health and a certain level of savings.



1602 21st Avenue • P. O. Box 1106
Lewiston, ID 83501-1106 • Tel 208-746-2671

Conclusion

Disease management has a tremendous potential to improve patients' health, strengthen physician-patient relationships—and to save money. And as we have found in Idaho, to improve the level of services not easily available through a limited delivery network. We commend CMS for its interest in testing models aimed at beneficiaries who have one or more chronic conditions that are related to high costs to the Medicare program, among them coronary heart disease. Our CAD disease management program, and our risk assessment methods for our Medicare HMO enrollees, point to approaches that might be useful models for Medicare in the future.

Senator CRAIG. Thank you very much, Doctor, for being here and for offering the testimony and the experience that your companies are going through.

Now, let me introduce before the committee Dr. Alan Wright, Senior Vice President and Chief Science Officer, Centers for Health Improvement, AdvancePCS—I will let you explain that—in Fort Hunt, MD. Doctor, thank you.

STATEMENT OF ALAN WRIGHT, M.D., SENIOR VICE PRESIDENT AND CHIEF SCIENCE OFFICER, CENTERS FOR HEALTH IMPROVEMENT, ADVANCEPCS, HUNT VALLEY, MD

Dr. WRIGHT. Thank you, Senator Craig. I would like to thank the committee for calling this hearing today.

Senator CRAIG. Pull your mike a little closer down maybe just a bit. Thank you.

Dr. WRIGHT. How is that?

Senator CRAIG. That is better maybe.

Dr. WRIGHT. Our company, AdvancePCS has been creating disease management programs to improve the delivery of health care in this country for many years. We are pleased that Congress is interested in exploring the integration of disease management into the Medicare program and look forward to working with Congress.

My name is Alan Wright. I am a physician and I am the Chief Medical Officer of AdvancePCS. During my tenure at AdvancePCS, I have been responsible for the development and oversight of disease management programs. I am currently focused on integrating new and emerging technologies into these programs.

By way of background, AdvancePSC is the nation's largest independent provider of health improvement and pharmacy benefit services, touching more than 75 million lives. Our clients include BlueCross and BlueShield programs, health plans, self-insured employers, other employer groups, labor unions and government agencies including the Federal Employee Health Benefits Program.

AdvancePCS health improvement capabilities range from pharmacy benefit management to clinical programs to disease management programs to specialty pharmacy services. We believe that these services are critical components in helping our clients balance their objectives of cost containment and quality.

What I would like to do in my testimony today is first describe our current disease management programs and our approach and delivery of these programs. Second, highlight the current status and future plans for our programs. Third, describe the potential value of these programs to Medicare.

Disease management programs are application and management strategies for the chronically ill, relying on a wide array of delivery models that improve the overall health of targeted populations. The benefit of our disease management programs are numerous. Aggressive management of chronically ill patients typically enables individuals to require less intensive care which enhances the quality of life and reduces the medical costs.

In addition to providing health and financial benefits, disease management also reinforces care standards and strengthens physician-patient relationships. AdvancePCS disease management programs are developed internally, using established national guide-

lines such as the Joint National Committee on Hypertension, sponsored by the AMA; the guidelines created by the National Institutes of Health; the American Hospital Association; and the American Diabetes Association.

We select programs for development based on the potential improvements of quality of life and cost impacts in the population. Quality and quantitative effectiveness of AdvancePCS disease management programs are measured using specific indicators that compare results to clinical benchmarks or goals. We enhance programs continually based on changes in clinical guidelines, feedback from practitioners, patient experience and program effectiveness, basically determining what works, what does not work, and adopting those things that work.

We use principles of continuous quality improvement in collaboration on behalf of our sponsors in execution of programs so they achieve compliance with NCQA, the National Committee on Quality Assurance.

AdvancePCS has a clinical research division called Innovative Medical Research that is devoted to clinically assessing and improving these programs through cooperation with numerous Federal agencies.

The agencies that we work with include the Centers for Education Research and Therapeutics, sponsored by AHRQ. We also work with the FDA in post-marketing surveillance programs, and we have participated with other agencies as well in projects.

Our programs have evolved over time. We maximize the number of methods available to communicate and educate patients and physicians. Our disease management programs are now tailored to specific conditions with interventions that extend from telephone outreach, mail and web-based interventions to personal nursing counseling.

A good disease management program begins with a specific plan-sponsored goal, and when we initiate programs with a sponsor, in this case Medicare, we would begin discussing what is the objective of the program, and then build a program out from that objective.

Without that kind of conversation, it is very difficult for everybody to be satisfied at the completion of the program. I would like to emphasize that patient privacy is a priority in our program, and we work closely with our plan sponsors to ensure protection of patient confidentiality.

We would like to recognize that the Congress and the administration have made progress in bringing disease management approaches into the Medicare program, but there is more work to be done. We believe that Medicare can greatly benefit from appropriately designed and tailored disease management programs.

As evidenced earlier in the exhibit from the Kaiser Foundation, patients in the senior population, the Medicare population, vary dramatically from those in the commercial population. The problems are more complex and those issues need to be directed and addressed when developing programs for a Medicare population.

However, there are a number of disease management programs that could be adopted within Medicare today by focusing on pharmaceuticals and interventions already sponsored by Medicare. Given the high cost of illness, disease management programs that

are focusing on some of the new and innovative biotech interventions that are paid for by Medicare Part B are suitable areas for disease management intervention and continue and will continue to be a rapidly growing area of both cost and quality within the Medicare population.

Ultimately implementation of disease management into a Medicare program on a large scale requires consideration of payment reform and creation of financial systems that improve and enhance the deployment of disease managed services. We look forward in working with Congress to develop flexible payment systems for these types of disease management tools, and Congress can support CMS by ensuring that the agency has broad authority and latitude within the Medicare program to test new models.

We believe that disease management programs directly address the challenges faced by Medicare in coming years by delivering high cost, cost-effective, quality care to chronically ill populations and would encourage further studies. That concludes my comments, and thank you for this opportunity to testify.

[The prepared statement of Dr. Wright follows:]

WRITTEN STATEMENT OF ALAN WRIGHT, MD, MPH, ADVANCEPCS

HEARING ON DISEASE MANAGEMENT IN MEDICARE

SENATE SPECIAL COMMITTEE ON AGING

SEPTEMBER 19, 2002

Thank you, Senators Breaux and Craig. I would like to thank the Committee for calling this hearing today on disease management. Our company, AdvancePCS, has been creating and implementing disease management programs to improve the delivery of healthcare in this country for many years. We are pleased that the Congress is interested in integrating disease management into the Medicare program and look forward to working with you as you begin to examine this important opportunity.

