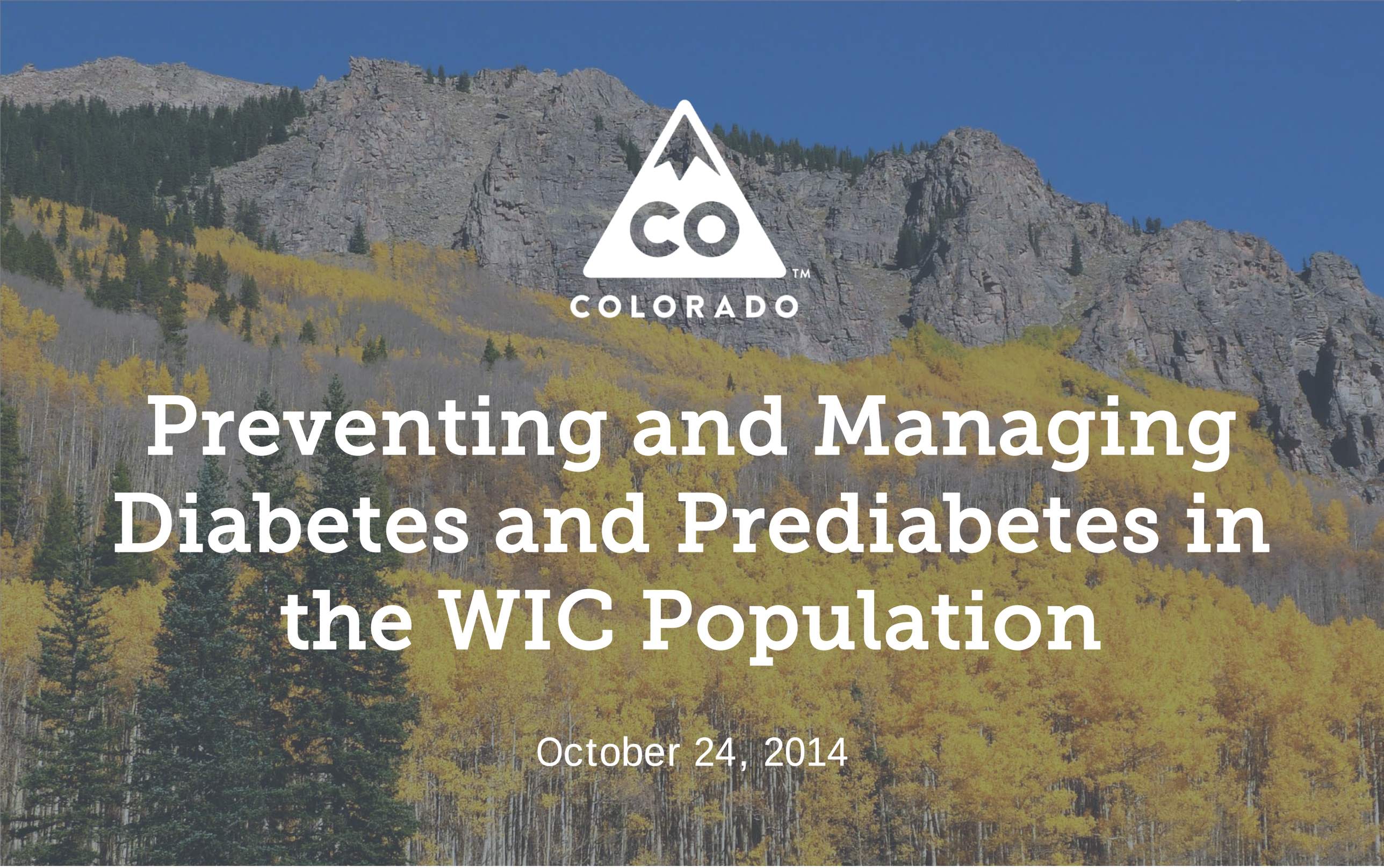


COLORADO™

Preventing and Managing Diabetes and Prediabetes in the WIC Population

October 24, 2014

COLORADO
Department of Public Health & Environment

Presentation Overview

- Appreciate how important you are to diabetes prevention and control in Colorado
- Define the **burden** of **obesity, prediabetes and diabetes** in Colorado
- Explain the difference between type 2 diabetes, gestational diabetes and prediabetes
- Review **medical nutrition therapy** for type 2 diabetes and gestational diabetes
- The what, how and why of **Diabetes Prevention Program (DPP)**
- **How WIC clinics can refer clients to the DPP**

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)

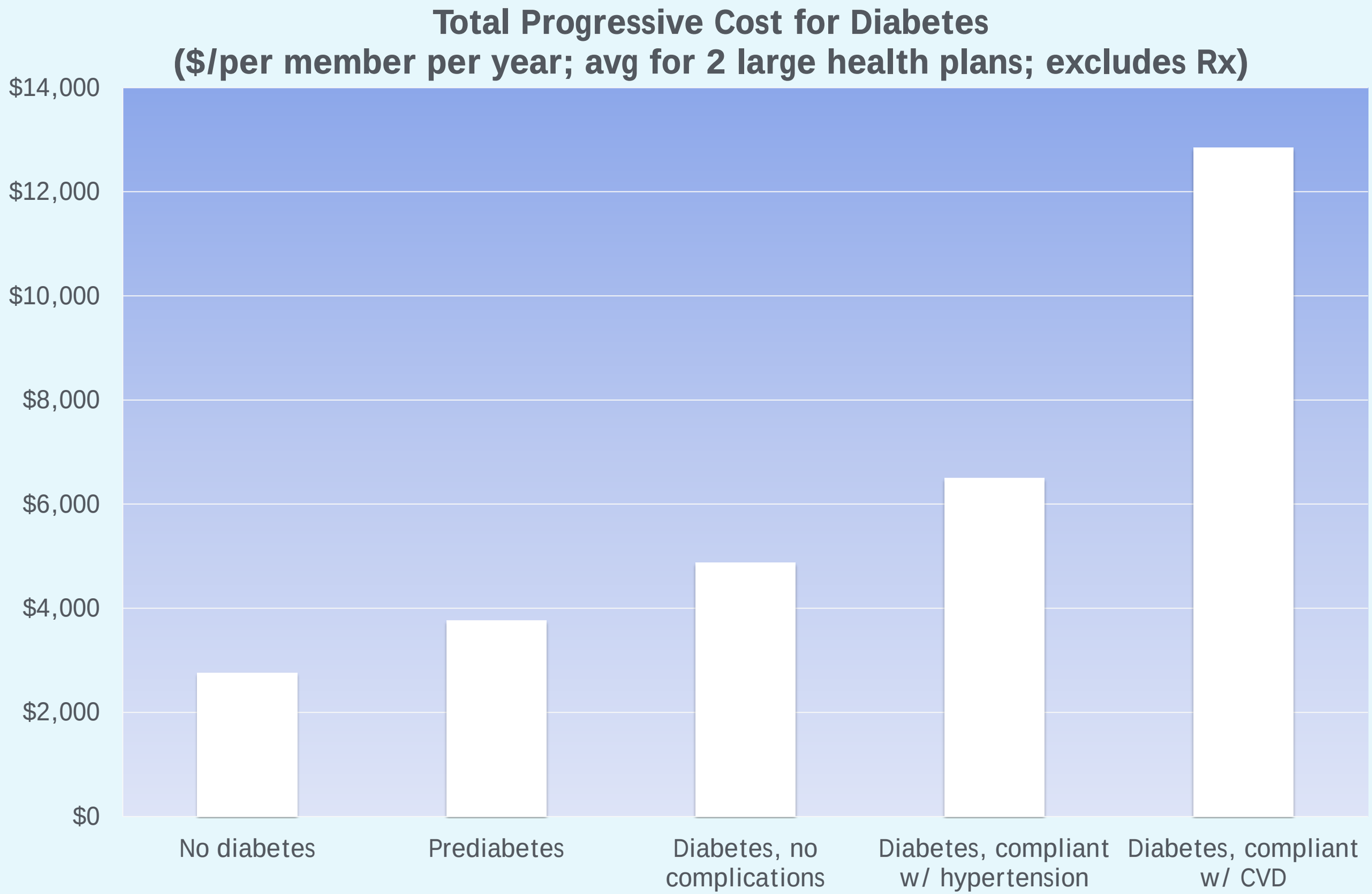
Women with a history of gestational diabetes have approximately a 35 - 60 percent chance of developing diabetes within 10 to 20 years.

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

Economic Impact

- Average medical costs for a person with diabetes are nearly **twice** those of a person without diabetes

- Costs are more than **four-fold** for a person with diabetes-related complications compared to a person without diabetes


Total Progressive Cost for Diabetes
($/per member per year; avg for 2 large health plans; excludes Rx)
$14,000
$12,000
$10,000
$8,000
$6,000
$4,000
$2,000
$0
No diabetes
Prediabetes
Diabetes, no complications
Diabetes, compliant w/ hypertension
Diabetes, compliant w/ CVD

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:

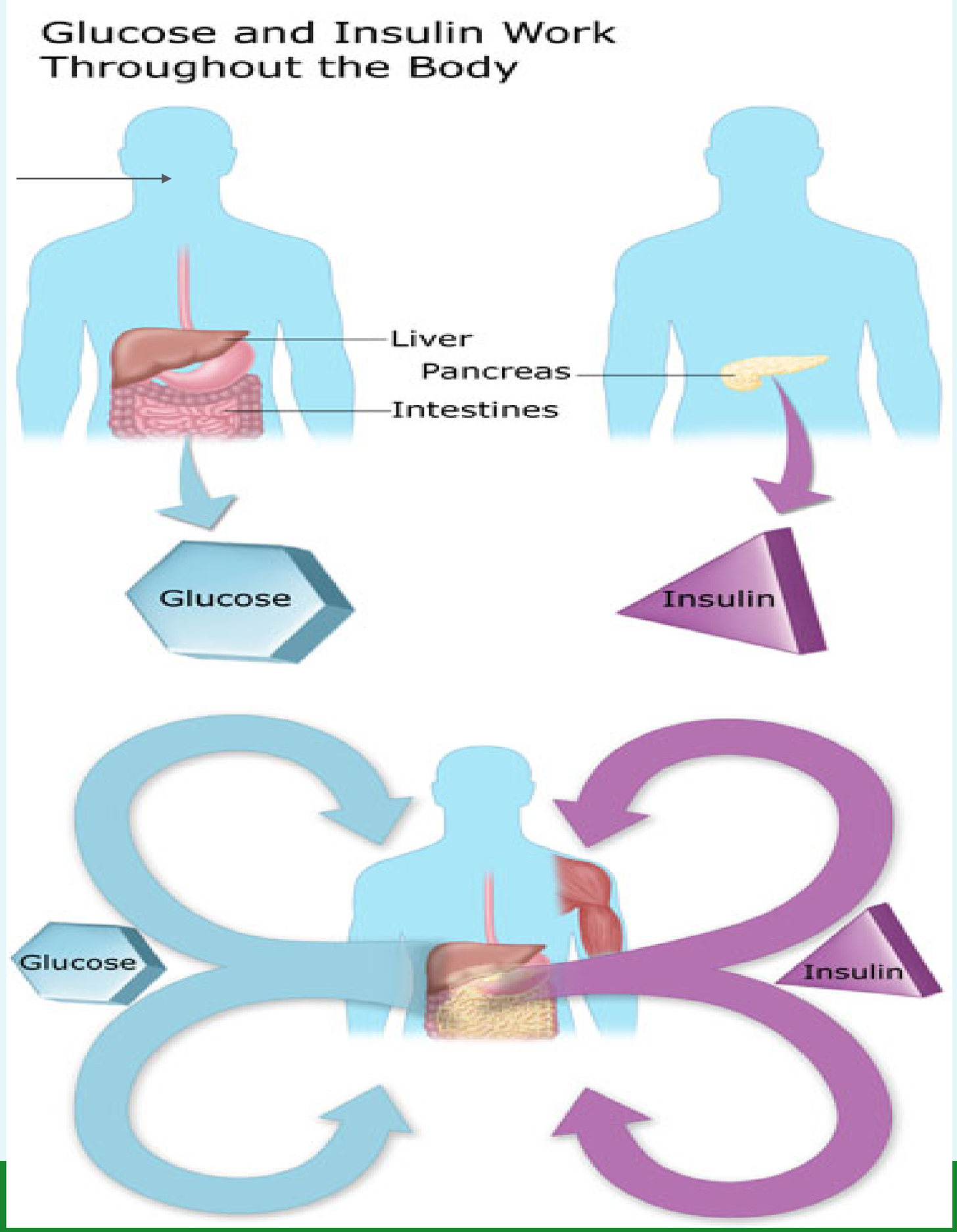
1 in 3 will develop diabetes

(1 in 2 Latino children)

