

Lower Your Company's Overall Healthcare Costs By Preventing Diabetes

Presented by:

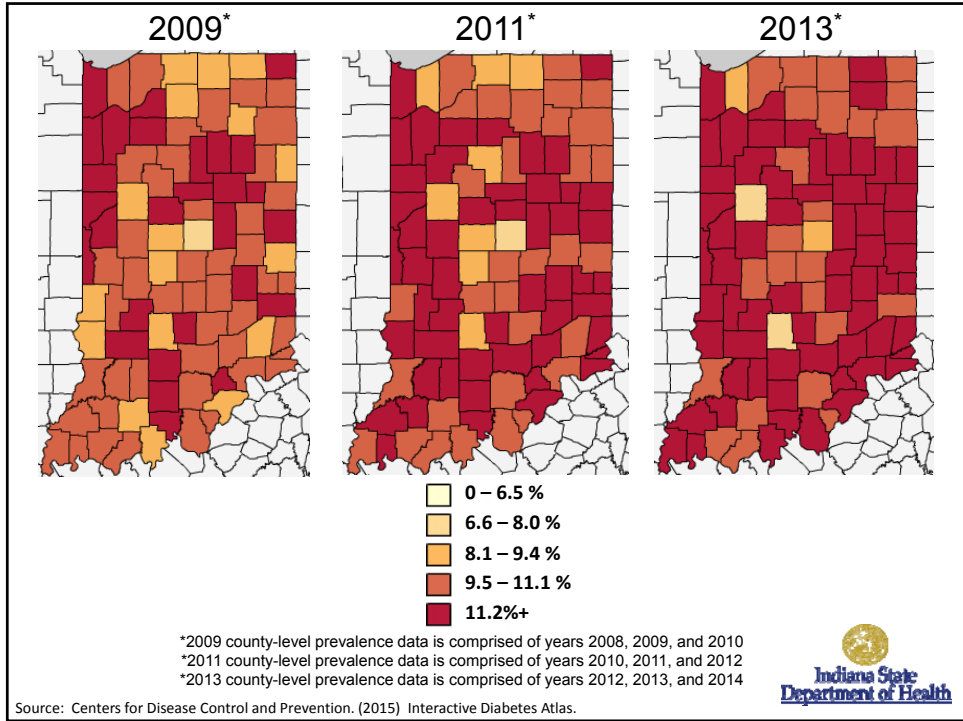
Susie King

Diabetes Prevention Coordinator
Indiana State Department of Health

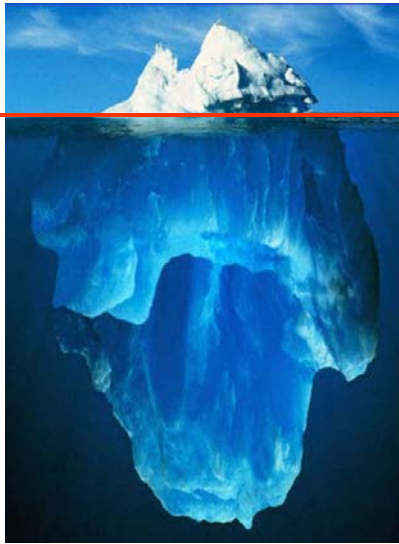


Indiana's Diagnosed Diabetes





National Prevalence



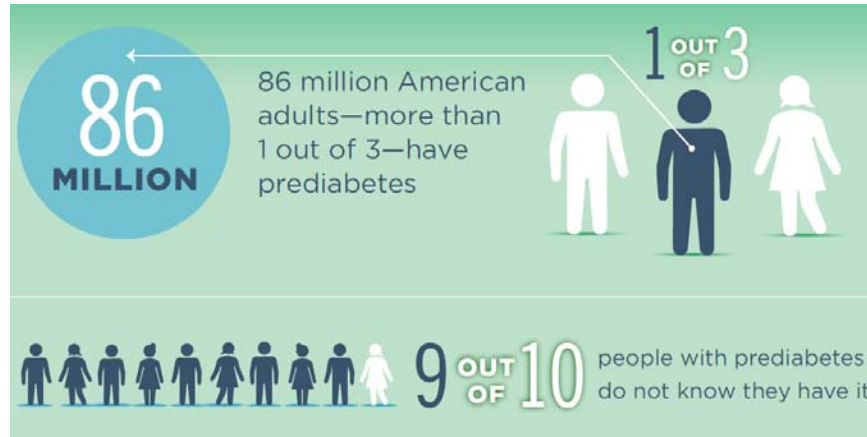
29 million
with Diabetes

86 million
with
Prediabetes

Centers for Disease Control and Prevention
National Diabetes Statistics Report, 2014



National Prevalence



Centers for Disease Control and Prevention, 2014
Infographic: Prediabetes – Could it be you?



Indiana's Prevalence



This is **1/3** of our Hoosier population!

Source: CDC



Let's talk...

Prediabetes

101



What exactly is prediabetes?

Prediabetes: A condition in which individuals have higher than normal blood sugars, but not high enough to be diagnosed by your doctor as diabetes.

Prediabetes can also be referred to as:

- “impaired fasting glucose”
