



Taking on

# Diabetes

What

# Employers

Can Do

AMERICAN ASSOCIATION OF HEALTH PLANS  
EMPLOYERS' MANAGED HEALTH CARE ASSOCIATION  
AMERICAN DIABETES ASSOCIATION



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# Taking on *Diabetes*

What **Employers**  
Can Do

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## PREFACE

January 1999 marked the beginning of a five-year partnership between the American Association of Health Plans (AAHP) and the American Diabetes Association (ADA). In an initiative called *Taking on Diabetes*, AAHP and ADA have pledged to work at both the national and local levels to improve the lives of people with diabetes by combining the knowledge and experience of ADA with the special strengths of managed care plans to promote screening, early intervention, and state-of-the-art treatment for the populations they serve.

The program is made possi-

ble by grants from Schering Plough, SmithKline Beecham, and Pharmacia & Upjohn. To date, more than 200 health plans providing coverage for more than 75 million Americans—including more than 4 million people with diabetes—have agreed to work with ADA to identify and promote best practices for treatment.

As part of this initiative, AAHP also has joined forces with the Employers' Managed Health Care Association (MHCA)—an organization representing more than 100 companies that are working to foster a more productive, accountable, and cost-effective health care

delivery system. The aim of the partnership is to identify corporations developing diabetes management programs for their employees.

The four companies profiled in this report—General Motors Corporation, IBM, NCR Corporation, and Parker Hannifin—are pioneers in the field of diabetes management and intervention. The oldest of these programs, established by General Motors, is three years old, while the other three programs have been initiated in the last two years. To evaluate their success, employers are collecting data that will enable them to assess the impact of the programs on their employees.

Disease management of chronic conditions is fast becoming the new frontier for employer benefit plans. By combining the health care resources of health plans with access to members through worksites, it is possible to enhance service delivery in a variety of innovative ways and give employees the information they need to improve their care.

One of the primary goals of this report is to enable other companies to learn about these innovative programs and consider how they can adapt them for their own employees. We hope that the models described here provide inspiration for

other industries to develop ways to work with their employees to help create a healthier workforce.



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This publication summarizes the key findings from the Employers' Managed Health Care Association's (MHCA) assessment of four companies that have implemented diabetes management programs for their employees. The study is part of *Taking on Diabetes*, a five-year initiative sponsored jointly by the American Association of Health Plans (AAHP) and the American Diabetes Association (ADA). AAHP contracted with MHCA to undertake this study because of its expertise in working with employers.

Diabetes is ranked as one of the six leading causes of death in this country. It also is the leading

cause of adult blindness, end-stage kidney disease, and lower-extremity amputations. In fact, the complications that arise from diabetes cost our health care system about \$100 billion a year—13 percent of the total health care expenditures.

Diabetes is on the rise, too. Between 1980 and 1994, the number of individuals diagnosed with diabetes rose by 2.2 million, an increase of 39 percent. Not surprisingly, research also indicates that diabetes affects the productivity of workers. A study conducted by the Centers for Disease Control and Prevention (CDC) in 1997 showed that in 1994, more

than half of all individuals with diabetes (4.1 million people at that time) said that they were limited in activity, and more than 60 percent attributed these limitations to diabetes. According to the American Diabetes Association, people with diabetes between the ages of 18 and 64 lost 8.3 days per year from work, compared with 1.7 days for people without diabetes.

To help people with diabetes gain a better understanding of their disease and find ways of managing it, many employers have implemented diabetes management programs. With people spending more than one-third of their waking hours on the job,

employers are in a unique position to address some of the health problems that arise from diabetes. For example, diabetes management programs can help raise awareness of proactive steps people can take to prevent the onset of diabetes and to avoid unnecessary complications. In the process, health care dollars also are saved.

The case studies that follow represent a sampling of the kinds of programs that pioneering companies are implementing. Such programs are very new, and employers are still working to identify the most effective ways of reaching people with diabetes.

### Overview of the Case Studies

The following four companies participated in this study:

**GENERAL MOTORS** is a leader in disease management. It currently has four programs in place, each targeted to a different population. LifeSteps is the company's comprehensive health and education program for all active employees, dependents, and retirees. This program includes a health risk appraisal, the publication of a quarterly newsletter, and access to a toll-free number and a website for immediate contact with a Personal Health Advisor. Lifesteps Pilot Program, based in Flint, Michigan, and Anderson,

Indiana, includes cholesterol testing, blood pressure monitoring, glucose testing, and pulmonary function evaluation. Courses on diabetes management and nutrition are offered on-site. GM also has a program called Coordinated Care Management (CCM) for hourly employees with more severe cases of diabetes, as well as a comprehensive diabetes management program for salaried employees. GM currently is engaged in a strategic planning process with the 11 top HMOs that serve 70 percent of all GM employees enrolled in managed care to ensure that outcomes for all HMOs are improving by the end of 2000.

**IBM** has developed a program called *Path to Wellness* that is administered by a health care management company. Open to employees and dependents currently insured under one of IBM's point-of-service plans, the program is customized to meet the needs of each participant. A nurse is assigned to each person and works closely with that individual to meet his or her health needs. The overall goals of the program are to increase participants' knowledge of their disease and to raise awareness of proactive steps that can be taken to manage the condition.

**NCR CORPORATION** has been working with a pharmaceutical

company on its diabetes management program since 1998. NCR has found the program to be effective because it uses solid criteria to target the population eligible for the program; provides exemplary patient education materials; promotes a team approach to manage each participant's condition; and is respectful of people's need for privacy.

