

# Reducing the Clinical and Economic Impact of Diabetes: Translating Evidence-Based Medicine into Clinical Practice

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Health Care & Education

# U.S. Diabetes Facts and Figures 2017 Update

CDC. *National Diabetes Statistics Report, 2017.*  
[cdc.gov/diabetes/statistics](http://cdc.gov/diabetes/statistics)

A SNAPSHOT

## DIABETES IN THE UNITED STATES

### DIABETES



30.3 million people have diabetes

9.4% of the population



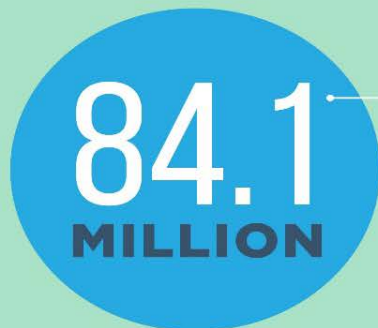
That's about 1 out of every 10 people



1  
OUT  
OF  
4

don't know they have diabetes

### PREDIABETES



84.1 million people —  
more than 1 out of 3 adults  
— have prediabetes



9  
OUT  
OF  
10

don't know they have prediabetes

# Clinical Costs of Diabetes

Total of 7.2 million hospital discharges/year with diabetes as any listed diagnosis among adults (18 years or older)

1.5 million for **major cardiovascular diseases** (70.4 per 1,000 persons with diabetes), including:

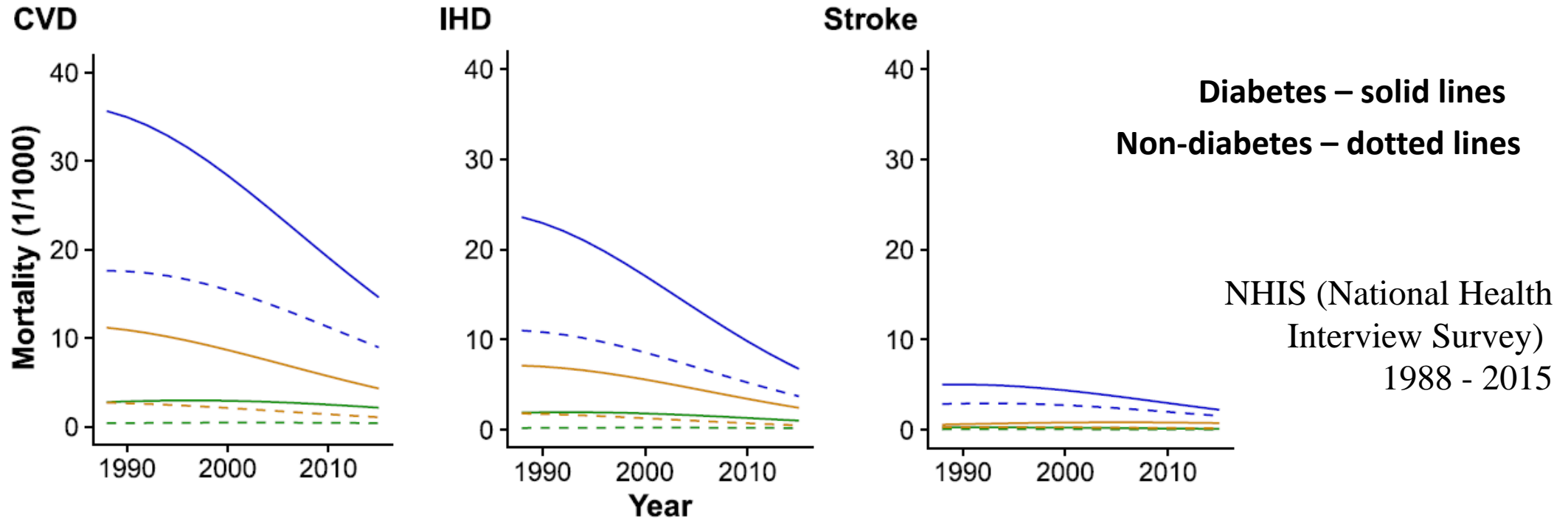
- 400,000 for **ischemic heart disease** (18.3 per 1,000 persons with diabetes)
- 251,000 for **stroke** (11.5 per 1,000 persons with diabetes)

108,000 for a **lower-extremity amputation** (5.0 per 1,000 persons with diabetes)

A total of 14.2 million ED visits

- Hypoglycemia (11.2 per 1,000 persons with diabetes)
- Hyperglycemic crisis (9.5 per 1,000 persons with diabetes)

CDC. *National Diabetes Statistics Report, 2017*. [cdc.gov/diabetes/statistics](https://www.cdc.gov/diabetes/statistics)



**Figure 1**—Trends in mortality by age-groups and select CVDs among adults with diabetes. Among U.S. adults both with and without diabetes by three age-groups (20–54, 55–65, and  $\geq 65$  years of age), the sex- and race/ethnicity-adjusted death rates from major CVD including IHD and stroke have decreased steadily from 1988 to 2015, especially among adults  $\geq 65$  years of age with diabetes. The solid lines represent the mortality of adults with diabetes, and the dashed lines represent the mortality of adults without diabetes. The green lines represent the mortality of adults 20–54 years of age, the orange lines represent the mortality of adults 55–65 years of age, and the blue lines represent the mortality of adults  $\geq 65$  years of age.

# Health Care and Public Health Spending in the U.S.: Top 10 Conditions

Dieleman JL, Baral R, Birger M, et al. US Spending on Personal Health Care and Public Health, 1996-2013. JAMA. 2016;316(24):2627–2646

| Rank <sup>a</sup> | Condition                                   | 2013 Spending (Billions of Dollars), \$ | Annualized Rate of Change, 1996-2013, % | 2013 Spending by Type of Care, % |                |                 |                |                       | 2013 Spending by Age, % |           |
|-------------------|---|---|---|----------------------------------|----------------|-----------------|----------------|-----------------------|-------------------------|-----------|
|                   |   |   |   | Ambulatory Care                  | Inpatient Care | Pharmaceuticals | Emergency Care | Nursing Facility Care | <20 Years               | ≥65 Years |
|                   | All conditions                              | 2100.1                                  | 3.5                                     | 33.6                             | 33.2           | 13.7            | 4.9            | 9.3                   | 11.1                    | 37.9      |
| 1                 | Diabetes mellitus                           | 101.4                                   | 6.1                                     | 23.5                             | 9.5            | 57.6            | 0.4            | 9.1                   | 1.7                     | 42.8      |
| 2                 | Ischemic heart disease                      | 88.1                                    | 0.2                                     | 23.9                             | 56.5           | 11.3            | 0.9            | 7.3                   | 0.2                     | 61.2      |
| 3                 | Low back and neck pain                      | 87.6                                    | 6.5                                     | 60.5                             | 28.8           | 4.1             | 4.2            | 2.5                   | 2.0                     | 28.8      |
| 4                 | Treatment of hypertension                   | 83.9                                    | 5.1                                     | 45.8                             | 1.3            | 41.2            | 1.8            | 9.9                   | 0.7                     | 53.4      |
| 5                 | Falls                                       | 76.3                                    | 3.0                                     | 29.7                             | 34.3           | 0.6             | 22.7           | 12.7                  | 10.3                    | 48.2      |
| 6                 | Depressive disorders                        | 71.1                                    | 3.4                                     | 53.1                             | 11.6           | 32.1            | 0.5            | 2.8                   | 7.1                     | 13.3      |
| 7                 | Oral disorders <sup>b</sup>                 | 66.4                                    | 2.9                                     | 1.0                              | 1.5            | 0.4             | 1.2            | 0.1                   | 13.1                    | 20.7      |
| 8                 | Sense organ diseases <sup>c</sup>           | 59.0                                    | 2.8                                     | 85.4                             | 2.3            | 8.6             | 2.1            | 1.6                   | 9.0                     | 54.0      |
| 9                 | Skin and subcutaneous diseases <sup>d</sup> | 55.7                                    | 3.5                                     | 52.0                             | 20.7           | 12.6            | 6.0            | 8.6                   | 14.4                    | 29.8      |
| 10                | Pregnancy and postpartum care <sup>e</sup>  | 55.6                                    | 2.9                                     | 47.6                             | 50.5           | 0.6             | 1.3            | 0.0                   | 6.4                     | 0.0       |

# Economic Costs of Diabetes in the U.S., 2017

*American Diabetes Association. Economic Costs of Diabetes in the U.S. in 2017. Diabetes Care 41: May 2018*

- \$327 billion/year is the total economic cost of diagnosed diabetes
  - \$237 billion in direct medical costs
  - \$90 billion in reduced productivity
- Costs attributable to diabetes: 1 in 7 health care dollars
- Care for people with diabetes: 1 in 4 health care dollars
- Medical costs for people with diabetes are 2.3 times higher than for people without diabetes.