- “insulin resistance”
- “impaired glucose tolerance”
- “a little touch of sugar”
- “borderline sugar”





What is happening with your body when you have prediabetes?

Insulin (a hormone made by the pancreas) helps sugar* move from the food you eat to your body's cells. Your cells need this sugar for energy to perform the body's necessary functions.

** Sugar from food can be sugar itself, or it can be from carbohydrates your body turns into sugar.*

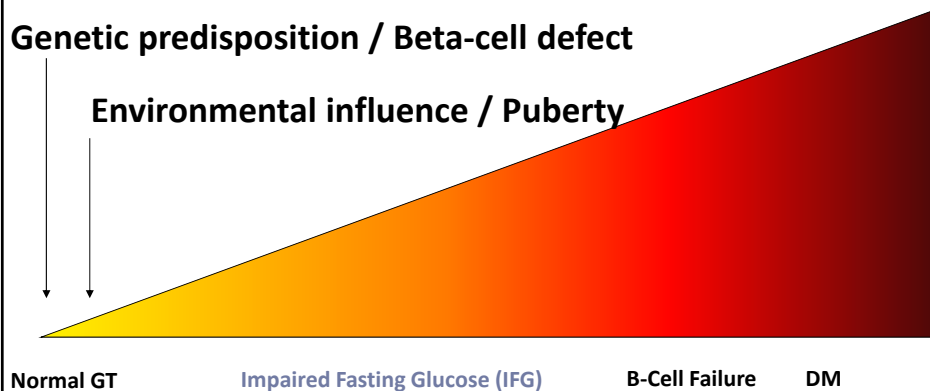
The body begins to lose the ability to use the body's insulin properly (your body becomes "**insulin resistant**"). This change in your system causes the blood to become a little thicker as blood sugars gradually increase.



The Diabetes Spectrum

Genetic predisposition / Beta-cell defect

Environmental influence / Puberty



Normal GT

Impaired Fasting Glucose (IFG)

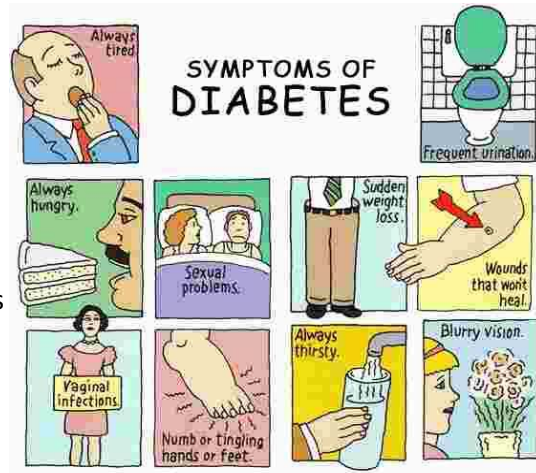
B-Cell Failure

DM



Symptoms of prediabetes.....

