



Diabetes Health Disparities

An Unlevel Playing Field for Quality Care



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Network of Ethnic Physician Organizations
2007 Summit
September 16, 2007



DISCLOSURE

Wilma J. Wooten, M.D., M.P.H.
No Commercial Interest in any
Pharmaceutical Entities Related to
Presentation

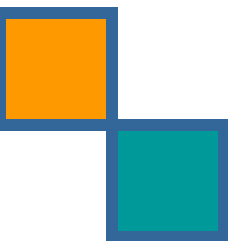


Principal Investigator of NMA
CDC Diabetes Education,
Member of Advisory Committee for
National Dairy Council,
Norvartis African-American Patient
Advisory Board



Objectives

- Review most recent statistics on prevalence, mortality, and morbidity for diabetes.
- Define the criteria for diagnosis of diabetes and pre-diabetes.
- Lay framework for recommendations in subsequent presentations.



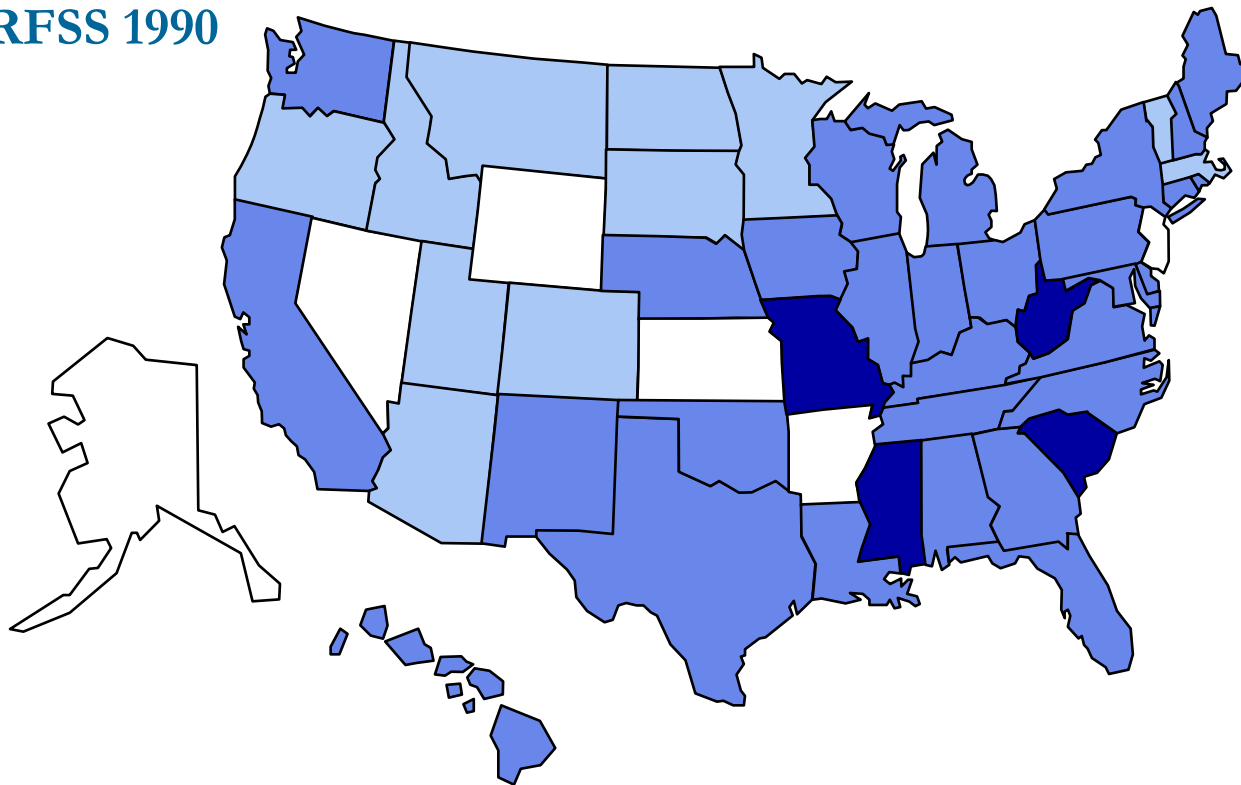
National Diabetes Prevalence

- 20.8 million cases of diabetes (or 7% of the population/ all ages) -- 14.6 million diagnosed and 6.2 million undiagnosed
- Each year, 1.5 million people ages 20 or older are diagnosed
- The number of people diagnosed with diabetes has risen from 1.5 million in 1958 to 14.6 million in 2005
- Type 2 accounts for **90% - 95% all diagnosed cases of diabetes**

Source:
NIDDKD.
National
Diabetes
Statistics
fact sheet,
2005.



Diabetes Trends* Among Adults in the U.S., (Includes Gestational Diabetes) BRFSS 1990