# Increasing Economic Costs of Diabetes

- After adjusting for inflation, economic costs of diabetes increased 26% from 2012 to 2017 due to the increased prevalence of diabetes and the increased cost per person with diabetes.
- The total cost of insulin and other medications to control blood glucose increased by 45% from 2012 to 2017, to a total of \$31 billion
- The cost of insulin alone increased by 110%

# Emotional and Psychosocial Costs of Diabetes

- Up to 45% of people with diabetes report **Diabetes Distress**
- 1 in 4 people with diabetes has **Depressive disorder**
- 1 in 5 people with diabetes has **Anxiety disorder**
- 3 in 4 older adults with diabetes will experience **Dementia**

PSYCHOSOCIAL RESEARCH AND CARE



## Psychosocial Care for People With Diabetes: A Position Statement of the American Diabetes Association

*Diabetes Care* 2016;39:2126–2140 | DOI: 10.2337/dc16-2053



CrossMark

*Deborah Young-Hyman,<sup>1</sup> Mary de Groot,<sup>2</sup>  
Felicia Hill-Briggs,<sup>3</sup> Jeffrey S. Gonzalez,<sup>4</sup>  
Korey Hood,<sup>5</sup> and Mark Peyrot<sup>6</sup>*





# Years of Life, Work, Wages, and Productivity

*Bonner et al. Lancet Diabetes Endocrinology, June 2017*

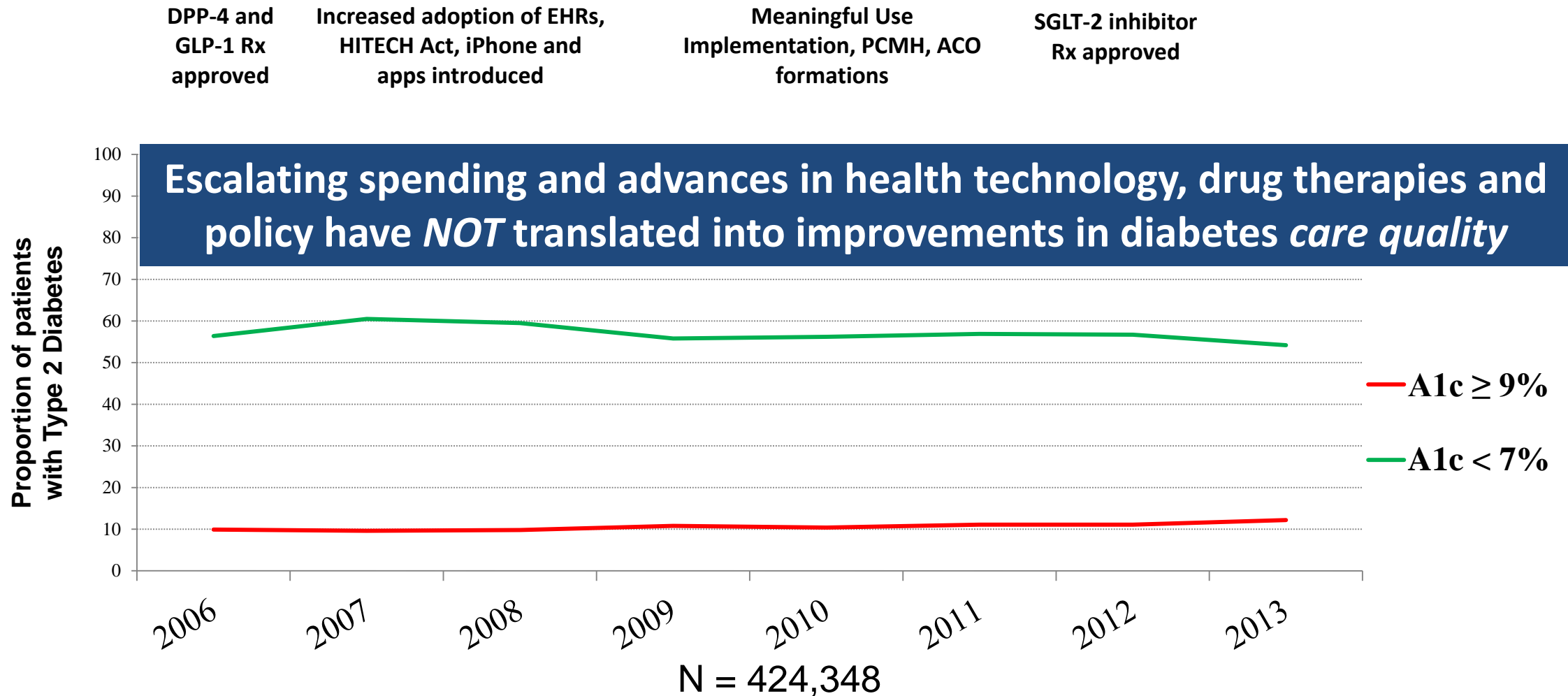
Global total economic burden of diabetes is 1.31 trillion USD (1.8% of the world GDP):

- 49% of the cost is due to **drop-out from the workforce**
- 46% is due to **early death**
- 4% is due to being **absent from work** (sick-days)
- 2% is due to **reduced productivity** while at work

