



Overview and Presenters

Chair

- Wanda Jones, DrPh, Acting Assistant Secretary for Health
U.S. Department of Health and Human Services

Presentations

- Rebecca Hines, MHS, Chief, Health Promotion Statistics Branch
National Center for Health Statistics, CDC
- Andrew Narva, MD, Director, National Kidney Disease Education Program
National Institute of Diabetes & Digestive & Kidney Disease, NIH
- Ann Albright, PhD, RD, Director, Division of Diabetes Translation, National
Center for Chronic Disease Prevention and Health Promotion, CDC

Community Highlight

- Karen Wauchope, RN, BSN, CDE, Manager, Clinical Community Programs,
EmblemHealth

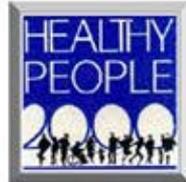


Healthy People 2020 Evolves

HEALTHY PEOPLE
The Surgeon General's Report On
The Nation's Health and Health Priorities



1979



1990



2000



2010



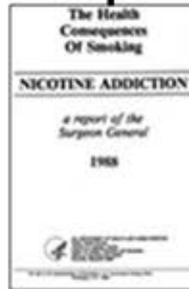
1979
Smallpox
Eradicated



1970 Clean
Air Act



1982 AIDS is
Infectious



1988 SG
Declares
Nicotine
Addictive



1990
Human
Genome
Project
Begins



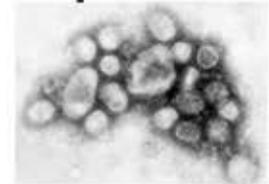
1990s Drinking
Water Fluoridation



2000s Obesity
and Chronic Disease



September
11, 2001



2009 H1N1 Flu



2005 Hurricane
Katrina



What is Diabetes?

- Diabetes is a group of diseases marked by high levels of blood glucose resulting from problems in how insulin is produced, how insulin works, or both.

- Diabetes types:
 - Type 1 Diabetes
 - Type 2 Diabetes – 90-95% of all adults diagnosed
 - Gestational Diabetes
 - Other Types of Diabetes

Age-Adjusted Prevalence of Obesity and Diagnosed Diabetes Among U.S. Adults Aged 18 Years or older

Obesity (BMI ≥ 30 kg/m²)

1994



2000



2010



Diabetes

1994



2000



2010



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





Chronic Kidney Disease (CKD)

- Chronic Kidney Disease is a gradual and permanent loss of kidney function
- CKD is caused by:
 - Diabetes
 - Hypertension
 - Glomerulonephritis or Polycystic kidney disease
 - Other conditions (atherosclerosis, HIV, sickle cell disease, kidney stones, chronic kidney infections)
- More than 20 million US adults may have CKD



CKD and End Stage Renal Disease (ESRD)

- Medical treatment goals for CKD patients:
 - Slow the progression of CKD
 - Treat underlying causes
 - Treat complications
 - Replace loss of kidney function
- ESRD is a total and permanent kidney failure
- Renal replacement therapies for ESRD patients:
 - Hemodialysis
 - Peritoneal dialysis
 - Kidney transplantation



Diabetes and Chronic Kidney Disease: Connection

- Adults with diabetes are two to three times as likely to have CKD and make up 44% of new ESRD cases
- Similar disease management
- In 2011:
 - \$85.9 billion – diabetes Medicare expenditures
 - \$45.5 billion – CKD Medicare expenditures

SOURCES: Centers for Disease Control and Prevention. National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014. Atlanta, GA: US Department of Health and Human Services; 2014.

U.S. Renal Data System, USRDS 2013 Annual Data Report: Atlas of Chronic Kidney Disease and End-Stage Renal Disease in the United States, National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD, 2013. Centers for Disease Control and Prevention. Chronic Kidney Disease Surveillance System—United States. Available at <http://nccd.cdc.gov/CKD>. Centers for Disease Control and Prevention (CDC). National Chronic Kidney Disease Fact Sheet, 2014. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2014.



Presentation Overview

- Tracking the Nation's Progress
- Diabetes
 - Burden
 - Treatment and Care
 - Prevention
- Chronic Kidney Disease
 - Prevalence of Chronic Kidney Disease (CKD)
 - Medical evaluation
 - New cases of End-Stage Renal Disease (ESRD)
 - ESRD deaths



Tracking the Nation's Progress

■ 18 HP2020 Measurable Diabetes Objectives:

- 4 Target met
- 1 Improving
- 11 Little or No detectable change
- 0 Getting worse
- 1 Baseline data only
- 1 Informational

■ 24 HP2020 Measurable Chronic Kidney Disease Objectives:

- 9 Targets met
- 5 Improving
- 4 Little or No detectable change
- 2 Getting worse
- 2 Baseline data only
- 2 Informational

NOTES: The Diabetes Topic Area contains 1 informational objective and 2 developmental objectives. The CKD Topic Area contains 2 informational objectives. Measurable objectives are defined as having at least one data point currently available, or a baseline, and anticipate additional data points throughout the decade to track progress. Informational objectives are also measurable objectives, however, they do not have a target associated with their data. Developmental objectives lack baseline data and targets.



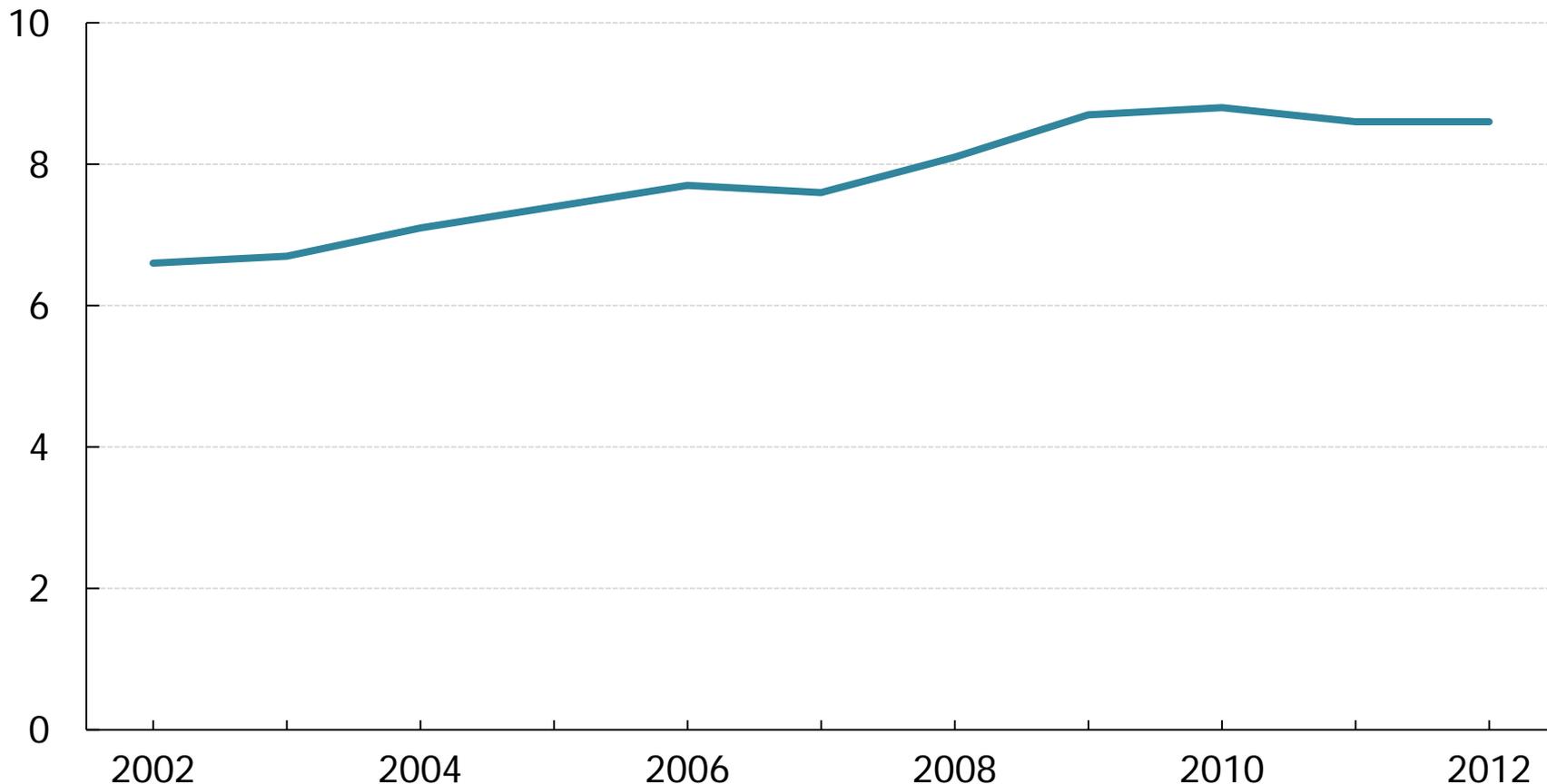
Burden of Diabetes

- Affects 29.1 million or 9.3% of the U.S. population (2012, **all ages**)
 - Diagnosed: 21.0 million people
 - Undiagnosed: 8.1 million people
- 7th leading underlying cause of death (2011)
- The total cost of diabetes in the U.S.: \$245 billion (2012)
 - \$176 billion in direct medical costs
 - \$69 billion in indirect costs including disability, work loss, premature mortality
- NCHS data for diabetes do not differentiate by type of diabetes. Gestational diabetes is excluded from our data.

SOURCES: Centers for Disease Control and Prevention. National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014. Atlanta, GA: US Department of Health and Human Services; 2014; CDC/NCHS, National Vital Statistics System, Mortality 2011. Available at http://www.cdc.gov/nchs/data/dvs/LCWK9_2011.pdf.

Prevalence of Diagnosed Diabetes, 1997–2012

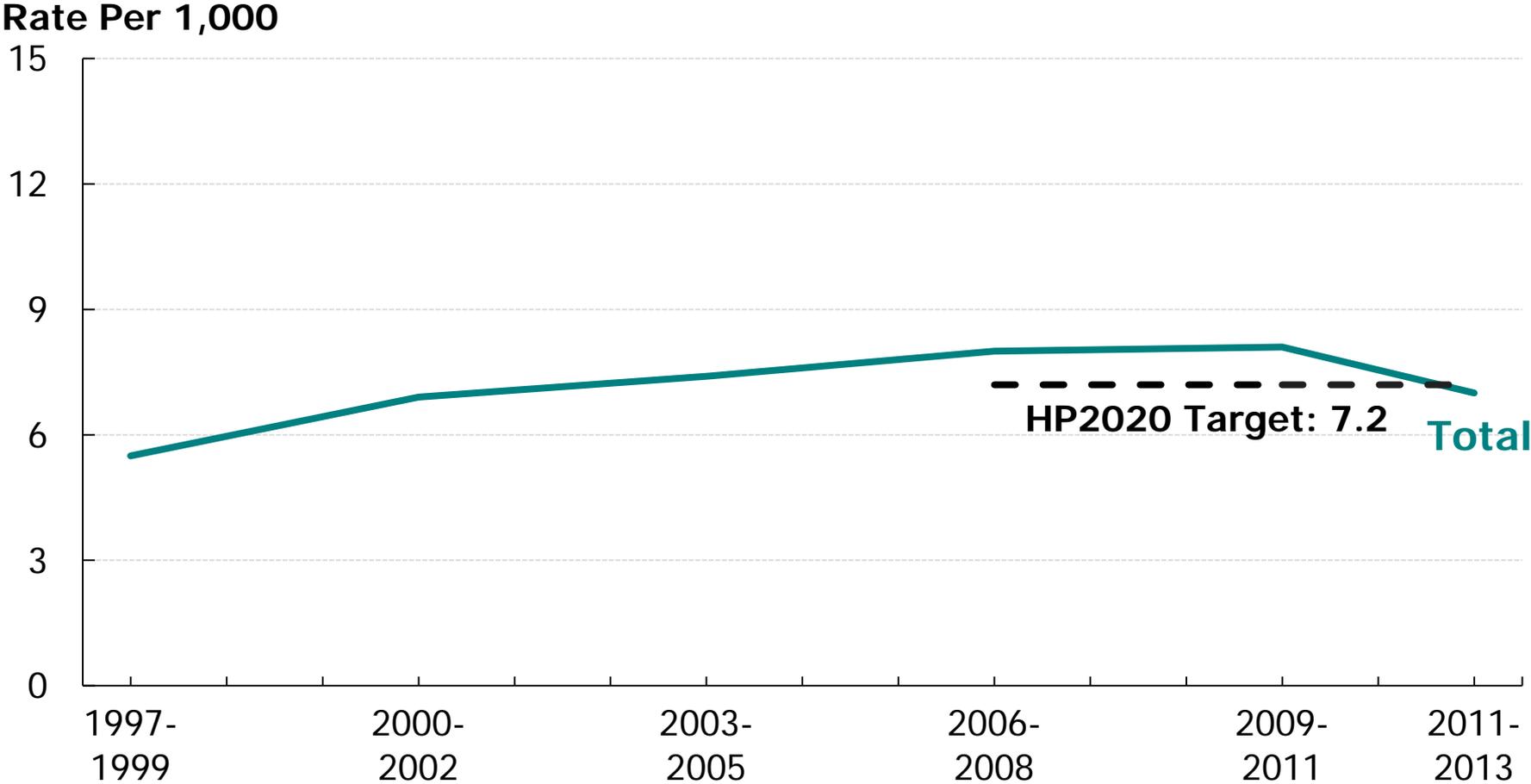
Percent



NOTES: Data are for prevalence of diagnosed diabetes. Diagnosed diabetes is defined as self-reported physician diagnosed diabetes. Women who only had diabetes while pregnant and persons with borderline diabetes are excluded. Data for total are for adults aged 18 years and over and are age adjusted to the 2000 standard population.

SOURCE: National Health Interview Survey (NHIS), CDC/NCHS; Summary Health Statistics for U.S. Adults: National Health Interview Survey, 1997-2012.

New Cases of Diagnosed Diabetes Per 1,000 Per Year, Adults 18–84 Years, 1997–2013



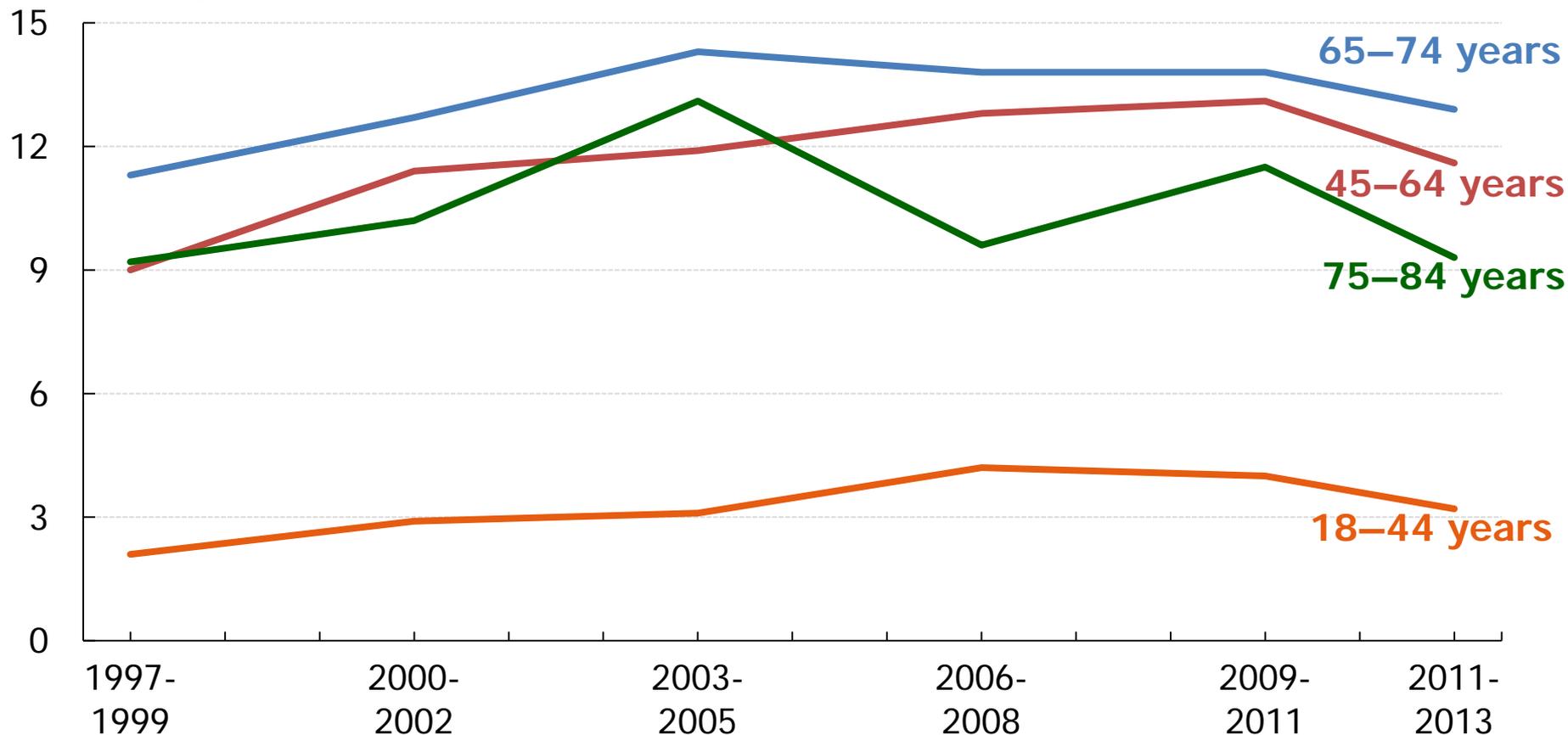
NOTES: Data are for three year estimates of diagnosed diabetes in the past year. Data are for adults aged 18-84 years and are age adjusted to the 2000 standard population. Diagnosed diabetes is defined as self-reported physician diagnosed diabetes. Women who only had diabetes while pregnant and persons with borderline diabetes are excluded. 2011-2013 is the most recent data year currently available.

SOURCE: National Health Interview Survey (NHIS), CDC/NCHS.

Obj. D-1
Decrease desired

New Cases of Diagnosed Diabetes Per 1,000 Per Year, Adults 18–84 Years, 1997–2013

Rate Per 1,000



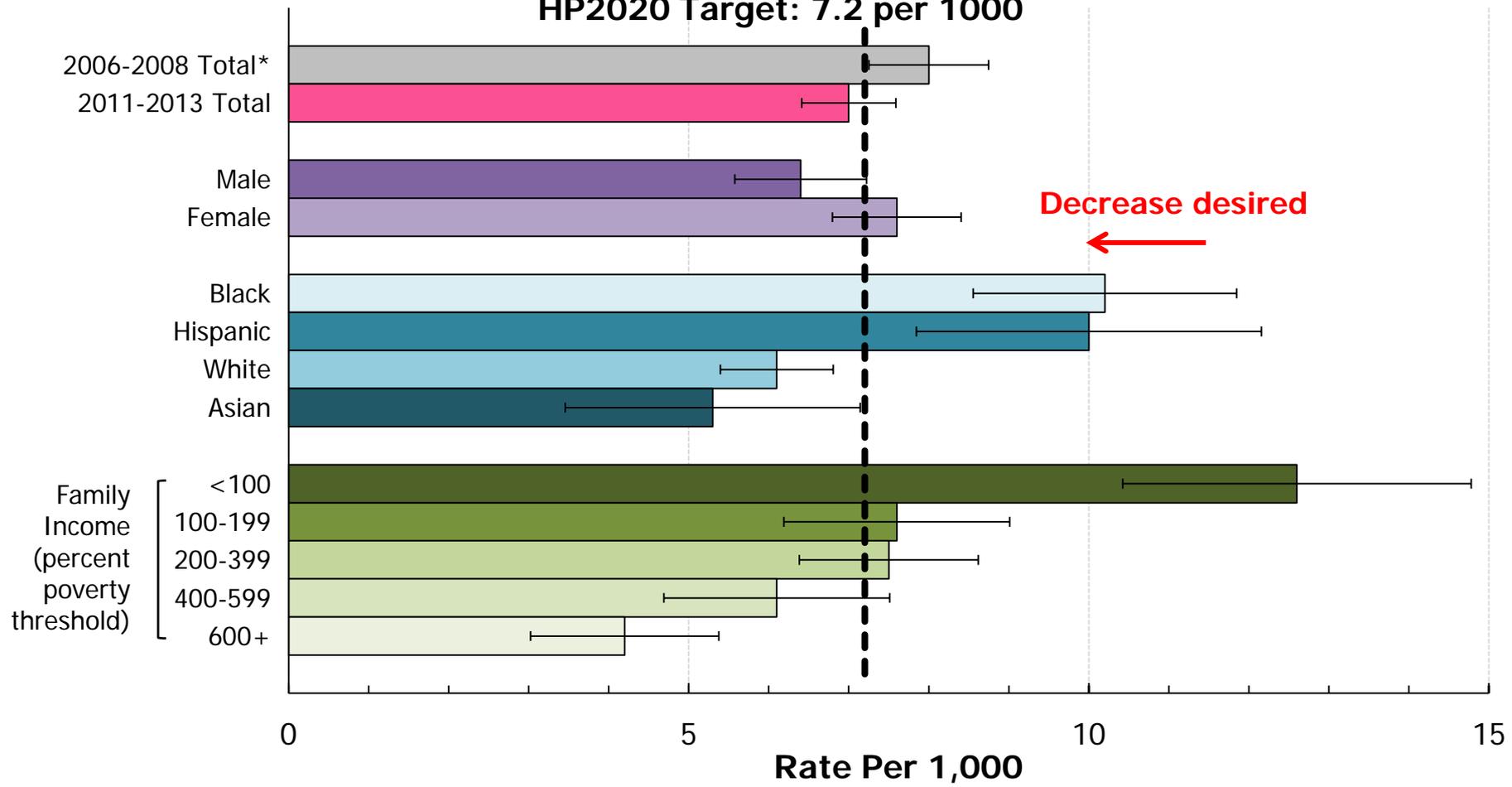
NOTES: Data are for three year estimates of diagnosed diabetes in the past year. Diagnosed diabetes is defined as self-reported physician diagnosed diabetes. Women who only had diabetes while pregnant and persons with borderline diabetes are excluded. 2011-2013 is the most recent data year currently available.

SOURCE: National Health Interview Survey (NHIS), CDC/NCHS.

Obj. D-1
Decrease desired

New Cases of Diagnosed Diabetes Per 1,000 Per Year, Adults 18–84 Years, 2011–2013

HP2020 Target: 7.2 per 1000

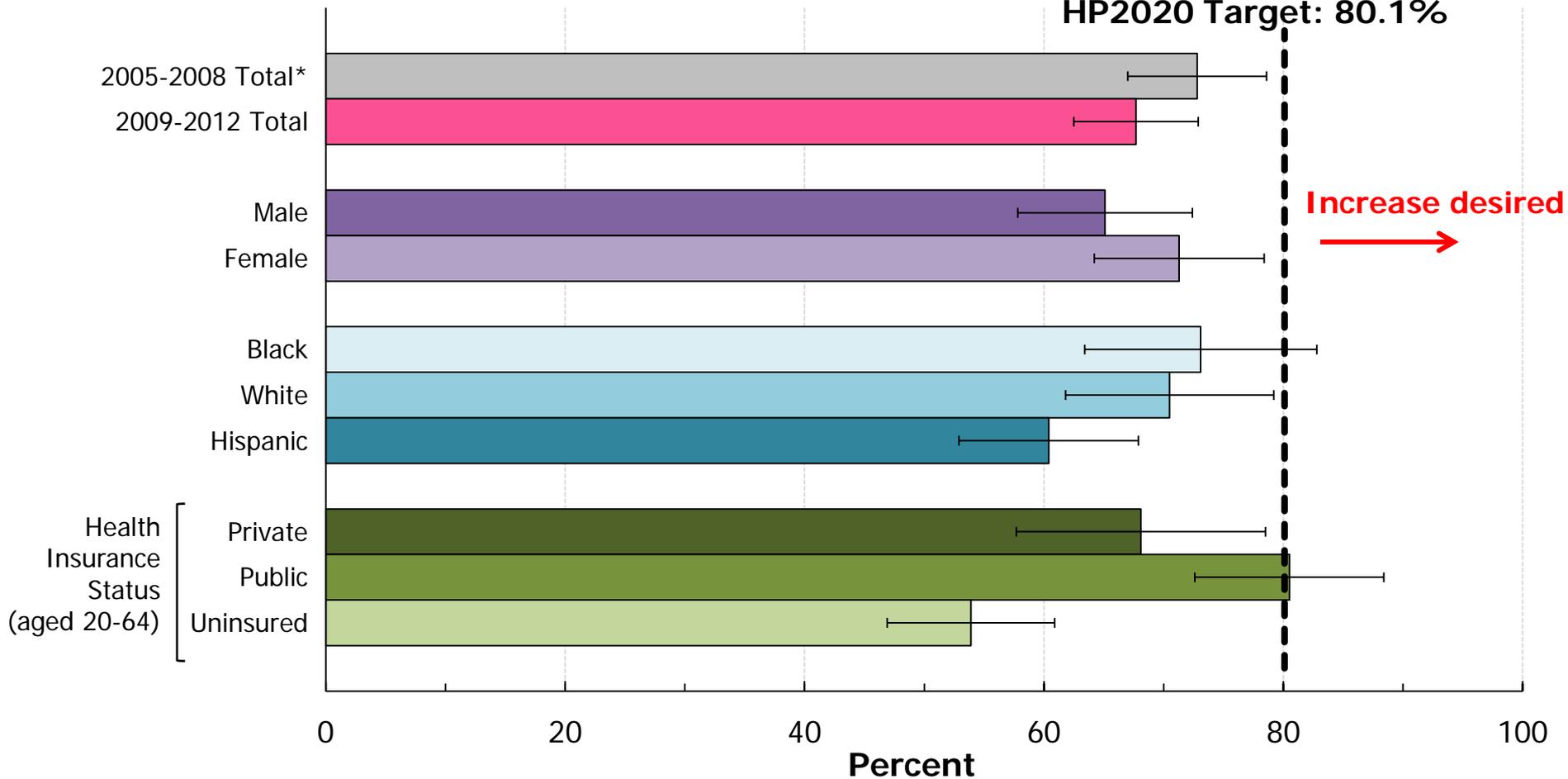


Decrease desired ←

NOTES: — = 95% confidence interval. *2006-2008 data – HP2020 baseline. Data are for three year average of diagnosed diabetes in the past year for adults aged 18-84 years and are age adjusted to the 2000 standard population. Diagnosed diabetes is defined as self-reported physician diagnosed diabetes. Women who only had diabetes while pregnant and persons with borderline diabetes are excluded. Persons of Hispanic origin may be any race. The categories Black and White exclude persons of Hispanic origin. Respondents were asked to select one or more races. Data for the single race categories are for persons who reported only one racial group. Data for American Indian/Alaska Native, Native Hawaiian or other Pacific Islander, and 2 or more races are not shown because they are statistically unreliable (DSU).

