



Today's Objectives

By the end of this presentation we will have discussed:

- The National Diabetes Prevention Program (NDPP) evidence base, curriculum, training
- Organizations in WA offering NDPP, referral sources
- Reimbursement for NDPP, advocacy efforts
- Role of the Diabetes Educator in NDPP

Diabetes in the US/ Washington

- Diabetes:
 - 26 million Americans: 8.3% of the US population
 - Prediabetes:
 - 79 million Americans
 - 1 in 3 Washington adults (1.4 million people age 25+)
 - 50% of adults 65+
 - Less than 10% of US adults with prediabetes report they have been told they have prediabetes
 - Progression to diabetes:
 - 5-15% per year
- Source: Diabetes Report Card 2012, Centers for Disease Control and Prevention

Diabetes in the US/ Washington

- The percentage of adults with diabetes has increased 71 percent since 1993 and continues to rise.
- Risk factors for diabetes, such as obesity are also on the rise.

Economic Burden of Diabetes

- With diabetes: average healthcare costs \$11,744/year, \$6k+ due to diabetes
 - Approximately 1 in 5 healthcare \$ in US spent on diabetes care
 - In 2007 estimated cost of diabetes in the US was \$174 billion, \$116 in direct care costs and \$58 billion indirect costs *
 - In WA 2012 FFS plus drug costs for diabetes were \$50.6 million**
 - Does NOT include Managed Care Medicaid
- *Source: Diabetes Report Card 2012, Centers for Disease Control and Prevention
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What is prediabetes?

- Elevated blood glucose, but not "quite" to the diabetes range
 - Risk factor for developing type 2 diabetes
 - Impaired Fasting Glucose (IFG)
 - 100 mg/dl -125 mg/dl
 - **OR**
 - Impaired Glucose Tolerance (IGT) 75 gm
 - Post-load glucose 140 mg/dl -199 mg/dl
 - **OR**
 - Hemoglobin A1C
 - 5.7% -6.4%
- Diabetes Care January 2014 vol. 37 no. Supplement 1 S81-90

Risk Factors for type 2 Diabetes

- Age
- Family history
- Ethnicity
- History of GDM
- BMI >25
- Habitual physical inactivity
- Previously identified glucose intolerance
- Psychosocial stress/ presence of major depressive episodes

Diabetes and Obesity

- “58% of diabetes cases globally can be attributed to body mass index above 21 kg/m²”*

• * Source: IDF press Release August 25, 2003

Evidence for Diabetes Prevention through Lifestyle Change

- NIH DPP Study showed 58% reduction in risk with 5-7% weight loss and 150 minutes/week physical activity
- 3234 participants, all overweight, all had prediabetes
- Cost: \$1400 per person

DPP Results

- Lifestyle group:
 - 50% reached 7% weight loss by 24 weeks
 - Risk of developing diabetes reduced by 58%
 - Adults >60 years, risk reduced by 741%
 - 5% developed diabetes during the study year
- Metformin group:
 - Risk of developing diabetes reduced by 31%
 - 7.8% developed diabetes in the study year

After the DPP, what next?

- Community settings, YMCA's in Indianapolis, Marerro et al
- Delivered in a group
- Facilitated by trained Lifestyle Coach without health care background
- No incentives

Results of Community Programs

- Similar levels of weight loss achieved
- Multiple translational studies:
 - DEPLOY research study
 - Special Diabetes Program for American Indians Diabetes Prevention Demonstration Project
 - Montana Diabetes Prevention Program
 - I CAN Prevent Diabetes (Minnesota)
 - YMCA-led classes with DPCA

What next?

- Ample evidence that **we can** prevent or significantly delay type 2 diabetes has been around for a decade
- Not translated into **routine** clinical practice and public health policy

Challenges to scaling DPP

- Evidence supports prediabetes
 - Requires a blood test
 - Not a routine in many primary care settings
- Need scalable models
 - Purchaser must believe program has fidelity
 - Programs must be **widely** available
 - Must be cost effective

Cost

- DPP was resource intensive
 - 16 core one-to-one sessions with health care trained case managers (RD, RN, etc)
 - Followed by twice-monthly in person maintenance sessions with phone contact between sessions
- DPP Lifestyle arm \$1399/person
- DPP Metformin arm \$1-19 per person
- DEPLOY study \$275-\$325/person