Putting Diabetes Prevention Into Practice

Kirsten Aird, MPH
Health Promotion and Chronic Disease Prevention
Oregon Public Health Division

Annual Diabetes Practice Update
November 4, 2016
Presenter Disclosure Information

In compliance with the accrediting board policies, the American Diabetes Association requires the following disclosure to the participants:

Kirsten Aird, MPH

Disclosed no conflict of interest
Overview

• Diabetes is *increasing*, and it is *costly*
• Oregon has a *strategic plan* to decrease diabetes and obesity
• Oregon is implementing initiatives for *sustainable policy and systems change* to support diabetes prevention
Diabetes in Oregon has doubled since 1990

Source: Oregon BRFSS
The rise in diabetes has mirrored the rise in obesity.

Source: Oregon BRFSS
Diabetes affects some communities more than others

• Those with less than a high school education
• Oregon Health Plan (OHP) members
• Racial and ethnic minority groups

These groups are 2-3 times more likely to have diabetes
Diabetes is costly

$3 billion annually

$2.2 billion in excess medical expenditures

+ $840 million in reduced productivity
**Behavior**

- Tobacco Use
- Physical Inactivity
- Diet
- Alcohol

**Disease**

- Heart Disease
- Stroke
- Cancers
- Diabetes
Diabetes strategic plan

www.healthoregon.org/diabetes
Healthy places, healthy people: A framework for Oregon

Mission:
To advance policies, environments and systems that promote health and prevent and manage chronic diseases.

Vision 2020:
All people in Oregon live, work, play, and learn in communities that support health and optimal quality of life.
The Health Impact Pyramid

Population impact

Low

High

Individual effort

Low

High

Counseling and Education

Clinical Interventions

Long-Lasting Protective Interventions

Socioeconomic Factors

Changing the Context to Make Individuals' Default Decision Healthy

The Health Impact Pyramid
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Public Health Division
In compliance with the accrediting board policies, the American Diabetes Association requires the following disclosure to the participants:

Don Kain, MA, RD, LD, CDE

Disclosed no conflict of interest
Objectives

List the components and goals of the National Diabetes Prevention Program

Discuss the importance of identifying high risk patients and making referrals to the National DPP

Describe the process for bringing the National DPP to your community or clinical practice
Prediabetes/Diabetes by the Numbers

A1C NUMBERS
- Diabetes: 6.4%
- Prediabetes: 5.7%
- Normal blood sugar: <5.7%

Fasting blood sugar reading:
- Normal: 75 mg/dl
- Prediabetes: 100-125 mg/dl
- Diabetes: 140-200 mg/dl

2-hour OGT test:
- Pre-diabetes: 140 mg/dl
- Diabetes: 200 mg/dl

*Note: Individuals with an A1C of <5.7% may still be at increased risk for diabetes depending on risk factors like obesity and family history of diabetes.

Diabetes Prevention Program
Original Research

Multicenter NIH Clinical Trial
- 3,234 participants with prediabetes
- 27 clinical centers in U.S.

Lifestyle
- Reduced calories, low-fat diet
- 150 minutes of exercise per week (30 minutes of walking 5 days per week)
- Weight loss goal = 7% of body weight

Metformin
- 850 milligrams BID

Placebo

Study Results

Lifestyle
- Risk for developing diabetes decreased by 58%

Metformin
- Risk for developing diabetes decreased by 31%

What Did the DPP Research Study Show?

- **Weight loss** was the most important factor in lowering the risk for type 2 diabetes.

- The effect of weight loss on the risk for type 2 diabetes was the same across the board – regardless of sex, socioeconomic status, race, or ethnicity.

- Millions of people at risk for diabetes in the U.S. can **prevent or delay type 2 diabetes** through modest weight loss as part of a structured lifestyle program.
Prevention or delay of diabetes lasts at least 15 years

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Risk Reduction @ 3 Years</th>
<th>Risk Reduction @ 10 Years</th>
<th>Risk Reduction @ 15 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifestyle</td>
<td>58%</td>
<td>34%</td>
<td>27%</td>
</tr>
<tr>
<td>Metformin</td>
<td>31%</td>
<td>18%</td>
<td>18%</td>
</tr>
</tbody>
</table>


Group Delivery of DPP

The same outcomes can be achieved if the Lifestyle Change Program is:
- Offered in community-based settings
- Delivered in a group
- Facilitated by a trained Lifestyle Coach without a health care background
- Offered without incentives

- Similar levels of weight-loss were obtained!
  - DEPLOY Study
  - Special Diabetes Program for Indians Diabetes Prevention Demonstration Project
  - Montana Diabetes Prevention Program
  - Minnesota I CAN Prevent Diabetes Program

CDC National DPP

REDUCING THE IMPACT OF DIABETES

It brings together:

- Employers
- Health Care Organizations
- Faith-Based Organizations
- Government Agencies
- Private Insurers
- Community Organizations

Research shows structured lifestyle interventions can cut the risk of type 2 diabetes in half.