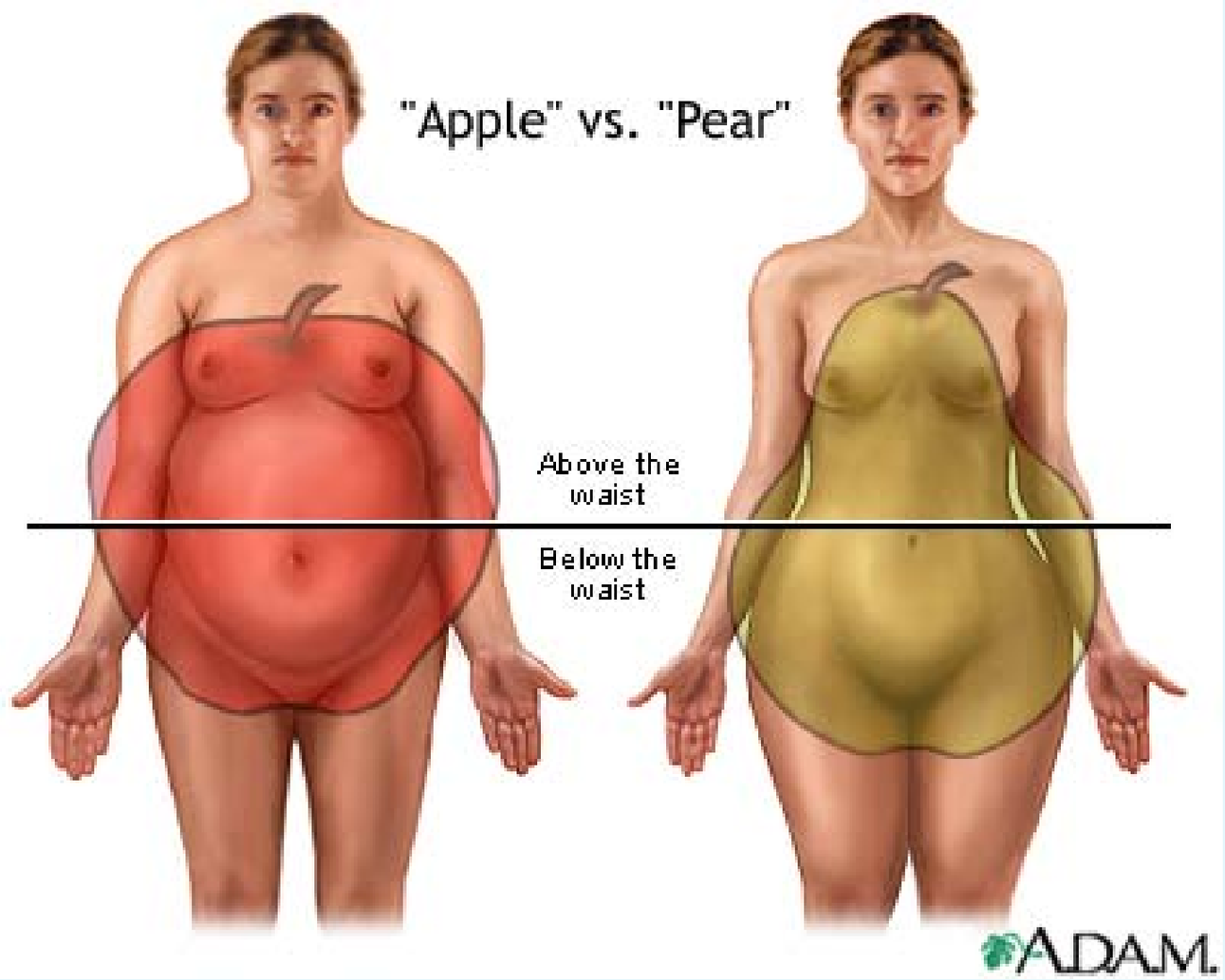
They will die *10 to 15* years earlier than their parents

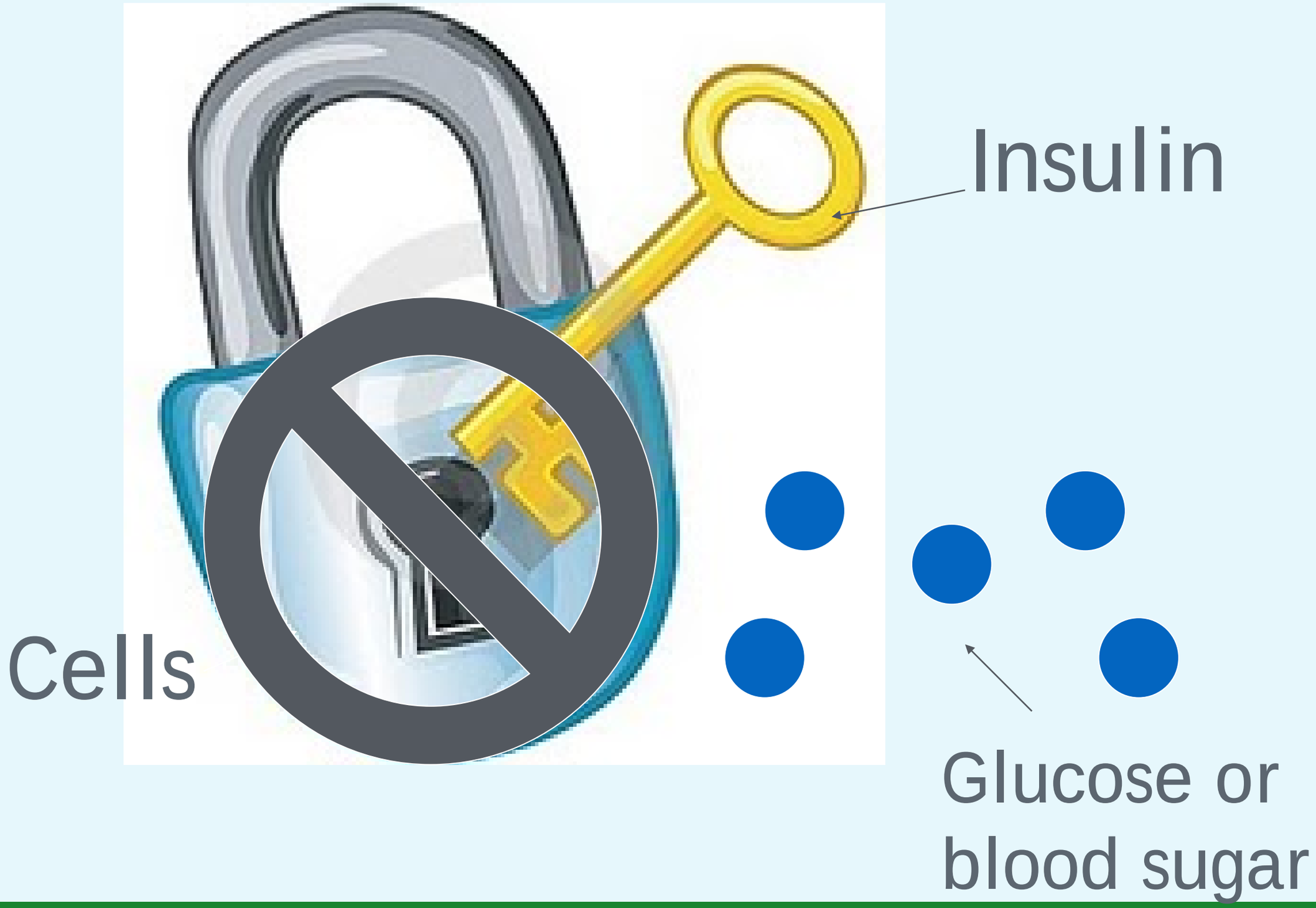
(**63 to 68** years old *vs.* 78 years old)

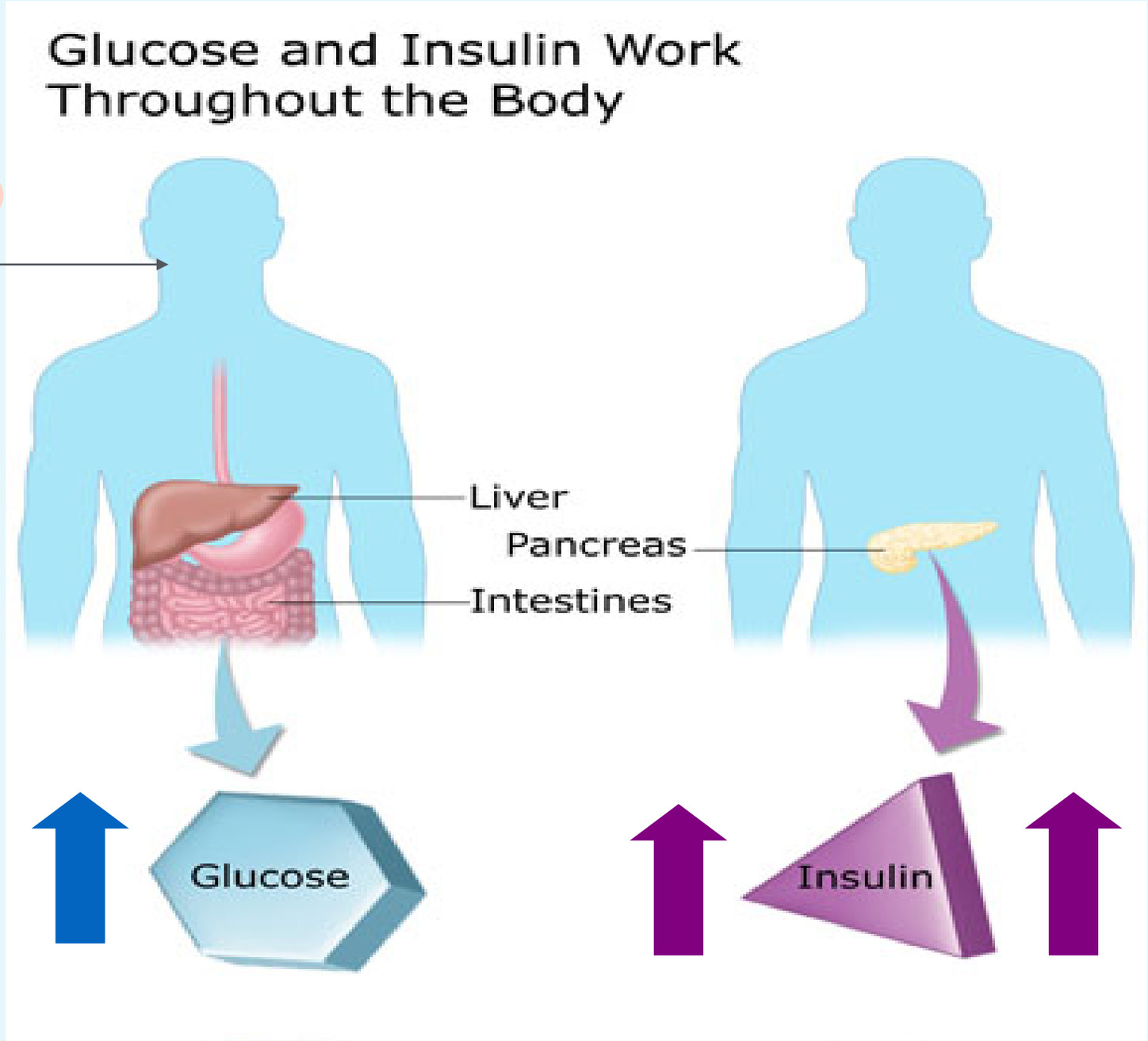
Narayan KMV, Boyle JP, Thompson TJ, Sorensen SW, Williamson DF. Lifetime risk for diabetes mellitus in the United States. *JAMA* 2003 October 8;290(14):1884-1890.


