

Healthy Lifestyles:

Smoking, Obesity & Other Risk Factors in Delaware

*Prepared for the Council on Health
Promotion and Disease Prevention*

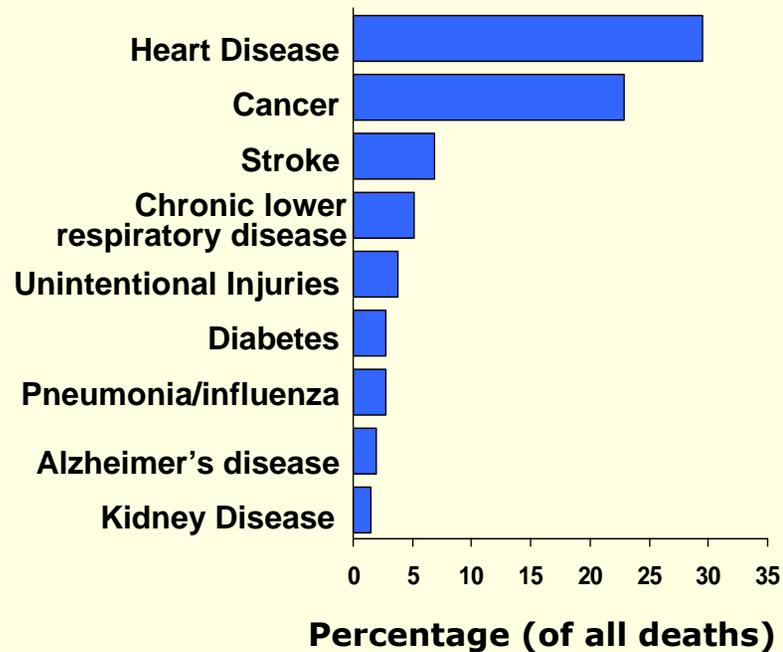
January 11, 2011



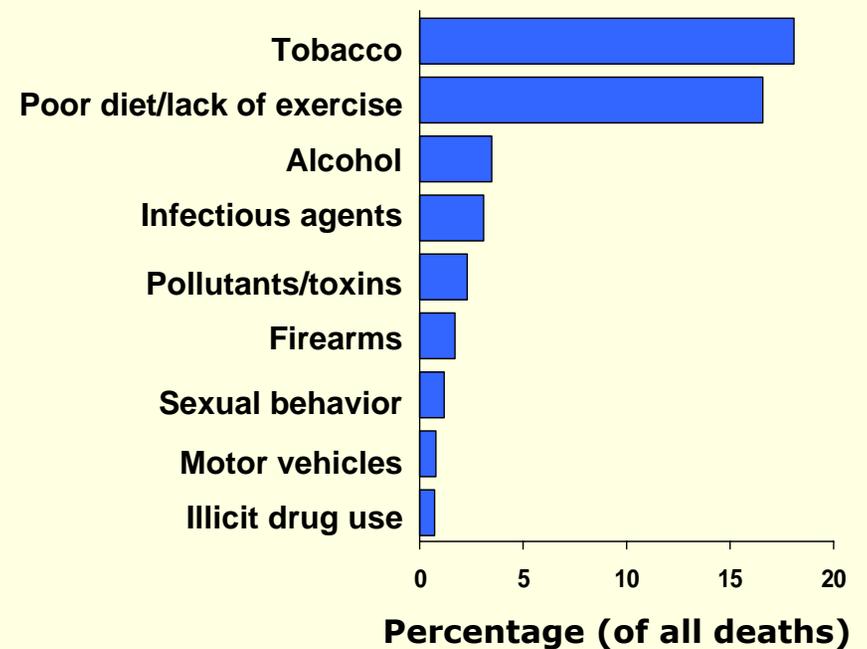
DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Health Promotion and Disease Prevention

