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## You Don't Have to Get Diabetes

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Jefferson College of Population Health

# You Don't Have to Get Diabetes

Department of Family and Community Medicine Resident Grand Rounds

Mitch Kaminski, MD, MBA

Neva White, DNP, CRNP, CDCES

July 30, 2020

# Tip of the Iceberg



**US Diabetes\***  
34.2 M (10.5%)  
2.8 M un-dx (8.2%)

**US Pre-Diabetes**  
88 M (>35%)  
74 M un-dx (84%)

\* 2018 ADA data, 13% of adults

🖥️ When poll is active, respond at **PollEv.com/mitchellkami567**

📱 Text **MITCHELLKAMI567** to **22333** once to join

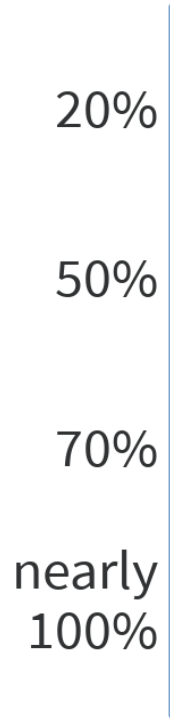
## What is your favorite color?

Start the presentation to see live content. For screen share software, share the entire screen. Get help at [pollev.com/app](https://pollev.com/app)



**You are seeing a patient whose BMI is 36. His/her first hemoglobin A1c is 5.9**  
**At this point, what word comes to mind?**

# How likely is this patient to develop diabetes?



*Do you feel like you are mopping the floor?*



# Turn off the faucet!





## Today's objective:

*You will tell this patient, with full confidence*

***“You Don't Have to Get  
Diabetes”***

# How much higher are medical costs for a patient with diabetes?

10.1x  
higher

5.2x  
higher

2.3x  
higher

50%  
higher

# Diagnosed diabetes is associated with a significant cost burden

## Estimated economic cost of diabetes - 2017

**\$327  
BILLION**

**\$237B** in direct medical costs  
**\$90B** in reduced productivity

## Estimated individual cost of diabetes



**\$9,600**/yr. avg. medical expenses attributed to diabetes  
**2.3X** higher expenses than those w/o diabetes

American Diabetes Association. Economic Costs of Diabetes in the US in 2017. *Diabetes Care*. 2018; 41(5): 917-928. <https://doi.org/10.2337/dci18-0007>

# Diabetes and COVID-19

- Current evidence suggests that diabetes is a risk factor for more severe COVID-19
- Indirect effects of COVID-19 include changes to health care and daily lives

Centers for Disease Control and Prevention. Coronavirus Disease 2019 (COVID-19): People of Any Age with Underlying Medical Conditions. <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html>. Accessed 7/14/20.

Hartmann-Boyce J, Morris E, Goyder C, et al. Diabetes and COVID-19: risks, management, and learnings from other natural disasters. *Diabetes Care*. June 16, 2020. <https://doi.org/10.2337/dc20-1192>.

# What can a family physician do?

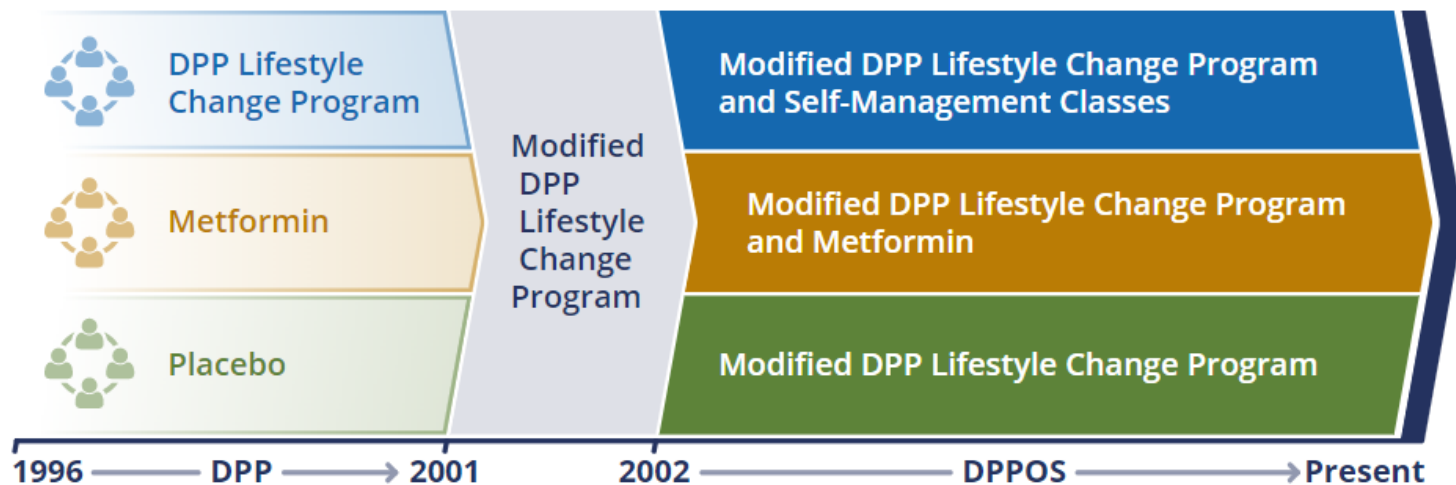
- Would you prescribe a medicine, taken once a week, that could delay or even avoid your patient's progression to type 2 diabetes?
- There would be no out-of-pocket cost to your patient, but potential side effects include increased patient self-efficacy and self-esteem, and an opportunity for greater community interaction.

