Type 2 Diabetes - Disparities in Care

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I have no disclosures

Objectives

- Review the incidence and prevalence of DM in racial and ethnic minorities
- Evaluate factors and causes of health disparities in diabetes
- Review the impact of health disparities in diabetes management, its complications, and outcomes
- Discuss strategies to reduce the effect of health disparities in diabetes

“Of all the forms of inequality, injustice in health care is the most shocking and inhumane”

Martin Luther King Jr.

What is health disparity?

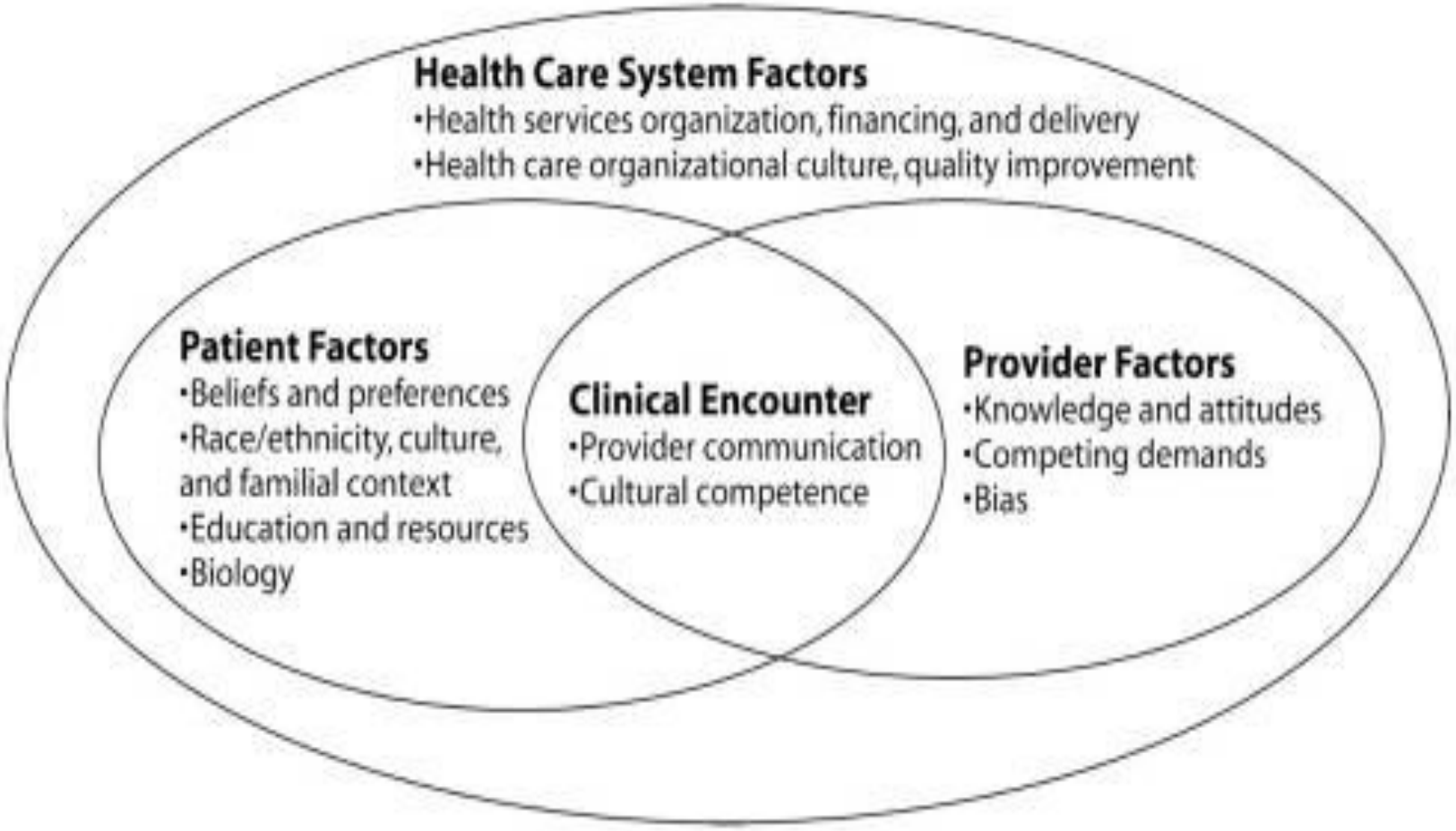
- **In 2000, United States Public Law 106-525,also known as " Minority Health and Health Disparities Research and Education Act" which authorized the National Center for Minority Health and Health Disparity, provided a legal definition of health disparities:**

"A population is a health disparity population if there is a significant disparity in the overall rate of disease incidence, prevalence, morbidity, mortality, or survival rate of the populations as compared to the health status of the general population"[1]

- **" Population-specific differences in the presence of disease, health outcomes, or access to health care " (HRSA definition)**
- **" A difference in which disadvantaged social groups such as the poor, racial/ethnic minorities, women, and other groups who have persistently experienced social disadvantage or discrimination systematically experience worse health or greater health risk than more advantaged social groups "[2,3]**

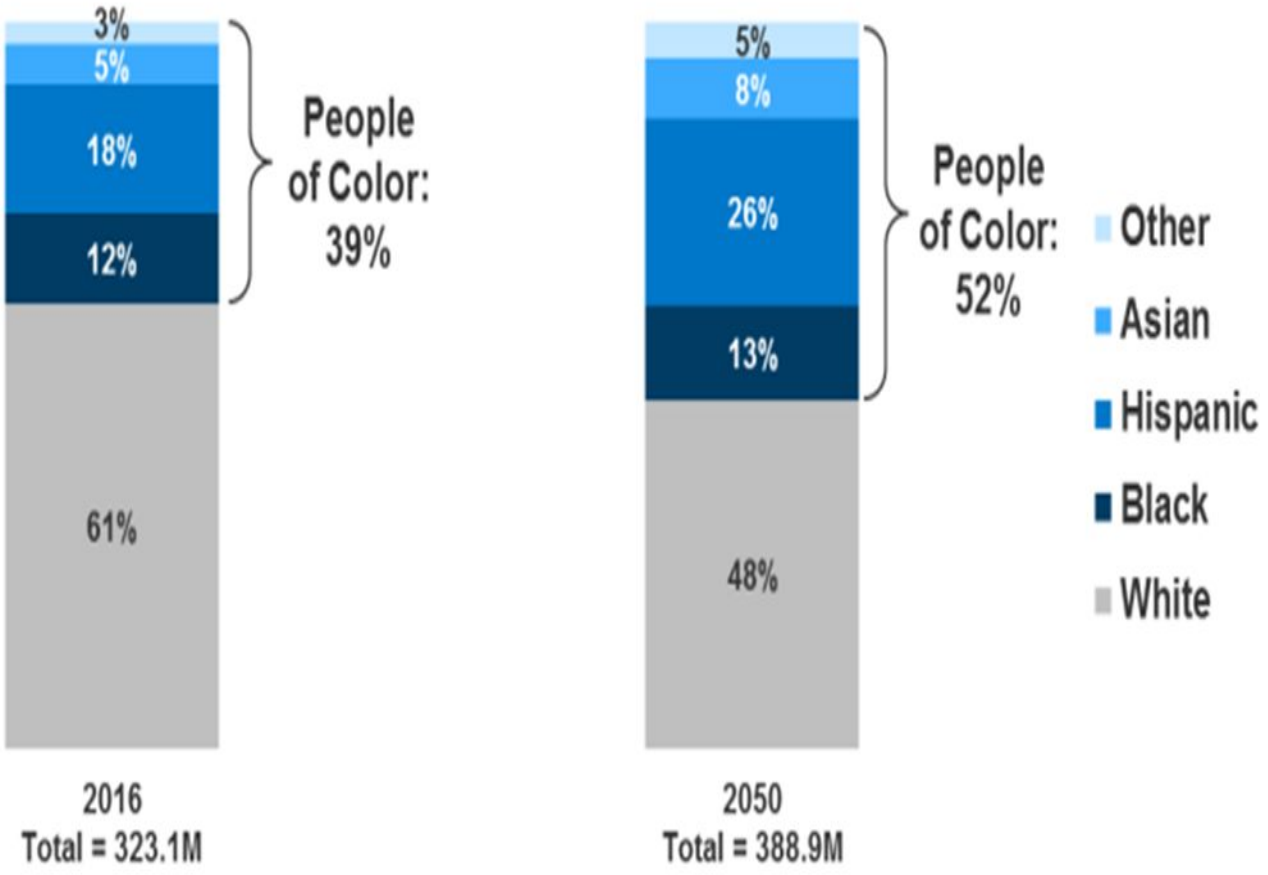
[1]Minority Health and Health Disparities Research and Education Act. United States Public Law 106-525 (2000),p. 2498
[2]Braveman P. "International Perspective on Health Disparities and Social Justice". Ethnicity and Disease. Vol7.Spring 2007
[3]Braveman P. "An approach to studying social disparities in health and health care ". American Journal of Public Health.12/2004;94:12

Determinants of health disparities



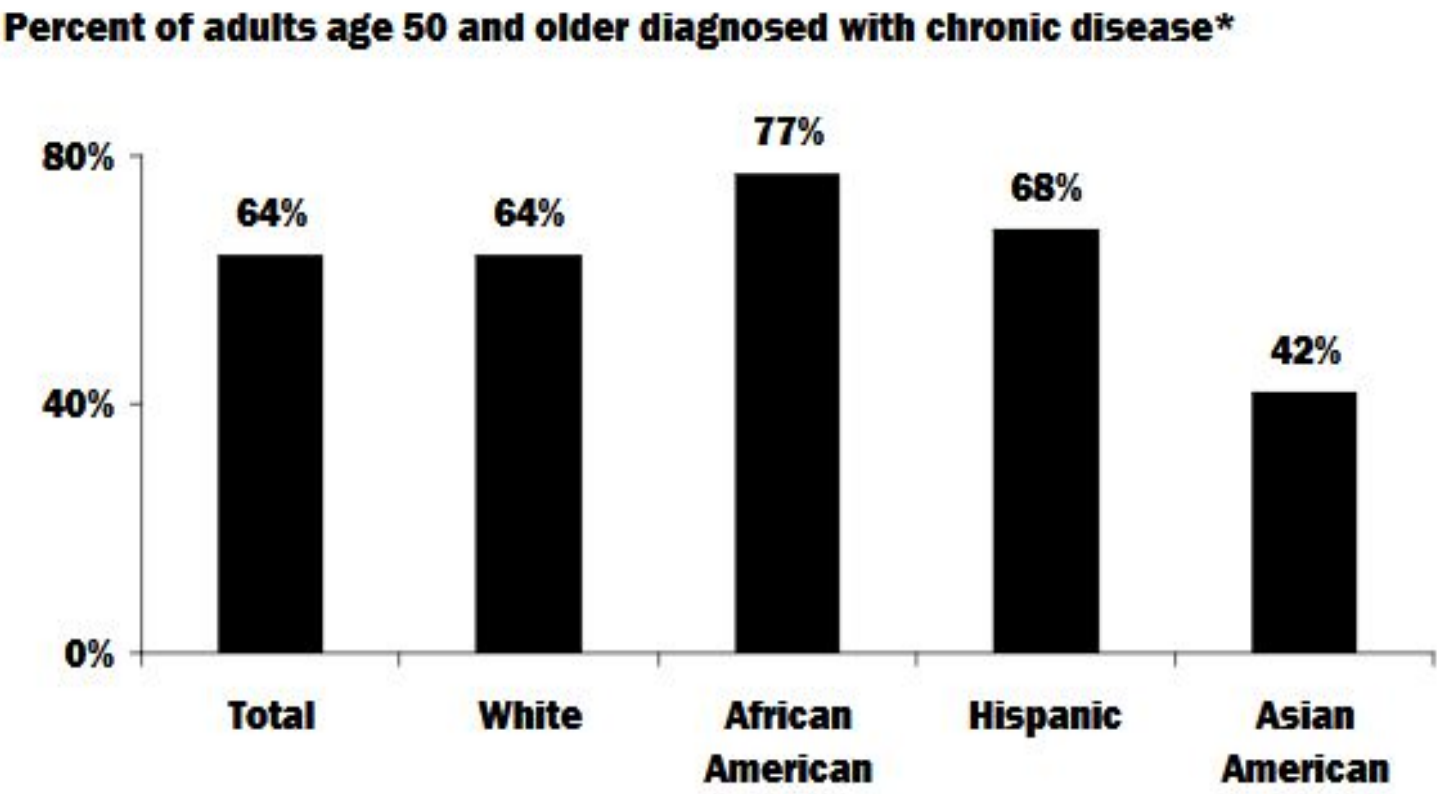
Kilbourne AM. Am J Public Health;2006;96:2113-2121