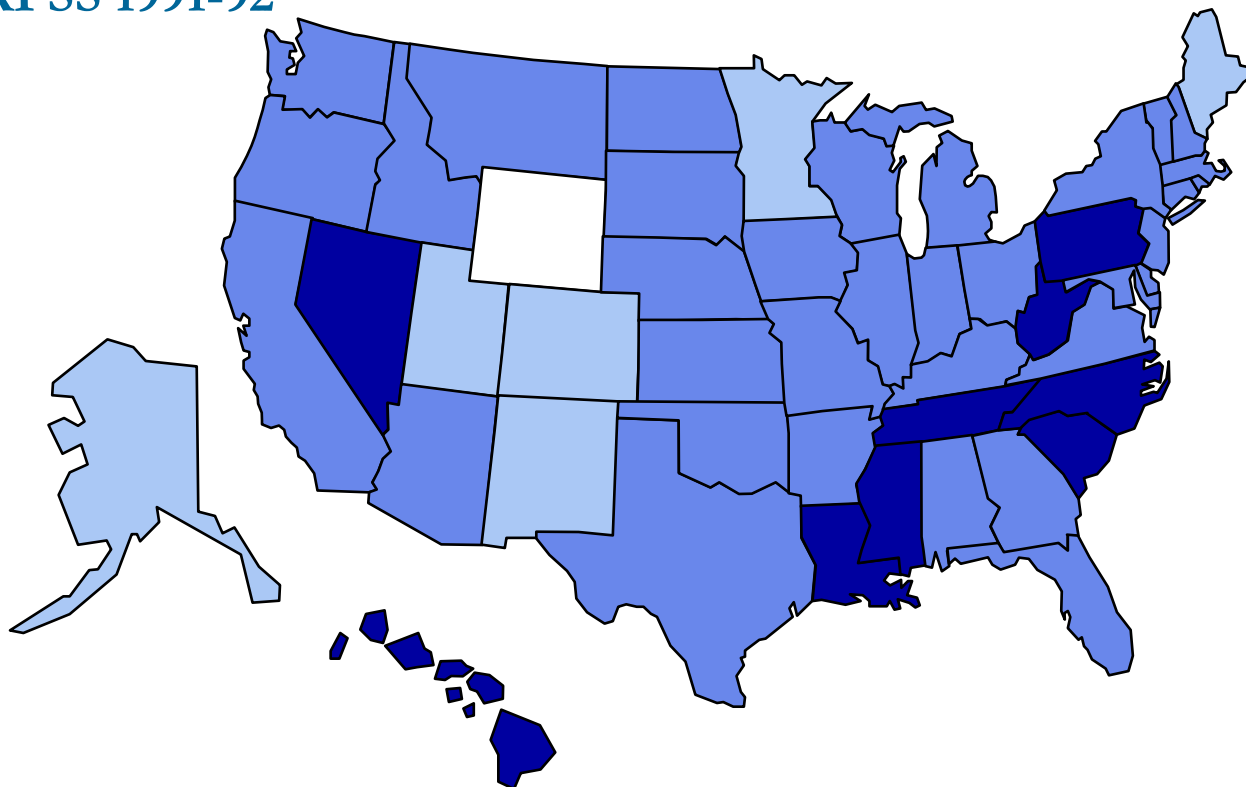
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Source: Mokdad et al., *Diabetes Care* 2000;23:1278-83.



Diabetes Trends* Among Adults in the U.S., (Includes Gestational Diabetes) BRFSS 1991-92

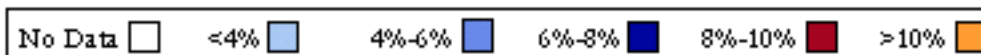
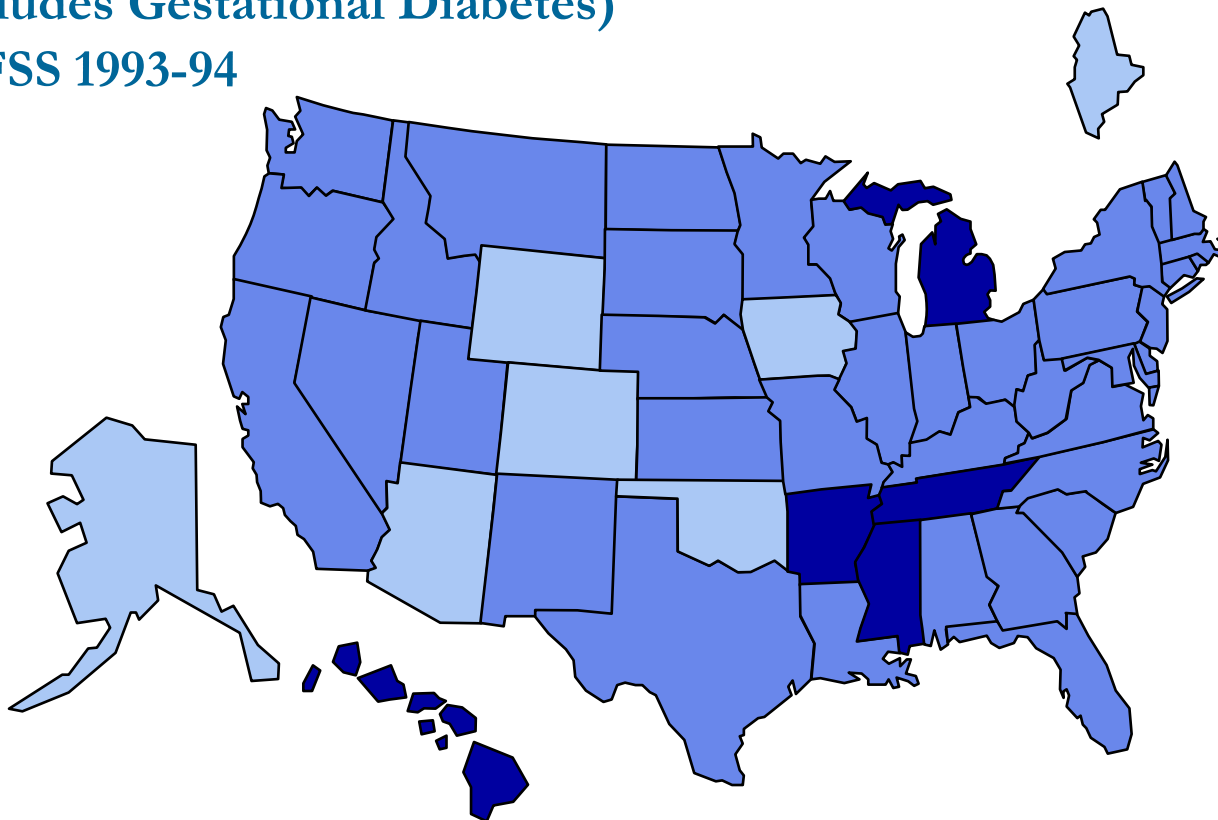


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Source: Mokdad et al., *Diabetes Care* 2000;23:1278-83.