Congress authorized CDC to establish the NATIONAL DIABETES PREVENTION PROGRAM (National DPP) — a public-private initiative to offer evidence-based, cost effective interventions in communities across the United States to prevent type 2 diabetes.
National DPP Goals and Structure

Program Goals

• Weight Loss: 5-7% of starting body weight

• Increasing physical activity to 150 minutes

Program Structure

• 16 weekly sessions delivered once a week during months 1-6

• Monthly or bi monthly sessions during months 7-12
Eligible National DPP Participants

Overweight Adults:

- Adult aged 18 years and older with a BMI of 24 or greater (Asian Americans: 22 or greater)

Prediabetes:

- Prediabetes **diagnosed** through blood test (Fasting blood sugar, A1C, oral glucose tolerance test)
- **OR** history of **gestational diabetes**
- **OR** increased risk based on **prediabetes risk quiz**

[https://doihaveprediabetes.org/pdf/Prediabetes_RiskTest_12.11.pdf](https://doihaveprediabetes.org/pdf/Prediabetes_RiskTest_12.11.pdf)
National DPP- How it Works…

Relies on self-monitoring, goal setting, group process

• One hour sessions

• Self-monitoring of weight, food intake, minutes of physical activity

• Goal/action plan set at each session

• Lifestyle Coach leverages group process to allow group to problem-solve and support change
National DPP- Curriculum Themes

Skills

Emotions

Environment

Health and Wellness
DPP in Action
### CDC Diabetes Prevention Recognition Program

<table>
<thead>
<tr>
<th>Duration</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply</td>
<td>• Apply for recognition (agree to curriculum, duration, intensity, data reporting)</td>
</tr>
<tr>
<td>2 wks</td>
<td>• Granted “pending recognition” by CDC</td>
</tr>
<tr>
<td>12 mos</td>
<td>• Organization begins lifestyle change program within 6 months of pending recognition</td>
</tr>
<tr>
<td>24 mos</td>
<td>• Organization submits evaluation data every 12 months as described in DPRP standards</td>
</tr>
<tr>
<td>Ongoing</td>
<td>• Recognition status assessed-granted full recognition if standards are met</td>
</tr>
<tr>
<td></td>
<td>• Organization continues to submit data annually. Recognition status is evaluated every 24 months thereafter</td>
</tr>
</tbody>
</table>
Medicare DPP (MDPP) providers new to Medicare enroll as a “supplier”

- Supplier submits claims using standard Medicare claims forms
- Must have CDC recognition for at least 1 year before billing as Medicare supplier
- January 2017: Suppliers can enroll in Medicare
- January 2018: Suppliers can bill for providing DPP service
Identifying Patients at High Risk

www.doihaveprediabetes.org
DO YOU HAVE PREDIABETES?

Prediabetes Risk Test

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 status?
   - (see chart at right)

Write your score in the box:

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If you scored 5 or higher:

You’re likely to have prediabetes and are at high risk for type 2 diabetes. However, only your doctor can tell you for sure if you have type 2 diabetes or prediabetes (a condition that precedes type 2 diabetes in which blood glucose levels are higher than normal). Talk to your doctor to see if additional testing is needed.

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

Higher body weights increase diabetes risk for everyone. Asian Americans are at increased diabetes risk at lower body weights than the rest of the general public (about 1 pound lower).

For more information, visit us at DoIHavePrediabetes.org

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LOWER YOUR RISK

Here’s the good news: it is possible with small steps to reverse prediabetes, and those measures can help you live a longer and healthier life.

If you are at high risk, the best thing to do is contact your doctor to see if additional testing is needed.

Visit DoIHavePrediabetes.org for more information on how to make small lifestyle changes to help lower your risk.

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Adapted from Bang et al., Ann Intern Med 151:775-783, 2009.

Original algorithm was validated without gestational diabetes as part of the model.
Screen & Refer Patients to a DPP

National Diabetes Prevention Program

Screen & Refer Patients to a Lifestyle Change Program (for Professionals)

Find tools to help screen your patients for prediabetes and refer them to a CDC recognized diabetes prevention lifestyle change program.

Learn how a CDC recognized lifestyle change program can help patients prevent type 2 diabetes and what you can do to encourage your patients to participate.

