

**AIDING IN THE SUCCESSFUL
MANAGEMENT OF CHRONIC
DISEASE: RWHS DIABETES
CARE PROGRAM**

Erin Dudden,
Pharm.D.

OBJECTIVES

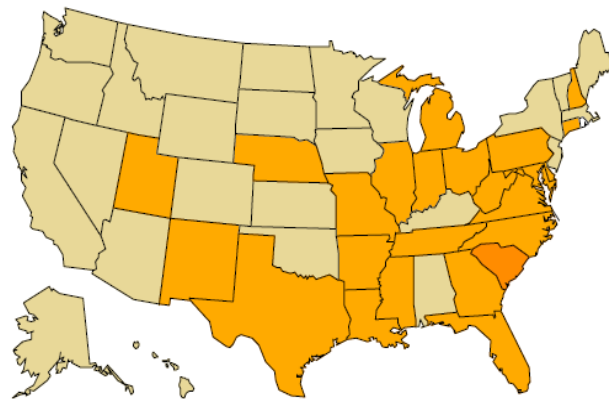
- **Diabetes prevalence**
 - Nationwide
 - Nebraska/Scotts Bluff county
- **What the Diabetes Care Program through Community Pharmacy at Regional West is and what it offers patients**
- **Success stories through enrollment in the program**
- **Cost implications**
- **Questions**

DIABETES PREVALENCE

INCREASING DIABETES PREVALENCE

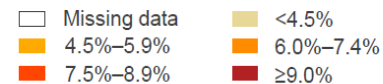
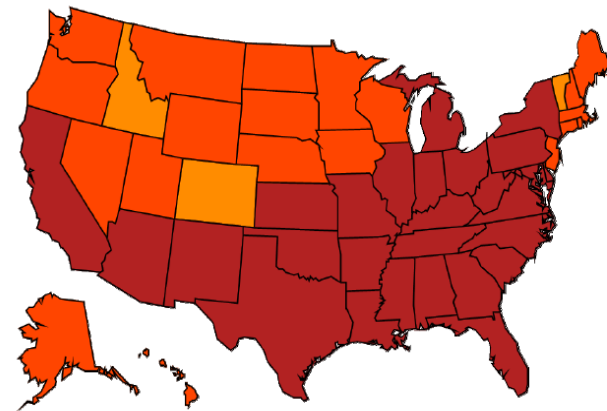
Age-Adjusted Prevalence of Diagnosed Diabetes
Among US Adults

1994



Age-Adjusted Prevalence of Diagnosed Diabetes
Among US Adults

2014



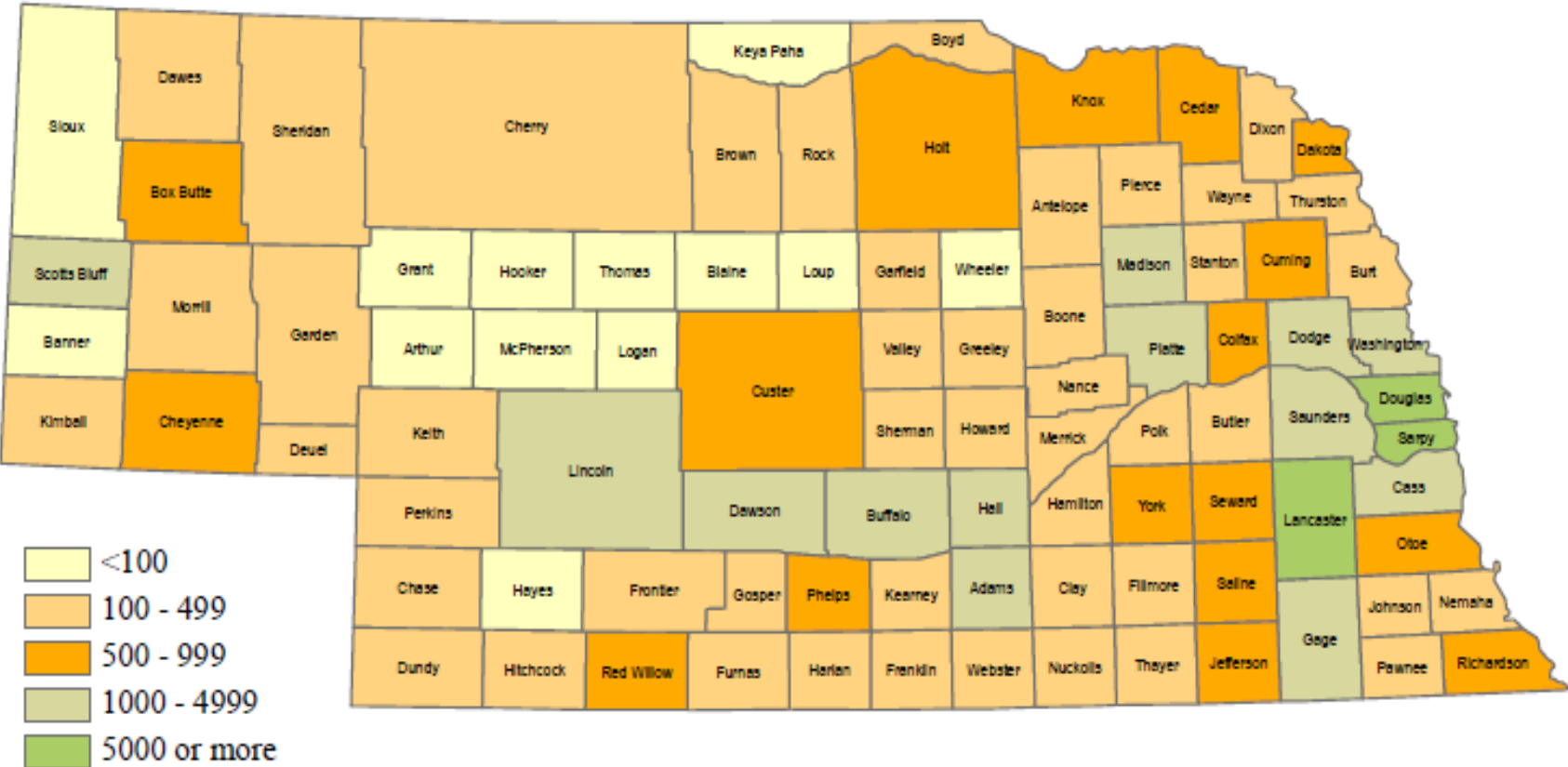
CDC's Division of Diabetes Translation. United States Diabetes Surveillance System available at <http://www.cdc.gov/diabetes/data>