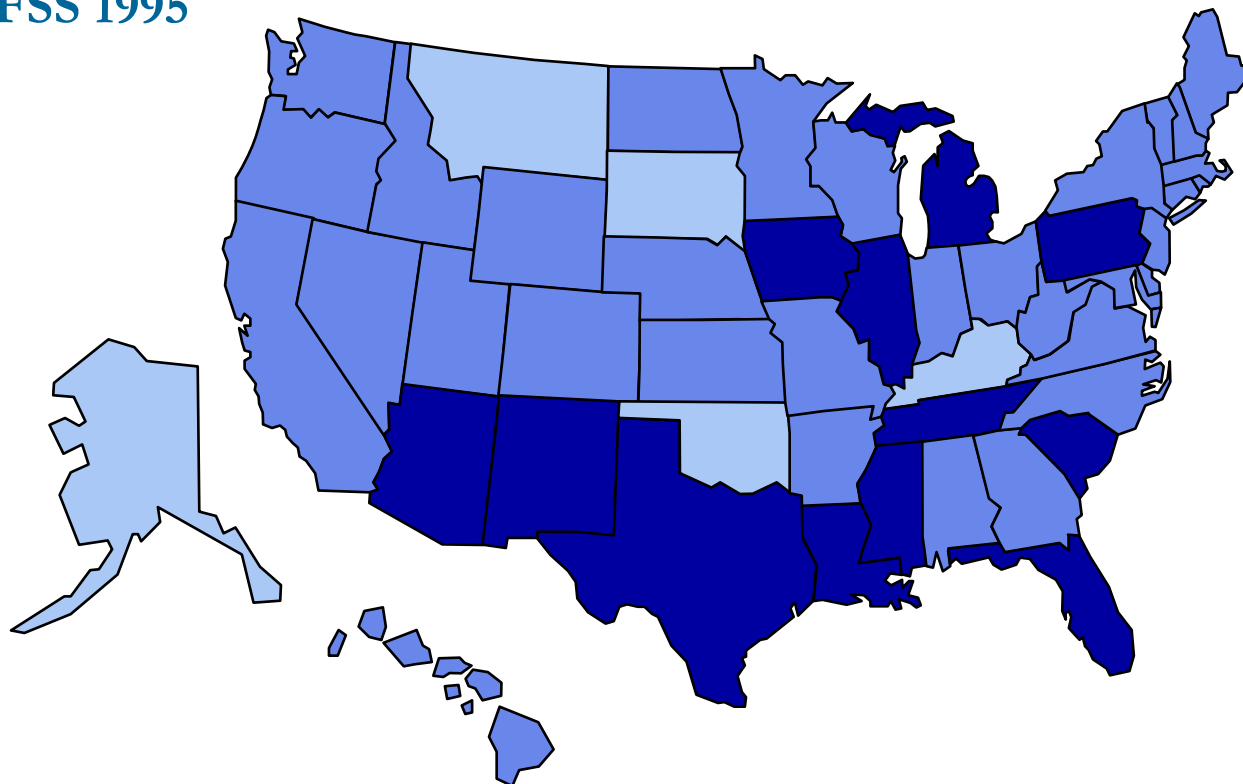
Diabetes Trends* Among Adults in the U.S., (Includes Gestational Diabetes) BRFSS 1993-94



Source: Mokdad et al., *Diabetes Care* 2000;23:1278-83.



Diabetes Trends* Among Adults in the U.S., (Includes Gestational Diabetes) BRFSS 1995



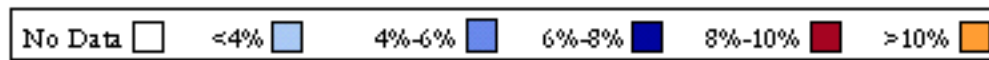
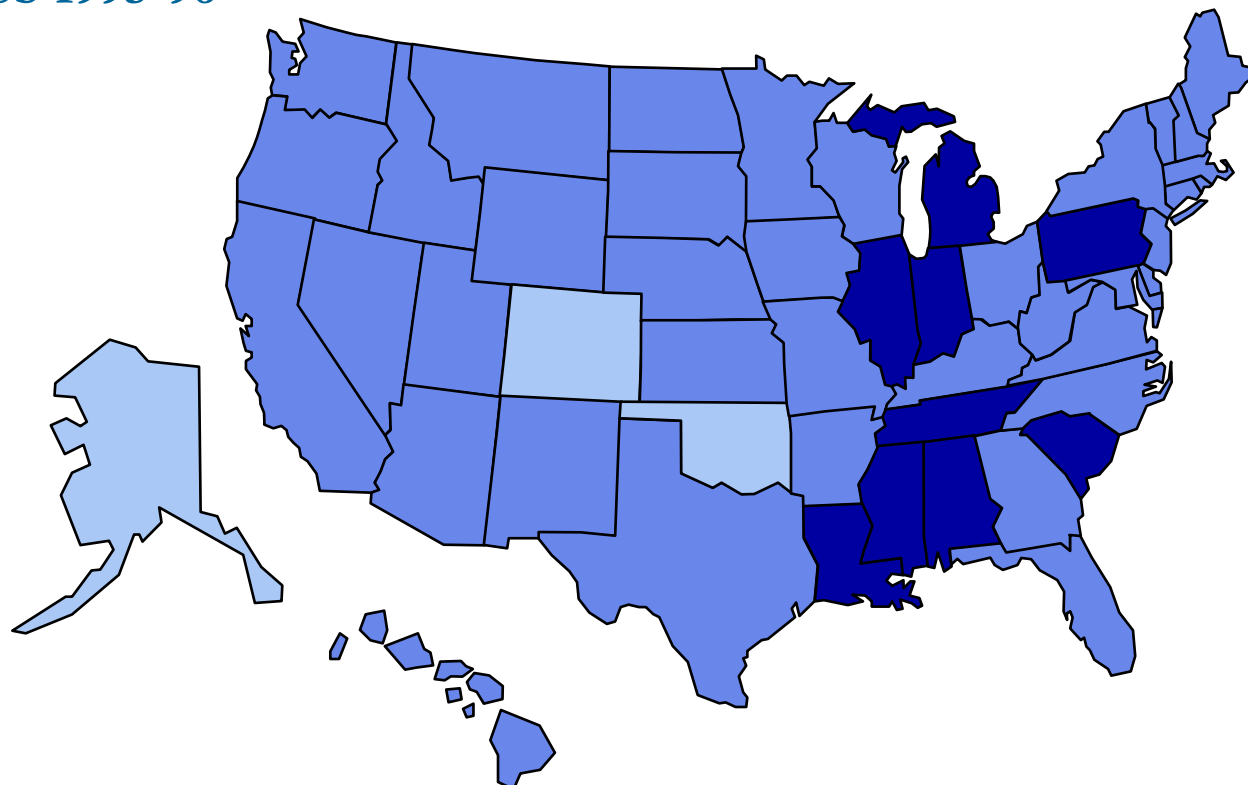
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Source: Mokdad et al., *Diabetes Care* 2000;23:1278-83.



