



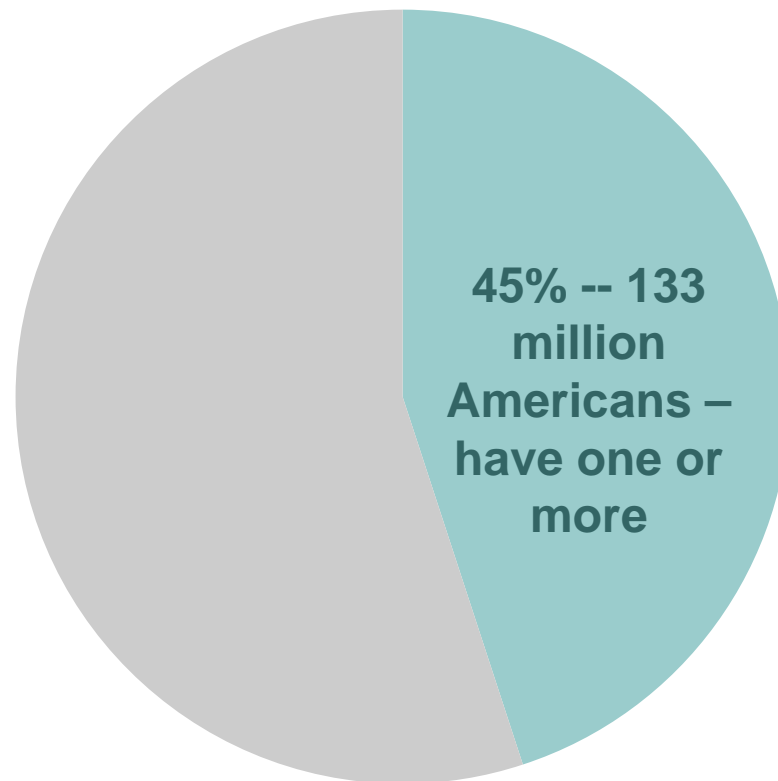
# Chronic Disease Today and Tomorrow

**David Hoffman**  
**Policy Chair, National Association**  
**of Chronic Disease Directors**



## Nearly half of Americans have one or more chronic diseases

Total U.S. population

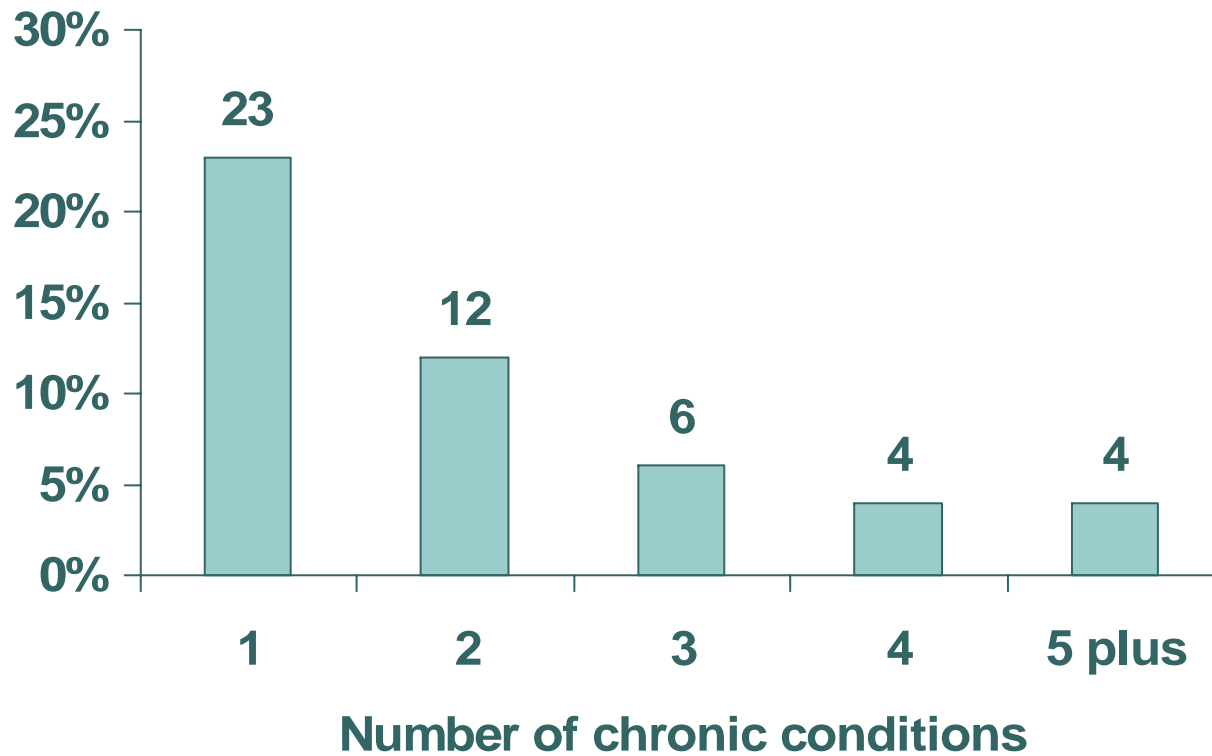


Source: Wu S, Green A. Projection of Chronic Illness Prevalence and Cost Inflation. RAND Corporation, October 2000.



## Many Americans have more than one chronic health problem

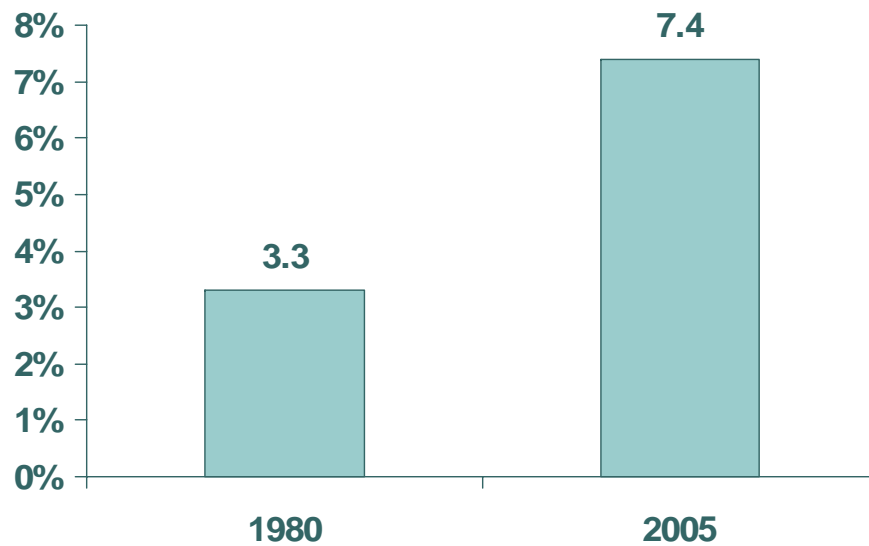
Percent of all Americans with chronic health conditions