Distribution of the US population by race/ethnicity 2016-2050



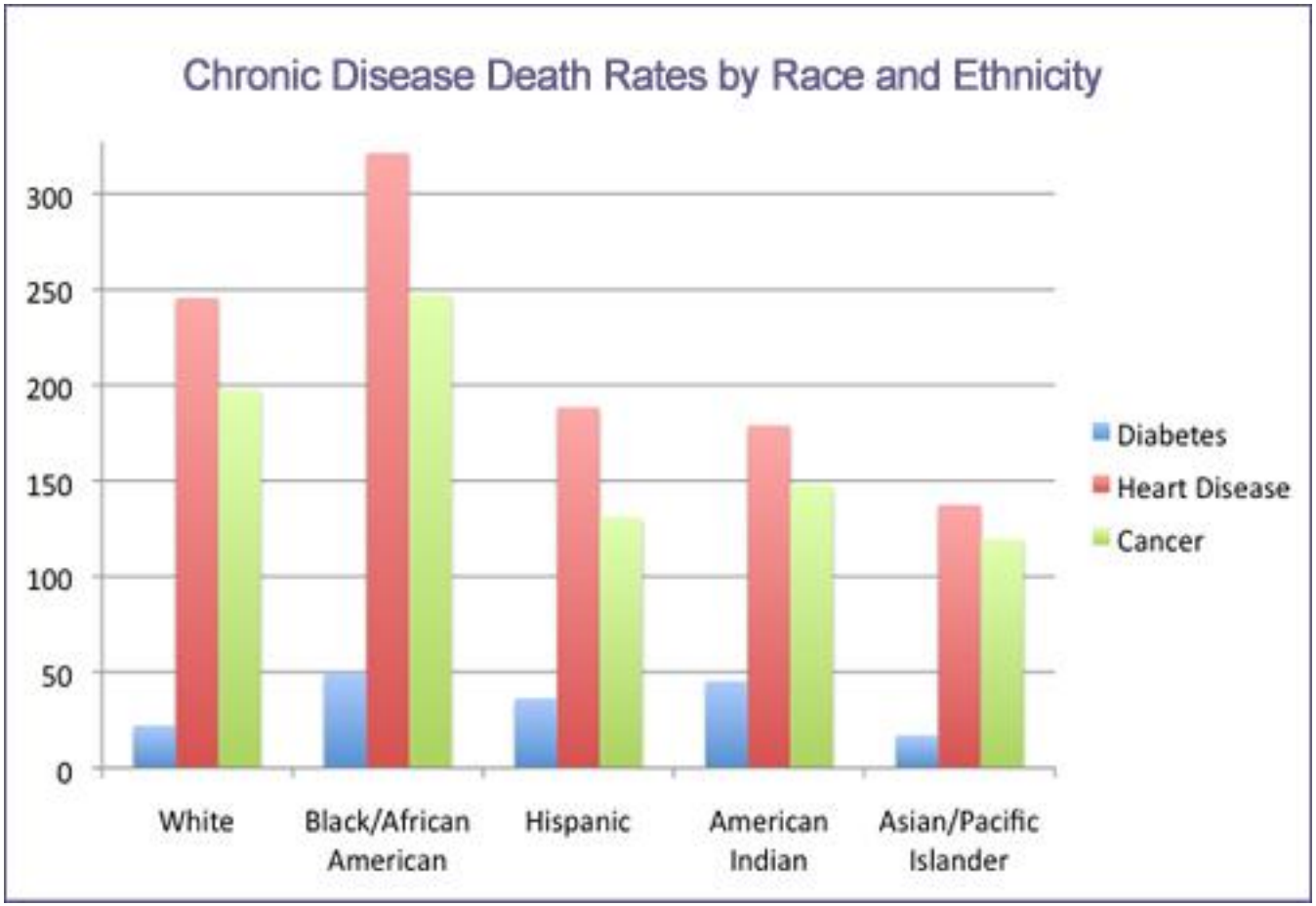
Source: US Census Bureau 2017 National Population Projections. Race by Hispanic Origin. Available at https://www.census,gov.data/tables/2017/demo/popproj/2017-summary-tables.html

Chronic disease in adults, by race and ethnicity

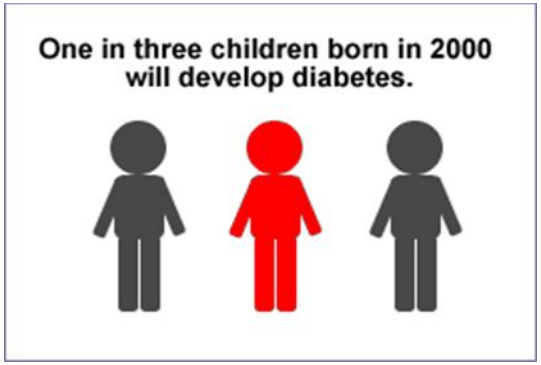


Collins KC 2002.Diverse communities, common concerns: Assessing healthcare quality for minority Americans. New York: The Commonwealth Fund

Chronic disease death rates by race and ethnicity



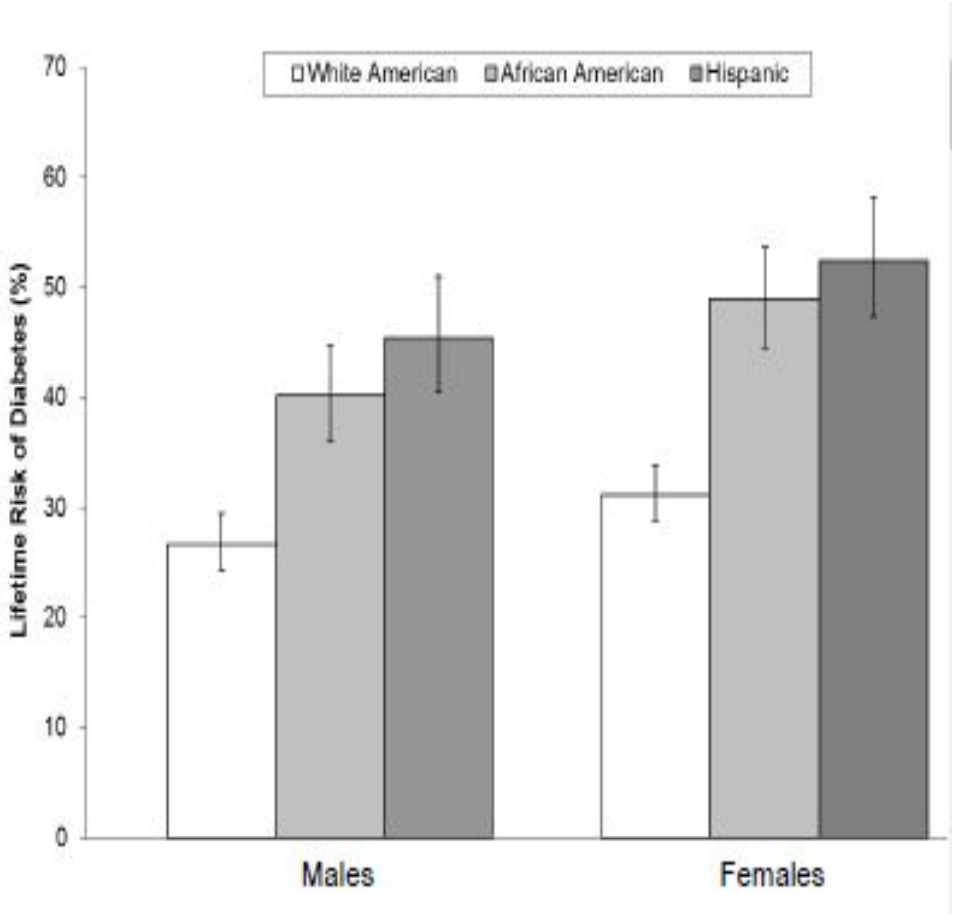
Source: The Burden of Chronic Diseases and Their Risk Factors (CDC



Which race /ethnicity will develop the highest rate of diabetes?