CDC's Division of Diabetes Translation. United States Diabetes Surveillance System available at <http://www.cdc.gov/diabetes/data>



DIABETES PREVALENCE BY COUNTY

Figure 2. Number of Adults (Age 20+) with Diagnosed Diabetes, by County, Nebraska, 2005
(Source: Centers for Disease Prevention and Control)



DIABETES BURDEN IN NEBRASKA

- Diabetes and pre-diabetes cost an estimated **\$1.5 billion** in Nebraska each year
 - Total direct medical expenses were estimated at **\$1.2 billion** in 2012
 - Includes diagnosed and undiagnosed diabetes, pre-diabetes, and gestational diabetes
 - Indirect costs from lost productivity due to diabetes was **\$363 million**
- Medical expenses for diabetic patients are approximately **2.3 times higher** than those who do not have diabetes

DIABETES CARE PROGRAM

RWHS DIABETES CARE PROGRAM

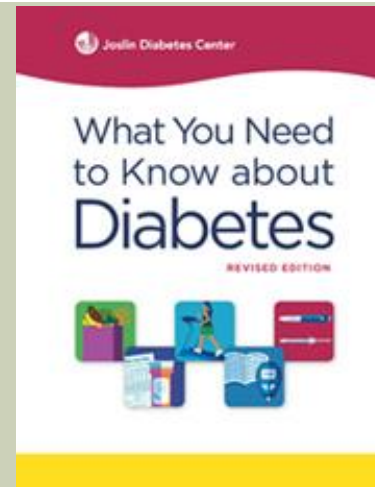
- The diabetes care program is designed to:
 - Help patients manage their diabetes
 - Improve their overall health
 - Reduce costs of managing their disease
- Administered by pharmacists at the Community Pharmacy at Regional West
 - Started in 2007
 - Current roster of 86 patients



Community Pharmacy
at Regional West

PHARMACIST PROVIDE PATIENTS

- Education
- Guidance
- Encouragement
- Resources
- Accountability



How to "CARB" with diabetes

It's as easy as 1-2-3

1 How to read a food label for diabetes:

- Where are carbs on the food label?
- A "one carb" serving = 15 grams of total carbohydrate
- Keep saturated fat and sodium to 5% of the daily value or less
- Keep trans fat to 0 grams
- Good source of fiber = 10% or more of daily value

2 What is a "one carb" serving?

Follow the

GRAINS:

- 1 slice of bread
- 1/2 cup oatmeal
- 1/2 cup cooked pasta or rice

STARCHY VEGGIES:

- 1/2 cup starchy veg like peas, squash or corn
- 1 cup winter squash
- 1 cup vegetable soup
- 1/2 baked potato

DAIRY:

- 1 cup skim milk or yogurt

FRUIT:

- 1 small piece
- 1/2 cup to 1 1/2 cups cubed fruit
- 1/2 cup canned fruit in juice
- 1/2 to 1/2 cup juice

3 Build a diabetes healthy plate:

About 45 - 65 g of carbs per meal* - here's how:

- 1/4 the plate brown rice (1/2 cup) = 22 g carb
- 1/2 the plate with consistency veg = 7 g carb
- 1/4 the plate lean protein plus fruit salsa 2 tablespoons = 2 g carb
- 1 cup yogurt or skim milk = 12 g carb

Nutrition Facts

Serving Size: 1/2 cup (125g)
Servings Per Container: 8

	Amount Per Serving	% Daily Value*
Total Fat	5g	10%
Saturated Fat	0g	0%
Trans Fat	0g	0%
Cholesterol	5mg	1%
Sodium	15mg	3%
Total Carbohydrate	20g	4%
Dietary Fiber	14g	28%
Sugars	1g	2%
Protein	2g	4%
Vitamin A	2%	0%
Vitamin C	0%	0%
Calcium	4%	8%
Iron	15%	30%



GOALS OF THE PROGRAM

- Reduce HbA1c levels
- Improve blood pressure to an appropriate goal for a diabetic patient
- Promote preventative care measures
 - Eye
 - Dental
 - Foot health
- Improve patient-specific nutrition goals
- Increase exercise, if necessary
- Decrease weight, if necessary

BENEFITS TO THE PATIENT

- Free generic diabetes medications
- Brand name medications are 15% of drug cost
 - \$300 medication costs patient ~\$50-60
- Free diabetes supplies
 - Blood glucose test strips
 - Lancets
 - Pump supplies
- Free HbA1c test every three months
- Free nutrition counseling
- Free pharmacist consultations

WHO IS ELIGIBLE?

- Any employee, spouse, or dependent child 19 or older with Regional West Health insurance through RCI and have been diagnosed by a medical provider as:
 - Pre-diabetic
 - Diabetic
 - Having gestational diabetes



ACCOUNTABILITY

- Patients remain on the program as long as they
 - Attend monthly visits with the pharmacists for the first three months of enrollment, followed by quarterly visits thereafter
 - HbA1c tests every three months
 - Nutritional counseling if warranted

- No show/no call policy in place

- **Work in conjunction with patient's provider to:**

- Meet goals
- Attend appointments
- Have HbA1c's drawn



- **Touch point in care**

- Patients do not have to pay for their visits with me, yet concerns or possible changes in care get to their provider between office visits

- **Monitoring compliance**
 - **Medications**
 - Daily vs. three times daily dosing
 - **Testing supplies**
 - \$1088 vs \$297/90 day supply
 - **PDC (Proportion of Days Covered)**

- **Potential decrease in ER visits and/or hospitalizations**

**SHORT
TERM COST
BENEFITS**



PROGRAM SUCCESSES

PROGRAM SUCCESS STORY

Prior to program

- HbA1c of **10%**
- Blood pressure **160/90**
- Cholesterol **157mg/dl**
- Triglycerides **288mg/dl**
- Weight **340 lbs.**

After a year in program

- HbA1c of **6.6%**
- Blood pressure **148/84**
- Cholesterol **152mg/dl**
- Triglycerides **171 mg/dl**
- Weight **330 lbs.**

PROGRAM SUCCESS STORY

Prior to program

- HbA1c of **13%**
- Blood pressure **153/85**
- Cholesterol **253 mg/dl**
- Weight **249 lbs.**

After one year in program

- HbA1c of **7.8%**
- Blood pressure **120/80**
- Cholesterol **177 mg/dl**
- Weight **240 lbs.**

PROGRAM SUCCESS STORY

At inception of program

- HbA1c of **10.4%**
- Blood pressure **163/105**
- Cholesterol **182 mg/dl**
- Triglycerides **91 mg/dl**
- HDL **48 mg/dl**
- Weight **195 lbs.**

After ~10 years on program

- HbA1c of **6.9%**
- Blood pressure **105/73**
- Cholesterol **199 mg/dl**
- Triglycerides **82 mg/dl**
- HDL **78 mg/dl**
- Weight **203 lbs.**

COST IMPLICATIONS

COSTS OF DIABETES

- Not taking medications as prescribed increases costs by **\$100 billion per year or \$11,000 per patient per year**
 - Poor adherence could explain why ~43% of diabetic patients do not reach adequate glycemic control
- Every additional dollar spent on diabetes medications saved \$7 in medical costs
- Hospitalization risk for a diabetes-related problem:
 - Highly compliant **13% risk**
 - Low compliance **30% risk**
- Combined drug and medical costs:
 - Most compliant **\$4570**
 - Least compliant **\$8867**

IMPORTANCE OF ADHERENCE

- The World Health Organization stated that:

“Failure to take prescribed medicine for chronic diseases is a massive, world-wide problem...Increasing the effectiveness of adherence interventions may have a far greater impact on the health of the population than any improvement in specific medical treatments”

Copyright 2005 by Randy Glasbergen.
www.glasbergen.com



**“You went camping and a bear mistook your blood for honey.
Would you mind if I ordered a diabetes test for you?”**

QUESTIONS?