Glucose and Insulin Work Throughout the Body
Liver
Pancreas
Intestines
Glucose
Insulin
Glucose
Insulin

Insulin
Cells
Glucose or blood sugar


"Apple" vs. "Pear"
Above the waist
Below the waist
A.D.A.M.


Insulin
Cells
Glucose or
blood sugar

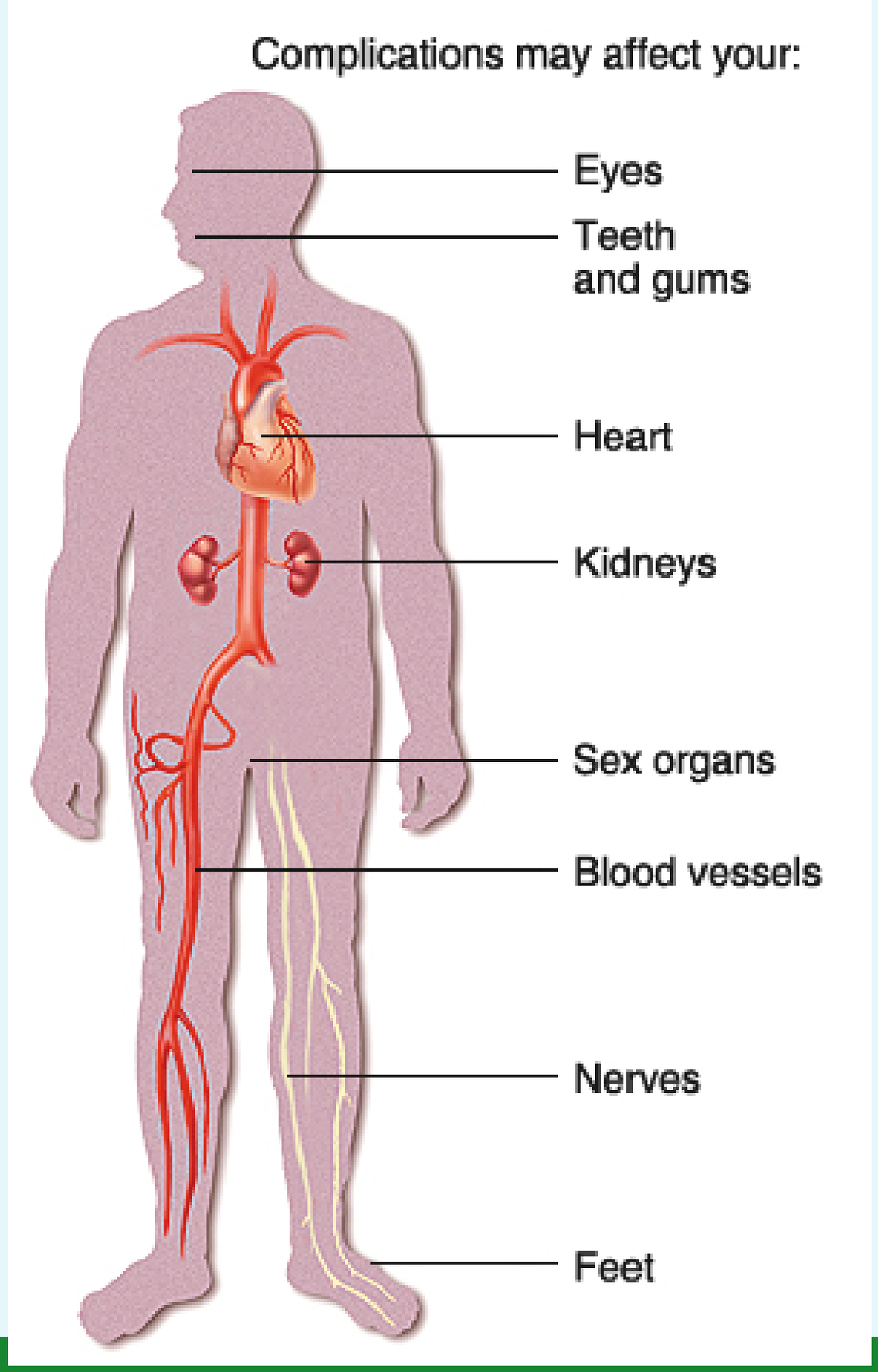

Glucose and Insulin Work Throughout the Body
Liver
Pancreas
Intestines
Glucose
Insulin

Cells are resistant to the insulin because of fat

+

Pancreas becomes exhausted and secretes less insulin

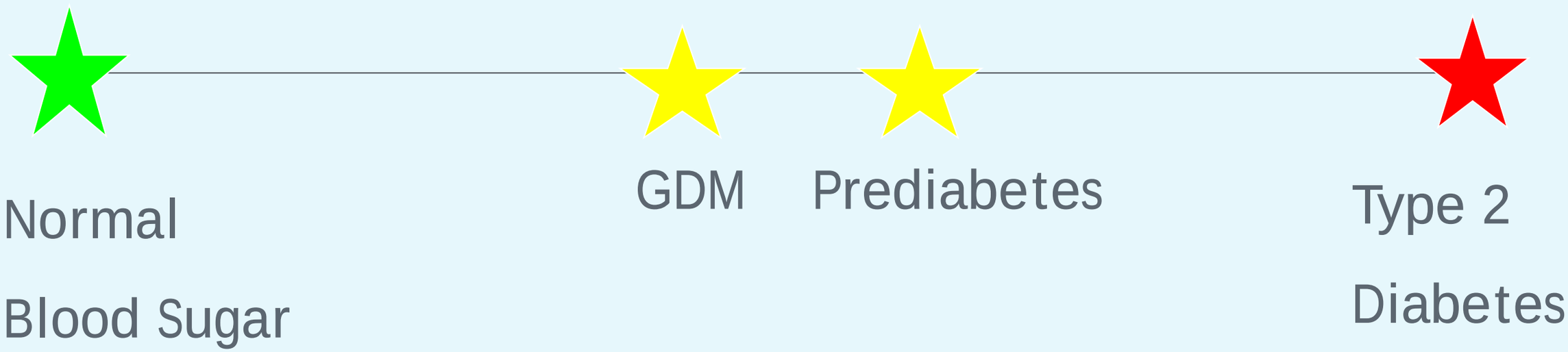
= *High blood sugar*


Complications may affect your:
Eyes
Teeth and gums
Heart
Kidneys
Sex organs
Blood vessels
Nerves
Feet

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**.

The road to diabetes



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

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

Diabetes: Defined

- Gestational Diabetes
  - Screen for undiagnosed type 2 diabetes at the first prenatal visit in those with risk factors, using standard diagnostic criteria.
  - Screen for GDM at 24–28 weeks of gestation in pregnant women not previously known to have diabetes.
    - "One-step" 2-h 75-g OGTT or
    - "Two-step" approach with a 1-h 50-g (non-fasting) screen followed by a 3-h 100-g OGTT for those who screen positive

NIH consensus development conference: diagnosing gestational diabetes mellitus. NIH Consensus Statements 2013;**29**:1–31

Treatment Recommendations for Gestational Diabetes:

"Women in whom gestational diabetes mellitus (GDM) is diagnosed should be treated with nutrition therapy and, when necessary, medication for both fetal and maternal benefit."

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

Treatment Recommendations for Gestational Diabetes: *"Gestational Diabetes" WIC handout*

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

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. **A1C**, 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.

Rethink you drink – choose water!

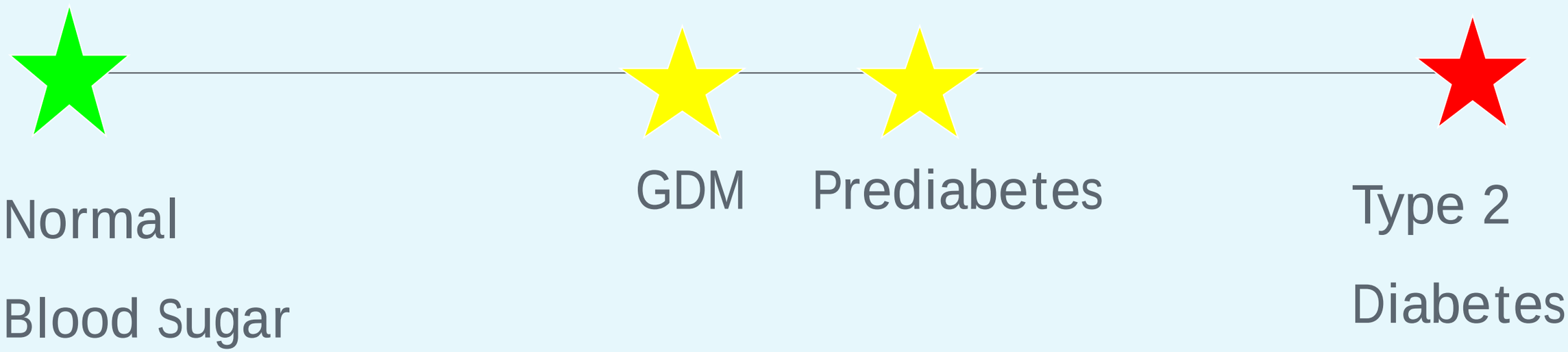
Healthy eating and staying active while you are pregnant matters for you and your baby's health

There's no power like Parent Power!

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

Postpartum Screening Recommendations for GDM

The road to diabetes



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. Among these, over half had been completed by 10 weeks but only 29% were the recommended oral glucose tolerance test (OGTT).