My name is Alan Wright and I am a physician and the Chief Science Officer for AdvancePCS. I have worked for AdvancePCS for ten years. During my tenure here, I have been responsible for the development and oversight of disease management products and I am currently focused on integrating new and emerging technologies into our programs.

AdvancePCS is the nation's largest independent provider of health improvement and pharmacy benefit management services, touching the lives of more than 75 million health plan beneficiaries. Our clients include a broad range of health plan sponsors, such as Blue Cross and Blue Shield plans, self-insured employers and other employer groups, labor unions and government agencies – including the Federal Employees Health Benefit Program (FEHBP). On behalf of our clients, we administer and monitor over 550 million prescription claims each year representing over $28 billion in annual prescription drug spending.

AdvancePCS is committed first and foremost to health improvement; we offer our clients a wide range of health improvement products and services designed to enhance the quality of care delivered to beneficiaries, and manage their costs. The company's core capabilities include prescription benefit plan design consultation, home prescription delivery, and formulary development and management. Within these programs, we also set up retail pharmacy networks, negotiate drug discounts, and administer claims.

The delivery of these services is in part facilitated by AdvancePCS' contractual relationships with retail pharmacies and prescription drug manufacturers. The company's pharmacy relationships extend to over 59,000 pharmacies, virtually all retail pharmacies in the United States.

AdvancePCS' more advanced health improvement capabilities include clinical programs, disease management and specialty pharmacy services. We believe these services are critical components to helping our clients balance their cost containment and quality improvement goals.

AdvancePCS is an independent, publicly traded company. We employ approximately six thousand employees and have operations in 18 states, Washington DC and Puerto Rico. We provide services to beneficiaries in every state of the union, Washington DC and in Puerto Rico.

My testimony today is divided into three parts:

- The first section will describe disease management and highlight AdvancePCS' commitment to pursuing research in and implementation of disease management programs. It will also address the company's internal structures as well as the external partnerships we pursue to facilitate continuous improvement of our disease management interventions.

- The second section will highlight the current status of and future plans for AdvancePCS' disease management programs – how we launched into this area, how our programs work, and how they will evolve in the future.

- The final section will focus on the potential value of disease management to the Medicare program and discuss our support for continuing efforts in this arena.

AdvancePCS' Focus on Disease Management

Providing care for the chronically ill is a constant challenge for our healthcare system and one that we strive to address day after day. We have been developing and delivering disease management interventions to a broad range of population groups since the early 1990s. These programs all seek to optimize the healthcare of, and maximize the health and quality of life for people with chronic illnesses. While change in disease progress is often incremental, the results our programs achieve in terms of quality of life, self-esteem, and cost efficiencies, are significant.

Disease management programs apply managed care approaches to address the healthcare system's challenge of caring for the chronically ill. Relying on a wide range of models, including case management and interdisciplinary teams, disease management programs improve the overall health of targeted populations. AdvancePCS' client population-based approach enables us to offer *everyone* with a given disease services tailored to individuals' disease severity. We work closely with individual patients to minimize the pace of their health deterioration.

The benefits of our disease management programs are numerous. Aggressively managing chronic illness typically enables individuals to require less invasive care, which enhances their quality of life and reduces medical costs. In addition to providing health and financial benefits, disease management also reinforces care standards and strengthens the physician-patient relationship.

Program Development

AdvancePCS develops disease management programs internally using established national guidelines from such sources as the Joint National Committee on Hypertension sponsored by the American Medical Association, the National Institutes of Health, the American Heart Association, and the American Diabetes Association. We select programs for development based on the potential quality of life and cost impacts for a population.

We rely on a team of internal and external clinical experts to develop leading programs. The range of clinical expertise used includes physicians, nurses, pharmacists, patient educators, and health economists. When a health improvement program has a pharmaceutical care component, pharmaceutical companies may be enlisted to provide supporting materials.

The qualitative and quantitative effectiveness of AdvancePCS' disease management programs are measured using specific indicators that compare results to clinical benchmarks and/or goals. We enhance programs periodically based on changes in clinical guidelines, feedback from practitioners, patient experiences and/or program effectiveness.

Using the principles of continuous quality improvement, AdvancePCS' programs, in collaboration with and on behalf of our client sponsors, are executed in compliance with the National Committee for Quality Assurance (NCQA) criteria. When possible, the programs also incorporate the Health Plan Employer Data Information Set (HEDIS) indicators. All of AdvancePCS' programs advocate appropriate care through the effective application of data and scientific evidence. In 2002, we achieved the new NCQA Disease Management Accreditation.

Health Care Research Division

Effective disease management depends on a firm foundation in quality improvement and medical research. Our disease management programs are based on proven outcomes. With Innovative Medical Research, Inc.'s (IMR, an AdvancePCS subsidiary) research methodology, we explore intervention alternatives, measure outcomes, and then implement the most effective interventions through our disease management programs.

Our research is organized in centers focused on population-based issues. For example, our Center for Healthier Aging is dedicated to the development of programs targeting the specific needs of older individuals, while our Center for Priority Populations focuses on interventions for the Medicaid population.

Partnerships

AdvancePCS also partners with a range of government entities to ensure we remain on the cutting edge of research; in turn, we hope that our expertise can be helpful to federal agencies looking to address healthcare quality and outcomes. One example is our longstanding collaboration with the Agency for Healthcare Research and Quality (AHRQ) in their Centers for Education and Research on Therapeutics (CERTs). We were one of the first private-sector companies to partner with the CERTs to focus on community-based research programs to improve patient safety through reduced drug-drug interactions.

Another mutually beneficial AdvancePCS and government partnership we have developed is with the Food and Drug Administration (FDA). Working with the FDA, we help to facilitate post-marketing drug surveillance, and assess and moderate the risk of adverse drug outcomes.

Another example of our continuous improvement efforts includes past work with a leading healthcare foundation. We have participated in Robert Wood Johnson funded research to study a group of Medicaid patients with asthma. The study purpose was to understand patient and physician knowledge levels, beliefs, and views on asthma care. As expected, the research

showed that there is a significant knowledge gap between best practices and actual practices among both patients and physicians. A knowledgeable patient is key to achieving the desired health outcomes.

Disease Management Programs – Yesterday, Today and Tomorrow

Acting on behalf of our plan sponsors, we initiated our disease management programs in the early nineties with targeted mailings to patients and expansion of traditional managed care case management programs. Initially, we emphasized implementation and action, focusing less on results. Although these programs laid the groundwork for today's disease management methodologies, we had no way of measuring whether or not they were effective or successful.