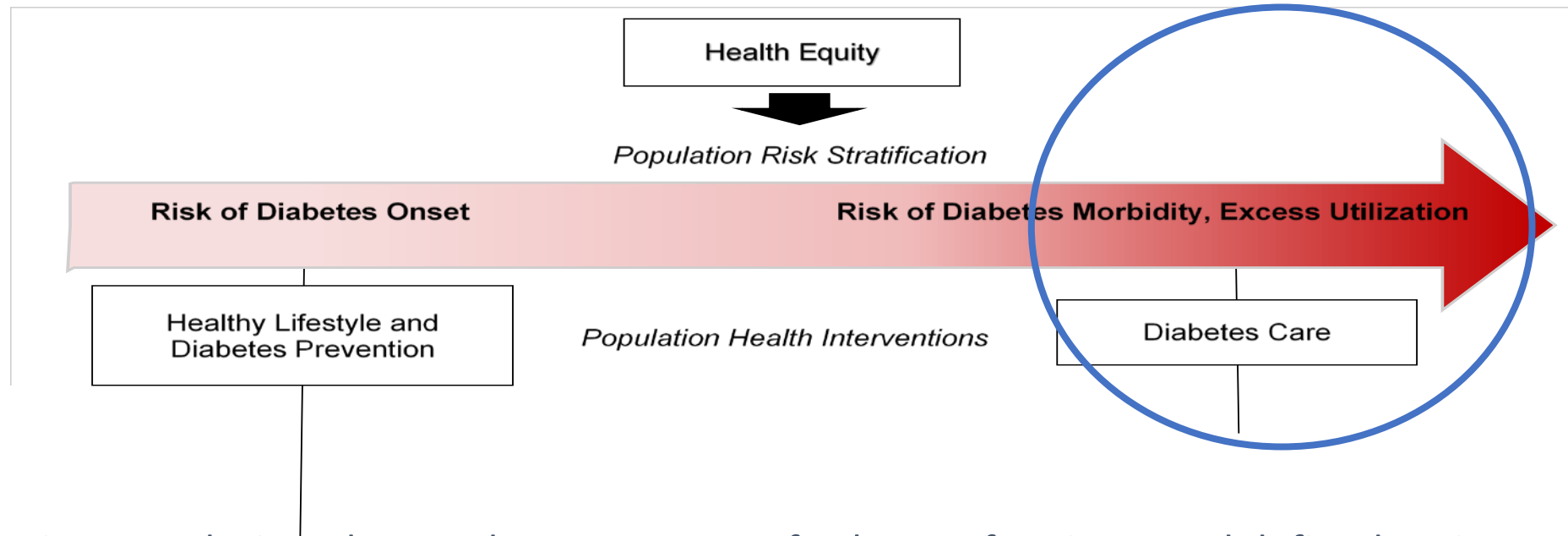
# Diabetes Population Health Management

# Opportunity to Improve Health Care Quality in Diabetes

## Type 2 Diabetes Trends in the U.S. 2006-2013



# Population Health *Management*



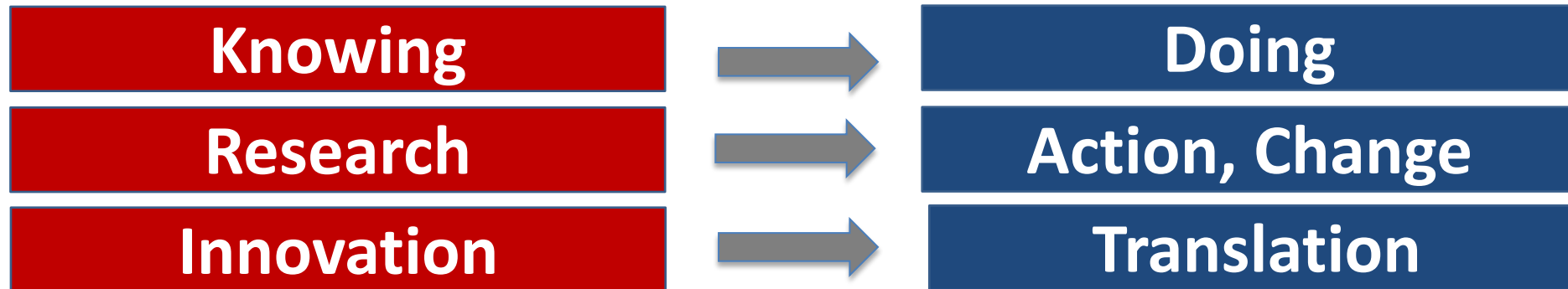
Initiatives are designed around management of cohorts of patients and defined patient populations within the context of health care and healthcare systems. Initiatives are generally designed to improve the clinical outcomes and quality metrics of patient populations using multi-level interventions within healthcare settings.

[https://mmcp.health.maryland.gov/Documents/SIM%20Round%20Two/Appendix%20C\\_Maryland%20Population%20Health%20Improvement%20Plan\\_for%20website.pdf](https://mmcp.health.maryland.gov/Documents/SIM%20Round%20Two/Appendix%20C_Maryland%20Population%20Health%20Improvement%20Plan_for%20website.pdf)

# ADA Diabetes INSIDE

## INspiring System Improvement with Data-Driven Excellence

*Consultation service to health care systems to translate over 78 years of our science and advocacy into action by supporting our nation's healthcare systems to improve population outcomes for people with diabetes.*



Tailors interventions to the needs, goals, resources and demographics of our healthcare partners and populations served, meeting value-based care measures

# Diabetes INSIDE 2012-2018

## A National Strategy to Effect Sustainable Change

### ● Single Health Systems

- 8 health systems over 6 years
- Diverse patient populations and resources
- All achieved improvements

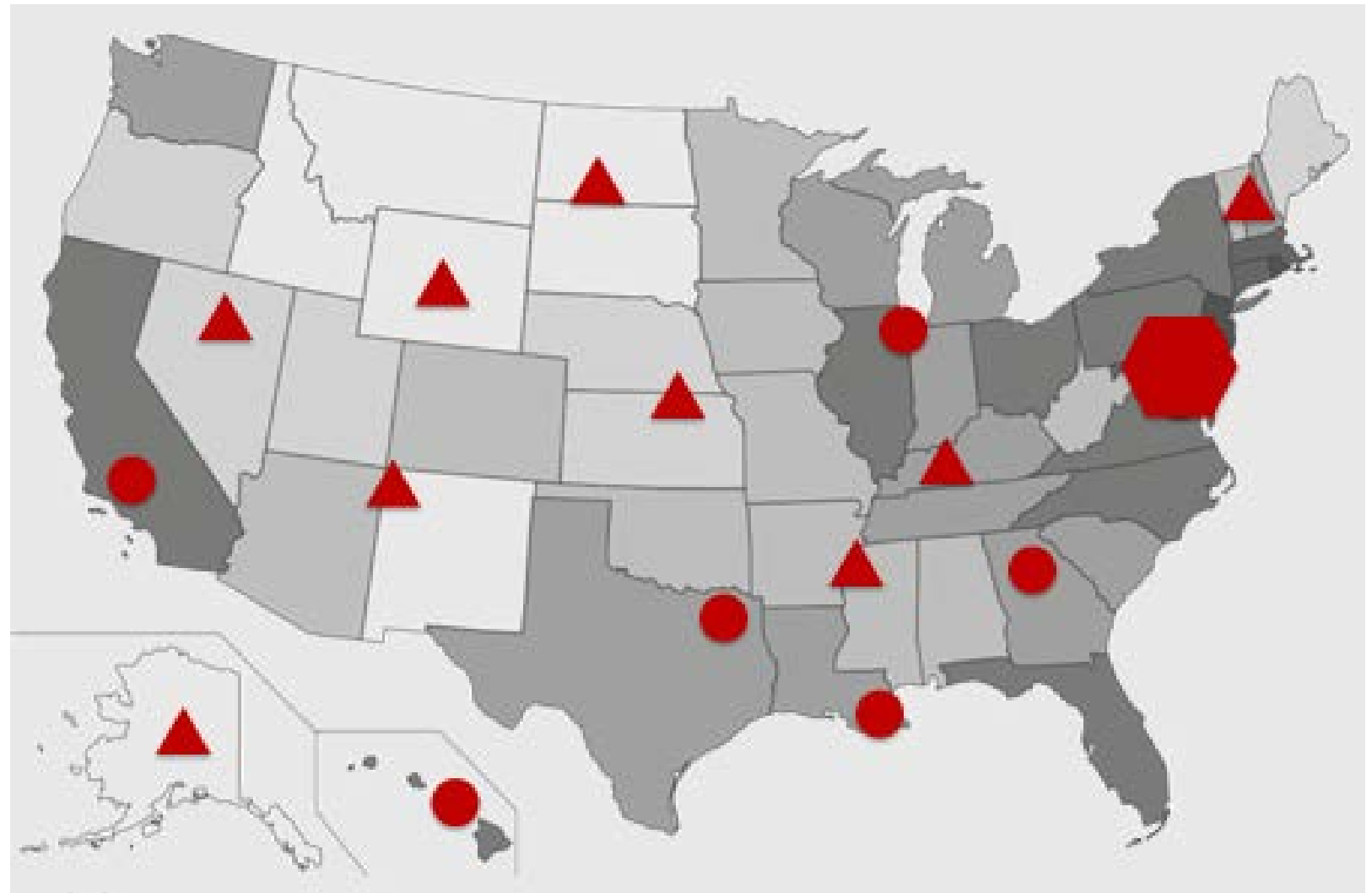
### ⬡ Multi-Sector Collaboratives

- Focus on urban centers
- Groups of health systems, industry, payers, communities working together
- Pilot collaborative in Greater Philadelphia

### ▲ Rural Systems

- Partner with HRSA, VA and States
- Virtualize programmatic interventions to maximize reach

 American Diabetes Association.



