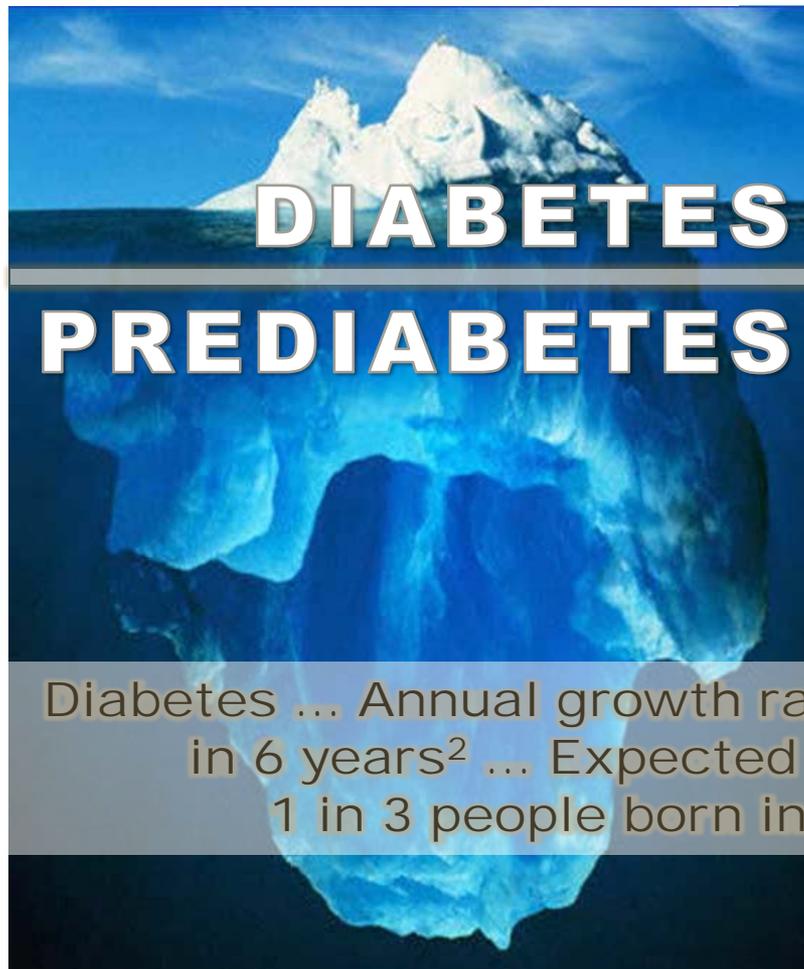


# Diabetes & Prediabetes

## US Adult Prevalence

NST ME



**DIABETES**

**PREDIABETES**

2% in control of their disease

27% are undiagnosed

**26 million<sup>1</sup>** 11.5% of US adults

**79 million<sup>1</sup>** 35% of US adults

95% are unaware with no symptoms

10% will convert to type 2 annually

Diabetes ... Annual growth rate of 1.5 million ... Doubled in 6 years<sup>2</sup> ... Expected to double again within 25 years<sup>3</sup> ... 1 in 3 people born in the year 2000 will develop diabetes<sup>1</sup>