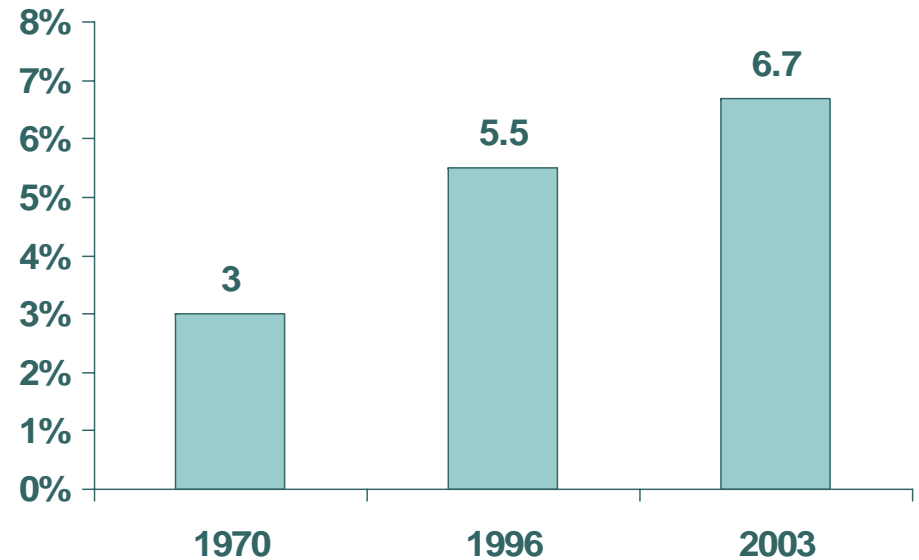


## Diagnosis of many chronic diseases is on the rise in the U.S.

Percent of U.S. adult population diagnosed with diabetes



Percent of U.S. adult population diagnosed with asthma



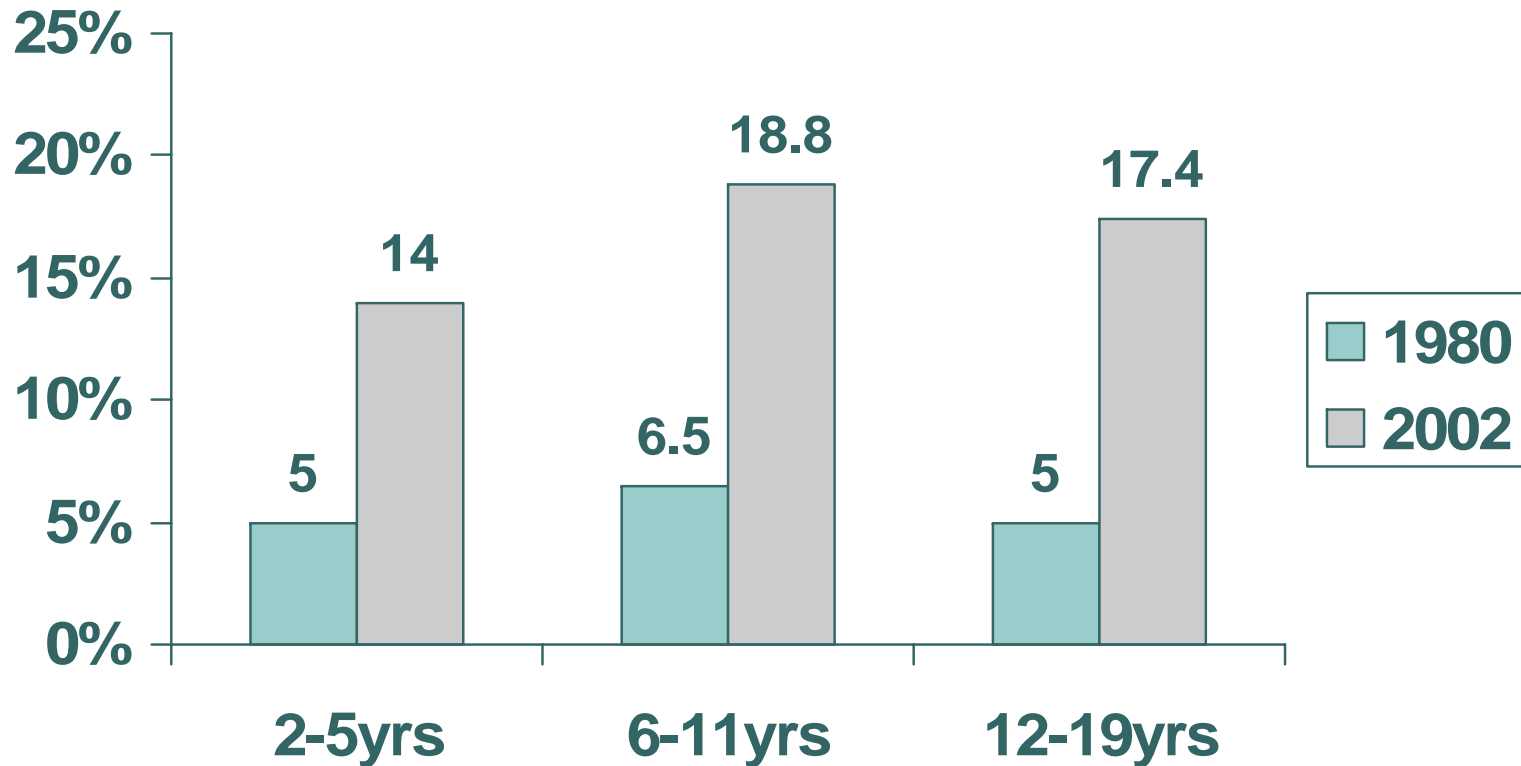
Source: U.S. Centers for Disease Control & Prevention. Crude and Age-Adjusted Incidence of Diagnosed Diabetes per 1000 Population Aged 18-79 Years, United States, 1980-2005. Accessed at: <http://www.cdc.gov/diabetes/statistics/incidence/fig2.htm>

Also, U.S. Centers for Disease Control & Prevention. National Surveillance for Asthma --- United States, 1980-2004. Accessed at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5608a1.htm>

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## The share of children who are overweight has more than doubled in the U.S. over the past two decades

Percent of children who are overweight

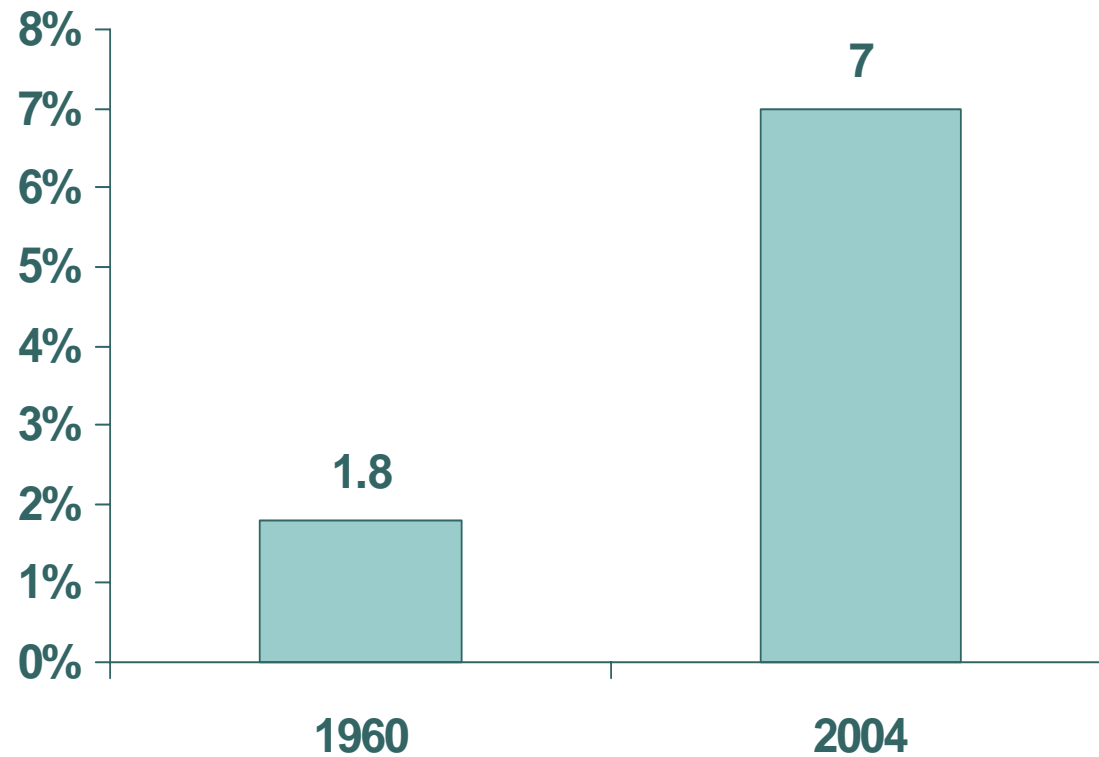


Source: Centers for Disease Control and Prevention. Childhood Overweight. Accessed at: <http://www.cdc.gov/nccdphp/dnpa/obesity/childhood/>



## The diagnosis of childhood chronic diseases has almost quadrupled over the past four decades

Percent of U.S. children diagnosed with a chronic illness

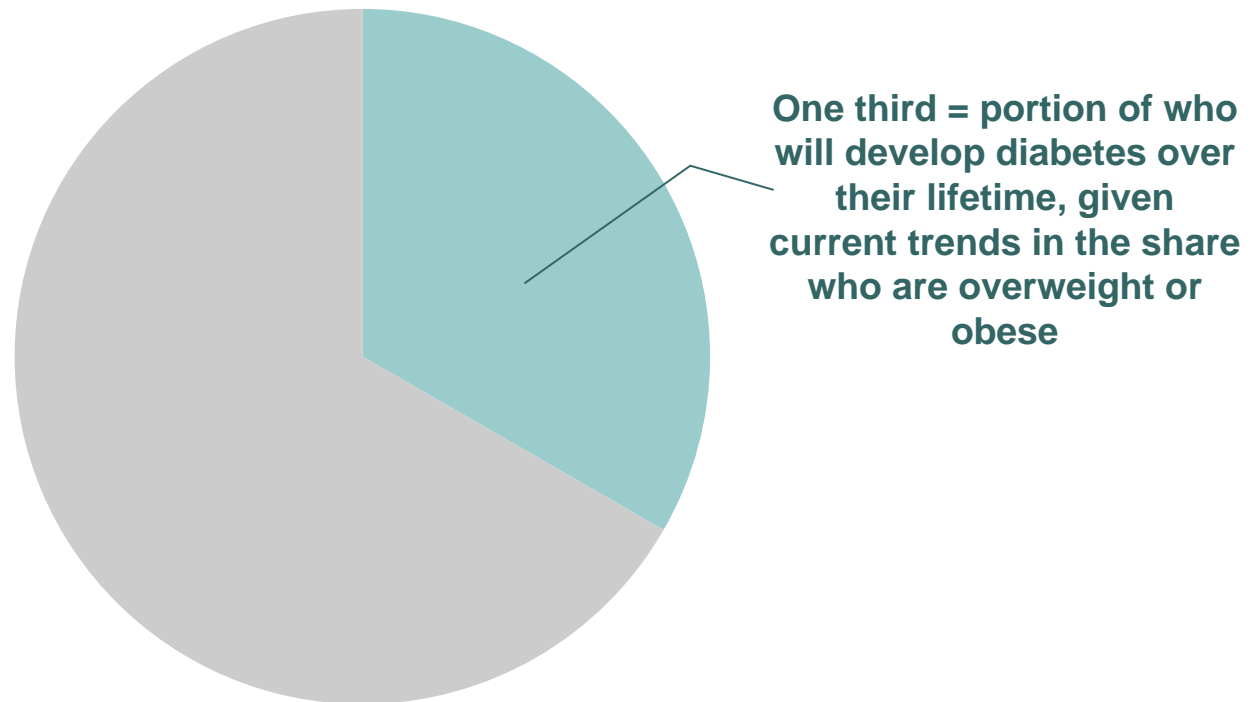


Source: Perrin, James M.; Bloom, Sheila R.; Gortmaker, Steven L. The Increase of Childhood Chronic Conditions in the United States. *Journal of the American Medical Association*