Women who attended a primary care visit within 180 days after birth had three times higher odds of being tested than those without such a visit.

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

"Breaking New Ground in WIC: Diabetes Screening & Referral for Women"

Tri-County Health Department's *Heart Health Tri-County*

- Assess diabetes risk of WIC participants
- Screen (free glucose test)
- Medical referral (if necessary) / counseling / monthly newsletters / class

Class Title: Heart Healthy Tri-County Diabetes Class

Nutrition Education Topics: General Nutrition Education; Active Living/Physical Activity; Beverages; Fruits and Vegetables; Protein Foods; Whole Grains

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.

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"

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

DPP: an Effective Solution to Prevent Diabetes

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

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

DPP Program Elements

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

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
10-15 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?**
?	

DPP sites in Colorado

American Diabetes Association (Denver Metro Area)
Anschutz Health and Wellness Center
Center for African American Health
Central Colorado Area Health Education Center
Consortium for Older Adult Wellness
CREA Results
Denver Health
FirstVitals
YMCA of Metro Denver
San Luis Valley Regional Medical Center (Alamosa County)
Chaffee County Public Health (Chaffee County)
Clear Creek Public Health (Clear Creek County)
Delta County Memorial Hospital (Delta County)
Plains Medical Center (East Central Colorado)
Kit Carson County Health and Human Services (Kit Carson County)
Pueblo Community Health Center (Pueblo County)
Weld County Department of Public Health & Environment (Weld County)

