

Diabetes Prevention Lifestyle Change Program

The Business Case for Inclusion as a Covered Health Benefit

Diabetes and prediabetes are serious health problems that adversely affect our state's economy and workforce. By offering and incentivizing employees to participate in a Diabetes Prevention Lifestyle Change Program, employers prevent or delay diabetes and the co-morbid conditions and health care costs associated with it.

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January 2015

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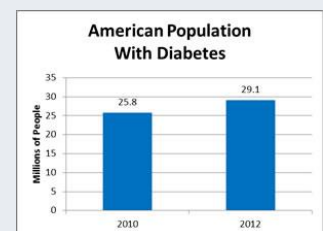
EXECUTIVE SUMMARY

Numbers talk and it is easy to see that Floridians have a serious problem with diabetes that adversely affects our state's economy and workforce. According to the Behavioral Risk Factor Surveillance System (BRFSS), there are approximately 1,090,356 adults, or 7.1% of the population, with prediabetes in Florida. This includes 9.63% of Floridians age 65+, 7.9% of Floridians age 45-64 and 4.9% of the population age 18-44. However, this only includes people who reported that they have been told they have prediabetes; many more people have this serious condition without knowing about it. The Centers for Disease Control and Prevention (CDC) estimates that one in three adults has prediabetes. Prediabetes is a condition where blood glucose ("blood sugar") levels are elevated but not high enough for a diagnosis of diabetes. Without intervention, prediabetes progresses to diabetes at the rate of 10% per year. The number of people with diabetes in our country has tripled in the past 20 years, and if the current trend does not change, it is estimated that one in three adults will have diabetes by the year 2050.

People with prediabetes can return to normal levels of blood glucose by weight loss through lifestyle changes including increased physical activity and healthy nutrition. Companies which offer the Diabetes Prevention Lifestyle Change Program (DPLCP) can reduce their health care expenses dramatically by preventing diabetes and its complications. The annual cost of an employee with diabetes is \$13,243; whereas the annual cost of an employee without diabetes is \$2,560 (Diabetes America). An estimated 8.2% of adults have diabetes. One in three adults are estimated to have prediabetes, with a 10% conversion rate per year. The return on investment for a company that offers its eligible employees a DPLC program is

Delivering an intensive group lifestyle intervention in community settings for about \$500 per person over a two-year period is expected to significantly improve health outcomes among the participating population. For a typical population of 100 high-risk adults aged 50 and over, the following results might be expected over three years:

- Prevent 15 new cases of type 2 diabetes.
- Prevent 162 missed work days.
- Avoid the need for blood pressure or cholesterol drugs in 11 people.
- Add the equivalent of 20 years of good health.
- Avoid \$91,400 in health care costs (Hodge, 2014)



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approximately \$55,000 over 10 years *for each employee with prediabetes who does not go on to develop diabetes.*

This document explains in detail the reasons why offering DPLCP as a covered health benefit is good for your company's bottom line while at the same time improving employees' health and performance and contributing to achievement of your mission, vision, and values.

BUSINESS NEED AND CURRENT SITUATION

The Diabetes Prevention Program (DPP) was a major clinical research study led by the CDC. The DPP proved that weight loss of 5-7% through dietary changes and increased physical activity could prevent or delay the onset of type 2 diabetes in people with or at risk for prediabetes. Participants who lost a modest amount of weight through dietary changes and increased physical activity sharply reduced their chances of developing diabetes.

The Diabetes Prevention Lifestyle Change Program (DPLCP) is a 16-week program for people with prediabetes (NIH). Trained lifestyle coaches assist participants in reaching their goal of losing 5 to 7 percent of their weight and reducing their risk of developing type 2 diabetes.

The Florida Health Care Coalition (FLHCC) is a group of employers from Florida representing nearly 2,000,000 covered lives. Members' business interests are diverse – from school districts, city and county governments, and utilities to the world's most famous theme parks – but all are working toward a common goal of achieving the best quality health care for the community.

FLHCC surveyed 18 member companies representing 191,020 employees. The survey participants were in the private sector (39%), the government sector (39%), and public school districts/boards (22%). Results showed that, while the majority of respondents (94%) had a wellness program, just over half (56%) had benefit design programs that offered DPLCPs listed on the CDC registry (<http://www.cdc.gov/diabetes/prevention/recognition/states/Florida.htm>). In addition, of the companies offering a DPLCP, only half had a proactive method for identifying and enrolling eligible employees in the program. Only 25% of the companies without a DPLCP had a proactive policy for referring employees. By including the DPLCP as a covered health benefit, and making other simple policy changes (such as reviewing files, promoting awareness of the DPLCP availability, and referring eligible patients to the programs), employers and third party insurers can improve the health of employees and reduce their health care expenses.