## The increase in childhood obesity is placing the next generation at great risk for developing chronic diseases earlier in life

Children born in the U.S. in 2000



One third = portion of who will develop diabetes over their lifetime, given current trends in the share who are overweight or obese

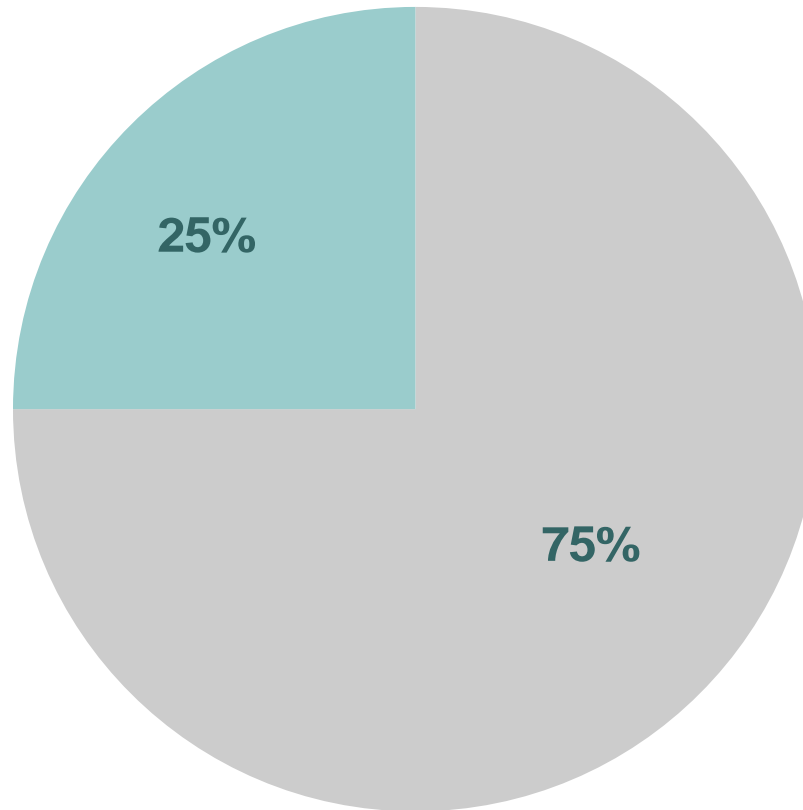
\*childhood overweight and obesity

Source: Laino C. One in three kids will develop diabetes. Web MD. June 16, 2003. Available at: <http://www.webmd.com/content/article/66/79851.htm>. Accessed July 31, 2006.



## **Three in four dollars spent on health care in the U.S. are for patients with one or more chronic conditions**

**Total U.S. health spending in 2006 = \$2.1 trillion**



**Health care costs associated with patients with one or more chronic diseases = ~\$1.58 trillion**



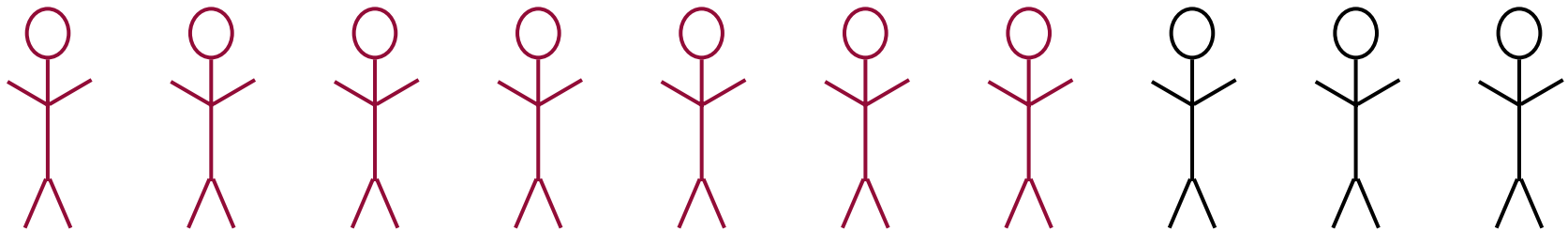
**Six Unhealthy Truths Tell  
the Story of the Rise of  
Chronic Disease and Its  
Impact on Health and Health  
Care in the U.S.**

● ● ● | Truth #1: Chronic diseases are the #1 cause of death and disability in the U.S.



**133 million Americans, representing 45% of the total population, have at least one chronic disease**

**Chronic diseases kill more than 1.7 million Americans per year, and are responsible for 7 of 10 deaths in the U.S.**





Truth #2: Patients with chronic diseases account for 75% of the nation's health care spending

During 2005, the U.S. spent almost \$2 trillion on health care

Of every dollar spent...



...75 cents went towards treating patients with chronic disease

In public programs, treatment of patients with chronic diseases constitute an even higher portion of spending:

More than **96 cents** in Medicare...

...and **83 cents** in Medicaid

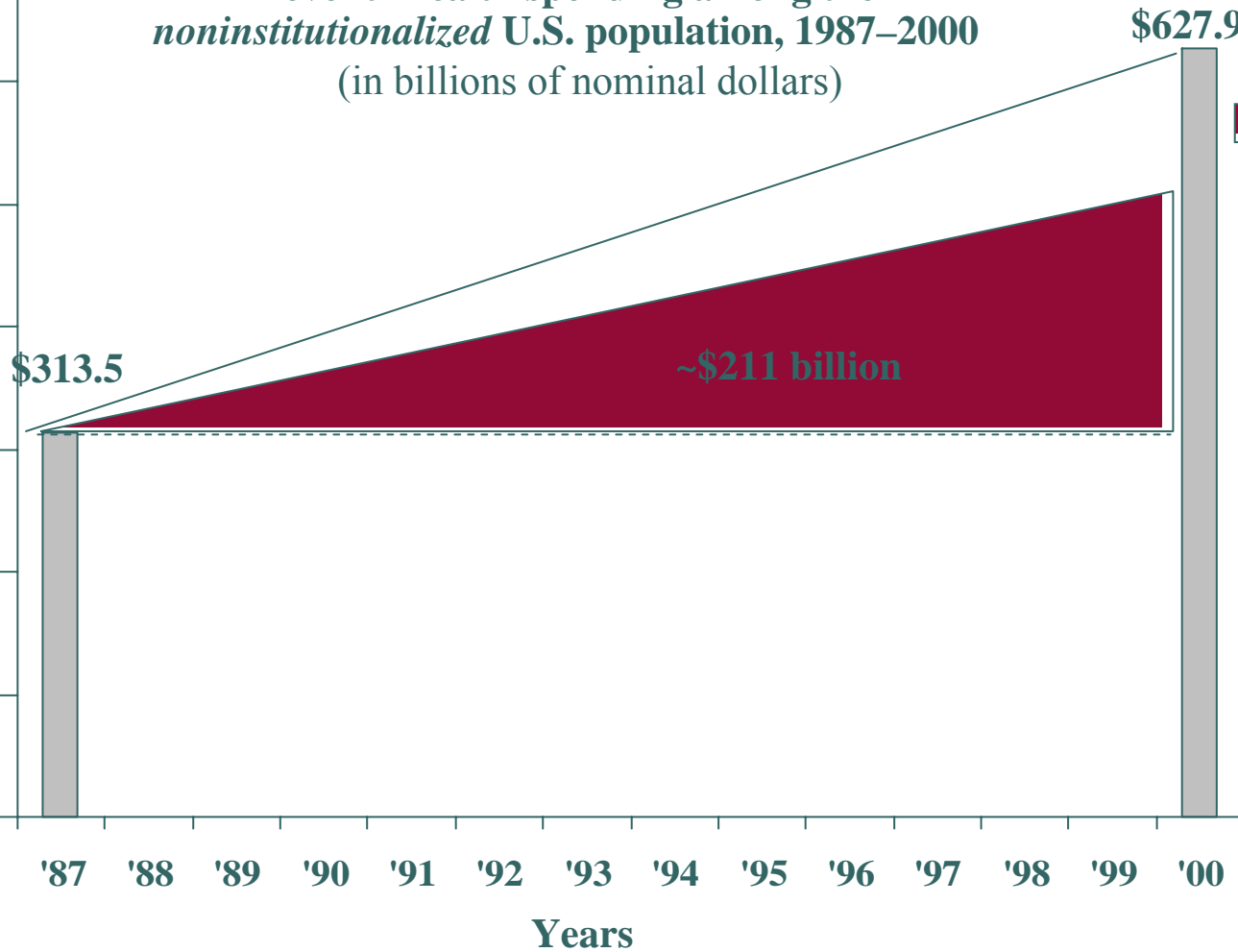


Truth #3: Two-thirds of the increase in health care spending is due to increased prevalence of treated chronic disease



\$700  
\$600  
\$500  
\$400  
\$300  
\$200  
\$100  
\$0

Level Of health spending among the  
*noninstitutionalized* U.S. population, 1987–2000  
(in billions of nominal dollars)