Our programs have evolved over time. They now emphasize efficiency of interventions and quantifiable results. We have a built-in total quality improvement feedback loop to help us identify which program components are most effective. Our disease management programs are now tailored to specific conditions with interventions that extend from Internet publication of information to personal nurse counseling. (See Chart A)

Chart A: Examples of Disease Management Services

	Low Engagement	High Engagement	
High Tech	• Online disease and other clinical information • Self-managed disease assessment and tracking	• Home data monitoring • Interactive case management and support	Emerging
Low Tech	• Mailed brochures, newsletters, and other educational materials • Generic clinical treatment guidelines	• Nurse case management	Traditional

Convergenc

Our existing disease management programs use targeted interventions to educate and support our plan sponsors' beneficiaries and their caregivers. We maximize the number of methods available to communicate and educate patients, recognizing that compliance, and ultimately program success, result from informed, knowledgeable patients. Today's state of the art programs primarily rely on three forms of patient and physician communication.

- First, we use **telephonic outreach** to assess and educate patients, and to evaluate self-care. Through direct telephone conversations, we communicate with our patients about the value of appropriate care management and encourage positive health-seeking behavior.

- Second, we use **mail-based interventions** to disseminate disease-specific member education material and invite individuals to join our programs. The mail also allows us to conduct patient and physician profiling to measure program success as well as evaluate

patient/pharmacy utilization patterns and compliance with recommended regimens.

- Finally, our **web-based communication** provides yet another opportunity for us to share relevant educational materials and interface with patients.

A good disease management program begins with the development of plan-sponsored, defined program goals and quantifiable outcome objectives. Using industry standard HEDIS measures, AdvancePCS closely tracks health outcomes to monitor the impact of our programs. We recognize that progress can be slow in disease management and that results are incremental --- while we aim for 100 percent compliance, we recognize that incremental achievements are often what are achievable in the short-run.

Results from one of our diabetes programs illustrate our focus on outcomes. In this program, we saw a 6 percent improvement in the rate of eye exams for diabetic patients over a 3-year period, a significant step in preventing blindness among these patients. While this was only one of our outcomes measures in this program, it is representative of the type of outcomes that may be possible and that help to reduce the costs associated with disease.

AdvancePCS is continuously working to enhance the company's existing disease management interventions, integrating new technologies and research as it becomes available. For example, our researchers currently are using proven behavioral models, as well as remote patient monitoring devices, to understand interventions that result in behavioral change. Regular program review enables us to determine how we as a company can have the greatest impact on our patients.

Finally, patient privacy is a priority in all of our disease management programs. We work closely, in collaboration, with our plan sponsors to ensure the protection of patient confidentiality in consideration of all applicable state and federal regulations.

Disease Management and the Medicare Program

Progress to Date

Congress and the Administration have already made some progress in bringing disease management approaches into the Medicare program. The coordinated care demonstrations that were part of the Balanced Budget Act have begun to test fee for service approaches and disease management. The Beneficiary Improvement and Protection Act demonstration that was announced this year will go a step further in testing innovative fee for service approaches.

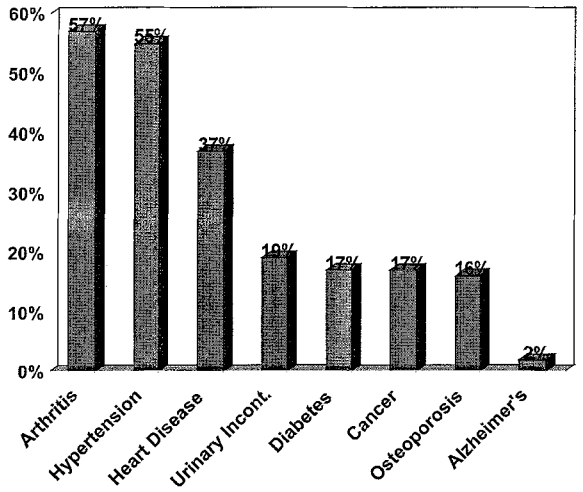
There is more that can be done. We look forward to the future demonstration projects that CMS is contemplating. Models that are consistent with the approach we successfully employ in the private sector, structured around performance risk and targeted across a population, would provide another testing ground for CMS.

Looking Forward

The Medicare program could greatly benefit from appropriately designed and tailored disease management programs. As we all know, chronic conditions are most prevalent in the senior

population and are a major contributor to high Medicare costs. According to the Kaiser Family Foundation, 57 percent of Medicare beneficiaries have arthritis, 55 percent have hypertension, 37 percent have heart disease, 19 percent have cancer, and the list continues. (See Chart B) Some of these more common diseases that afflict the Medicare population are particularly amenable to disease management interventions.

Chart B: Most Common Conditions Among Medicare Beneficiaries



Source: Kaiser Family Foundation Medicare Chartbook. Non-institutionalized Medicare Beneficiaries, 1999.

The health benefits of disease management that we have seen in the commercial population could likely be replicated within the Medicare population, potentially producing even greater improvements in health outcomes. However, given the complexity of care needs for the Medicare population, our expertise leads us to believe that one would need to refine such disease management programs based upon on-going experience in order to realize the significant improvement and savings opportunity potential.

Even so, there are a number of disease management programs that could be adopted within Medicare today, by focusing on the pharmaceuticals already covered by Medicare. Medicare Part B covers drugs for chronic conditions such as arthritis (e.g., HylanG-F20, Remicade), cancer (e.g., Taxol, Gemzar, Paraplatin, Taxotere), and emphysema (e.g., Albuterol). Given the high cost of these drugs and established treatment protocols for these conditions, disease management programs would be an ideal way to help manage the care of these beneficiaries while also addressing the high Medicare costs.

AdvancePCS is working to adapt the company's existing disease management programs and develop new interventions that incorporate the therapies already covered by Medicare Part B. We only expect this focus to increase in the future as more biotechnology drugs focused on chronic diseases are approved.

Ultimately, implementation of disease management into the Medicare program on a large scale will require Medicare payment reform. We look forward to working with Congress on achieving payment flexibility wherever necessary and giving CMS the tools it needs to effectively integrate disease management into Medicare. Congress can also support CMS by ensuring that the agency has broad authority and latitude within the Medicare program to test new models.

As we face the challenges of the future, growing drug costs, an aging population, the growing biotech industry ---the compounding effect will be a Medicare program with spiraling costs. Disease management interventions directly address these challenges by delivering cost-effective, high quality care to the chronically ill populations.

Thank you for the opportunity to testify before the Committee today. I would be happy to answer your questions.

Senator CRAIG. Doctor, thank you very much. Let me turn to our last panelist, Matthew Michela, Senior Vice President from American Healthways in Nashville, TN.

Matthew, welcome before the committee.

STATEMENT OF MATTHEW A. MICHELA, SENIOR VICE PRESIDENT, AMERICAN HEALTHWAYS, NASHVILLE, TN

Mr. MICHELA. Thank you, Senator. How is that? Is that all right? My name is Matthew Michela, and I am Senior Vice President of Operations of American Healthways which is headquartered in Nashville, TN. Thank you for the opportunity of appearing this morning to highlight our previously submitted written testimony.