Proportion of Diabetes That is Diagnosed, Adults 20+ Years, 2009–2012

HP2020 Target: 80.1%



Increase desired
→

NOTES: — = 95% confidence interval. *2005-2008 data – HP2020 baseline. Data are for adults aged 20 years and over with diabetes and are age adjusted to the 2000 standard population. Diabetes is defined as diagnosed diabetes -OR- fasting blood glucose greater or equal to 126 mg/dL -OR- HbA1c level greater or equal to 6.5%. Diagnosed diabetes is defined as self-reported physician diagnosed diabetes. Women who only had diabetes while pregnant and persons with borderline diabetes are excluded. The categories black and white include persons who reported only one racial group and exclude persons of Hispanic origin. Persons of Hispanic origin may be any race.

SOURCE: National Health and Nutrition Examination Survey (NHANES), CDC/NCHS.



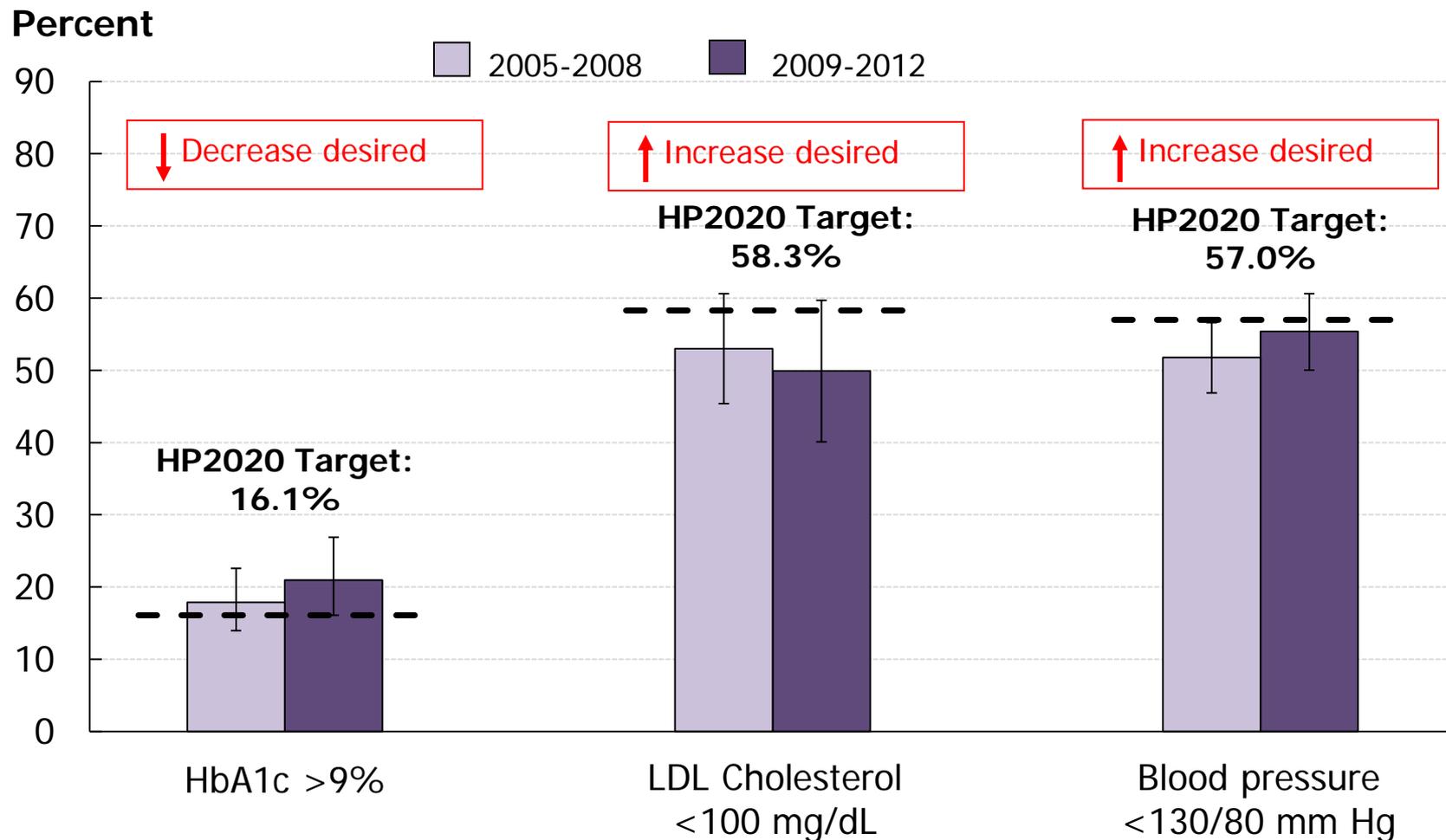
Diabetes: Co-Existing Conditions and Complications

- Hypoglycemia and hyperglycemic crisis
- High blood pressure
- High LDL cholesterol
- Heart disease and stroke
- Blindness and eye problems
- **Kidney disease**
- Amputations
- Nerve disease
- Non-alcoholic fatty liver disease
- Periodontal disease
- Hearing loss
- Erectile dysfunction
- Depression
- Complications of pregnancy



SOURCES: Centers for Disease Control and Prevention. National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014. Atlanta, GA: US Department of Health and Human Services; 2014.

Glycemic, Cholesterol, and Blood Pressure Control in Adults with Diagnosed Diabetes



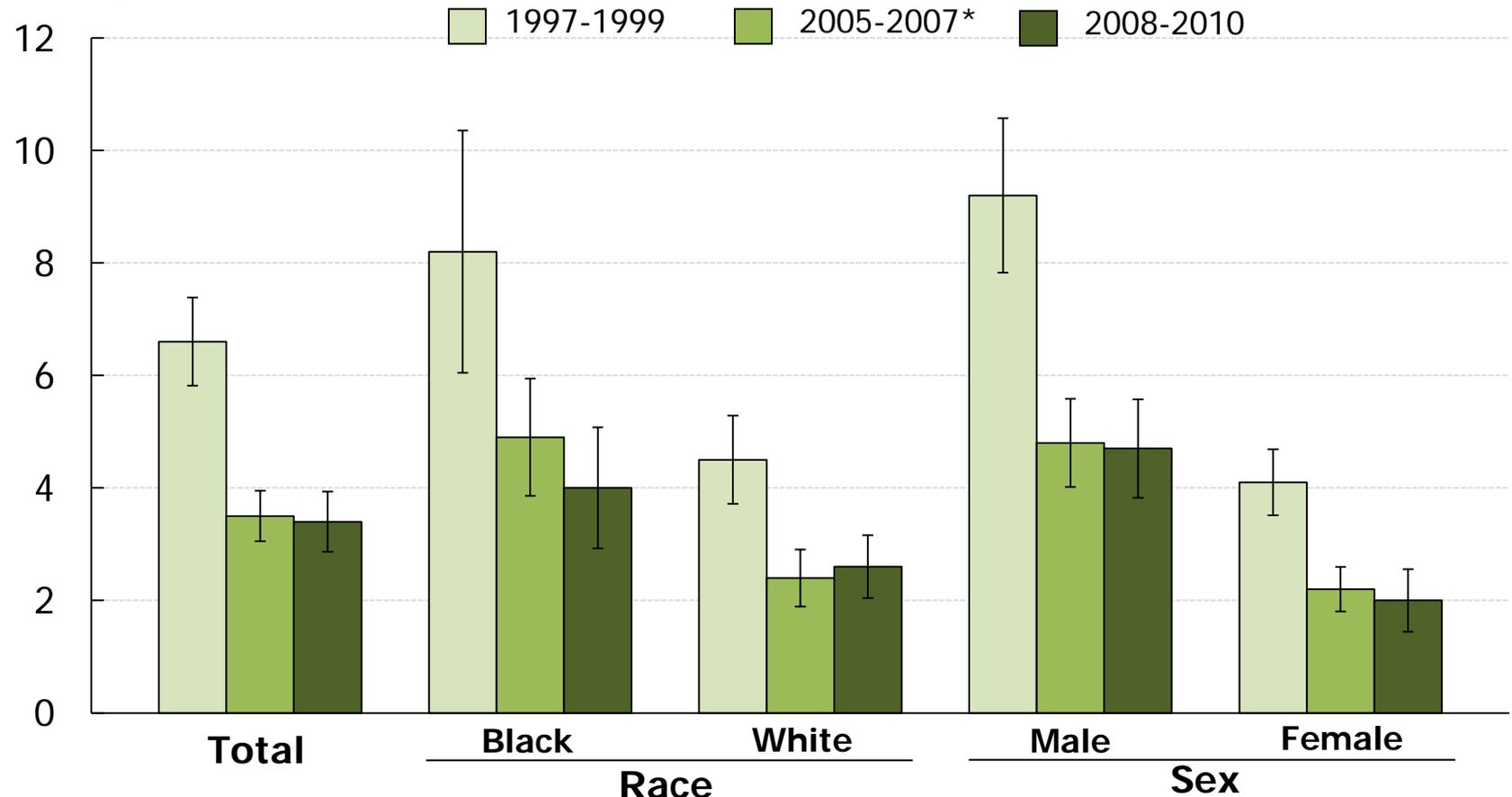
NOTES: I = 95% confidence interval. Data are for adults aged 18 years and over with diagnosed diabetes and are age adjusted to the 2000 standard population. Diagnosed diabetes is defined as self-reported physician diagnosed diabetes. Women who only had diabetes while pregnant and persons with borderline diabetes are excluded. Criteria for LDL Cholesterol control and blood pressure control were chosen to follow the 2010 American Diabetes Association guidelines at the time the objectives were set.

SOURCE: National Health and Nutrition Examination Surveys (NHANES), CDC/NCHS.

Objs. D-5.1, D-6, D-7

Lower Extremity Amputations Among Persons with Diabetes

Rate per 1,000



NOTES: I = 95% confidence interval. *Indicates Healthy People 2020 baseline year for this measure. This objective is being tracked without a target. Data are age adjusted to the 2000 standard population and include any amputation of lower limb. For NHDS data prior to 2000, only one race category was recorded; reporting more than one race was not an option. For NHIS data prior to 1999, respondents reported one or more races and identified one race as best representing their race. Respondents were asked to select one or more races starting in 1999 (NHIS) or 2000 (NHDS), although more than one race selection was not used for 1999 NHIS data in order to be consistent with 1997-1998 data. Data for the single race categories shown are for persons who reported only one racial group.

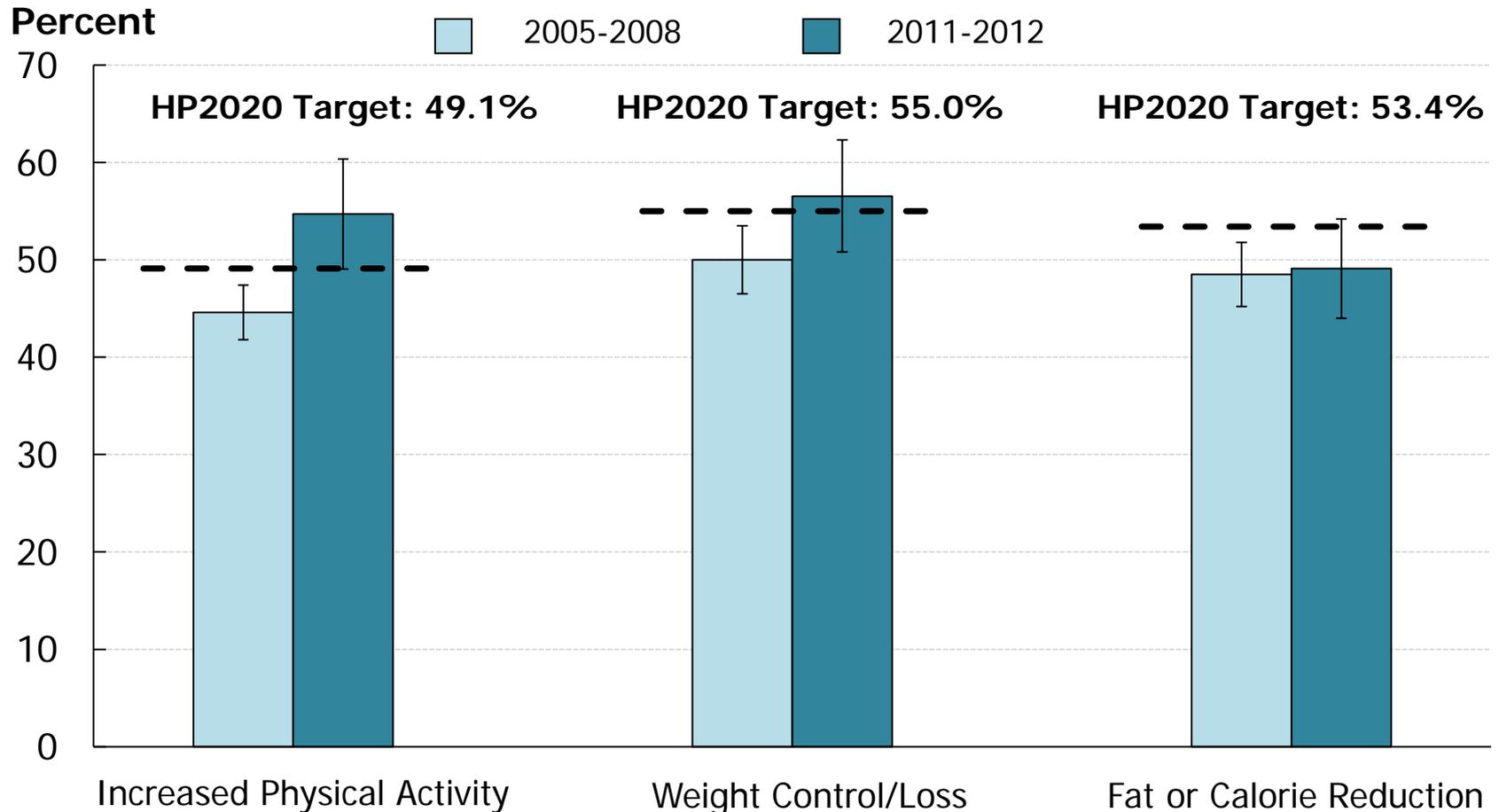
SOURCE: National Hospital Discharge Survey (NHDS) and National Health Interview Survey (NHIS), CDC/NCHS.



Prediabetes (High Risk Group)

- Prediabetes is a condition in which people have high blood glucose or hemoglobin A1c levels above normal, but not high enough to be classified as diabetes.
- Prediabetes affects 86 million or 37% of the U.S. adult population (ages 20+, 2009-2012).
- For Healthy People measures, persons are considered at high risk for diabetes if they:
 - did not report diagnosed diabetes -and-
 - had fasting glucose ≥ 100 and < 126 mg/dL -or- an HbA1c value $\geq 5.7\%$ and $< 6.5\%$.

Prevention Behaviors in Adults at High Risk for Diabetes



NOTES: I = 95% confidence interval. Data are for adults aged 18 years and over at high risk for diabetes and are age adjusted to the 2000 standard population. Persons are considered at high risk for diabetes if they: did not report diagnosed diabetes and had fasting glucose ≥ 100 and < 126 mg/dL or an HbA1c value $\geq 5.7\%$ to $< 6.5\%$. Two-year and four-year data are not comparable. Different age adjustment groups are used for two-year and four-year data. Two-year estimates are generally less stable and reliable than four-year estimates.

SOURCE: National Health and Nutrition Examination Surveys (NHANES), CDC/NCHS.

Objs. D-16.1, 16.2, 16.3
Increase desired



Presentation Overview

- Tracking the Nation's Progress
- Diabetes
- **Chronic Kidney Disease**
 - Prevalence of Chronic Kidney Disease (CKD)
 - Medical evaluation
 - New cases of End-Stage Renal Disease (ESRD)
 - ESRD deaths



CKD and ESRD Burden, 2011

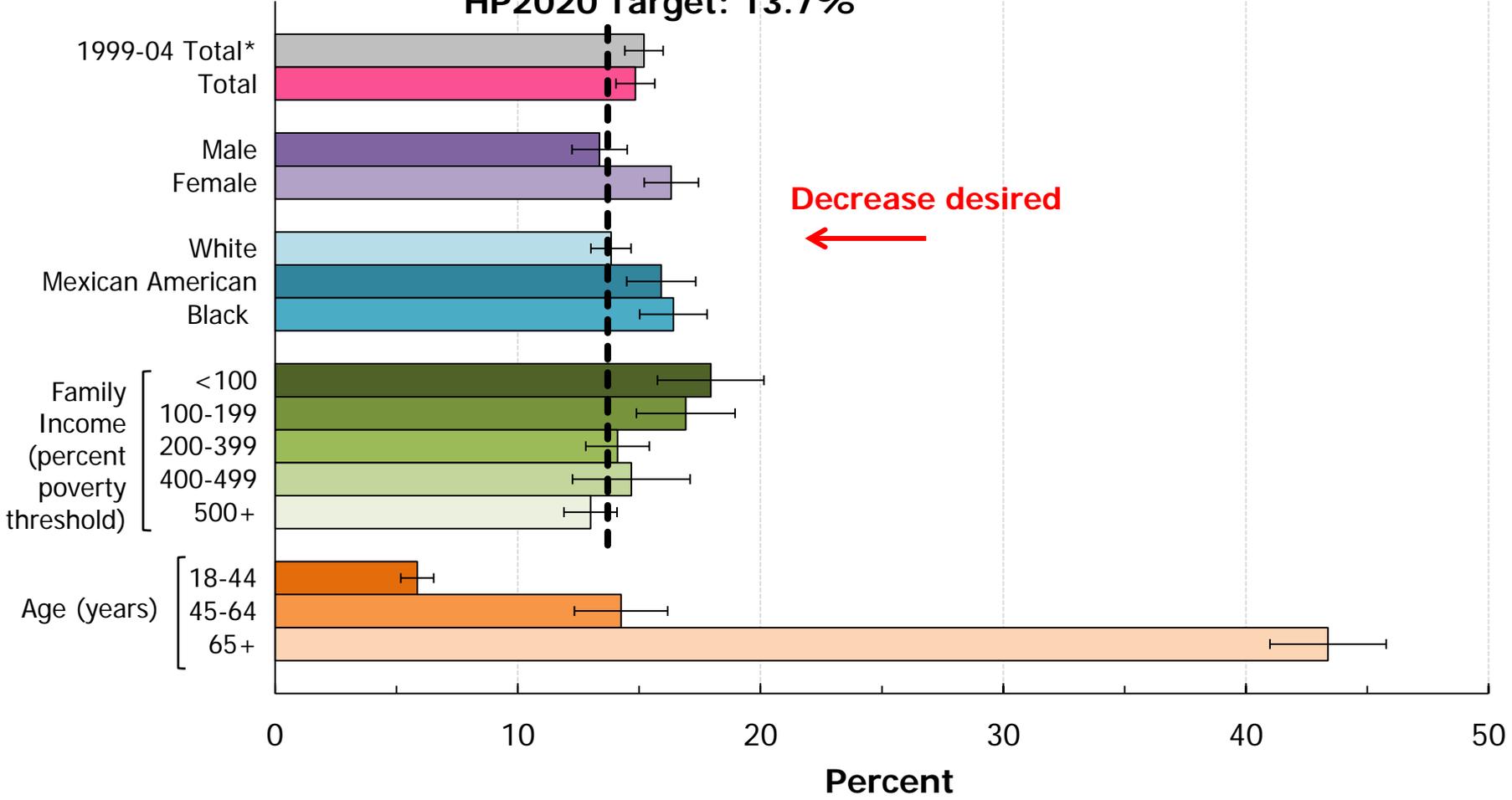
- 615,899 patients received treatment for ESRD
- 115,643 new ESRD cases reported
- 17,671 patients received kidney transplantations
 - Median time on transplant wait list for adults: 2.6 years
- Medicare CKD expenditures: \$45.5 billion (nearly 20% of total Medicare expenditures)
- Total ESRD costs: \$49.3 billion including \$34.4 billion of Medicare expenditures

SOURCE: National Chronic Kidney Disease Fact Sheet, 2014. US DHHS, Centers for Disease Control and Prevention, Atlanta, GA: 2014. Available at <http://www.cdc.gov/diabetes/pubs/factsheets/kidney.htm>.

U.S. Renal Data System, USRDS 2013 Annual Data Report: Atlas of Chronic Kidney Disease and End-Stage Renal Disease in the United States. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD, 2013. Available at <http://www.usrds.org/atlas.aspx>.