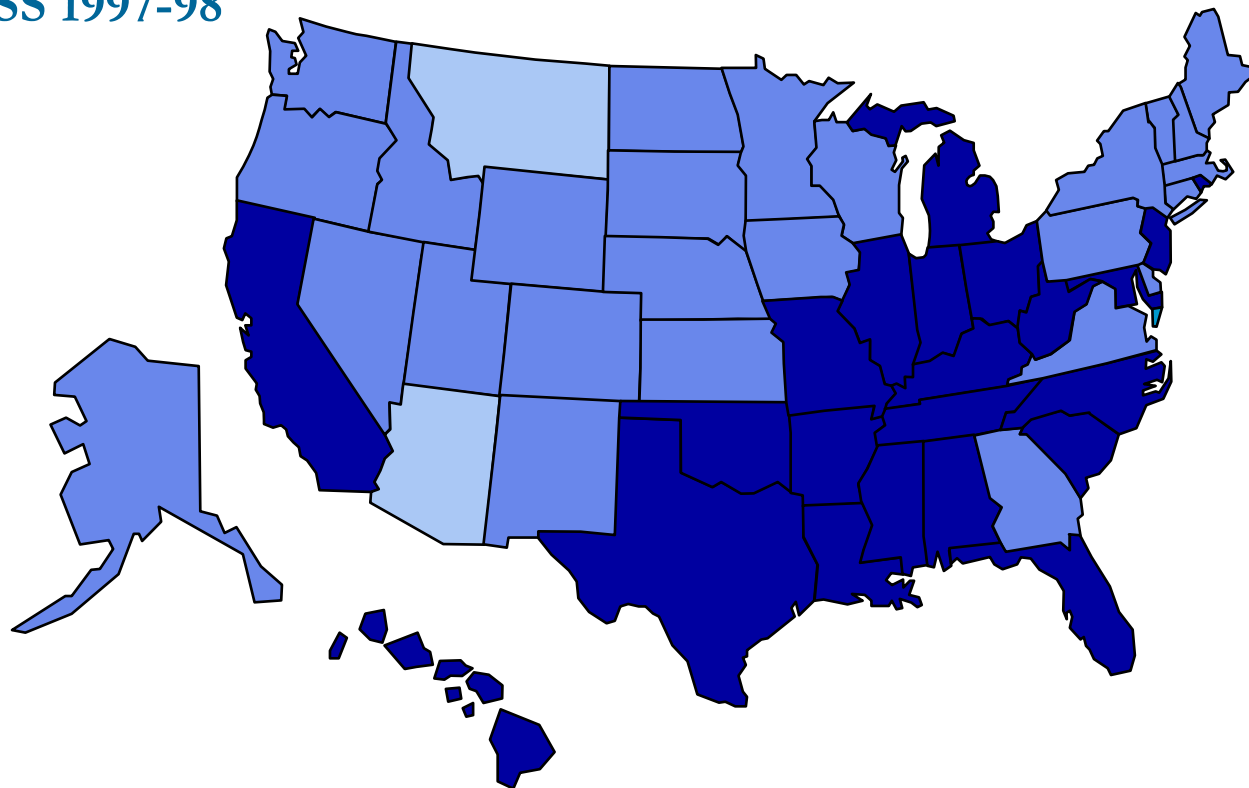
Diabetes Trends* Among Adults in the U.S., (Includes Gestational Diabetes) BRFSS 1995-96



Source: Mokdad et al., *Diabetes Care* 2000;23:1278-83.