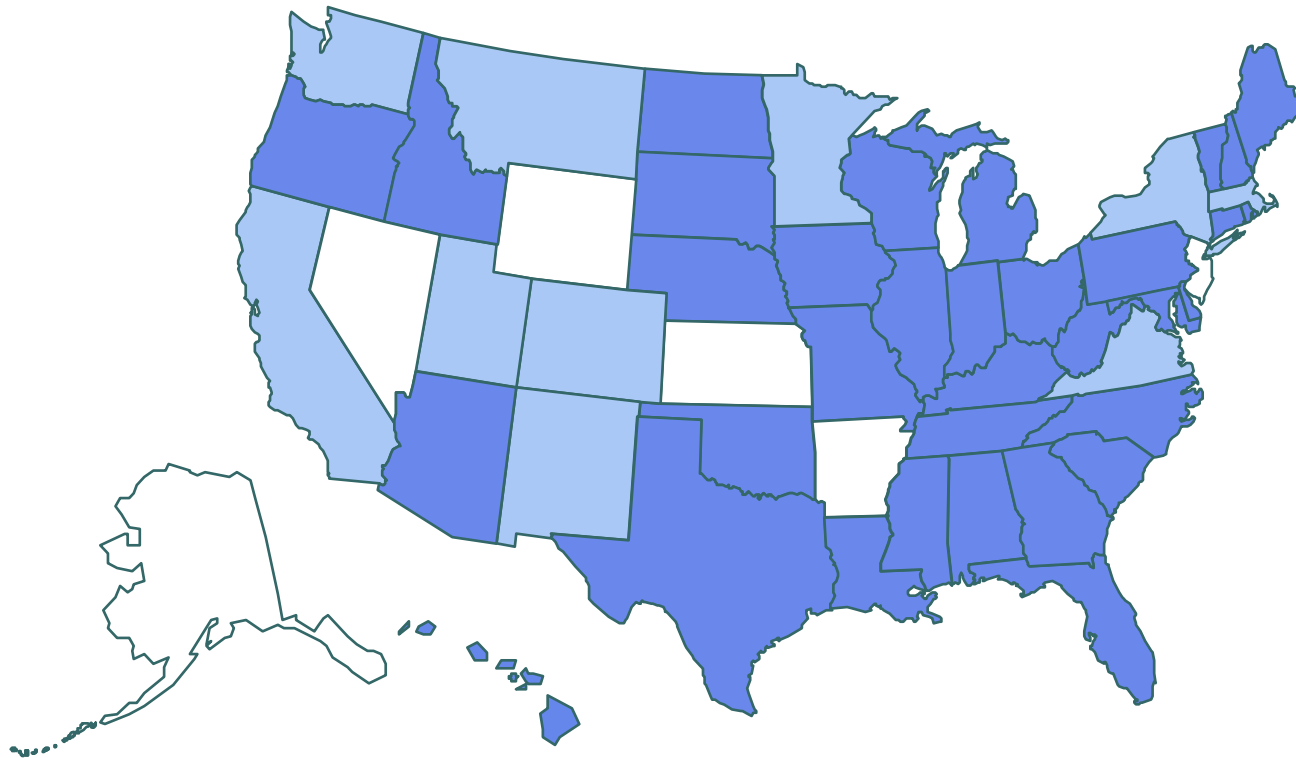
■ = Increase attributable to rise in prevalence of treated chronic disease



# Obesity Trends\* Among U.S. Adults

## BRFSS, 1990

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5'4" woman)



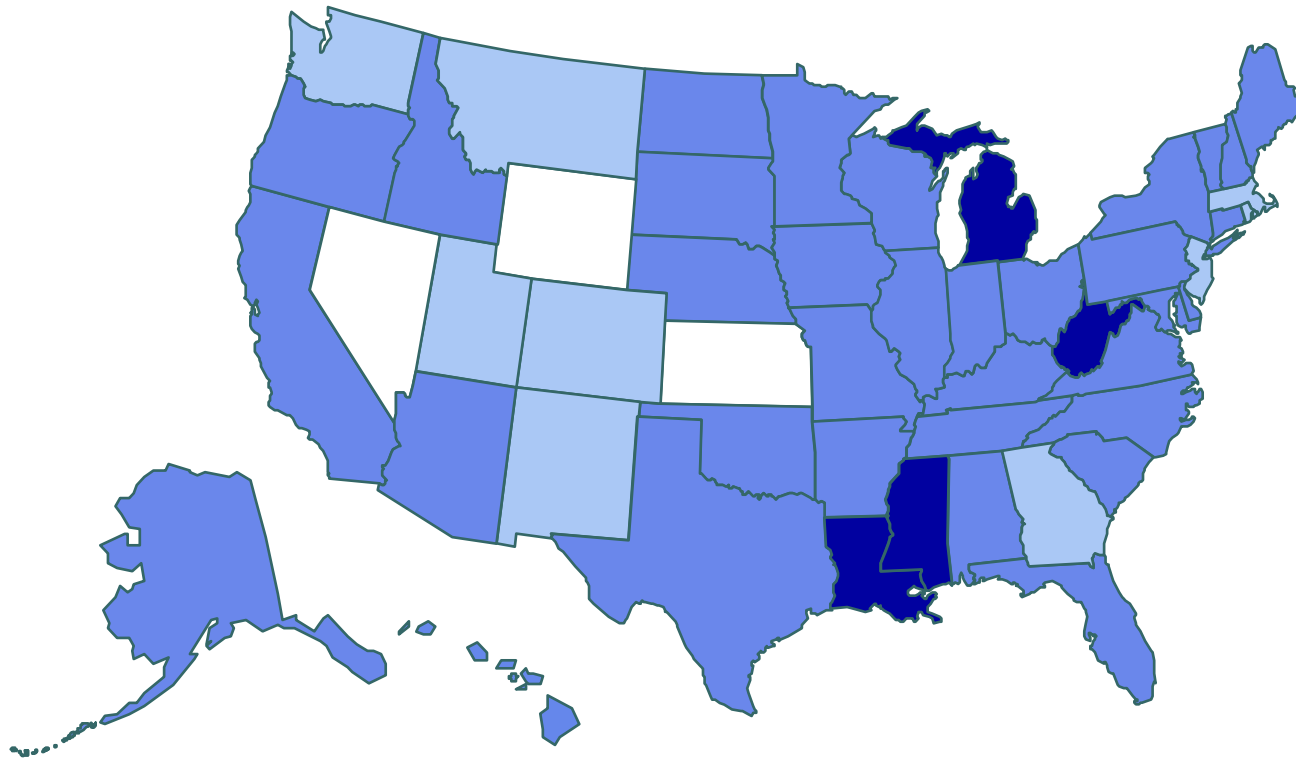
Source: Behavioral Risk Factor Surveillance System, CDC.



# Obesity Trends\* Among U.S. Adults

## BRFSS, 1991

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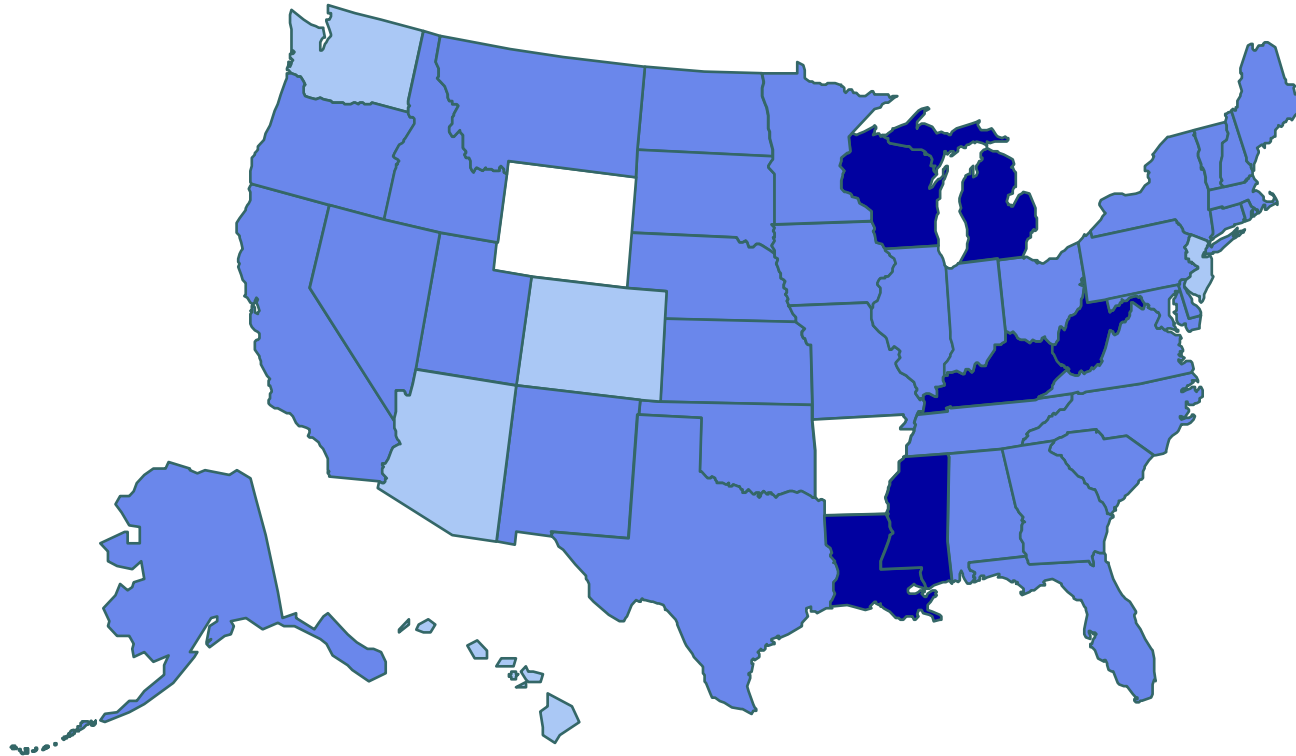
Source: Behavioral Risk Factor Surveillance System, CDC.