Chronic Kidney Disease, Adults, 2005–2010

HP2020 Target: 13.7%



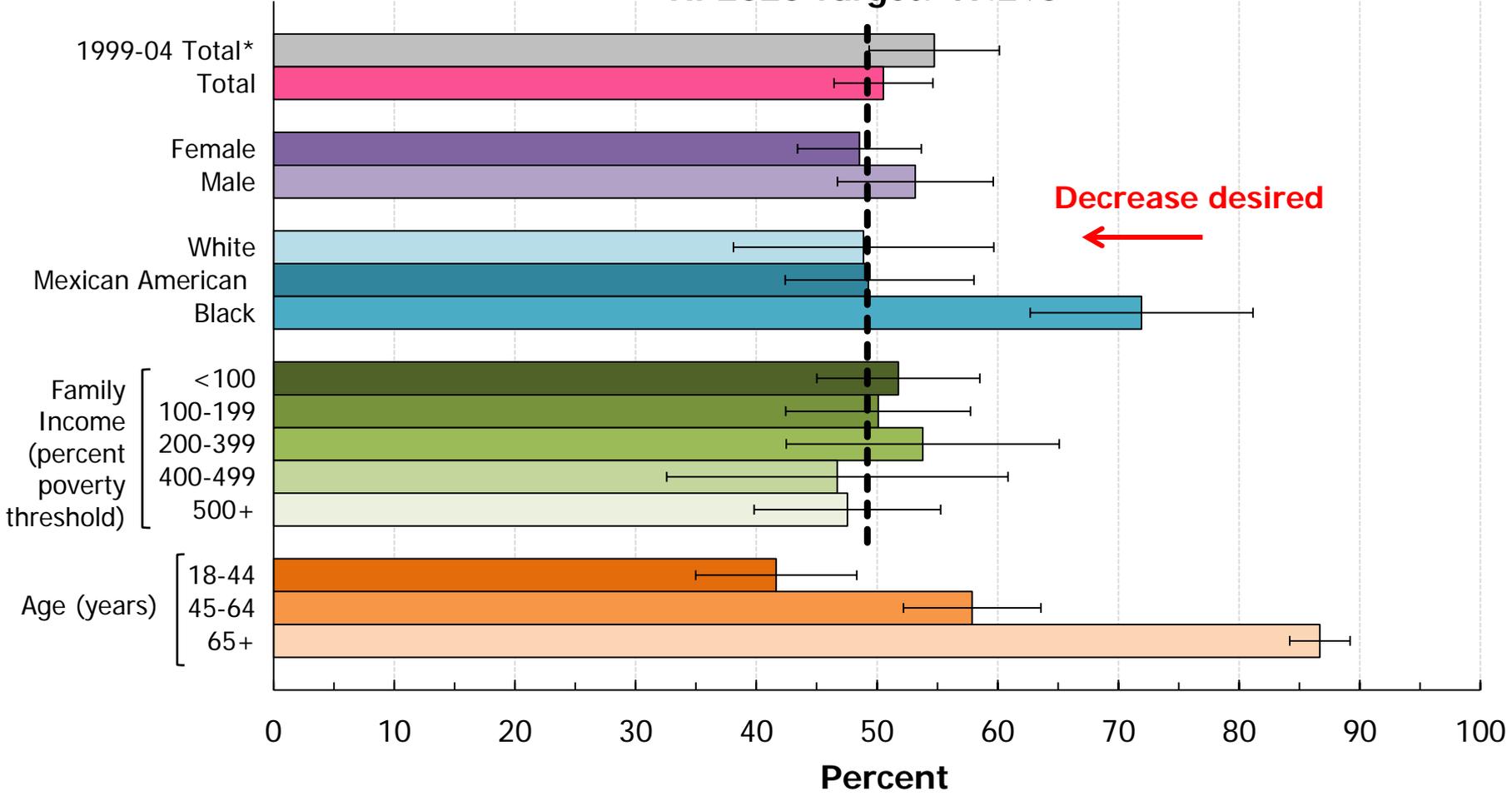
Decrease desired
←

NOTES: — = 95% confidence interval. *HP2020 baseline. Data are for adults 18 years+ with CKD stages 1-4. Stage 1 is defined as estimated glomerular filtration rate (eGFR) ≥ 90 ml/min/1.73 m² and urinary albumin/creatinine ratio (ACR) ≥ 30 mg/g; stage 2: eGFR 60-89 ml/min/1.73 m² and ACR ≥ 30 mg/g; stages 3 and 4: eGFR 30-59 and 15-29 ml/min/1.73 m², respectively. Except for age specific groups, data are age adjusted to the 2000 standard population. Respondents were asked to select one or more races. The categories black and white include persons who reported only one racial group and exclude persons of Hispanic origin. Mexican American persons may be of any race.

SOURCE: National Health and Nutrition Examination Survey (NHANES), CDC/NCHS.

Hypertension in Adults with CKD, 2005–2010

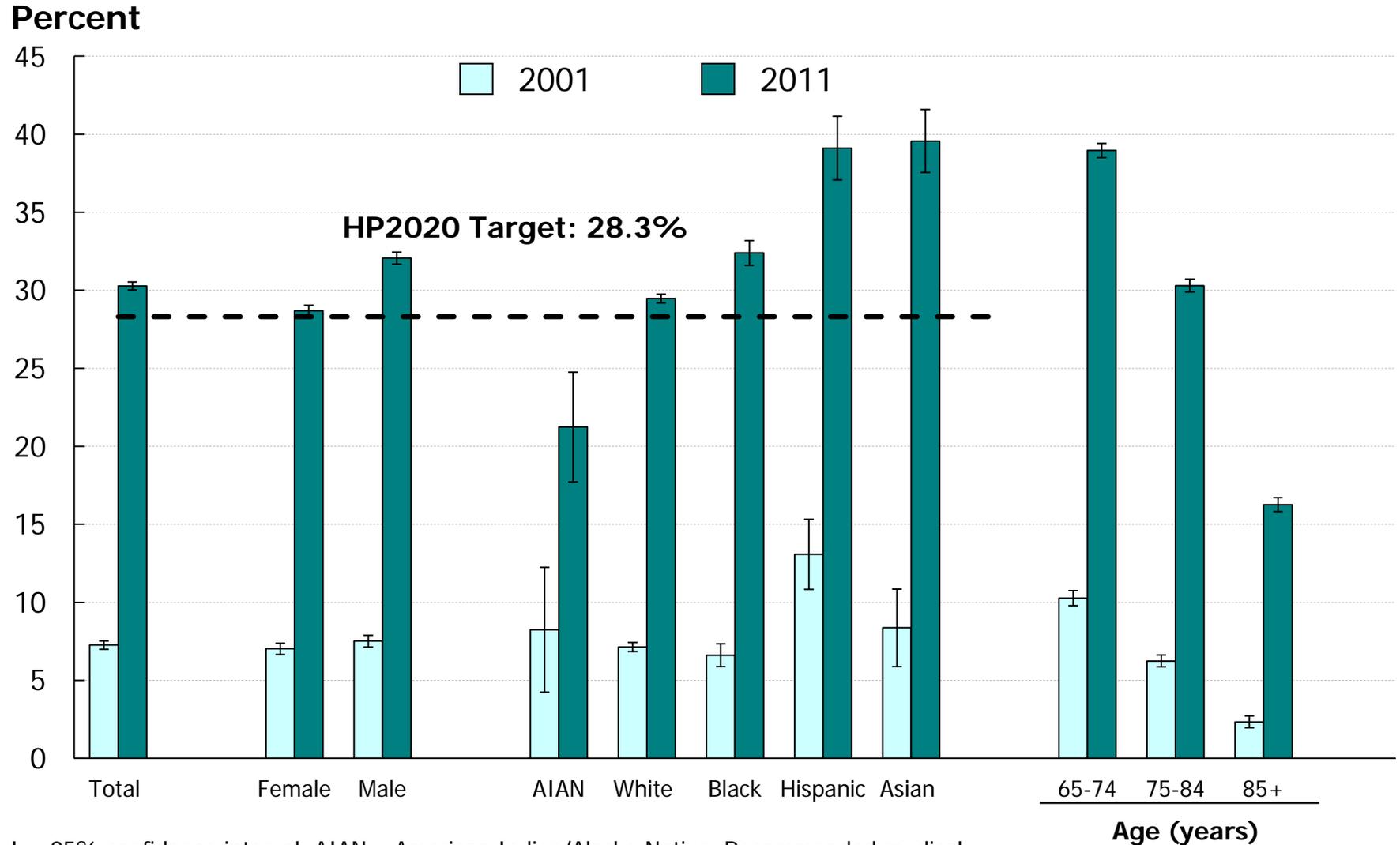
HP2020 Target: 49.2%



Decrease desired ←

NOTES: — = 95% confidence interval. *HP2020 baseline. Data are for adults 18 years+ with CKD stages 1-4 and either self-reported hypertension, reported prescription for hypertension medication, or measured high systolic (≥ 140 mmHg) or diastolic (≥ 90 mmHg) blood pressure. Except for age specific groups, data are age adjusted to the 2000 standard population. Respondents were asked to select one or more races. The categories black and white include persons who reported only one racial group and exclude persons of Hispanic origin. Mexican American persons may be of any race.

Recommended Medical Evaluation, Adults 65+ Years with CKD

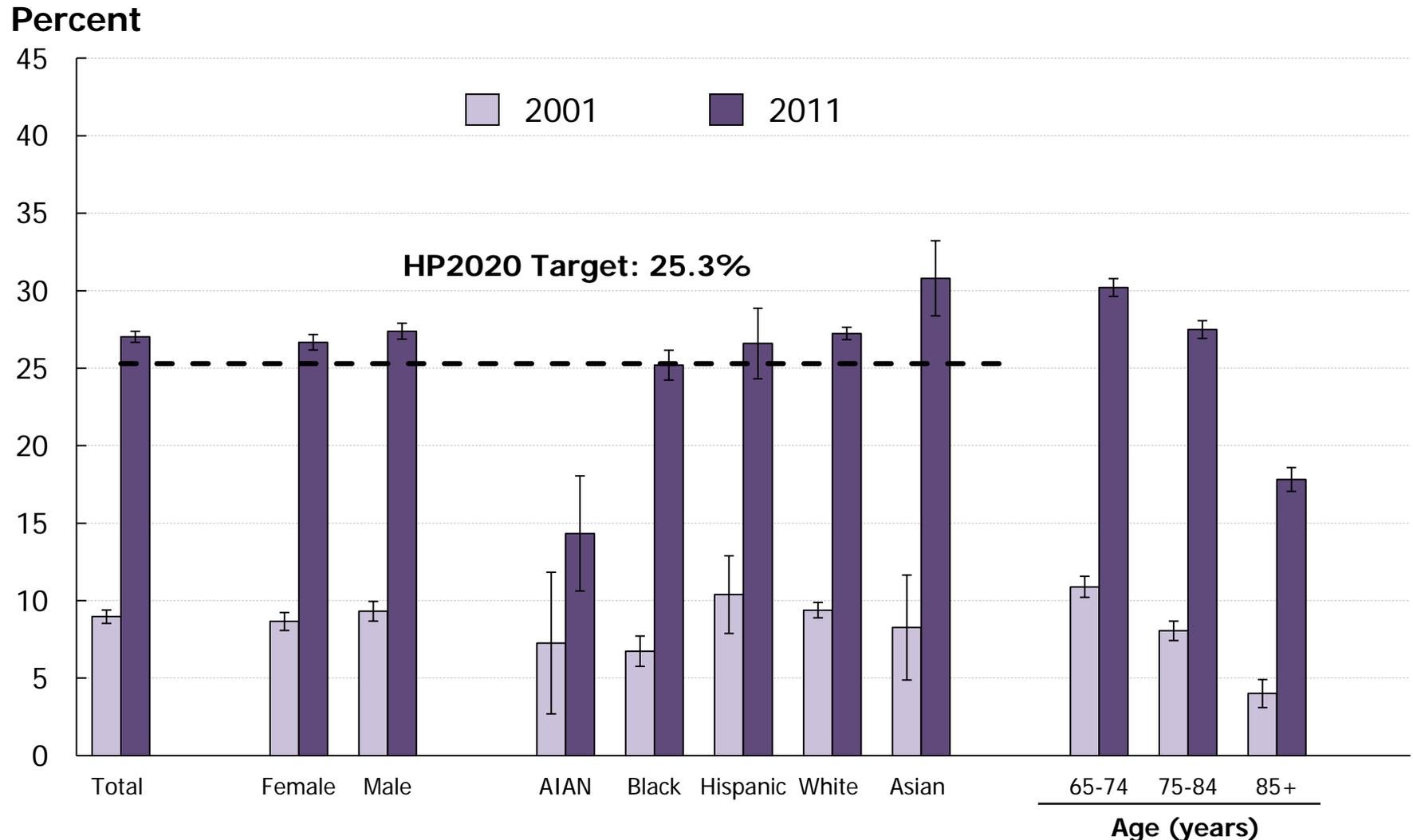


NOTES: I = 95% confidence interval. AIAN – American Indian/Alaska Native. Recommended medical evaluation included serum creatinine, lipids, and urine albumin tests. Respondents were asked to select one or more races. The categories black and white include persons who reported only one racial group and exclude persons of Hispanic origin. Persons of Hispanic origin may be of any race.

SOURCE: United States Renal Data System (USRDS), NIH/NIDDK.

Obj. CKD-4.1
Increase desired

Recommended Medical Evaluation, Adults 65+ Years with CKD and Diabetes

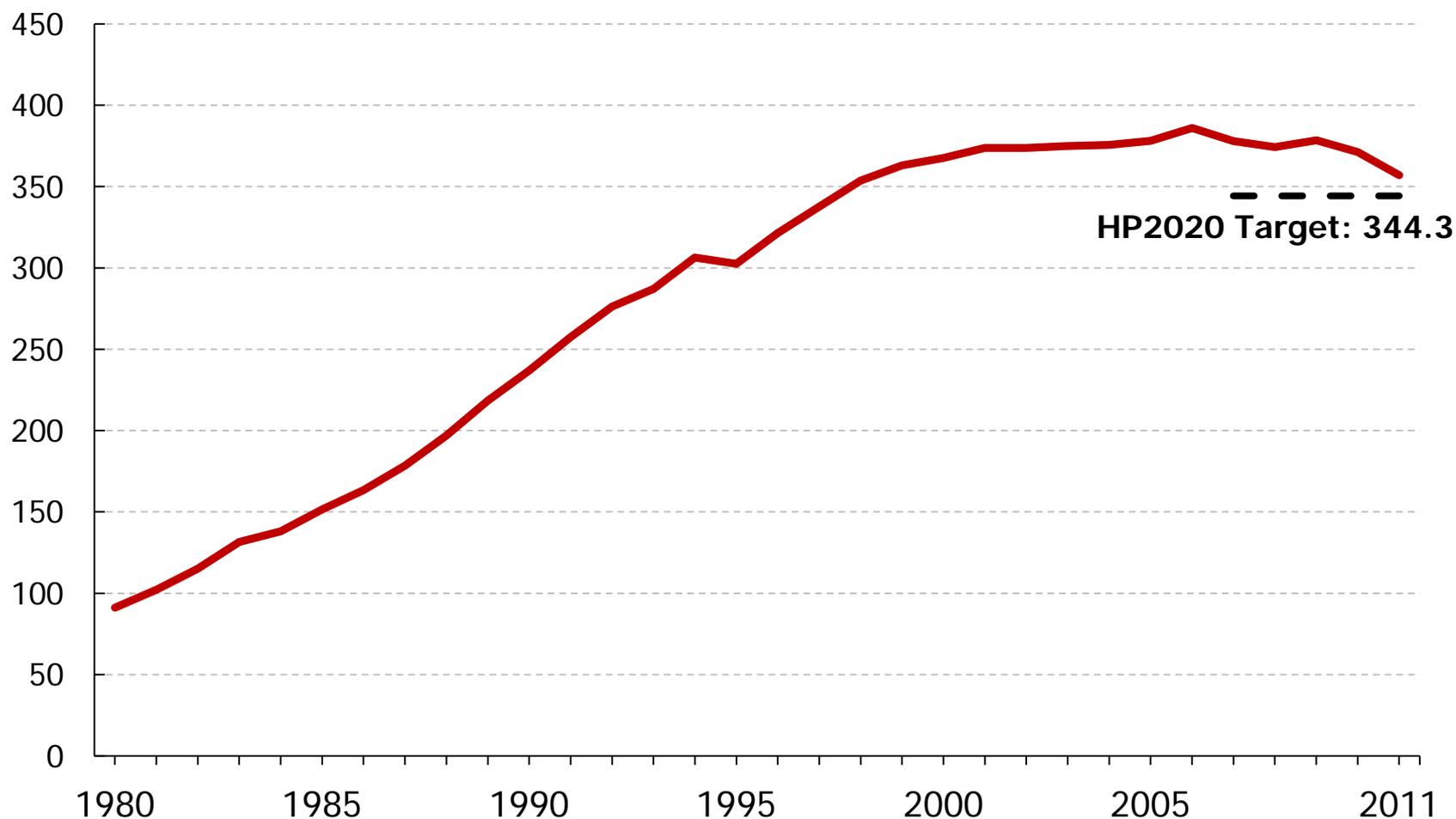


NOTES: I = 95% confidence interval. AIAN – American Indian/Alaska Native. Recommended medical evaluation for adults with type 1 and type 2 diabetes and CKD included serum creatinine, urine albumin, A1c, lipids tests, and eye examinations. Respondents were asked to select one or more races. The categories black and white include persons who reported only one racial group and exclude persons of Hispanic origin. Persons of Hispanic origin may be of any race. SOURCE: United States Renal Data System (USRDS), NIH/NIDDK.

Obj. CKD-4.2
Increase desired

New Cases of End-Stage Renal Disease, 1980–2011

Per 1,000,000



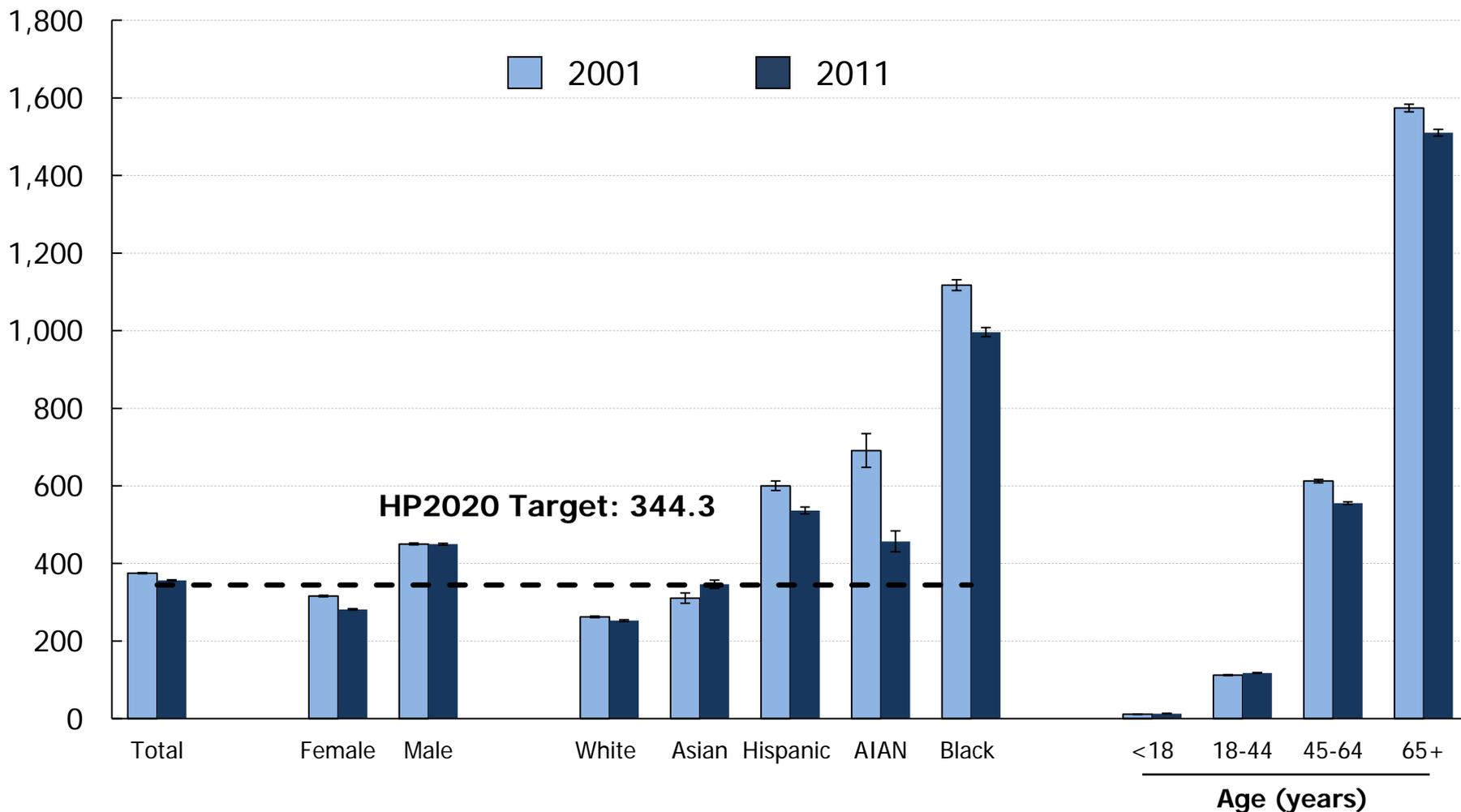
HP2020 Target: 344.3

NOTES: The data are adjusted for age, sex, race and ethnicity.
SOURCE: United States Renal Data System (USRDS), NIH/NIDDK.

Obj. CKD-8
Decrease desired

New Cases of End-Stage Renal Disease

Per 1,000,000



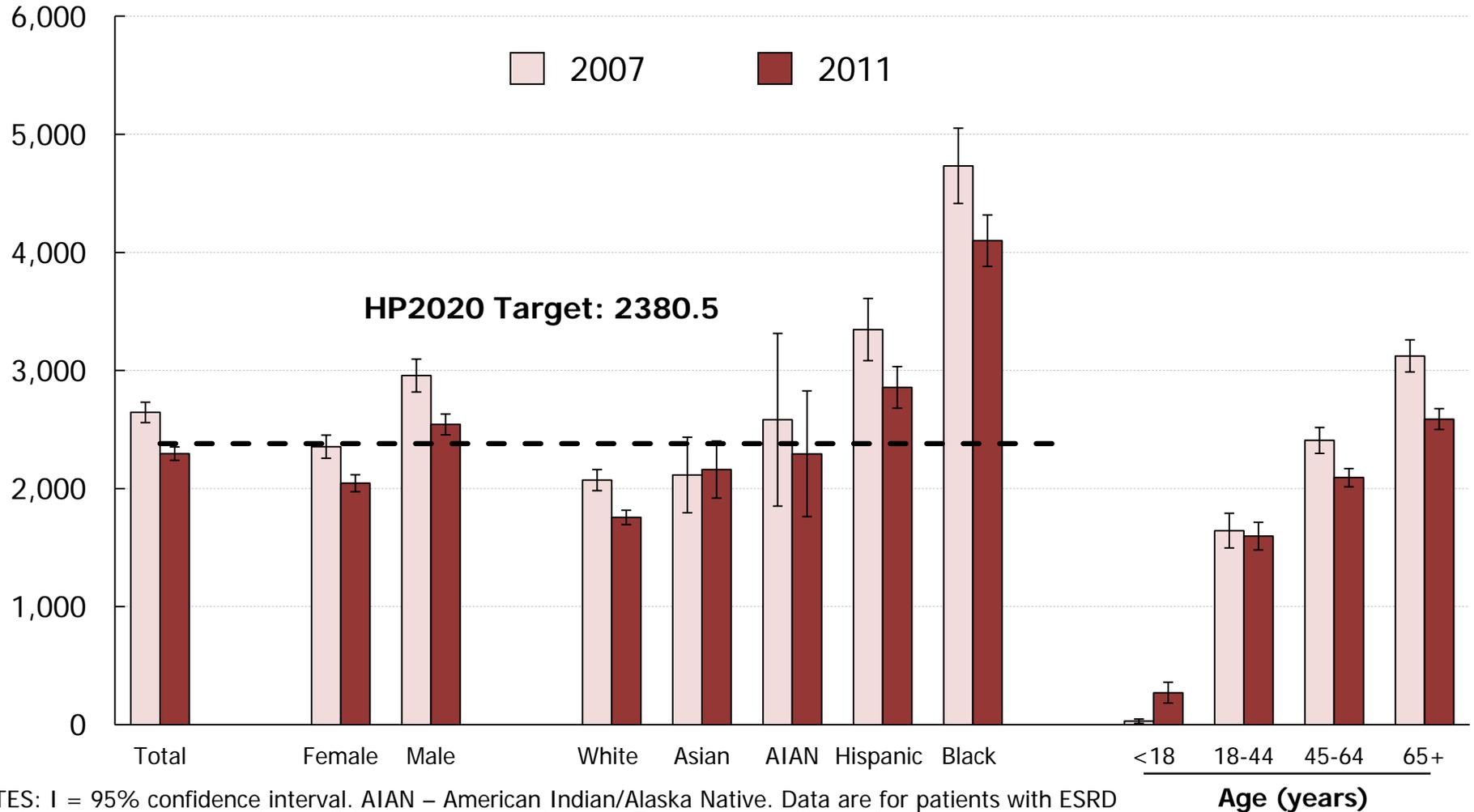
Obj. CKD-8
Decrease desired

NOTES: I = 95% confidence interval. AIAN – American Indian/Alaska Native. The data are adjusted for age, sex, and race/ethnicity. Respondents were asked to select one or more races. The categories black and white include persons who reported only one racial group and exclude persons of Hispanic origin. Persons of Hispanic origin may be of any race.

SOURCE: United States Renal Data System (USRDS), NIH/NIDDK.