If we want to effectuate change, we must strive to improve our methods of identifying participants who have or are at risk for prediabetes through proactive policies, benefit design, health plan monitoring, and data sharing. Once individuals are identified, a concerted effort must be made to empower them to improve their health by having access to DPLCP.

While 76% of the companies surveyed rewarded employees for healthy lifestyles, great strides could be made in identifying employees who do not qualify for rewards and in providing them with the educational tools to receive those incentives. Providing people with prediabetes, or who are at a high risk of prediabetes, with a

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cost-effective way to prevent type 2 diabetes can help people lead healthier lives, which would reduce health care costs. In addition, many individuals with prediabetes have at least one co-morbidity such as obesity, heart disease, or high blood pressure. The DPLCP has been shown to reduce risk in all of these conditions in addition to preventing or delaying the onset of type 2 diabetes by 58%.

Magnitude of the Problem

Type 2 diabetes accounts for 90-95% of diabetes cases and is directly associated with age, obesity, physical inactivity, family history of diabetes, or a personal history of gestational diabetes.

People with prediabetes are at a high risk of developing type 2 diabetes. Their blood glucose levels are higher than normal, but not high enough to be classified as diabetes. An estimated 79 million U.S. adults had prediabetes in 2010, and that number has now jumped to 86 million Americans.

The problems associated with type 2 diabetes can be severe. Complications and comorbidities of the illness can include heart disease, stroke, hypertension, blindness, kidney disease, nervous system complications, amputations, dental disease, pregnancy complications, and mental health problems.

Diabetes in the United States

- 29 million people in the United States have diabetes
- In 2010, 1.9 million new cases of diabetes were diagnosed in people over the age of 20
- Among adults, diabetes is the leading cause of new cases of blindness, kidney failure and amputations not related to injury
- Diabetes was the 7th leading cause of death in 2007
- A person with diabetes has about twice the risk of dying on any given day as a person of similar age without diabetes (Diabetes.org) (Diabetes America)
- WHO states that 50% of people with diabetes die of cardiovascular disease, primarily heart disease and stroke (World Health Organization, 2010)
- More than 71% of U.S. adults with diabetes had hypertension or reported using medications to treat hypertension (Thomas J. Wang & Ramachandran S. Vasan, 2005; 112:)
- More than 60% of all non-traumatic amputations of the lower limbs occur in people with diabetes
- Approximately 73,000 lower limb amputations were performed among people with diabetes age 20 and older (Diabetes basics)
- Uncontrolled diabetes during pregnancy can increase the chance of birth defects, large babies, and other complications that can be dangerous to the baby and the mother
- Individuals with diabetes are twice as likely to suffer from depression as individuals without a diabetes diagnosis (Depression and Diabetes NIH Publication No. 11-5003, 2011)

Diabetes in Florida:

- Diabetes is the 6th leading cause of death in Florida
- In 2013 there were 5,209 deaths from diabetes
- In 2012 there were 565,117 hospitalizations from diabetes
- There are approximately 1,708,447 adults (11.2%) with diabetes
- There are approximately 825,530 adults (23.5%) aged 65+ with diabetes



Cost of Diabetes in Florida

- Total costs of diabetes: \$18.9 billion
- Direct medical costs: \$14.37 billion
- Indirect costs (disability, work loss, premature death): \$ 4.53 billion

Prediabetes in the United States:

- 86 million Americans (35% of all adults) have prediabetes and are progressing towards diabetes at a rate of 10% per year

Prediabetes in Florida:

- Only 7.14% of Floridians with prediabetes are aware they have the condition
 - That means only approximately 1,090,356 adults in Florida are aware they have prediabetes
 - 316,631 (4.9%) aged 18 to 44
 - 411,276 (7.9%) aged 45-64
 - 338,292 (9.63%) aged 65+
- If the U.S. average is indicative of prediabetes in Florida, there are 6,517,620 adults in Florida with prediabetes, 92.86% are unaware they fall in this category.