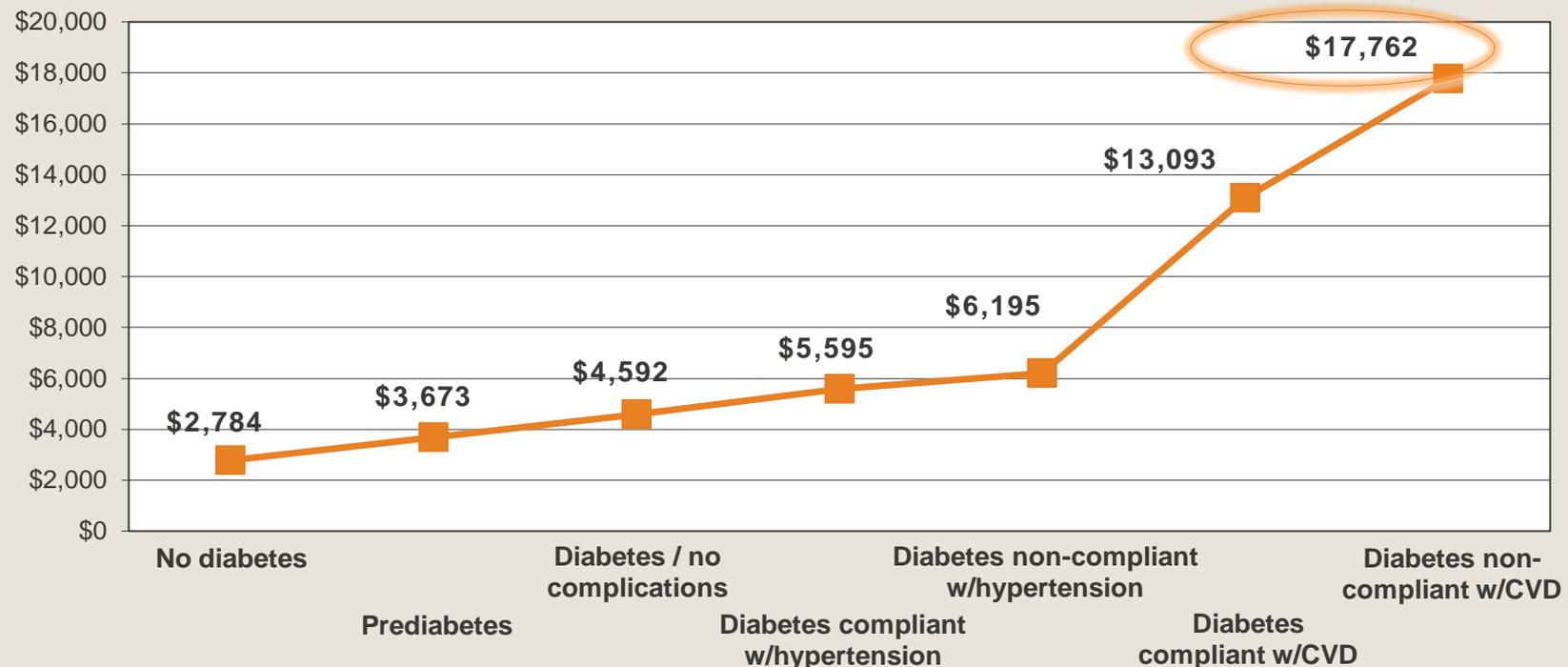
# The Toll of Diabetes on US Health Care

## Potential to Bankrupt the Health Care System

NOT ME

- Increased treatment costs:
  - \$6,663 PMPY average cost increase for diabetes
  - \$889 PMPY average cost increase for prediabetes
- Costs directly related to progression in severity; a non-compliant individual with diabetes and related complications has potential to cost 9Xs more than a non-diabetic individual <sup>1</sup>
- 10 year NPV of avoiding diabetic conversion - \$55K

Progressive Cost of Diabetes Per Member Per Year<sup>2</sup>



- National comparative efficacy trial (NIH/CDC)
- 3,200 overweight / obese adults with IGT
- Compared 3 preventive interventions
  - Brief Education (usual care)
  - Metformin
  - Intensive Diet & Physical Activity Program
- **Intensive Lifestyle Program (ILS) most effective**
  - Prevented 58% of new diabetes cases (71% for persons 60+)
  - Worked for all age, gender, and race subgroups

Treating 100 high risk adults (age 50) for 3 years...