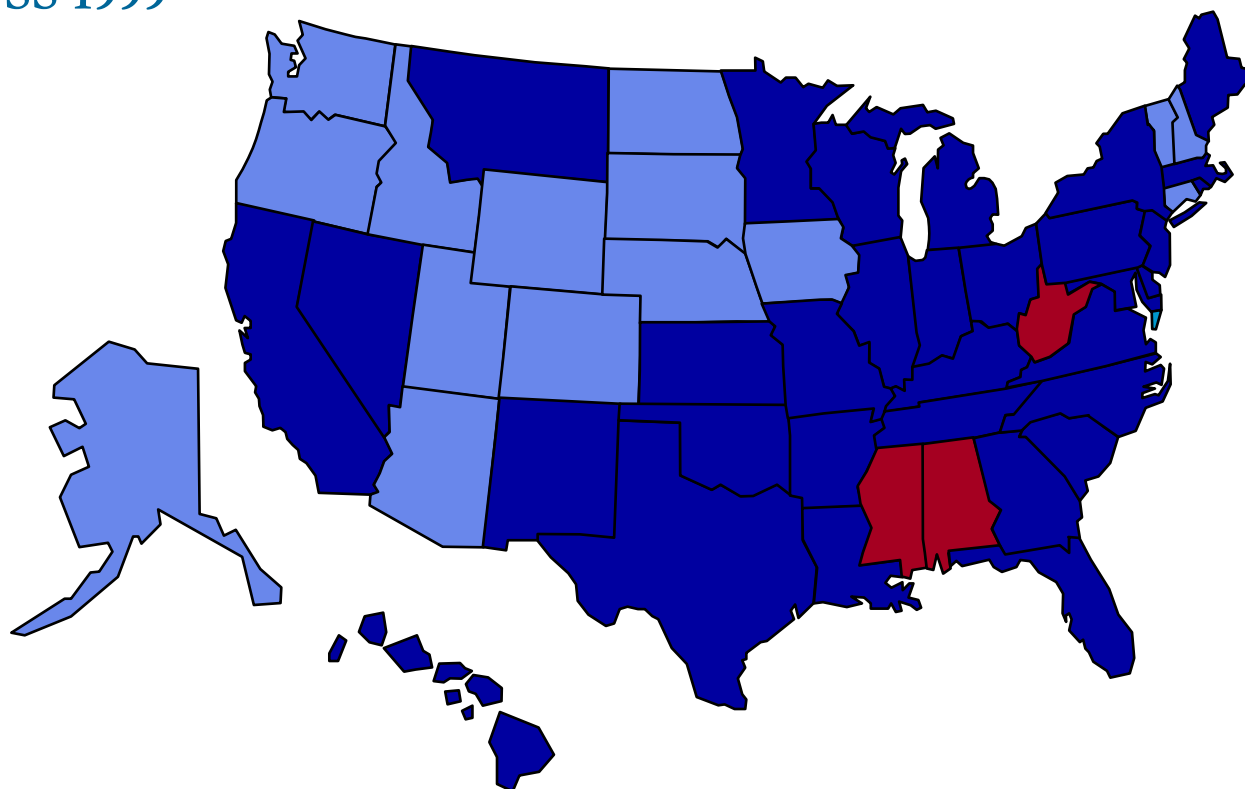
Diabetes Trends* Among Adults in the U.S., (Includes Gestational Diabetes) BRFSS 1997-98



Source: Mokdad et al., *Diabetes Care* 2000;23:1278-83.



Diabetes Trends* Among Adults in the U.S., (Includes Gestational Diabetes) BRFSS 1999

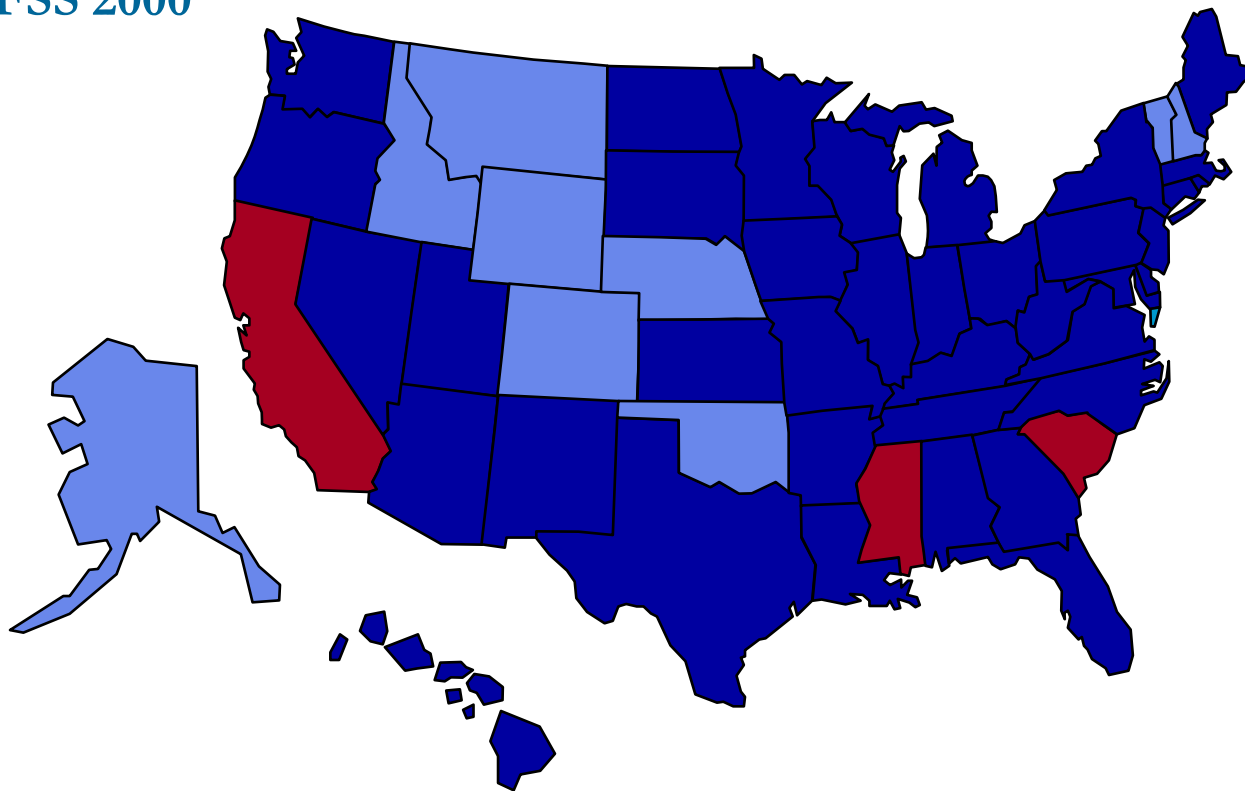


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Source: Mokdad et al., *Diabetes Care* 2001;24:412.