**PARKER HANNIFIN** has been developing its in-house wellness programs over the past four years. This year, Parker Hannifin contracted with a health care company that had developed a module for diabetes that includes screening and the use of standard health measures to

identify people at high risk for the disease. The module also offers at least two telephone calls from health educators to discuss individual issues; a quarterly newsletter; a health survey and assessment; and access to a toll-free number during business hours.

### Conclusions: Emerging Trends

Companies developing diabetes management programs are at the forefront of a new frontier. They are among the first to try to address the special needs of people with diabetes before problems escalate, creating a more serious—and even life-

threatening—situation. Therefore, it seems likely that more companies will begin working to develop diabetes management programs.

Because the programs profiled here are so new, it is premature to identify absolute conclusions or even overall lessons learned. What can be indicated, however, are trends that have emerged. These trends are listed below:

- ▶ Most companies establish their first diabetes management programs for people participating in points-of-service and indemnity plans. There are at least two reasons for this.

First, these plans are self-insured, so the companies are assuming the risk for the participants. Therefore, there is a great deal of incentive to work with these individuals to prevent serious complications from arising. Second, there is an assumption on the part of the companies that HMOs are already offering diabetes management programs as part of their managed care packages.

- ▶ Many companies have found that having their diabetes programs managed by health care or pharmaceutical vendors gives the programs more credibility than if the company

organized its own program, largely because employees value the expertise that such vendors have.

- ▶ A key element of effective diabetes management programs is a self-management component that stresses the importance of changing unhealthy behaviors, which will result in positive outcomes, including a reduction in diabetes-related complications. This component should be customized to meet the specific needs of each individual enrolled in the program.
- ▶ Any company considering implementing a diabetes man-

agement program must address the issue of confidentiality. Employees must be reassured that no medical information will be exchanged among vendors and company staff without their knowledge and consent.

- ▶ In some cases, companies have found that programs are more successful if they take place at the work site by bringing seminars and classes directly to the employees, instead of communicating only by mail or phone. This seems to be particularly true for active employees.

- ▶ Companies agree that it is necessary to keep the diabetes management programs voluntary so that people feel they have control over their medical condition.
- ▶ By establishing a clear vision for the program that is supported by top management, companies can establish a culture of wellness within their organization that will be supportive of the needs of employees with diabetes.

“Corporate America is in a unique position to address some of the health problems that arise from diabetes.

With people spending more than one-third of their waking hours on the job, employers can help raise awareness of proactive steps people can take to prevent the onset of diabetes.”

**D**iabetes is often called a silent disease. Slowly and often without symptoms, an individual stops producing insulin, produces insufficient amounts, or for some reason cannot use insulin for its main purpose—to control blood sugar levels. If left unchecked, diabetes can cause serious problems, such as heart disease, vision deterioration, or kidney disease. Precisely because diabetes can be hard to detect, of the 15.7 million people with the disease,<sup>1</sup> about one-third don't even know they have the condition.

A lack of awareness of diabetes' symptoms is one of the main reasons that it has become

one of the most common and serious diseases in the U.S. In fact, diabetes is now ranked as one of the six leading causes of death, and it is the leading cause of adult blindness, end-stage kidney disease, and lower-extremity amputations.<sup>2</sup> The complications that arise from diabetes cost our health care system about \$100 billion a year—13 percent of the total health care expenditures.<sup>3</sup>

Diabetes is on the rise, too. Between 1980 and 1994, the number of individuals diagnosed with diabetes rose by 2.2 million, an increase of 39 percent. The increase is a result of the aging of the U.S. population, the

rising rate of obesity, a greater incidence of diabetes among minorities, and physical inactivity, especially among women and minorities.<sup>4</sup>

Not surprisingly, research also indicates that diabetes affects the productivity of workers. A study conducted by the Centers for Disease Control and Prevention (CDC) showed that in 1994, more than half of all individuals with diabetes (4.1 million people at that time) said that they were limited in activity, and more than 60 percent attributed these limitations to diabetes.<sup>5</sup> According to the American Diabetes Association, people with diabetes between the ages of 18

and 64 lost 8.3 days of work per year, compared with 1.7 days for people without diabetes.<sup>6</sup>

Clearly, addressing the health problems caused by diabetes can no longer be delayed. AAHP and ADA's *Taking on Diabetes* initiative proposes bold and aggressive goals that aim to accomplish the following:

- ▶ Reduce the incidence of irreversible vision loss through early detection and intervention.
- ▶ Reduce the development of end-stage renal disease.
- ▶ Reduce the number of foot amputations and the number of new foot ulcers.

- ▶ Reduce the risk of cardiovascular disease associated with diabetes.

To reach these goals, AAHP member plans and ADA are working together to—

- ▶ Promote diabetes screenings, education, and awareness.
- ▶ Establish community partnership programs.
- ▶ Enhance relationships between health care purchasers and health plans.
- ▶ Identify, disseminate, and promote best practices for treatment.

### Focus: Enhanced Relationships between Health Care Purchasers and Health Plans

One of the first steps in realizing these ambitious goals is to identify the kinds of programs that have already been implemented. This report looks at one goal—enhancing the relationships between health care purchasers and health plans—and identifies the programs established by four companies on the cutting edge of diabetes management and intervention.