DIABETES

- 29 million Americans

PREDIABETES

- 86 million Americans (35% of all adults) with progression to diabetes at rate of 10% per year

Project Overview

Project Description

Type 2 diabetes can often be prevented or delayed through behavioral changes. The most cost-effective prevention methods include lifestyle changes such as regular physical activity and eating a healthy diet. Early



identification of prediabetes can provide opportunities for intervention. The American Diabetes Association Standard of Care Guidelines for prediabetes (American Diabetes Association, 2014 Jan;37 Suppl 1:S14-80) states that individuals with prediabetes should make these lifestyle changes as their first step to preventing type 2 diabetes.

The DPP found that small steps produced big rewards. Moderate weight loss and increased physical activity reduced the incidence of type 2 diabetes by 58% during a three-year period. Among older subjects (those age 60+), the reduction was 71%. In addition, overweight individuals who lose five to seven percent of their body weight through physical activity and healthy eating may effectively prevent or delay the onset of type 2 diabetes.

DPLCP participants gather in a relaxed classroom setting and work together in small groups to learn how to incorporate healthier eating and moderate physical activity into their daily lives. The program is led by a trained Lifestyle Coach. Over a one-year period, the participants meet weekly for one hour a week for the first 16 sessions, followed by six months of maintenance sessions. Throughout the maintenance period, the participants meet once a month for a one-hour session. The program can be offered at any location. Providers host the class at various worksites to allow for a more convenient option for employees, but also host classes at community-based locations such as a hospital diabetes clinic, a county health department, or YMCA, to allow for a more private experience. Providers found that having a mix of offerings for these classes is critical to the success of the employees and or/their spouses, who also may participate. Most providers of the program will conduct employer biometric screening events to identify employees who have or are at risk for prediabetes, and to enroll eligible employees into the program as a covered benefit.

Goals and Objectives

Employers can provide support by raising awareness of risks associated with diabetes. They can take control of rising diabetes-related costs and ensure the health of their employees. Employers can offer DPLCP as a covered health benefit in conjunction with building an environment of support for healthy behaviors. This proven program is part of the national DPP led by the CDC. It is a community-based lifestyle improvement program for adults with prediabetes or at a high risk of developing prediabetes/type 2 diabetes.

The goal of this project is to increase the number of employers who offer DPLCP as a covered benefit in their health plans.

The objectives are to:

- Make the DPLCP accessible to employees who have or are at risk for prediabetes
- Increase the number of at-risk employees who participate in DPLCP
- Lower diabetes-related health care costs



STRATEGIC ALIGNMENT

FLHCC member companies support a healthy working environment for their employees. Companies describe the importance of a healthy workforce in their strategic goals, missions, and values. Examples of member companies who express their support for keeping employees healthy include:

Valencia College

- Strategic Goal: Invest in each other
 - Support the professional development, career growth, and healthy lives of Valencia's employees (ValenciaCollege.edu/aboutus/vision.cfm)

Miami-Dade County Schools

- Core Value: Integrity
 - We build positive relationships through honesty, respect, and compassion, which enhance the self-esteem, safety, and well-being of our students, family, and staff (www.dadeschools.net/mission.asp)

JM Family Enterprises

- Code of Business Conduct: Dealing with each other
 - We strive to provide all associates with a healthy, safe, and productive work environment which is protective of the well-being of all associates (www.jmfamily.com/about-us/missionandvalues/code-of-business-conduct)

More and more, companies are recognizing the importance of a healthy workforce to the company's bottom line. Including DPLCP as a covered health benefit aligns with this focus, whether it is expressed in the company's goals, mission, or values.

RETURN ON INVESTMENT

Program Costs

Adding a diabetes prevention lifestyle improvement program is a cost-effective use of resources:

- The cost of preventing diabetes is typically much smaller than the cost of managing the complications of type 2 diabetes
 - The cost per person of offering the lifestyle change program is about \$500, depending on factors such as promotion, recruitment, staff and logistics costs
 - The annual cost of an employee with diabetes is \$13,243; whereas the annual cost of an employee without diabetes is \$2,560 (Diabetes America)
- The CDC has determined that intensive lifestyle interventions to prevent type 2 diabetes among people with impaired glucose tolerance are "very cost-effective" and in many cases, cost saving.