- **Black/African American Children**
- **White children**
- **Hispanic children**

Lifetime risk of developing diabetes among individuals born in the US in 2000



Katzmarzyc P. BMC Medicine 2012 ,10/42. htpp://www.biomedcentral/7041-7015/10/42

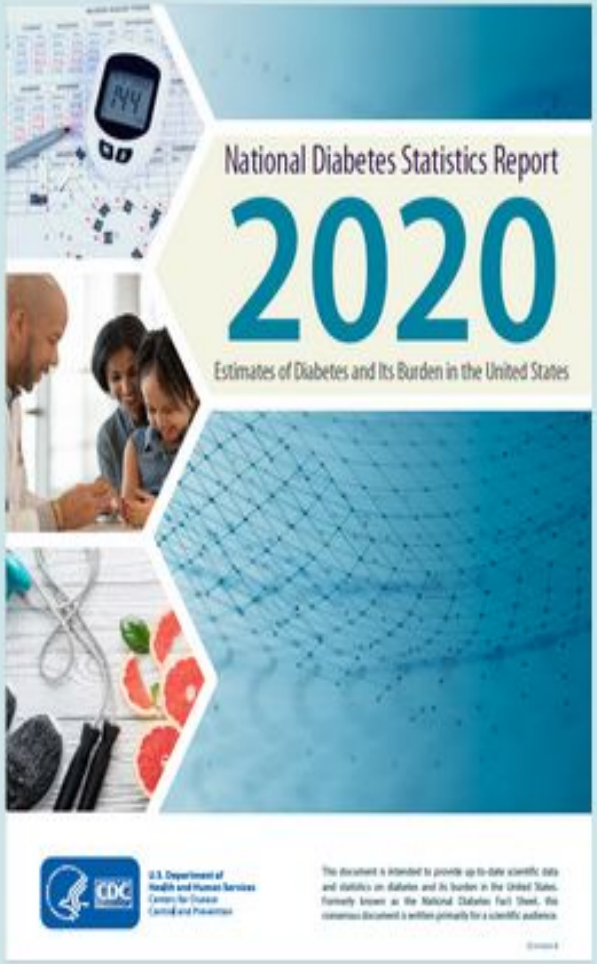
Fast Facts on Diabetes

Diabetes

- **Total:** 34.2 million people have diabetes (10.5% of the US population)
- **Diagnosed:** 26.9 million people, including 26.8 million adults
- **Undiagnosed:** 7.3 million people (21.4% are undiagnosed)

Prediabetes

- **Total:** 88 million people aged 18 years or older have prediabetes (34.5% of the adult US population)
- **65 years or older:** 24.2 million people aged 65 years or older have prediabetes



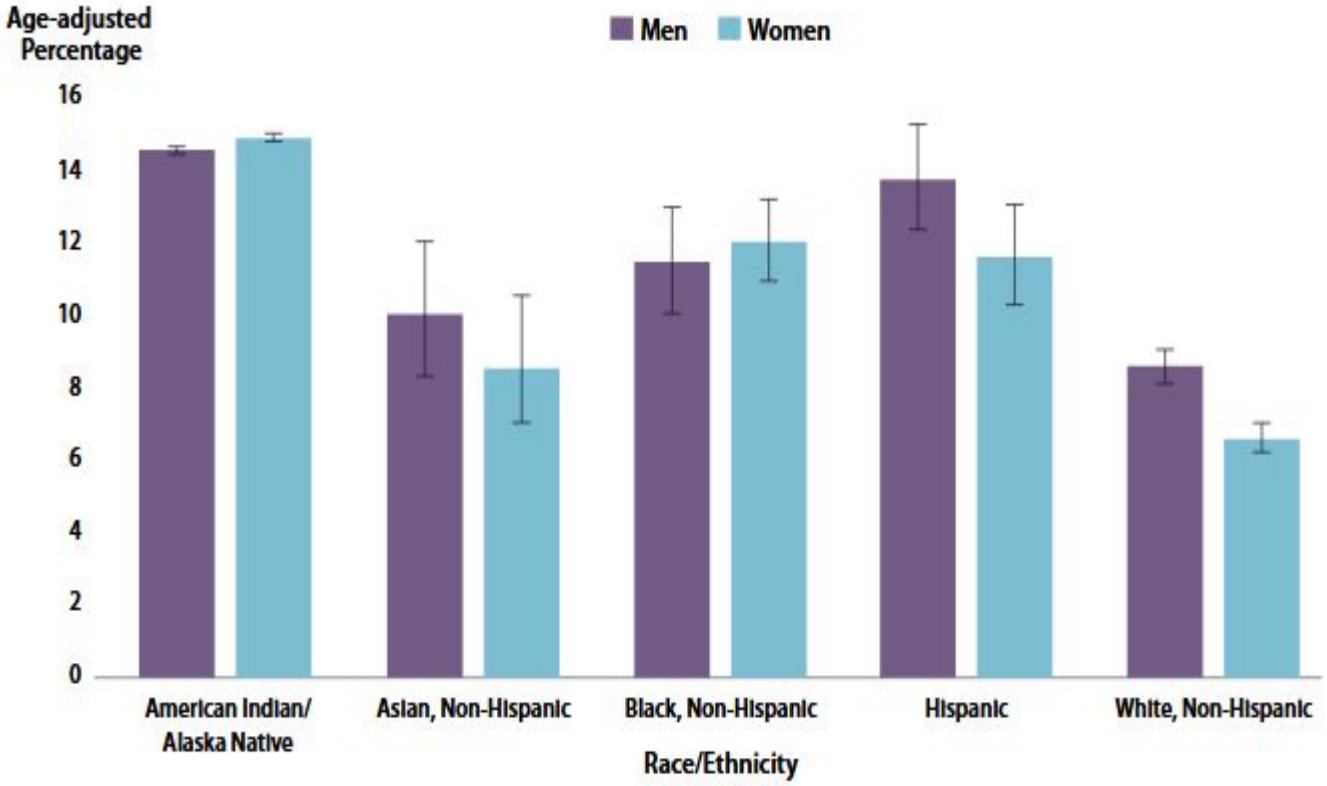
Centers for Disease Control and Prevention. National Diabetes Statistics Report, 2020. Atlanta, GA Centers for Disease Control and Prevention, U.S. Dept. of Health and Human Services; 2020.

Incidence of diagnosed diabetes among adults US 2017-2018

Characteristic	Population Estimates, 2018[a] Number in thousands (95% CI)	Incidence Estimates, 2017–2018 Rate per 1,000 (95% CI)
Total	**1,483 (1,289–1,677)**	**6.9 (5.8–8.3)[b]**
Age in years		
18–44	452 (343–561)	4.3 (3.2–5.9)[b]
45–64	706 (571–840)	9.9 (7.6–12.8)[b]
≥65	326 (253–398)	8.8 (6.5–11.9)[b]
Sex		
Men	745 (614–875)	7.3 (5.8–8.3)[b]
Women	738 (601–876)	6.6 (5.1–8.4)[b]
Race/ethnicity		
White, non-Hispanic	786 (666–906)	5.4 (4.6–6.3)
Black, non-Hispanic	213 (148–279)	7.9 (5.9–10.8)
Asian, non-Hispanic	97 (58–137)	7.2 (4.8–10.8)
Hispanic	334 (204–464)	9.0 (6.1–13.3)

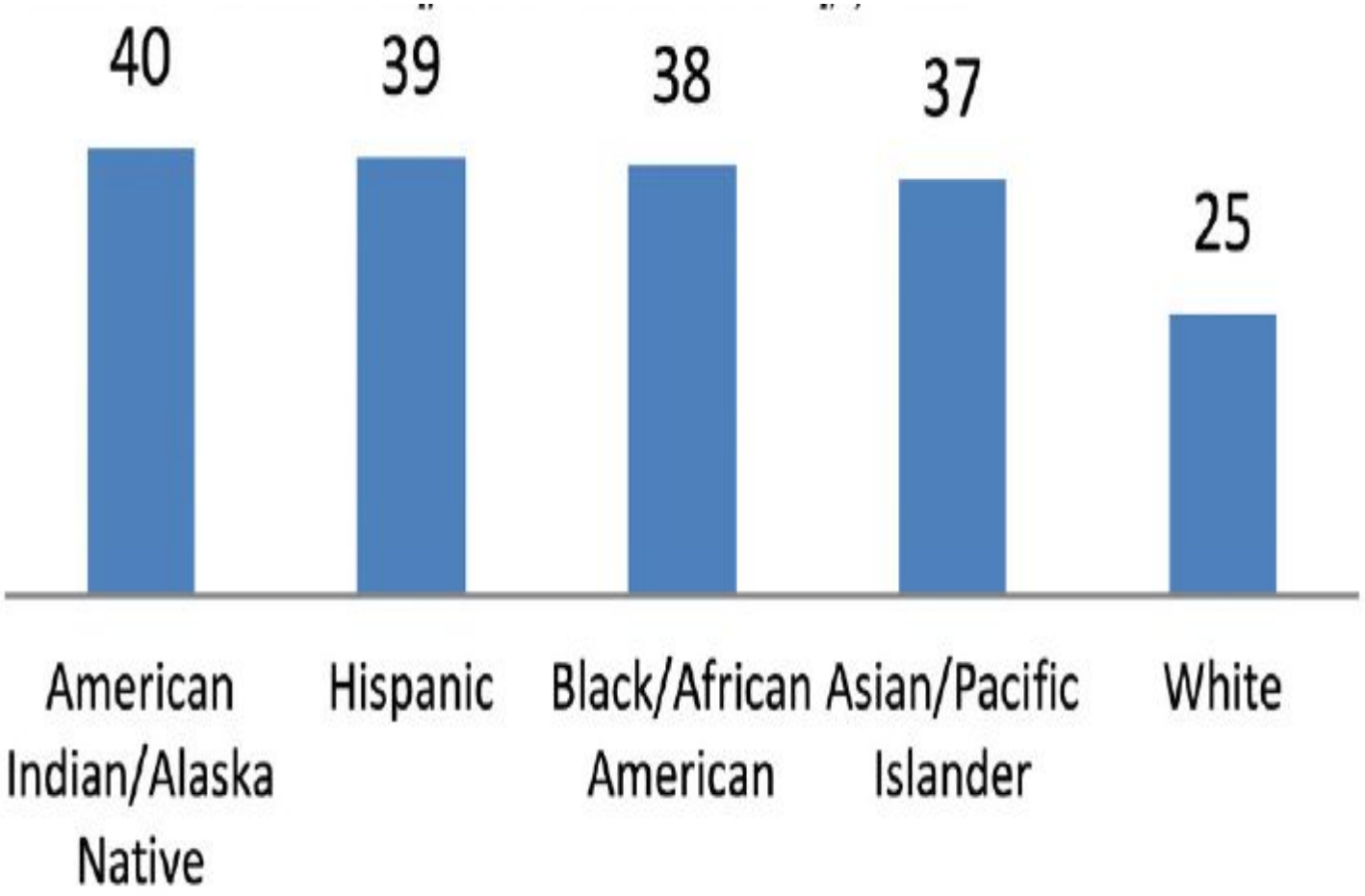
Center for Disease Control and Prevention. National Diabetes Statistics Report 2020.Atlanta, GA. Center for Disease Control and Prevention. US Dept. of Health and Human Services-2020

Prevalence of diagnosed diabetes by race/ethnicity group and sex, adults US 2017-2018



Center for Disease Control and Prevention. National Diabetes Statistics Report 2020.Atlanta, GA. Center for Disease Control and Prevention. US Dept. of Health and Human Services-2020

Prevalence of diabetes among Medicare beneficiaries by race/ethnicity, 2017



Centers for Medicare and Medicaid Services - Data Snapshot, June 2020

Facts about diabetes in minorities 2016-2017

- **African Americans were:**

2 x as likely as whites to die form diabetes

3.5 x more likely to be diagnosed with ESRD as compared to whites

2.3 x more likely to be hospitalized for lower limbs amputations as compared to whites

- **Hispanics were:**

1.7 x more likely than whites to die from diabetes

2.5 x likely to be hospitalized for ESRD related to diabetes, as compared to whites

- **American Indians/Native Americans were:**

2.5 x more likely than whites to die from diabetes

2.4 x more likely to be diagnosed with ESRD than whites

- **Asian Americans were:**

8 x more likely to be diagnosed with ESRD than whites

Source: National Healthcare Quality and Disparities Reports.
http://nhqrnet.ahrq.gov/inhqrdr/data/query
US Dept. of Heath and Human Services-Office of Minority Health

Diabetes Health Disparities

- **Racial and ethnic minorities have a disproportionate burden of diabetes**
- **Racial and ethnic minority patients have:**