Indeed, corporate America is in a position to play a pivotal role in diabetes management. People spend more than one-



third of their waking hours on the job, providing employers with a window of opportunity to narrow the gap between what scientists know about diabetes management and the public's perceptions and knowledge. For example, people would benefit greatly by being aware of the following scientific breakthroughs:

- ▶ The 1993 landmark study, the Diabetes Control and Complications Trial (DCCT) conclusively showed that controlling blood sugar can prevent the onset and progression of diabetes complications affecting the eyes, kidneys, and nerves.<sup>7</sup>

- ▶ New medications are available to lower blood glucose, and the methods for measuring glucose levels have improved greatly.
- ▶ By living a healthy lifestyle—getting sufficient amounts of exercise, eating properly, not smoking, and drinking in moderation—people with diabetes can improve the quality of their life.

If diabetes intervention and management programs provide people with this kind of information, they will have gone a long way toward saving lives and preventing the problems that the disease can cause.

## Study Methodology

MHCA began the research process by soliciting companies that are involved in diabetes management. Of the companies who responded to the initial search, MHCA selected those who had comprehensive diabetes management programs in place for inclusion in this report. Then a data collection tool previously validated and utilized by AAHP for a study of best practices in the area of women's health was modified for the purposes here. A copy of this instrument is included in Appendix A.

After extensive interviews with each company, the information was reviewed and syn-

thesized. The results are reflected in each of the case studies. The case studies include a description of each company, background information about the program, highlights of each program, evaluation data available, lessons learned, and directions for the future.

This report marks the beginning of AAHP, ADA, and MHCA's study of diabetes management programs in the workplace and the relationships forming between health care purchasers and health plans. They will be monitoring progress in this area and reporting on additional programs as they are implemented.

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G M C O R P O R A T I O N

I B M

N C R C O R P O R A T I O N

P A R K E R H A N N I F I N

# Case Studies

## LEADING THE WAY IN DIABETES MANAGEMENT

# General Motors Corporation (GM)

## Program Development and Implementation

### OVERVIEW AND BACKGROUND

GM has the world's largest corporate wellness program. Called LifeSteps, the program serves all of GM's active employees, as well as dependents and retirees. GM is also implementing diabetes management programs for union workers enrolled in Blue Cross/Blue Shield indemnity plans, salaried employees enrolled in traditional indemnity plans and PPOs, and for employees insured through 11 major HMOs. All of GM's diabetes management programs are voluntary, with patient information kept confidential.

Unlike newer companies whose workforce is fairly young and often transient, many GM employees joined the company in their 20s and have stayed for their entire career. As a result, the average age of GM's employees is 49—the time of life when chronic conditions such as diabetes can develop. Therefore, GM has an excellent opportunity to educate employees on two fronts—alerting them to proactive measures they can take to prevent the onset of diabetes and providing management strategies for those who develop the disease.

“We are committed to our employees and invested in devel-

oping a world-class product for them,” says Timothy J. McDonald, manager, corporate health promotion, for GM. Indeed, GM's programs are on the cutting edge of disease management.

### GOALS

GM has identified the following goals for its diabetes management programs:

- ▶ To identify and reduce health risk factors.
- ▶ To provide people with tools to develop a healthy lifestyle.
- ▶ To raise interest in and awareness of health so that employees become more informed health care consumers.
- ▶ To increase knowledge of the

health benefits gained through physical exercise.

- ▶ To increase knowledge of nutrition.
- ▶ To create an environment that is supportive of people's health.

## GM Programs

GM has four programs in place.

- 1. LIFESTEPS NATIONWIDE** is offered to all U.S. employees, dependents, and retirees.
- 2. LIFESTEPS PILOT PROGRAM** is a pilot program based in Flint, Michigan, and Anderson, Indiana.
- 3. COORDINATED CARE MANAGEMENT (CCM)** is a pro-

gram launched in 1994 and expanded in 1998 that serves hourly employees with more severe cases of diabetes.

**4. DISEASE MANAGEMENT FOR SALARIED EMPLOYEES**, launched in the spring of 1999, serves salaried employees with diabetes and certain other chronic diseases.

In addition, GM is in the process of working with their HMO vendors to identify the appropriate steps they should take to serve those enrolled in managed care.

The following sections describe each of these programs in more detail.

### LIFESTEPS NATIONWIDE

Since 1996, GM has offered LifeSteps, a comprehensive health awareness and education program that addresses general health concerns as well as diabetes. The goal of the program is to give people tools to identify health risks, as well as strategies for maintaining good health. The program includes the following elements:

- ▶ Annual mailing of a health risk assessment (HRA) and LifeSteps Annual Report
- ▶ Publication of a quarterly newsletter.
- ▶ A self-care book for all households
- ▶ A toll-free number providing

GM is the world's largest industrial and full-line vehicle manufacturer. In the United States, GM provides health care to 1.5 million employees, dependents, and retirees. Along with manufacturing and marketing vehicles, GM has interests in telecommunications and space, aerospace and defense, and financial and insurance services.

immediate contact to a registered nurse/Personal Health Advisor and access to a wide variety of audiotapes on topics including complications of diabetes, gestational diabetes, home blood glucose monitoring, and an explanation of type 2 diabetes.