American Healthways is the nation's largest independent disease management organization, providing services to approximately 600,000 Americans with chronic diseases in all 50 States, Puerto Rico and the District of Columbia.

Our programs were the first in the country to be accredited by both the NCQA and URAC, and are provided to a wide variety of populations including HMO, PPO, Medicare+Choice, and for some of our programs the Federal Employee Health Benefits Program. We are also the only disease management organization providing services to a Medicare fee-for-service population today, as we know.

Because of commitment to quality we have led the way in submitting our outcomes, both clinical and financial, for third-party validation and peer review. Of particular pertinence to this committee, we believe, is the unpublished study reflecting our first 10 months' results with approximately 6,000 Medicare fee-for-service beneficiaries with diabetes in Hawaii.

This study shows improvement in all clinical and a net reduction in total health care costs of about $5.1 million or a 17.2 percent net savings on an inflation-adjusted basis.

Now, disease management is a treatment-support concept predicated on the principle that the way to reduce health care costs is to actually improve health. The goal of all disease management programs is to create and sustain behavior change among patients and providers to assure the most effective management of each patient's health.

But while the precepts of disease management are uniform, program design and the method of delivery reflect significant differences, and as a result, so do the outcomes. Accordingly, the key factor in our success is not really a matter of what we do; rather, it is a matter of how we do it.

Our programs are based on three underlying principles. The first holds that the fundamental interaction in health care is the one between the patient and physician, and that the rest of the health care system exists solely to make that interaction more effective, more efficient or preferably both.

Between office visits, patients are essentially responsible for their own care and management. The current delivery system provides little or no support for them in that effort. That is what our programs do.

The second foundation principle holds that creating and sustaining behavior changes necessary to improve the health of people with chronic disease is best achieved through personal, trusting re-

lationships between patients and caregivers. Accordingly, our program interventions are delivered by over 600 highly trained, experienced and caring registered nurses who not only help patients deal with their condition or conditions, but also with the reality of living with chronic disease.

That approach underscores the third principle that holds that patients we work with are people and are not diseases. By meeting each patient's needs, wherever that patient is, we are sure that we always prepared to support whatever behavior change the patient is willing to make.

Another important issue is accreditation. American Healthways' early advocacy for accreditation had two bases. First, we believed that every health care organization ought to open itself to meaningful third-party scrutiny. Second, the historical absence of a uniformly recognized definition of disease management has allowed many programs, really thinly disguised marketing efforts, to prey on a vulnerable population by masquerading as disease managers.

Accordingly, we needed, the industry needed a reliable external body to certify program quality. Whether or not accreditation programs serve that role effectively, however, will depend on their acceptance and use by private and public purchasers.

The last topic I will address in my summary is how Congress can help. At a conference last week, David Kreiss, special assistant to the CMS Administrator, said "The last frontier in disease management demonstration projects is population-based projects focused on outcomes." That he anticipated a request for proposals that would be released in the month or two. We urge this committee to provide whatever support may be required for CMS' efforts in this regard.

Finally, we would ask Congress to revisit the issue of Federal preemption with respect to HIPAA and State privacy laws. Health care while delivered locally is no longer bought or paid for in that way. Health plans must provide uniform services to national corporations. The continued ability of individual States to enact laws more restrictive than HIPAA presents a significant barrier to meeting that requirement.

So let me conclude, Senator, by emphasizing that disease management programs properly designed, properly implemented, and properly delivered improve health care outcomes and reduce the cost of care.

As we have shown in Hawaii and in many other places, effective disease management programs can improve the health of Medicare beneficiaries and reduce the cost of care sustained by the trust fund. Further, the introduction of disease management services to Medicare beneficiaries does not require reform of either the health care system itself or the Medicare program. What it does require, however, is the support of this committee and this Congress. Thank you very much.

[The prepared statement of Mr. Michela follows:]

Testimony
of American Healthways, Inc.
before the
The Senate Select Committee on Aging

September 19, 2002

Thank you Mr. Chairman.

Mr. Chairman and members of the Committee, my name is Matthew Michela and I am Senior Vice President, Operations of American Healthways of Nashville, Tennessee. On behalf of all of my colleagues and, in particular, our Executive Vice President, Robert Stone who had to regretfully decline your invitation to appear due to a prior commitment, I want to express our appreciation for having the opportunity to testify before you this morning.

American Healthways is the nation's leading and largest independent disease management organization. Today, we provide our award winning and fully accredited services to approximately 600,000 Americans who suffer from diabetes, congestive heart failure, coronary artery disease, chronic obstructive pulmonary disease, and asthma. Our services are available from certain health plans in all 50 states, Puerto Rico and the District of Columbia.

In addition to being the first disease management organization in the country to receive accredited status from both the National Committee on Quality Healthcare (NCQA) and URAC/American Accreditation Healthcare Commission, our programs in diabetes, heart failure and coronary artery disease have also been reviewed an approved by a select committee of the faculty of Johns Hopkins representing their schools of medicine, nursing and public health.

American Healthways' disease management programs are provided to a wide variety of populations including HMO, PPO, Medicare + Choice and, for some of our customers,

FEP. We also provide services through, and on behalf of, our customer health plans to many self-funded employers for both their active and under age 65 retired employees. Further, we are the only disease management organization in the country providing services to a Medicare fee-for-service population, specifically one whose care is administered by our customer Hawaii Medical Service Association/Blue Cross and Blue Shield of Hawaii under a cost contract with the Centers for Medicare and Medicaid Services (CMS).

Because of our unswerving commitment to quality and the our constant recognition that it is people's lives with which we are dealing everyday, we have led the way in the disease management industry in submitting our outcomes – both clinical and financial – for third party validation and publication in peer review journals. Copies of several of those outcomes studies have been submitted to staff for review at your pleasure. Of particular note and pertinence to this Committee though, is the unpublished study conducted by Dr. David W. Plocher, vice president of Cap Gemini Ernst & Young with respect to our first 10-month results with approximately 6,000 Hawaii Medicare fee-for-service beneficiaries with diabetes. That study, which staff also has, shows concurrent and statistically significant improvement in all clinical outcomes measures *and* a net, after-fee reduction in total health care cost of approximately $5.1 million, or 17.2% on an inflation adjusted basis.