- **Higher prevalence of the disease**
- **Worse metabolic control**
- **Higher rates of complications**
- **Underuse of evidence-based therapies**

The causes of health disparities in diabetes

- *Inadequate Access to Care*

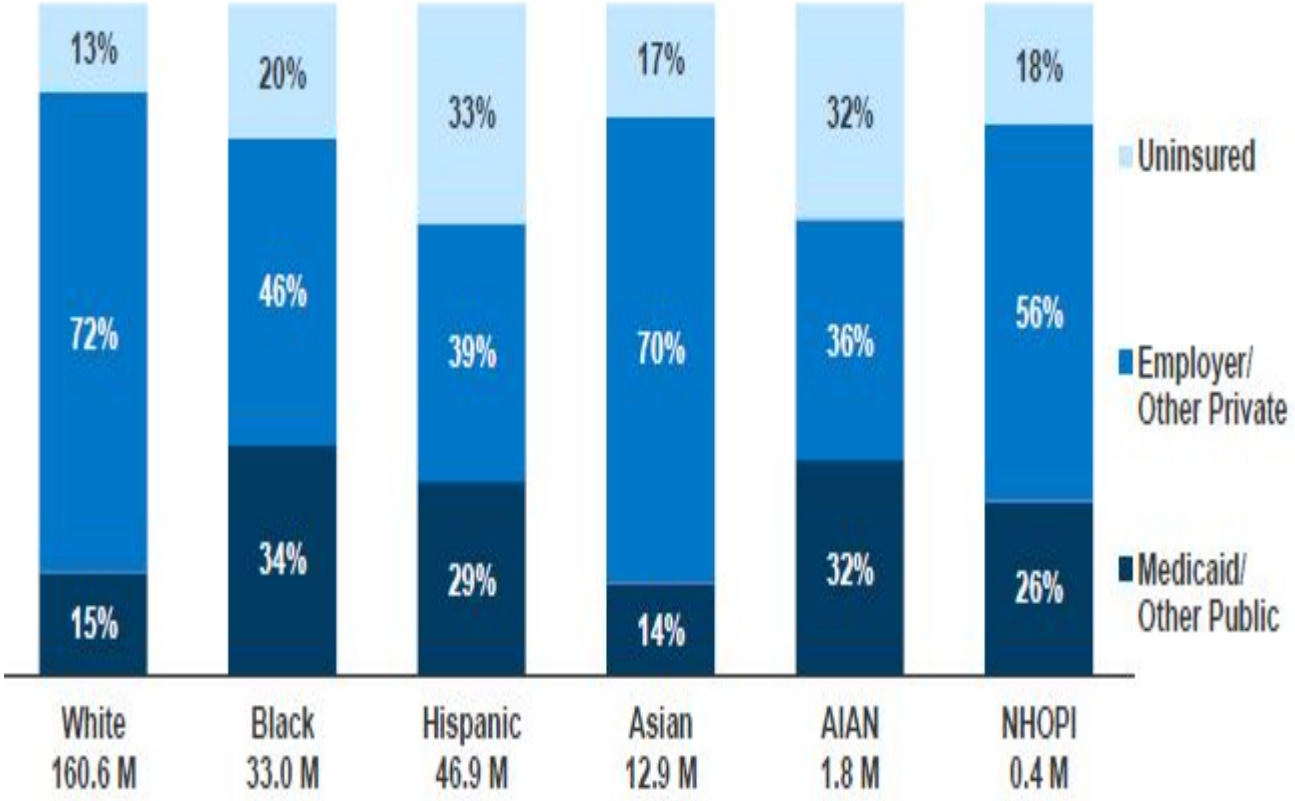
- *Substandard Quality of Care*

Racial and ethnic disparities in access to and utilization of care among insured adults

ES Table 1: Differences in How Black and Hispanic Adults Fare Relative to Whites with Same Coverage Type for Selected Measures of Access, Utilization, and Financial Confidence						
	Uninsured		Medicaid Enrollees		Privately Insured	
	Black compared to White	Hispanic compared to White	Black compared to White	Hispanic compared to White	Black compared to White	Hispanic compared to White
Access to Care						
Usual Source of Care					Worse	Worse
Regular Provider					Worse	Worse
Postponing/Going without Care		Better		Better		
Postponing/Going without Care Due to Cost	Better	Better			Better	
Utilization of Care						
Use of Medical Services						Worse
Use of Preventive Services		Better				Worse
Confidence in Ability to Afford Medical Costs						
Usual Medical Costs				Worse	Worse	Worse
Major Medical Costs				Worse	Worse	Worse

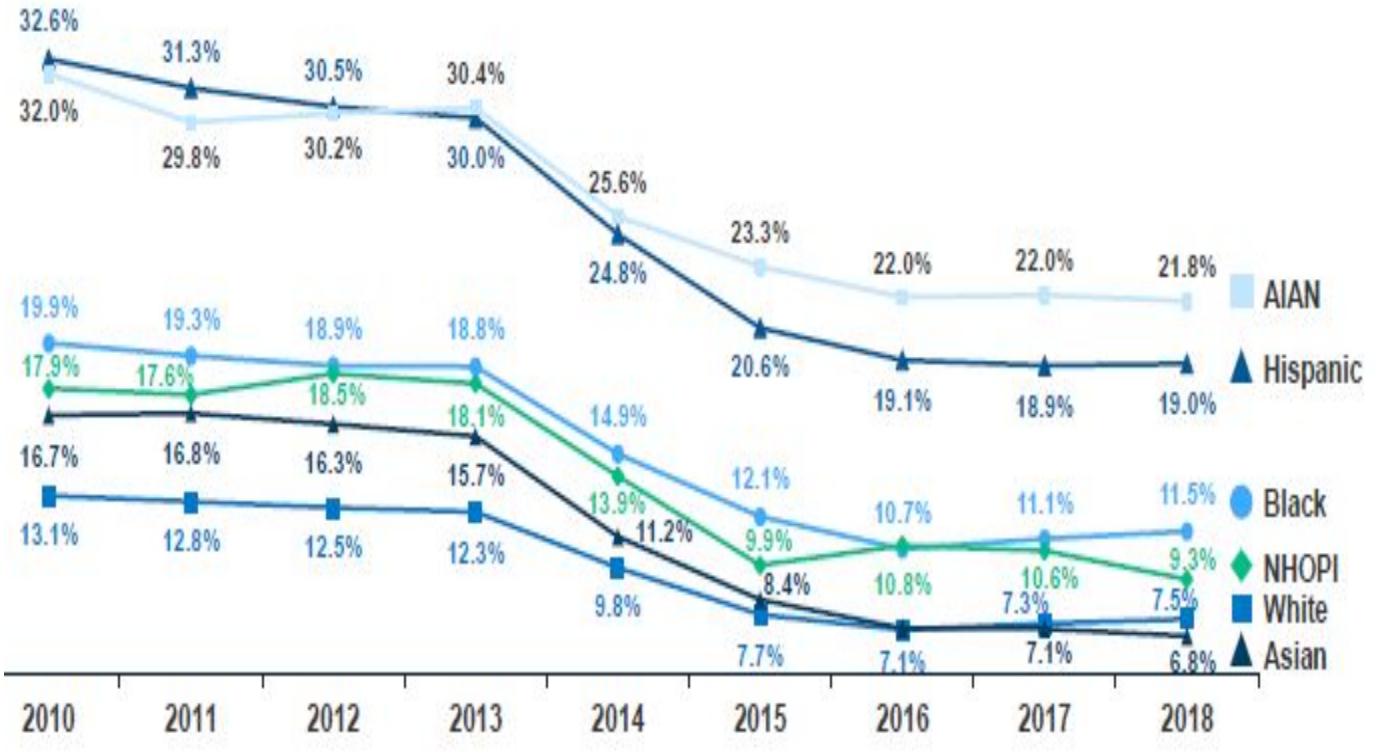
Artiga S. August 6, 2015. The Kaiser Commission on Medicaid and the Uninsured

Healthcare coverage in nonelderly individuals by race/ethnicity, 2010



Artiga S. Changes in health care coverage by race and ethnicity since ACA 2010-2018 March 2020 Issue Brief- KFK