**LIFESTEPS PILOT PROGRAM**

GM began pilot programs in Flint, Michigan, and Anderson, Indiana, in 1996 that have reached out to 225,000 people. In addition to the components of the LifeSteps Nationwide program, the HRA is supplemented with health fairs and biometric screenings, including cholesterol

testing, blood pressure monitoring, glucose testing, and pulmonary function evaluation. Following the screening, each participant receives an individualized HRA counseling session. If an individual is determined to be at high risk for diabetes, they are eligible for a voucher that enables them to visit a physician if they are in a non-HMO medical program. They also are eligible for a telephone counseling program called Lifestyle Management. Under this program, each person is assigned to a health counselor and usually has between six and eight telephone counseling sessions during the year. What sets the

Lifestyle Management program apart from other disease management programs is that it offers one-on-one counseling focused on issues identified by each participant.

The pilot program also offers the following diabetic-specific courses that are given both at the work site and at a LifeSteps Center located in the community.

- ▶ Four one-hour seminars on diabetes management given by diabetes educators covering such subjects as planning meals; diabetes and pregnancy; and the importance of monitoring blood sugar.
- ▶ Cooking and nutrition classes for people with diabetes.

- ▶ Courses stressing the importance of physical activity for a healthy lifestyle.

*Keys to the Success of LifeSteps and the LifeSteps Pilot Program*

LifeSteps has been successful because it has used several different vehicles to reach participants. Through mailings, publications, access to a toll-free number, and audiotapes, the program has provided important information about ways to identify health risks and strategies for maintaining good health. The pilot program has added additional screening and has telephone counseling available for

participants identified to be at high risk for diabetes. The patient can request that the telephone counseling sessions be focused on certain issues or take place at certain times—a feature that personalizes the service and adapts it to meet the needs of each individual. The fact that the LifeSteps Pilot Program offers courses at the workplace during times that are convenient for employees has been a major advantage of the program.

**EVALUATION OF LIFESTEPS NATIONWIDE AND THE PILOT PROGRAMS**

Data collected as of March 1999 show that 24 percent of active

employees participated in the nationwide program, while 50 percent of pilot-eligible active employees participated in the pilot program. Of the Medicare population, however, 35 percent participated in the nationwide program, and 32 percent of the pilot-eligible population participated in the pilot.

**LESSONS LEARNED**

After reviewing the data from these two programs, the following conclusions can be drawn:

- ▶ In many cases, the most effective programs for active employees are those that are given at the workplace.
- ▶ Retirees, however, are well

served through mailings and telephone services.

- ▶ Because time is such a pressing issue for active employees, they are best served when programs are convenient and readily accessible.

#### **CCM**

In 1998, GM expanded its program for hourly employees with more severe cases of diabetes. This program is called Coordinated Care Management (CCM).

CCM is for hourly employees enrolled in traditional indemnity and PPO option plans. The program is managed by Blue Cross/Blue Shield of Michigan.

Patients who have had hospitalizations, emergency care visits, or have been referred by their physicians are invited to participate in the program. The chief component of the program is telephone counseling sessions with a registered nurse during which goals are established. Participants enroll in the program for a year, with an option for a 6-month extension. To date, 545 people have enrolled.

#### **DISEASE MANAGEMENT FOR SALARIED EMPLOYEES**

GM rolled out a comprehensive diabetes management program for salaried employees in 1999. This program is administered by

two health care management companies and offers participants access to Board-certified physicians, registered nurses, and wellness professionals, such as an exercise specialist or a dietician. The program also offers counseling and education support, including the development of a personalized coordinated plan of care geared toward the individual's specific needs.

#### *Keys to the Success of CCM and Disease Management for Salaried Employees*

By working closely with health professionals, people with diabetes have the opportunity to

“Our goal has been to demystify physical activity and remind people that low-level activities such as walking and gardening are legitimate ways to move from a sedentary lifestyle to a more active one.”

—TIM McDONALD

Manager, Corporate Health Promotion, General Motors Corporation

focus on issues of concern to them and to work in a safe setting to change behaviors. While a year may not be long enough to complete this process, it does give individuals time to recognize what they need to do to live a healthy lifestyle and to prevent the onset of complications.

#### **WORKING WITH THE HMOS**

Over the past year, GM has been engaged in a strategic planning process with the 11 top HMOs that serve 70 percent of all GM employees enrolled in managed care (about 30 percent of the workforce). The process began with a comprehensive questionnaire, which each of the HMOs

filled out. This information gave GM a baseline understanding of what kinds of programs the HMOs currently had in place. “What we found was that some HMOs had effective programs in place, while others were in the early stages of developing their programs,” says Tom Cragg, manager, managed care. “With that information, however, we are now able to make recommendations about what next steps these HMOs should take.”

Recommendations include the following:

- ▶ Establishing a registry of participants with diabetes
- ▶ Starting a diabetes management program
- ▶ Collecting data to measure the effectiveness of the program, such as reduction in emergency room visits, and over the long term, reductions in amputations and other complications.

“We know what the standard types of intervention should be,” says Cragg. “Our goal is to not specify what kind of program to develop but to ensure that outcomes for all HMOs are improving by the end of 2000.”

#### **CONTACT**

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## THE IMPORTANCE OF CONTROLLING BLOOD SUGAR

Controlling blood sugar—the amount of glucose one’s body is producing—is critical to diabetes management. Two

studies—one conducted in 1993 by the National Institutes of Health with people with type 1 diabetes, and the

second conducted in 1997 in the United Kingdom with people with type 2 diabetes—both showed that monitoring

blood sugar can reduce the incidence of complications, such as diabetic neuropathy (nerve damage that can lead to

amputations), kidney disease, and circulation problems. What’s more, a recent study looked at 569 individuals with

type 2 diabetes and found that those who improved their control over their blood sugar were more productive on

the job, were able to remain employed longer, and lowered their absenteeism rates.