Those are the kind of results that properly designed and effectively implemented disease management programs can achieved – not just for the commercially insured population, not just for the + Choice population, not just for an employer self-insured population – but for every traditional Medicare beneficiary with chronic disease as well. No wonder that in it's short nine-year history, disease management has found such widespread acceptance – from health plans, employers, consumer and physicians, to regulators – like those at HHS who recognized its inherent value in the drafting of the most recently promulgated HIPAA regulations, to senior Agency staff, like those at CMS who continue to seek meaningful, large scale disease management demonstration projects, and those at CBO who are actively evaluating the potential impact of disease management programs –

even to members of both Houses of Congress who have seen fit to reflect the opportunities offered by disease management in nearly every major piece of health care legislation proposed in the past several years.

The Committee's invitation to testify today asked us to address three areas with respect to our disease management programs: what we do, the importance of accreditation – to us, to the disease management industry and to purchasers, both public and private – and, finally, issues that we believe Congress can help address or resolve in speeding the provision of disease management services and benefits to the elderly, particularly traditional Medicare fee-for-service beneficiaries.

According to the industry standard definition adopted by the Disease Management Association of America,

Disease Management is a system of coordinated healthcare interventions and communications for populations with conditions in which patient self-care efforts are significant.

- supports the physician or practitioner/patient relationship and plan of care,
- emphasizes prevention of exacerbations and complications utilizing evidence-based practice guidelines and patient empowerment strategies, and
- evaluates clinical, humanistic, and economic outcomes on an going basis with the goal of improving overall health.

Disease Management *Components* include:

- Population Identification processes
- Evidence-based practice guidelines
- Collaborative practice models to include physician and support-service providers
- Patient self-management education (may include primary prevention, behavior modification programs, and compliance/surveillance)
- Process and outcomes measurement, evaluation, and management
- Routine reporting/feedback loop (may include communication with patient, physician, health plan and ancillary providers, and practice profiling)

Full Service Disease Management Programs must include all 6 components. Programs consisting of fewer components are **Disease Management Support Services.**

In short, disease management is a treatment support concept predicated on the simple principle that the way to reduce health care cost is to improve health. The goal of all disease management programs is to create and sustain behavior change among patients and providers to assure that the most effective management of each patient's health is achieved in a manner consistent with evidence-based medicine and recognized standards of care. But, while the precepts of disease management are uniform, program design and method of delivery reflect significant differences and, as a result, so do the outcomes that can be achieved.

Accordingly, the key determinant driving our success in achieving positive clinical and financial outcomes isn't really a matter of "what we do;" rather it's a matter of "how we do it."

American Healthways' programs are based on three underlying principles. The first is recognition of the fact that the fundamental interaction in health care is the one between patient and physician. We believe that the entire rest of the health care system exists solely for the purpose of making that interaction more effective, more efficient or, preferably, both. Accordingly, our program are designed to support both sides of that interaction, through direct patient intervention specifically designed to further the physician's plan of care and extend his or her capabilities both beyond the relatively limited amount of direct patient contact they have during quarterly or semi-annual office visits, and also beyond the four walls of their office.

It is in the periods between office visits that patients are essentially responsible for their own care and management and our current delivery system provides little or no support for them in that effort. Direct physician support for this objective provided by "in-market" registered nurses working directly with physicians and

their office staffs to help address issues impeding better adherence to recognized standards of care. In addition, all physicians are provided with "time-of-need" information about our interactions with their patients through a proprietary and secure web-based application that allows them to access data on their patients maintained in our clinical information system.

The second principle underlying our programs is based on our understanding that creating and sustaining behavior change, particularly the lifestyle behavior changes so critical to improving the health of people with chronic disease, is best achieved by creating personal, trusting relationships between patients and caregivers. Accordingly, our program interventions are delivered – mainly by phone – by over 600 highly trained, experienced and caring registered nurses and dietitians who frequently spend significant time helping patient's deal with the realities of life as well as with issues directly related to their disease(s).

That approach underscores the third foundation principle that holds that the patients we work with are people, not diseases. By meeting each patient's needs in the context of where that patient is in the context of their environment and in their approach and willingness to self-manage, we assure that we are always prepared to support whatever increment of behavior change the patient is willing to make.

The clinical and financial success of our programs stands in testimony to the validity of these underlying principles and to the integrity with which we have honored them in their design, implementation and delivery.

The second area the Committee asked us to address was the importance of accreditation to American Healthways, to the industry and to purchasers, both public and private.

American Healthways was an early advocate for accreditation of disease management programs. We convened a physicians' consensus conference on Standards for Disease Management Programs in 1999, and subsequently widely

distributed the conference proceedings to major stakeholder groups. We were enormously pleased that those proceedings became one of the foundation documents for the subsequent efforts of both NCQA and URAC.

Our drive for accreditation of disease management programs had two bases: first, we believe that any organization or industry that accepts the sacred trust of protecting people's health ought to submit its efforts and outcomes to meaningful third-party scrutiny. Second, there was, at the time, no uniformly recognized and accepted definition for disease management, allowing many programs which were little more than thinly disguised marketing efforts preying on a vulnerable population to masquerade under the disease management umbrella. We needed – the industry needed – a reliable, external body to help distinguish not only the *bona fide* from the opportunistic, but equally as important, the programs that were effective from those that, while sounding good, actually produced little or no discernable benefit.

I had the privilege of being a member of the NCQA committee charged with developing their standards and program. Mr. Stone served a similar role for URAC. Having worked to develop the standards, and now having been subjected to meeting them, we can assure you that these two programs meet the objectives that were important to us and, we believe, the industry and potential purchasers of disease management services.

Whether or not these accreditation programs serve that role effectively, however, will be a function of the degree to which they are recognized as meaningful by both the private and public purchaser communities. If accreditation becomes a requirement in order to even be considered for purchase RFP's and Demonstration Project awards, not only will the value of accreditation be enhanced but also, and more importantly, a greater number of organizations will go through the process, greatly increasing the overall quality of disease management programs being delivered.

The last topic the Committee asked us to address today is how Congress can further the provision of proven disease management programs to our nation's seniors, particularly those who rely on traditional Medicare fee-for-service for health care coverage.

At last week's Annual Medicare and Medicaid Conference sponsored by the American Association of Health Plans, David Kreiss, special assistant to CMS Administrator Tom Scully said, "the last frontier in disease management demonstration projects was population based disease management projects focused on outcomes." Mr. Kreiss want on to say that CMS recognized the importance of the next round of demonstration projects being able to show ability to deliver services at scale and that he anticipated a request for proposals would be released in the next month or two.

We would urge this Committee and all Members of Congress to provide whatever support may be required for CMS' efforts in this regard. As we have shown in Hawaii, the provision of effective disease management programs can make a significant difference in the lives of Medicare beneficiaries with chronic disease and also have a significant positive impact on the costs of care that must be sustained by the Medicare Trust Fund. The sooner that CMS and Congress can comfortably conclude that these services are an essential component of Medicare's overall strategic approach to the delivery of services, the sooner every Medicare beneficiary – in fact every citizen – can begin to derive the benefits disease management programs can provide.