- Usually there are **NO** clear symptoms of PREDIABETES
- People with prediabetes **may** have some of the same signs and symptoms of diabetes.



Indiana State
Department of Health

Healthcare providers use routine tests to detect prediabetes....

Most common tests used are called the *Hemoglobin A1c test* or a *FPG (fasting plasma glucose) test*.

Blood Test Levels for Diagnosis of Diabetes and Prediabetes

| | A1C (percent) | Fasting Plasma Glucose (mg/dL) |
|-------------|---------------|--------------------------------|
| Diabetes | 6.5 or above | 126 or above |
| Prediabetes | 5.7 to 6.4 | 100 to 125 |
| Normal | ≤ 5.6 | 99 or below |

Definition mg= milligram, dL= deciliter
The higher the test result in the prediabetes range, the greater the risk for developing diabetes!

If you suspect you have prediabetes, please consult your doctor.

Indiana State
Department of Health

Who is at Risk?

- Age 45 or older
- Overweight
- Sedentary lifestyle
- First degree relative with diabetes
- Excess abdominal fat
- High risk race/ethnicity (Latino, African American, Asian, American Indian, Pacific Islander)
- Hypertension ($\geq 140/90$ mmHg or on therapy)
- HDL (< 35 m/dL)
- Triglyceride (≥ 250 mg/dL)
- Acanthosis Nigricans
- Polycystic ovary syndrome (PCOS)
- History of gestational diabetes or large baby (> 9 lbs.)



Acanthosis Nigricans



Darkening of the skin, back of the neck and skin folds





WHY SHOULD WE PREVENT DIABETES?



Preventing diabetes can save health care costs and lives...



Centers for Disease Control and Prevention, 2014
Infographic: Prediabetes – Could it be you?

Prediabetes is reversible; DIABETES IS NOT!

People with prediabetes can prevent or delay the onset of type 2 diabetes by making modest behavior changes now.



Diabetes Causes Many, Many Problems!

- ✓ Diabetes is the **7th** leading cause of death in the United States.
- ✓ Diabetes is the **7th** leading cause of overall death in Indiana.¹
 - **3rd** leading cause of death for African Americans.¹
- ✓ Diabetes is a major cause of heart disease and stroke.
- ✓ Diabetes is the leading cause of kidney failure, amputations, and adult-onset blindness in the United States.

SOURCE: ¹Indiana State Department of Health. (2014). *Vital Records*, 2012.



Avoid diabetes - it's COSTLY and TIME CONSUMING

- Use of healthcare resources (**\$176 billion**)
 - ambulance runs for severe hypoglycemia (low blood sugar)
 - emergency room visits
 - inpatient stays
 - specialized outpatient care (dialysis, wound care, etc.)
 - physician office visits
 - home health visits
 - **medications and supplies!**
- Lost productivity (**\$69 billion**)
 - absence
 - nominal performance
 - disability

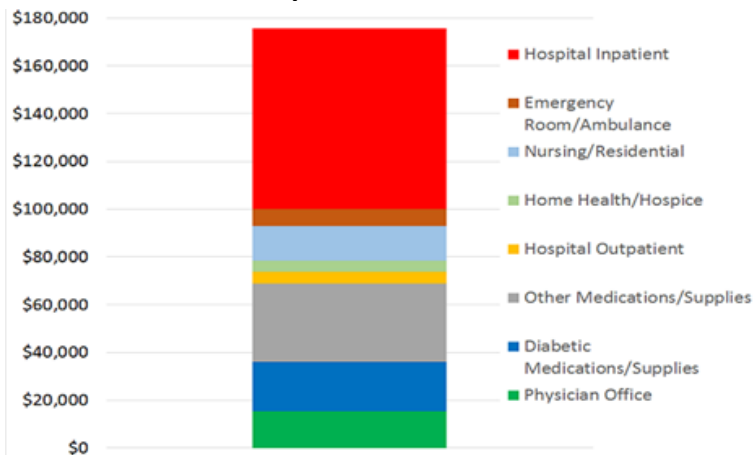


American Diabetes Association. Economic Costs of Diabetes in the U.S. in 2012. *Diabetes Care* 36:1033-1046, 2013.