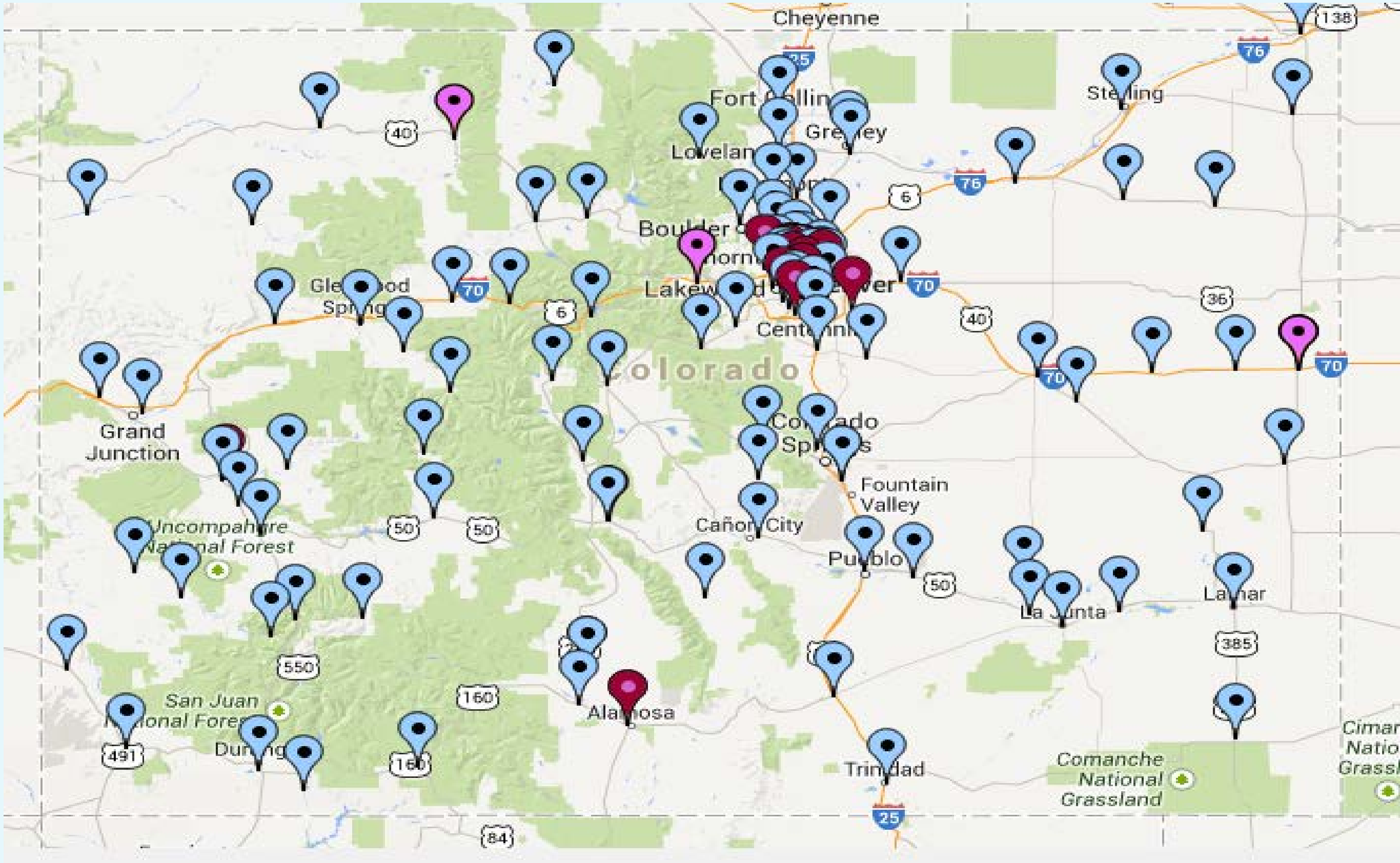
Locating a DPP in Colorado

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

DPP in the Community: Shared Strength

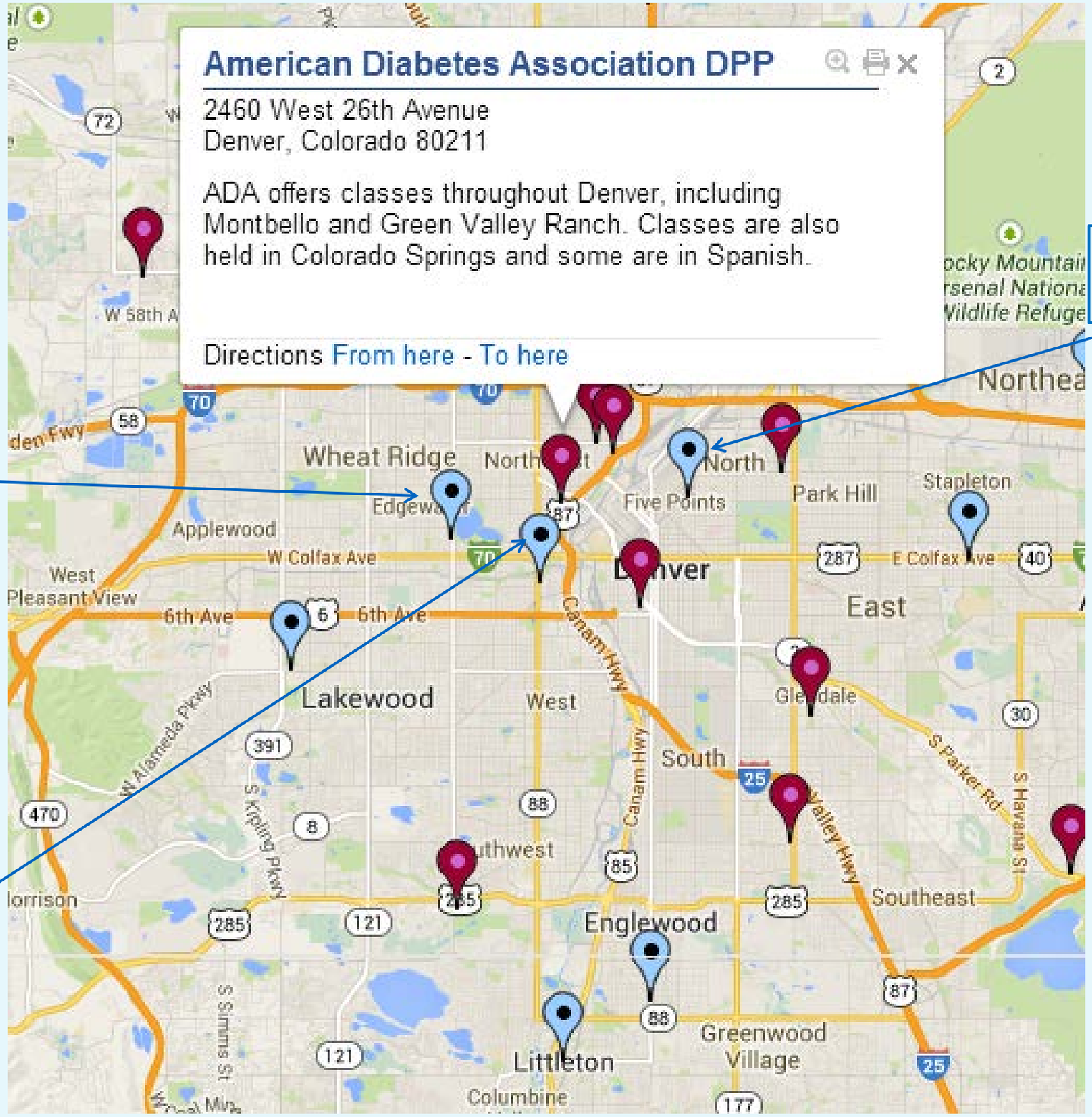
COLORADO

DPP Sites in Colorado



COLORADO https://www.zeemaps.com/map?group=965822#

DPP Referral Site-ADA

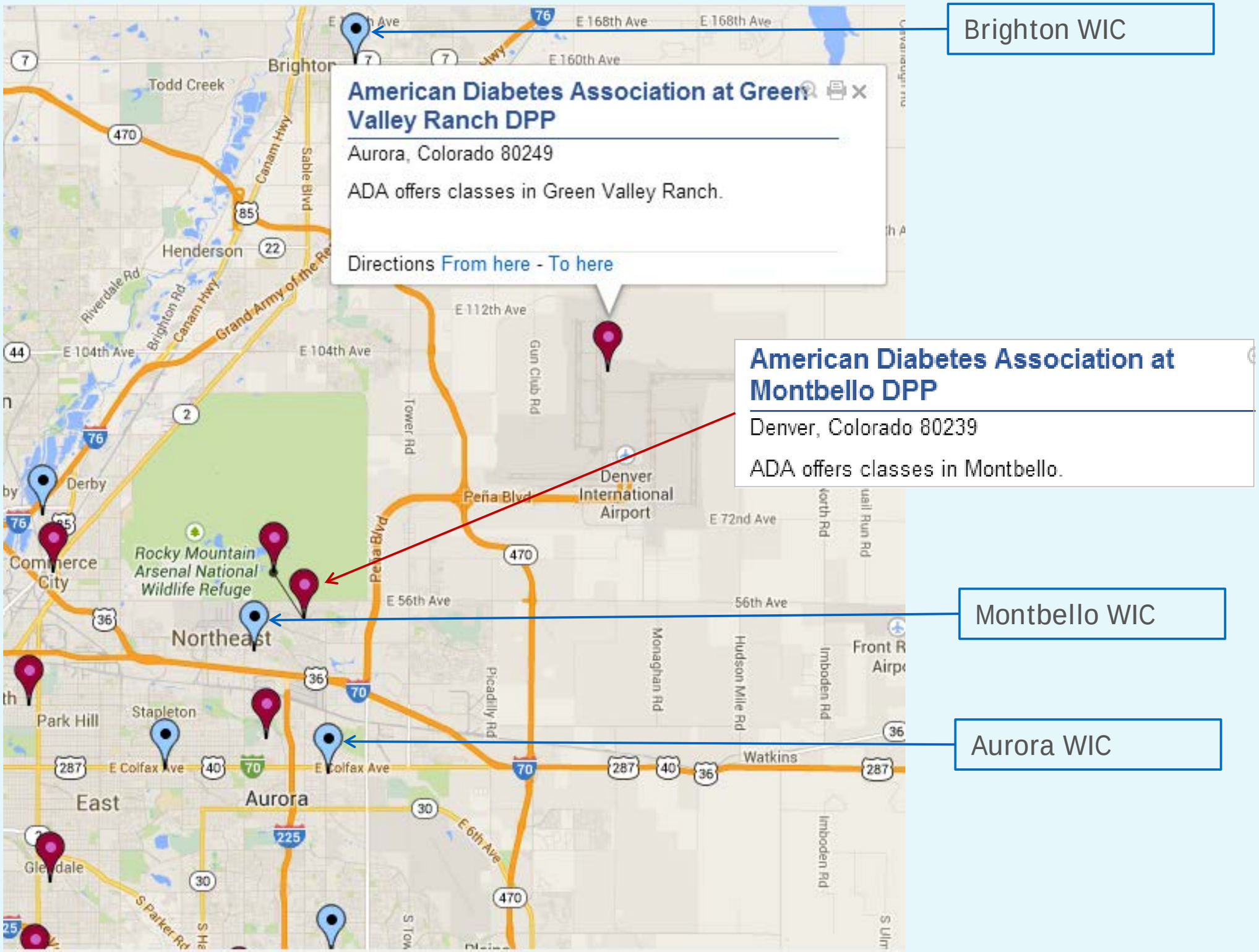


Eastside Neighborhood Health Center WIC

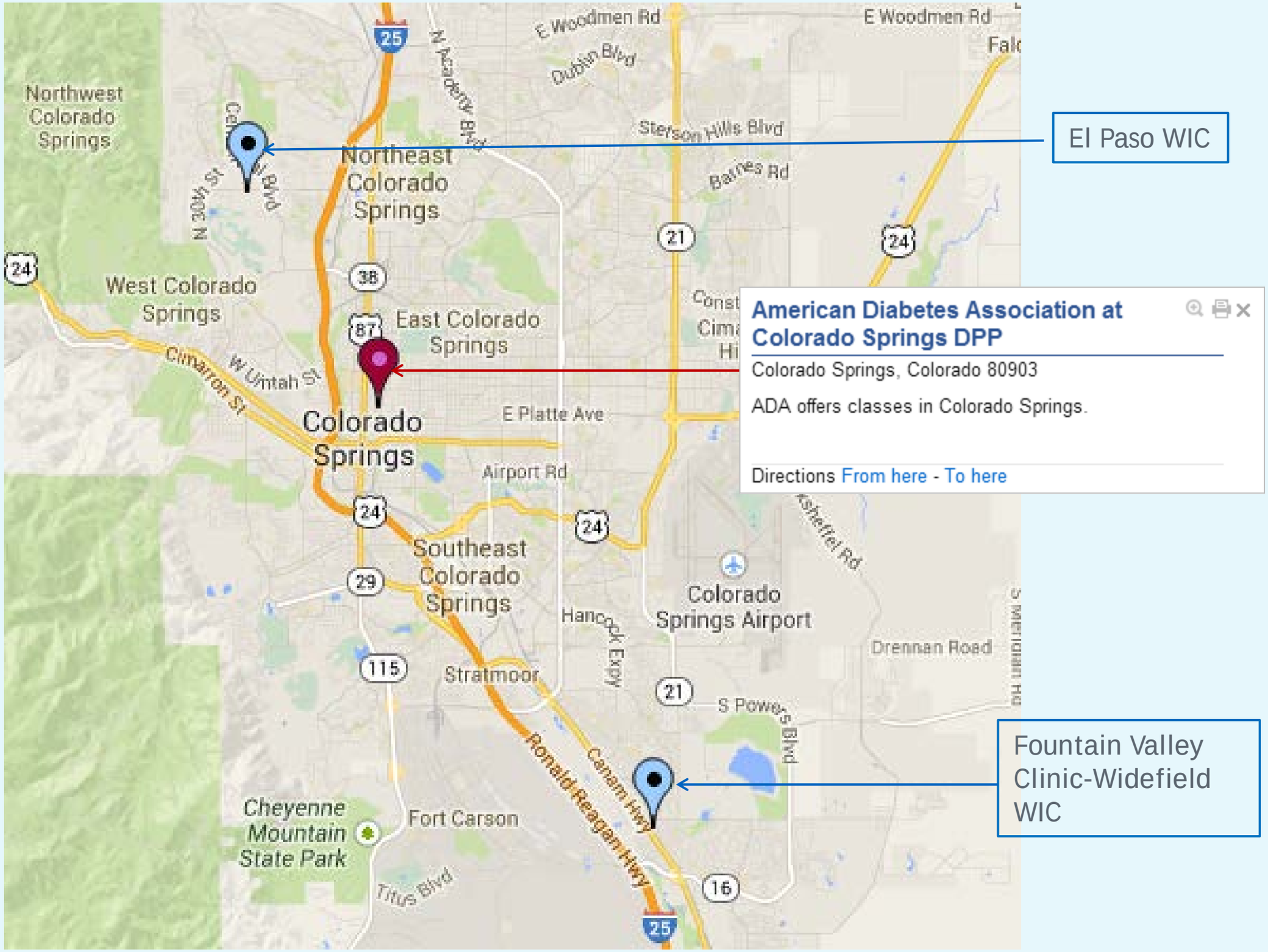
Edgewater WIC

Westside Family Health Center WIC

DPP Referral Site-ADA



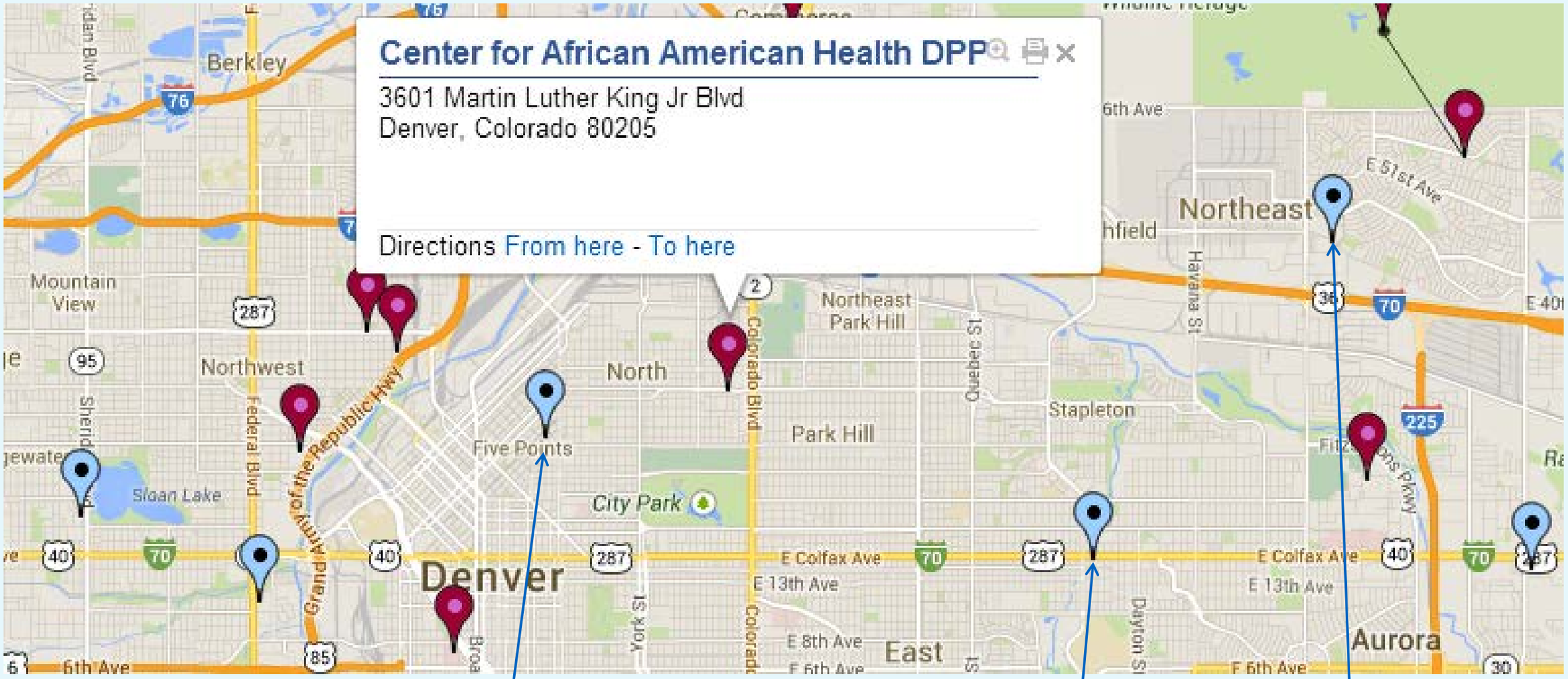
DPP Referral Site-ADA



DPP Referral Site-ADA

- **DPP Site:** American Diabetes Association
- **Agency Name for DPP:** DPP
- **Cost:** Free!
- **Contact:** Monica Chavez-Singleton, 720-855-1102, ext. 7032
- **Referral Process:** Please reach out to Monica to find out how you should refer your clients
- **Languages for the Classes:** English and Spanish