SOURCE: American Diabetes Association. Economic consequences of diabetes mellitus in the United States in 1997. *Diabetes Care* 21:296-309, 1998.

## PATH TO WELLNESS: DIABETES MANAGEMENT PROGRAM

# IBM

### Program Development and Implementation

#### OVERVIEW AND BACKGROUND

IBM is still in the early stages of developing and implementing its diabetes management program, called *Path to Wellness*. In 1997 and 1998, the company conducted a pilot program that was successful in terms of satisfaction and clinical improvement for people with diabetes. More than 250 people volunteered to participate in the pilot program, which was administered by a health care management company that provides health care, workers' compensation, and disability management services. Due to the success of the pilot, IBM formal-

ized the program in 1999.

The cornerstone of the *Path to Wellness* program is the fact that each participant is assigned a nurse care specialist to serve as a personal mentor and diabetes consultant. After an initial assessment with the patient and physician, goals are set to drive actions that will help the patient learn how to control blood sugar, exercise more frequently, learn how to manage diet, and become aware of early warning signs of possible complications. How these goals are accomplished, however, depends entirely on the needs of the patient; each participant is handled individually.

"The nurse establishes an ongoing relationship with the participant and acts as the patient's support system," explains Trish Mullane, IBM program manager. "The nurse establishes rapport, and the patient is free to call as often as is necessary."

Currently, additional participants for the program for the year 2000 are being solicited. IBM is hoping that 20 percent of a possible 8,000 candidates come forward. As with the pilot, the program is strictly voluntary, and open to IBM employees and dependents with diabetes currently enrolled in a specific medical plan.

#### GOALS

IBM has identified the following goals for *Path to Wellness*:

- ▶ To provide quality health for its employees and their dependents.
- ▶ To assist people in better understanding diabetes and in becoming aware of ways they can manage their condition.
- ▶ To save health care dollars by maintaining health, thus avoiding unnecessary visits to the emergency room and complications that can arise from diabetes.

#### ESSENTIAL PROGRAM ELEMENTS

The key element of *Path to Wellness* is the relationship established

between the nurse and the individual with diabetes. The nurses involved in this program are trained in behavior modification, and they work hard to establish rapport and adapt their style to the needs of the patient. Participants stay in the program from six months to a year—enough time to become aware of the changes that need to be made in their lives to improve their overall health.

The relationship begins with an initial interview, during which the nurse finds out key medical facts about the individual, including blood sugar status; the person's knowledge of the disease and awareness of

proactive measures that can be taken; and willingness to cooperate. After the patient formally signs up for the program, the nurse contacts the primary care physician and discusses the person's medical condition, confirms various medical facts, and finds out if the doctor has any specific recommendations. "In the beginning, the doctors were wary of the program," says IBM's Mullane. "But as they watched their patients go through it and saw them become more determined to take care of themselves, they realized that the nurse was their ally."

Strategies for working with clients can vary dramatically. For

IBM is a leader in the field of advanced information technologies, including computer systems, software, networking systems, storage devices and microelectronics. With its corporate headquarters in Armonk, New York, IBM employs almost 300,000 worldwide.

clients who are just learning how to manage their condition, nurses may set less ambitious goals, such as walking one block the first week and two blocks the second. Then the nurses will work with the individual to achieve more as they are ready and their doctors agree. Other people may need assistance in asking their doctors questions or finding out information about an area of concern, such as blood circulation. In such cases, the nurse works with the patient to develop a script for use at the doctor's office to ensure that all information is collected and all questions are answered. Still other people may be doing all

the right things but really value the individual attention and reinforcement the program offers.

### Keys to the Program's Success

The key to this program's success is its emphasis on individual attention for each participant. As a result, each nurse and client establish a unique relationship that meets the particular needs of that individual. People really value access to a nurse who knows them, is knowledgeable about their condition, and interested in helping them. Because a long-term relationship is being forged, trust develops. Out of trust emerges more knowledge

and better management of diabetes.

#### LESSONS LEARNED

The following lessons have emerged from IBM's participation in the *Path to Wellness* program:

- ▶ Be sensitive to people's need for privacy. To ensure privacy and confidentiality, there was no exchange of any medical data among vendors or with IBM.
- ▶ Begin with a clear vision that states your organization's commitment to a disease management program that will improve patients' knowledge and attitude toward their

condition and overall quality of life.

- ▶ Keep the program voluntary so that people who want to effect change are those who participate in the program.

#### DIRECTIONS FOR THE FUTURE

IBM considers diabetes a starting point for offering similar programs for other chronic conditions; in fact, the company has just rolled out a program for asthma management. If these programs are successful, the company may offer programs for other chronic conditions, such as cardiovascular problems.

#### CONTACT

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## COMMITTED TO EFFECTIVE DIABETES MANAGEMENT

# NCR Corporation

## Program Development and Implementation

### OVERVIEW AND BACKGROUND

In September 1998, NCR began working with a pharmacy vendor so that it could offer its active employees, dependents, and retirees covered under NCR's insured medical plans an effective diabetes management program.

The program is voluntary, and each participant's desire for confidentiality is respected. As of the last quarter of 1999, 917 people have enrolled in the program.

### GOALS

NCR has identified the following goals for its diabetes management program:

- ▶ To improve the quality of life for its employees.
- ▶ To help people become more proactive about their health care needs.
- ▶ To increase the productivity of the workforce.
- ▶ To reduce costs for health care over the long term.