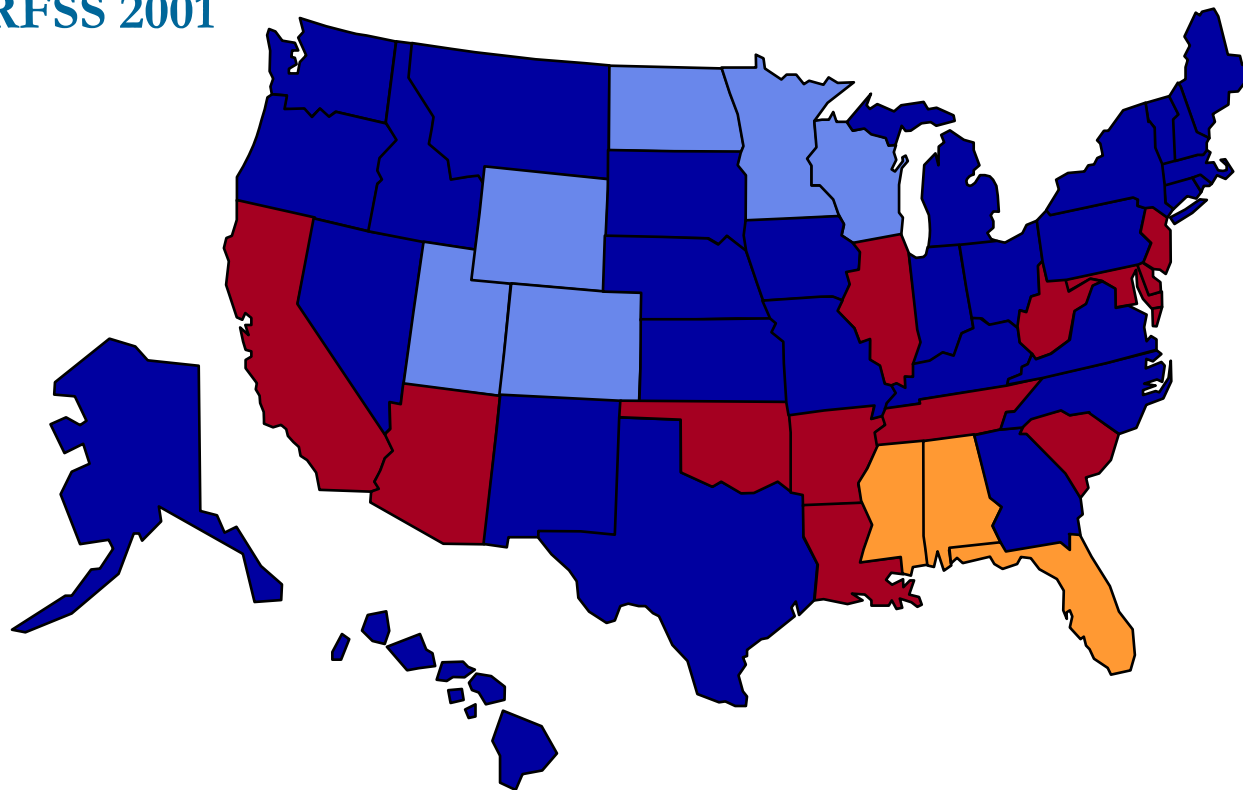
Diabetes Trends* Among Adults in the U.S., (Includes Gestational Diabetes) BRFSS 2000



Source: Mokdad et al., *J Am Med Assoc* 2001;286:10.



Diabetes Trends* Among Adults in the U.S., (Includes Gestational Diabetes) BRFSS 2001



No Data <4% 4%-6% 6%-8% 8%-10% >10%

Source: Mokdad et al., *J Am Med Assoc* 2001;286:10.