Chronic Diseases and Related Risk Factors in the United States

Leading Causes of Death*



Actual Causes of Death†



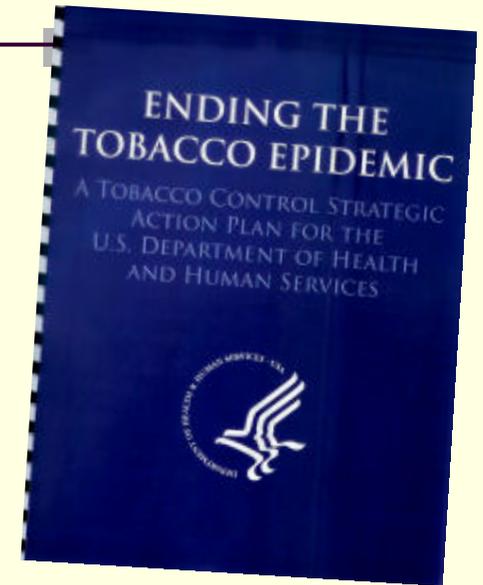
* National Center for Health Statistics. Mortality Report. Hyattsville, MD: US Department of Health and Human Services; 2002

† Adapted from McGinnis Foege, updated by Mokdad et. al.



Still #1

“Tobacco is the leading preventable cause of death, not just in America, but also in the World.”



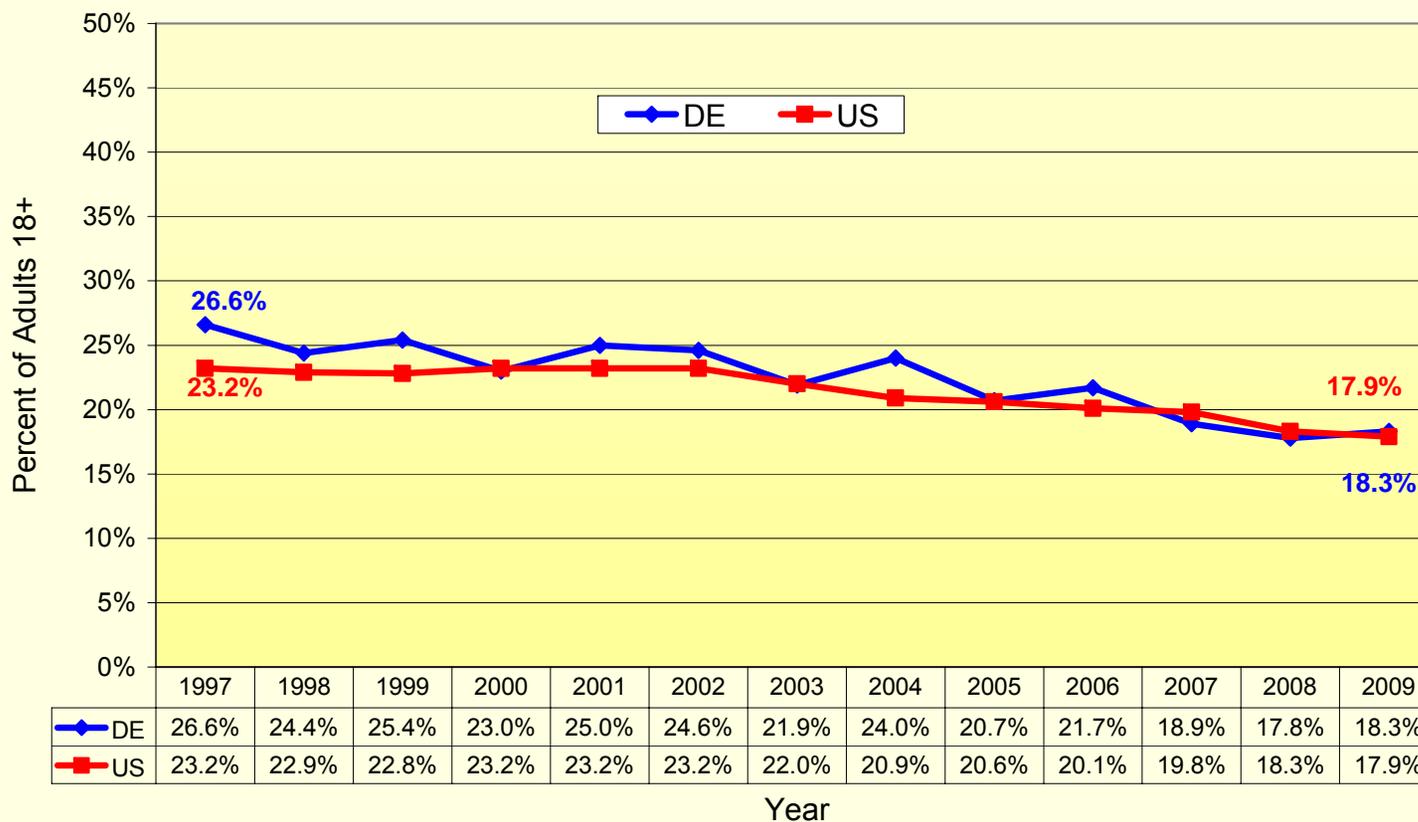
— *President Barack Obama*
June 22, 2009



DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Health Promotion and Disease Prevention

Adult Smoking Trends – US & DE

Delaware and National Adult Smoking Trends 1997-2009



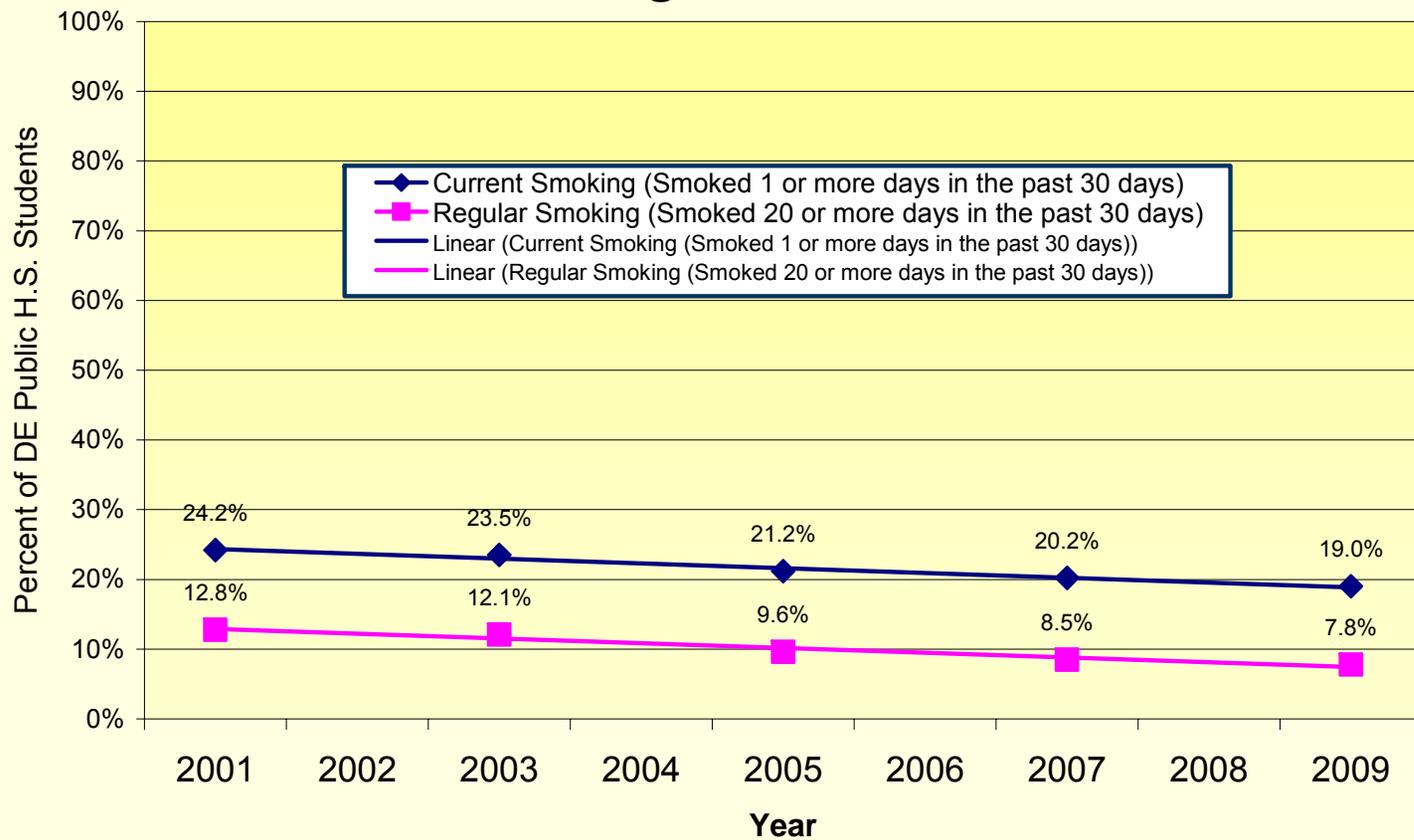
Source: DHSS, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 1997-2009.



DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Health Promotion and Disease Prevention

Smoking Among DE H.S. Students

Prevalance of Smoking Declined Among Delaware High School Students



Source: DE Department of Education, Youth Risk Behavior Survey (YRBS)



DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Health Promotion and Disease Prevention

Tobacco Issues:

- Changes in technology have impacted survey research; **changing methodology will give better estimates.**
- Tobacco industry is creating **new products.**
- Times of **recession and stress** often result in higher smoking prevalence (and increases in other drug use)
- **Little cigars, cigarillos, and new tobacco products** are cheaper, due to different taxation and marketing.



Tobacco Issues: Industry Marketing

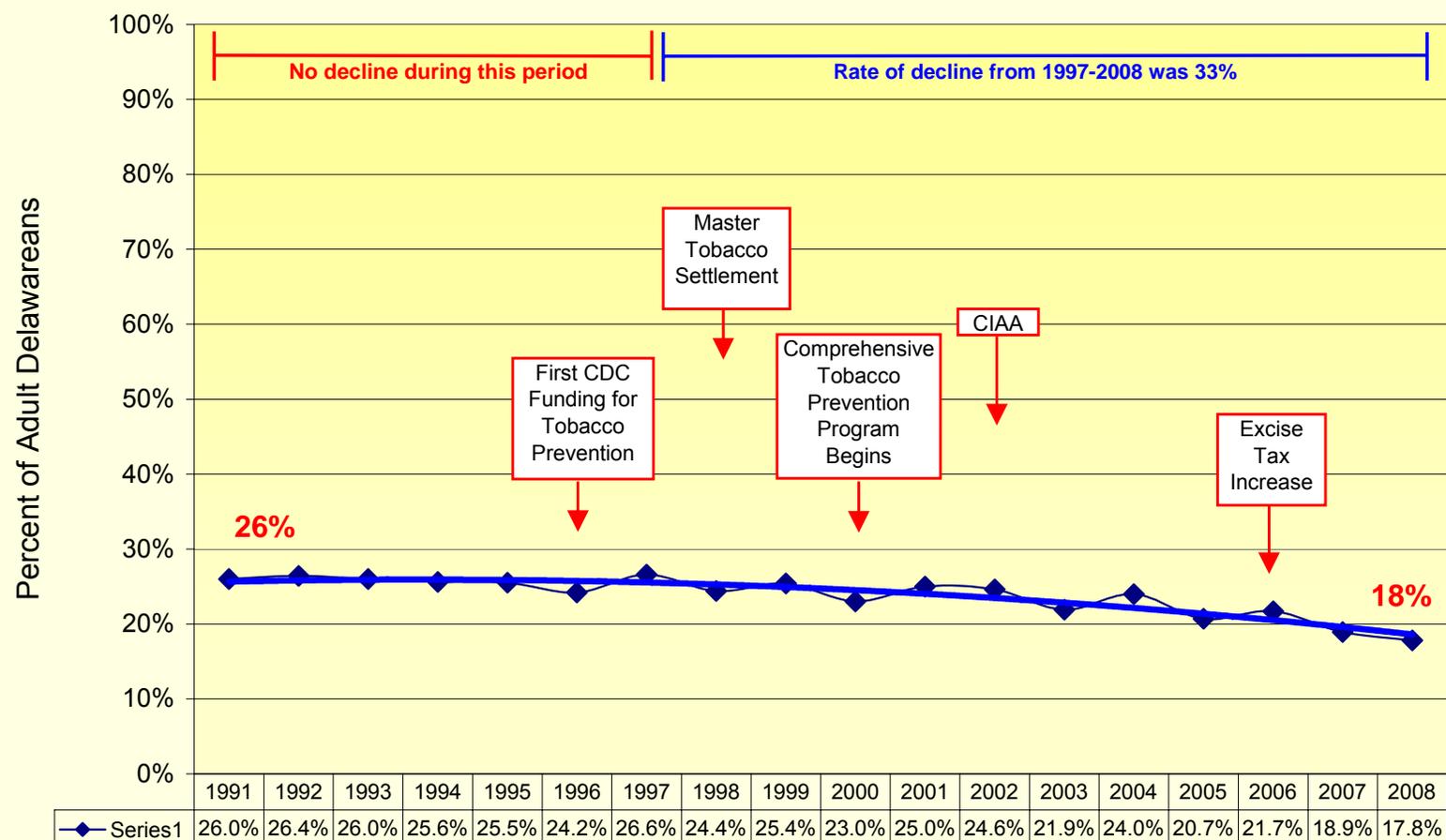
- **“The tobacco industry has gone to great lengths to target the African-American community** over the past 30 years. Through market research and aggressive advertising, the industry has successfully penetrated this population.”*
- The impact: **African Americans suffer the greatest burden of tobacco-related mortality** of any ethnic or racial group in the U.S.*

