



Preventing and Managing Maternal Diabetes

Kelly McCracken, RD CDE
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COLORADO
Department of Public Health & Environment

Presentation Overview

- Appreciate how important **you** are to diabetes prevention and control in Colorado by decreasing obesity in mothers
- Define the **burden of obesity, prediabetes, and diabetes** in Colorado
- Explain the difference between type 2 diabetes, gestational diabetes and prediabetes
- Learn about **healthy choices and guidelines** to support mothers in managing gestational diabetes during pregnancy and weight loss after pregnancy
- Learn how the **Diabetes Prevention Program (DPP)** can support your clients in the preconception and interconception period to meet weight loss goals

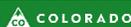


Exploring the Problem



The State of Diabetes in CO

- **21 %** of adults are **obese** (2013 BRFSS)
- **1 in 15** Coloradans has **diabetes** (2013 BRFSS)
- **6.3%** of Colorado women who gave live birth reported having **gestational diabetes** (2011 PRAMS)
- An estimated **1 in 3** Coloradans has **prediabetes** (CDC)
- If trends continue, by 2050, **1 in 3** will have **diabetes** (CDC)



Women with a history of gestational diabetes have approximately a 35 - 60 percent chance of developing diabetes within 10 to 20 years.

Additionally, the children of pregnancies where the mother had gestational diabetes may also be at increased risk for obesity and type 2 diabetes.



www.cdphe.org

Risk factors for Diabetes

- Overweight or obese
- Inactive
- Over age 45
- First degree relative with diabetes
- Family background is African American, Hispanic/Latino, Native American, Asian American, or Pacific Islander
- **History of gestational diabetes** or polycystic ovarian syndrome
- High blood pressure, high triglycerides, low HDL



Standards of Medical Care in Diabetes - 2014, American Diabetes Association

Overweight or obesity is the #1 risk factor for type 2 diabetes



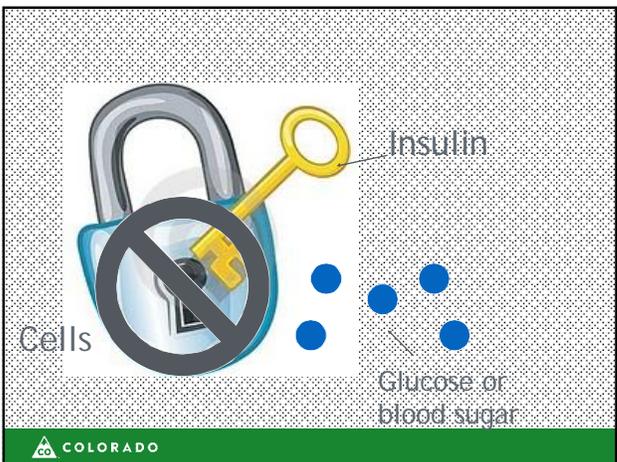
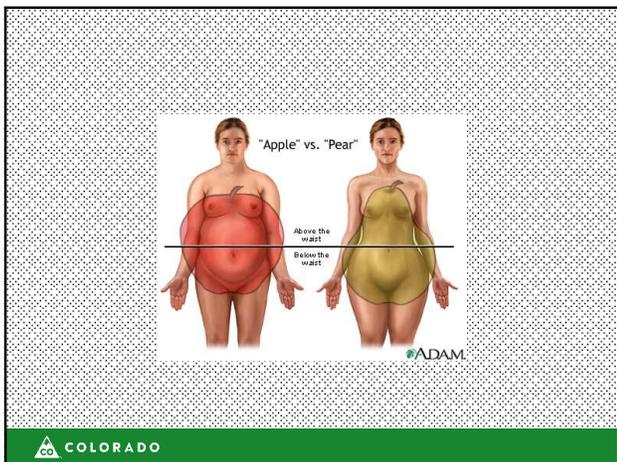
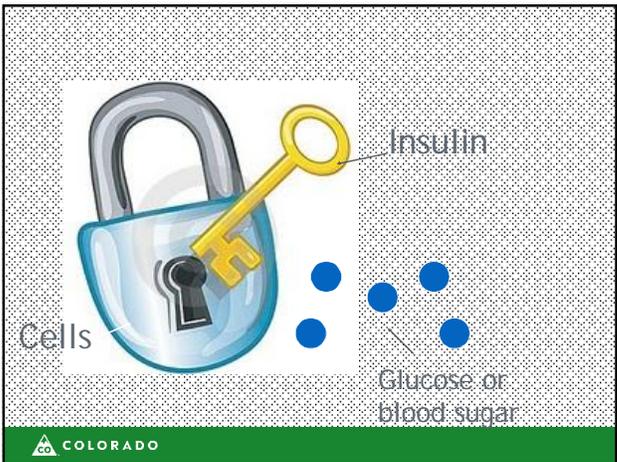
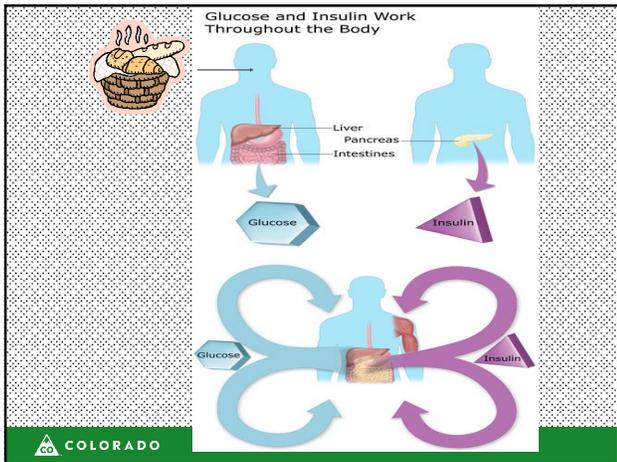
Children born after the year 2000:

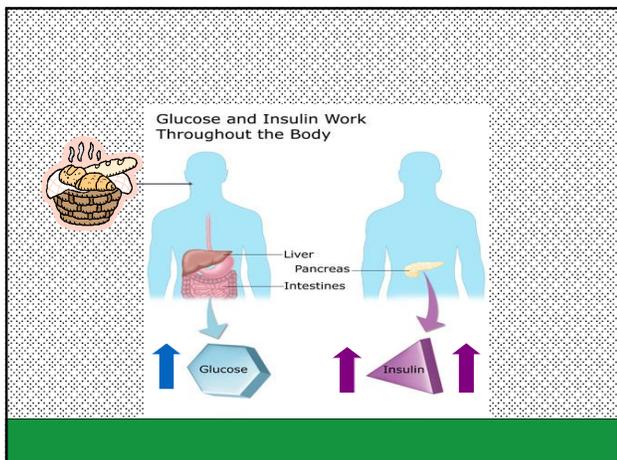
1 in 3 will develop diabetes
(1 in 2 Latino children)

They will die **10 to 15 years** earlier than their parents
(**63 to 68 years old** vs 78 years old)



Narayan KMV, Boyle JP, Thompson TJ, Sorensen SW, Williamson DF. Lifetime risk for diabetes mellitus in the United States. JAMA 2003 October 8;290(14):1884-1890.





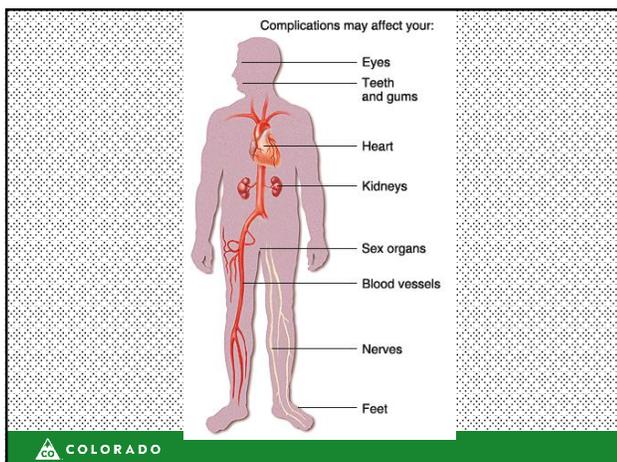
Cells are resistant to the insulin because of fat