- Prevents 15 new cases of Type 2 Diabetes<sup>1</sup>
- Prevents 162 missed work days<sup>2</sup>
- Avoids the need for BP/Chol pills in 11 people<sup>3</sup>
- Avoids \$91,400 in other healthcare costs<sup>4</sup>
- Adds the equivalent of 20 perfect years of health<sup>5</sup>

1 DPP Research Group. N Engl J Med. 2002 Feb 7;346(6):393-403

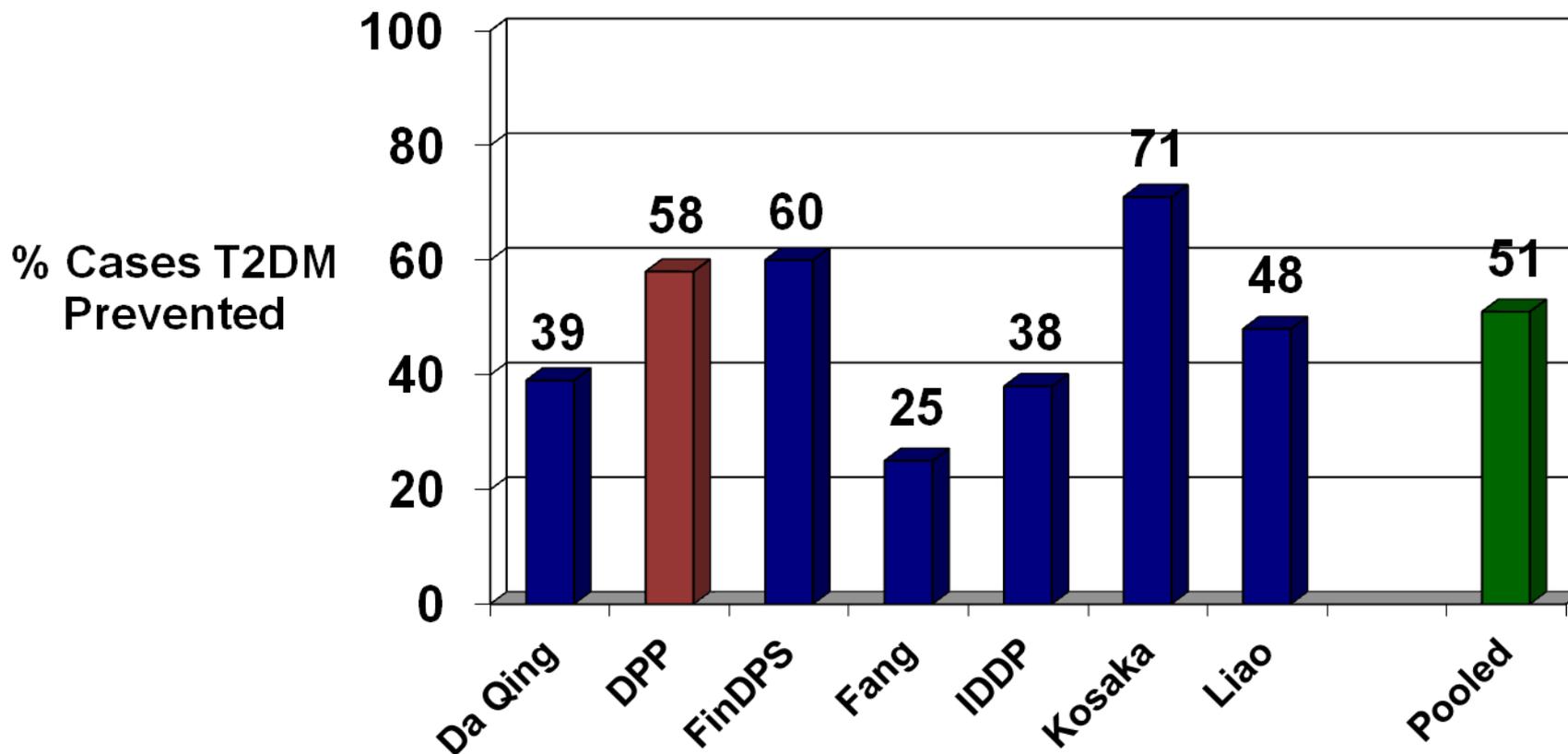
2 DPP Research Group. Diabetes Care. 2003 Sep;26(9):2693-4