### ESSENTIAL PROGRAM ELEMENTS

NCR's diabetes management program includes the following features:

- ▶ A self-assessment questionnaire that enables patients to measure their quality of life and identify opportunities for reducing their risk for complications. Participants revisit the

questionnaire each year as a way to benchmark their progress.

- ▶ Access to a toll-free support line staffed by pharmacists trained to answer questions about diabetes and diabetes management.
- ▶ Quarterly newsletters offering up-to-date information on glycemic control, blood glucose monitoring, nutritional guidelines, and the latest clinical care guidelines.
- ▶ The use of a solid criterion—individuals taking insulin and other blood sugar products—to target the population eligible for the program.
- ▶ Patients, physicians, and phar-

macists all work together as a team to manage a patient's condition and to prepare a customized annual wellness report summarizing each patient's progress.

- ▶ The pharmacy vendor has the capacity to stratify data into three risk groups so that high-risk participants can receive more individualized care.
- ▶ The program is voluntary, and all communication to potential participants is non-threatening and handled professionally.

## Keys to the Program's Success

NCR has identified several strengths of its diabetes management program. First, the company believes that the fact that it is working with a well-respected, nationally known vendor has given the program more credibility in the eyes of its employees. Second, the quality of the patient education materials is high. Third, by establishing such a program, NCR is sending a message to employees that it cares about its people. Fourth, the program is well-defined and easy to manage. Finally, pharmacists have the training to customize the pro-

gram to meet the needs of each participant.

### EVALUATION

The pharmacy vendor managing the program continually assesses it by sending out satisfaction surveys to doctors and patients to find out how the program is being received. More than 94 percent of those who responded rated the program good to excellent, and 88 percent of the respondents pointed to the diet information as being particularly useful. Patients were then asked to rate, on a scale of 1 to 10, how effective the program was in helping them learn about their illness. Overall, participants

With more than a century of experience serving consumers' needs, NCR has become a world leader in data warehousing, point of sale technology, the development of ATM machines, and working with customers to transform transactions into relationships. Based in Dayton, Ohio, NCR employs 33,100 people and counts among its customers Wal-Mart, Bank of America, Citibank, Hallmark, Kmart, and JC Penney.

“Offering a diabetes management program is a good thing to do. It makes sense, and we believe that the cost of the program will pay for itself over time.

—MICHAEL KRINER

Benefits Manager, NCR

gave the program an “8.23” for helping them learn about their illness and a “7.63” for helping them learn how to manage their illness. In addition, physicians were asked to rate the program, and the majority of respondents indicated that the program served as a catalyst for discussing treatment plans with their patients and promoting self-care intervention.

#### LESSONS LEARNED

NCR would make the following recommendations to other companies interested in setting up a diabetes management program for its employees:

- ▶ Set up a program that is well-

defined and easy to manage.

- ▶ Be sensitive to people’s concerns about confidentiality and do what you can to reassure people that their privacy will be respected.
- ▶ Contracting out disease management programs to companies that specialize in this area gives the program more credibility in the eyes of employees.

#### DIRECTIONS FOR THE FUTURE

Over time, NCR will be considering ways to reach people who are at high risk for developing diabetes but are not currently on medication. Therefore, NCR’s next challenge is to determine how to structure such a program

that may involve both the pharmacy benefits manager and the claims administrators.

#### CONTACT

Michael Kriner  
Benefits Manager  
NCR  
[www.ncr.com](http://www.ncr.com)

## ROLLING OUT A DIABETES MANAGEMENT PLAN

# Parker Hannifin

## Program Development and Implementation

### OVERVIEW AND BACKGROUND

Over the past four years, Parker Hannifin has been developing in-house wellness programs. The company first focused on identifying those individuals with a number of high-risk factors that may cause heart disease or cancer. This year, Parker Hannifin contracted with a health care management company that has developed a health-risk assessment tool that, through self-reporting, identifies individuals who may be at risk or have already been diagnosed with diabetes and other potentially serious health conditions. The diabetes management module was

rolled out during the fall of 1999. The program is voluntary and is available to active employees, retirees, and dependents enrolled in the company's health plans.

### GOALS

Parker Hannifin has identified the following goals for its diabetes management program:

- ▶ To provide a high-risk population with effective health management strategies.
- ▶ To contain costs by raising awareness about ways to prevent complications from diabetes.
- ▶ To encourage people to be their own health advocates.

### ESSENTIAL PROGRAM ELEMENTS

The first part of the module for diabetes includes screening for diabetes and the use of standard health measures to identify people at high risk for the disease. Then those candidates are invited to enroll in the program. At this point, more than 465 people have been channeled into one of 10 health modules, with more than 40 people enrolled in the diabetes portion of the program.

Highlights of the program include the following:

- ▶ At least two telephone calls from health educators over the course of a year to discuss individual problems and solutions.
- ▶ A quarterly newsletter, pam-

phlets, and other educational materials.

- ▶ A health survey and assessment conducted by physicians affiliated with the health care management company. Completed twice during the year, the assessment includes goal setting and follow-up discussions specific to the individual's condition and progress to determine whether the goals have been met.
- ▶ Access to a toll-free number during business hours staffed by health care professionals, including registered nurses and dietitians.