Finally, we would ask Congress to quickly revisit the issue of Federal pre-emption with respect to HIPAA and state privacy laws. Disease management programs work best when there is a secure, but unimpeded flow of information among plans, providers and disease managers. This fact has already been recognized in the current HIPAA regulations. But health care, while delivered locally, is no longer bought or paid for that way. National health plans must develop and provide uniform services to national corporations who expect those programs to be uniform irrespective of where their offices are or where their employees live. The continued ability of the individual states to enact governing statutes more restrictive than HIPAA, presents a significant barrier to our industry being able to

easily meet those requirements. Further, when the day comes that disease management services are made available to all Medicare beneficiaries, no just those enrolled in selective + Choice programs, the issue of the primacy of state or Federal privacy rules will have to have been resolved.

Let me conclude, Mr. Chairman, by reiterating the simple truth that disease management programs – properly designed, implemented and delivered – improve health outcomes and reduce the cost of care irrespective of medical delivery model used or financing mechanism employed. Like Intel, disease management functions inside the existing delivery system, making it better and improving its outcomes. Accordingly, the introduction of disease management services to Medicare beneficiaries with chronic disease does not require reform of either the health care system or the Medicare program. What it does require is the support of this Committee, this Congress and this administration to assure that the benefits that can be achieved are realized in the shortest possible time.

Thank you.

Senator CRAIG. Matthew, thank you very much. I am going to spend probably no more than the next 15 minutes with questions, because I have got other commitments to make this morning. So what I am suggesting in asking you questions is there may be some I will have submitted in writing to you, and if you would respond, if we do not get to all of them, I would appreciate that as we build this record.

Sister, I think we are all impressed over time when I have associated myself with the senior community and programs of the phenomenal volunteer effort that can be generated in a community of interest to provide service and educational training and programming. Have you received any interest from other area agencies on aging to replicate your pharmacy management program?

Sister GREVING. I would answer yes, and it was probably a jealous nature that we have such a good program in Pocatello, ID. I have had inquiries not only from our other five Area Agencies on Aging Directors within Idaho, but also from neighboring States, and their question is how do we do it on a limited budget?

I keep saying to them it is only because of the coordination efforts that we can really do it. We do not duplicate what someone else has already done. I think that is our secret within southern Idaho, and we would really like to replicate it throughout Idaho and the United States.

Senator CRAIG. Is your health promotion program linked in any way to the tele-health demonstration program at Idaho State?

Sister GREVING. I can honestly answer with an affirmative yes. Dr. Beth Stamm and I are in constant coordination because we see the needs of the elderly, especially the rural elderly in Idaho, as someone who really needs these kinds of services, especially in relation to the lack of transportation that the elderly people might not have within rural communities. So if tele-health care serves those rural communities in that way, the linkage will have been served, yes.

Senator CRAIG. Thank you.

Sister GREVING. Thank you.

Senator CRAIG. Dr. Rusche, how many disease—I should say how many diseases does Regence have disease management programs for at this moment?

Dr. RUSCHE. Currently, we have five. We started out with maternity——

Senator CRAIG. Yeah.

Dr. RUSCHE [continuing]. For a commercial health insurer makes a lot of sense, but include cardiovascular disease, psycho-social problems, in particularly our Medicare-managed care, diabetes and migraine or chronic headache.

Senator CRAIG. How did you first recognize the value of the disease management approach?

Dr. RUSCHE. By an analysis of the data, the Willy Sutton approach of going where the money is. We had for a long time identified that there was a small sub-set of members that were the most expensive, and part of what a health plan does or an insurance company does is underwrite. You take information and you assign a financial risk or a price to it. Well, that same information can direct your services.

Those people that are your members that have a likelihood of consuming resources deserve an opportunity to do better. It does not make the disease go away. It just kind of puts things off, delays or decreases complications, and that is all we are hoping to get with disease management programs.

Senator CRAIG. Well, then ultimately the question is have these management programs met your expectation?

Dr. RUSCHE. I would have to say definitely yes and no.

Senator CRAIG. OK. I would like to hear why yes and why no, but more about why no?

Dr. RUSCHE. Why yes, because I do think they showed demonstrated cost savings. No I think is two reasons. One is that the way the medical system is structured, the way I was trained, the way most doctors are trained, is to work one-on-one with a patient without coordination into a system. To do things otherwise is kind of like walking uphill. You know it really is not the easiest thing to do. So I think that is difficult.

The second is that while we have in the subset of the population that we have looked at or treated for a particular condition shown an effect in their costs, we have not done a whole lot to lower the high rate of premium increase for our members, and that has been somewhat disappointing.

Senator CRAIG. Not only obviously providing the service but controlling costs, and then that cost being reflected in premiums was part of——

Dr. RUSCHE. That is right.

Senator CRAIG [continuing]. Your goal that you did not achieve as well?

Dr. RUSCHE. That is true, Senator.

Senator CRAIG. OK. Thank you very much, Doctor. Dr. Wright, you notice that I picked up on tele-medicine as an extension of capabilities and services. You have mentioned the technologies. Could you tell us about any that you have used in the tele-medicine area?

Dr. WRIGHT. Well, yes, over the years, we have had numerous tele-medicine pilots, anywhere from devices that were essentially alarm clocks that would remind people when to take their medication to peak flow meters that could assess how lungs were functioning, and you could put these in a holster and it would upload clinical parameters to glucometers.

One of the issues that we encountered through our pilots was that the tele-medicine, the medical device industry in this particular sector is emerging, and is unstable. Companies are in business. They go out of business, and working with these new and emerging companies and bringing them along remains a challenge in that industry.

Currently, we are working with a program looking at blood pressure cuffs that we distribute in populations and they upload their blood pressures and make that determination, and it seems to be working well right now on a pilot basis.

Senator CRAIG. Good, good. You also discussed the necessity of Medicare payment reform before a large-scale implementation of disease management could be undertaken. Would you elaborate on that statement?

Dr. WRIGHT. I think that the thought process of approaching management of disease as a system rather than individual transactions between paying for the device, paying for the physician, how do we reimburse tele-medicine, for instance, how do we work that into payment schemes?

How do we make sure when we are modifying physician reimbursement, we are not adversely affecting the delivery of a new biotech drug, or does the compensation for a particular device correctly reflect in the reimbursement of the health care professional of getting that device up and running or installed or educating the patient? In particular, with tele-medicine, training of individuals, you give a senior a computer-based, internet-based device in the home, that requires training and installation. As an example, how is that going to work into the 21st century reimbursement scheme?

Senator CRAIG. Good points. Thank you very much. Matthew, you have talked about an unpublished study in Hawaii, 17 percent reduction in health care spending over a 10-month period. Based on what you know now, do you think those results are sustainable?