3 Ratner, et al. 2005 Diabetes Care 28 (4), pp. 888-894

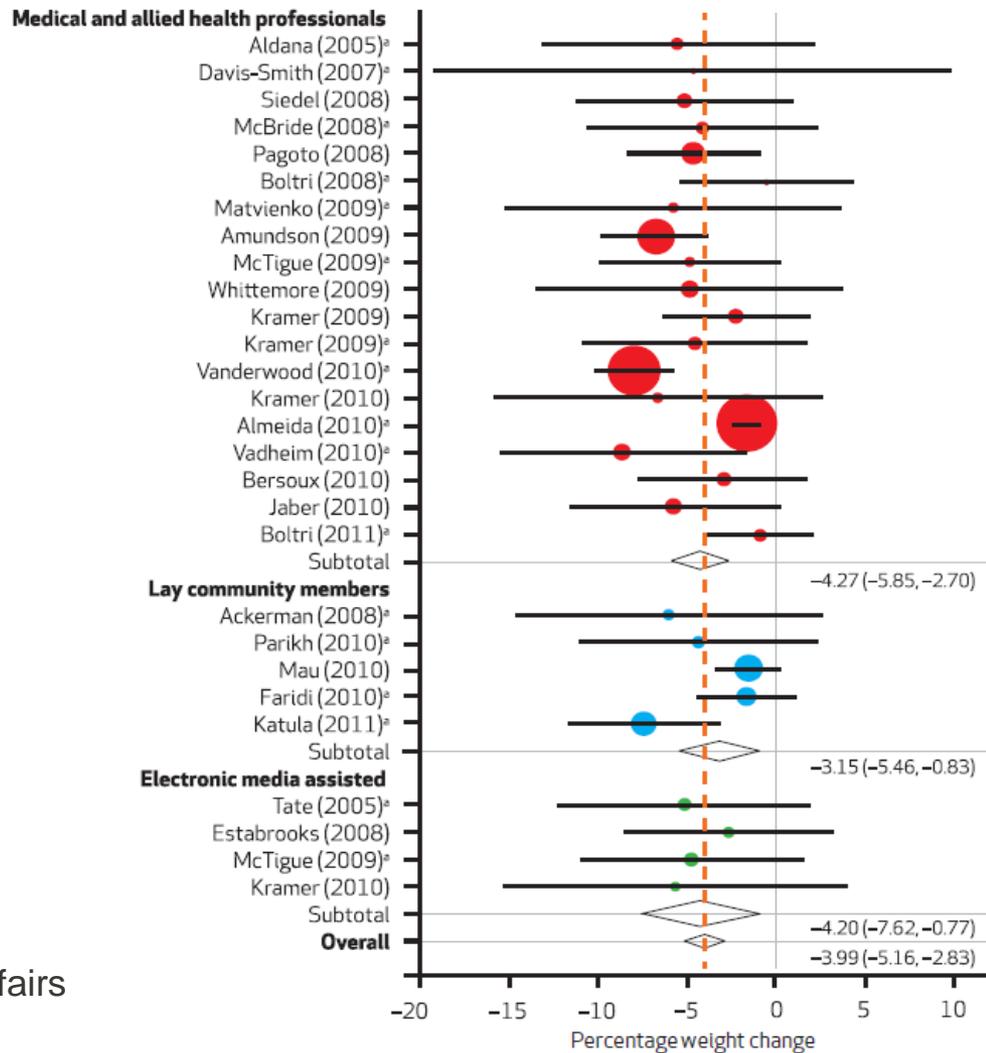
4 Ackermann, et al. Diabetes Care. 2006 Jun;29(6):1237-41; estimates scaled to 2008 \$US