# Obesity Trends\* Among U.S. Adults

## BRFSS, 1992

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5'4" woman)



Source: Behavioral Risk Factor Surveillance System, CDC.

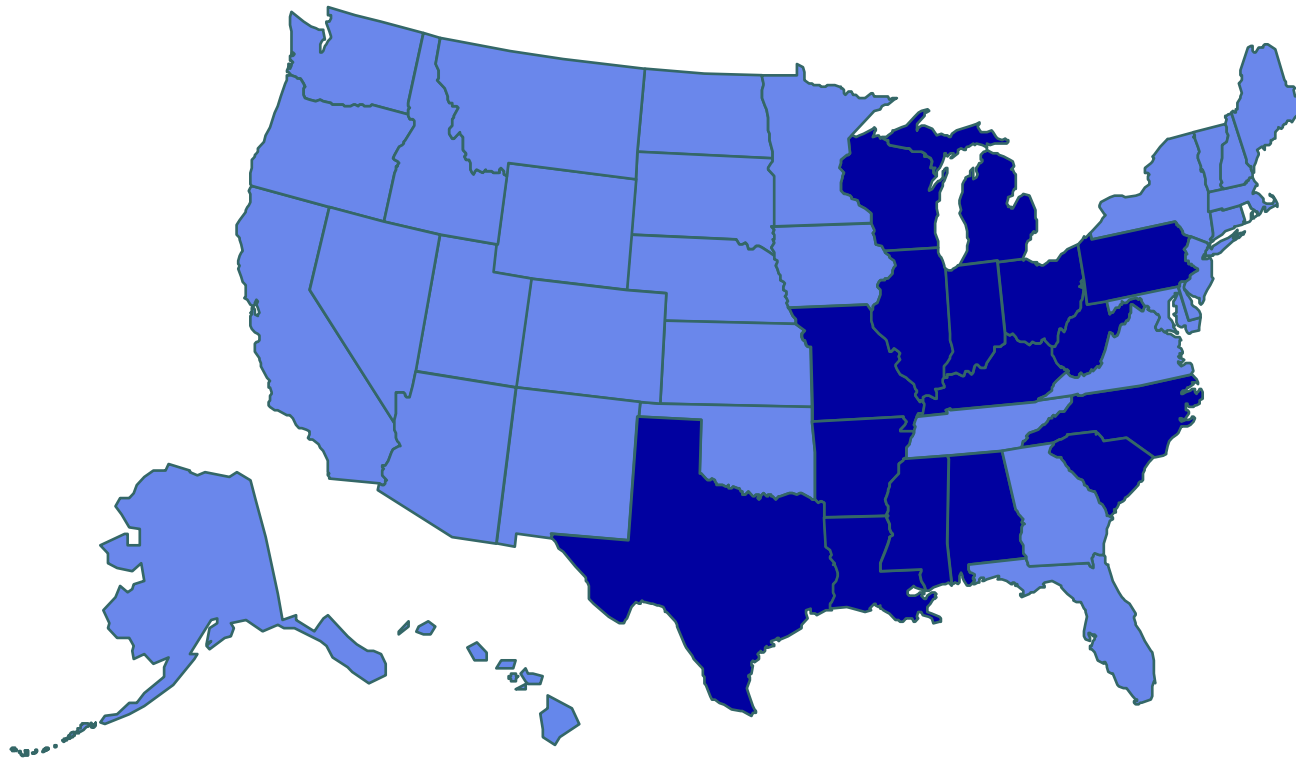




## Obesity Trends\* Among U.S. Adults

**BRFSS, 1994**

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5'4" woman)



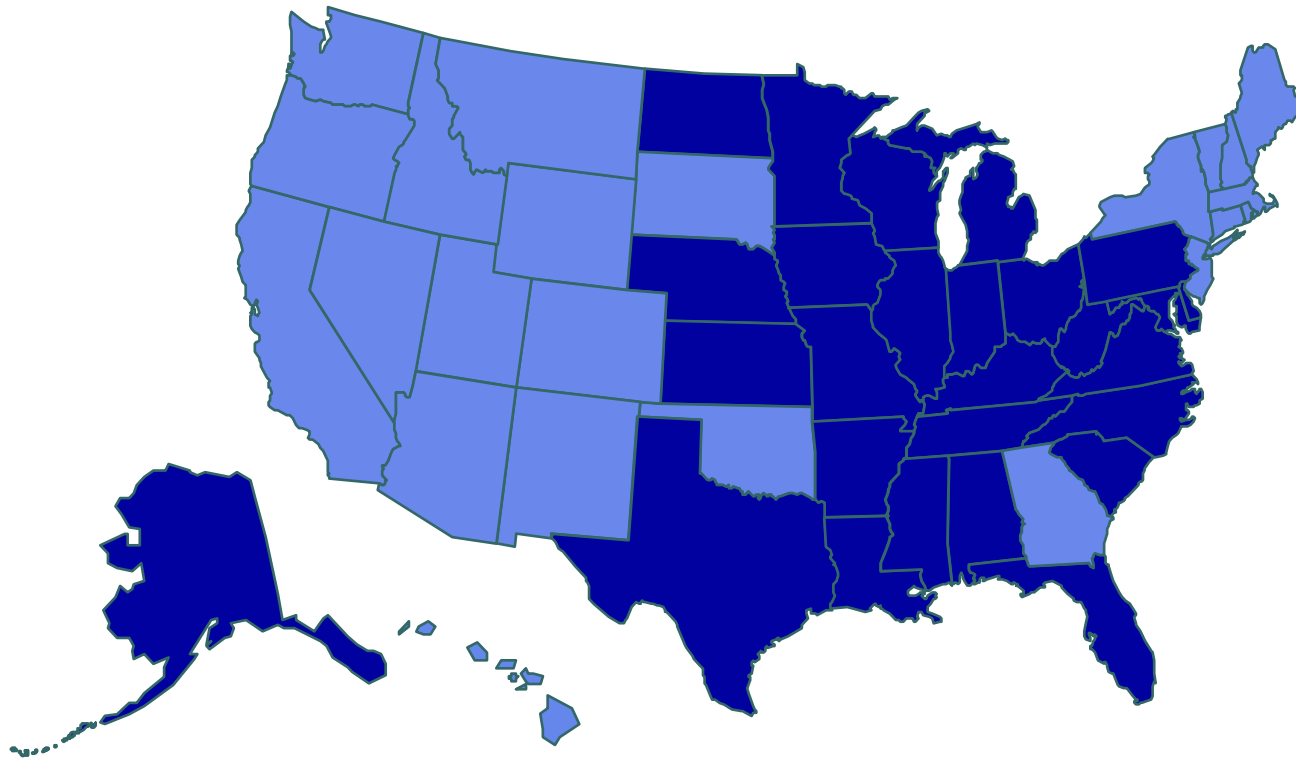
Source: Behavioral Risk Factor Surveillance System, CDC.



# Obesity Trends\* Among U.S. Adults

## BRFSS, 1995

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5'4" woman)



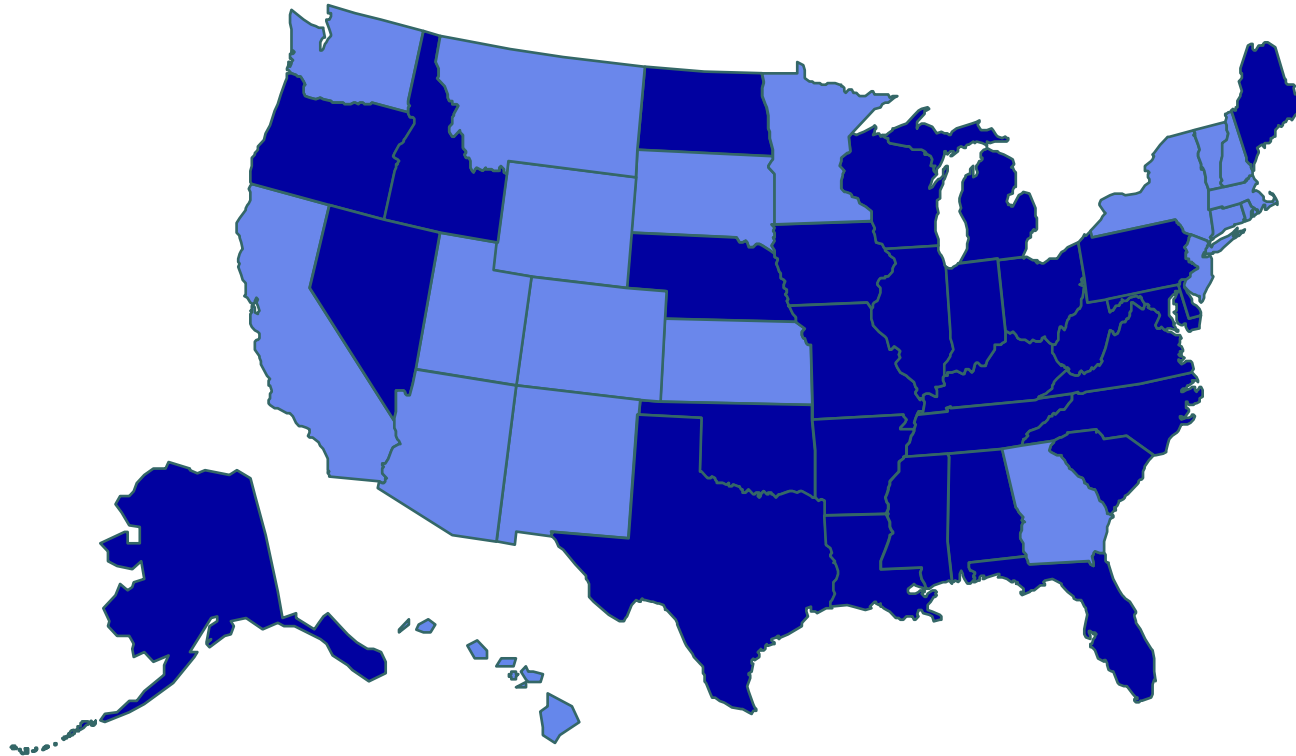
Source: Behavioral Risk Factor Surveillance System, CDC.