New Cases of ESRD due to Diabetes, Patients with Diabetes

Per 1,000,000



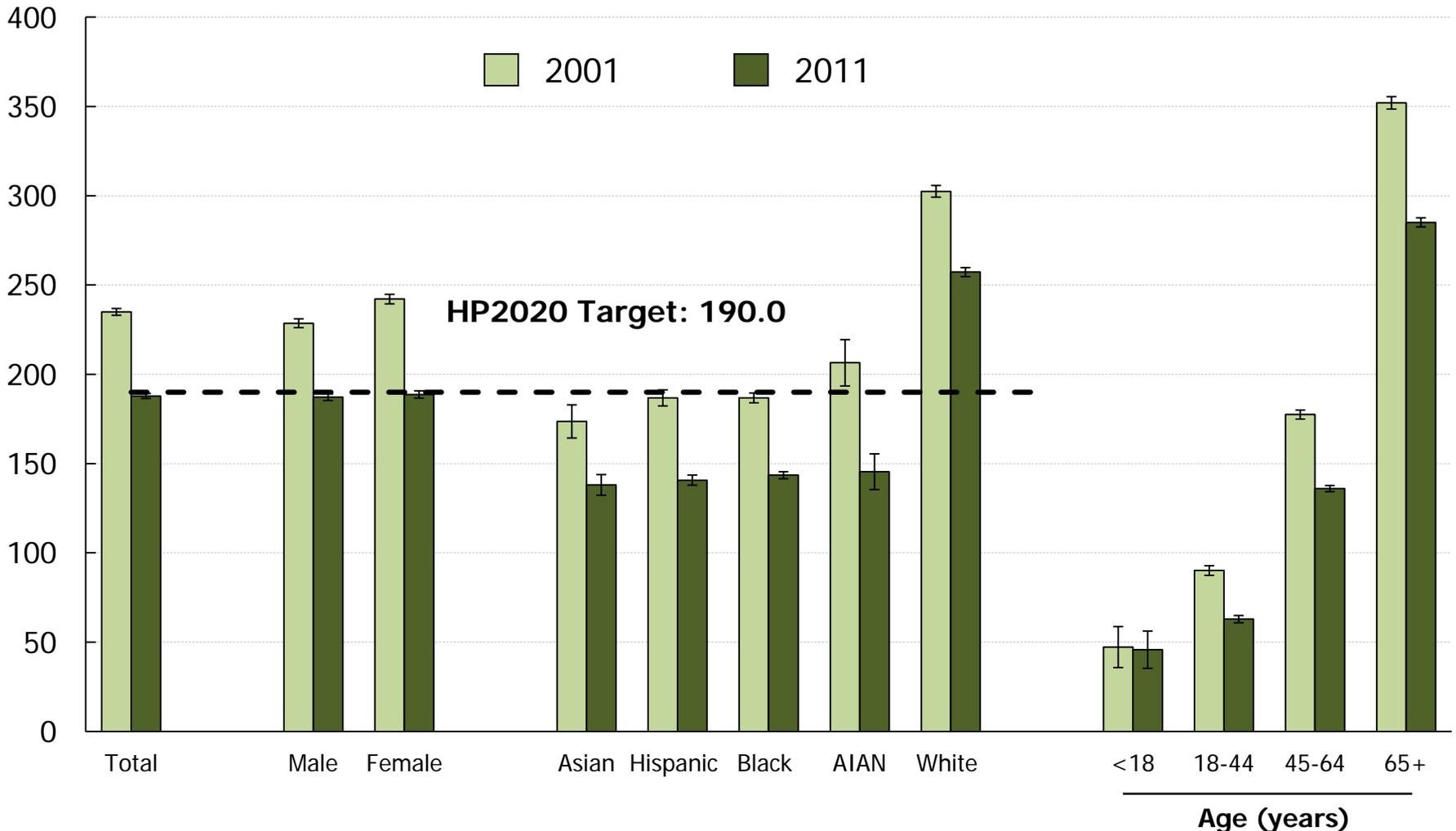
Obj. CKD-9.2
Decrease desired

NOTES: I = 95% confidence interval. AIAN – American Indian/Alaska Native. Data are for patients with ESRD and diabetes whose cause of renal failure was due to diabetes. The data are adjusted for age, sex, and race/ethnicity. Respondents were asked to select one or more races. The categories black and white include persons who reported only one racial group and exclude persons of Hispanic origin. Persons of Hispanic origin may be of any race.

SOURCE: United States Renal Data System (USRDS), NIH/NIDDK.

Deaths in Patients with ESRD on Dialysis

Per 1,000 patient years



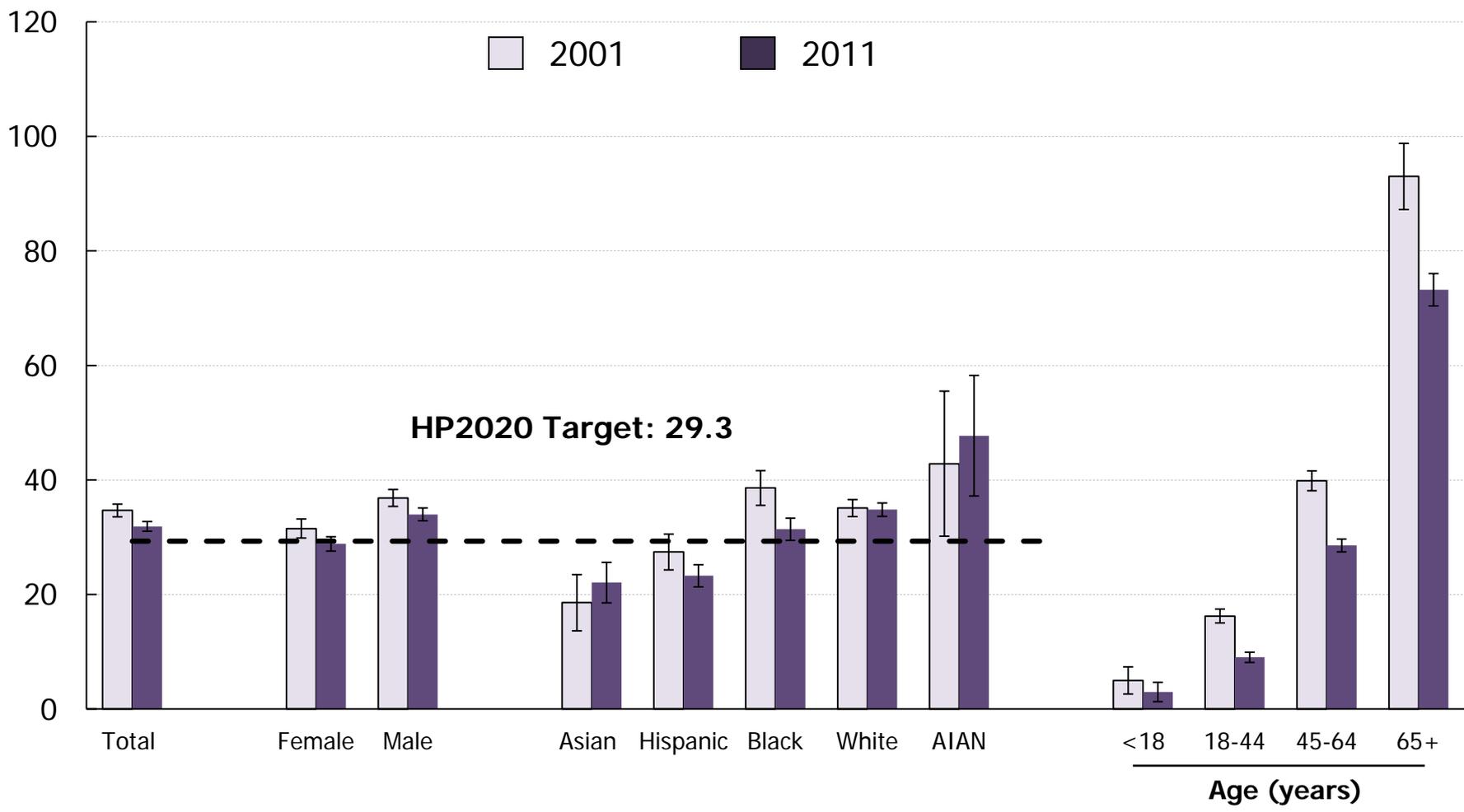
NOTES: I = 95% confidence interval. AIAN – American Indian/Alaska Native. Respondents were asked to select one or more races. The categories black and white include persons who reported only one racial group and exclude persons of Hispanic origin. Persons of Hispanic origin may be of any race.

SOURCE: United States Renal Data System (USRDS), NIH/NIDDK.

Obj. CKD-14.1
Decrease desired

Deaths in ESRD Patients with a Functioning Kidney Transplant

Per 1,000 patient years



Obj. CKD-14.4
Decrease desired

NOTES: I = 95% confidence interval. AIAN – American Indian/Alaska Native. Respondents were asked to select one or more races. The categories black and white include persons who reported only one racial group and exclude persons of Hispanic origin. Persons of Hispanic origin may be of any race.
SOURCE: United States Renal Data System (USRDS), NIH/NIDDK.



Key Takeaways – Diabetes

- Prevalence of diagnosed diabetes in adults has increased over the last decade, but has leveled off in recent years.
- New cases of diagnosed diabetes have also increased over the past decade, but have decreased since the HP2020 baseline and have met the HP2020 target.
- About two-thirds of **adults** with diabetes had their condition diagnosed.
- About 20% of adults with diagnosed diabetes have a hemoglobin A1c > 9.0%.
- Over half of diabetes objectives have seen little or no change thus far in the decade.



Key Takeaways – CKD

- CKD estimates have shown little or no change over the last decade.
- Since 2001 there has been a significant reduction in new cases of ESRD and ESRD deaths.
- About 50% of patients with CKD had hypertension in 2005–2010.
- Medical evaluation has improved for Medicare CKD patients and for patients with diabetes and CKD.
- Although there have been improvements, disparities still persist.
- Over half of HP2020 CKD objectives, 14 out of 24, have met or moved towards their HP2020 targets thus far in the decade.

NIH Research to Improve Outcomes in People with Diabetes and Kidney Disease

Andrew Narva, MD

National Kidney Disease Education Program

National Institutes of Health





NIDDK's Integrated Research Programs



Diabetes: The Tip of the Iceberg



U.S. Diabetes

29.1 million*

21 million diagnosed; 8.1 million undiagnosed

U.S. Prediabetes

86 million†

*All ages, 2012

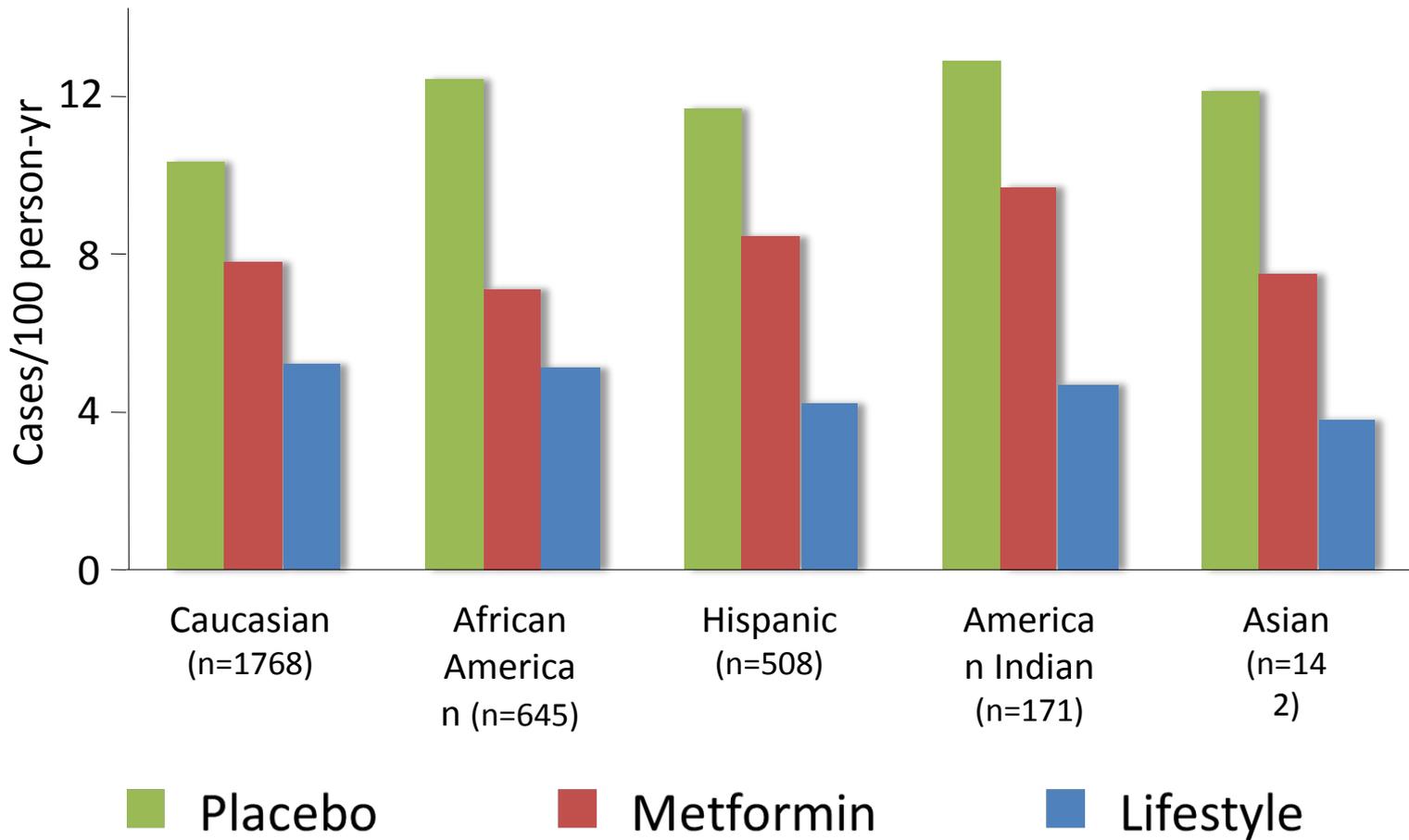
† Age 20 and older with IGT +/- IFG +/- A1c between 5.7 and 6.4 (2012)



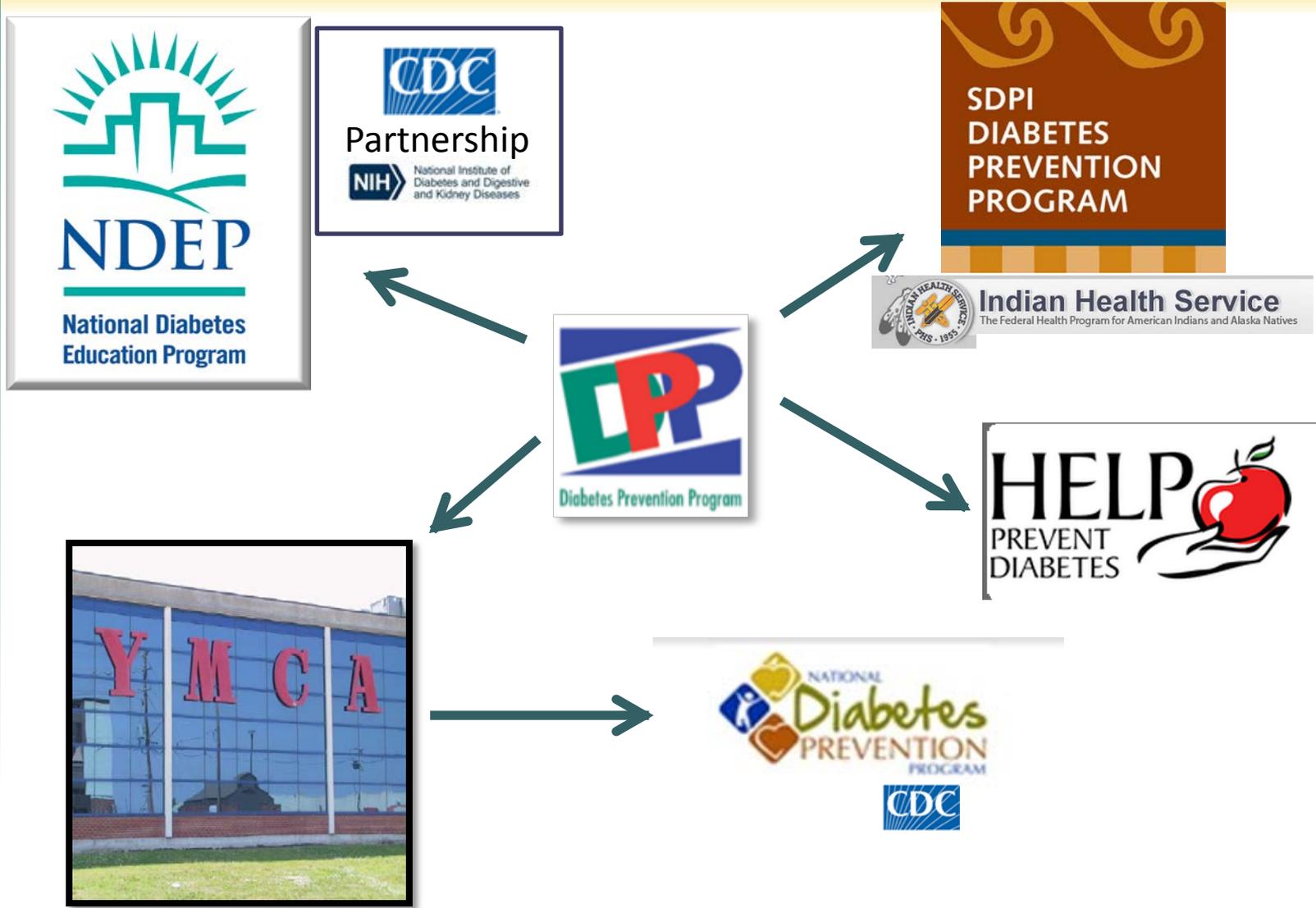
The Diabetes Prevention Program Clinical Trial (DPP)

- 3234 participants (45% minority) with IGT who were overweight or obese
- Compared 3 approaches to diabetes prevention for 3 years:
 - Placebo
 - Metformin
 - Lifestyle

DPP Results



Translating from Efficacy Research to Public Health





DPP Affects on Coverage of Care



U.S. Preventive Services Task Force

Annals of Internal Medicine

| CLINICAL GUIDELINE

Behavioral Counseling to Promote a Healthful Diet and Physical Activity for Cardiovascular Disease Prevention in Adults With Cardiovascular Risk Factors: U.S. Preventive Services Task Force Recommendation Statement

Michael L. LeFevre, MD, MSPH, on behalf of the U.S. Preventive Services Task Force*

Description: Update and refinement of the 2003 U.S. Preventive Services Task Force (USPSTF) recommendation on dietary counseling for adults with risk factors for cardiovascular disease (CVD)

have known CVD risk factors (hypertension, dyslipidemia, impaired fasting glucose, or the metabolic syndrome).

August 2014

DCCT/EDIC: Glucose Control Can Significantly Reduce the Risk of Complications

Reductions in Risk:

Eye
Disease



76%

Nerve
Disease



60%

Cardio-
vascular
Disease



57%

Kidney
Disease



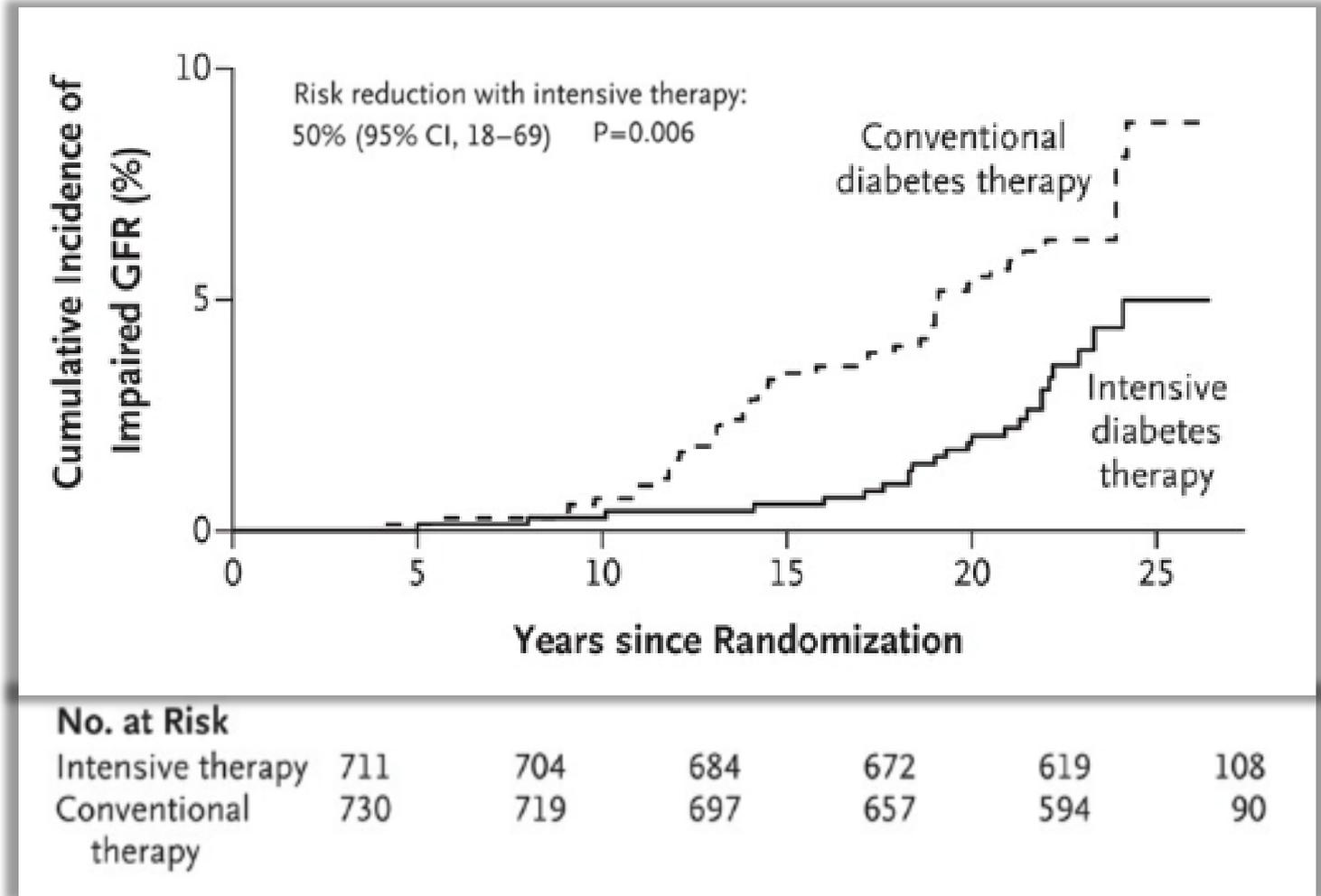
50%



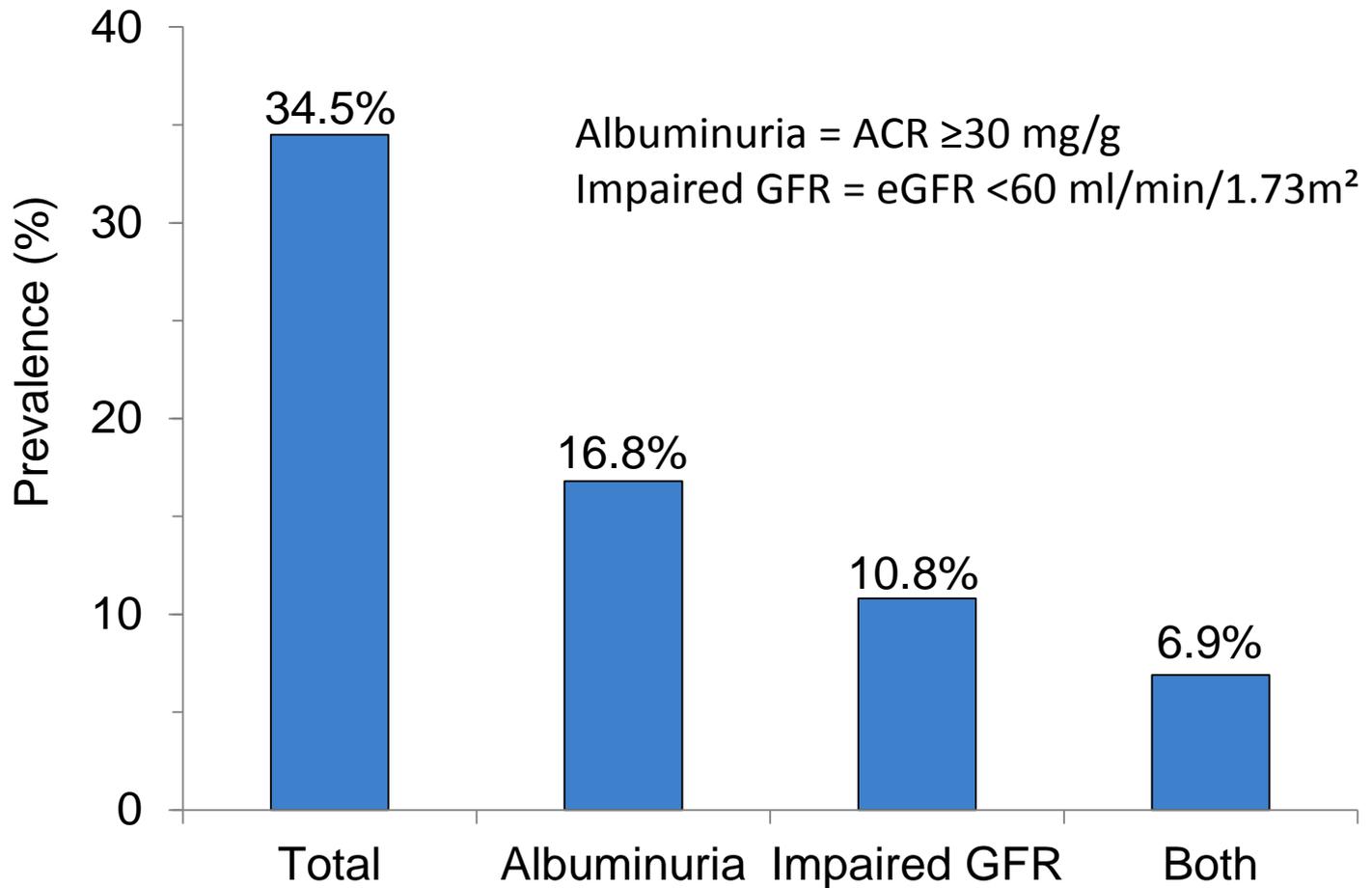


Impaired GFR Reduced by Half

GFR<60

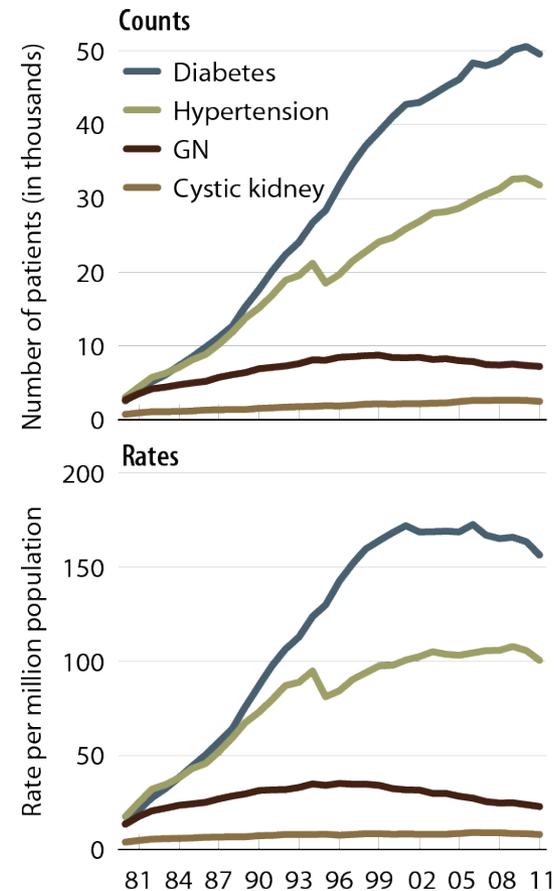


Prevalence of Diabetic Kidney Disease (DKD) Among Adults with Diabetes; United States, 2005-2008