Results

The program has been proven to get positive results. Recognized providers of the program are seeing strong results both locally and nationally:

- The YMCA reports an average weight loss of 5-7% at the end of one year, as of November 2014, with a participation base of 26,805 people. After completing the core sessions of the program, 93% of participants through the YMCA report they have reduced their portion sizes, 86% report they have increased their physical activity level, and 91% report they have improved their overall health (Hodge, 2014)
- United Healthcare, one of the first third-party payers to include the program in their coverage for fully insured employers with 100+ employees on the plan, estimates a cost savings of \$65,000 over 10 years when an employee prevents or delays type 2 diabetes (See graphic on page 6.) (United Health Group, 2013)
- Research examining the effects of a structured lifestyle change showed that weight loss of 5-7% of body weight, achieved by reducing calories and increasing physical activity, reduced the incidence of type 2 diabetes by 58% in people at high risk for the disease. For people over 60, the program reduced the incidence of new cases of type 2 diabetes by 71% (National Diabetes Information Clearinghouse)
- Even after 10 years, those who had participated in the lifestyle change program had a 34% lower rate of type 2 diabetes, and 40% maintained their weight loss associated with the risk reduction (National Diabetes Information Clearinghouse)

Economic Risk of No Investment

An individual with prediabetes, and the organization he or she is employed by, may be at risk for higher out-of-pocket health care costs if the employee goes on to develop type 2 diabetes. These costs will be even higher if additional associated conditions like high blood pressure, stroke, and blindness are diagnosed.

Employers might fail to recognize the daily costs associated with type 2 diabetes. Productivity losses related to personal and family health problems cost US employers \$1,685 per employee per year, or \$225.8 billion annually. (cdc.gov) For a company of 10,000 employees, of which 820 are estimated to have diabetes, this calculates to over \$1.38 million that the company must spend annually on health care related to diabetes.

One of the challenges for employers when they offer a new program is garnering the buy-in and support at the supervisory level. It is imperative to communicate to supervisors why supporting employees in preventing type 2 diabetes also can affect their work day. An employee with type 2 diabetes may require more sick time out of the office, may need more frequent bathroom breaks, and may be at a higher risk of injury, leading to higher workers' compensation claims. Because of the high conversion rate from prediabetes to diabetes of 10% per year, the proportion of individuals with prediabetes may be as high as one out of every three employees in some organizations. For employers with low turnover rates, such as municipalities and government agencies with historically high retention rates, this can become a real challenge as more and more employees are developing type 2 diabetes.



Recommendations

- Talk to your Health Plan(s) about covering DPLCP as a health benefit and offer it to your employees
- If your Health Plan does not cover the program, it is possible you can request to utilize wellness dollars to cover the cost of the program
- Work with your Health Plan to develop a proactive method for identifying and enrolling eligible employees into the program
- Use benefit design to reward employees for healthy lifestyle choices and annual preventive health markers
- Improve access to DPLCP. Consider hosting DPLCP at your workplace. Go one step further and allow employees to attend while “on the clock” as an added incentive for participation
- Hold providers to a higher standard; utilize pay for performance incentives to providers and insist on transparency of national quality markers. Institute a narrow network of providers that are willing to share their outcomes, quality measures and data
- Items to insist on in a provider:
 - Strong delivery method
 - Sustainable infrastructure
 - Trained Lifestyle Coaches with solid recruiting and observation practices
 - Ability to direct bill and/or work with your Health Plan for billing
 - A secure method of tracking data collected during the program following strict HIPAA compliant procedures
 - Focus on providing accurate reporting on the aggregate engagement and compliance of your employees
- Incentivize providers to become certified through the NCQA Diabetes Recognition Program or to become a Diabetes Center of Excellence through NCQA and the Bridges to Excellence Program
- Promote the program to your employees; make it fun and encourage participation
- Use predictive analytics to identify high risk employees
- Work with your third-party administrator, the YMCA, county health department and other community health partners to implement a program, recruit participants, collect data and process claims.
- Partner with nearby programs that are included on the CDC registry of Lifestyle Change Programs. This list can be found at <http://www.cdc.gov/diabetes/prevention/recognition/states/Florida.htm>.