## Keys to the Program's Success

While it is still too early to assess the program's impact, Parker Hannifin has identified as its strengths the fact that the health assessment is completed and evaluated by physicians. The quality of the patient education materials is high, and the goal-setting portion and ensuing discussions are modified to meet each individual's specific needs.

### EVALUATION

Parker Hannifin will conduct a satisfaction survey of participants to determine if the program is helping them manage their condition more effectively. Also, the

Parker Hannifin is a worldwide manufacturer of motion-control components and hydraulic and electromechanical technologies used by builders and users of durable goods. Based in Cleveland, Ohio, the company has plants in 340 facilities throughout the world and employs 39,000 people worldwide.

company will be tracking the number of new enrollees each quarter to determine whether the program is being well received. (All individual results are confidential and are not shared without expressed permission from the participant.)

#### LESSONS LEARNED

The following lessons have emerged from Parker Hannifin's work in diabetes management:

- ▶ Be aware that there is some trepidation on the part of employees about sharing health information with their employers. Therefore, it is crucial that employers be sensitive to people's desire for privacy.

- ▶ Collect feedback about the quality of the educational materials and the accessibility of the health care professionals from initial participants in disease management programs as a way to garner support for such programs.
- ▶ Management support and continuation of programs with follow-up for the participants all help establish a wellness culture within a corporation that is supportive of the needs of people with diabetes.

#### CONTACT

Joyce Munsell  
Benefits Manager  
Parker Hannifin  
[www.parkerhannifin.com](http://www.parkerhannifin.com)

“We have moved from in-house wellness programs to disease management. We are just getting started and look forward to being in touch with other companies implementing such programs.”

—**JOYCE MUNSELL**

Benefits Manager, Parker Hannifin

## CONCLUSIONS

# Emerging Trends

Companies developing diabetes management programs are at the forefront of a new frontier. They are among the first to try to address the special needs of people with diabetes before problems escalate, creating a more serious—and even life-threatening—situation. Therefore, it seems likely that more companies will begin working to develop diabetes management programs.

Because the programs profiled here are so new, it is premature to identify absolute conclusions or even overall lessons learned. What can be stated, however, are trends that have emerged. These trends include the following:

- ▶ Most companies establish their first diabetes management programs for people participating in points-of-service and indemnity plans. There are at least two reasons for this. First, these plans are self-insured, so the companies are assuming the risk for the participants. Therefore, there is a great deal of incentive to work with these individuals to prevent serious complications from occurring. Second, there is an assumption on the part of the companies that HMOs are already offering diabetes management programs as part of their managed care packages.
- ▶ Many companies have found

that having their diabetes programs managed by health care or pharmaceutical vendors give the programs more credibility than if the company organized its own program, largely because employees value the expertise that such vendors have.

- ▶ A key element of effective diabetes management programs is a self-management component that stresses the importance of changing unhealthy behaviors, which will result in positive outcomes, including a reduction in diabetes-related complications. This component should be customized to meet the specific needs of each individual

enrolled in the program.

- ▶ Any company considering implementing a diabetes management program must address the issue of confidentiality. Employees must be reassured that no medical information will be exchanged among vendors without their knowledge and consent.
- ▶ In some cases, companies have found that programs are more successful if they take place at the work site by bringing seminars and classes directly to the employees, instead of communicating only by mail or phone. This seems to be particularly true for active employees.

- ▶ Companies agree that it is necessary to keep the diabetes management programs voluntary so that people feel that they have control over their medical condition.
- ▶ By establishing a clear vision for the program that is supported by top management, companies can establish a culture of wellness within their organization that will be supportive of the needs of employees with diabetes.

As the twentieth century draws to a close, the health care industry continues to fine-tune its programs, working to offer consumers high-quality, cost-effective

health benefits and services. The *Taking on Diabetes* initiative is part of that effort. By emphasizing the need for proactive programs that stress prevention and a healthy lifestyle, this initiative is in the position to make an important contribution. Those companies pioneering diabetes management programs are crucial partners in the *Taking on Diabetes* initiative and will continue to work toward creating a healthy, productive workforce across the United States. Our hope is that other companies will come forward to enable all involved in health care delivery to realize this goal.

## APPENDIX A: SURVEY INSTRUMENT

The following questionnaire was used to interview each of the companies that participated in this report.

Hello, my name is \_\_\_\_\_ and I'm calling on behalf of the Employers' Managed Health Care Association. Did I reach you at a bad time? As you may know, MHCA is conducting a project in conjunction with the American Association of Health Plans in order to identify model programs in diabetes management. Information that is gathered from this process may be included in a monograph on diabetes management and employer programs that will be disseminated broadly throughout the employer and health plan communities. Do you have time to answer a few questions about your program or may I schedule a time with you at your convenience?

### INTERVIEW INFORMATION TO COLLECT

Contact Information:

- Name
- Company Name
- Title
- Telephone
- Address
- Email address
- Organization's Internet address

### General Program Information

1. a) Target population?
  - b) What percent of this group participate?
  - c) How many participated in 1998?

- d) Has participation changed over time?
- e) What strategies were used to increase participation in the program?

### Specific Program Elements

2. How long has the program been in place?
3. What exactly does the program consist of (e.g. essential program components)?
4. How long do employees/retirees participate in the program?
5. What is the program history and how was it started?How was the problem identified as a basis for program development?
  - a) Are there baseline data for its development?  
Yes/No  
If yes, please describe
  - b) Were retrospective data collected before the baseline?  
Yes/No
  - c) Were planning committees involved?  
Yes/No  
If yes, please list the individuals by title:
  - d) Were contracted health plan providers involved?  
Yes/No  
If yes, how?