Uninsured rates for the nonelderly population by race/ethnicity, 2010-2018



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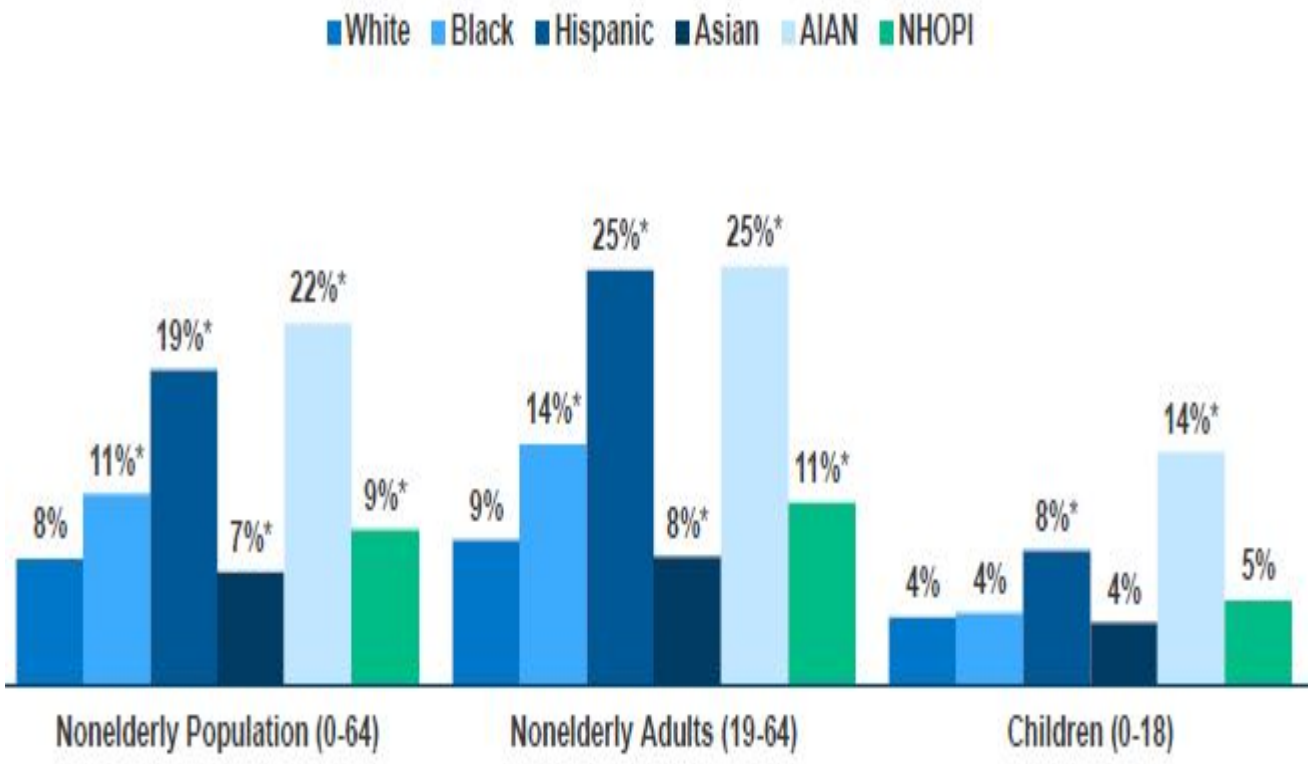
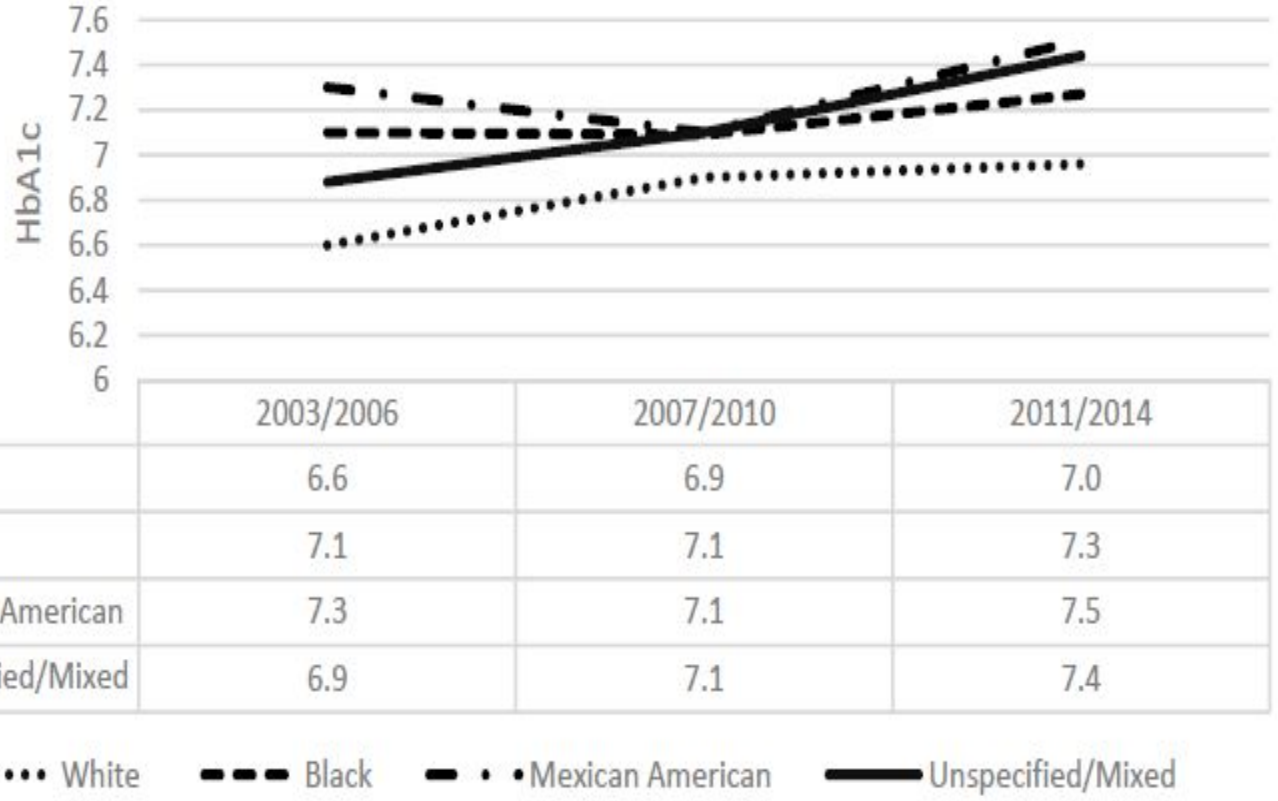
Uninsured rates among nonelderly individuals, by race/ethnicity, 2018



Artiga S. Changes in healthcare coverage by race /ethnicity since ACA 2010-2018 March 2020 Issue Brief-KFF

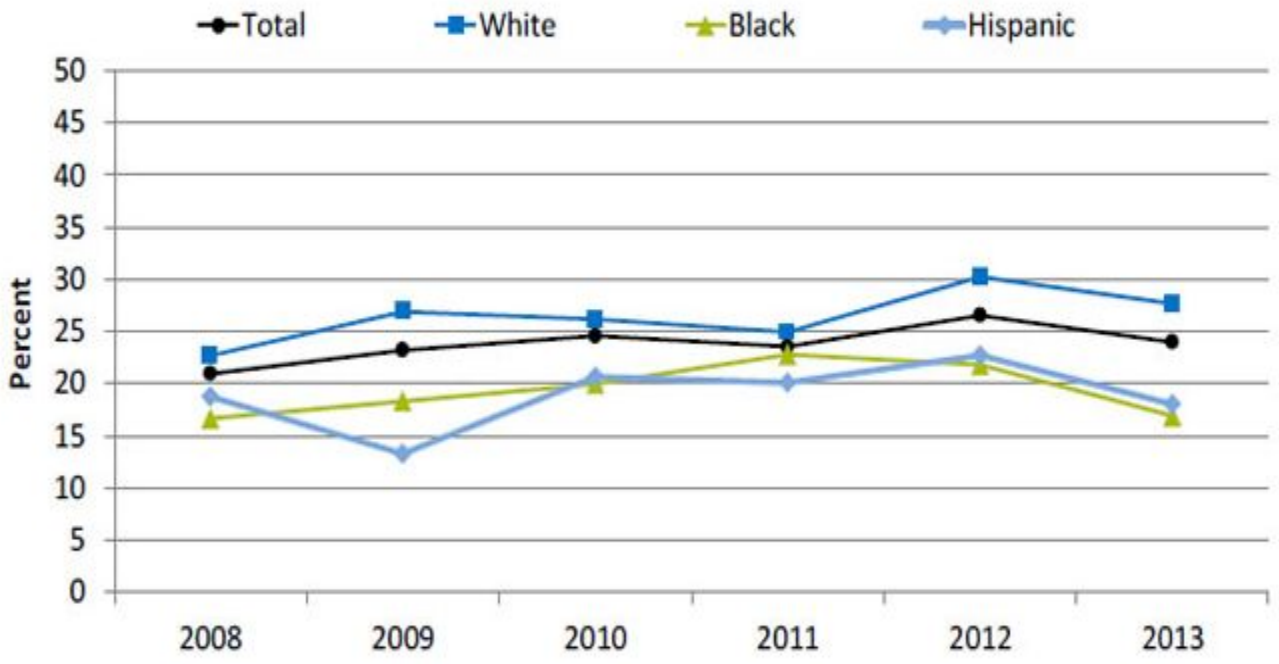
Mean HgbA1c by race/ethnicity NHANES 2003-2014



	2003/2006	2007/2010	2011/2014
White	6.6	6.9	7.0
Black	7.1	7.1	7.3
Mexican American	7.3	7.1	7.5
Unspecified/Mixed	6.9	7.1	7.4

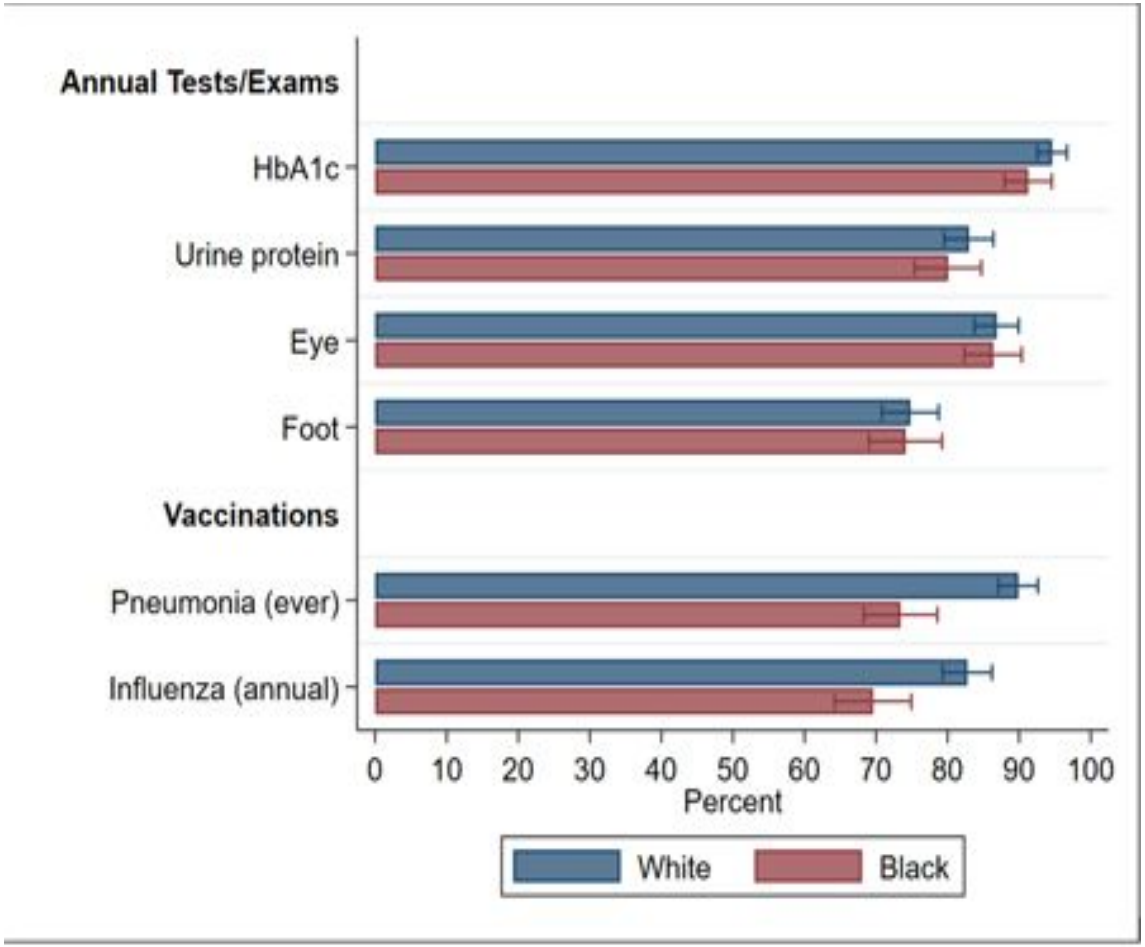
Smalls B. Int. J. Environ, Res. Public Health 2020, 17:950

Adults ≥ 40 years old with diagnosed diabetes who received all four recommended services for diabetes in a calendar year (≥2Hgb A1c tests, foot exam, dilated eye exam, and flu shot), by race/ethnicity, 2008-2013