+

Pancreas becomes exhausted and secretes less insulin

= High blood sugar

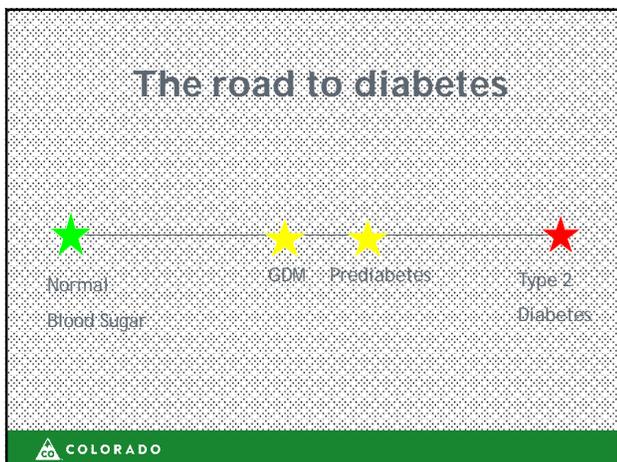
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Diabetes: Defined

- Prediabetes: A **blood sugar** level that is **higher than normal** but not high enough to be classified as diabetes.
- Type 2 diabetes: A lifelong (**chronic**) disease in which there is a high level of glucose in the blood. Type 2 diabetes is the **most common** form of diabetes.
- Gestational Diabetes: Diabetes that **starts** or is first diagnosed **during pregnancy**.

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Diabetes: Defined

- Normal blood sugar
 - Less than 100 fasting
 - Less than 140 two hours after a meal
- Prediabetes
 - 100-125 fasting
 - 140-199 two hours after a 75g OGTT
 - 5.7-6.4% Hemoglobin A1c
- Type 2 Diabetes
 - Greater than or equal to 126 fasting
 - 200 or greater two hours after a 75g OGTT or anytime of day
 - Greater than or equal to 6.5% Hemoglobin A1c

COLORADO Standards of Medical Care in Diabetes - 2014, American Diabetes Association

Treatment Recommendations for Gestational Diabetes: Gestational Diabetes WIC handout

"Get a treatment plan from your doctor and **SHARE** it with your WIC RD"

Treatment plans include **nutrition therapy** and, when necessary, medication



American College of Obstetricians and Gynecologists (ACOG). Gestational diabetes mellitus. Washington (DC). American College of Obstetricians and Gynecologists (ACOG). 2013 Aug. 11 p.

Medical Nutrition Therapy

- Most recent guidelines from the American Diabetes Association in 2013
- **Not** a "one-size-fits-all" approach
- A **healthy meal plan** for people with diabetes is a healthy meal plan for everyone



Nutrition therapy recommendations for the management of adults with diabetes, Diabetes Care. 2013 Nov; 36(11):3821-42.

Goals of nutrition therapy

To promote and support healthful eating patterns, emphasizing a **variety of nutrient-dense** foods in appropriate **portion sizes**, in order to improve overall health specifically to achieve:

1. **ATC**, blood pressure and LDL goals
2. **Body weight goals**
3. **Delay/prevent complications**



Nutrition therapy recommendations for the management of adults with diabetes, Diabetes Care. 2013 Nov; 36(11):3821-42.

Goals of nutrition therapy

To address individual nutrition needs based on **personal and cultural preferences**, health literacy and numeracy, access to healthful food choices, willingness and ability to make behavioral changes, as well as barriers to change

To maintain the **pleasure of eating** by providing **positive messages** about food choices while limiting food choices only when indicated by scientific evidence.

To provide the individual with diabetes with **practical tools** for day-to-day meal planning rather than focusing on individual macronutrients, micronutrients, or single foods



Nutrition therapy recommendations for the management of adults with diabetes, Diabetes Care. 2013 Nov; 36(11):3821-42.

A variety of Eating Patterns can help manage diabetes and promote weight loss:

- Mediterranean-style
- Dietary Approaches to Stop Hypertension (DASH) style
- Plant-based (vegan or vegetarian)
- Lower-fat
- Lower-carbohydrate

Bottom line: Weight loss = less calories in and more calories out



Nutrition therapy recommendations for the management of adults with diabetes, Diabetes Care. 2013 Nov; 36(11):3821-42.