# Introducing...

# The National Diabetes Prevention Program (DPP)

# Historical starting point: DPP study

## DPP & DPPOS Timeline



2010: National DPP created  
2018: CMS covers  
participation

# The DPP Program Itself

- ✓ **Year-long hour-length classes**
  - months 1-6: at least 16 classes offered
  - months 7-12: at least 6 classes offered
  - make-up classes offered
- ✓ **In-person, virtual, distance learning, or combination**
- ✓ **Weight, activity minutes tracked**

*The structure, group support and learning are the “secret formula” in the DPP program...*



# Understanding the National DPP Lifestyle Change Program



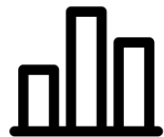
Trained lifestyle coaches teach group classes



Programs deliver a CDC-approved curriculum



Emphasis on prevention and empowerment through a personal action plan



Quality assurance through the Centers for Disease Control and Prevention (CDC); programs are required to submit data on participant outcomes

**\*Key standard for CDC recognition: Average participant body weight loss of 5%.**

# Prediabetes Screening, Testing, and Referring

# U.S. Preventive Services Task Force (USPSTF) abnormal glucose recommendation



## Grade B recommendation

- Screen all adults ages 40-70 AND who have a BMI  $\geq 25$
- Screen with a fasting glucose, hemoglobin A1C or oral glucose tolerance test

***USPSTF standards suggest testing patients  
every 3 years***

Final Recommendation Statement: Abnormal Blood Glucose and Type 2 Diabetes Mellitus: Screening. U.S. Preventive Services Task Force. April 2018.  
<https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/screening-for-abnormal-blood-glucose-and-type-2-diabetes>. Accessed February 14, 2020.

# USPSTF abnormal glucose recommendation

Consider testing adults of a lower age or BMI if risk factors are present



## Family history

Family history of type 2 diabetes includes first-degree relatives (a person's parent, sibling or child)



## Medical history

Gestational diabetes  
Polycystic ovary syndrome



## Racial & ethnic minorities

African Americans  
American Indians  
Alaskan Natives  
Asian Americans  
Hispanics or Latinos  
Native Hawaiians or Pacific Islanders

Final Recommendation Statement: Abnormal Blood Glucose and Type 2 Diabetes Mellitus: Screening. U.S. Preventive Services Task Force. April 2018.  
<https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/screening-for-abnormal-blood-glucose-and-type-2-diabetes>. Accessed February 14, 2020.

# USPSTF abnormal glucose recommendation



Offer or refer patients with abnormal glucose to intensive behavioral counseling interventions to help promote a healthy diet and physical activity

Final Recommendation Statement: Abnormal Blood Glucose and Type 2 Diabetes Mellitus: Screening. U.S. Preventive Services Task Force. April 2018.  
<https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/screening-for-abnormal-blood-glucose-and-type-2-diabetes>. Accessed February 14, 2020.

# Who qualifies for the National DPP Lifestyle Change Program?

# 5.7%-6.4%

## HbA1c

## Prediabetes Risk Test

### 1. How old are you?

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

Write your score in the boxes below

### 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)

Total score:

If you scored 5 or higher

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

If you are African American, Hispanic/Latino American, American Indian/Alaska Native, Asian American, or Pacific Islander, you are at higher risk for prediabetes and type 2 diabetes. Also, if you are Asian American, you are at increased risk for type 2 diabetes at a lower weight (about 15 pounds lower than weights in the 1 Point column). Talk to your doctor to see if you should have your blood sugar tested.