# Obesity Trends\* Among U.S. Adults

## BRFSS, 1996

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5'4" woman)



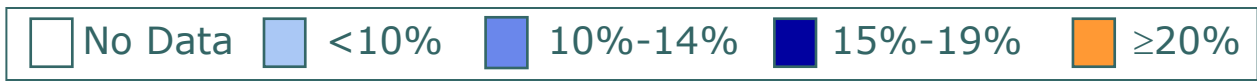
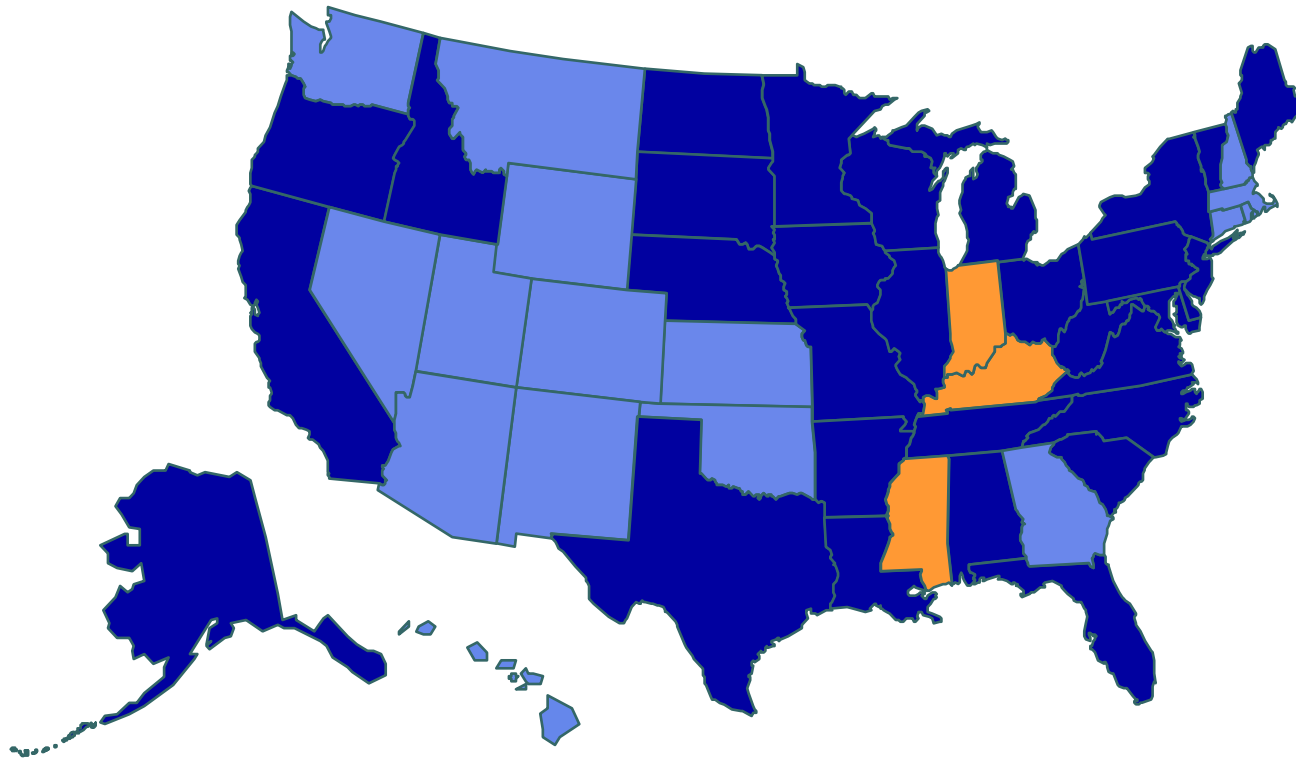
Source: Behavioral Risk Factor Surveillance System, CDC.

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# Obesity Trends\* Among U.S. Adults

## BRFSS, 1997

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5'4" woman)



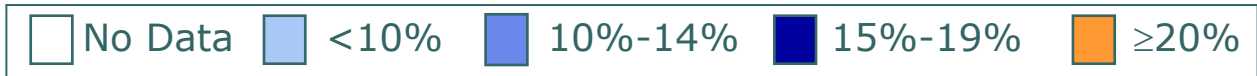
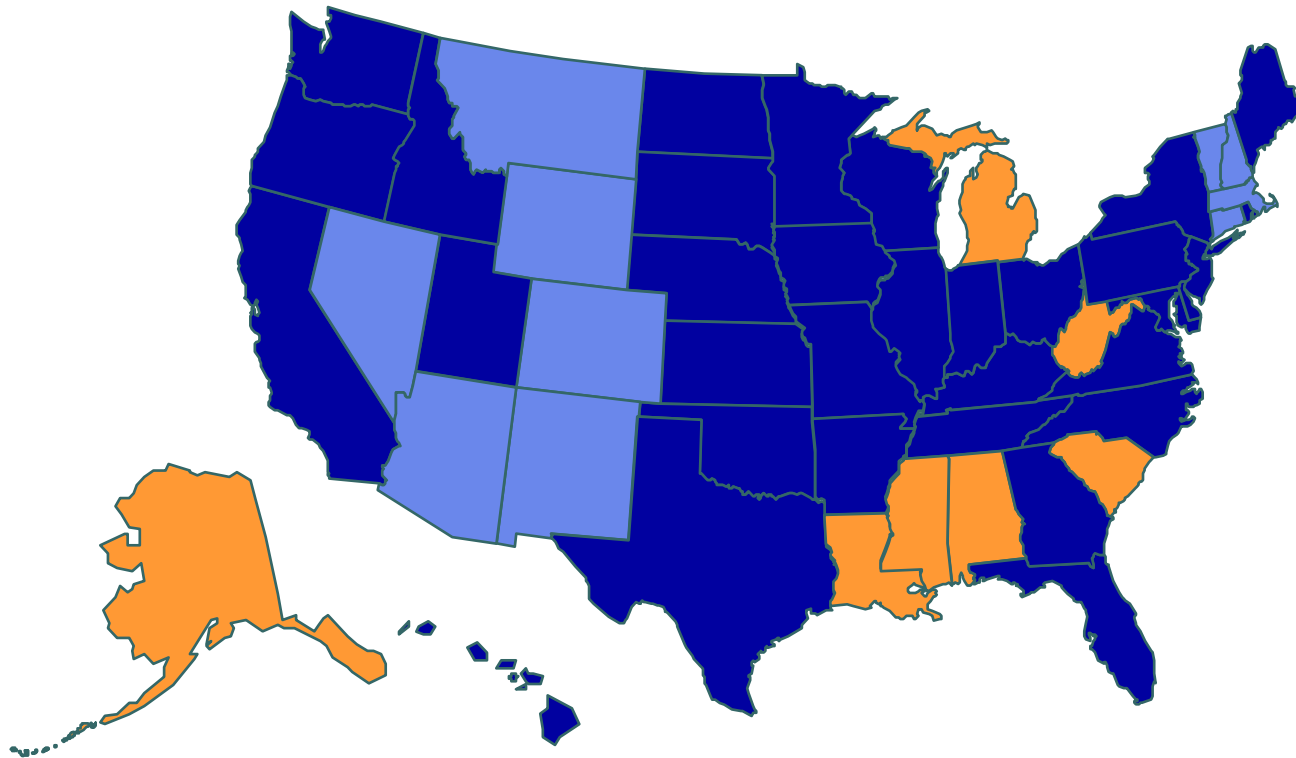
Source: Behavioral Risk Factor Surveillance System, CDC.



# Obesity Trends\* Among U.S. Adults

## BRFSS, 1998

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5'4" woman)



Source: Behavioral Risk Factor Surveillance System, CDC.