*U.S. Department of Health and Human Services (HHS), *Tobacco Use Among US Racial/Ethnic Minority Groups—African Americans, American Indians and Alaskan Natives, Asian Americans and Pacific Islanders, and Hispanics: A Report of the Surgeon General*, 1998.



Impact of Anti-Smoking Programs

Delaware Adult Smoking Trend, 1991-2008



Source: DHSS, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 1991-2008.



DELAWARE HEALTH AND SOCIAL SERVICES
 Division of Public Health
 Health Promotion and Disease Prevention

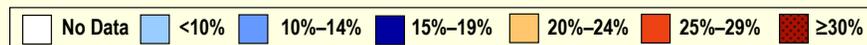
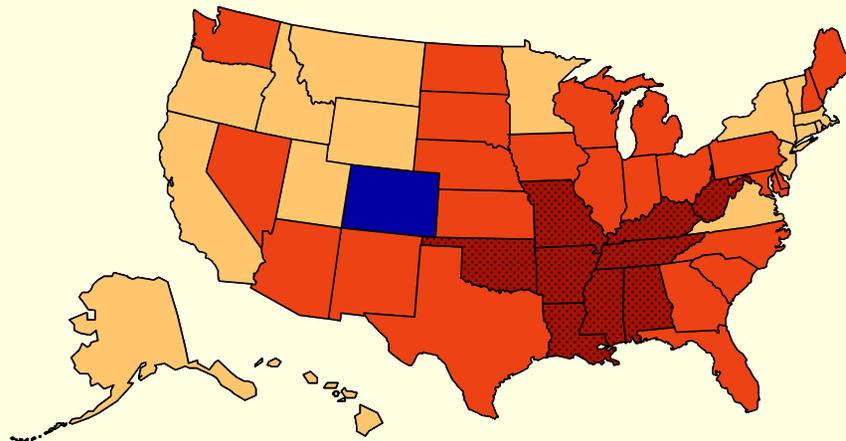
Obesity Still #2



- **Obesity** – combined with poor diet and lack of physical activity – is the **second leading preventable cause of death** in Delaware and the U.S.