Diabetes is the leading cause of ESRD

Incident counts & adjusted rates of ESRD, by primary diagnosis

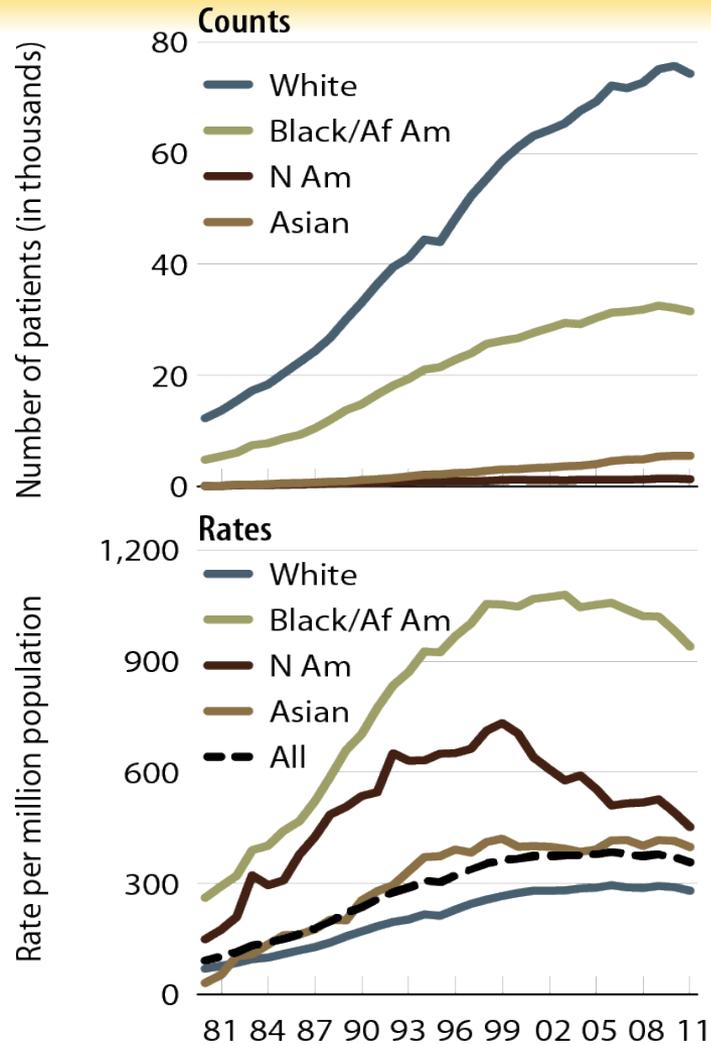


Incident ESRD patients.
Adj: age/gender/race; ref: 2010 ESRD patients.

Reference: USRDS Annual Data Report (NIDDK, 2013)

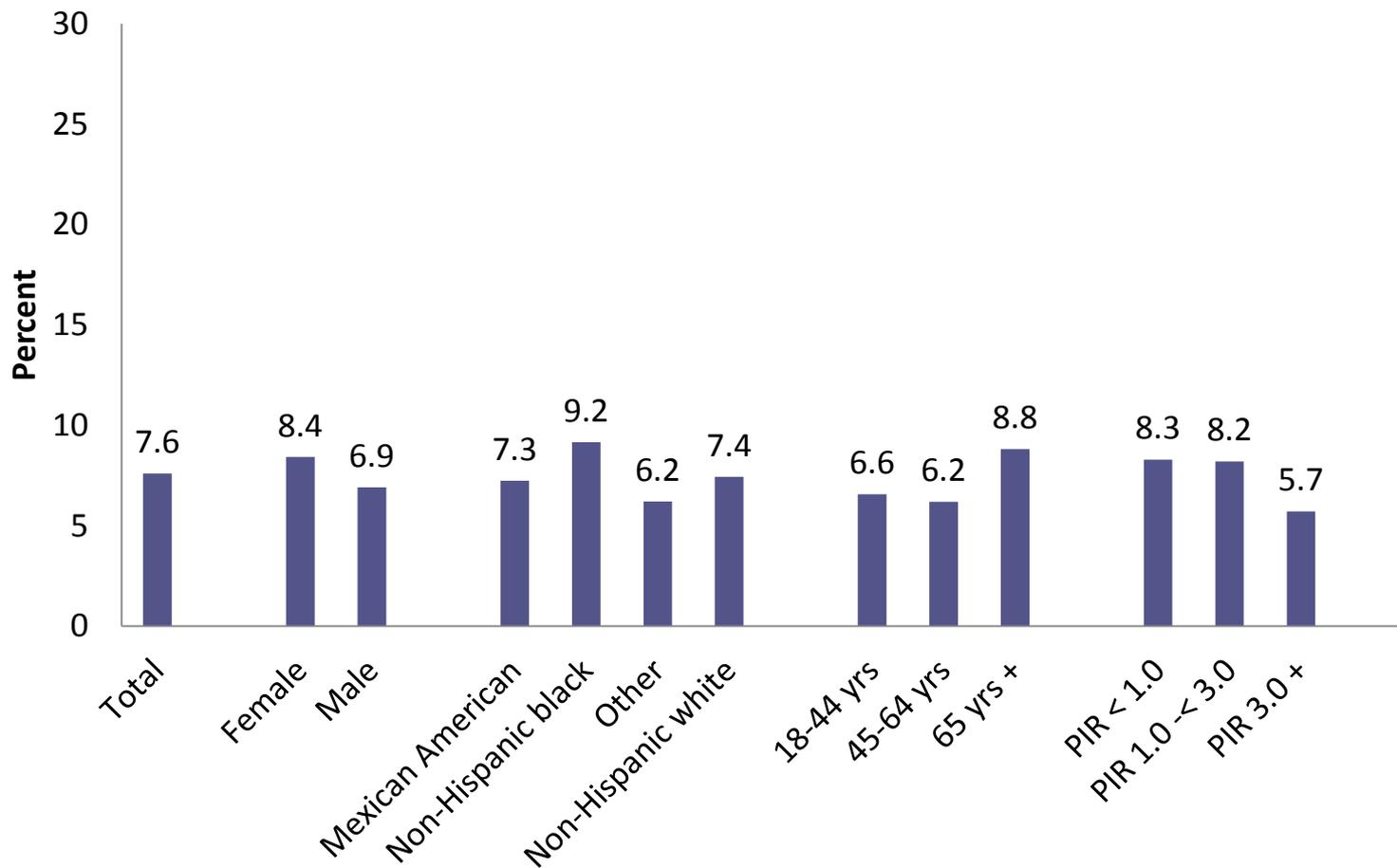
Disparities in the Burden of ESRD

Incident counts & adjusted rates of ESRD, by race



Reference: USRDS Annual Data Report (NIDDK, 2013)

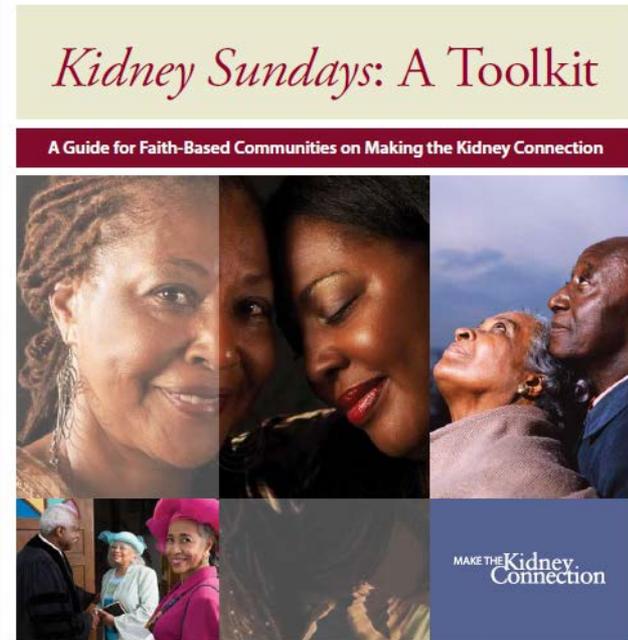
Awareness of Kidney Disease among adults with CKD is Poor



NHANES 2007-2010

Encouraging African Americans to Make the Kidney Connection

- Research-based program leverages influence of faith leaders to share health information
- Engages faith organizations to host educational events on kidney health
- Reached 100,000 people in March 2014



National Kidney Disease Education Program





Testing Interventions

“Usability of a CKD Educational Website Targeted to Patients and Their Family Members”



This website is offered as a guide for the safe care of people with pre-dialysis chronic kidney disease. We believe that safe care of chronic kidney disease patients is an important step in preserving kidney function; avoiding frequent or prolonged hospitalizations; and preventing other poor outcomes, such as dialysis or death, caused by improper medical treatments frequently used in this under-recognized condition.

Patients & Family
Click Here

Healthcare Providers
Click Here

New to using the internet? [Click here](#) to view guide on how to use this website.

PATIENT SAFETY CONCERNS

- Pills to avoid
- Good kidney drugs
- Medical Follow-Up
- Tell my Doctor
- Tests
- Diabetes
- Think about the Heart
- Fluid
- Foods to avoid
- Kidney Function (GFR) Calculator
- Take Our Survey

Healthcare Providers
Click Here





Translational Research in CKD

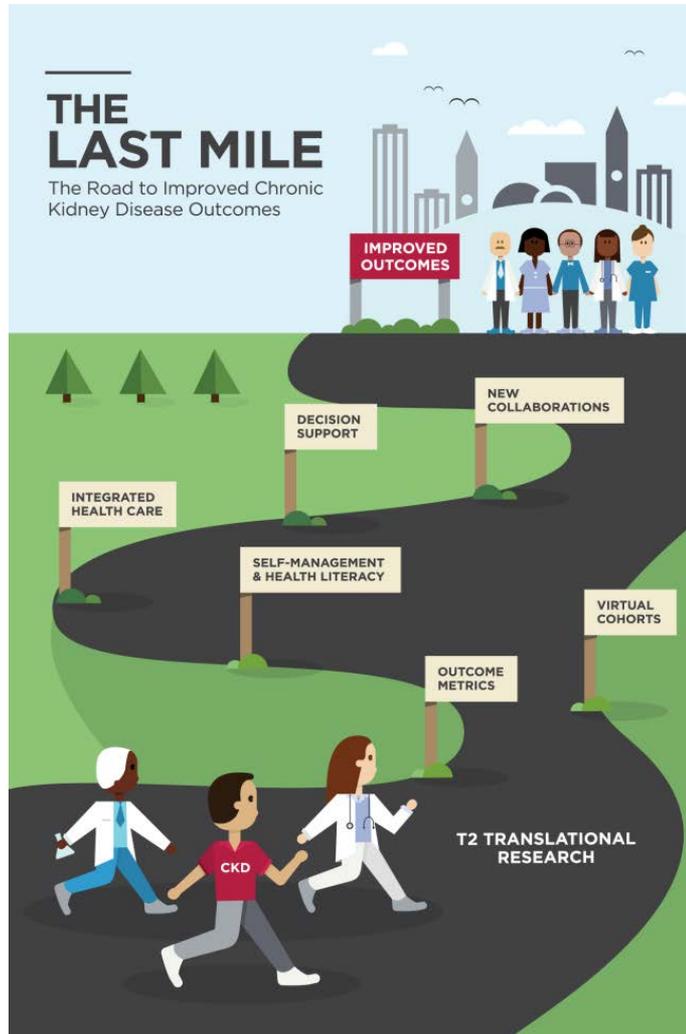
- Integrated Population Program for Diabetic Kidney Disease (Duke)
 - Goal: Improve identification and care of diabetic kidney disease (DKD) patients with uncontrolled hypertension
- Group-based Chronic Kidney Disease Care (Einstein)
 - Goal: Improve blood pressure control among CKD patients
- Health IT Enhanced for CKD in Safety-Net Primary Care (UCSF)
 - Goal: Mitigate disparities through improved delivery of CKD care



Pragmatic Research in Multiple Chronic Conditions

- **Improving Chronic Kidney Disease Management with Pieces (ICD-Pieces) UT-Southwestern**
- Goal: Leverage EHR information to improve care for patients with diabetes, hypertension, and CKD
- Interventions: Collaborative model of primary care and subspecialty care implemented through Parkland intelligent e-coordination and evaluation system (Pieces)
- Challenges: Lack of electronic health records (EHR) interoperability, primary care provider hesitance to engage, lack of CKD education resources in EHRs

Translational research in CKD





The fight against diabetes

Cases skyrocket

The number of adults ages 18 to 79 newly diagnosed with diabetes nearly tripled from 493,000 in 1980 to 1.4 million in 2005: (in thousands)



Newsweek
September 4, 2000 \$3.50

DIABETES

It Strikes 16 Million Americans
Are You at Risk?

Special coverage of a hidden health menace

SOCIETY

An American Epidemic

Diabetes

The silent killer: Scientific research shows a 'persistent explosion' of cases—especially among those in their prime
BY JERRY ADLER AND CLAUDIA KALB

SHE TRIED TO DENY IT. SHE KNEW SHE WASN'T SUPPOSED TO GET SICK. "They were telling you that the [diabetes] is not the normal part of this culture and was fading away," she says. "The first symptoms were all there, suggesting something serious, but I just didn't know. Do I have insulin? And I thought I was healthy and in good luck. I had a great job and a great life. I was a Chicago college student. Diabetes, who would ever have thought the problem began five years ago, was a creeping monster, but she'd had to step back. She'd thought she had stepped back in case you, but she didn't completely realize it. A few weeks ago, she'd been sitting off a piece of meat and she was that sick. She was sick. And she realized this was not the way she was going to spend the rest of her life. "That was when I knew I was sick."

Heredity
Diabetes runs in families, but you can't get it from your parents. Genetic predisposition is strong, but lifestyle is also a factor—especially if you eat well and exercise.



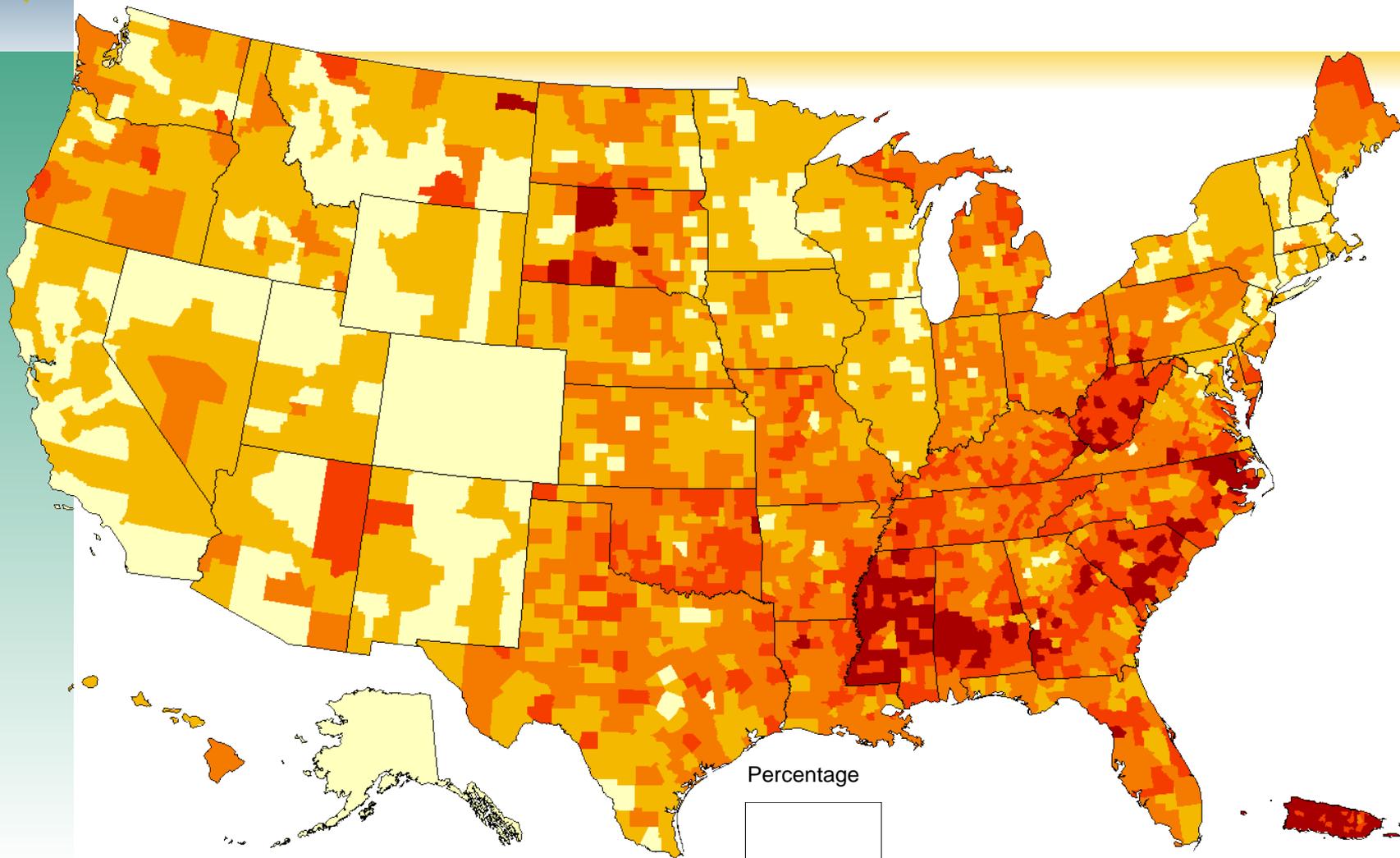
TAKE CHARGE OF YOUR HEALTH

LIVING WITH TYPE 1 OR TYPE 2 DIABETES? KEEPING IT UNDER CONTROL MAY BE EASIER THAN YOU THINK.

If you've recently been diagnosed with diabetes, you're hardly alone: Nearly 26 million Americans have either type 1 or type 2, according to the American Diabetes Association (ADA). Fortunately, taking even small steps to manage your disease can have big payoffs.

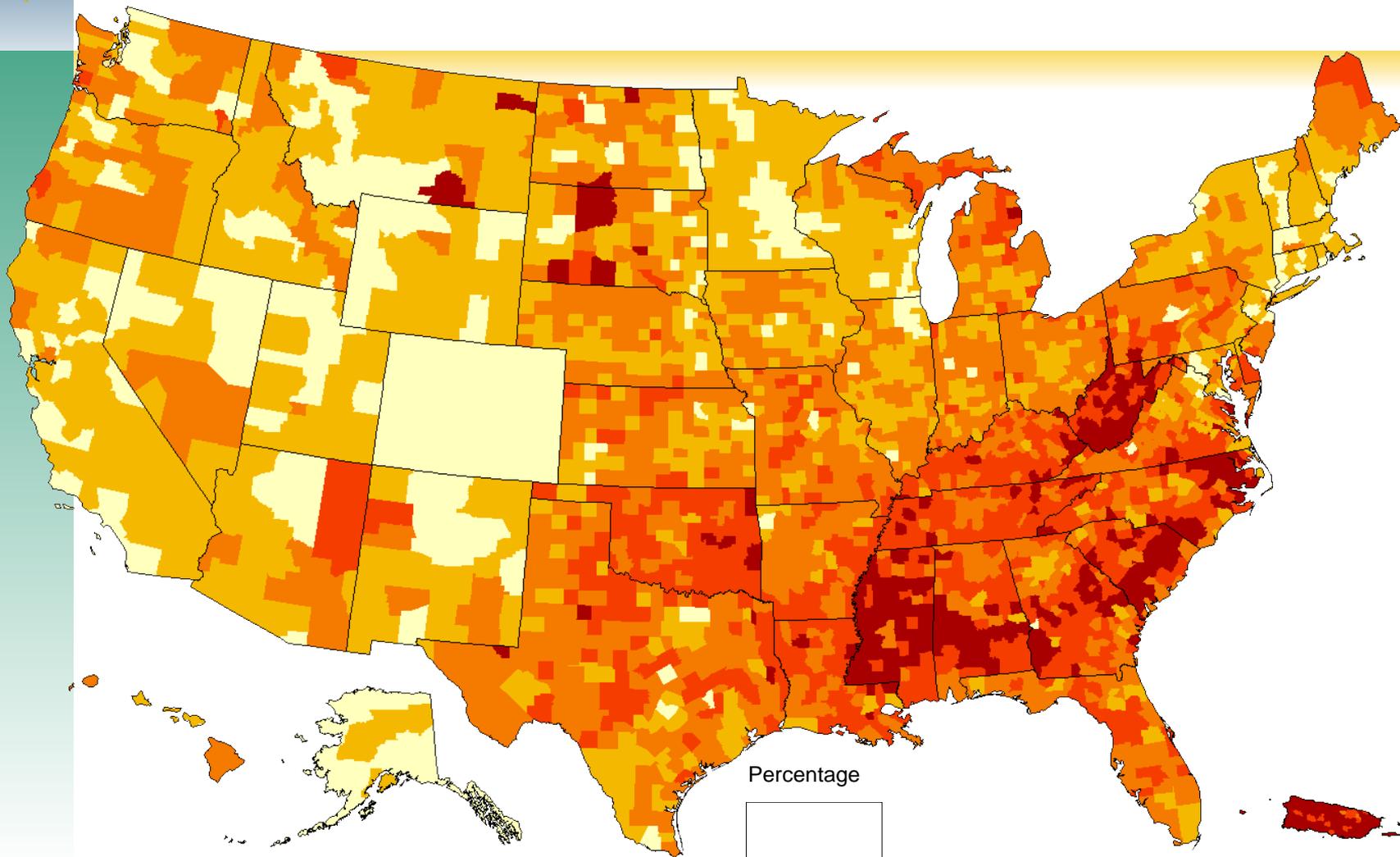


County-level Estimates of Diagnosed Diabetes among Adults **Aged ≥ 20 Years**: United States 2004

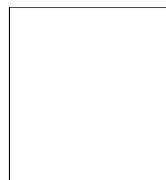


National Diabetes Surveillance System
www.cdc.gov/diabetes

County-level Estimates of Diagnosed Diabetes among Adults **Aged ≥ 20 Years**: United States 2005