5 Herman, et al. 2005 Ann Intern Med 142 (5), pp. 323-32

# Other Clinical Trials with Similar Findings



\*Adapted from Gillies, C. L et al. BMJ 2007;334:299



- 16-session core curriculum over 24 weeks, followed by monthly maintenance visits (forever)
- Modest goals; both weight (5-7% ↓) & activity (150 min/wk)
- Self-monitoring & self-regulation of dietary fat & PA
- Individual tailoring for PA environment & dietary preferences
- Build self-efficacy; incremental goals & successes
- Provide supportive accountability, problem solving skills, & strategies

- Efforts to identify prediabetes in healthcare settings will uncover more T2DM
- Even if perfectly implemented, providing a diabetes prevention program to adults with PreDM will prevent only HALF of new T2DM
- Efforts to scale up the DPP should be done in concert with analogous efforts to improve & coordinate care for patients who already have diabetes

# Diabetes Quality, Outcome, Cost Disconnect



- Advances in diagnosis & services over the past 2 decades have improved health outcomes for persons living with diabetes
- Health system improvements in the structure and process of care has increased costs<sup>1</sup>
- Even in high achieving health systems, outcomes of care are still not reached by all patients & often are distributed unfairly
- Individual, social, & environmental factors outside the reach of healthcare create large barriers to further improvements in diabetes outcomes<sup>2</sup>

1. Thorpe KE, Florence CS, Joski P. Health Affairs 2004. Jul-Dec;Suppl Web Exclusives:W4-437-45.

2. Selby JV, et al. Med Care. 2007 Dec;45(12):1144-1153.

- Community-based interventions that are patient-centered and individually tailored to address common barriers to self-care may offer greater promise for achieving optimal clinical outcomes in patients with diabetes.<sup>1</sup>
- One promising strategy involves community pharmacist-led care management programs to help coordinate clinical diabetes education, promote medication tailoring, and deliver patient education and self-care support.<sup>2,3</sup>