Population Density (low to high)



JOHNS HOPKINS  
SCHOOL of MEDICINE

- Interventions target HEDIS (Healthcare Effectiveness Data and Information Set) quality metric of A1C > 9.0%



**Achieved 19% decrease in proportion of patients with A1C > 9% in 6 months ( $p < 0.005$ )**

- From 12% to 10.6%

**Specific interventions:**

- Monthly reports of patients with A1C >9% for providers
- Provider and patient engagement
- Nurse navigators following patients with A1C > 9% (education, appt scheduling)



**Insulin use in poorly-controlled patients (A1C > 9.0) increased by 24% over 2 years from program start**

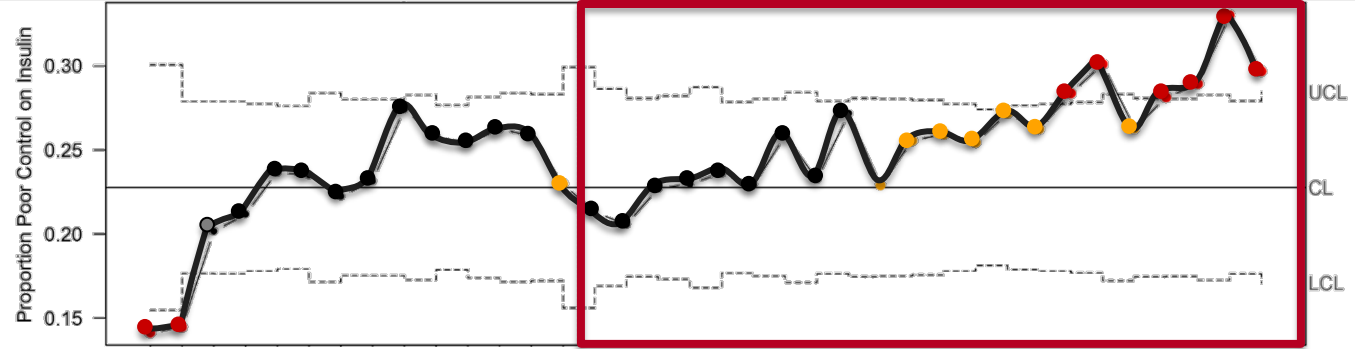
- From 36% to 44% of patients with A1C >9% on insulin

**Specific interventions:**

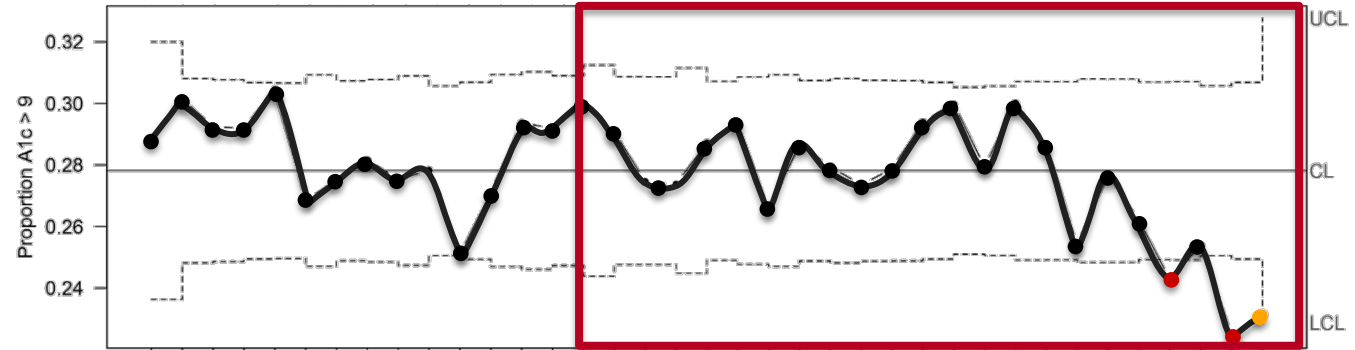
- EMR updates for identification and tracking
- Shared medical appointments (SMAs) for patients, with nurse educators
- Pre-visit planning; education & training

# Parkland Health & Hospital System Achieved Significant Population Health Improvements Working with ADA through Diabetes INSIDE

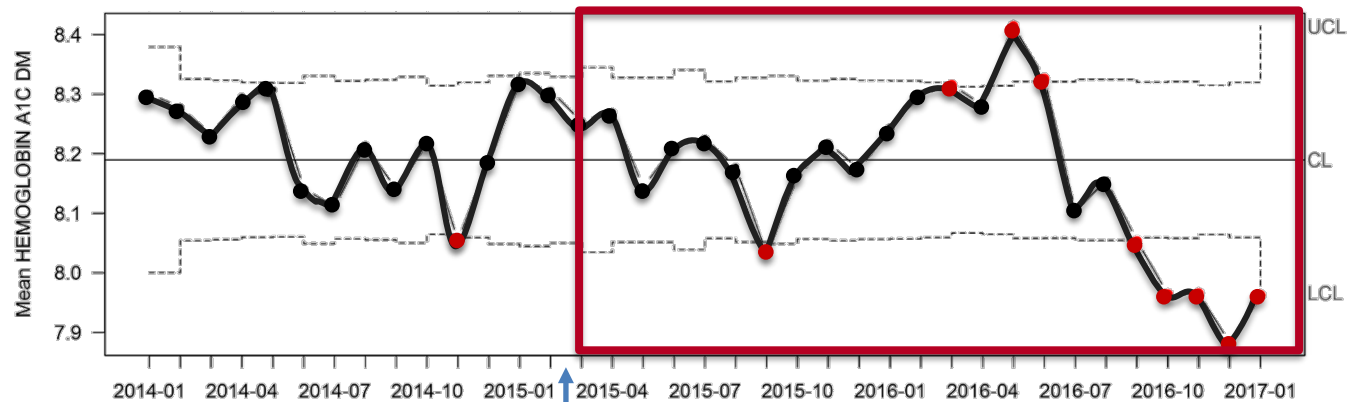
Insulin initiation in A1C > 9.0%



% Population with A1C > 9.0%



Population Mean A1C %



Diabetes INSIDE Begins



# Diabetes INSIDE

## Economic projections for improved diabetes control

If health center patients with uncontrolled diabetes reduced their HbA1c ( a measurement of glucose control) **by 1.25%** there is a potential to save more than **\$3 Billion** over three years.



Fitch K, Pyenson BS, Iwasaki K. J Manag Care Pharm 2013 Oct: 19(8): 609-20

# Diabetes INSIDE Awards

The American Diabetes Association received the

- 2015 Award for Outstanding Continuing Education Outcomes Assessment
- 2016 Award for Outstanding Innovation in Continuing Professional Development

from the Alliance of Continuing Education in the Health Professions (ACEHP)

# Mental Health Provider Diabetes Education Program

**ADA and American Psychological Association (APA) partnered to create the first ever, diabetes-focused, continuing education (CE) program for licensed mental health providers.**

Upon successful completion of the Continuing Education program, the provider can:

- Become an ADA member at the Associate level
- Receive 12 CE credits from the APA
- Become eligible for inclusion on the Mental Health Provider Referral Directory
- Access the ADA's new listserv for behavioral health and psychosocial topics
- Access monthly “mentoring” calls with experts in the field