You can reduce your risk for type 2 diabetes

Find out how you can reverse prediabetes and prevent or delay type 2 diabetes through a **CDC-recognized lifestyle change program** at <https://www.cdc.gov/diabetes/prevention/lifestyle-program>

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+
	<b>1 Point</b>	<b>2 Points</b>	<b>3 Points</b>

You weigh less than the 1 Point column (0 points)

Adapted from Bang et al., *Ann Intern Med* 150:776-783, 2009. Original algorithm was validated without gestational diabetes as part of the model.

American Diabetes Association

CDC

# Enrolling in the National DPP Lifestyle Change Program

**Participants must meet ALL the following:**

- ✓ Be 18 years or older
- ✓ Overweight or obese
- ✓ Not diagnosed with diabetes
- ✓ Not pregnant

**And ONE of the following:**

- ✓ Blood test within the past year:
- ✓ Previous diagnosis of gestational diabetes
- ✓ An elevated score on a prediabetes risk test/questionnaire

Standards and Operating Procedures. Centers for Disease Control and Prevention Diabetes Prevention Recognition Program [www.cdc.gov/diabetes/prevention/recognition](http://www.cdc.gov/diabetes/prevention/recognition). March 1, 2018

# AMAPreventDiabetes.org

AMA  
AMERICAN MEDICAL  
ASSOCIATION

SEARCH LOGIN

The case for diabetes prevention Success stories Tools for the team Clinical overview Engage with us

The AMA can help you prevent type 2 diabetes

Approximately one in three adults has prediabetes, and 90 percent of people with prediabetes are unaware.

The American Medical Association offers a comprehensive assessment and guided process to support your health care organization with implementing a diabetes prevention strategy, including access to an evidence-based diabetes prevention lifestyle change program.

Get started today.

Take the first step toward developing a free customized diabetes prevention strategy.

Your Name

Your Email

By signing up you agree to the [terms of service](#).

Get started





Jefferson College of Population Health

# Prioritizing Diabetes Prevention

*my practice after I drank the (sugar free) Kool-aid*

# **Lose Weight and Prevent Diabetes**

## **Center for Urban Health Diabetes Prevention Program Local Master Trainer**

**Neva White DNP, CRNP, CDE**

# Virtual Lifestyle Coach Training

- The Diabetes Prevention Programs are led by certified Lifestyle Coaches, trained by CDC approved training entities
- Two Day - 8 hour training

# Virtual Diabetes Prevention Program

## Lose weight and Prevent Diabetes

Centers for Disease Control National Diabetes Prevention Program

Full Recognition Program

Prevent T2 curriculum



# Prevent T2 Curriculum

Module Topic	Theme
Get Active to Prevent T2 Track Your Activity Eat Well to Prevent T2	Skill
Get Support Take Charge of Your Thoughts	Emotions
Shop and Cook to Prevent T2 Eat Well Away from Home	Environment
Keep Your Heart Healthy	Health and Wellness



The lifestyle change program curriculum emphasizes self-monitoring, self-efficacy, and problem-solving; provides for coach feedback; includes participant materials to support program goals; and calls for participant weigh-ins to track progress.

# A Patient's Story

LISA

# Distance Learning Using Zoom

## 2018-2019 Pilot Outcomes (Jefferson data)

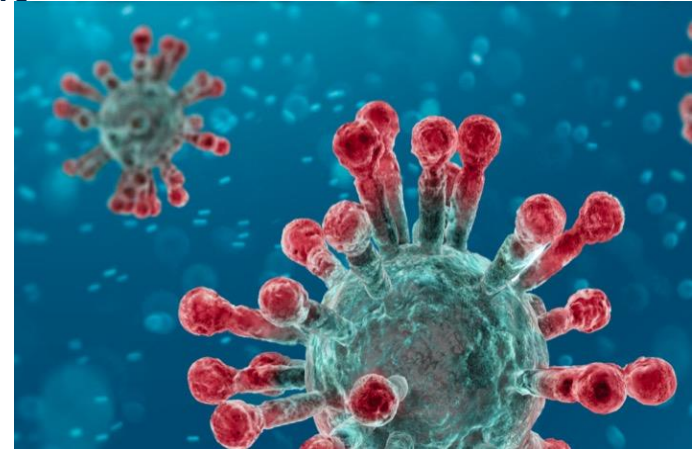
Enrollment	A total of enrolled 25
DPP Retention	84% (n=21) of individuals enrolled, attended at least 5 core sessions (month 1-6; 16 sessions)  65% (n=15) completed at least 5 core sessions and 5 post core (month 7-12; 6-12 sessions)

### Of the 15 individuals who completed the program:

Weight Loss	87% (n=13) lost at least 5% of their starting body weight
Physical Activity	87% (n= 13) achieved over 150 minutes per week of physical activity

# Virtual Program Delivery in the Time of Covid-19

- Facilitated Program: the virtual program is consistent with the in-person CDC recognized curriculum
- Better retention rate and improved engagement
- Rich discussions
- No Travel
- No concerns about the weather
- Easier to secure Guest Speakers
- A way to stay connected to the outside world!