Rethink you drink – choose water!



ECOP Message

Healthy eating and staying active while you are pregnant matters for you and your baby's health



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There's no power like Parent Power!

Eat well and move more to care for yourself and your family



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Postpartum Screening Recommendations for GDM

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The road to diabetes



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Follow-up of gestational diabetes mellitus in an urban safety net hospital: **missed opportunities** to launch preventive care for women.

By 6 months postpartum, only **23.4%** of GDM-affected women received **any kind of glucose test**.

Main message: Encourage women to get tested for diabetes when they visit their provider for their postpartum visit.

 COLORADO J Womens Health (Larchmt). 2014 Apr 23(4):327-34

Postpartum Screening Recommendations for GDM:

Screen women with GDM for persistent diabetes at **6-12 weeks** postpartum, using the OGTT and non-pregnancy diagnostic criteria.

Women with a history of GDM should have **lifelong** screening for the development of diabetes or prediabetes at least every 3 years.

They should be **tested yearly** if they are found to have **prediabetes**.

 COLORADO Standards of Medical Care in Diabetes - 2014, American Diabetes Association

Postpartum Recommendations for GDM: WIC Appointments

Please encourage **screening** at:

1. Add-a-baby- "please screen"
2. 3 month f/u appt- "did you get screened?"
3. 6 month f/u appt- "continue to be screened"



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Postpartum Recommendations for GDM: After Delivery: Gestational Diabetes WIC handout

- "Get tested for diabetes 6 to 12 weeks after your baby is born"
- "Ask your WIC counselor about **the Diabetes Prevention Program**"

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DPP: an Effective Solution to Prevent Diabetes

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The Evidence Base

- The DPP is based on randomized control **clinical research** trials led by NIH & CDC
- **5% to 7%** body weight loss and increased physical activity to **150 minutes/wk** reduced risk of developing type 2 diabetes by **58%**
- 10-year follow up study showed reduced diabetes incidence of 34% in the lifestyle group

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DPP Program Elements

- **Year-long** lifestyle intervention program
- Facilitated by trained Lifestyle Coaches in community organizations, clinics or worksites
- Includes 16 weekly sessions followed by six monthly sessions



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DPP Program Elements

- **Nutrition** information/food diary
- Reading food labels
- Dealing with **stress** without overeating
- Increasing **physical activity**



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Eligibility Criteria

- **18 years of age** or older and have a **BMI of 24 or greater**
- A diagnosis of prediabetes or a **history of GDM**
- Or participants score **9 or higher** on a paper and pencil risk test



The Prediabetes Risk Test

www.cdc.gov/diabetes/prevention

1 point:

- Are you a woman who has had a baby weighing more than 9 pounds at birth?
- Do you have a sister or brother with diabetes?
- Do you have a parent with diabetes?

5 point:

- Are you overweight (BMI >24)?
- Are you younger than 65 years of age and get little or no exercise in a typical day?
- Are you between 45 and 64 years of age?

9 point:

- Are you 65 years of age or older?



Tools



TAKE STEPS TO PREVENT DIABETES
Sign up now for the **free** Diabetes Prevention Program at CDPHE

Lose 5 to 7 percent of body weight
30-15 pound weight loss for a 200 pound person

Increase physical activity to 150 minutes a week

Reduce risk of developing type 2 diabetes by 58 percent



You are eligible for this program if you are overweight (BMI >24) and you have a history of gestational diabetes, have been diagnosed with pre-diabetes, or score **9 or higher** on the following risk test:

are you 9

- +1 Had a baby weighing more than 9 pounds?
- +1 Have a sister or brother with diabetes?
- +1 Have a parent with diabetes?
- +5 Are you overweight (BMI >24)?
- +5 Are you younger than 65 and do little or no exercise in a typical day?
- +5 Are you between 45 and 64?
- +9 Are you older than 65?
- ? ?