# Mental Health Provider Referral Directory

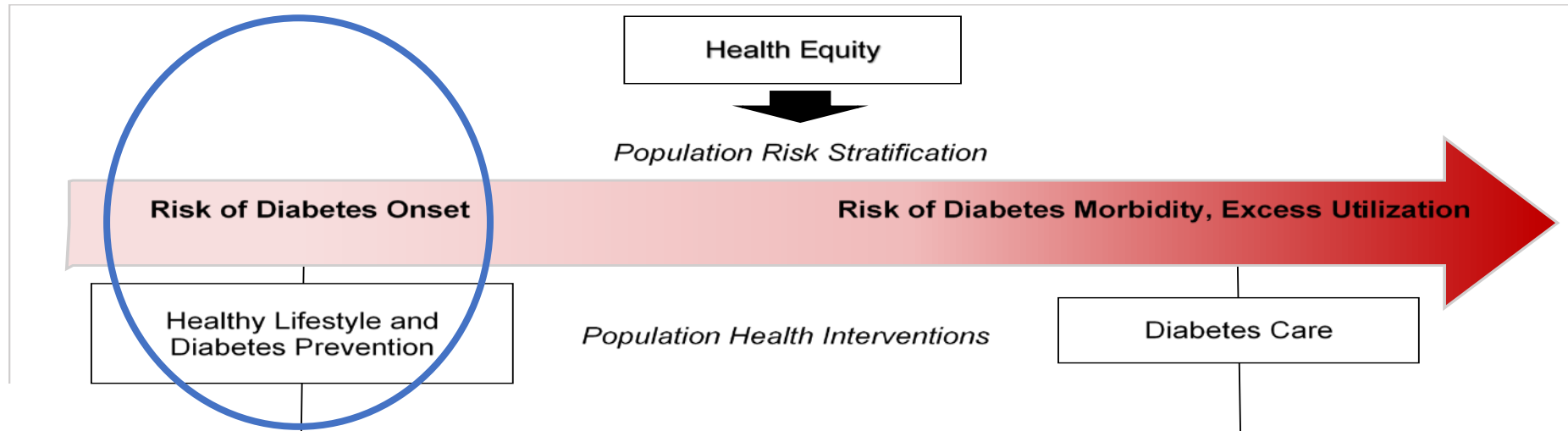
Living with diabetes is exhausting. People need support and empowerment to live their best life.

ADA is pleased to announce the launch of the new Mental Health Provider Referral Directory, which can help you locate mental health professionals in your area with demonstrated expertise in diabetes care.

<https://professional.diabetes.org/ada-mental-health-provider-directory>

# Diabetes Population Health Improvement

# Interventions for Population Health *Improvement*



- Proactive initiatives with goals of *prevention, risk reduction, health equity, and health promotion*
- Reduce need for care before individuals enter the healthcare system
- Reduce reliance on healthcare services by addressing the social and behavioural determinants that give rise to care that could have been avoided

[https://mmcp.health.maryland.gov/Documents/SIM%20Round%20Two/Appendix%20C\\_Maryland%20Population%20Health%20Improvement%20Plan\\_for%20website.pdf](https://mmcp.health.maryland.gov/Documents/SIM%20Round%20Two/Appendix%20C_Maryland%20Population%20Health%20Improvement%20Plan_for%20website.pdf)

# DIABETES PREVENTION

## The National Diabetes Prevention Program (DPP)



**30.3 Million with Diabetes**

**86.1 Million with Prediabetes**

# Prediabetes

Fasting Blood Sugar

126 mg/dL or More

100 to 125 mg/dL

Less than 100 mg/dL

Diabetes

Prediabetes

Normal

A1C Test

6.5% or More

5.7 to 6.4%

Less than 5.7%



The New England  
Journal of Medicine

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REDUCTION IN THE INCIDENCE OF TYPE 2 DIABETES WITH LIFESTYLE INTERVENTION OR METFORMIN

DIABETES PREVENTION PROGRAM RESEARCH GROUP\*

ABSTRACT

**Background** Type 2 diabetes affects approximately 8 percent of adults in the United States. Some risk factors — elevated plasma glucose concentrations in the fasting state and after an oral glucose load, overweight, and a sedentary lifestyle — are potentially reversible. We hypothesized that modifying these factors with a lifestyle-intervention program or the administration of metformin would prevent or delay the development of diabetes.

**Methods** We randomly assigned 3234 nondiabetic persons with elevated fasting and post-load plasma glucose concentrations to placebo, metformin (850 mg twice daily), or a lifestyle-modification program with the goals of at least a 7 percent weight loss and at least 150 minutes of physical activity per week. The mean age of the participants was 51 years, and the mean body-mass index (the weight in kilograms divided by the square of the height in meters) was 34.0; 68 percent were women, and 45 percent were members of minority groups.

**Results** The average follow-up was 2.8 years. The incidence of diabetes was 11.0, 7.8, and 4.8 cases per 100 person-years in the placebo, metformin, and lifestyle groups, respectively. The lifestyle intervention reduced the incidence by 58 percent (95 percent confidence interval, 48 to 66 percent) and metformin by 31 percent (95 percent confidence interval, 17 to 43 percent), as compared with placebo; the lifestyle intervention was significantly more effective than metformin. To prevent one case of diabetes during a period of three years, 6.9 persons would have to participate in the lifestyle-intervention program, and 13.9 would have to receive metformin.

**Conclusions** Lifestyle changes and treatment with metformin both reduced the incidence of diabetes in persons at high risk. The lifestyle intervention was more effective than metformin. (N Engl J Med 2002; 346:393-403.)

Copyright © 2002 Massachusetts Medical Society.

**T**YPE 2 diabetes mellitus, formerly called non-insulin-dependent diabetes mellitus, is a serious, costly disease affecting approximately 8 percent of adults in the United States.<sup>1</sup> Treatment prevents some of its devastating complications<sup>2,3</sup> but does not usually restore normoglycemia or eliminate all the adverse consequences. The diagnosis is often delayed until complications are present.<sup>4</sup> Since current methods of treating diabetes remain inadequate, prevention is preferable. The hypothesis that type 2 diabetes is preventable<sup>5,6</sup> is supported by observational studies and two clinical trials of diet, exercise, or both in persons at high risk for the disease<sup>7,8</sup> but not by studies of drugs used to treat diabetes.<sup>5</sup>

The validity of generalizing the results of previous prevention studies is uncertain.<sup>9</sup> Interventions that work in some societies may not work in others, because social, economic, and cultural forces influence diet and exercise. This is a special concern in the United States, where there is great regional and ethnic diversity in lifestyle patterns and where diabetes is especially frequent in certain racial and ethnic groups, including American Indians, Hispanics, African Americans, Asians, and Pacific Islanders.<sup>10</sup>

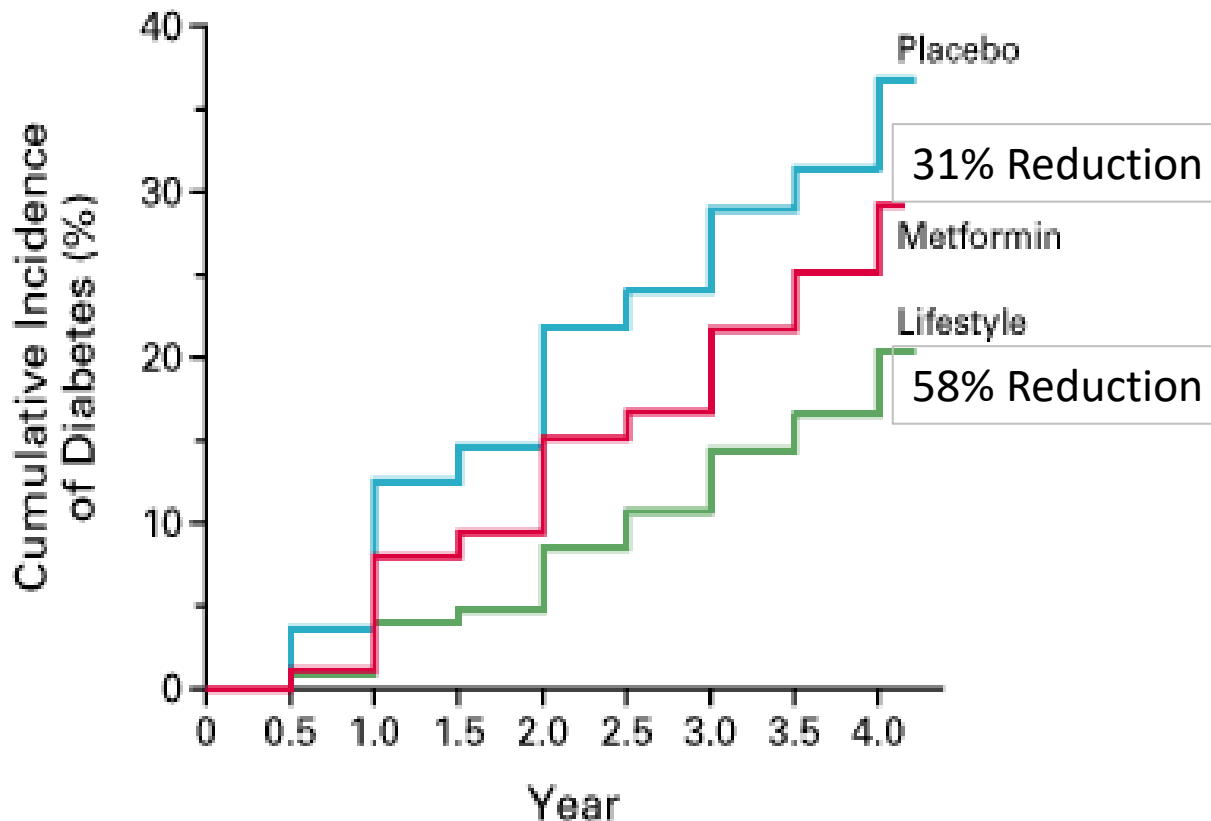
The Diabetes Prevention Program Research Group conducted a large, randomized clinical trial involving adults in the United States who were at high risk for the development of type 2 diabetes. The study was designed to answer the following primary questions: Does a lifestyle intervention or treatment with