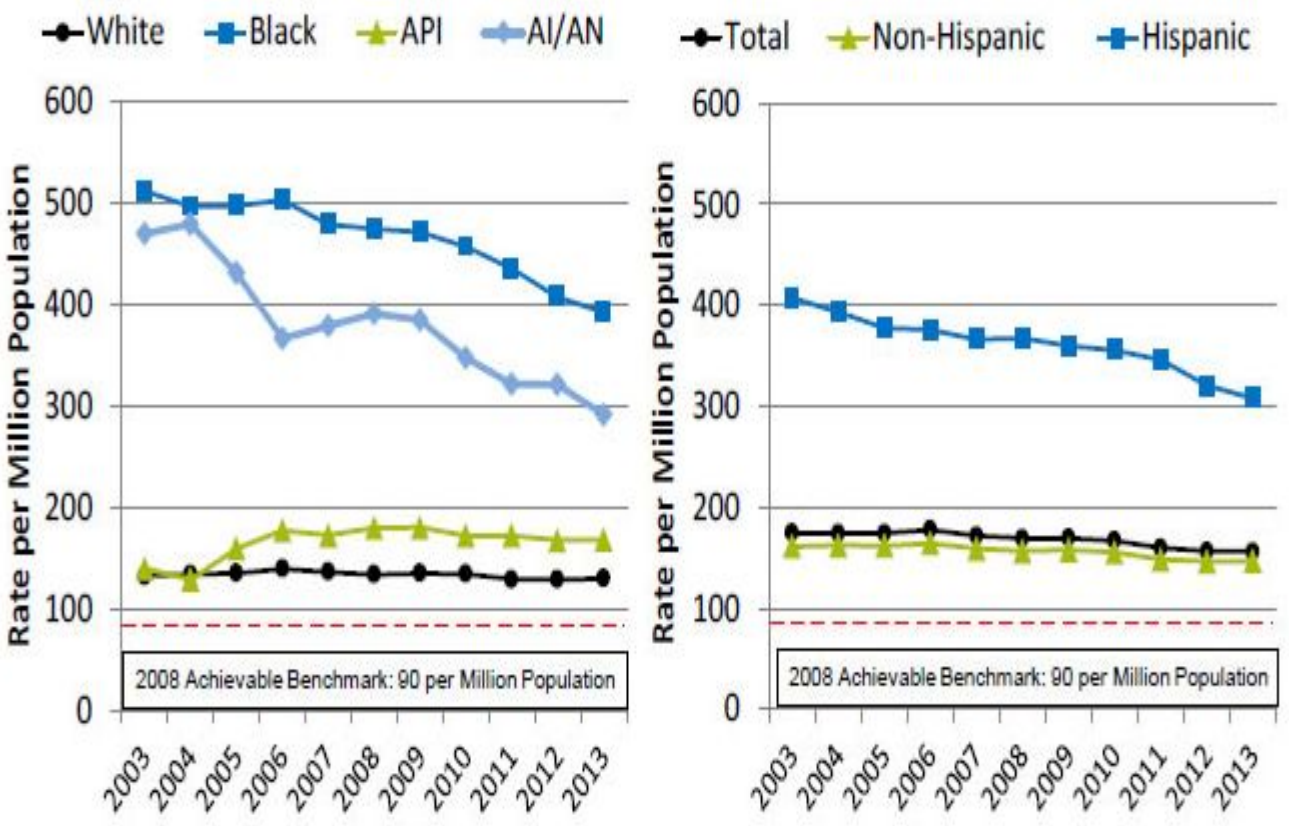
Agency for Healthcare Research and Quality, Rockville, MD.
https://www.ahrq.gov/research/findings/nhqrdr/chartbooks/effectivetreatment/diabetes.html

Racial differences in diabetes care practices



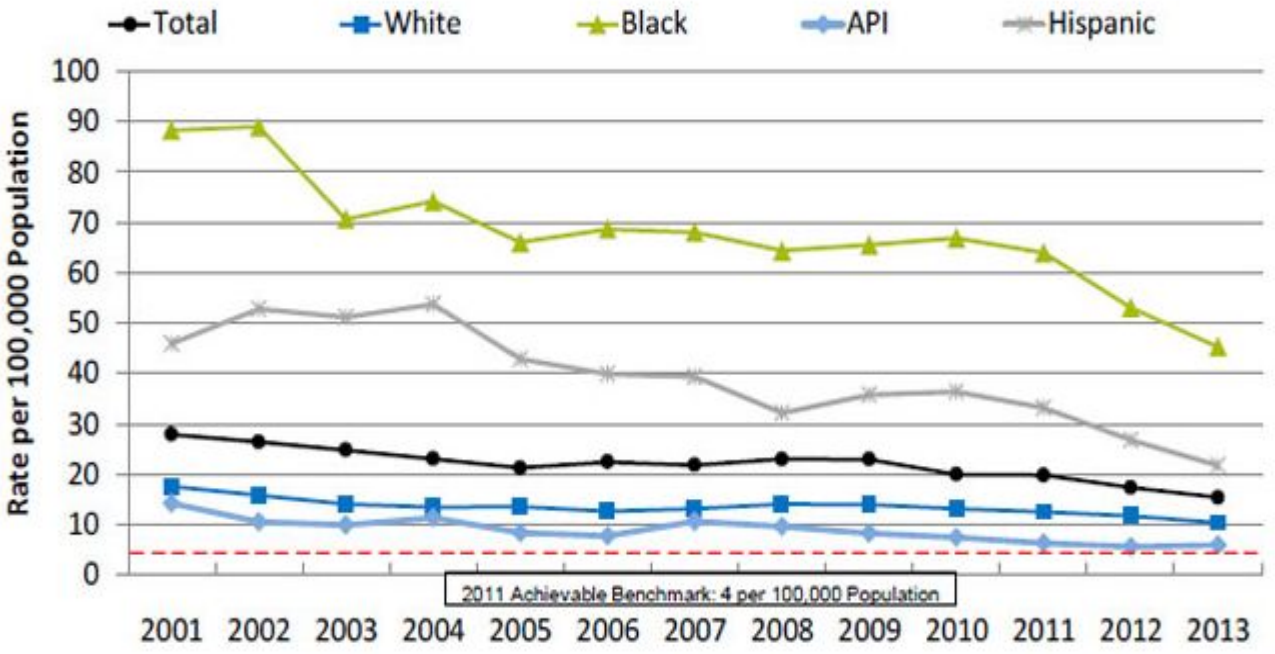
March 3, 2020 Vol 141, Issue Suppl -12 Mar 2020https://doi.org/10.1161/circ.141.suppl_1.P298Circulation. 2020;141:AP298

New cases of ESRD due to diabetes / million population, by race and ethnicity, 2003-2013



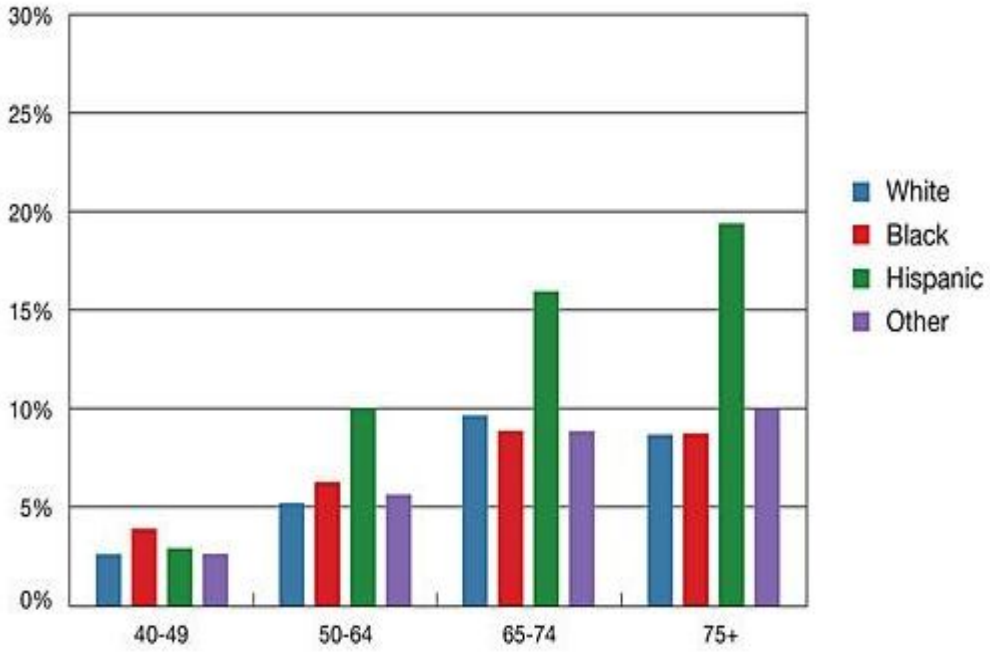
Agency for Healthcare Research and Quality, Rockville, MD.
https://www.ahrq.gov/research/findings/nhqrdr/chartbooks/effectivetreatment/diabetes.html

Hospitalizations for uncontrolled diabetes / 100,000 population, by race/ethnicity 2001-2013



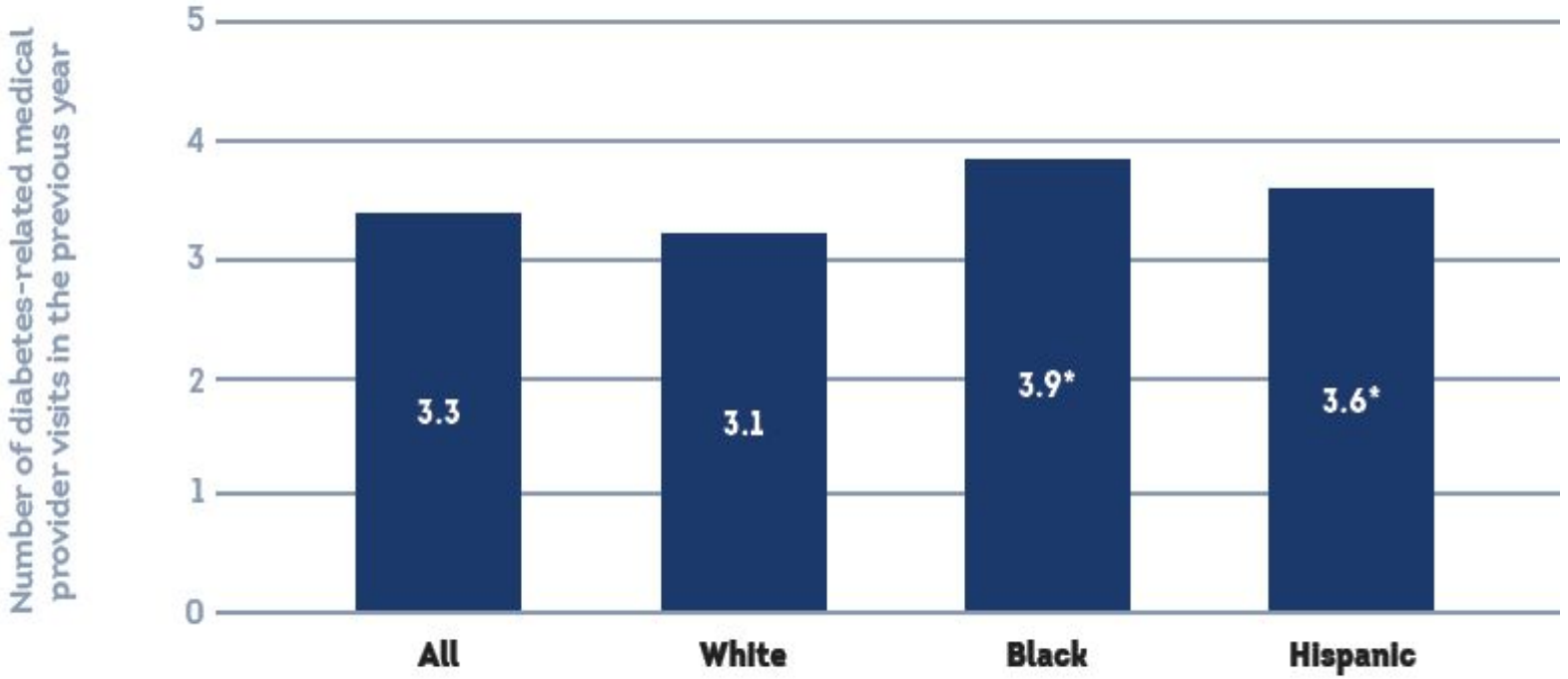
Agency for Healthcare Research and Quality, Rockville, MD.
https://www.ahrq.gov/research/findings/nhqrdr/chartbooks/effectivetreatment/diabetes.html