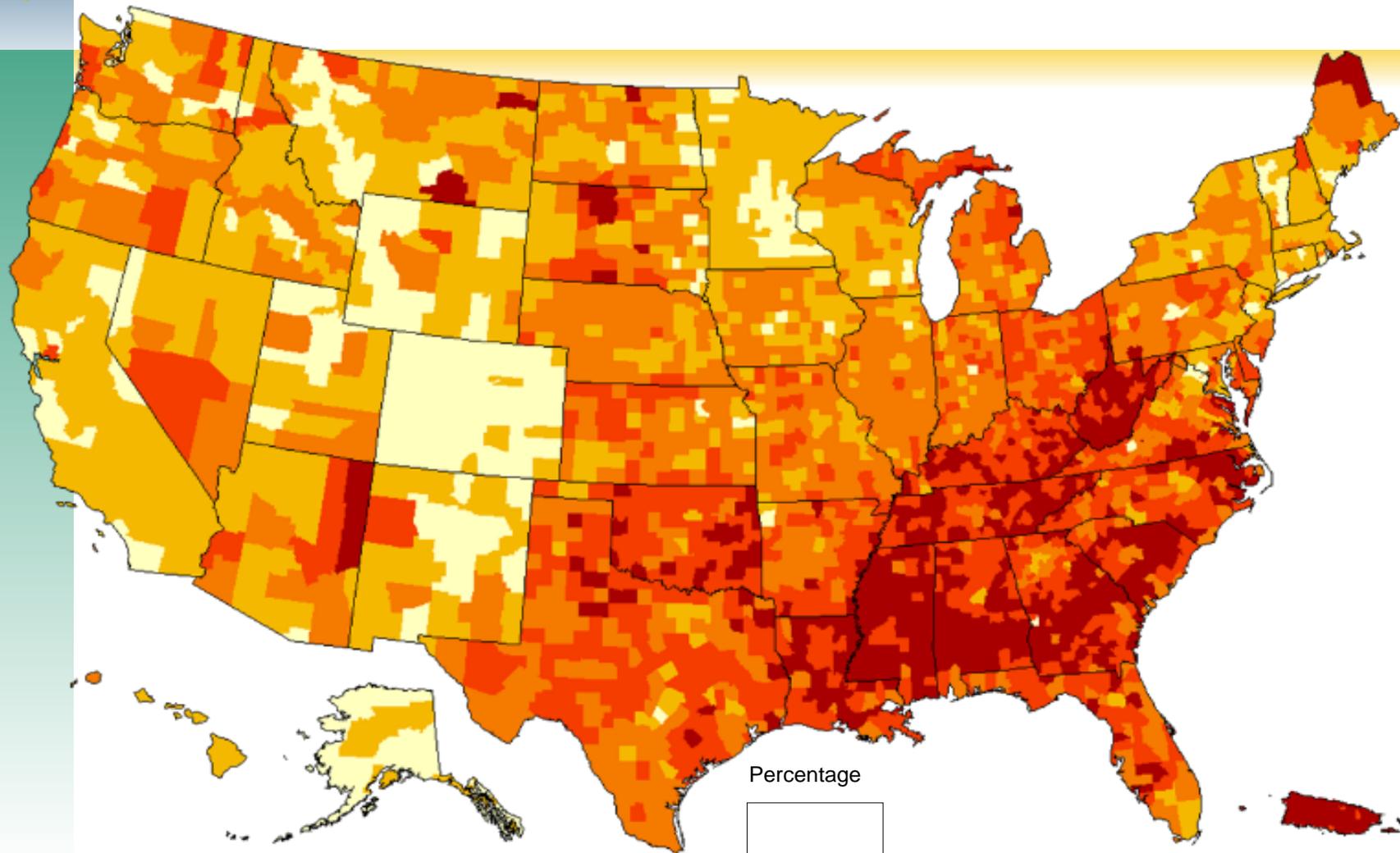


Percentage

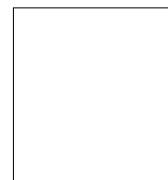


National Diabetes Surveillance System
www.cdc.gov/diabetes

County-level Estimates of Diagnosed Diabetes among Adults **Aged ≥ 20 Years**: United States 2006



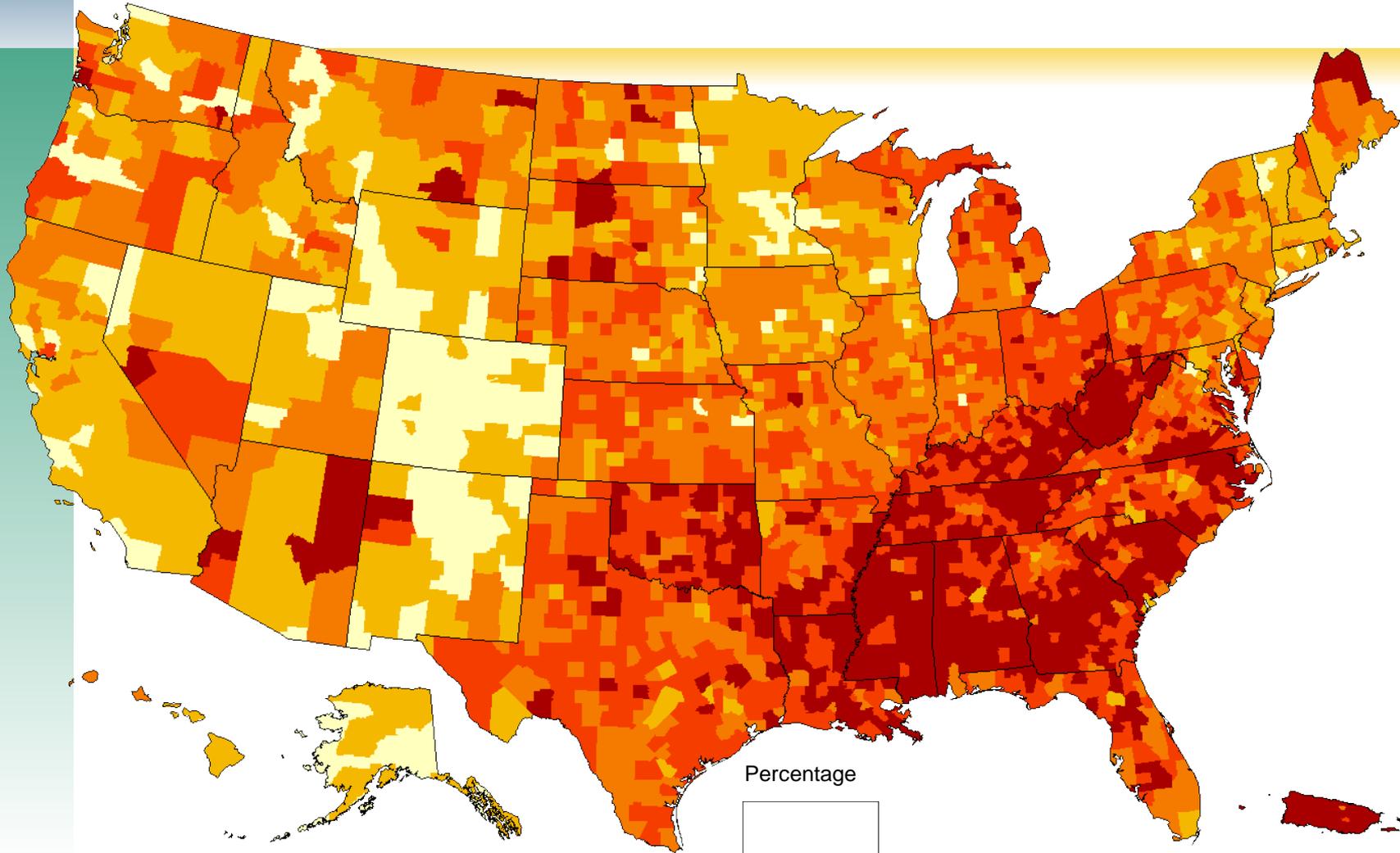
Percentage



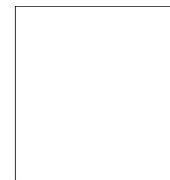
National Diabetes Surveillance System
www.cdc.gov/diabetes



County-level Estimates of Diagnosed Diabetes among Adults **Aged ≥ 20 Years**: United States 2007

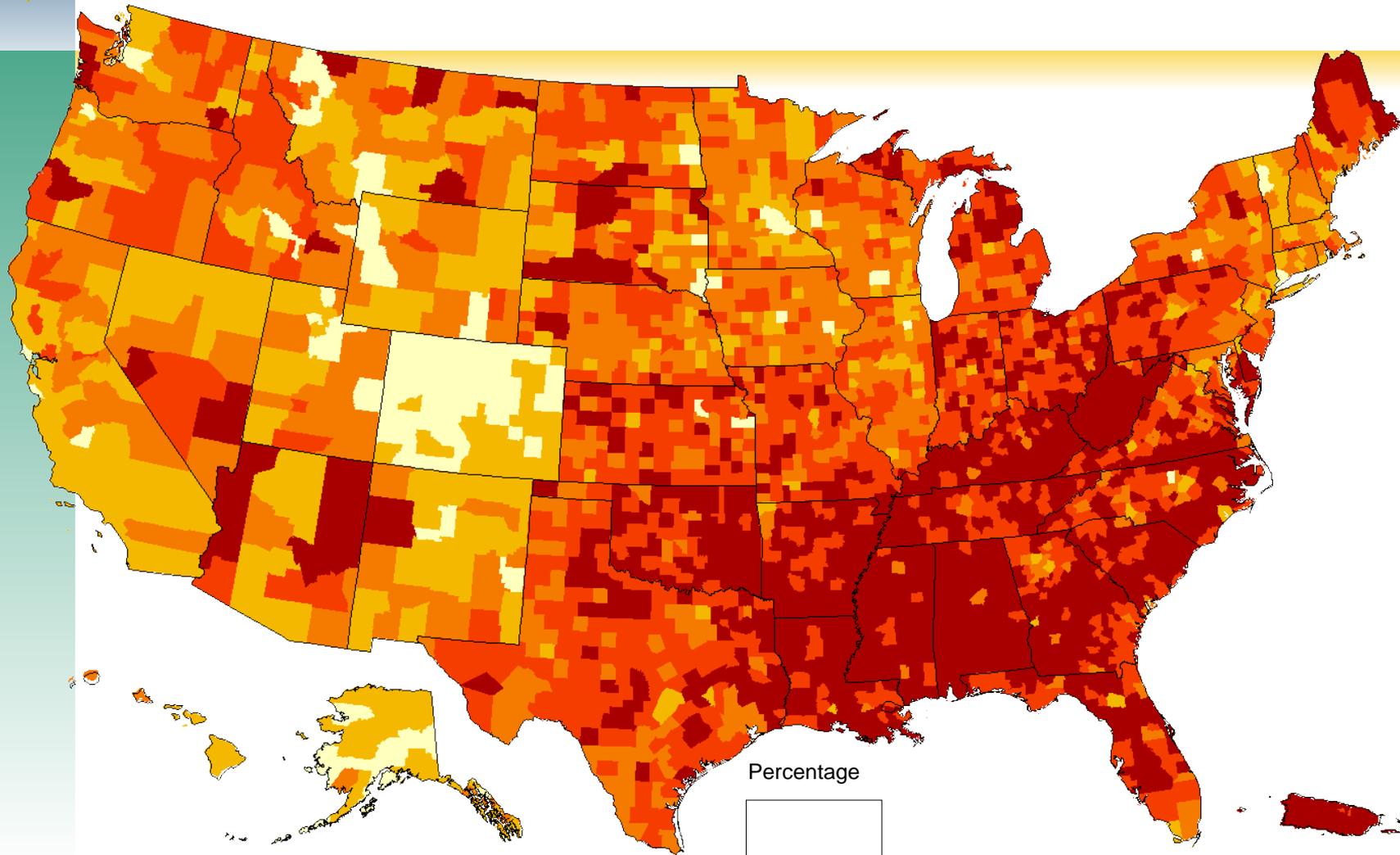


Percentage

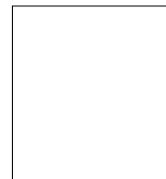


National Diabetes Surveillance System
www.cdc.gov/diabetes

County-level Estimates of Diagnosed Diabetes among Adults **Aged ≥ 20 Years**: United States 2009



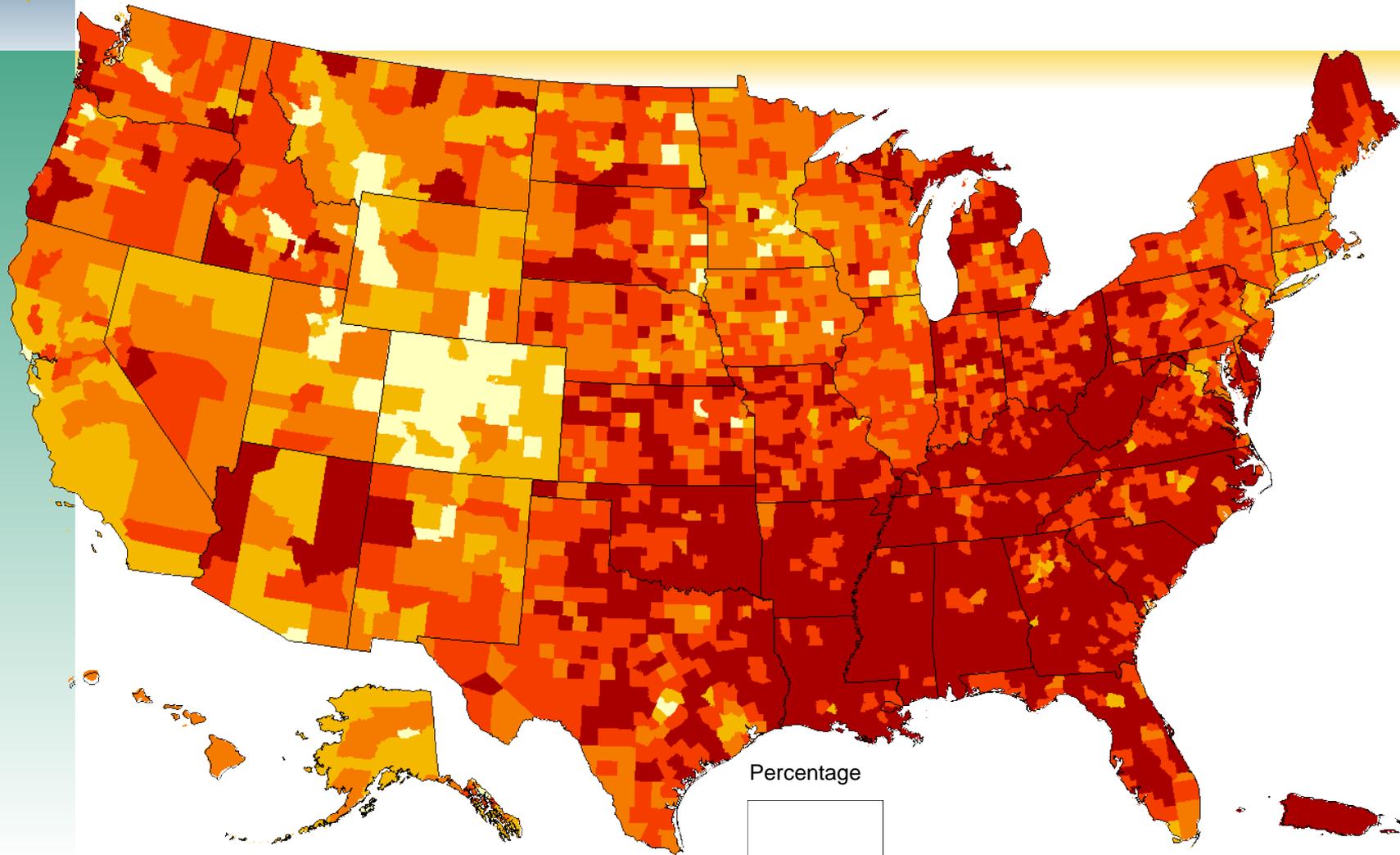
Percentage



National Diabetes Surveillance System
www.cdc.gov/diabetes

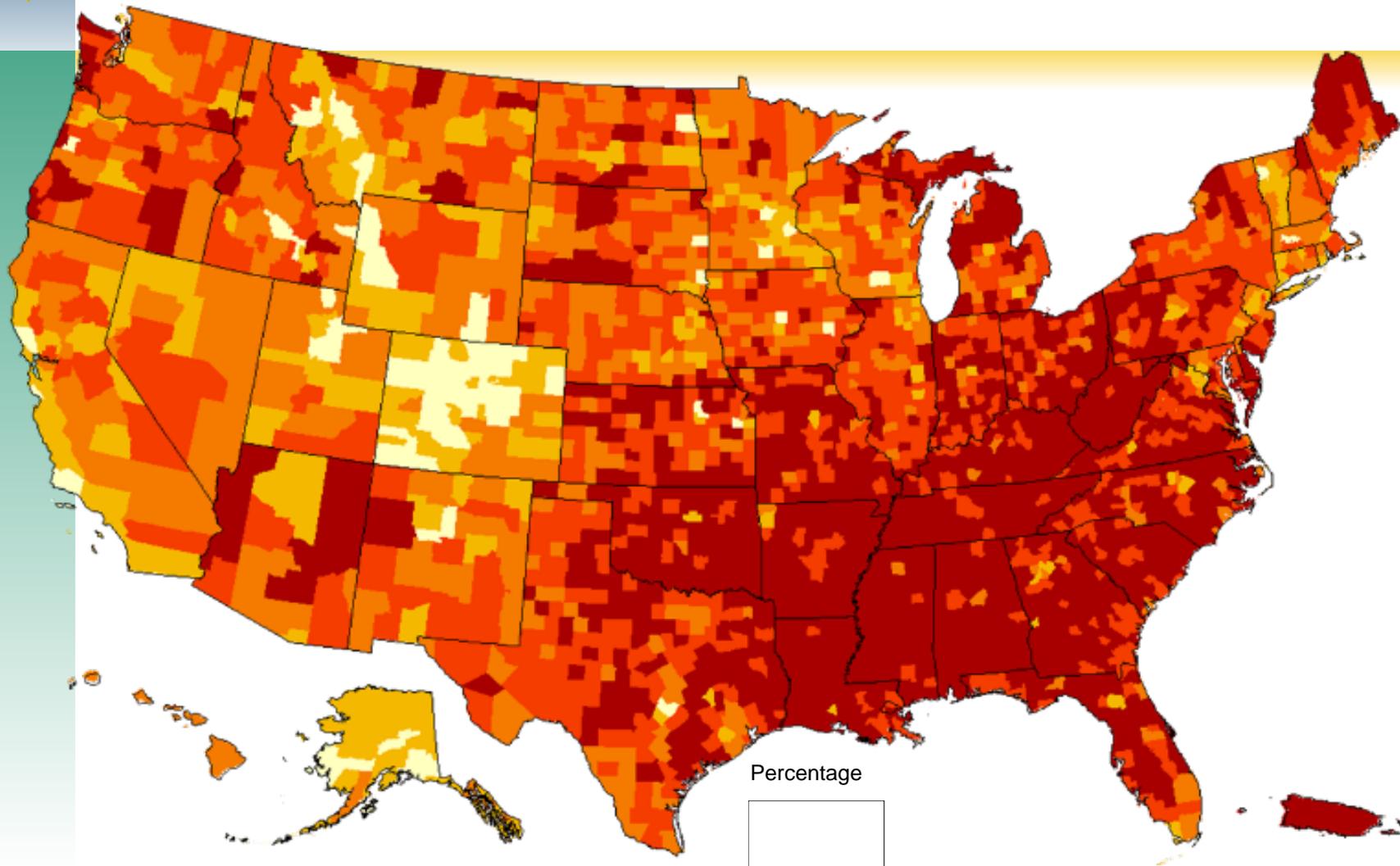


County-level Estimates of Diagnosed Diabetes among Adults **Aged ≥ 20 Years**: United States 2010



National Diabetes Surveillance System
www.cdc.gov/diabetes

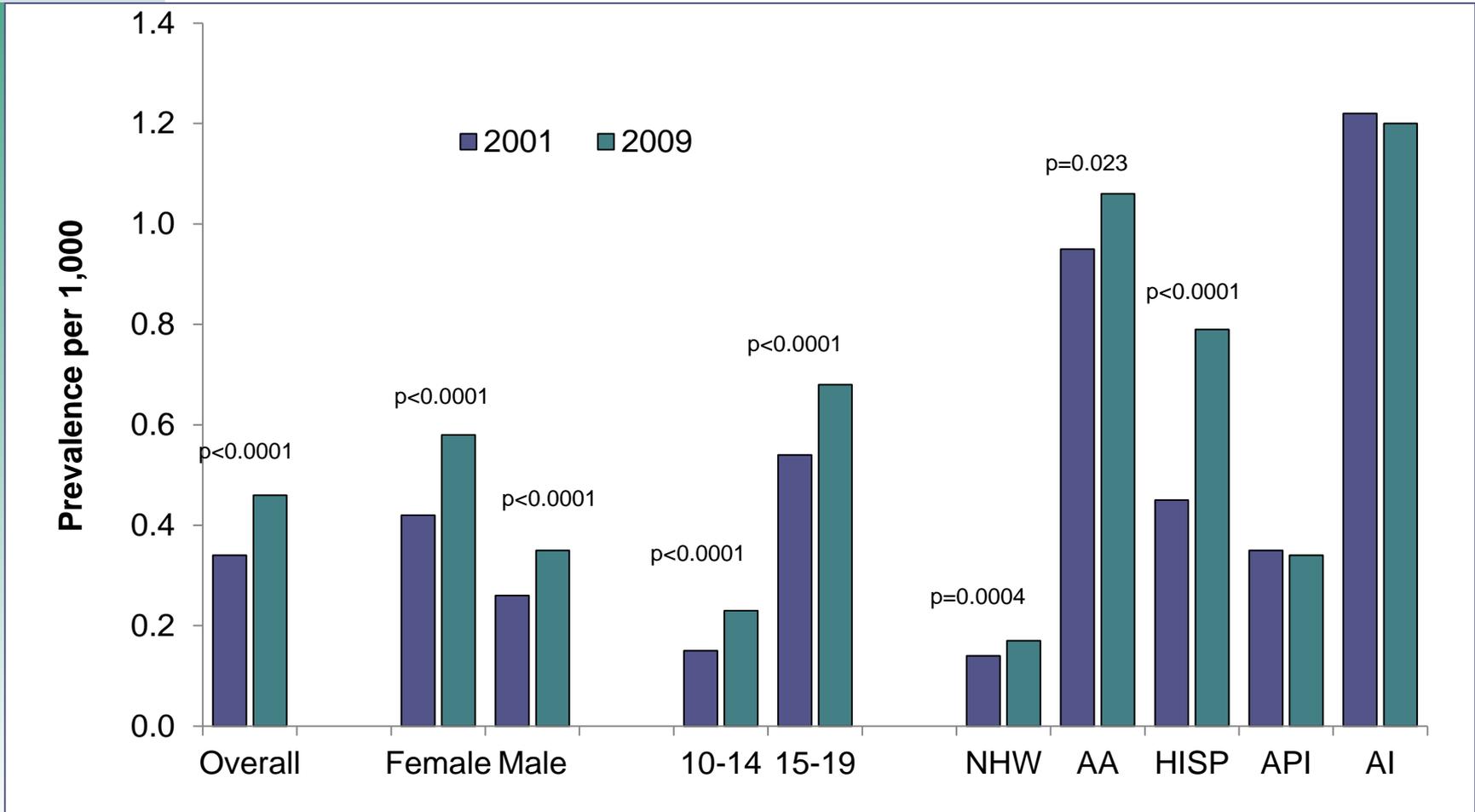
County-Level Estimates of Diagnosed Diabetes among Adults **Aged ≥ 20 Years**: United States 2011



National Diabetes Surveillance System
www.cdc.gov/diabetes

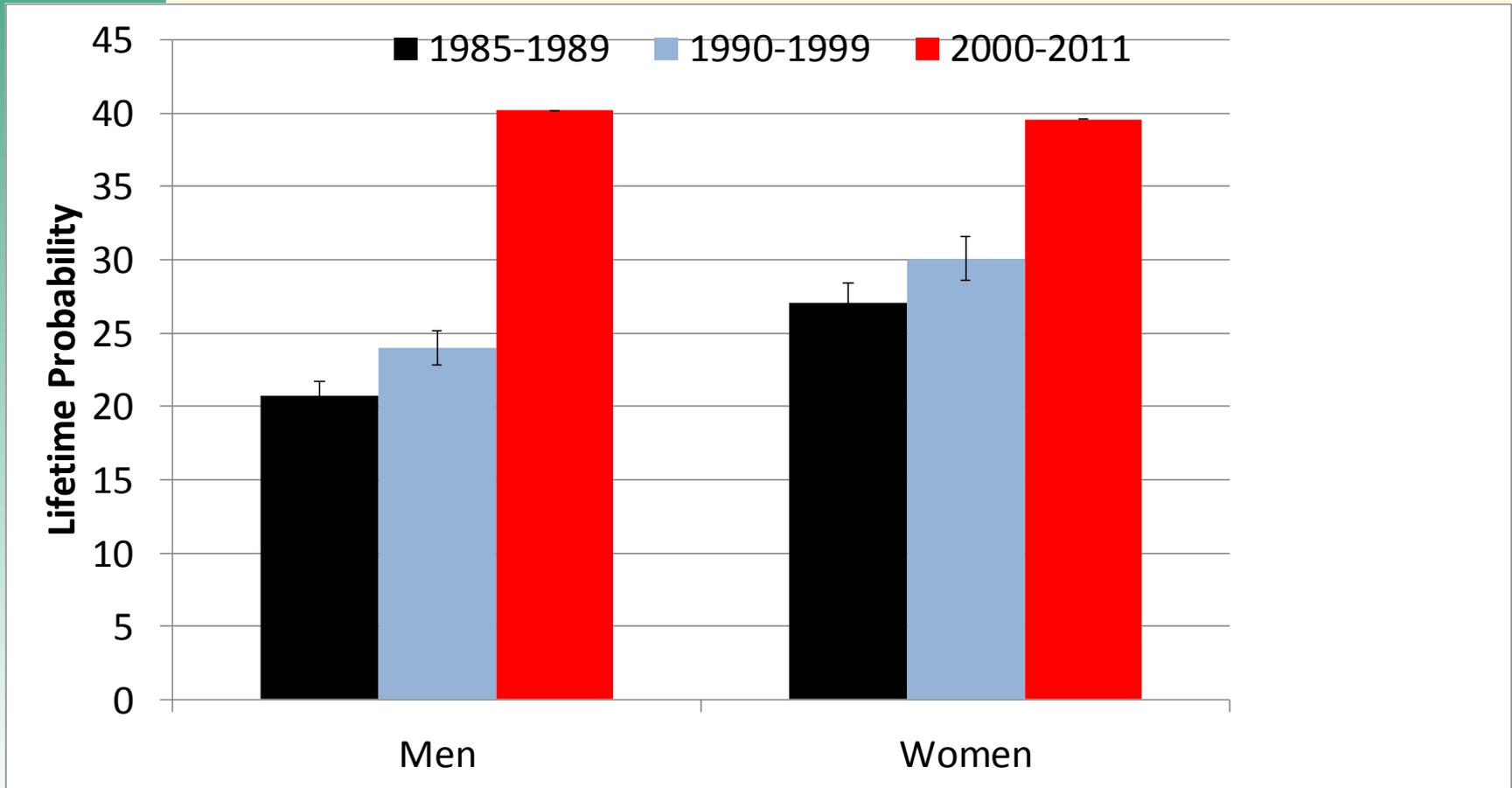


Trends in Type 2 Diabetes Prevalence, 2001–2009, among Youth Age 10–19 Years



Dabelea D et al. JAMA. 2014 May 7;311(17):1778–86.