DPP Referral Site-CAAH



Eastside Neighborhood Health Center WIC

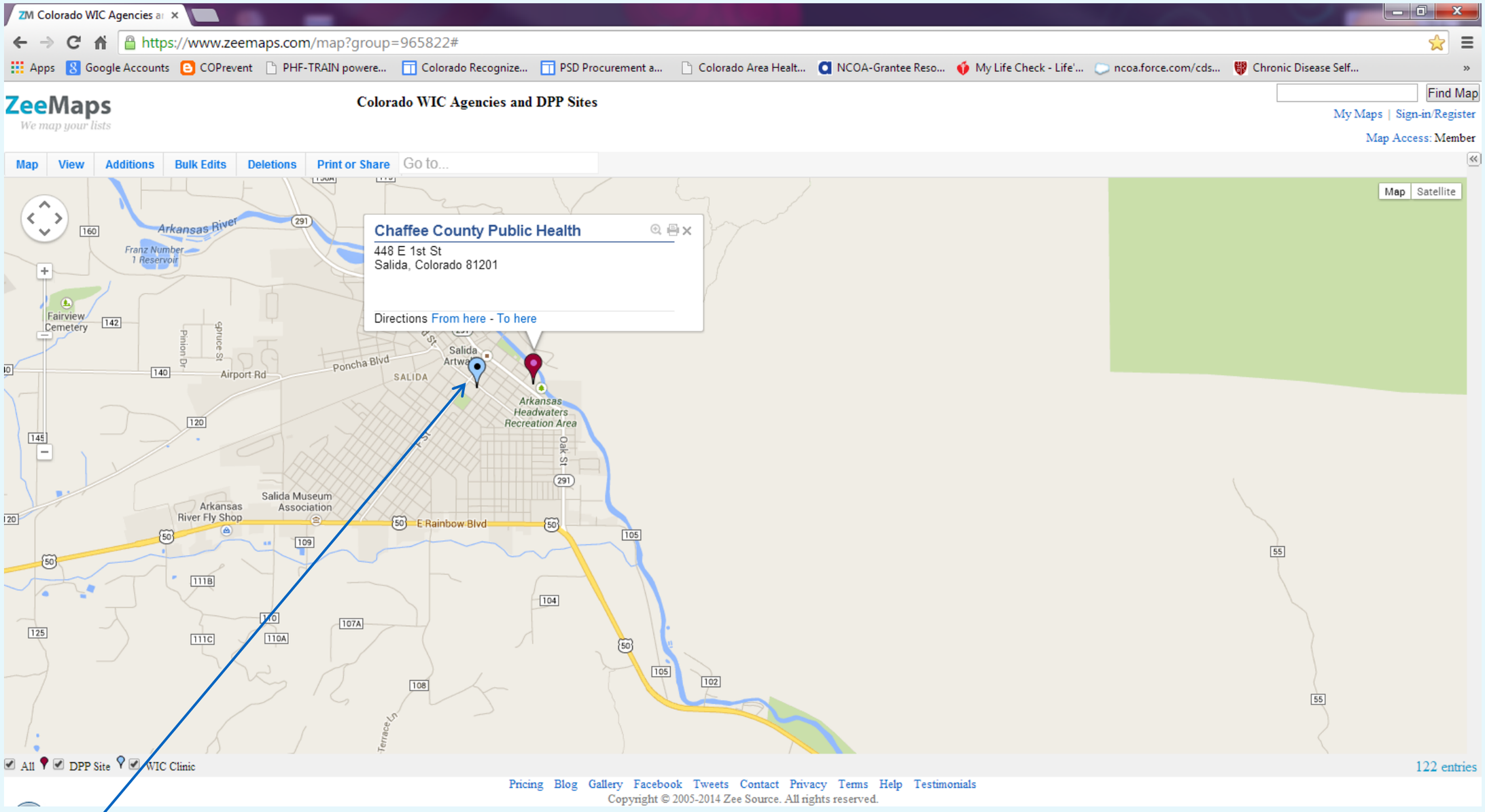
Alton/Colfax WIC

Montbello WIC

DPP Referral Site-CAAH

- **DPP Site:** Center for African American Health
- **Agency Name for DPP:** Live Well “4” Life
- **Cost:** Free!
- **Contact:** Michele Duvall, Program Coordinator; 303-355-3423, ext 117; mduvall@caahealth.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

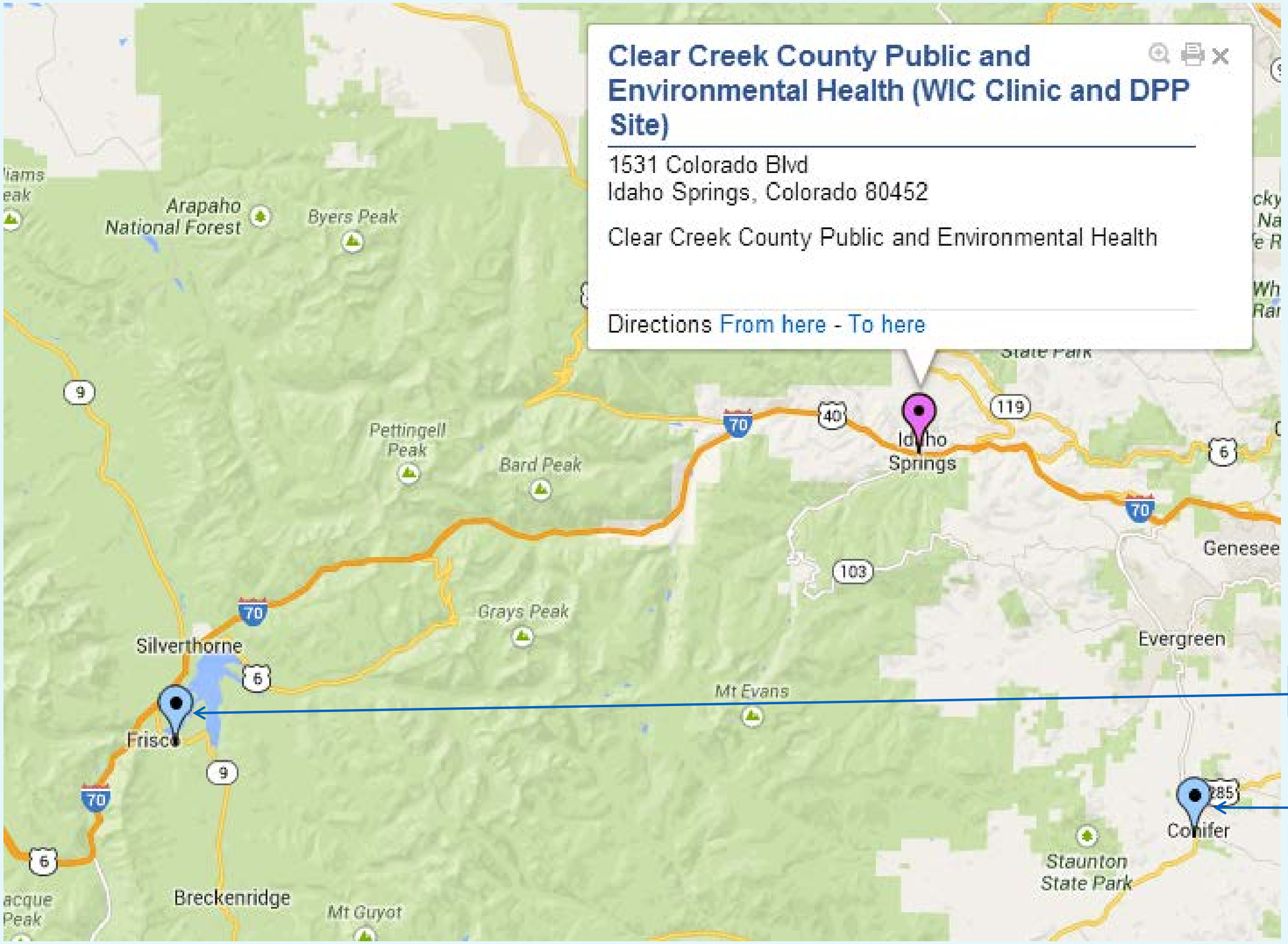


Salida WIC

DPP Referral Site-Chaffee County

- **DPP Site:** Chaffee County Health and Human Services
- **Agency Name for Their DPP:** National Adult DPP
- **Cost:** Free!
- **Contact:** Jon Fritz; 719-650-5225; livewellstrategycoordinator@gmail.com
- **Referral Process:** Call Jon to provide WIC client referral information
- **Languages for the Classes:** English

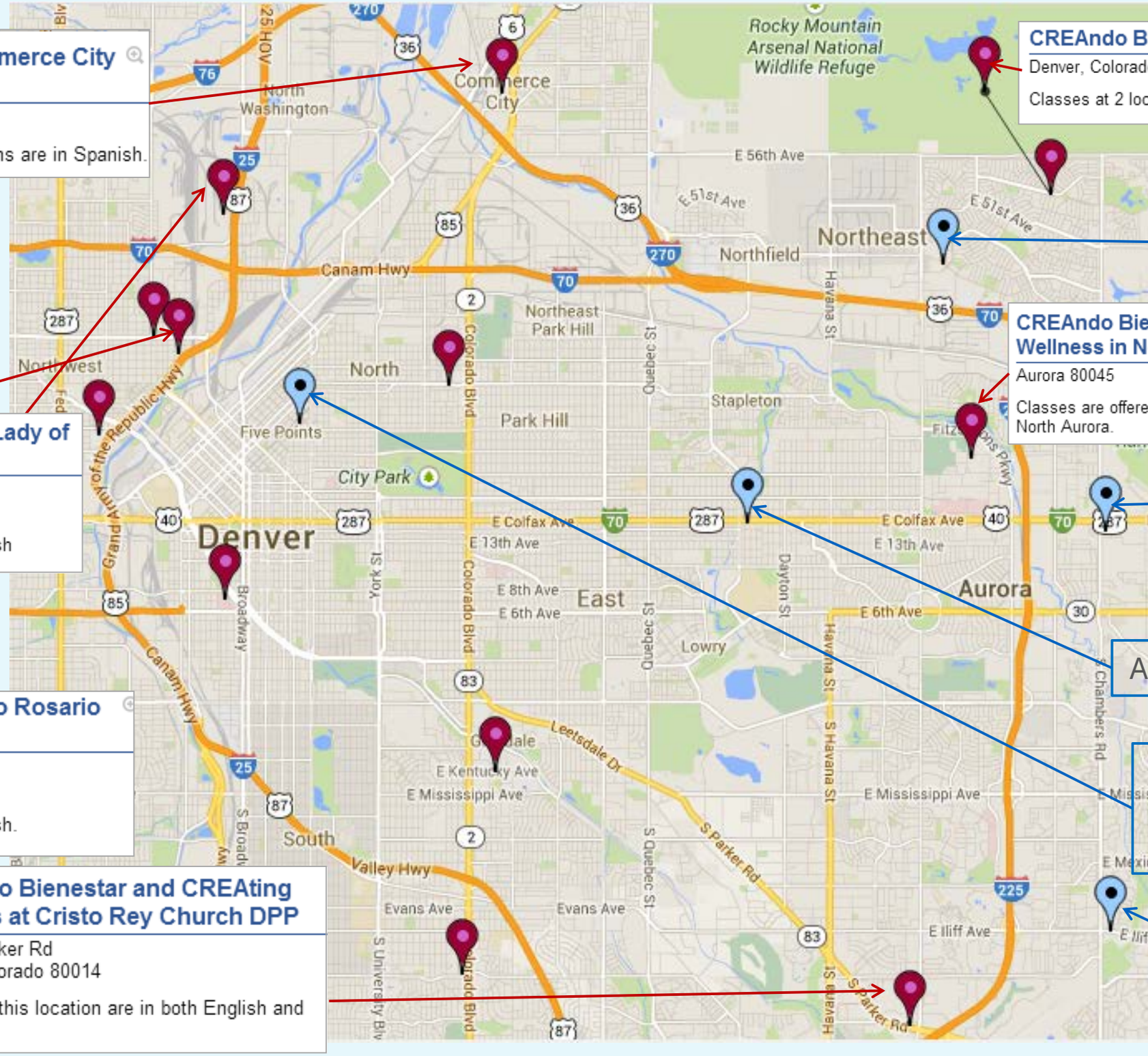
DPP Referral Site-Clear Creek



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



CREAndo Bienestar in Commerce City DPP

Commerce City, Colorado

Classes at 2 Commerce City locations are in Spanish.

CREAndo Bienestar in Montbello DPP

Denver, Colorado 80239

Classes at 2 locations in Montbello are in Spanish

Montbello WIC

CREAndo Bienestar and CREAting Wellness in North Aurora DPP

Aurora 80045

Classes are offered in both English and Spanish in North Aurora.

Aurora WIC

CREAndo Bienestar at Our Lady of Guadalupe Church DPP

1209 W 36th Ave
Denver, Colorado 80211

Classes at this location are in Spanish

Alton/Colfax WIC

CREAndo Bienestar at Santo Rosario Church DPP

5151 Bannock St
Denver, Colorado 80216

Classes at this location are in Spanish.