US prevalence rates for diabetic retinopathy by age, race/ethnicity



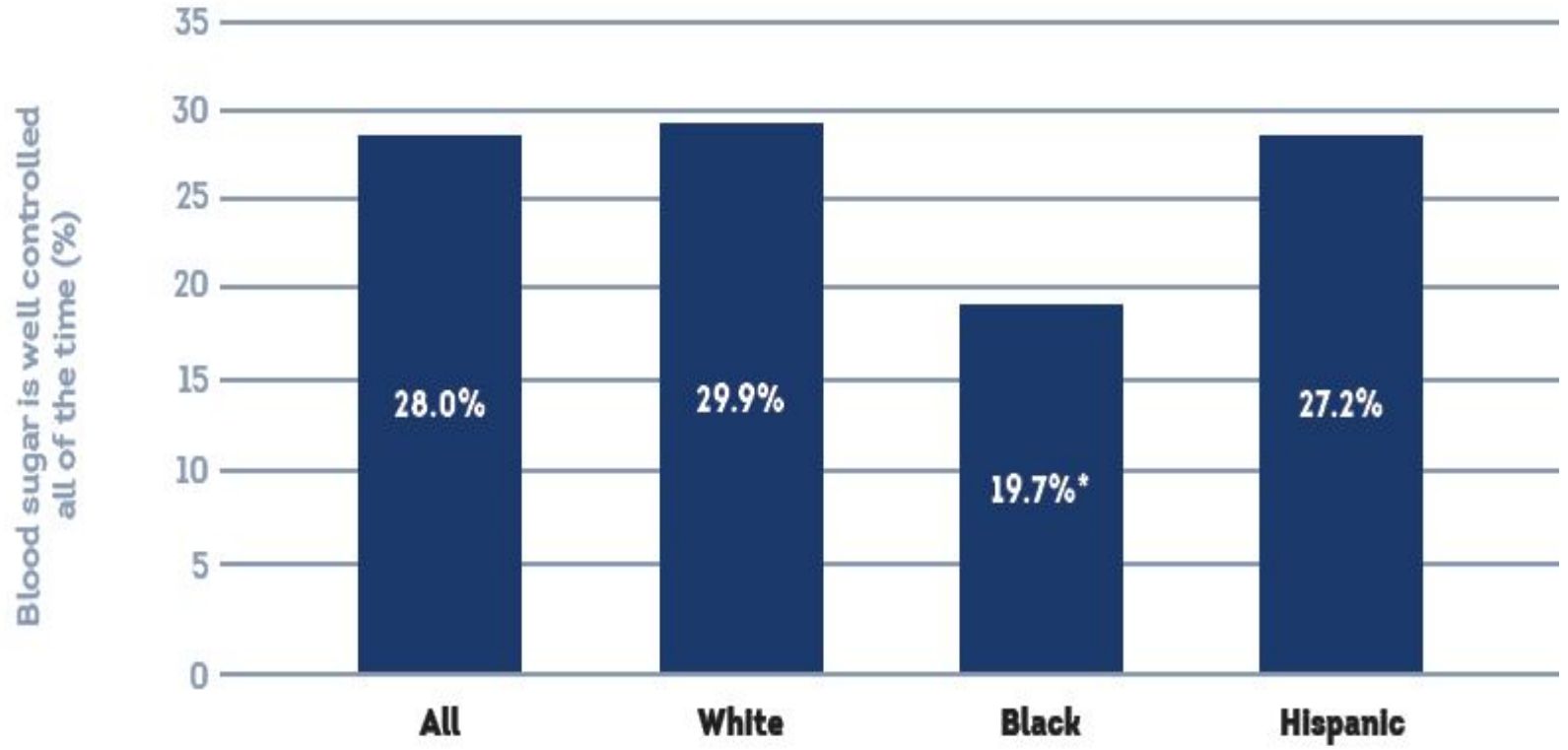
NIH – National Eye Institute: Diabetic Retinopathy Data and Statistics

Average number of diabetes related visit to a provider in the previous year, Medicare beneficiaries with self-reported diagnosed diabetes, by race and ethnicity



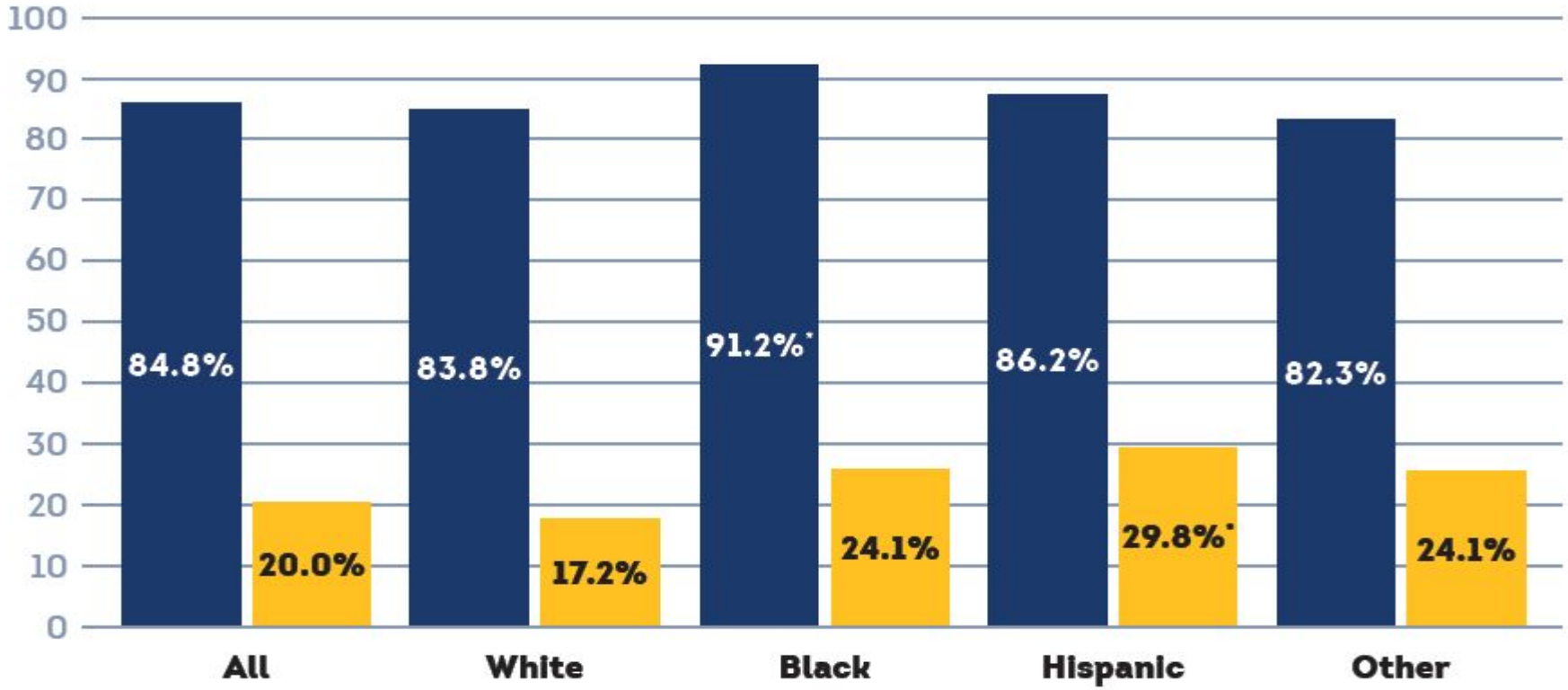
Source; 2012 Medicare Current Beneficiary Survey - Access to Care
Centers for Medicare and Medicaid Services. Data Highlight No. 6 / March 2017

% Medicare beneficiaries with self-reported diagnosed diabetes reporting their blood sugar is well controlled all of the time, by race/ethnicity



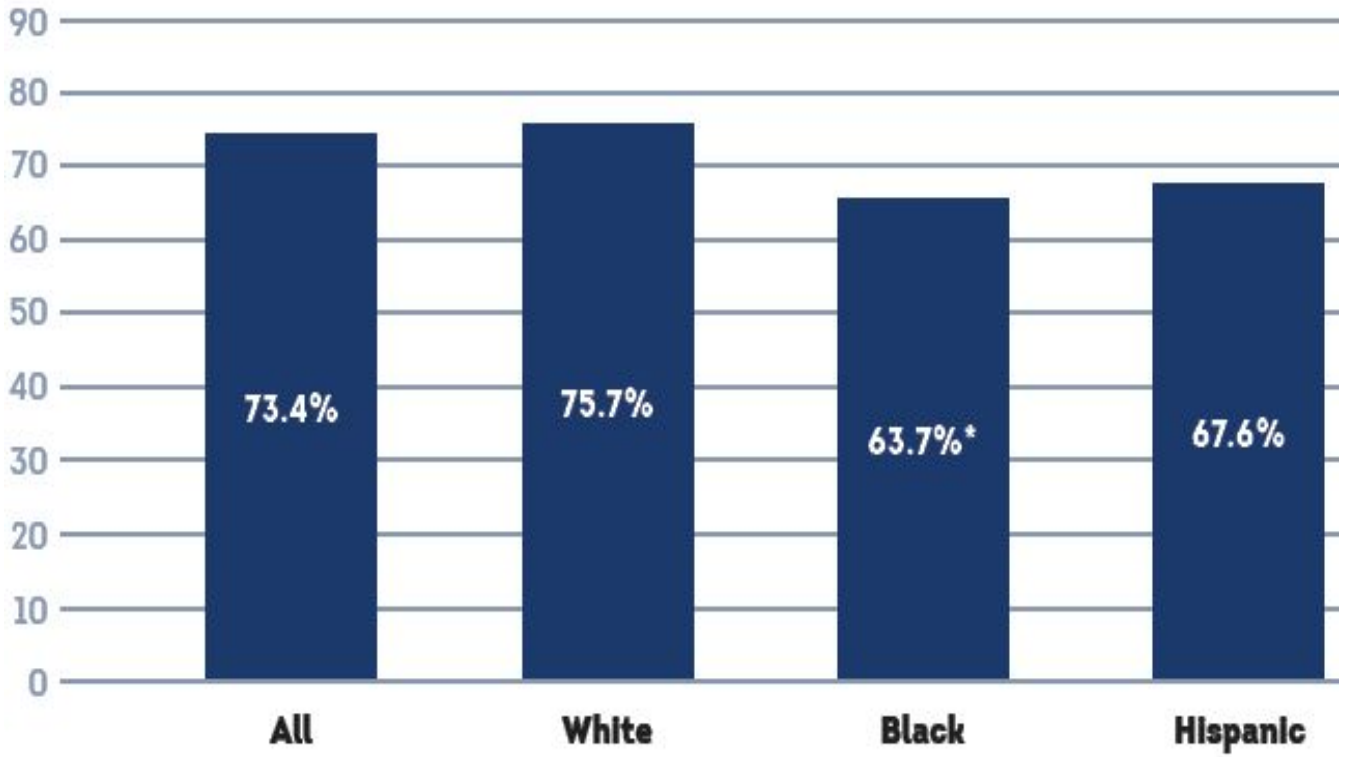
Source; 2012 Medicare Current Beneficiary Survey - Access to Care
Centers for Medicare and Medicaid Services. Data Highlight No. 6/ March 2017