1. Norris SL, et al. *Am J Prev Med*. May 2002;22(4 Suppl):39-66.

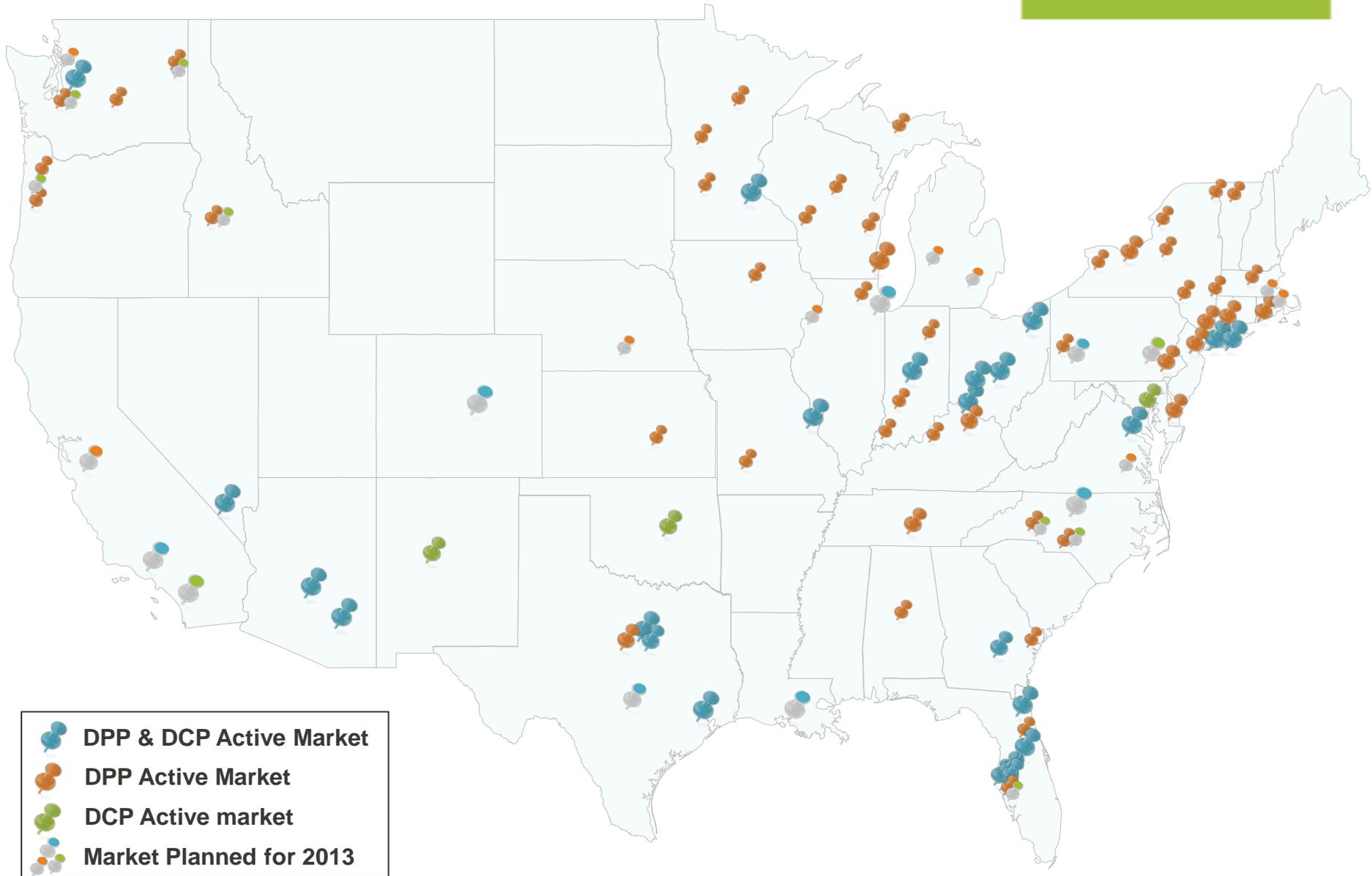
2. Cranor CW, et al. *J Am Pharm Assoc (Wash)*. Mar-Apr 2003;43(2):173-184.

3. Cranor CW, et al. *J Am Pharm Assoc (Wash)*. Mar-Apr 2003;43(2):149-159.

- Available in frequented community settings
- Supplement healthcare delivery
  - Address knowledge of goals and Rx
  - Document care processes (SBP, A1c, LDL)
  - Identify Rx problems, lapses, or non-adherence
  - Delivery preventive therapies (ASA, flu vaccine)
  - Inform PCP of issues, changes, duplication
  - Reinforce messages for healthy eating; weight loss
- Improve A1c 0.5% to 1.0% by 12 months

- National pharmacy chains (Krogers/Ralphs~Safeway/Vons and others) offer a feasible channel for scaling
- Need to demonstrate
  1. UHG can activate DM clients to use the program
  2. Community pharmacists can provide a program that has a meaningful and independent impact on health and healthcare consumption
  3. Overall administrative costs for UHG are not prohibitive for scaling