The writing group (William C. Knowler, M.D., Dr.P.H., Elizabeth Barrett-Connor, M.D., Sarah E. Rowley, Ph.D., Richard F. Hamman, M.D., Dr.P.H., John M. Lachin, Sc.D., Elizabeth A. Walker, D.N.Sc., and David M. Nathan, M.D.) takes responsibility for the contents of this article.

Address reprint requests to the Diabetes Prevention Program Coordinating Center, Biostatistics Center, George Washington University, 6110 Executive Blvd., Suite 750, Rockville, MD 20852.

\*The members of the Diabetes Prevention Program Research Group are listed in the Appendix.

Incidence of Diabetes in Placebo and Two Treatment Groups



# U.S. DPP Long-Term Effects on Diabetes Incidence

- At 10 years after the trial . . .
  - Lifestyle Intervention maintained a 34% reduction in incident diabetes relative to placebo
  - Metformin 18% reduction
  - Lifestyle maintained greater cardiometabolic protection and less medication use
- At 15 years after the trial . . .
  - Lifestyle Intervention maintained a 27% reduction in incident diabetes relative to placebo
  - Metformin 18% reduction
  - Lifestyle maintained cardiometabolic protection, despite less medication use

# **Federal Agency and Health Organization Prioritizing of Diabetes Prevention**

Centers for Disease Control and Prevention (CDC) and National Institutes of Health (NIH)/NIDDK

- Translational research grants and contracts for DPP in real-world settings
- Addition of prediabetes to national reports and statistics

American Diabetes Association (ADA)

- Addition of Standards of Care chapter on Lifestyle Intervention for Prevention of Type 2 Diabetes
- ADA Governmental Affairs advocacy for policy prioritization

# The Diabetes Prevention Act of 2009

111<sup>TH</sup> CONGRESS  
1<sup>ST</sup> SESSION

## H. R. 4124

To amend the Public Health Service Act with respect to the prevention of diabetes, and for other purposes.

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IN THE HOUSE OF REPRESENTATIVES

NOVEMBER 19, 2009

Mrs. DAVIS OF CALIFORNIA (for herself, Ms. RICHARDSON, Mr. LOEBSACK, and Ms. BORDALLO) introduced the following bill; which was referred to the Committee on Energy and Commerce

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## A BILL

To amend the Public Health Service Act with respect to the prevention of diabetes, and for other purposes.

Amends the Public Health Service Act to direct the Secretary of Health and Human Services (HHS), acting through the Director of the Centers for Disease Control and Prevention (CDC), to establish a **national diabetes prevention program targeted at persons at high risk for diabetes.**

# CDC Establishes the U.S. National Diabetes Prevention Program (DPP) as Public Health

<https://www.cdc.gov/diabetes/prevention/index.html>

## National DPP Lifestyle Change Program Dissemination

1. Standardized, structured curriculum
2. New workforce: DPP Lifestyle Coach, with training and CDC certification
3. Specific goals, performance metrics, and reporting requirements
4. Use of community-based intervention settings rather than reliance solely on health care access
5. Insurance reimbursement to community settings and DPP lifestyle coaches

# PREVENT T2

A PROVEN PROGRAM TO PREVENT OR DELAY TYPE 2 DIABETES

## Lifestyle Coach Training Guide

### Program Overview



## Participant Guide

### When Weight Loss Stalls



## Guía del participante

### Introducción al programa



## Sessions 1-16

### Lifestyle Coach Intervention guide for Months 1-6



### Sesión 1: Bienvenido al Programa Nacional de Prevención de la Diabetes



## Intervención de estilo de vida

El currículo de la intervención de estilo de vida del Programa Nacional de Prevención de la Diabetes se basa en el currículo del estudio de investigación del Programa de Prevención de la Diabetes (DPP, por su sigla en inglés), respaldado por los Institutos Nacionales de Salud, el Instituto Nacional de la Diabetes y Enfermedades Digestivas y Renales, y el Acuerdo de Cooperación U01-DK48489<sup>1</sup>. La intervención del estilo de vida del DPP ha sido adaptado por: **Plan Forward** (Universidad de Indiana) y **Group Life Balance** (Universidad de Pittsburgh). Ciertos conceptos del currículo de intervención del estilo de vida del Programa Nacional de Prevención de la Diabetes se han adaptado a partir de estas fuentes. Ambas adaptaciones derivan del estudio de investigación del DPP respaldado por el Departamento de Salud y Servicios Humanos, que posee ciertos derechos sobre el material.

<sup>1</sup> Copyright ©1996 de la Universidad de Pittsburgh, licenciado en el marco del acuerdo de cooperación número U01-DK48489 del Departamento de Salud y Servicios Humanos de los EE.UU., que posee ciertos derechos sobre el material.

# Eligibility Criteria for DPP

- Adults (18 years of age or older)
- Overweight or obese
  - Body mass index (BMI) of  $\geq 24$  kg/m<sup>2</sup> ( $\geq 22$  kg/m<sup>2</sup>, if Asian descent)
- Prediabetes status (ADA Standards of Care)

**A1C 5.7 – 6.4%**

**Fasting Glucose: 100 mg/dL - 125 mg/dL**

**Impaired Glucose Tolerance**

- Or, history of gestational diabetes
- Or, Type 2 Diabetes Risk Test (paper, online)

# CDC Initial Performance Metrics for DPP months 1 - 6

|  |   |  |                 |
|--|---|--|-----------------|
| Session attendance during months 1-6       | Minimum of 9 sessions attended, on average  | Attendance averaged over all participants attending a minimum of 4 sessions  | Every 12 months |
| Documentation of body weight               | On average, participants must have had body weights recorded at a minimum of 80% of the sessions attended                         | Documentation of body weights based on all participants attending a minimum of 4 sessions  | Every 12 months |
| Documentation of physical activity minutes | On average, participants must have had physical activity minutes recorded at a minimum of 60% of all sessions attended            | Documentation of physical activity minutes based on all participants attending a minimum of 4 sessions   | Every 12 months |
| Weight loss achieved at six months         | Average weight loss achieved by participants attending a minimum of 4 sessions must be a minimum of 5% of "starting" body weight. | Weight loss averaged over all participants attending a minimum of 4 sessions. The first and last weights recorded for each participant during months 1-6 will be used to calculate this measure. | Every 12 months |