In This Section...

Help Patients Prevent Diabetes
Help your at-risk patients prevent or delay type 2 diabetes by screening and referring them to a CDC recognized diabetes prevention lifestyle change program.

Why Refer to a Lifestyle Change Program?
Referring patients to a CDC recognized diabetes prevention lifestyle change program is smart practice.

Benefits for Your Patients
Learn how your patients can benefit from CDC recognized lifestyle change programs and why the programs work so well.

Program Eligibility
Identify patients in your practice who are eligible for a CDC recognized lifestyle change program.

Benefits to Your Practice
Referring patients to a diabetes prevention lifestyle change program can help your practice meet regulatory, state licensing, and board recertification requirements.

Resources for Screening & Referral
Find the tools you need to easily screen, test, and refer patients at risk for type 2 diabetes.

National DPP in Oregon
Counties with Trained Lifestyle Coaches

- Clatsop
- Multnomah
- Tillamook
- Jackson
- Klamath
- Lake
- Harney
- Malheur
- Deschutes
- Morrow
- Umatilla
- Wallowa
- Union
- Baker
- Jefferson
- Wasco
- Wheeler
- Grant
- Sherman
- Gilliam
- Coos
- Curry
- Josephine
- Douglas
- Crook
- Clackamas
- Hood River
- Marion
- Linn
- Lane
- Benton
- Lincoln
- Polk
- Yamhill
- Washington
Steps to Getting a DPP Off of the Ground

Do a Capacity Assessment
• http://www.cdc.gov/diabetes/prevention/lifestyle-program/index.html

Get buy-in from your administration

Consider attending a DPP Lifestyle Coach Training
• http://www.cdc.gov/diabetes/prevention/lifestyle-program/staffing-training.html

Read the curricula and decide which one you will use
• http://www.cdc.gov/diabetes/prevention/lifestyle-program/curriculum.html
Steps to Getting a DPP Off of the Ground

Market the program to providers and your community

Consider offering a prediabetes class

Consider offering an orientation to the program

Consider applying for CDC recognition
  • http://www.cdc.gov/diabetes/prevention/lifestyle-program/apply_recognition.html

Begin offering the program!
Questions?

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Putting Diabetes Prevention into Practice

Changing Culture

Sareena Oncea, RDN, CDE, LD
Diabetes Prevention Program Coordinator & Retail Dietitian
November 4, 2016
Presenter Disclosure Information

In compliance with the accrediting board policies, the American Diabetes Association requires the following disclosure to the participants:

Sareena Oncea, RDN, CDE, LD

Disclosed no conflict of interest
Providence commitment to
“create healthier communities, together”
Creating a Healthy Workplace

Leadership commitment

Benefits
- Classes/programs (DPP), health challenges, online tools

Culture

Communications and marketing

Environment
- Healthy Dining Initiative

Workplace

Well-being Champions
How do we promote change?

Health Impact Pyramid

Increasing Population Impact

Counseling & Education

Clinical Interventions

Long-lasting Protective Interventions

Changing the Context to Make Individuals’ Default Decisions Healthy

Socioeconomic Factors

Increasing Individual Effort Needed

Make the healthy choice the easy choice

Healthy Dining Initiative

2014: Healthy Beverage Promotion

Q1: Dedicated water head on soda fountains; eliminated 32-ounce cup size

Q2: Infused water stations in all caregiver cafeterias/cafes; healthy beverage taste testing

Q3: Introduce more healthy beverage selections; pricing and positioning

Q4: Employee education on sugary drinks
I pledge:

to rethink my drink* for 30 days by making an effort to decrease the number of sugary beverages and replace them with healthier alternatives, such as water, each day.

Tips for increasing your water intake:

- Carry a water bottle for easy access to water when you are out and about.
- Freeze some freezer-safe water bottles. Take one with you for ice-cold water all day long.

Sources of added sugars:

- 13.5% All other foods
- 49.7% Soda, energy drinks, sports drinks, fruit drinks
- 3.8% Cold cereals
- 2.1% Yeast breads
- 5.4% Sugar, syrups, toppings, honey
- 6 teaspoons added sugars for woman per day
- 9 teaspoons added sugars for men per day
- 1½ teaspoons added sugars in a 20-ounce cola

23 teaspoons – actual added sugars consumed by average American per day
Healthy Dining Initiative

Hospitals that eliminated sugary drinks

2010  Cleveland Clinic (OH)

2011  Gifford Medical Center (VT), Carney Hospital (MA)

2012  Dartmouth Hitchcock Medical Center (NH), Vanguard Medical Center (IL), Seattle Children’s Hospital (WA), St. Luke’s Hospital (MN), Mercy Children’s Hospital (MO)