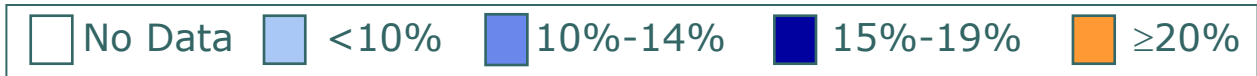
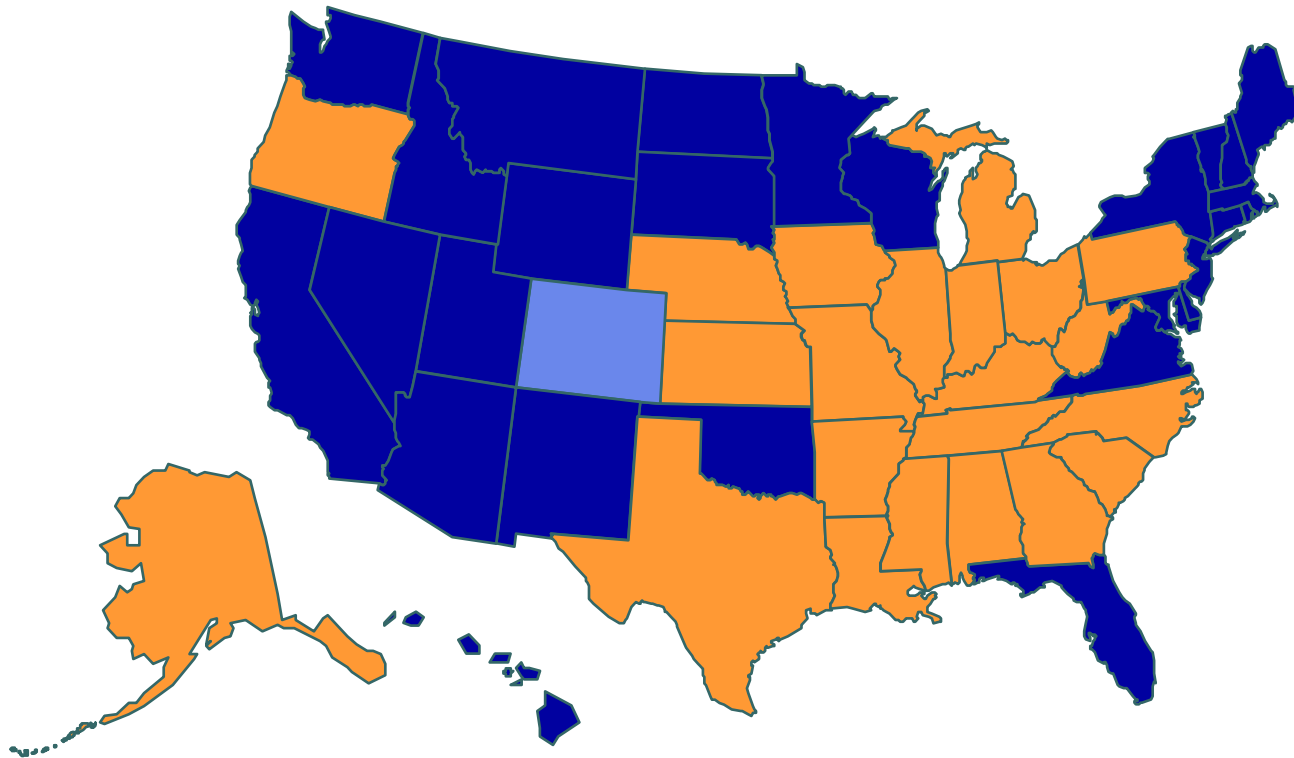




# Obesity Trends\* Among U.S. Adults

## BRFSS, 2000

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5'4" woman)



Source: Behavioral Risk Factor Surveillance System, CDC.





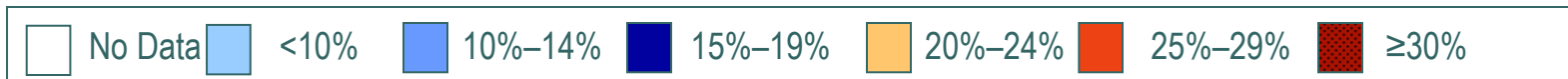
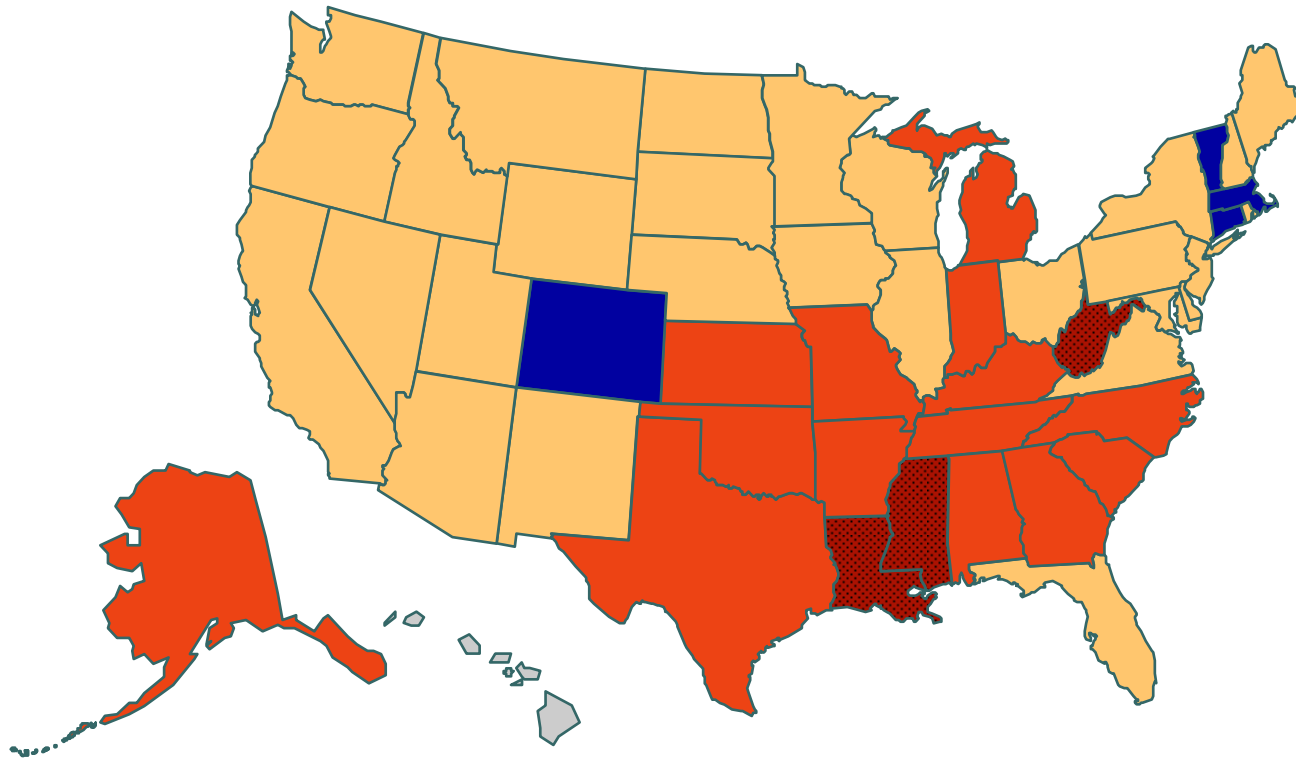




# Obesity Trends\* Among U.S. Adults

## BRFSS, 2005

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs. overweight for 5' 4" person)





● ● ● | Truth #5: The vast majority of cases of chronic disease could be better prevented or managed

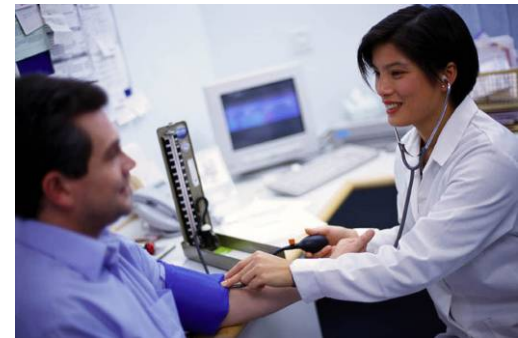
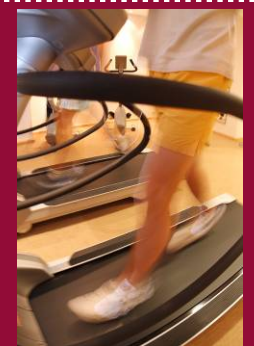
- The Centers for Disease Control and Prevention (CDC) estimates...

- **80% of heart disease and stroke**
- **80% of type 2 diabetes**
- **40% of cancer**

...could be prevented if only Americans were to do three things:

- ✓ **Stop smoking**
- ✓ **Start eating healthy**
- ✓ **Get in shape**

- Management of chronic disease could also be significantly improved: Chronically ill patients receive **only 56%** of the clinically recommended preventive health care services



Truth #6: Many Americans are unaware of the extent to which chronic disease harms their health – and their wallets.

National survey conducted in April 2007 on Americans' views of chronic disease and its impact on health and spending

Percent who believe chronic disease is responsible for the following percent of death and health spending in the U.S.