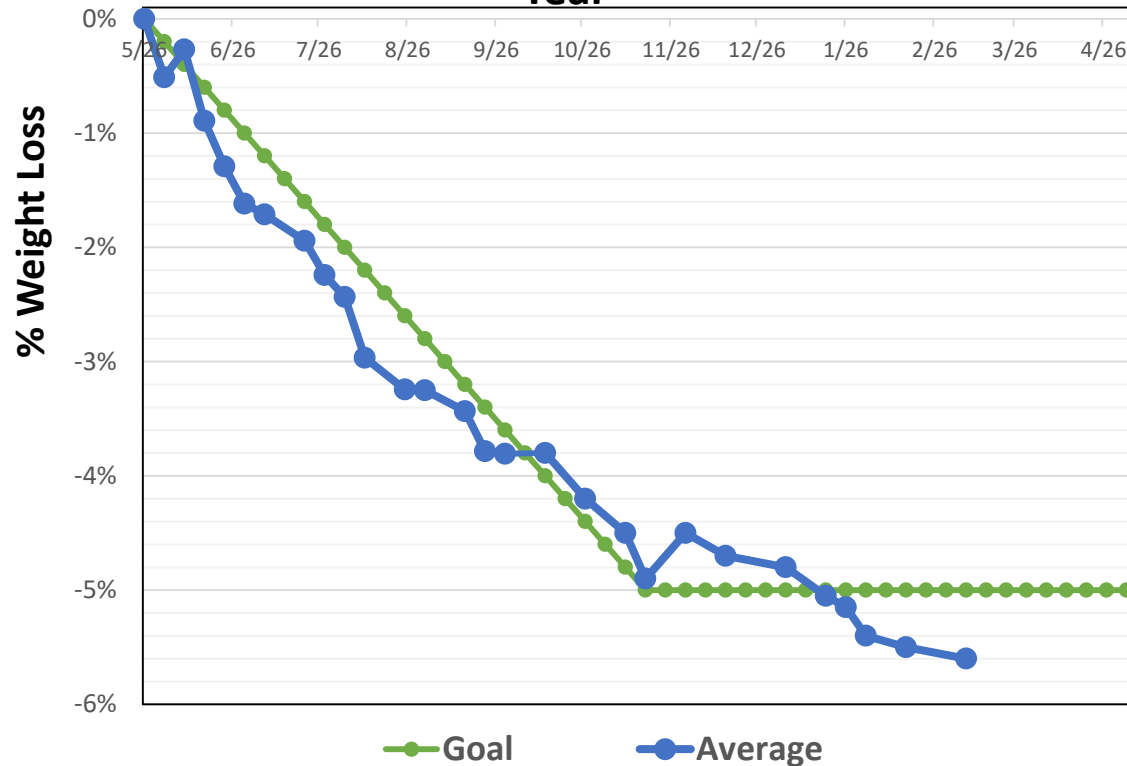
# CDC Initial Performance Metrics for DPP months 7 - 12

|   |  |   |                 |
|---|--|---|-----------------|
| Participant average session attendance during the months 7-12 | Minimum of 3 sessions in months 7-12   | Attendance averaged over all participants attending a minimum of 4 sessions   | Every 12 months |
| Weight loss achieved at 12 months                             | Average weight loss achieved over the entire 12 month intervention period by participants attending a minimum of 4 sessions must be a minimum of 5% of "starting" body weight. | Weight loss averaged over all participants attending a minimum of 4 sessions during the entire intervention period. The first and last weights recorded for each participant during months 1-12 will be used to calculate this measure. | Every 12 months |

# Medicare Coverage for DPP (as Public Health)

## Medicare Effectiveness and Cost Effectiveness Trial (CMMI)

Average 5% Weight Loss at 6 months and 1 Year



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Independent experts confirm that diabetes prevention model supported by the Affordable

**Cost savings: \$2,650/enrollee over 15 months compared to beneficiaries not in program**

Sylvia M. Burwell announced that the independent Office of the Actuary in the Centers for Medicare & Medicaid Services (CMS) certified that expansion of the Diabetes Prevention Program, a model funded by the Affordable Care Act, would reduce net Medicare spending. The expansion was also determined to improve the quality of patient care without limiting coverage or benefits. This is the first time that a preventive service model from the CMS Innovation Center has become eligible for expansion into the Medicare program.

Currently, about [30 million - PDF](#) Americans have type 2 diabetes, resulting in two deaths every five minutes in this country. Additionally, [86 million - PDF](#) Americans have a high risk of developing diabetes, because one in every three adults has prediabetes, a condition that arises when blood glucose levels are higher than normal but not high enough for a diagnosis of diabetes. Prediabetes

## Developing and Evaluating Effective Models to Obtain Medicaid Coverage for the National Diabetes Prevention Program (National DPP) through Medicaid Integrated Care Organizations

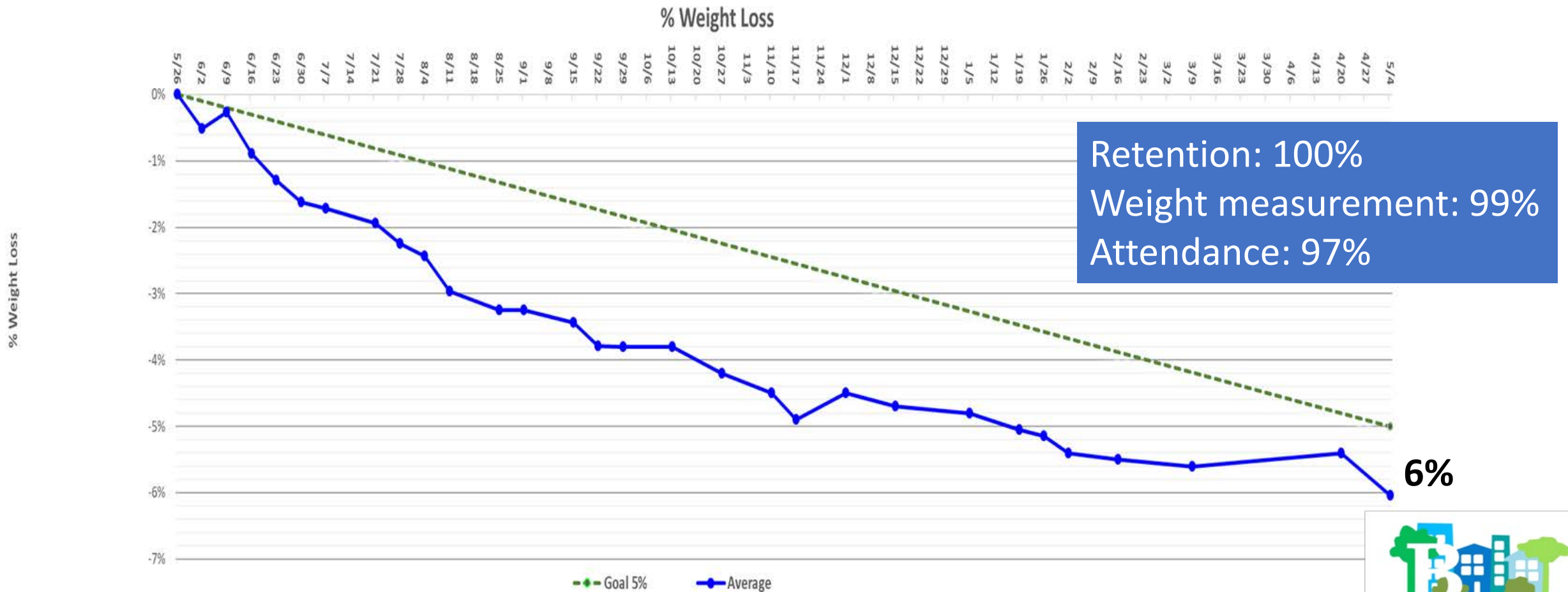
# Medicaid National DPP Demonstration

In July 2015, the Centers for Disease Control and Prevention (CDC) Division of Diabetes Translation (DDT) awarded a cooperative agreement through the CDC Office of State, Tribal, Local, and Territorial Support (OSTLTS) to the National Association of Chronic Disease Directors (NACDD) for a project designed to test the feasibility and effectiveness of various models to obtain Medicaid coverage for the National DPP. Two to three states will be selected to work with Medicaid Managed Care Organizations (MCOs), Accountable Care Organizations (ACOs), and/or Health Homes to develop and implement a coverage model for the National DPP. The coverage models will be evaluated and successful models will be translated for use by other states.