Testimonials

A third-party administrator can help you determine potential ROIs specific to your organization as well as help implement the program, process claims, recruit participants, and collect data. Orange County Government has taken a very proactive approach to preventing type 2 diabetes among their workforce. They first announced coverage of the program as a self-funded employer in late 2012. In the first two years of covering the program, they experienced:

- 2013-2014 Investment: \$57,185 in preventive wellness claims
- Total employees who attended at least one session = (216) 184 paid members
- Total who lost at least 5% of body weight during the first 16 core sessions = 49
- Total projected savings over ten years = \$2,695,000+

Orange County Government has worked closely with their program provider, the YMCA of Central Florida, and their screening partner, Florida Hospital CentraCare, to identify employees who are at risk and to engage them in the program. Although the total number of participants who attended the program may seem small, if

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type 2 diabetes is prevented in even one employee, this can save the employer at least \$55,000 over 10 years, well worth the \$500 investment.

Orange County Government works to identify employees at risk on a year-round basis, providing small screening events at various worksites throughout the county. Their key to engagement has been having a YMCA Lifestyle Coach present at each screening to enroll eligible participants immediately.

Orange County employees also shared their personal stories. Rosa, a human resource employee for Orange County Government, enrolled in the YMCA's Diabetes Prevention Program as a benefit through her health insurance in 2013. "My Lifestyle Coach has been excellent," Rosa said. "From the start, she connected with each of us and helped us overcome individual challenges. Not only did I come to grips with my poor habits, I also received the skills and tools I need to continue this journey on my own. Overall, it's been fantastic," she added. "I feel better, I am happier with my choices, and I'm fully committed to staying focused and healthy for the rest of my life."

Both before and after participating in the program, Rosa had her A1c level (the average of her blood glucose over 90-120 days) tested. Before the program, her A1c level was 6.0%, which falls within the range of 5.7 to 6.4%, which is considered prediabetes. After successful completion of the core phase of the program, and reaching her initial program goals, Rosa's A1c level was 5.4%, which is considered within the normal range.

Rosa recently shared with her Lifestyle Coach that she experienced an unrelated medical condition relapse that caused her to "fall off the wagon" on her healthier lifestyle choices. However, because she had the necessary tools she had learned in the program, she was able to quickly get back on track.

Another employee, Steve, shares: "I found myself out of shape, and my weight was increasingly rising. I took the prediabetes test at work and found out I was in danger of becoming a diabetic – which I do not want to become. I felt fortunate for the opportunity to participate in the program."

Steve says there are three main ways the program has impacted his life:

1. Learning a sensible way to create your own personal eating plan and lifestyle; one that you can realistically maintain and adjust throughout your life
2. With all of the misleading and bad information floating around, the program has given him the knowledge and tools to stay focused
3. Working with the group and his coach has kept Steve motivated and on track to reach his goals

When asked how the program has empowered him to fight diabetes, Steve responded: "I have a choice. It is in my power to maintain a suitable weight and activity level to help myself from developing diabetes."

Conclusion

Companies that choose to offer Diabetes Prevention Lifestyle Change Programs as a covered health plan benefit are taking a proactive approach to decreasing future healthcare costs and improving their bottom line.



These programs have proven to reduce the incidence of progression from prediabetes to type 2 diabetes. The reward will be an improved bottom line and a healthier workforce.

Return on Investment

The DPLCP not only provides financial return on investment, but also improves employee health and aligns with companies' values.

The financial ROI is significant. The cost per person of offering the lifestyle change program is about \$500, depending on factors such as promotion, recruitment, staff and logistics costs. The annual cost of an employee with diabetes is \$13,243; whereas the annual cost of an employee without diabetes is \$2,560 (Diabetes America)

Just as important as the financial benefit are the health benefit and the alignment with the company's core values. As seen in the testimonials, the DPLCP makes a substantial improvement on the lives of employees who have or are at risk for prediabetes. Most companies regard the well-being of their employees so highly that they include statements about supporting employee health in their goals, objectives, or values.

Understanding the dramatic impact of NOT investing in diabetes prevention may have on your organization is critical. With a conversion rate of 10% per year of prediabetes to diabetes, the tide is quickly changing. Funding an intervention for 20-30% of the workforce that may have prediabetes may be overwhelming. Consider that by 2050, if prevention does not occur, you could be funding interventions, management, pharmacy, medical and acute medical costs for 20-30% of your workforce that will have converted to full-blown type 2 diabetes. Management of type 2 diabetes and all its co-morbidities is a far more expensive venture than investing in identification and prevention early on for your employees.

It is because of this plethora of research, data and proven outcomes, that the DPLCP should be included as a covered benefit in your company's health plan for all covered lives age 18 and over who qualify for the program.



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