Current DPP sites in Colorado

Denver Metro Area:

- American Diabetes Association
- Aspenitz Health and Wellness Center
- Boilder County Area Agency of Aging
- Center for African American Health
- Central Colorado Area Health Education Center
- Clínica Tepeyac
- Coalition for Older Adult Wellbeing
- CREA Results
- Denver Health
- Ft. Collins Health Department
- VMCA of Metro Denver
- VMCA of Boulder Valley

Throughout Colorado:

- Sartain Valley Regional Medical Center (Alamosa County)
- Chaffee County Public Health (Chaffee County)
- Clear Creek Public Health (Clear Creek County)
- Penrose-St. Francis Health System (El Paso County)
- Delta County Memorial Hospital (Delta County)
- Plains Medical Center (East Central Colorado)
- Spanish Peaks Outreach and Women's Clinic (Huerfano County)
- Kit Carson County Health and Human Services (Kit Carson County)
- Rocky Valley Hospital (Larimer County)
- Diabetes Care Center at Packview (Pueblo County)
- Pueblo Community Health Center (Pueblo County)
- Northwest Colorado Visiting Nurses Association (Routt County)
- Weld County Department of Public Health & Environment (Weld County)



Locating a DPP in Colorado

- Call 1-800-DIABETES
- www.cdc.gov/diabetes/prevention



DPP in the Community: Shared Strength

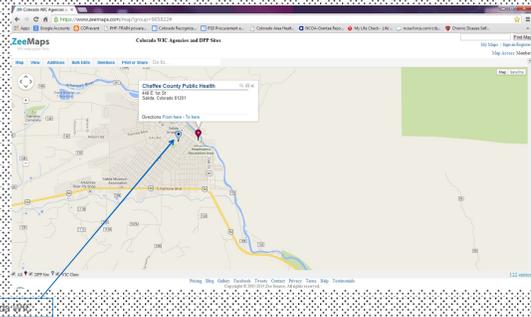


DPP Referral Site-CAAH

- **DPP Site:** Center for African American Health
- **Agency Name for DPP:** Live Well - 4th Life
- **Cost:** Free!
- **Contact:** Michele Duvall, Program Coordinator: 303-355-3423, ext 117 - mduvall@caahhealth.org
- **Referral Process:** Call 303-355-3423, ext 117
- **Languages for the Classes:** English
- **Additional Notes:** Morning and evening classes



DPP Referral Site-Chaffee County

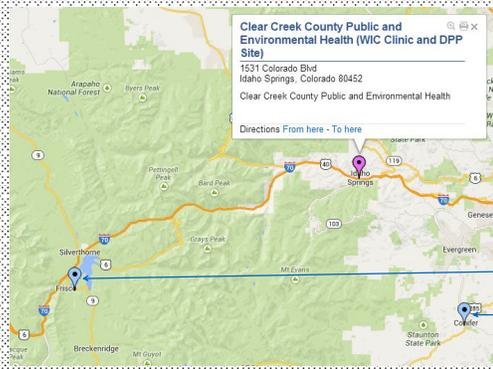


DPP Referral Site-Chaffee County

- **DPP Site:** Chaffee County Health and Human Services
- **Agency Name for Their DPP:** National Adult DPP
- **Cost:** Free!
- **Contact:** Rebecca Rice: 719-395-0344 x102, rrice@chaffeecounty.org
- **Referral Process:** Call Rebecca to provide WIC client referral information
- **Languages for the Classes:** English

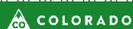


DPP Referral Site-Clear Creek

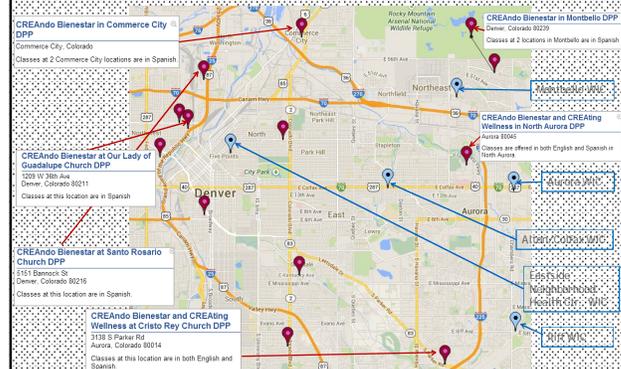


DPP Referral Site-Clear Creek

- **DPP Site:** Clear Creek County Public and Environmental Health
- **Agency Name for DPP:** DPP
- **Cost:** Free!
- **Contact:** Wendy Trogdon: 303-670-7544, wtrogdon@co.clear-creek.co.us
- **Referral Process:** Contact Wendy
- **Languages for the Classes:** English