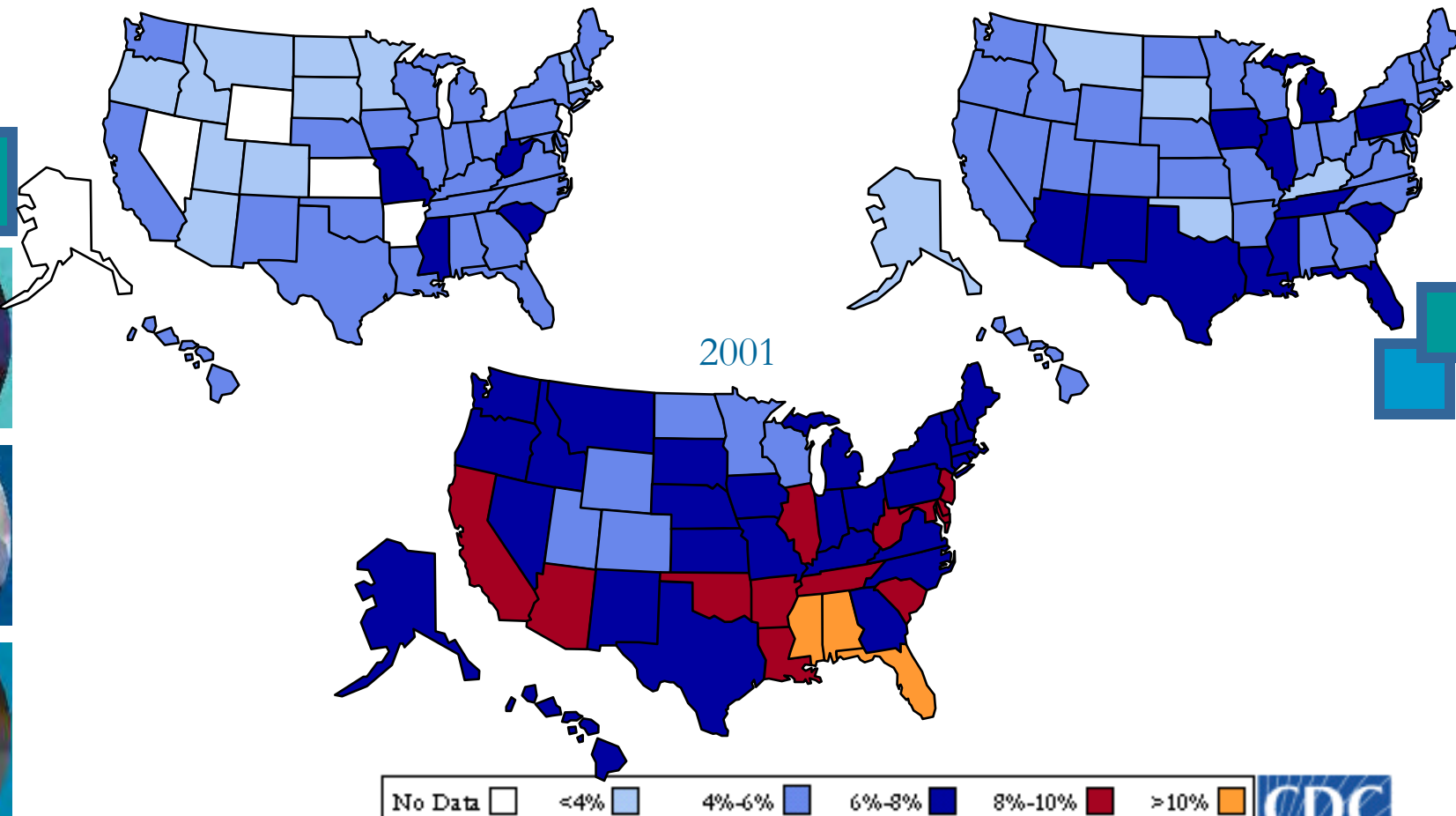


Diabetes Trends* Among Adults in the U.S., (Includes Gestational Diabetes) BRFSS 1990, 1995 and 2001

1990

1995

2001



Source: Mokdad et al., *Diabetes Care* 2000;23:1278-83; *J Am Med Assoc* 2001;286:10.

California Diabetes Prevalence

- 1.7 million adults in California have been diagnosed with diabetes.
- 1.4 million, or 84.3% have Type 2 Diabetes.
- Type 2 Diabetes is growing in adolescents & children with nearly 27,000 reporting being diagnosed in 2003.

Source:
California
Health
Interview
Survey 2005

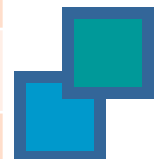


Diabetes Prevalence

California by Race & Ethnicity

Race/Ethnicity	Percent
WHITE	5.6%
LATINO	7.5%
ASIAN	6.4%
AFRICAN AMERICAN	9.3%
AMERICAN INDIAN/ALASKAN NATIVE	9.9%
TOTAL CALIFORNIA ADULTS	6.6%

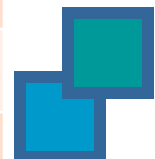
California Health Interview Survey
Adults Age 18 and over Diagnosed with Diabetes in 2003



California Diabetes Prevalence by Education Level

Education Level	Percent
Eight Grade or Less	12.0%
Some High School	9.5%
High School Diploma	6.1%
Some College	6.1%
College Graduate or Higher	4.5%
TOTAL CALIFORNIA ADULTS	6.6%

California Health Interview Survey
Adults Age 18 and over Diagnosed with Diabetes in 2003



California Diabetes Prevalence by Family Income Level

Income Level	Percent
Below 100%	8.8%
100-199%	8.8%
200-299%	6.4%
300% and Above	5.1%
TOTAL CALIFORNIA ADULTS	6.6%

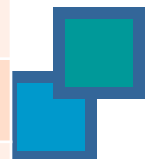
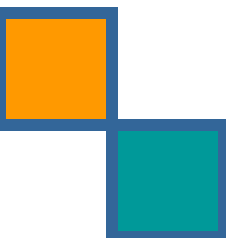
California Health Interview Survey
Adults Age 18 and over Diagnosed with Diabetes in 2003



Diabetes Prevalence by County

10 Ten Counties	Percent
Imperial County	10.9%
Madera County	9.8%
Merced County	9.7%
Shasta County	9.0%
Tulare, Sutter, Yuba Counties	8.7%
San Bernardino County	8.5%
Sacramento County	8.2%
Kings County	8.1%
TOTAL CALIFORNIA ADULTS	6.6%

California Health Interview Survey
Adults Age 18 and over Diagnosed with Diabetes in 2003



Diabetes - Mortality

- Sixth leading cause of death
- CVD is leading cause of death – 65% die of heart attack and stroke

Source:
ADA, 2002



Diabetes Deaths- California

- The diabetes crude death rate for California increased from 18.3 deaths per 100,000 in 2001 to 18.9 in 2002.
- African Americans had the highest crude death rate in 2002 at 34.3 followed by Whites at 21.0, Latinos at 14.4 and Asian/Other at 14.3.

*California Department of Health Services
Diabetes Deaths in California, 2002*



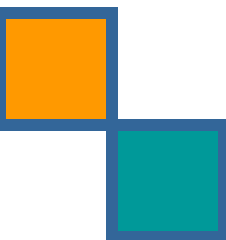
Hospitalization Rates – California

- 2001 Hospital Admissions for Uncontrolled Diabetes by race/ethnicity - 46.9 per 100,000 for African Americans compared to 20.6 for Latinos and 16.7 statewide.
- 2001 Hospital Admissions for Long-term Diabetes Complications by race/ethnicity - 227.2 per 100,000 for African Americans, 108.2 for Latinos and 98.2 statewide.
- 2001 Hospital Admissions for Lower Extremity Amputations for Patients with Diabetes – 68.5 per 100,000 for African Americans, 34.2 for Latinos and 30.6 statewide.