Percent answering:	Death	Spending
Less than 10%	3	6
10% but less than 20%	8	8
20% but less than 30%	14	12
30% but less than 40%	15	10
40% but less than 50%	15	12
50% but less than 60%	12	11
60% but less than 70%	7	9
70% but less than 80%	8	7
80% but less than 90%	4	3
90% to 100%	3	4
Not sure	10	18

**Two in three (68%)**  
**Americans underestimate the magnitude of the problem:**  
*That in the U.S., chronic diseases represent more than 70% of the deaths and 70% of health care costs*



# State Success Stories

[www.chronicdisease.org](http://www.chronicdisease.org)



# Healthier Communities

- Promote healthy living everywhere people live, work, play, and pray.



● ● ● | We're Everywhere in Your Neighborhood

- Schools
- Communities
- Worksites
- Childcare Centers
- Healthcare Settings



# School Health Advisory Councils

## School Health Index

- 49 of the 50 NYS Steps school districts have developed School Health Advisory Councils.
- 130 school buildings have used the School Health Index. Examples of changes include:
  - Fitness facilities and school buildings opened to staff and community.
  - Vending machine and cafeteria changes.
  - Fitness Gram testing.
  - Daily PE classes for elementary students.
  - Free breakfast program for all students.
  - New equipment to use during indoor recess.



# Learning in Motion

- The course trains teachers to incorporate physical activity into their lesson plans.
- More than 140 teachers from all 9 Rockland County School Districts have participated.
- Based on a survey of teachers who attended the program:
  - 95% use physical activity in their classroom at least several times a week.
  - 85% use it daily or several times per day.



“I incorporate movement every day in my lesson plans and classroom activities. My students love the movement and they are learning so much faster than my classes in previous years.”

—Monique Jones, Rockland County Kindergarten Teacher



# Farm to School Results

- Six districts in Jefferson County are purchasing local produce from 14 farms to serve in school cafeterias.
- Over 15,000 pounds of produce has been purchased.

“We have increased our purchasing of local foods by 70% over the past 4 years. This fall everything on the salad bar and all vegetables on the serving line are purchased from six local farmers.

Also, South Jefferson students are accepting the local foods and willing to try new items such as the sweet peppers and lemon cucumbers, and my staff is excited to work with the local farmers who are also our neighbors.”

*-Cynthia Ann Harnas, Food Service Manager, South Jefferson School District*





# Rock on Café

- All 12 Broome and 3 Tioga County School Districts have partnered to create a consolidated bid and menu system which enable bulk purchasing of fresh fruits and vegetables.
- All 46 elementary and middle schools now offer the same healthy breakfast and lunch entrees reaching more than 21,000 students.
- The purchase of fresh fruits and vegetables in the 46 schools increased by over 14%.
- Menu system began in all high schools during the 2008-2009 school year.



# ● ● ● | Young Lungs at Play

- A campaign aimed at reducing children's exposure to secondhand smoke in outdoor play areas.
- Encouraged municipalities and organizations to pass regulations banning smoking in outdoor places where children play.
- 287 municipal outdoor spaces have been designated tobacco-free zones.
- 27 laws, regulations, resolutions, or voluntary policies created.
- Policies have been passed throughout NYS and 3 other states.





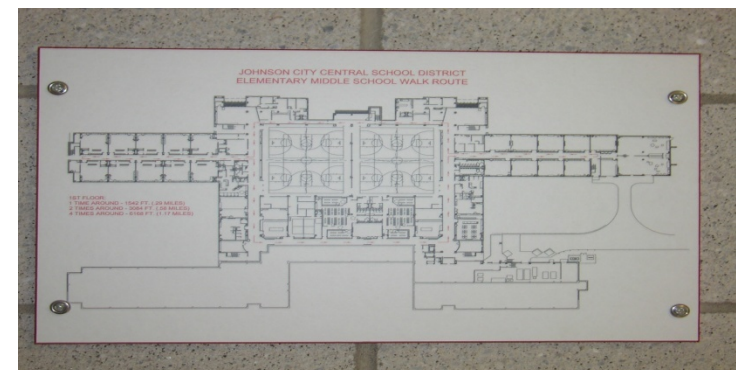
# Built Environment



- Policy and environmental changes that improve the walkability of communities.
- Over 120,000 residents have engaged in community-wide physical activity programs.
- 27 communities have developed or improved trail systems and enhanced walkability.

“If it were not for the Steps program in Broome County, I might not be alive today. I am free of blood pressure medication, I have lost weight, and I have more energy because I live in a place that supports my healthy lifestyle.”

*-Alan Wilmarth, BC Walks Participant*





# Worksite Wellness

- More than 180 worksites collaborated with Steps to administer employee wellness programs.
- Over 60 policy and environmental changes have been made in worksites. These include installation of walking paths, vending and cafeteria modifications, and implementation of healthy meeting guidelines.
- 26 worksites have completed a worksite environmental and policy assessment tool.
- 24 worksite wellness committees have been formed and are operational in Chautauqua and Jefferson counties.





# Childcare Centers

- 31 childcare centers in Broome County wrote policies, similar to the school wellness policies, which include breastfeeding friendly policies, physical activity, healthy eating, and screen time guidelines. These policies impact over 300 staff, children, and families.
- The YMCA in Jefferson County has revised its policies to require each after-school program to provide 45 minutes of physical activity every day. This resulted in:
  - improved BMI scores in children.
  - new personnel policies that ensure that staff are good role models for children under their care. The policies include restrictions on consuming soda and other unhealthy foods at work.





# Healthcare Settings

- Over 100 families have participated in Rockland County's asthma case management program which has now been adopted by Medicaid Managed Care Plans in Rockland County.
- 26 primary health care provider offices participated in Academic Detailing making a total of 52 changes.
- 5 of the 6 urgent care practices in Jefferson County instituted the use of Asthma Action Plans for children and adults presenting to their offices with asthma symptoms.





# Impact of Steps to a HealthierNY

- In Chautauqua County, the percentage of adults who currently smoke cigarettes decreased significantly from 29% to 23% in only two years.
- In Broome County, the percentage of adults who walk for at least 30 minutes on 5 or more days per week increased significantly from 53% to 62% in one year.
- In Rockland County, the percentage of adults who have received advice from a healthcare provider about their weight increased significantly from 19% to 23% in two years.
- In Broome, Jefferson, and Rockland Counties the number of 9<sup>th</sup>-12<sup>th</sup> graders who were physically active for 60 or more minutes 5 or more days per week increased significantly between 2005 and 2007.



# ● ● ● | How to Replicate Approach

- Form a community consortium.
- Work with non-traditional partners.
- Emphasize creating policy, environmental, and system changes to achieve a population-based impact.
- Partner with categorically funded programs.
- Share resources and media.
- Reach residents with multiple messages and services.
- Collaborate on funding requests.





# Steps to a HealthierNY –

reducing the burden of diabetes, cardiovascular disease, obesity and asthma



- This initiative has built healthier communities in the four NYS counties of Broome, Chautauqua, Jefferson, and Rockland, by successfully implementing policies, systems-level interventions, and changes to the environment.
- Evidence-based interventions implemented through collaborative efforts with schools, healthcare providers, worksites, and community leaders to encourage physical activity, healthy eating, and tobacco-free choices.
- As a result, **more than 400** policy, system, and environmental changes have been implemented in community, school, worksite, childcare, and healthcare settings in these four counties.



# Steps to a HealthierNY - Mission Meltaway

- An eight-week evidenced-based healthy weight management program provided free of cost
- Promotes a team approach to healthy eating and increased physical activity
- Fosters sustainable changes in systems, policy, and the environment
- Nationally recognized



# Mission Meltaway Impact

- More than 300 Mission Meltaway programs have reached **over 6,000** people
- 80% were at risk for diabetes due to their weight status
- Average weight loss > 5 pounds
- **More than 30,000** pounds have been lost



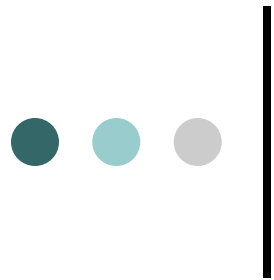
## Improving Fitness and Nutrition for African American Women in Tennessee

- The Urban League of Greater Chattanooga Tennessee implemented a pilot adaptation of an evaluated National Institutes of Health healthy weight program called *Sisters Together: Move More, Eat Better* which is designed to appeal to African American women, a population group with a high rate of obesity.
- Funding was provided by the Blue Cross Blue Shield of Tennessee Health Foundation, Unum, a Tennessee-based insurance company, the Lyndhurst Foundation, and the Tennessee Department of Health.



## Improving Fitness and Nutrition for African American Women in Tennessee

- The main objective was to implement a sustainable program so that many more African American women would be able to reach fitness and nutrition goals following the pilot implementation.
- The Tennessee Department of Health Diabetes Prevention and Control Program, Waterhouse Public Relations, the Black Nurses Association, and Erlanger Health System joined the original partners to enhance sustainability of the program.



# Impact

- All participants reported improved eating habits and increased weekly physical activity.
- Almost a third of the participants lowered their body mass index, an indicator that correlates with the amount of body fat a person has.
- The Urban League and local partners are extending this successful program as a “Little Sisters” program for teens, reaching a vulnerable group earlier in the cycle of developing obesity.



# Resources

- [www.nyhealth.gov](http://www.nyhealth.gov)
- [www.cdc.gov](http://www.cdc.gov)
- [www.chronicdisease.org](http://www.chronicdisease.org)
- [www.fightchronicdisease.org](http://www.fightchronicdisease.org)