- e) Did you conduct market studies or focus groups prior to implementing the program?  
Yes/No  
If yes, please describe:

- f) Is there a program champion who advocates on behalf of the program?  
Yes/No  
If yes, please describe:

- g) How does the program fit in with the broader mission or goals of your organization?

- h) Does the program have support from upper management?  
Yes/No

6. What changes/modifications were made to the program since it began and why?

7. Who is responsible for managing it? How many staff is involved in the program?

### Evaluation

8. Do you have a program evaluation in place?  
Yes/No

9. What do you evaluate?
  - a) What kind of data do you collect?
  - b) How often is it collected?

10. To enhance the program, do you use:

Employee/Retiree Satisfaction Surveys  
Yes/No

Focus Groups  
Yes/No

### Program Innovations and Implementation

11. In your opinion, what is the greatest success of the program? How has the program had an impact on the health of the participants?
12. What are the weaknesses?
13. How is the program innovative?
14. Did you encounter any barriers to implementing the program?  
Yes/No
  - a) What strategies were used to overcome barriers in implementing the program?
15. What are the future plans for the program?
16. Were there any unintended effects of the program?
17. In retrospect, what would you change or do differently with this program?
18. Do you believe that this program could be used as a model for others?

19. Can you offer any lessons learned for companies who may consider developing a similar diabetes management program?

20. Is there any other information you would like to share with us about this program?

### Program Expense

21. Approximately how much did it cost to implement this program?

22. What are the program expenses and costs per year?

- a) Staff time
- b) Materials
- c) Evaluation
- d) Other

23. Have you received supplemental funds to support the program?  
Yes/No

24. Are there any ways the program could be made more cost effective?

### Employer Information

25. Number of employees

26. Number of retirees

27. Number of health plans offered

28. Key geographic areas covered  
Email address

Organization's Internet address

## APPENDIX B: OTHER COMPANIES WITH DIABETES MANAGEMENT PROGRAMS

The companies listed below also have diabetes management programs in place. To find them on the Internet, go to <http://123world.com/corporate/index.html> for a complete listing of Fortune 500 companies.

**AT&T** has joined forces with a pharmacy vendor to offer a comprehensive diabetes management program to all active and retired employees who participate in points-of-service and indemnity medical plans. Program features include a self-assessment questionnaire that enables patients to measure their quality of life and identify opportunities for reducing their risk for complications; access to a toll-free support line; quarterly newsletters offering up-to-date information on glycemic control, blood glucose monitoring, and nutritional guidelines; and a customized annual wellness report.

**CONTACT:** Leanne Fosbre, Benefits Manager, AT&T

**BELL ATLANTIC** is implementing a limited disease management program managed by a third-party administrator for some of their union-represented employees who are enrolled in a collectively bargained point-of-service plan or in the out-of-area alternative plan; HMO enrollees are not included.

**CONTACT:** Carol Wood, Manager, Benefits Planning, Bell Atlantic

**BLACK & DECKER** offers employees and dependents with diabetes a customized program that includes working with diabetes care coordinators to receive educational materials; supplies such as blood glucose monitors; and counseling on issues of concern.

**CONTACT:** Patricia Thorpe, Manager, Benefits Planning & Design, Black & Decker

**FIRST CHICAGO NBD CORPORATION/BANK ONE** Diabetes Intervention Program. Participants for this program were identified through the bank's integrated health data warehouse. Components of the program include three questionnaires measuring knowledge of diabetes; a health risk appraisal; blood tests performed at no cost; on-site seminars; a free blood glucose monitor; and diabetes education by a health educator each month.

**CONTACT:** Timothy Moen, Manager, Human Resources, First Chicago NBD Corporation/Bank One

**POLAROID CORPORATION** Diabetes Intervention Program. Polaroid has formed a Polaroid Diabetes Support Group, whose purpose is to educate employees and encourage people to live a healthy lifestyle. The Support Group is run by company volunteers and offers quarterly meetings, videotapes of educational presentations, a handbook on diabetes, and a newsletter.

**CONTACT:** John Semeraro, M.D., Occupational Health Physician, Polaroid Corporation

**WELLS FARGO BANK** is partnering with a third-party administrator to implement an Internet-based support and education program for people with diabetes.

**CONTACT:** Kathy Farmer, VP, Health Programs, Wells Fargo Bank

## APPENDIX C: ADDITIONAL RESOURCES

The following organizations also offer extensive resources on diabetes.

American Diabetes Association, 1660 Duke Street, Alexandria, VA 22314; (800) 232-3472; <http://www.diabetes.org>

National Diabetes Education Program (NDEP), Joanne Gallivan, director, NDEP (NIH), National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health; (301) 496-3583; <http://www.niddk.nih.gov/>; Faye L. Wong, director, NDEP (CDC), Division of Diabetes Translation, Centers of Disease Control and Prevention; (770) 488-5037; <http://www.cdc.gov/diabetes/>

The National Exemplary Practice Program in Chronic Care, a joint initiative between AAHP and MHCA, identifies exemplary practices in the management of chronic conditions; AAHP, 1129 20th Street, NW, Suite 600, Washington, DC 20036-3421; (202) 778-3421; <http://www.aahp.org>

*Taking on Diabetes* program office, 1129 20th Street, NW, Suite 600, Washington, DC 20036; (202) 778-3222; <http://www.TakingonDiabetes.com>