### Background

While authorities to provide the National DPP (<http://www.cdc.gov/diabetes/prevention/>) as a covered preventive service through managed care options exist, they have not always been clearly articulated or prioritized. Further, the Medicaid landscape is changing as states respond to provisions in the Affordable Care Act (ACA) regarding health delivery and transformation, including new requirements related to quality measures, value-based purchasing, risk-sharing, access, and prevention. Through this project, states will determine how to leverage opportunities to obtain coverage for the National DPP, either alone or as part of a bundled package of chronic disease preventive services, to Medicaid beneficiaries with prediabetes through Integrated Care Models, including MCOs, ACOs, and Health Homes.

# Example of Community DPP Effectiveness: Johns Hopkins Hopkins Brancati Center Average % Weight Loss at 12 Months



# DPP Resources

## DIABETES PREVENTION IMPACT TOOLKIT

# DIABETES PREVENTION IMPACT TOOLKIT

Use this Impact Toolkit to project the health and economic effects of the National DPP lifestyle change program on your population at risk for diabetes. For technical details on the Impact Toolkit and how to use it, or See the [HELP](#) page for a complete list of Impact Toolkit resources.

To get started, choose one of the modules below.



STATE



EMPLOYER



INSURER


Provides estimates of:

- Total cost of delivering the DPP to a covered population
- Total health benefit resulting from the program
- Life years gained and quality-adjusted life years saved
- Cost-effectiveness of the lifestyle change program
- Return on investment, if applicable

# Online Risk Test

[www.diabetes.org/risktest](http://www.diabetes.org/risktest)

## Are you at risk for type 2 diabetes?



**WRITE YOUR SCORE IN THE BOX.**

**1. How old are you?** .....

Less than 40 years (0 points)  
40-49 years (1 point)  
50-59 years (2 points)  
60 years or older (3 points)

**2. Are you a man or a woman?** .....

Man (1 point)    Woman (0 points)

**3. If you are a woman, have you ever been diagnosed with gestational diabetes?** .....

Yes (1 point)    No (0 points)

**4. Do you have a mother, father, sister or brother with diabetes?** .....

Yes (1 point)    No (0 points)

**5. Have you ever been diagnosed with high blood pressure?** .....

Yes (1 point)    No (0 points)

**6. Are you physically active?** .....

Yes (0 points)    No (1 point)

**7. What is your weight category?** .....

*See chart at right.*

| Height | Weight (lbs.) |         |      |
|--------|---------------|---------|------|
| 4' 10" | 119-142       | 143-190 | 191+ |
| 4' 11" | 124-147       | 148-197 | 198+ |
| 5' 0"  | 128-152       | 153-203 | 204+ |
| 5' 1"  | 132-157       | 158-210 | 211+ |
| 5' 2"  | 136-163       | 164-217 | 218+ |
| 5' 3"  | 141-168       | 169-224 | 225+ |
| 5' 4"  | 145-173       | 174-231 | 232+ |
| 5' 5"  | 150-179       | 180-239 | 240+ |
| 5' 6"  | 155-185       | 186-246 | 247+ |
| 5' 7"  | 159-190       | 191-254 | 255+ |
| 5' 8"  | 164-196       | 197-261 | 262+ |
| 5' 9"  | 169-202       | 203-269 | 270+ |
| 5' 10" | 174-208       | 209-277 | 278+ |
| 5' 11" | 179-214       | 215-285 | 286+ |
| 6' 0"  | 184-220       | 221-293 | 294+ |
| 6' 1"  | 189-226       | 227-301 | 302+ |
| 6' 2"  | 194-232       | 233-310 | 311+ |
| 6' 3"  | 200-239       | 240-318 | 319+ |
| 6' 4"  | 205-245       | 246-327 | 328+ |

|         |          |          |
|---------|----------|----------|
| 1 point | 2 points | 3 points |
|---------|----------|----------|

If you weigh less than the amount in the left column: 0 points

Adapted from Bang et al, Ann Intern Med 151:725-733, 2009  
Original algorithm was validated without gestational diabetes as part of the model.

**ADD UP YOUR SCORE.**

**If you scored 5 or higher:**  
You are at increased risk for having type 2 diabetes. However, only your doctor can tell for sure if you do have type 2 diabetes or prediabetes, a condition in which blood glucose levels are higher than normal but not yet high enough to be diagnosed as diabetes. Talk to your doctor to see if additional testing is needed.

Type 2 diabetes is more common in African Americans, Hispanics/Latinos, Native Americans, Asian Americans, and Native Hawaiians and Pacific Islanders.

Higher body weight increases diabetes risk for everyone. Asian Americans are at increased diabetes risk at lower body weight than the rest of the general public (about 15 pounds lower).

**The good news is you can manage your risk for type 2 diabetes. Small steps make a big difference in helping you live a longer, healthier life.**

For more information, visit us at [diabetes.org/risktest](http://diabetes.org/risktest) or call 1-800-DIABETES (800-342-2383).

- Online Risk Test takes less than one minute to complete

- Connects people to care and resources

## IF HIGH RISK (SCORE ≥ 5)

- How to discuss diabetes with a doctor
- Information to register for a local or online diabetes prevention program

## IF LOW RISK (SCORE < 5)

- Healthy living information and programs
- Caregiver toolkits and services
- Advocate tools
- Invitations to re-screen periodically

## National DPP Support

# New ADA Resource: *DPP Express* Documentation Platform

<https://professional.diabetes.org/content-page/dpp-express-diabetes-prevention-program-charting-platform>

- HIPAA and HI TECH compliant
- CDC 2018 DPP Standards and CMS MDPP reimbursement requirements
- Document CDC required DPP session data and ability to document additional biometrics/data points
- Generate CDC Recognition CSV reports
- Billing alert when DPP participants meet Medicare reimbursement requirements
- Platform is available to all. Nominal fee and ADA ERP discount.

1338 - Program Overview

Date: Jan 2nd 2018, 2:00 pm

Delete

Session Participants

| Participant | Session Type | Session Date | Delivery Method | Duration | PA Minutes | Coach | Weight | Billing Status |
|-------------|--------------|--------------|-----------------|----------|------------|-------|--------|----------------|
| John Doe    |              |              |                 |          |            |       |        | \$             |
| Jane Doe    |              |              |                 |          |            |       |        | \$             |
| Jim Doe     |              |              |                 |          |            |       |        | \$             |

Session Type  
Session Date  
Delivery Method  
Duration  
PA Minutes  
Coach  
Weight

Multiple additional biometrics can be collected if needed

Billing Status



# Johns Hopkins Online (Virtual) DPP

Welcome!

Kathy Michalski - Director of Intervention: act2 Program Johns Hopkins Medicine



← Back

Continue →

## Today's Meeting Focus

**During this introductory pre-meeting, we will:**

- Get to know one another;
- Talk about how this program was developed and what prediabetes means;
- Review program goals;
- Discuss each of our roles and responsibilities week to week;
- Introduce keeping track of our foods and our weight;
- Determine if the program is right for you.



First, let's take a few minutes to get to know one another.

← Back

Continue →



# 2018 Health Care & Education Presidential Address: The American Diabetes Association in the Era of Health Care Transformation

*Felicia Hill-Briggs*

*Diabetes Care 2019;42:352–358 | <https://doi.org/10.2337/dci18-0051>*

**This address was delivered by Felicia Hill-Briggs, PhD, ABPP, President, Health Care & Education of the American Diabetes Association (ADA) at the ADA's 78th Scientific Sessions in Orlando, FL, on 23 June 2018. Diabetes has become a high-priority condition in the current era of health care transformation due to diabetes and prediabetes prevalence rates, suboptimal diabetes outcomes at the health care system and population levels, and high health care and public health costs attributed to diabetes. Population health is the path forward for the ADA to**

*Thank you!*

**Felicia Hill-Briggs, PhD, ABPP**

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