Risk Factors

- Overweight
- Hypertension
- Hyperlipidemia
- Physical inactivity (< 3 times/wk)
- Diabetes during pregnancy
- 45 years and older
- Family history
- Race and ethnicity (African American, American Indian, Alaska Native, Asian American, Pacific Islander, or Hispanic/Latino)
- Essentially people of color



Overweight & Obesity Prevalence California by Race & Ethnicity

Race/Ethnicity	Percent Overweight	Percent Obese
WHITE	35.5%	17.0%
LATINO	39.3%	25.5%
ASIAN	24.8%	6.6%
AFRICAN AMERICAN	35.5%	28.2%
AMERICAN INDIAN/ALASKAN NATIVE	39.0%	23.7%
TOTAL CALIFORNIA ADULTS	35.2%	18.8%

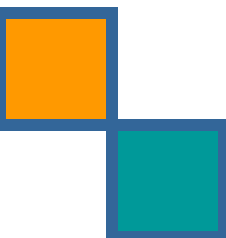
California Health Interview Survey
Adults Age 18 and over not diagnosed with Diabetes in 2003



Hypertension Prevalence California by Race & Ethnicity

Race/Ethnicity	Percent
WHITE	64.4%
LATINO	50.2%
ASIAN	67.2%
AFRICAN AMERICAN	74.0%
AMERICAN INDIAN/ALASKAN NATIVE	61.0%
TOTAL CALIFORNIA ADULTS	60.9%

California Health Interview Survey 2003



Diabetes Fiscal Impact

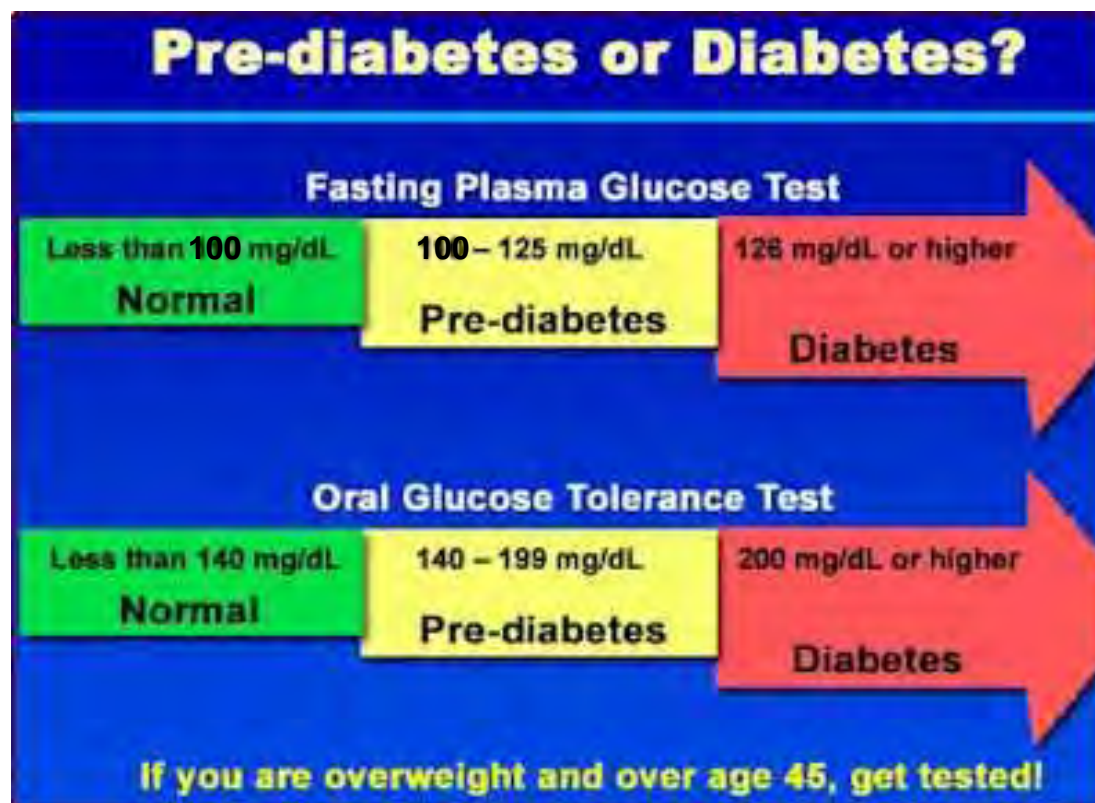
- 132 billion annually spent in health care and related costs for treatment of diabetes
 - 92 billion direct and
 - 40 billion indirect costs

Source:
ADA, 2002



Pre-Diabetes

- 54 million people, ages 40 to 74, have pre-diabetes.



Future Implications

- Without preventive action, one in every three children born in the year 2000 will develop diabetes in their lifetime.¹
- A 165 percent increase in the number of persons with diabetes in the U.S. is projected through 2050.²

¹Narayan, Boyle, Thompson et al. (2003) *JNMA*, 290(14), 1881-1890.
²Boyle, Honeycutt, Narayan et al. (2001) *U.S. Diabetes Care*, 24(11), 1936-1940.



Potential Sources of Disparities in Care

Patient-Level

- Patient preferences
- Treatment refusal
- Care seeking behaviors and attitudes
- Differences in clinical presentation of symptoms

Healthcare Systems-Level

- Lack of interpretation and translation services
- Time pressures on physicians
- Availability and mix of health providers
- Fragmentation in systems of financing and delivery of care

Provider-Level

- Bias
- Clinical uncertainty
- Beliefs/stereotypes about behavior or health of patients

Resources

- www.nmanet.org
- www.nmadiabetesnet.org
- www.ndep.nih.gov
- www.BetterDiabetesCare.nih.gov
- www.diabetes.org/home.jsp
- <http://diabetes.niddk.nih.gov/>
- www.caldiabetes.org
- www.calmedfoundation.org





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Monthly health tips to help with taking control of your diabetes. [Go](#)



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Find [healthy recipes](#), [nutrition info](#), and [meal planning info](#) to help with weight loss and healthier food choices. [Go](#)



COALITIONS



Includes Information about the NMA Diabetes Coalitions in Atlanta, Houston, Indianapolis, Los Angeles, Pine Bluff, and Washington, D.C.

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OUTREACH



Includes diabetes information for the general public, parents, and consumers.

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