# Distance Learning Using Zoom

## Closing the Digital Divide

- Selecting a Platform
  - Zoom (Jefferson Approved)
- Training
  - (One on One Training for each participant new to Zoom)
- Regular Email/ Phone Reminders

# Distance Learning Using Zoom

## Closing the Digital Divide

- February 2020 ( Cohort 1)
- 32 enrolled
- 5 alumni enrolled
- Currently 97% participation
- 100% alumni still active
- July 15, 2020 (Cohort 2)
- 31 enrolled

# Where is DPP being delivered?

- Anywhere a group of eligible participants can convene - typically 10-20 participants
- Currently, due to COVID19, all programs are virtual
- Delivery sites and partners are continually evolving
- Programs are initiated when sufficient registration is achieved



# Standard Referral Process

**A primary goal is to make the referral and enrollment process as simple and seamless as possible for the healthcare provider, patient, and DPP provider/supplier.**

## Healthcare Provider (HCP)

- Screen, Test, Refer
- Counsel patient on reason for referral -  
\*very important\*
- Provider or patient identifies a program



## DPP Provider / Supplier

- Receives referral from HCP by mail, fax, secure email or EHR or secure FTP
- Contacts patient to enroll
- Tracks weight and attendance
- Ideally, notifies HCP of enrollment



## Patient completes one-year program

- Ideally, DPP provider communicates completion to HCP provider
- Patient shares experience with HCP

# In EPIC “Orders” type “Center for Urban Health”

Options ▾ Connect USB Device ▾ Send Ctrl-Alt-Delete

**Ambulatory referral to Center for Urban Health** ✓ Accept ✗ Cancel

Class:

Referral: ☐ Override restrictions

To dept:

To dept spec:

To provider:

Reason:  Specialty Services Required Second Opinion Patient Preference

Medical Neighborhood

Priority:  Routine Urgent Elective

Reason ☐ Chronic Disease Management ☒ Diabetes Prevention ☐ Diabetes Management

☐ Hypertension Management

Comments: ⊕ abc ↶ ↷ ⓘ ⓘ +  📄 ⬅ ➡ ↶ ↷

Patient HbA1c 6.0, interested in DPP

# Sign Order for Referral

The screenshot displays the Epic Hyperspace interface for a patient named Rr M. Testmap. The interface includes a top navigation bar with various tools like Patient Lookup, Encounter, and L&D Manager. A central pane shows the 'Orders' section, which is currently displaying a list of orders. A red circle highlights a specific order: 'Ambulatory referral to Center for Urban Health'. This order is categorized as 'Internal Referral, Routine, CUH 211 S 9TH ST, Family Medicine, Specialty Services Required'. Below the order details, there is a 'Select a pharmacy' option. At the bottom right of the interface, there is a 'SIGN ORDERS (1)' button, which is highlighted by a red circle, indicating the next step in the process.

Epic Hyperspace - JUP FAM MED 833 CHES - TJUH Production

MITCHELL K. EpicCare

RT

**Rr M. Testmap**  
Male, 75 y.o., 12/17/1944  
MRN: 401003202  
Code: Not on file (no ACP docs)  
Phone: 888-888-8888  
Reminders: None +

Search

PDMP: Never Reviewed  
Care Team: No PCP

Start Review

Orders

Visit Diagnoses  
Problem List  
Disp & CC Chart

Diagnoses

Abdominal pain  
Acute sinusitis  
Allergic rhinitis

BestPractice Meds & Orders SmartSets

Associate Signed Orders Patient Estimates Providers

Close Previous Next

Dx Association Edit Multiple Estimates Options

After Visit  
**Ambulatory referral to Center for Urban Health**  
Internal Referral, Routine, CUH 211 S 9TH ST, Family Medicine,  
Specialty Services Required

Select a pharmacy

PEND SIGN ORDERS (1)

Hyperspace - JUP FA...

7:18 AM

# Referrals to DPP Lifestyle Change Programs

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1. If you have existing successful referral pathways - continue to use them.
2. Best practices for referrals to lifestyle change programs are evolving.
3. One size does not fit all - a variety of programs are needed to serve diverse populations.
4. Social determinants play a significant role in successful enrollment and retention in, and completion of DPP.
5. COVID-19 has created a significant shift in program delivery.

***Goal - streamline the steps required to make referrals to and enroll in DPP***

# Only Together Can We Prevent Type 2 Diabetes



It brings together:



to achieve a greater impact on reducing type 2 diabetes



# Questions?

# Jefferson College of Population Health