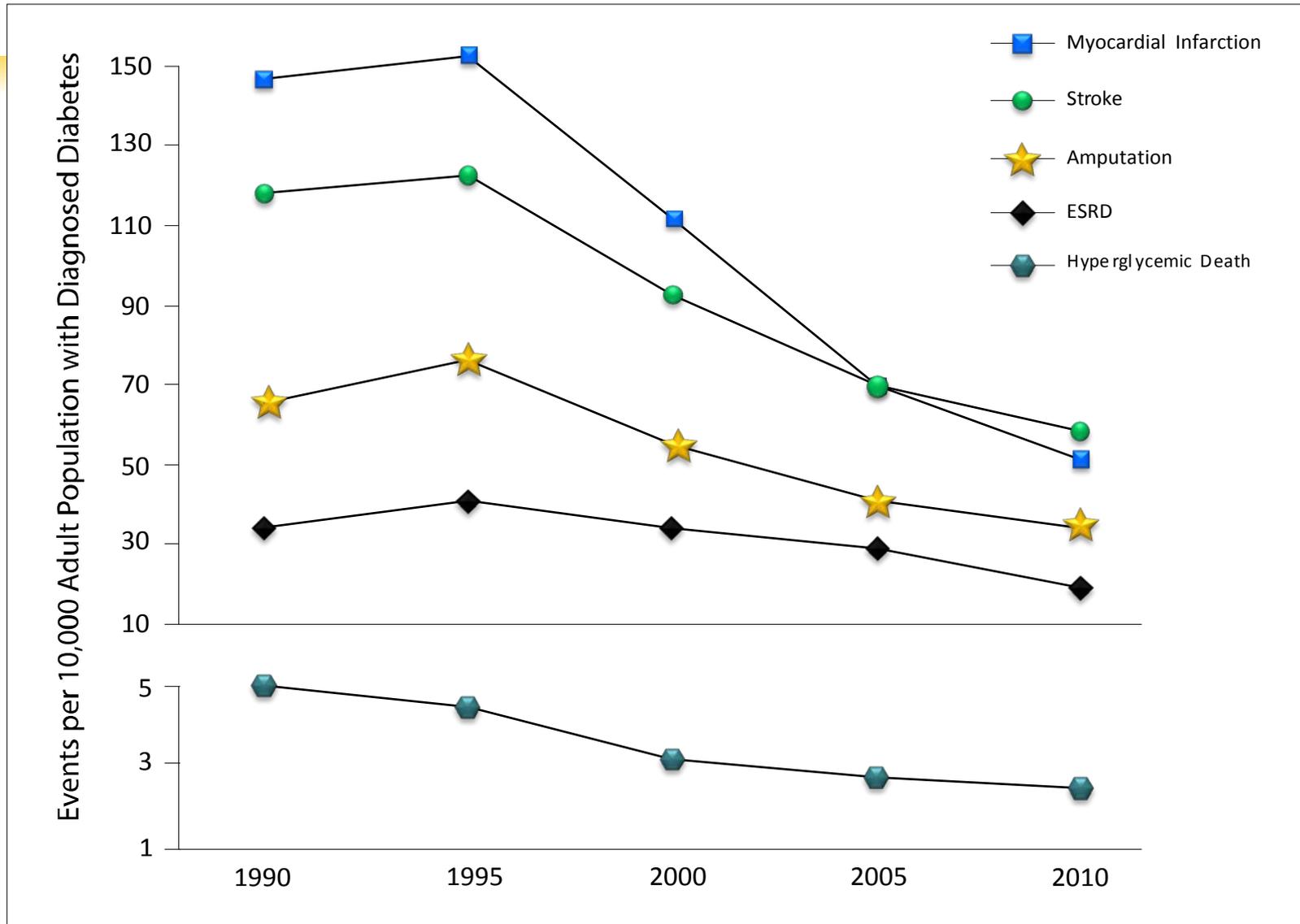
Changes in Lifetime Risk for Diagnosed Diabetes after Age 20 Years in the United States, 1985 to 2011



Gregg et al., Lancet Diabetes & Endocrinology, 2014

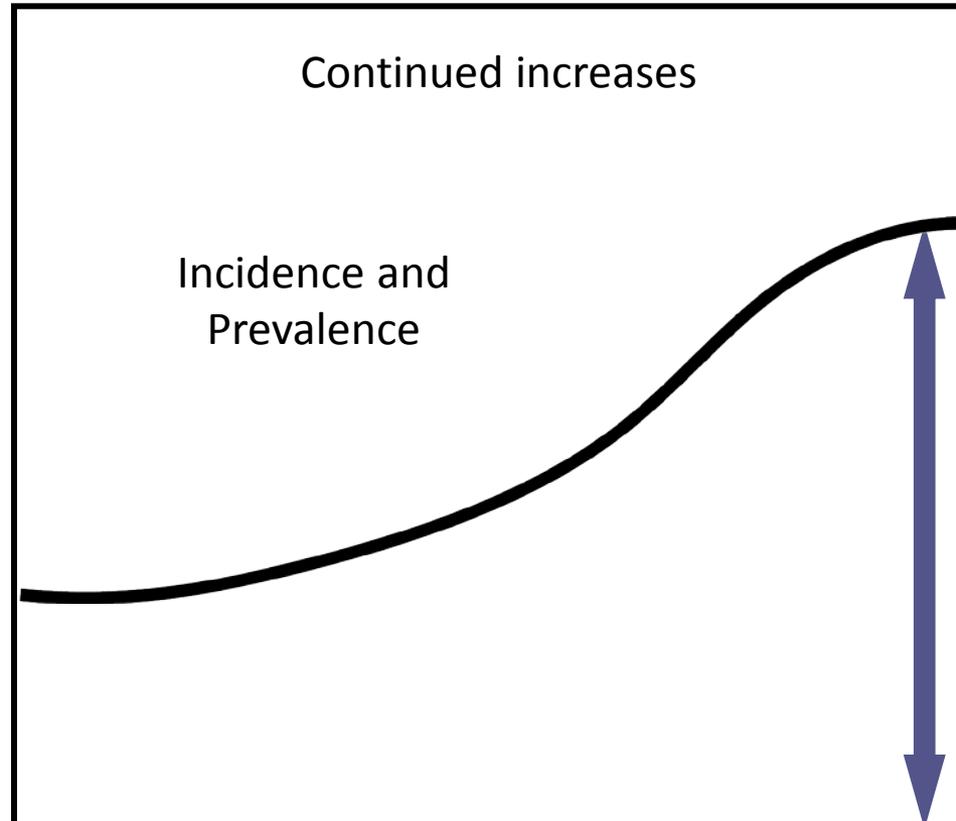
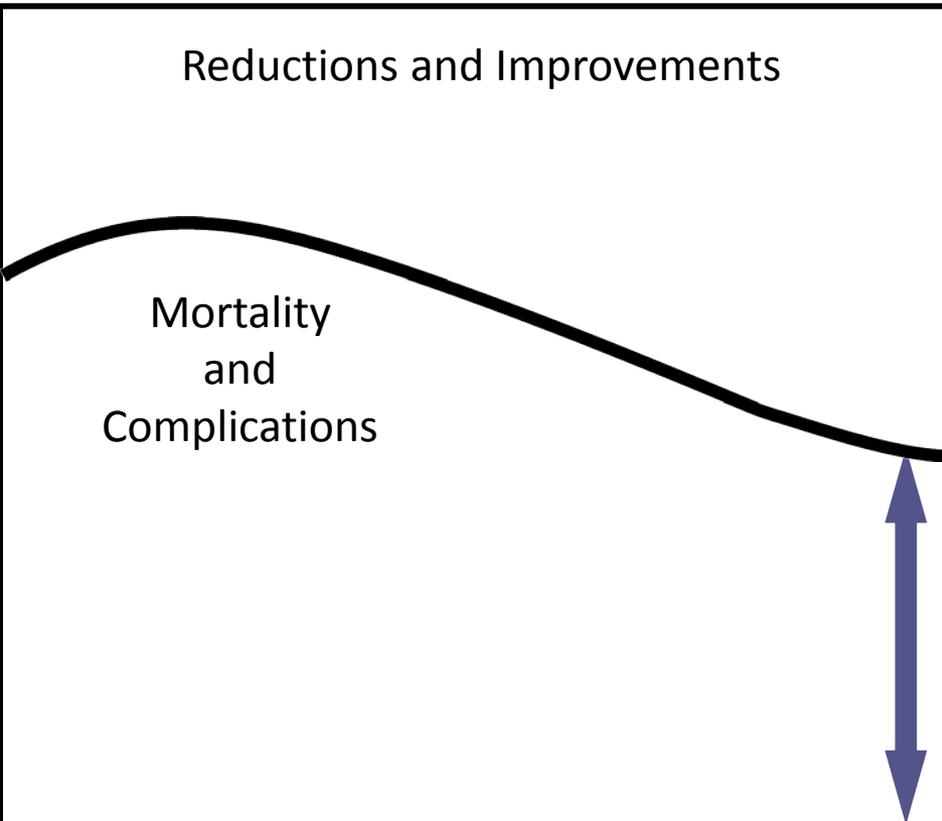


Trends in Age-Standardized Rates of Diabetes-Related Complications from 1990 to 2010 among U.S. Adults with Diagnosed Diabetes





Successes and Challenges in the Public Health Response to Diabetes



1990 1995 2000 2005 2010

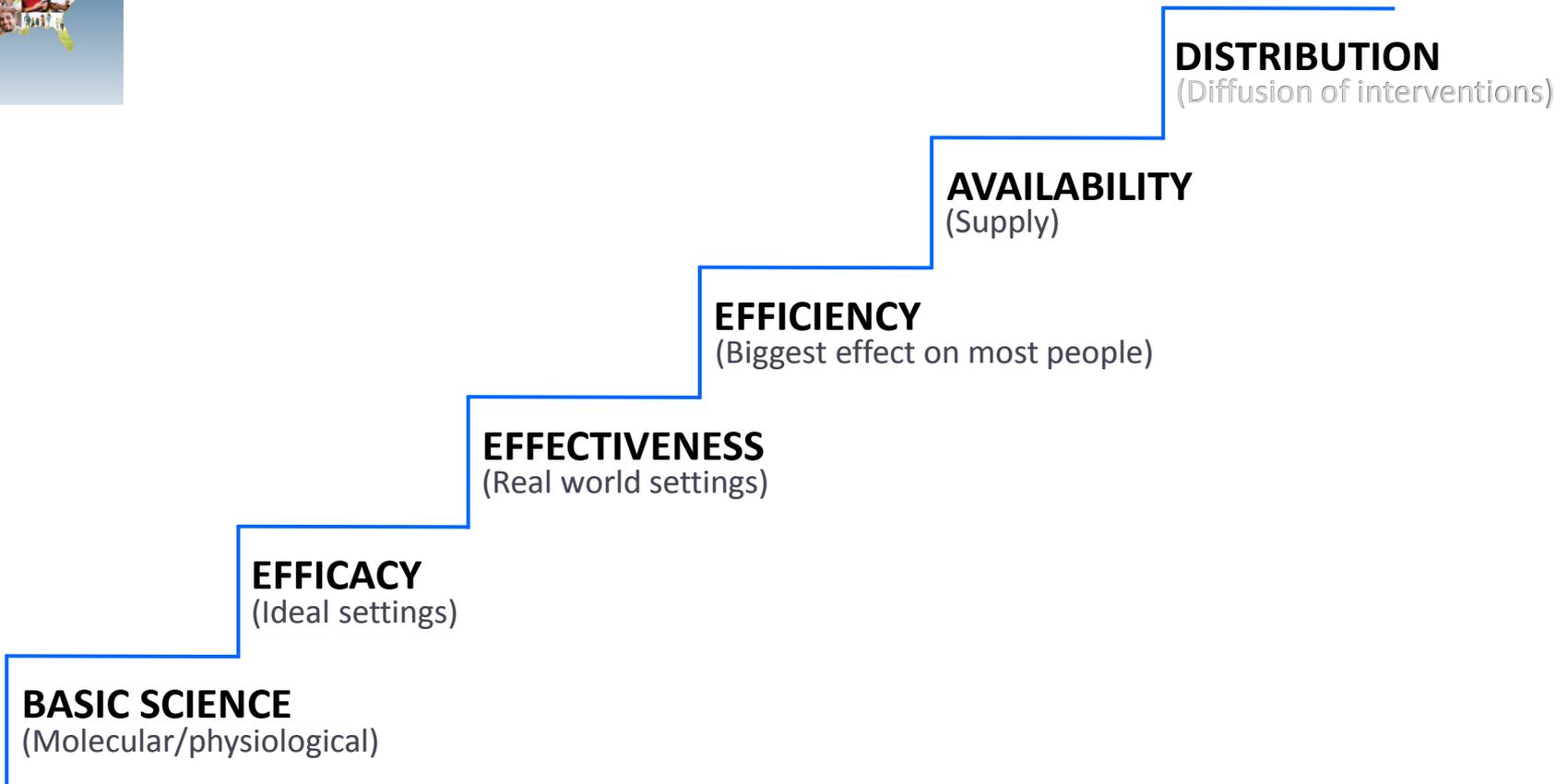
1990 1995 2000 2005 2010



Public Health Response to Diabetes

- Prevent diabetes
 - Increase diabetes preventive behaviors
 - Improve the access to effective lifestyle intervention
 - Promote healthy environments for the whole population
- Prevent diabetes complications
 - Increase access and delivery of preventive health care
 - Enhance and improve community and environmental strategies to support people with diabetes
- ❖ Prevent chronic kidney disease
 - Increase awareness and early diagnosis
 - Build a national CKD surveillance program
 - Promote use of evidence-based, cost-effective care
- Eliminate diabetes-related health disparities





Adapted from information in Sinclair JC, et al. *N Engl J Med.* 1981;305:489–94 and Detsky AS, et al. *Ann Intern Med.* 1990;113:147–54.



National Diabetes Prevention Program

COMPONENTS



Training: Increase Workforce

Train the workforce that can implement the program cost effectively.



Recognition Program: Assure Quality

Implement a recognition program that will:

- Assure quality.
- Lead to reimbursement.
- Allow CDC to develop a program registry.



Intervention Sites: Deliver Program

Develop intervention sites that will build infrastructure and provide the program.

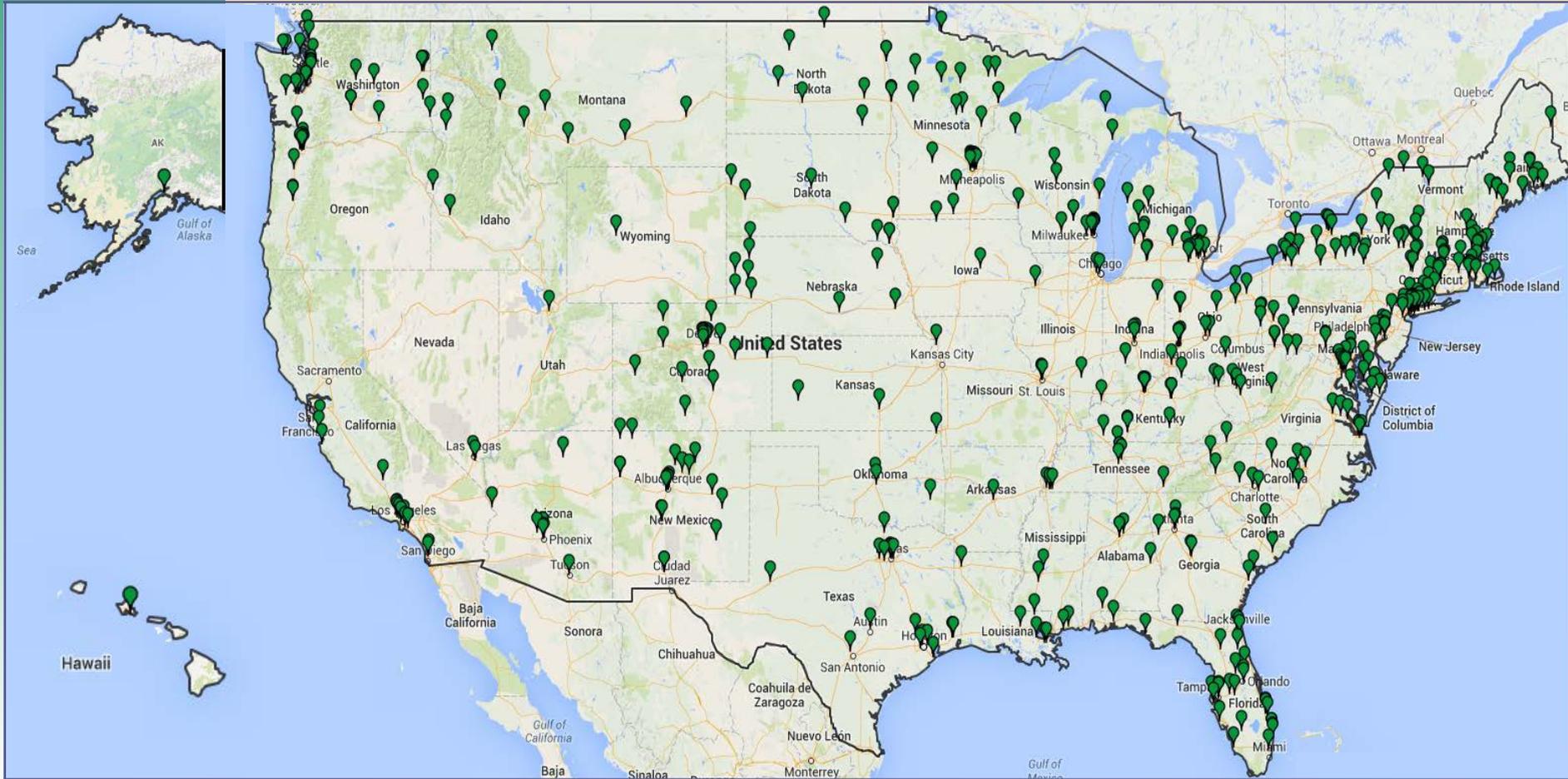


Health Marketing: Support Program Uptake

Increase referrals to and use of the prevention program.

Albright A, Gregg EW. Am J Prev Med. 2013;44(4S4):S346–51.

Progress to Date for National Diabetes Prevention Program



Source: Diabetes Prevention Recognition Program (CDC/National Diabetes Prevention Program)

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Summary

- The number of and health impact from diabetes-related complications, including kidney complications, have declined substantially
- Incidence (new cases) of diagnosed diabetes has increased over two decades. Preventing type 2 diabetes is an important step in preventing kidney disease
- Continued improvements are needed for preventing diabetes and its complications
- Strong community lifestyle-change programs are needed for high-risk individuals and healthy communities to reduce risk and prevent diabetes in the population as a whole



Thank You!