2013  Grand Itasca Clinics & Hospital (MN), Cook County North Shore (MN), Lakeview Memorial (MN), Essentia St. Mary’s (MN), Nationwide Children’s Hospital (OH), ProMedica (OH/MI), Indiana Health System, University of Michigan Health Systems (MI)

2014  Baldwin Medical Center (WI), Dayton Children’s Hospital (OH)

2015  Providence Health & Services (OR)
2015: Eliminated Sugary Drinks

Eliminate all sugar-sweetened beverages from Providence facilities including:

- Cafeterias and cafes
- All vending
- All catering
- Gift shops
- Patient food menus

Exceptions
- Soda for patients (by request)
- Families, visitors, staff may bring soda into facilities
Why Target Sugary Drinks?

- Drinking one **12-ounce sugary drink/day** can increase the **risk of diabetes by 22%**  
  (Romagueris, Diabetologia, April 2013)

- Drinking **1-2 sugary drinks/day** increased the **risk of diabetes by 26%**  
  (Malik et al, Diabetes Care, November 2010)

- People with **diagnosed diabetes** incur average medical expenditures of $13,700 per year, of which $7,900 is attributed to diabetes  
## 2014-2015: Communication Plan

<table>
<thead>
<tr>
<th>Month</th>
<th>Events</th>
</tr>
</thead>
</table>
| June-Aug | • Proposed idea to Chief Executive, Oregon region  
          • Developed guidelines (Oregon Dietitian Summit)  
          • Informed vendors of change                      |
| Sept.  | • Oregon Leadership (hospital CEOs)  
          • Employees: Education campaign on sugary drinks   |
| Oct.   | • Manager forums (hospital)  
          • OR Nurse Leadership Council  
          • Food and Nutrition Services statewide leadership retreat |
| Nov.   | • Manager forums (clinics, ambulatory, hospital)  
          • Manager News  
          • Health Champions |
| Dec.   | • Employees & medical providers: e-newsletter, intranet  
          • Volunteers |
| Jan.   | **Launch: Jan. 1, 2015**  
          • Employee communication: intranet, e-newsletters, café signage  
          • CEO’s blog  
          • “Ask the Dietitian” day |
| Mar    | • Oregon region policy approved |
Financial considerations

Providence-OR: Revenue vs. Medical Claims

1.2 Million PepsiCo beverage net revenue (includes rebates & sales)

3 Million Employee diabetes-related medical claims spend

2013 Data
Healthy Dining Initiative

Financial considerations

Sales trends

- Initial drop in sales but return to normal levels by year end
- Water sales increased significantly
Healthy Dining Initiative

Local: TV & radio interviews, Portland Monthly, Business Journal

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**The Perfect Party**

**This Month's Fantasy Guest List**

**John Kitzhaber & Cylvia Hayes**
Let's serve slow-roasted turkey for our four-term governor and his First Lady. It took a while, you two, but those allegations of access selling, misuse of state money, and the conflation of green ideas and greenbacks really piled up! We can't wait to hear the unexpurgated version of your side(s) of the story. But first, we've selected a short predinner reading from Proverbs. Just start here, where it says, "Pride goeth before destruction..."  

**Sam Adams**
Say it ain't so, Sam! Our former mayor is ditching town to head up a climate change initiative in DC. Sam, we feel good putting global warming in your hands. If there's anyone who can deal with all that hot air, it's you. (We kid!)  

**Sandy Miller**
We're juicing carrots and ginger for Providence Health's director of health education, who nixed sodas and other sugary drinks at its Portland facilities. Nice one, Sandy. But you're not going all Dr. Kellogg on us, are you?  

**Marcus Mariota**
A heaping plate of loco moco for the Hawaiian QB, winner of the Ducks' first Heisman. Marcus, we love you despite the Ohio State loss. However, nothing can make up for that "Girls, Jesus, and Marcus Mariota" T-shirt. Not your fault.
Healthy Dining Initiative

National: visit from USDA undersecretary
National: Vizient Leading Practice Blueprint®

VHA Leading Practice Blueprint®
Providence Health & Services - Healthy Dining Initiative
Making the Healthy Choice the Easy Choice

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National: Vizient Leading Practice Blueprint®

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Making the Healthy Choice the Easy Choice

LEADING THE WAY
Culture Of Health

CONNECTING THE VISION TO THE WORK

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Never doubt that a small group of thoughtful committed citizens can change the world. Indeed it's the only thing that ever has.

~Margaret Mead

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