Mr. MICHELA. Those results are absolutely sustainable. We have multiple years of experience in the commercial marketplace working with health plans, and our typical contractual relationships start at a minimum of 3 years, and are typically five, and we even have 10-year agreements with health plans that require sustained clinical and financial improvement every successive year of that agreement, and we have internal studies and some studies that are published and to be published that demonstrate how that is measured and how that is accomplished.

So the answer to the question is, yes, it is sustainable. Additionally, with our programs, which is very important in the commercial marketplace, we produce results, both clinical and financial results, in the first year of operation, which has historically been a problem in this industry in the sense that you have an infrastructure investment that you need to buildup, plus getting out and establishing relationships in many ways with the physician community takes time to do. But we have been able to demonstrate that that is achievable in all of our programs here.

The other thing I guess I would add is we have also demonstrated to our satisfaction and to our customer satisfactions with some studies that when you remove the interventions that you are providing in disease management, presuming you are applying them correctly, those cost savings do return.

So as you are effecting behavior change, which ultimately is improving health, which ultimately reduces cost, if you stop applying those interventions, then it returns back to the trend that it would have been previously.

Senator CRAIG. Good. Good. If you have seen one disease management program, you have seen one disease management program. Now that is a comment I heard recently and I guess the implication is that there are many ways to deliver disease management services and many different results.

You have mentioned that program design, method of delivery, and outcomes can be different with different programs. What contracting arrangements seem to have the best results from your experience?

Mr. MICHELA. I think the comment that if you have seen one, you have seen one is absolutely correct, which is why we advocate and challenge everyone to become accredited by external third parties so that that can be obvious on where those differences are to everyone.

But specifically to your question, disease management achieves its best success when it interacts with patients in a variety of settings and interacts both with patients and physicians. When you talk about contracting for disease management services, what we would maintain is the best way to do that is to contract for outcomes, not for the process itself. Be less concerned about how many pieces of mail or reminder cards a person gets and be far more concerned with what actually is achieved on a clinical basis and what actually is achieved on a financial basis, and that is the umbrella under which you can balance both costs and quality.

Additionally, we would maintain that you need to contract for a total population with an identified disease condition. Do not attempt to identify a condition such as diabetes and then apply interventions to only 1 or 2 percent of that disease condition population, because you will over time encounter what had in the previous testimony this morning been discussed about regression to the mean.

On a population-based approach, what you do is you start to prevent folks from becoming more chronic over time before they would have otherwise been identified in only the sickest of the sick category here. That is a fundamental part of success of the long-term viability of these programs is to engage as many people as possible in a variety of ways.

The third is to support the patient, not the disease. Manage all of the co-morbidities and conditions that that patient occurs or may have in the first place, because they do develop certainly over time multiple conditions that need to be managed, and one of the problems in the industry historically has been with an approach that will manage only the impacts of a cardiovascular problem on a patient and not recognize that that may be caused by conditions with diabetes or over time develop into COPD, as an example.

The third in the contracting approach and how we work in the commercial market is to balance a risk-reward relationship, not to just pay for services on a fee-for-service unit cost basis, but provide incentives that if targets are met, clinical and financial targets are met and exceeded, that there may be opportunity for bonuses and other incentives that continue to drive the industry to achieve beyond the targets that are accomplished within a specific contract.

Senator CRAIG. Thank you very much. To all of you, thank you. We appreciate your testimony and the record that is being built here. This is the first of I suspect a good number of hearings this committee will hold over the next few years as we develop a record on this, as other, well, as some of demonstration programs in CMS mature and evidence comes from those. Clearly, as we debate and deal with Medicare reform and prescription drug programs, this kind of information or policy development is going to be, I suspect, very important in cost management and quality of delivery over the next number of years.

Thank you all very much. With that, the committee will stand adjourned.

Mr. MICHELA. Thank you.

[Whereupon, at 10:58 a.m., the committee was adjourned.]

APPENDIX

TESTIMONY BY
American Dietetic Association
To the
U.S. Senate Special Committee on Aging
On
Disease Management and Coordinating Care

September 19, 2002

The American Dietetic Association (ADA) commends the committee for its attention to disease management and coordinating care. We recommend that these two approaches to patient care be more fully integrated into the nation's health care system, particularly in the Medicare program that primarily serves the nation's population of older Americans.

The American Dietetic Association is the world's largest food and nutrition professional association. Now 85 years old, ADA is dedicated to serving the public through the promotion of optimal nutritional health and well being. The work of the association and the services of its nearly 70,000 members are based on rigorous academic instruction, supervised practice and continuing education relying on peer-reviewed nutrition research and resources representing significant scientific consensus. In addition, ADA is a proponent of outcomes-based practice and has been a leader in developing evidence-based Practice Guidelines and protocols for nutrition services and in disseminating those guidelines to practitioners.

As has been noted, a disproportionate percentage of health care dollars today are spent on a relatively small percentage of patients with chronic diseases such as arthritis, diabetes, hypertension, heart disease, and osteoporosis among others. Many of these patients – perhaps half of the Medicare population -- suffer from several chronic conditions at the same time, complicating treatment and raising the risks of poor health outcomes. Addressing the health care needs of patients with chronic conditions is important today for many reasons, but as the U.S. population ages it becomes a more pressing economic consideration. By 2010, 120 million Americans – some 40 percent of the population is projected to be diagnosed with a chronic disease or condition.

In the area of nutrition, research documents the value of nutrition services in the management of certain diseases and conditions. For example, the introduction of medical nutrition therapy (MNT) in the Medicare Subpart B program will provide America's senior citizens with access to professional treatment that can assist them in managing diabetes and kidney disease. MNT is a tool to help prevent further complications. Patients who receive MNT services are likely to require fewer hospitalizations and medications and to have reduced incidence of complications.

This is a significant advancement within the U.S. health care system. By authorizing MNT, Congress took an initial step toward management – rather than simple treatment – of diabetes and kidney disease. The implications of that shift are monumental to patients, as well as to the taxpayer. The evidence shows that MNT can delay the progress of kidney disease and even forestall dialysis. Not only the patient's quality of

life enhanced, but also the additional months where dialysis isn't necessary reduces the cost burden on taxpayers.

There is extensive data to support cost-effectiveness of nutritional interventions for hypertension, dyslipidemia and heart failure as well. Medical nutrition therapy for cardiovascular disease has proven results of fewer hospitalizations and lower incidents of complications. In addition, a study published in the Journal of the American Dietetic Association on the impact of dietary interventions on cardiovascular risk factors in men showed that for every $1 spent on MNT, there is a $3 to $10 cost savings realized by reducing the need for drug therapy.