Please visit the
Division of Diabetes Translation web site at
www.cdc.gov/diabetes
www.cdc.gov/ckd

For more information, please contact:

The Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, Georgia 30333

Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348

E-mail: cdcinfo@cdc.gov Web: www.cdc.gov



EMBLEMHEALTH

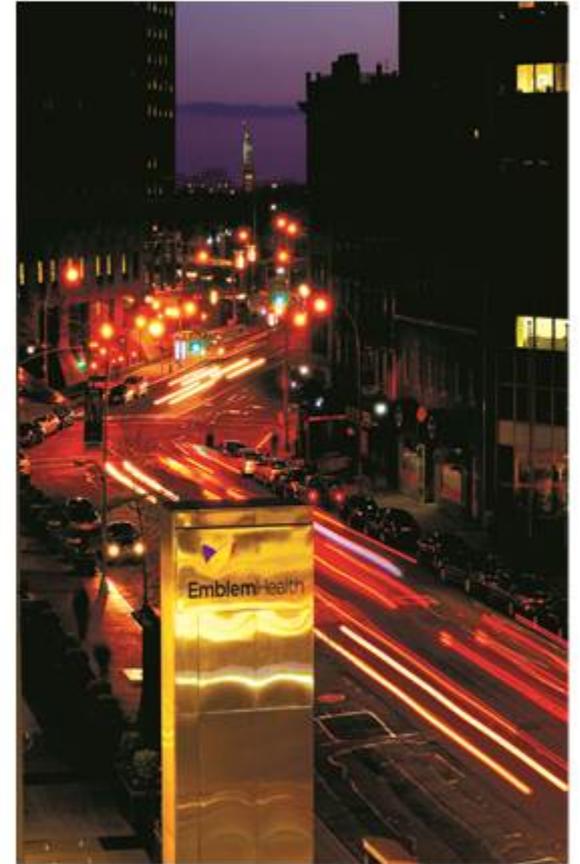
National Diabetes Prevention Program

Presented by: Karen Wauchope, RN, BSN, CDE

September 29, 2014

EMBLEMHEALTH

- New York based non-profit health plan
- State's largest insurance plan
- 3.4 million lives
- Individual, small and large groups, Medicaid, Medicare and Family Health Plus, Long-Term Care, Health Exchange
- Integrated delivery model – AdvantageCare Physicians



NEIGHBORHOOD CARE



**Nurse
Case
Managers**

**Pharmacy
Case
Managers**

**Social
Work Case
Managers**

**Health
Navigators**

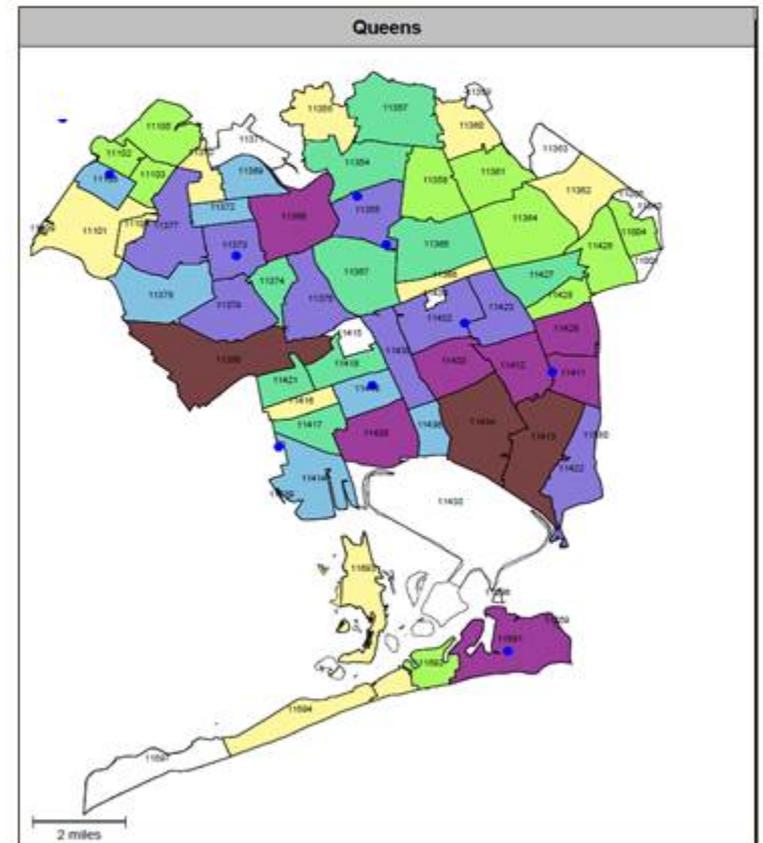
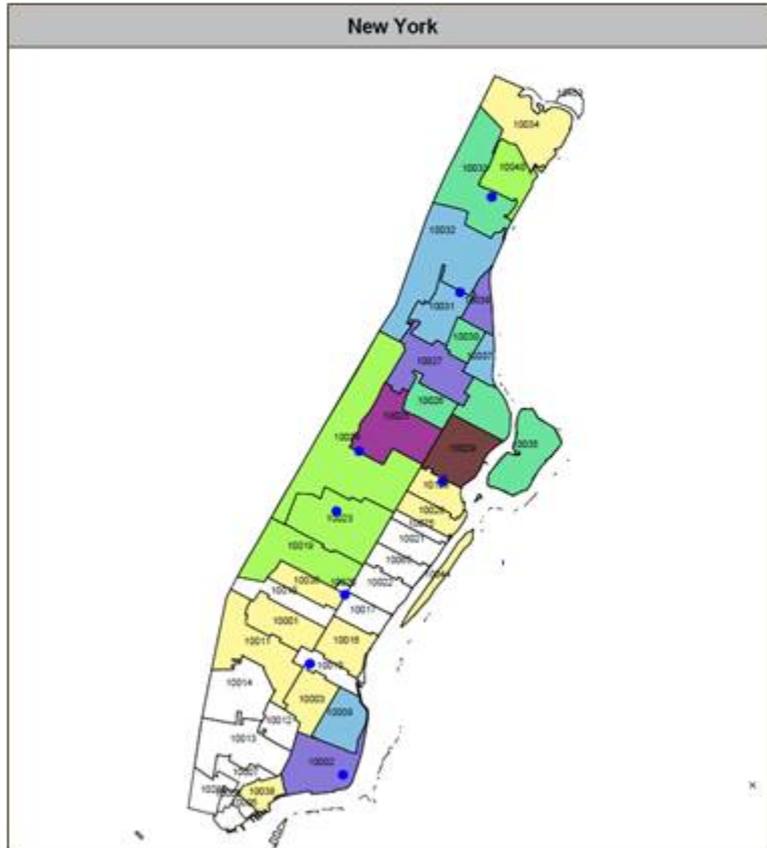
**Health
Care
Solutions
Specialists**

**Community
Liaisons**



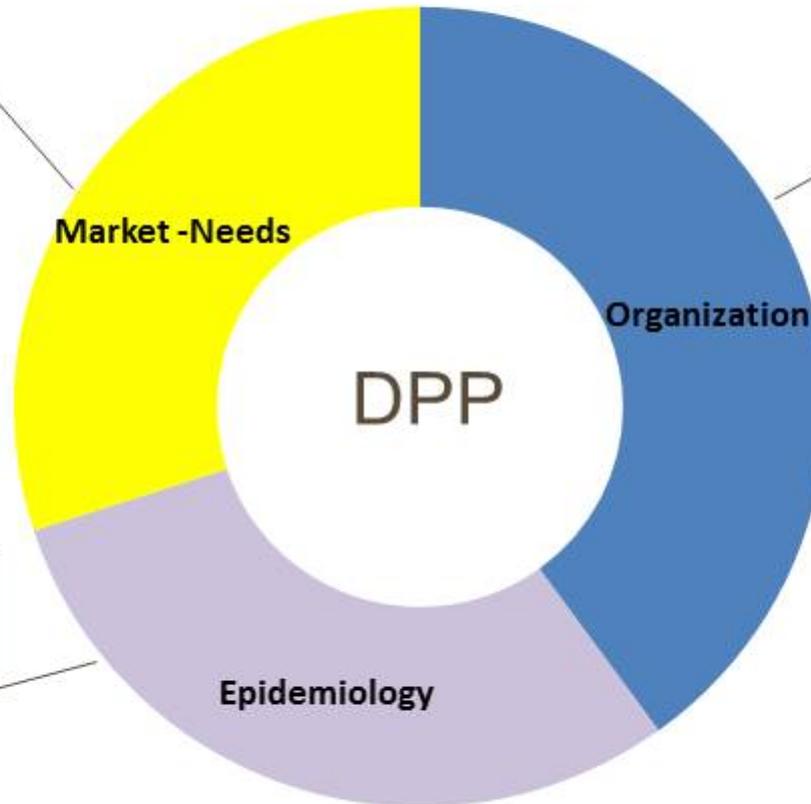
EmblemHealth
WHAT CARE FEELS LIKE.

QUALITY GAPS



WHY DPP?

- Population health management
- Prevention focus
- Consumer experience



- Organizational Goals
- Integrated Delivery
- Cultural Competence Care Model
- Partnerships
- Neighborhood Care Innovations

- Higher DM / Pre-DM prevalence Blacks, Hispanics and Asians
- Evidence-Based Prevention
- Wagner Chronic Care

EMBLEMHEALTH DPP

- In collaboration with AHIP (American Health Insurance Plans), EmblemHealth awarded CDC grant to implement the National DPP, September 2012
- Evidence-based lifestyle change program designed to prevent type 2 diabetes among people at high risk
- The study demonstrated that with a modest amount of weight loss (5-7% of body weight), through dietary changes and increased physical activity, reduced diabetes risk by 58%
- Initial implementation at Harlem and Cambria Heights Neighborhood Care, July 2013

PROGRAM MODEL



METRICS

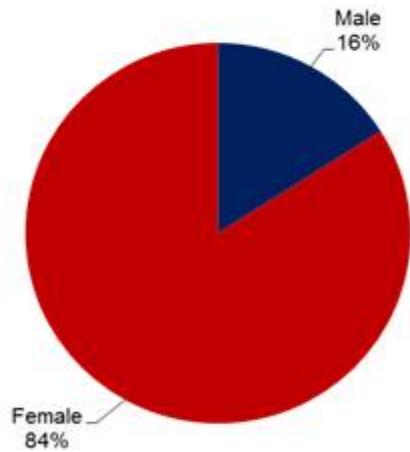
Data Type	Metric	16 weekly sessions			6 monthly sessions	
		C1	C2-15	C16	PC1-5	PC6
Patient demographics	Age, race and ethnicity details, gender, sexual orientation, educational attainment, paid employment, annual household income, preferred spoken and written language	X				
Class information	Location of classes (e.g., Cambria Heights, Harlem, Chinatown NC), health coach, class day/time/duration, class attendance	X	X	X	X	X
Anthropomorphic data	Height	X				
	Weight	X	X	X	X	X
	Blood Pressure, HbA1c	X		X		X
Behavior data	Physical Activity in minutes	X	X	X	X	X
	Other weight loss efforts (self-report), leisure time exercise questionnaire	X		X		X
Attitude data	Stages of change (exercise and weight loss), barriers to exercise	X		X		X
Experience data	CDC Exit survey			X		

RESULTS

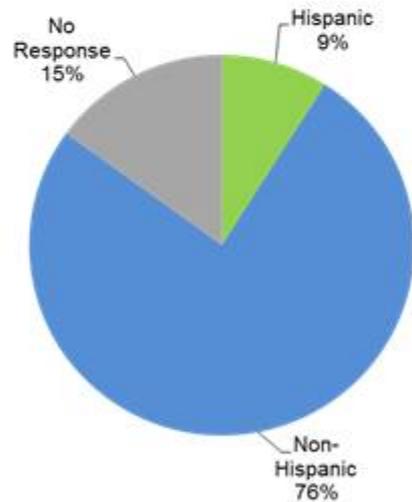
- 18 cohorts
- 6 completed classes
- 270 members enrolled (1 class)
- 203 members engaged (more than 1 class)
- 75% engagement rate

PARTICIPANT DEMOGRAPHICS

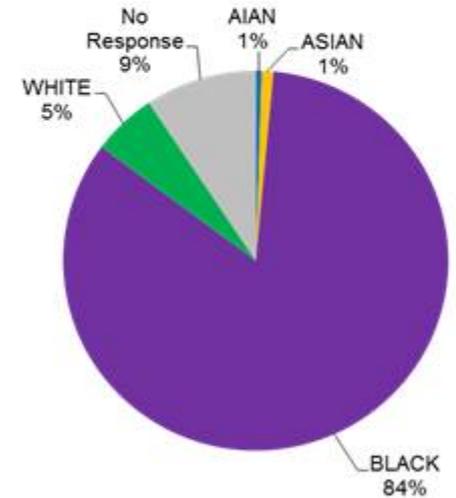
GENDER



ETHNICITY

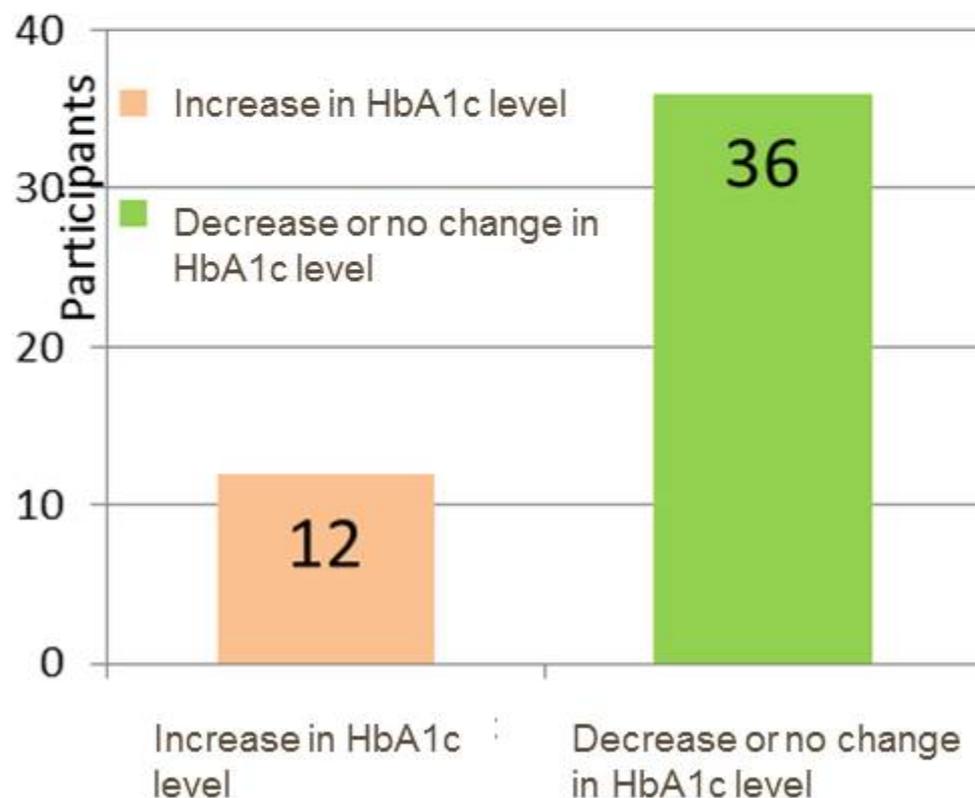


RACE



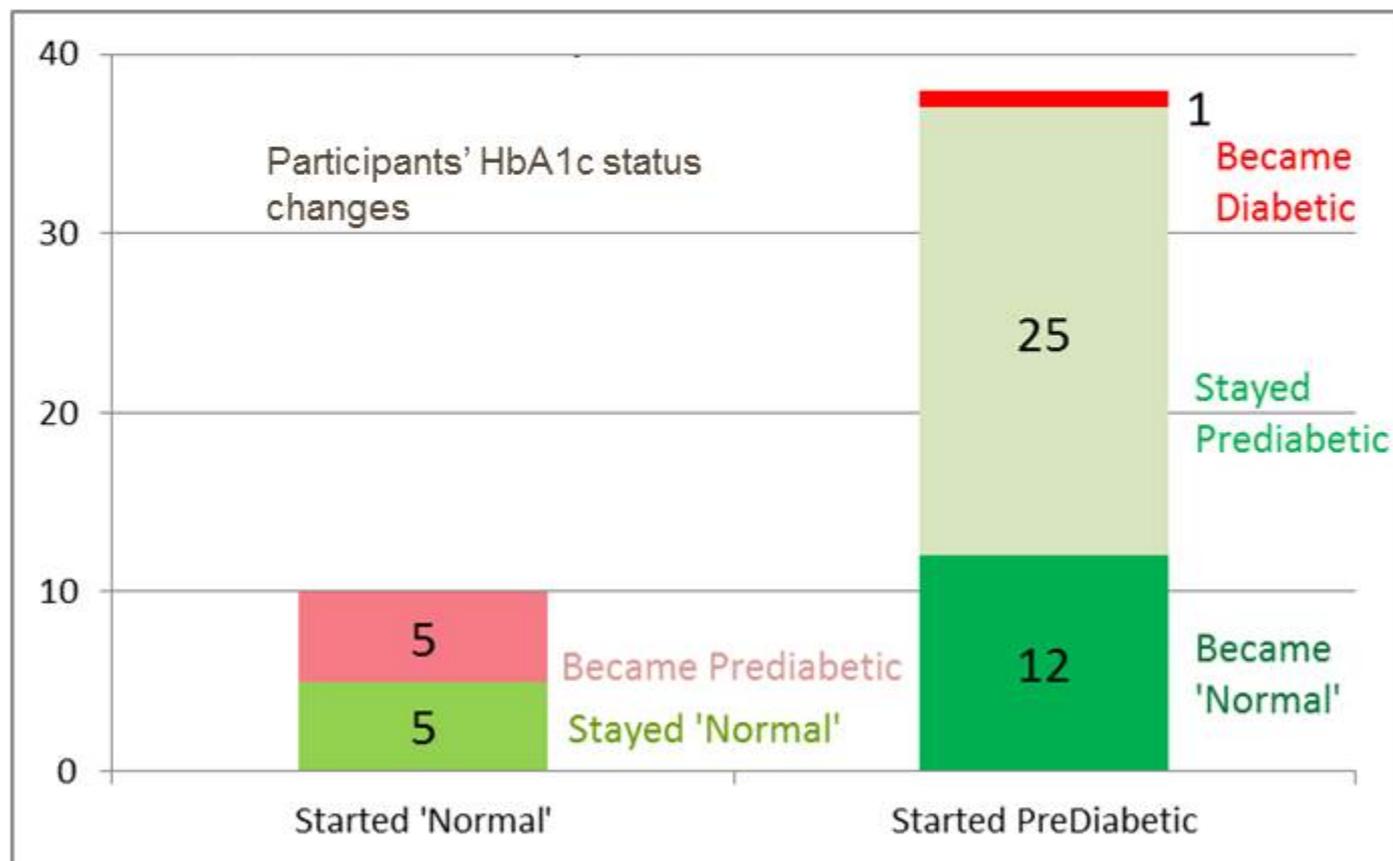
HEMOGLOBIN A1C RESULTS

HbA1c changes



Key Finding: 75% of participants (36) decreased or maintained their HbA1c levels.

HEMOGLOBIN A1C RESULTS



Key Findings:

- 79% of participants (n=38) started off as pre-diabetic (HbA1c = 5.70-6.4)
- All but one stayed pre-diabetic or became "normal"



WEIGHT RESULTS



Key Finding: 75% of participants lost or maintained their weight. On average they lost 4.1% of their starting weight.

WEIGHT RESULTS

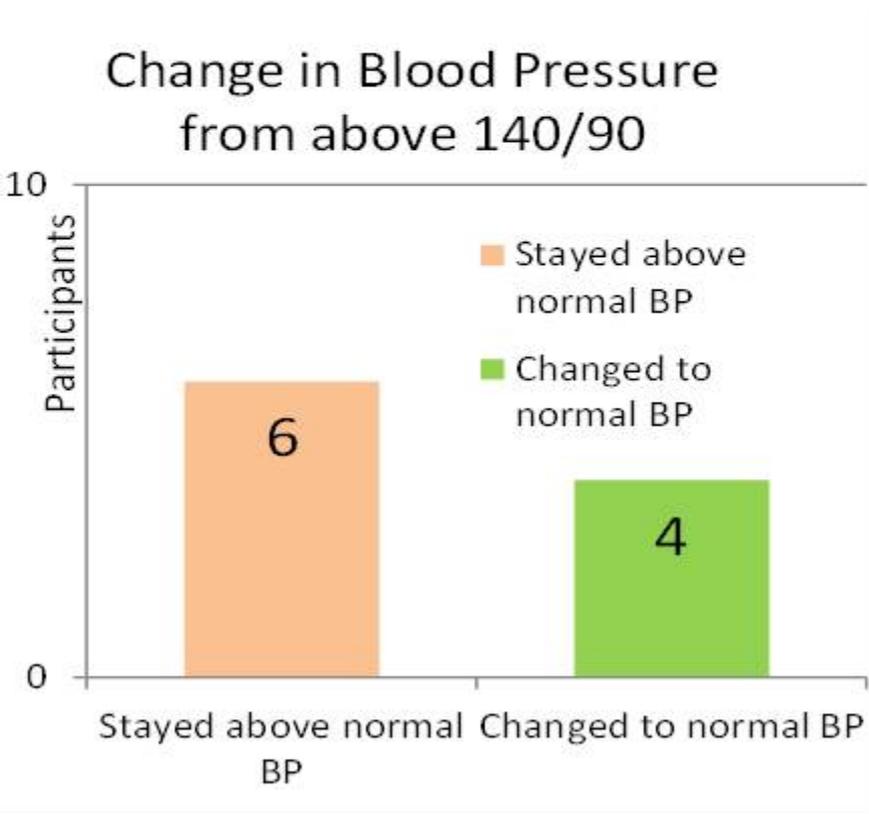
Weight loss (more than 5%)



Key Findings:

- 42% lost 5% or more of their baseline weight
- 12% of the sample lost significantly more weight

BLOOD PRESSURE RESULTS



Key Finding: 40% of participants with abnormal BP (above 140/90) improved both their systolic and diastolic BP.

RESULTS*

- 75% engagement rate
- 75% of participants (36) decreased their HbA1c levels.
- 32% of pre-diabetics changed to 'normal' (HbA1c below 5.7)
- 75% participants lost or maintained weight.
- 42% lost 5% or more of their baseline weight
- 40% of the 10 participants with abnormal BP (above 140/90) improved both their systolic and diastolic BP.

*preliminary results (first 6 completed classes)



CHALLENGES

- Lack of urgency in the medical community
- Lack of awareness
- Engagement
 - Males
 - Young working families
- Participant barriers
 - Financial
 - Lack of family support/sabotage
 - Denial

LESSONS LEARNED

- Prevention is important.
- Appropriation of resources
- Physician support critical
- Physicians and community awareness

TESTIMONIALS

- “My doctor says I am back to normal! My A1c went from 6.1 to 5.6!”
- “I thank God for this program every day!”
- “I love the fellowship.”
- “I’ve never had someone care about my personal health so much before.”

A SUCCESS STORY



GRADUATION MAY 2014



THANK YOU

To find out more about EmblemHealth and EmblemHealth Neighborhood Care, please visit our websites:

www.emblemhealth.com

www.ehnc.com

[Home](#) > [Leading Health Indicators](#) > LHI Infographic Gallery

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[Development and Framework](#)

[Who's Leading the Leading Health Indicators?](#)

[Share Your LHI Story](#)

[LHI Infographic Gallery](#)

[2020 LHI Topics](#)

[Access to Health Services](#)

[Clinical Preventive Services](#)

[Environmental Quality](#)

[Injury and Violence](#)

[Maternal, Infant, and Child Health](#)

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LHI Infographic Gallery

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The Leading Health Indicators are high-priority health issues in the United States that serve as measures of the Nation's health. Each month healthypeople.gov displays one or more infographics to visually communicate the existing health disparities for the featured Leading Health Indicator Topic.

If you would like the monthly infographic and bulletin sent straight to your inbox, sign up for [Healthy People email updates](#).



Maternal, Infant, and Child Health

July 2013



Reproductive and Sexual Health

June 2013



Mental Health

May 2013



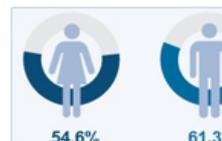
Substance Abuse

April 2013



Physical Activity, Nutrition, and Obesity

March 2013



Oral Health

February 2013



Access to Health Services

January 2013



Environmental Quality

December 2012

LHI Infographic Gallery

<http://www.healthypeople.gov/2020/LHI/infographicGallery.aspx>



New Training on Diabetes Agents

Preventing Adverse Drug Events

Individualizing Glycemic Targets Using Health Literacy Strategies



Introduction ▼

Chapter 1 ▼

Chapter 2 ▲

Chapter 3 ▼

Chapter 4 ▼

Chapter 4 Overview

Shared Decision-Making
with Patients

Applying Shared
Decision-Making

Key Points and
Knowledge Check

- *Preventing Adverse Drug Events:
Individualizing Glycemic Targets
Using Health Literacy Strategies*

- Earn continuing education credit
(CME, CNE, CEU, CPE)

- Available on the training tab of
www.health.gov



Healthy People 2020 Progress Review Webinar

Please join us as we review select
Healthy People 2020 objectives in the
Environmental Health and Tobacco Use
topic areas.

Friday, December 5, 2014

Hear from a community-based
organization that is
working to improve outcomes
in the community.



To register, visit:
www.healthypeople.gov



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Healthy People 2020



YOUTUBE

ODPHP (search “healthy people”)



Healthy People 2020 Sharing Library

A library of stories highlighting ways organizations across the country are implementing Healthy People 2020

HealthyPeople.gov

Search HealthyPeople.gov: Go Find us on: [Twitter](#) [LinkedIn](#) [Facebook](#) [YouTube](#) [Get E-mail Updates](#)

Home About Healthy People 2020 Topics & Objectives Data Learn **Implement** Get Involved Leading Health Indicators

Home > Implement > Healthy People in Action > Sharing Library: Map View

In This Section:

- Evidence-Based Resources
- Healthy People in Action
 - Sharing Library
 - Share Your Story
 - State Plans
- MAP-IT
 - Mobilize
 - Assess
 - Plan
 - Implement
 - Track
- Planning Resources
- Funding Resources
- Tools For Professionals*

Sharing Library: Map View

Find stories highlighting how communities across the country are implementing Healthy People 2020—or [share your own!](#) Stories featured here have been submitted by communities (“Story from the Field”) or developed as part of the Healthy People 2020 *Who’s Leading the Leading Health Indicators?* series. [Learn more about the Leading Health Indicators.](#)

Use the **Map View** to see where stories are taking place across the country. Click on a pin on the map to get more details on the story, including organization name and zip code and Healthy People 2020 Topic Area addressed. Click on the story title to view the full story.

Map View List View

Map Satellite

United States

Healthy People 2020 in Action

- Who’s Leading the Leading Health Indicators? series
- Stories from the Field

Healthy People in Action - Sharing Library

<http://healthypeople.gov/2020/implement/MapSharingLibrary.aspx>



Healthy People 2020 Progress Review Planning Group

- Ed Greg (CDC/NCCDPHP)
- Desmond Williams (CDC /NCCDPHP)
- Paul Eggers (NIH/NIDDK)
- Lawrence Agodoa (NIH/NIDDK)
- Peter Savage (NIDDK/NIH)
- Nilka Rios Burrows (CDC/NCCDPHP)
- Sharon Saydah (CDC/NCCDPHP)
- Stan Lehman (CDC /NCCHSTP)
- Denise Stredrick (NIH/OD)
- Rebecca Hines (CDC/NCHS)
- Leda Gurley (CDC/NCHS)
- Asel Ryskulova (CDC/NCHS)
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