Eastside Neighborhood Health Ctr. WIC

CREAndo Bienestar and CREAting Wellness at Cristo Rey Church DPP

3138 S Parker Rd
Aurora, Colorado 80014

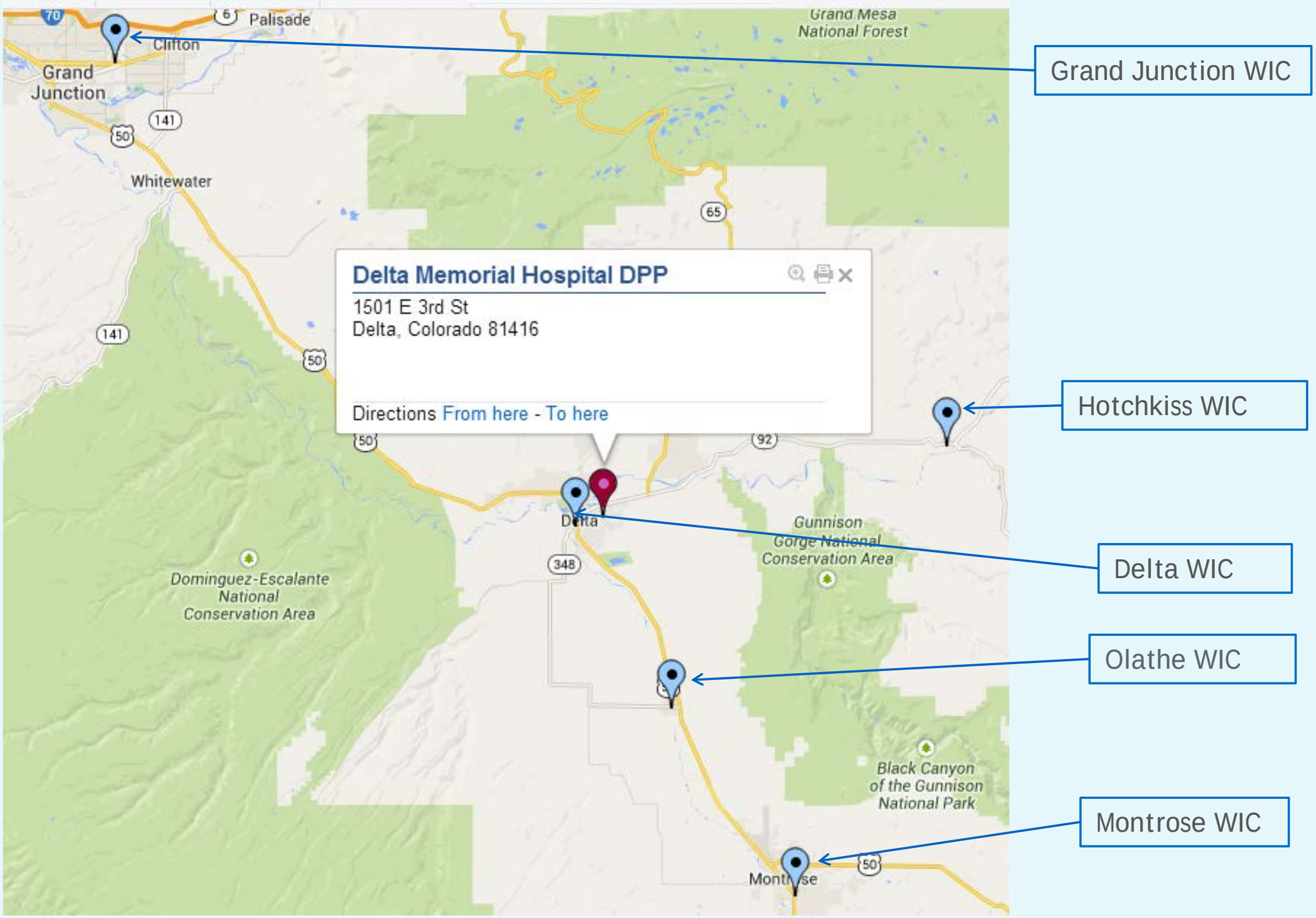
Classes at this location are in both English and Spanish.

Iliff WIC

DPP Referral Site-CREA Results

- **DPP Site:** CREA Results
- **Agency Name for DPP:** CREAting Wellness
- **Cost:** Free!
- **Contact:** For general program questions: Jimikaye Beck, Program Coordinator; 303-724-9019; Jimikaye.beck@ucdenver.edu
- **Referral Process:** Clients (or WIC staff) should call CREA directly at referral line: 720-255-5465 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

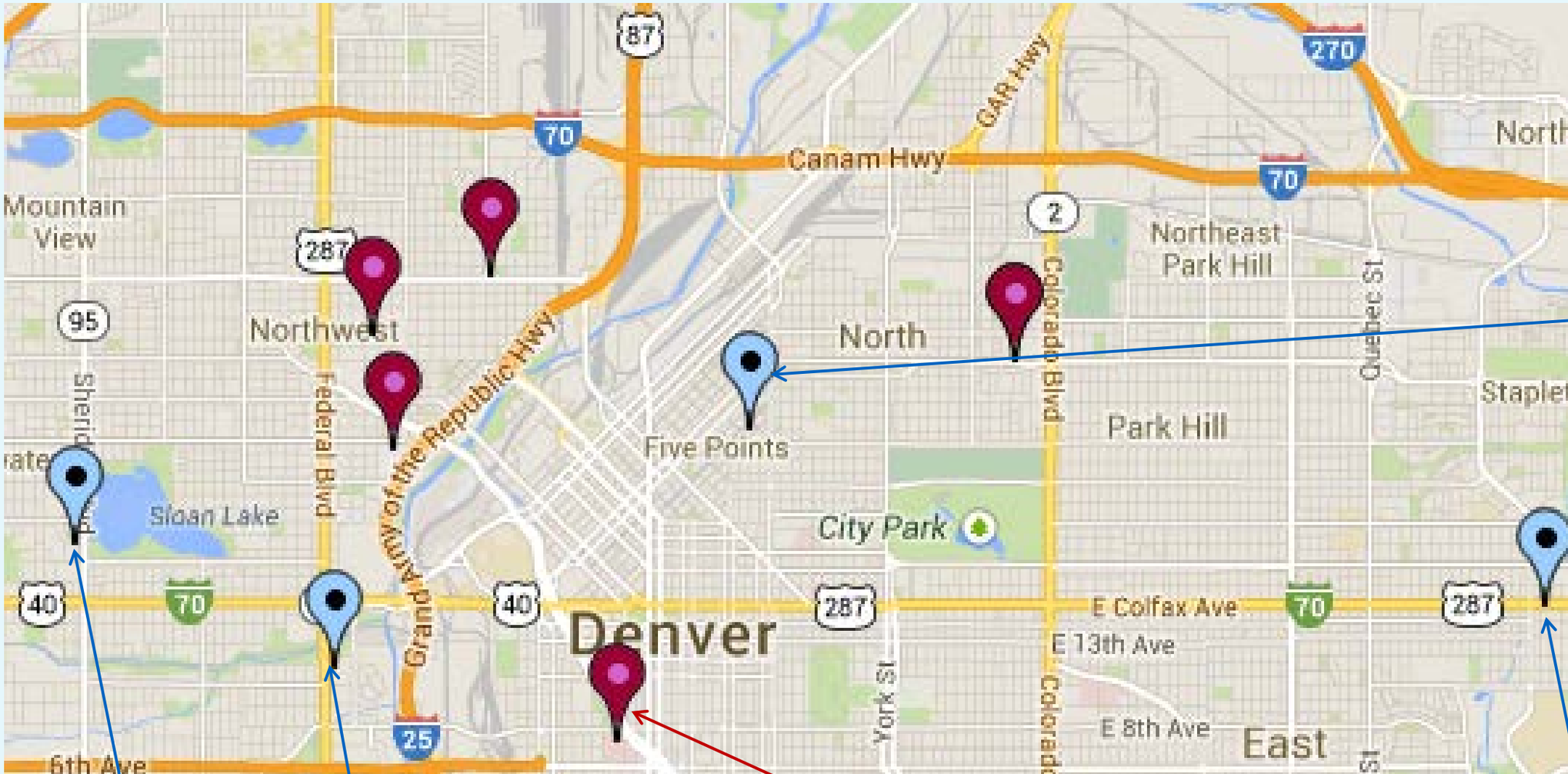
DPP Referral Site-Delta Hospital



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



Eastside Neighborhood Health Center WIC

Edgewater WIC

Westside Family Health CenterWIC

Denver Health Managed Care DPP

777 Bannock St
Denver, Colorado 80204

Classes are offered in both English and Spanish.

Directions From here - To here

Alton/Colfax WIC

DPP Referral Site-Denver Health

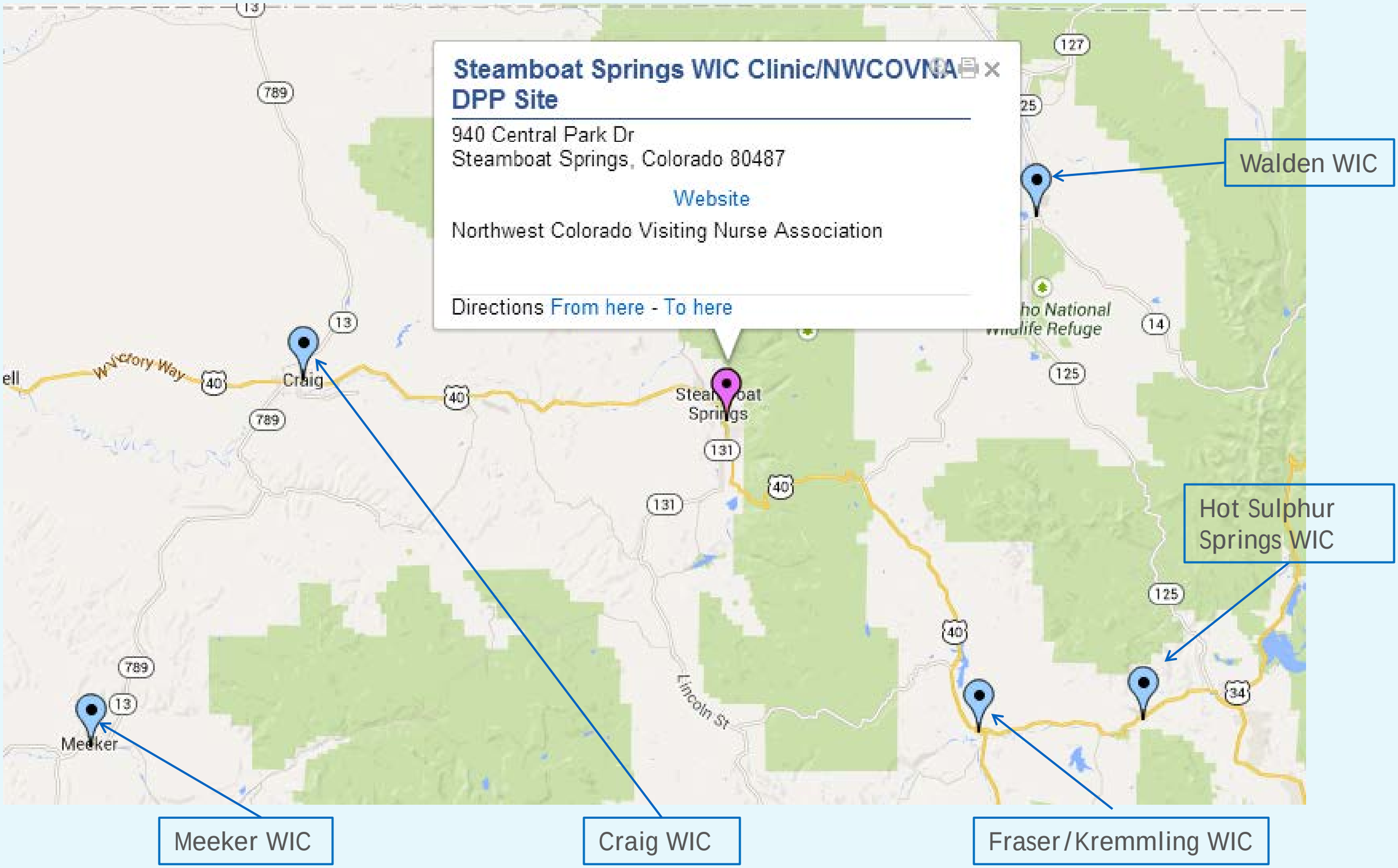
- **DPP Site:** Denver Health Managed Care
- **Agency Name for DPP:** National Diabetes Prevention Program
- **Cost:** Free!
- **Contact:** Sheila Covarrubias; 303-602-2141; sheila.covarrubias@dhha.org
- **Referral Process:** Send participant information either via email or phone
- **Languages for the 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:** Dee 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 KCCHHS's referral form
- **Languages for the Classes:** English
- **Additional Notes:** Classes are at Burlington for now