DPP Referral Site-CREA Results

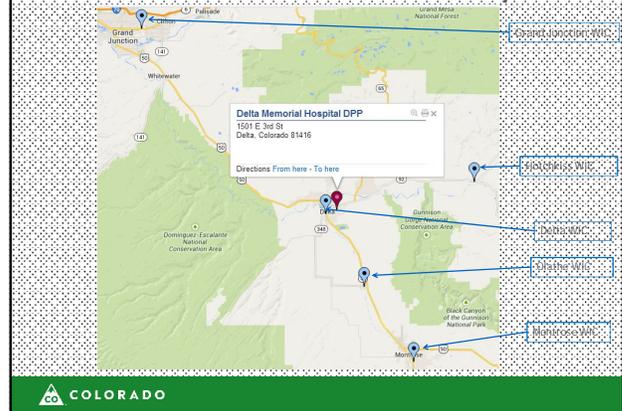


DPP Referral Site-CREA Results

- **DPP Site:** CREA Results
- **Agency Name for DPP:** CREATing Wellness
- **Cost:** Free!
- **Contact:** For general program questions: Jimkaye Beck, Program Coordinator: 303-724-9019; jimkaye.beck@ucdenver.edu
- **Referral Process:** Clients (or WIC staff) should call CREA directly at referral line: 720-255-6466 for class times and locations.
- **Languages for the Classes:** English and Spanish
- **Additional Notes:** Intended audience are Latinos; most classes currently offered are in Spanish. However, all are welcome. Will begin additional classes in English.



DPP Referral Site-Delta Hospital

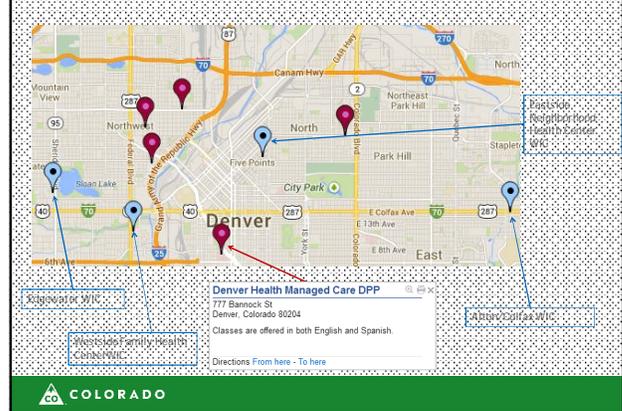


DPP Referral Site-Delta Hospital

- **DPP Site:** Delta County Memorial Hospital
- **Agency Name for DPP:** DPP
- **Cost:** Free!
- **Contact:** Mary Grosvenor: 970-874-6410; mgrosvenor@deltahospital.org
- **Referral Process:** Contact Mary
- **Languages for the Classes:** English



DPP Referral Site-Denver Health

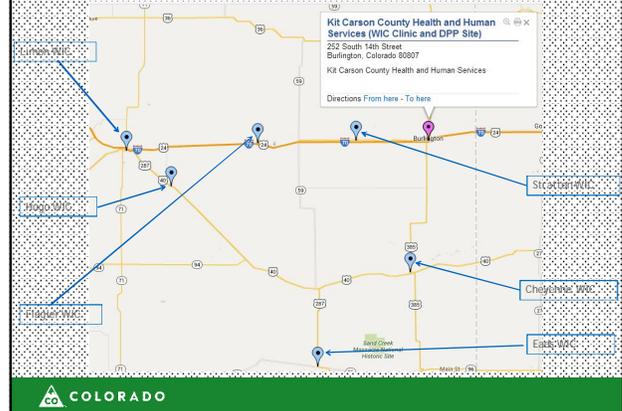


DPP Referral Site-Denver Health

- **DPP Site:** Denver Health Managed Care
- **Agency Name for DPP:** National Diabetes Prevention Program
- **Cost:** Free!
- **Contact:** Sheila Covarrubias: 303-602-2141; sheila.covarrubias@dnha.org
- **Referral Process:** Send participant information either via email or phone.
- **Languages for the Classes:** English and Spanish
- **Additional Notes:** New classes begin every 3 months; must be Denver Health patient (i.e. have a DH medical record #)