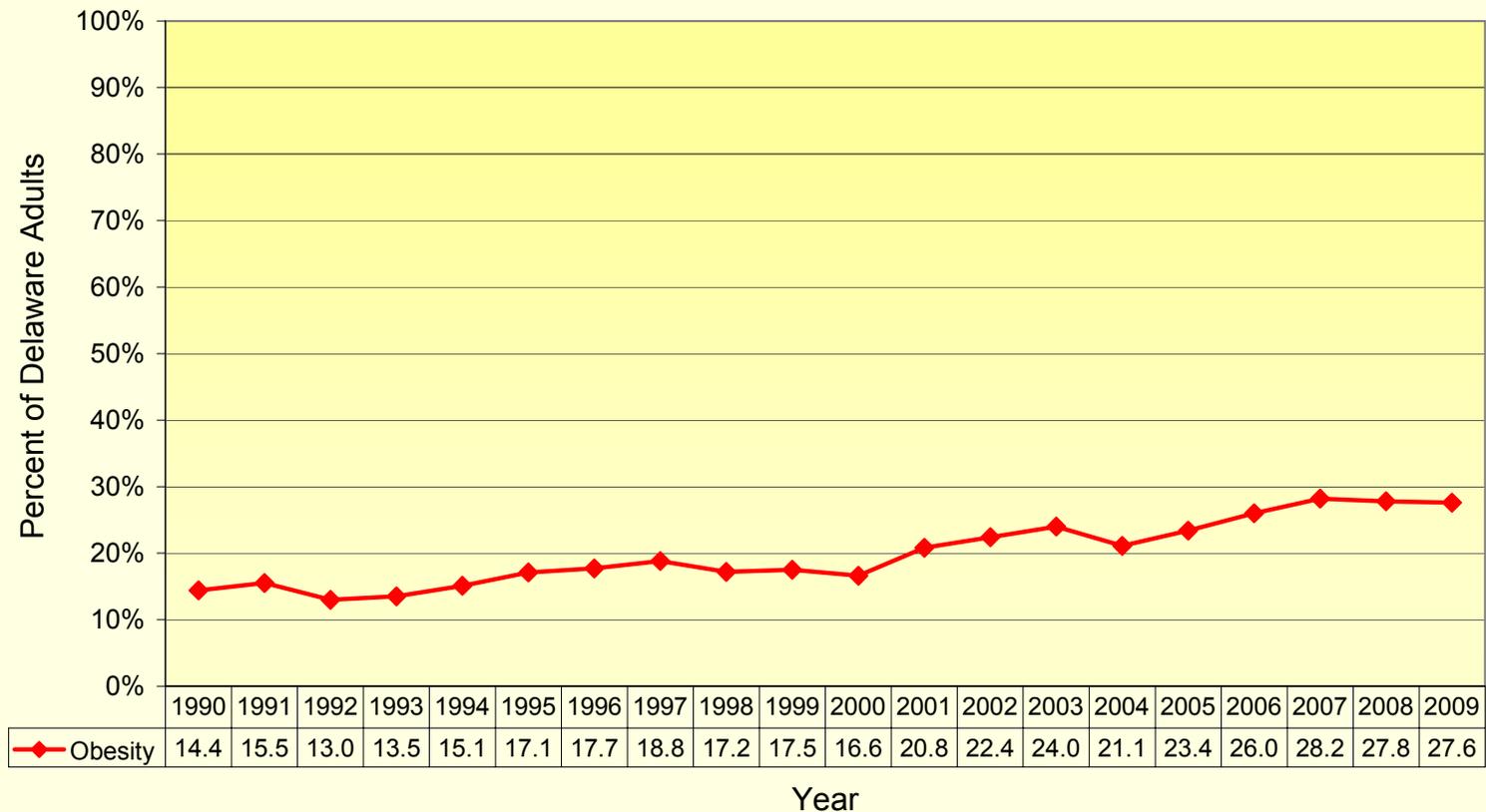
Obesity Trends* Among U.S. Adults BRFSS, 2009

(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Among DE Adults

Obesity Doubled Among Delaware Adults 1990-2007; Level Since 2007



Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey, 1990-2009.