Independent of any other benefit associated with MNT, expanded coverage to a broader range of conditions is justified, said the Institute of Medicine in a study commissioned by Congress. Together, these statements show that nutrition therapy provided by dietetic professionals is an effective disease management strategy and that it is practical.

We urge Congress to assure that the Centers for Medicare and Medicaid Services (CMS) has the resources and support to initiate work -- including outcomes-based disease management demonstration projects – that can be evaluated and emulated, where appropriate.

We also commend this committee for its valuable work attending to the needs of the aging. Hearings in March 2001 documented the role of nutrition in older Americans' health status. According to the Institute of Medicine, poor nutritional status, excessive or inadequate intake of nutrients, is a major problem in older Americans. Inadequate intake is estimated to affect 37-40 percent of community dwelling individuals over age 65. Dietary quality ratings of free-living Americans age 65 years and older, as measured by the Healthy Eating Index, show that roughly 80 percent had diets that were ranked as needing improvement or that were poor. (AOA)

Healthy aging for all Americans requires adequate nutrition to maintain health, prevent chronic diet-related disease, and treat existing disease. Those seniors who routinely eat nutritious food and drink adequate amounts of fluids are less likely to have complications from chronic disease or to require care in a hospital, nursing home or other facility. Thus, it makes sense to emphasize nutrition screening for seniors in a disease management strategy. ADA has been involved in a physician education project through the Nutrition Screening Initiative to help implement the principles of disease management among older Americans. A survey of 600 older Americans with chronic conditions led to the development of an easy-to-use nutrition manual for physicians and older adults. *A Physician's Guide to Nutrition in Chronic Disease Management for Older Adults* gives physicians nutrition screening tools and interventions for eight different chronic diseases. The guide also includes a corresponding patient handout.

ADA commends the Senate Special Committee on Aging for its ongoing efforts to address these issues and to develop a base of information and analysis that can improve health care for older Americans. The provision of effective disease management programs can make a difference in the lives of Medicare beneficiaries and more effectively manage health care resources. We believe it is a sound strategy to incorporate a broader disease management component within the U.S. health care system.

Statement of Richard M. Wexler, M.D., Medical Director
Medical Care Development Inc/ME Cares, Augusta, Maine

Statement for the Record for the Senate Special Committee on Aging
Hearing on "Disease Management and Coordinating Care: What Role Can They Play in Improving the Quality of Life for Medicare's Most Vulnerable?"

September 19, 2002

Maine Cares (ME Cares) is a coalition of 33 rural and urban Maine hospitals that offer community-based, telephonic disease management programs for patients with heart failure (HF) and coronary heart disease (CHD). Medical Care Development (MCD) is a Maine-based not-for-profit corporation that plans, develops and operates health programs. MCD serves as the facilitating organization for the ME Cares coalition.

Since implementing our program over two years ago, we have seen significant improvement in our HF and CHD patients that previously may not have had access to disease management services. We know that community-based programs combined with the right technological support are effective in improving the lives of our patients. We believe that the ME Cares program may serve as a model for Medicare, and we are honored to have been chosen to participate in the Medicare Coordinated Care Demonstration. On behalf of ME Cares, I would like to thank Senator Craig and the Special Committee on Aging for holding this important hearing.

An Innovative Approach to Disease Management

Every year, nearly 30,000 hospitalizations in Maine are caused by heart disease at a cost of more than $400 million. Maine also has an older-than-average population, more than half of who live in rural areas. In the effort to improve and reorganize HF and CHD management, the ME Cares coalition of hospitals was formed based on the shared beliefs that: 1) the care of ambulatory patients with chronic illness is aided by building an infrastructure to extend the scope and reach of traditional office-based care; 2) community-based programs will encourage resource development that will benefit patients with chronic illness as well as patients at-risk; 3) physician support will increase the likelihood of success of the program; and 4) physician support is more apt to occur if the program is locally accessible and available to patients regardless of their payer affiliation.

When we developed the ME Cares coalition health plan based programs were at various stages of development using plan staff or contracted out to private firms. From the patient's perspective, there would undoubtedly be a disruption of care should their employers switch health plans. From the provider's perspective, complexity of interfacing with numerous plans and programs posed a significant problem, so our challenge was to create a community-based care management support program that was an alternative to the diverse health plan-based programs.

Our first order of business was to develop a set of key program elements. These include: explicit patient eligibility criteria and physician enrollment orders; regular

communication between the nurse, patient and physician to coordinate care and optimize care management; patient-specific goals set at program entry and monitored throughout participation; individualized treatment plans for each patient; educational interventions on medications, diet, exercise, smoking cessation, stress management, and symptom identification and response; continuous telephonic access for patients to nurse support services; ongoing monitoring of medical regimen adherence; and active outreach to physicians to gain endorsement and feedback.

We then sought to establish standardization of care across coalition sites to assure quality. To achieve this, we decided that all participating hospitals should use the same information system that would support provide patient-specific care plans using evidence-based clinical guidelines and facilitate measuring outcomes. After reviewing several systems, we chose Pfizer Health Solutions' (PHS) disease management software technology for its ability to collect patient histories, key symptoms, clinical and laboratory data, and treatment status information. More importantly, PHS' software was user-friendly and enabled local providers to use the technology.

Proven Results

Today, ME Cares has grown to include 33 hospitals that provide health services to over 90% of Maine's population. Over 1,400 patients have enrolled in the HF and CHD programs and for the most part, care support services have been non-reimbursed services. Despite this limitation, the level of participation among providers has been exceptional.

When outcomes were measured in December of 2001, average patient participation lengths were 9.4 months for HF and 7.5 months for CHD. Positive outcomes were measured by the New York Heart Association (NYHA) physical activity classification, the Short-Form 12-Item Survey (SF-12) for mental and physical health scores, and symptom relief, adherence and cholesterol values. At follow-up, 78 percent of HF patients improved or maintained their NYHA class and improved their SF-12 mental scores. HF patients also reported a reduction of HF symptoms (shortness of breath, cough), less weight gain and leg swelling, increased self-monitoring and beta-blocker use. CHD patients had improved SF-12 mental and physical health scores, and experienced a reduction in mean LDL cholesterol.

Conclusion

Implementing a statewide, provider-sponsored care support program in Maine using PHS' care management technology significantly improved HF and CHD patient outcomes. What does this mean for Medicare? We know that disease management can improve quality of life and reduce hospitalizations, yet at the present time, these services are only available to Medicare+Choice members who represent only a small percentage of Medicare beneficiaries. Our model is significant to Medicare not only because our program has proven outcomes, but also because we operate outside the managed care and fee-for-service environment. It is our hope that our participation in the Medicare Coordinated Care Demonstration will clearly validate the importance of the ME Cares model for disease management in Medicare.

○