Economic Costs of Diabetes in the United States (2012)

U.S. Health Care Expenditures Attributed to Diabetes



Source: *Diabetes Care* (Volume 36) April 2013. Center for Healthcare Quality and Payment Reform www.CHQPR.org



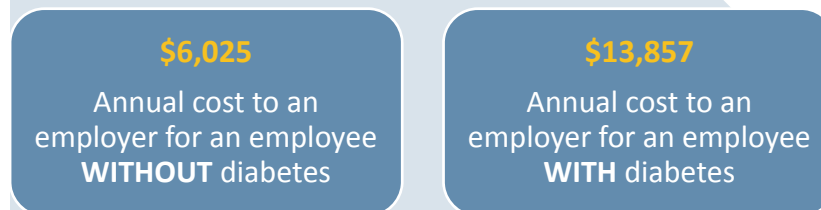
What this means for your employees. . .



SOURCE: 2009 United Healthcare published diabetes cost data based on 10 million members



What this means for your company...



SOURCE: ADA Workplace Cost Calculator based on Kaiser Family Foundation's 2014 Employer Health Benefits Annual Survey



National Diabetes Prevention Program Health Impact

- According to numerous studies, for a **typical population of 100 high-risk adults** (age 50+) the following results might be expected over three years:
 - Prevent 15 new cases of type 2 diabetes¹
 - Prevent 162 missed work days²
 - Avoid the need for blood pressure or cholesterol drugs in 11 people³
 - Add the equivalent of 20 years of good health⁴
 - Avoid \$91,400 in health care costs⁵

SOURCES:

- 1) DPP Research Group. N Engl J Med. 2002 Feb;346(6): 393-403.
- 2) DPP Research Group. Diabetes Care. 2003 Sep;26(9): 2693-4.
- 3) Ratner, et al. Diabetes Care. 2005;28(4): 888-894.
- 4) Herman, et al. Ann Intern Med. 2005;142(5): 323-32.
- 5) Ackermann, et al. Am J Prev Med. 2008;35(4): 357-363.



SO WHAT CAN EMPLOYERS DO TO PREVENT DIABETES?



Options:

1. Provide prediabetes awareness education
 - Place prediabetes messaging (risks/symptoms) on your internal website, bulletin boards, newsletters.
For helpful tools and tips, go to: https://nccd.cdc.gov/DDT_DPR/#
2. Provide free prediabetes screenings
 - Consider offering incentives for completion
3. For employees with prediabetes, offer incentives (*i.e. % off insurance premium*) to enroll in a Diabetes Prevention Program
 - For a statewide listing of programs, go to:
<http://www.in.gov/isdh/26609.htm>



Options (continued):

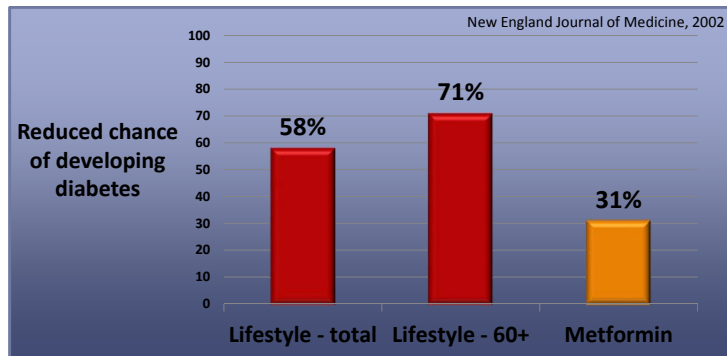
4. Consider contacting a local Diabetes Prevention Program provider to offer the program onsite as a wellness benefit
5. Include the Diabetes Prevention Program and other lifestyle change programs in your company's insurance plan as a covered benefit
6. Provide employee support/programming for healthy lifestyle living (*i.e. offer healthy vending options*) and consider offering a comprehensive worksite wellness program



LET'S DISCUSS ONE OPTION A LITTLE FURTHER....