% Medicare beneficiaries with self-reported diagnosed diabetes reporting high blood pressure and diabetes-related eye problems, by race/ethnicity



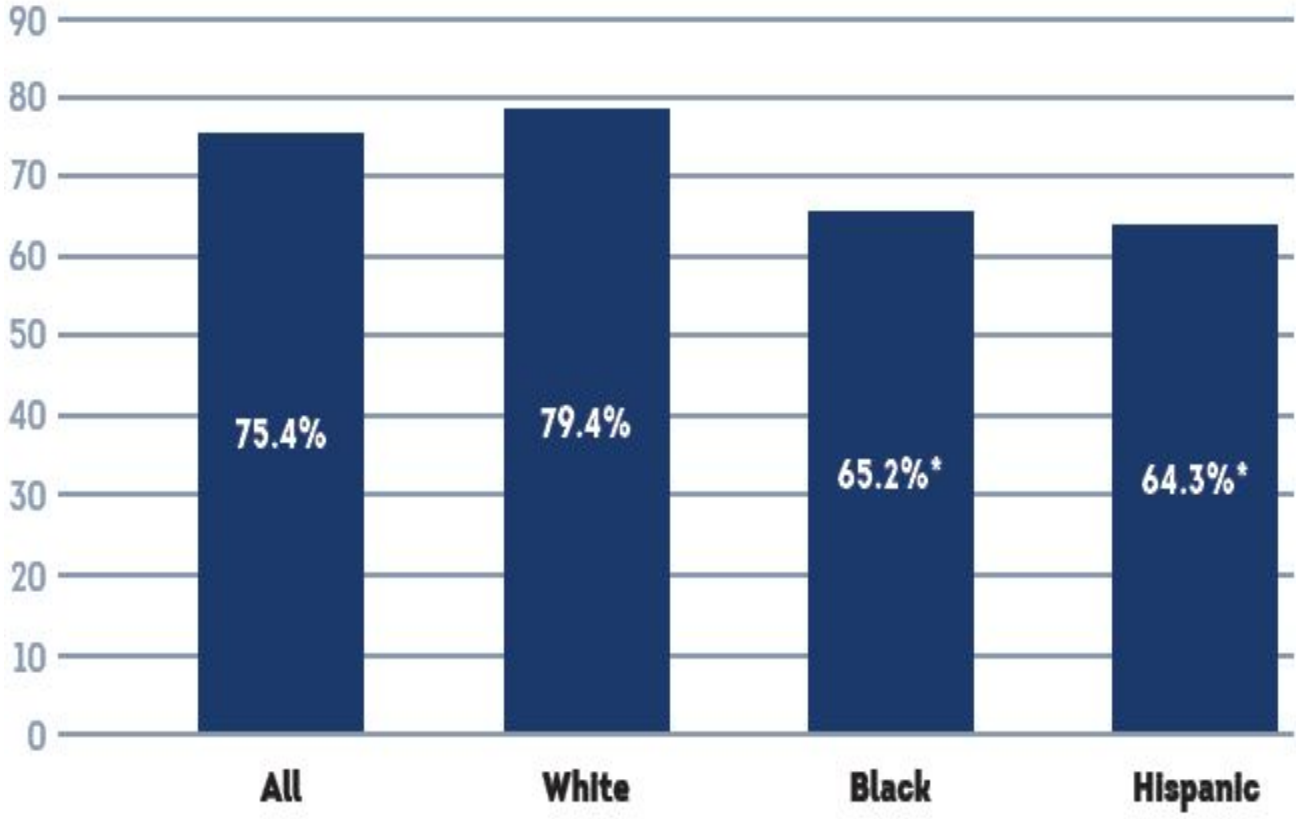
Source; 2012 Medicare Current Beneficiary Survey - Access to Care
Centers for Medicare and Medicaid Services. Data Highlight No. 6/ March 2017

% Medicare beneficiaries with self-reported diagnosed diabetes reporting they know most or just about everything necessary to manage their diabetes, by race/ethnicity



Source: 2012 Medicare Current Beneficiary Survey Access to Care
Centers for Medicare and Medicaid Services. Data Highlight No. 6 / March 2017

% Medicare beneficiaries with diabetes reporting they know Medicare helps pay for diabetes testing supplies and self-management education, by race /ethnicity



Source; 2012 Medicare Current Beneficiary Survey - Access to Care
Centers for Medicare and Medicaid Services. Data Highlight No. 6/ March 2017

Diabetes and population health

Recommendations:

- **Ensure treatment decisions are timely, rely on evidence-based guidelines, and care made collaboratively with patients based on individual preferences, prognosis, and comorbidities**

- **Align approaches to diabetes management with the chronic care model. This model emphasizes person-centered-team care, integrated long term care, treatment approaches to diabetes and comorbidities, and ongoing collaborative communication and goal setting between all team members**

- **Care systems should facilitate team-based care and utilization of patient registries, decision support tools, and community involvement to meet patients needs**

- **Assess diabetes health care maintenance, using reliable and relevant metrics to improve processes, of care and health outcomes, with simultaneous emphasis on care cost.**

Standards of Medical Care in Diabetes-Diabetes Care 2020;43(Suppl. 1)S7-S13

Tailoring treatment for social context

Recommendations:

- **Providers should assess social context, including potential food insecurity, housing stability, and financial barriers, and apply that information to treatment decisions**

- **Refer the patients to local communities resources when available**

- **Provide patients with self-management support from lay health coaches, navigators, or community health workers when available**

Standards of Medical Care in Diabetes-Diabetes Care 2020;43(Suppl. 1) S7-S13

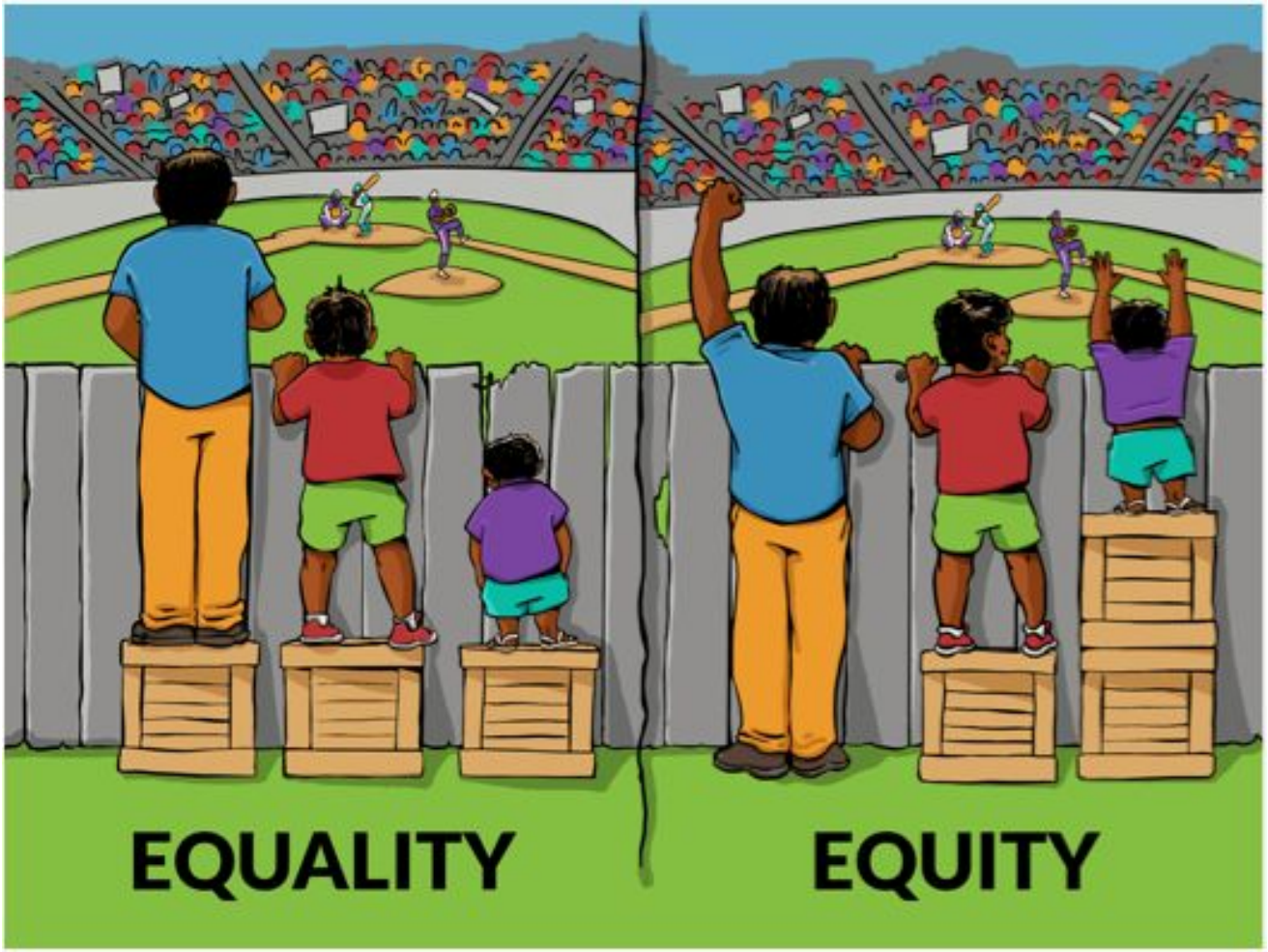
What can we, providers, do? Do our best!

- **Use resources available in your community**
- **Refer your patients for diabetes education**
- **Follow guidelines for diabetes management:**

- Check HgA1c quarterly or semi annually
- Annual micro-albumin / creatinine ratio
- Annual dilated eye exam
- Regular foot exam
- Follow immunization recommendations

Pharmacotherapy: if cost is an issue…. make it cheap and simple!

- Generics
- Oral agents combinations
- Human insulins are cheaper than insulin analogs
- Mixed insulins
- Pharma Assistance Programs



"The route to achieving **equity** will not be accomplished through treating everyone **equally**. It will be achieved by treating everyone justly according to their circumstances."

—Paula Dressel, Race Matters Institute

Thank you!