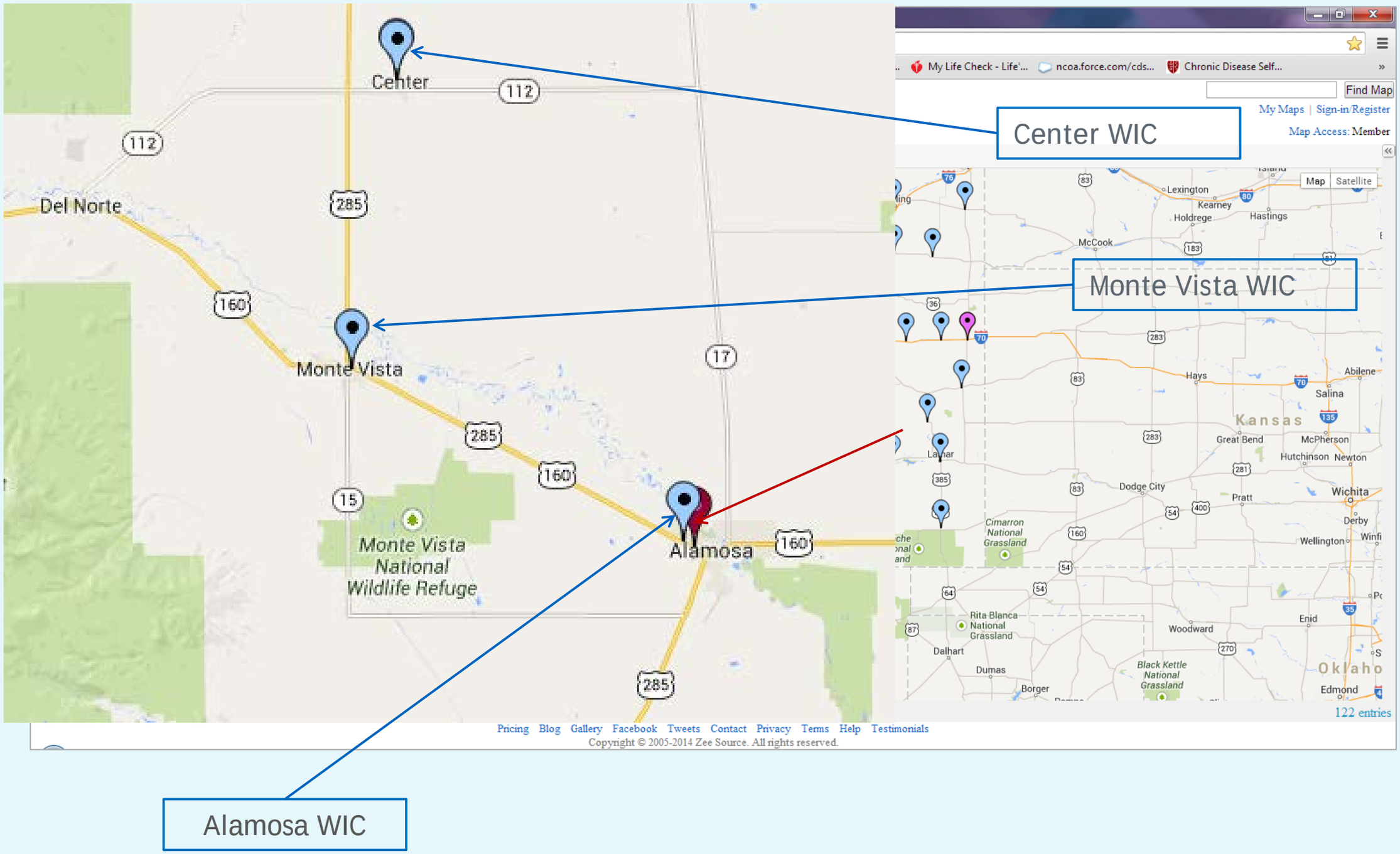
DPP Referral Site-NWCOVNA



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-San Luis Valley



DPP Referral Site-San Luis Valley

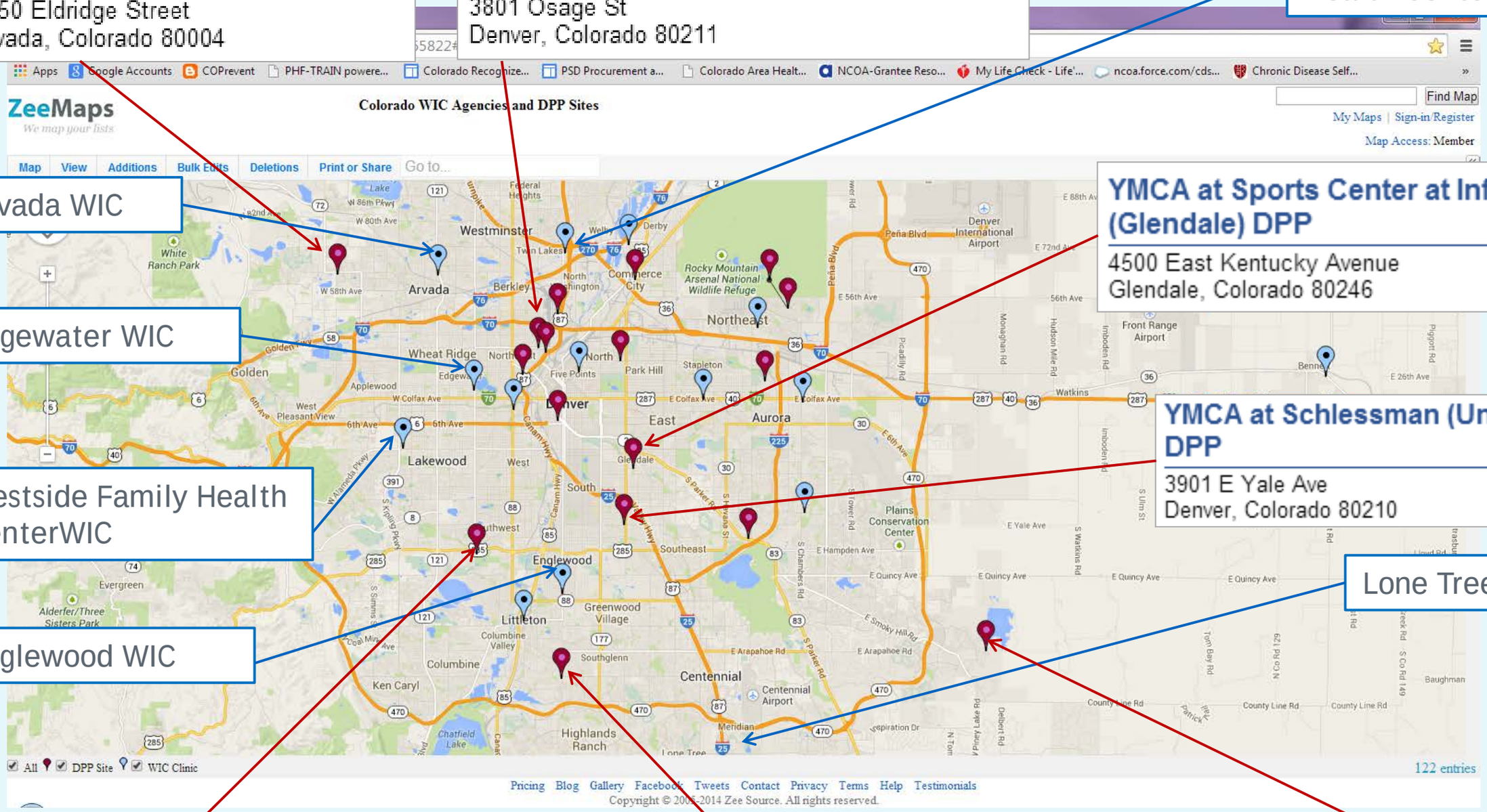
- San Luis Valley Regional Medical Center
- **Agency Name for DPP:** Pro-Fit Lifestyle Change Program
- **Cost:** Free!
- **Contact:** Lee Alsbaugh-LeSueur, 719-587-2800
- **Referral Process:** Need a referral from the client's WIC Educator or Dietitian
- **Languages for the Classes:** English and Spanish
- **Additional Notes:** Classes at Alamosa, Monte Vista, Del Norte and La Jara

DPP Referral Site-YMCA

YMCA at Duncan (Arvada) DPP
6350 Eldridge Street
Arvada, Colorado 80004

YMCA at Highlands Sports & Spine DPP
3801 Osage St
Denver, Colorado 80211

Eastside Neighborhood Health Center WIC



Arvada WIC

Edgewater WIC

Westside Family Health CenterWIC

Englewood WIC

YMCA at Sports Center at Infinity Park (Glendale) DPP
4500 East Kentucky Avenue
Glendale, Colorado 80246

YMCA at Schlessman (University Hills) DPP
3901 E Yale Ave
Denver, Colorado 80210

Lone Tree WIC

YMCA at Southwest DPP
5181 W Kenyon Ave
Denver, Colorado 80236

YMCA at Littleton DPP
11 West Dry Creek Court
Littleton, Colorado 80120

YMCA at The Lakehouse at Southshore (Aurora) DPP
27151 E Lakeview Dr
Aurora, Colorado 80016

DPP Referral Site-YMCA

- **DPP Site:** The YMCA of Metro Denver
- **Agency Name for Their DPP:** YDPP
- **Cost:** Free!
- **Contact:** Monica Thompson, YMCA Health and Wellness Initiatives Coordinator; 720-524-2747; MThompson@denverymca.org
- **Referral Process:** Contact Monica to complete documentation to receive scholarship
- **Languages for the Classes:** English and possibly Spanish

Next Steps…

- E-introductions
- 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

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Questions?