The National Diabetes Prevention Program (DPP)



- Evidenced-based program (NIH - 3 yr - 3,200 ppl - 27 ctrs)
- Two program curriculums established by CDC (DPRP)
- 1,200+ active DPP sites in the nation!





NUTS AND BOLTS OF THE NATIONAL DIABETES PREVENTION PROGRAM:



National DPP is a lifestyle change program:

- First six months: Weekly one-hour sessions
- Second six months: Monthly one-hour sessions

A trained Lifestyle Coach works with participants in a group setting to reduce risk by helping them:

- Lose weight (5% of starting body weight)
- Increase physical activity (30 minutes/day 5 X per week)
- Session topics help to identify and address barriers to healthy eating and physical activity

Program relies on self-monitoring, goal setting, and group process.



ORIGINAL CURRICULUM FROM CDC

First Six Months (all sessions required)

Skills

1. Welcome
2. Be a Fat and Calorie Detective
3. Three Ways to Eat Less Fat and Fewer Calories
4. Healthy Eating
5. Move Those Muscles
6. Being Active: A Way of Life
7. Tip the Calorie Balance

Controlling the external environment

8. Take Charge of What's Around You
9. Problem Solving
10. Four Keys to Healthy Eating Out

Psychological and emotional

11. Talk Back to Negative Thoughts
12. The Slippery Slope of Lifestyle Change
13. Jump Start Your Activity Plan
14. Make Social Cues Work for You
15. You Can Manage Stress
16. Ways to Stay Motivated



Second Six Months (8 topics are chosen by the group)

Introduction (1 topic)

- Goal setting and self-monitoring

Healthy Eating and Nutrition (5 topics)

- Different types of fat
- Food preparation and recipe modification
- Not skipping meals, healthy meal and snack planning
- Fruits and vegetables, mindful eating
- Adding fiber, water, and whole grains

Physical Activity (2 topics)

- Overcoming barriers, health benefits
- Lifestyle activity, using a pedometer, flexibility and balance



Second Six Months (continued)

Chronic Disease (2 topics)

- Heart disease, cholesterol, and blood pressure
- Type 2 diabetes

Managing Stress and Preventing Relapse (4 topics)

- Overcoming self-defeating thoughts, assertiveness
- Handling holidays, vacations, and special events
- Preventing relapse
- Stress management and relaxation techniques

Program Conclusion (1 topic)

- Long-term goals, strategies, and self-review



  **NEWS FLASH!**  

We're sorry to interrupt this presentation, BUT - -

**Participant Engagement
is the blockbuster drug of the
21st century!**

Leonard Kish (AADE in Practice, July 2015)



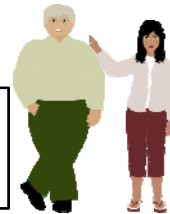
WHO CAN PARTICIPATE?

Program eligibility:

Be at least
18 years old or older

AND

BMI of 24 or greater
(Asian Americans: > 22)



Participants must meet one or more of these criteria:

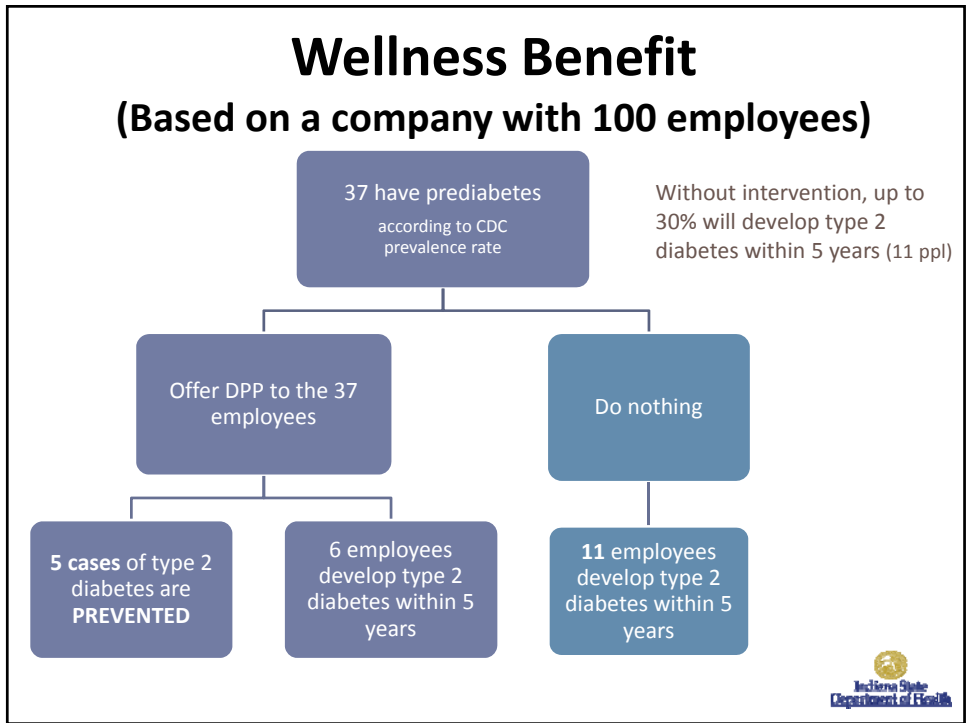


Medical diagnosis
of pre-diabetes

History of
gestational diabetes

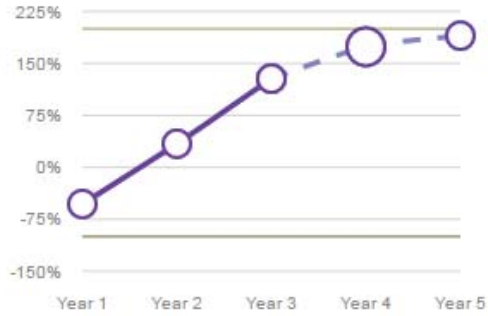
Screen positive for prediabetes based
on the Prediabetes Risk Test
(CDC or ADA)





DPP Cost Savings as a Wellness Benefit

Potential **3 year net savings** of preventing 5 employees with prediabetes from developing type 2 diabetes = **\$18,966**



128% ROI

AMA DPP Cost Saving Calculator: <https://ama-roi-calculator.appspot.com/>



AMA DPP COST SAVING CALCULATOR

Your organization type
Employer

Your insured population size (age 18-64)
100

Your cost of program per participant \$
400

Prevalence of prediabetes
37%

Your anticipated enrollment
Low range: 100%
High range: 100%

Your anticipated completion
Low range: 100%
High range: 100%

RESET VALUES **CALCULATE**

Your potential 3 yr ROI

128%

Legend:
○ Upper range : 128%
○ Lower range : 128%

SEE HOW TO IMPROVE YOUR ROI

Your potential 3 yr net savings

\$18,996

For your population:

Potential individuals with prediabetes in your population: **37**

Potential enrollment in DPP
Lower **37** Upper **37**

Potential completion of DPP
Lower **37** Upper **37**

Potential number of diabetes cases prevented by DPP over 3 years
Lower **5** Upper **5**

DOWNLOAD YOUR RESULTS

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**FOOD IS THE
MOST ABUSED
ANXIETY
DRUG.
EXERCISE IS
THE MOST
UNDERUTILIZED
ANTIDEPRESSANT.**



Any questions?

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