# Current & Scheduled DPCA Markets



# Current & Scheduled DPCA Markets

NOT ME

## Alabama

Birmingham

## Arizona

Phoenix

Tucson

## California

Long Beach\*

Los Angeles\*

San Diego\*

San Jose\*

## Colorado

Denver\*

## Connecticut

New Haven

Wilton

## Delaware

State-wide

## Florida

Clearwater

DeLand

Jacksonville

Orlando

St. Petersburg

Tampa

Venice\*

## Georgia

Atlanta

Savannah

## Idaho

Boise\*

## Illinois

Chicago\*

Moline\*

Sycamore

## Indiana

Bloomington

Evansville

Fort Wayne

Indianapolis

## Iowa

Marshalltown

## Kansas

Wichita

## Kentucky

Lexington

Louisville

## Louisiana

New Orleans\*

## Maryland

Baltimore

Suburban DC

## Massachusetts

Brockton\*

Lawrence

North Attleborough\*

## Michigan

Ann Arbor\*

Grand Rapids\*

Marquette

## Minnesota

Alexandria

Itasca

Minneapolis/St. Paul

Willmar

## Missouri

Springfield

St. Louis

## Nebraska

Kearney\*

## Nevada

Las Vegas

## New Jersey

Annandale

Elizabeth

Livingston

Metuchen

## New Mexico

Albuquerque

## New York

Albany

Binghamton

Long Island

Middletown

New York City

Plattsburgh

Rochester

Rye

Syracuse

Watertown

## North Carolina

Asheville\*

Charlotte\*

Greensboro\*

Shelby

## Ohio

Cincinnati

Cleveland

Columbus

Dayton

## Oklahoma

Oklahoma City

## Oregon

Eugene\*

Salem

## Pennsylvania

Natrona Heights

Philadelphia\*

Pittsburgh\*

## Rhode Island

Providence

## Tennessee

Nashville^

## Texas

Arlington

Austin\*

Dallas

Fort Worth

Houston

## Vermont

Burlington

## Virginia

Richmond\*

Suburban DC

## Washington

Everett\*

Seattle

Spokane\*

Tacoma\*

Wenatchee

## Washington D.C.

DC Metro Area

## Wisconsin

La Crosse

Milwaukee

Steven's Point

West Bend

DPP & DCP Active Market

DPP Active Market

DCP Active Market

Market Planned for 2013

\*Indicates program launching in 2013

^ Medicaid Only

# DPCA Overview

## Pay-for-Performance Programs that Work



### U.S. Prediabetes Overview & the Diabetes Prevention Program Challenge

<b>Prevalence:</b>	<b>79 million individuals / 1 in 4 adults</b>
<b>Definition:</b>	<b>Blood glucose levels are higher than normal, but not high enough to be irreversible</b>
<b>Major Culprit:</b>	<b>Obesity and Inactivity</b>
<b>Partner/Program:</b>	<b>Local Y coaches delivering a 16 session group lifestyle management and weight loss program</b>
<b>Program Goals:</b>	<b>Modify participant behavior, affect lifestyle change, help participants lose weight</b>
<b>Ideal Outcome:</b>	<b>Reduce diabetes conversion</b>
<b>Proven Outcomes:</b>	<b>Prediabetics who lose 5-7% of their weight may reduce conversion to full-blown diabetes by 58%. The reduction is 70% for people age 60+</b>

### U.S. Diabetes Overview & the Diabetes Control Program Challenge

<b>Prevalence:</b>	<b>26 million individuals / 1 in 10 adults</b>
<b>Definition:</b>	<b>The body can't process glucose (a type of blood sugar) normally</b>
<b>Major Culprit:</b>	<b>Lack of control for BP, LDL, glucose, weight</b>
<b>Partner/Program:</b>	<b>Local pharmacists delivering 4 one-one consultations to increase control of disease</b>
<b>Program Goals:</b>	<b>Increase ADA compliance, monitor diabetes meds, control blood pressure, cholesterol, HbA1c</b>
<b>Ideal Outcome:</b>	<b>Avoid complications, delay disease progression</b>
<b>Proven Outcomes:</b>	<ul style="list-style-type: none"><li>▪ Every % point ↓ A1C = 40% ↓ risk of eye/kidney/nerve complications</li><li>▪ Every 10 mm Hg ↓ in SBP = 12% ↓ in diabetes-related complications</li><li>▪ Improved control of cholesterol ↓ cardiovascular complications 20-50%</li></ul>