DPP Referral Site-Kit Carson

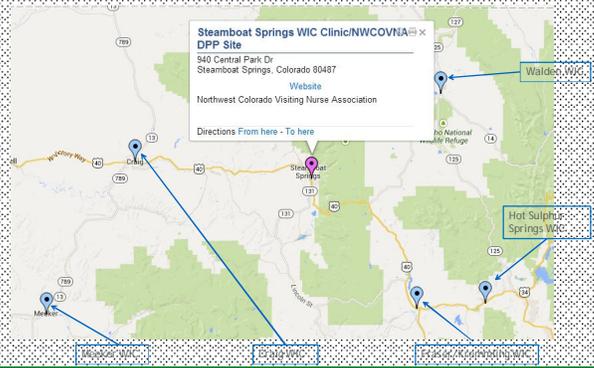


DPP Referral Site-Kit Carson

- **DPP Site:** Kit Carson County Health and Human Services
- **Agency Name for DPP:** **Healthy Weight and Active Living Class**
- **Cost:** Free!
- **Contact:** Bee Kaster, DPP Educator and WIC Director, 719-346-7158, ext. 130 or Dawn James, DPP Educator and Deputy Public Health Director, 719-346-7158
- **Referral Process:** Use KCCCHHS's referral form
- **Languages for the Classes:** English
- **Additional Notes:** Classes are at Burlington for now

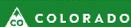


DPP Referral Site-NWCOVNA

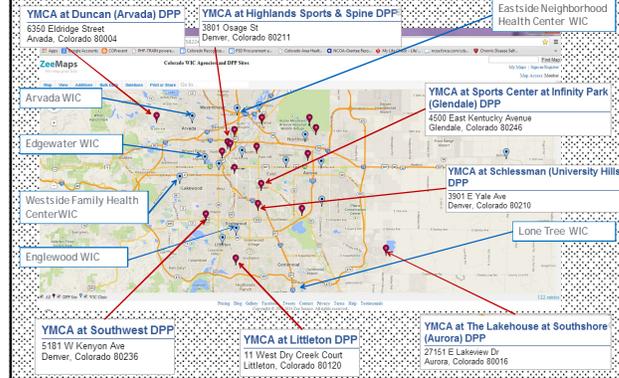


DPP Referral Site-NWCOVNA

- Northwest Colorado Visiting Nurse Association
- **Agency Name for DPP:** **NWCOVNA Lifestyle Challenge Classes**
- **Cost:** Free!
- **Contact:** Lindsay Biller, Outreach and Prevention Program Coordinator, 970-871-7634; lbiller@nwcovna.org
- **Referral Process:** Referrals made directly to Lindsay
- **Languages for the Classes:** English
- **Additional Notes:** Classes scheduled based on client needs may be offered at Craig, Hayden and Steamboat Springs



DPP Referral Site-YMCA



DPP Referral Site-YMCA

- **DPP Site:** The YMCA of Metro Denver
- **Agency Name for Their DPP:** **YDPP**
- **Cost:** Free!
- **Contact:** Keri Ann Parodi, (720)423-6330; kparodi@denverymca.org
- **Referral Process:** Contact Keri Ann to complete documentation to receive scholarship
- **Languages for the Classes:** English and possibly Spanish



Next Steps...

- Introductions to DPP sites in your area
- Additional materials or resources
- Evaluation
 - Consider capturing these DPP referrals in Compass
 - Consider creating a feedback loop with the DPP sites



References

American Diabetes Association (ADA)

www.diabetes.org

National Diabetes Education Program (NDEP)

www.ndep.nih.gov

Center for Disease Control and Prevention

www.cdc.gov/diabetes/prevention



CDPHE Contact Information

Kelly McCracken | kelly.mccracken@state.co.us

Becky DiOrto | becky.diorio@state.co.us



Questions?