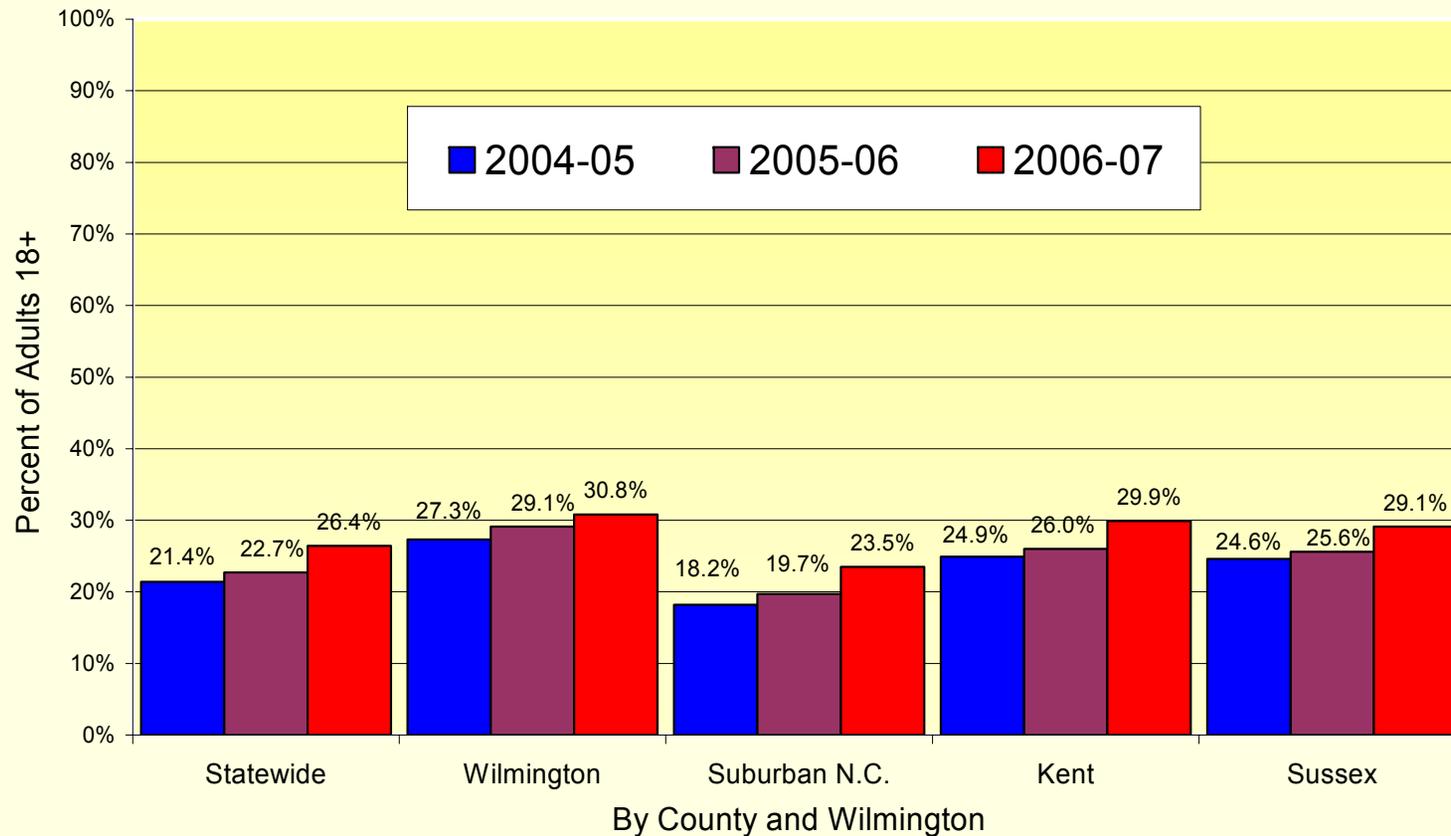
Obesity is defined as a Body Mass Index (BMI) of 30 or greater.



DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Health Promotion and Disease Prevention

Delaware Adult Obesity by County

Obesity in Delaware
Rolling 2-year averages (2004-05, 2005-06, 2006-07)



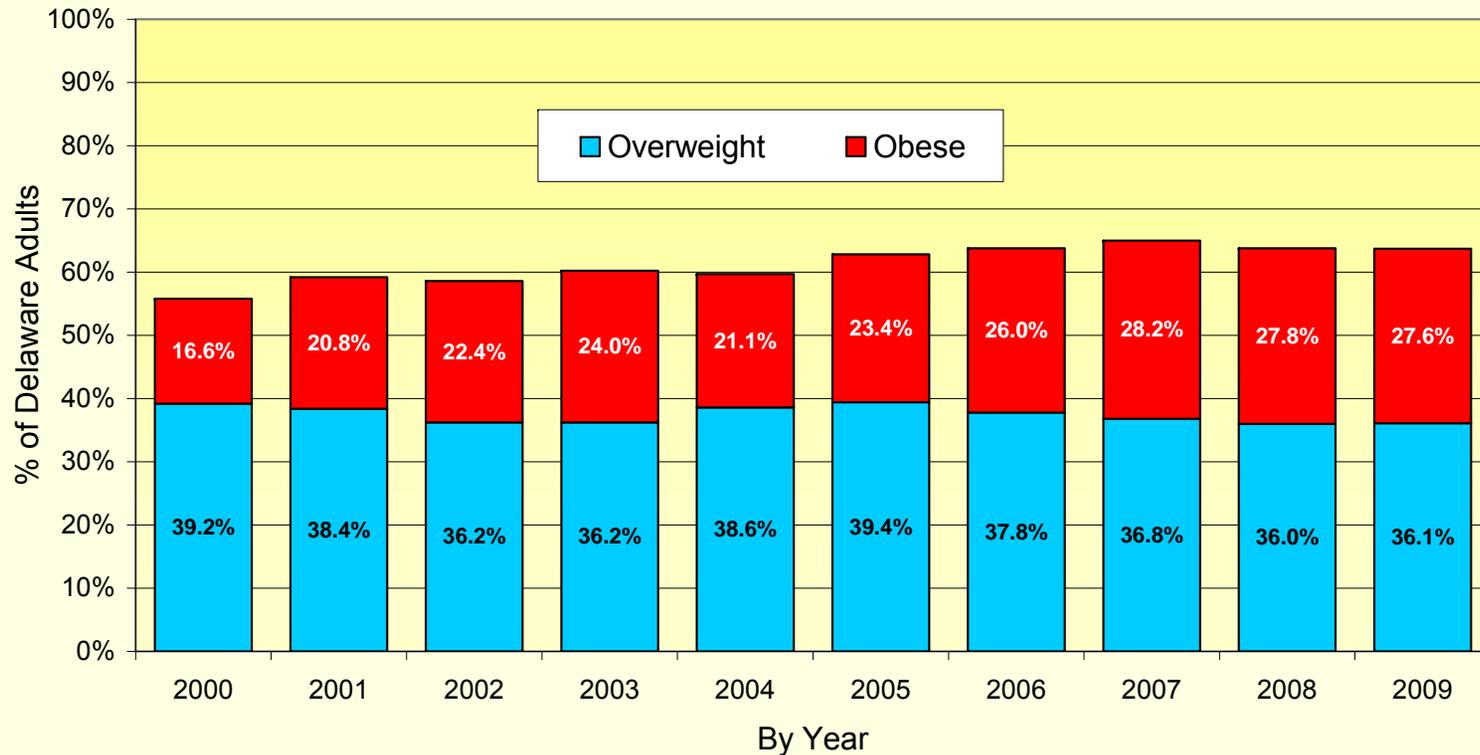
Source: Delaware Health & Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2004-2007.



DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Health Promotion and Disease Prevention

Majority Are Overweight or Obese

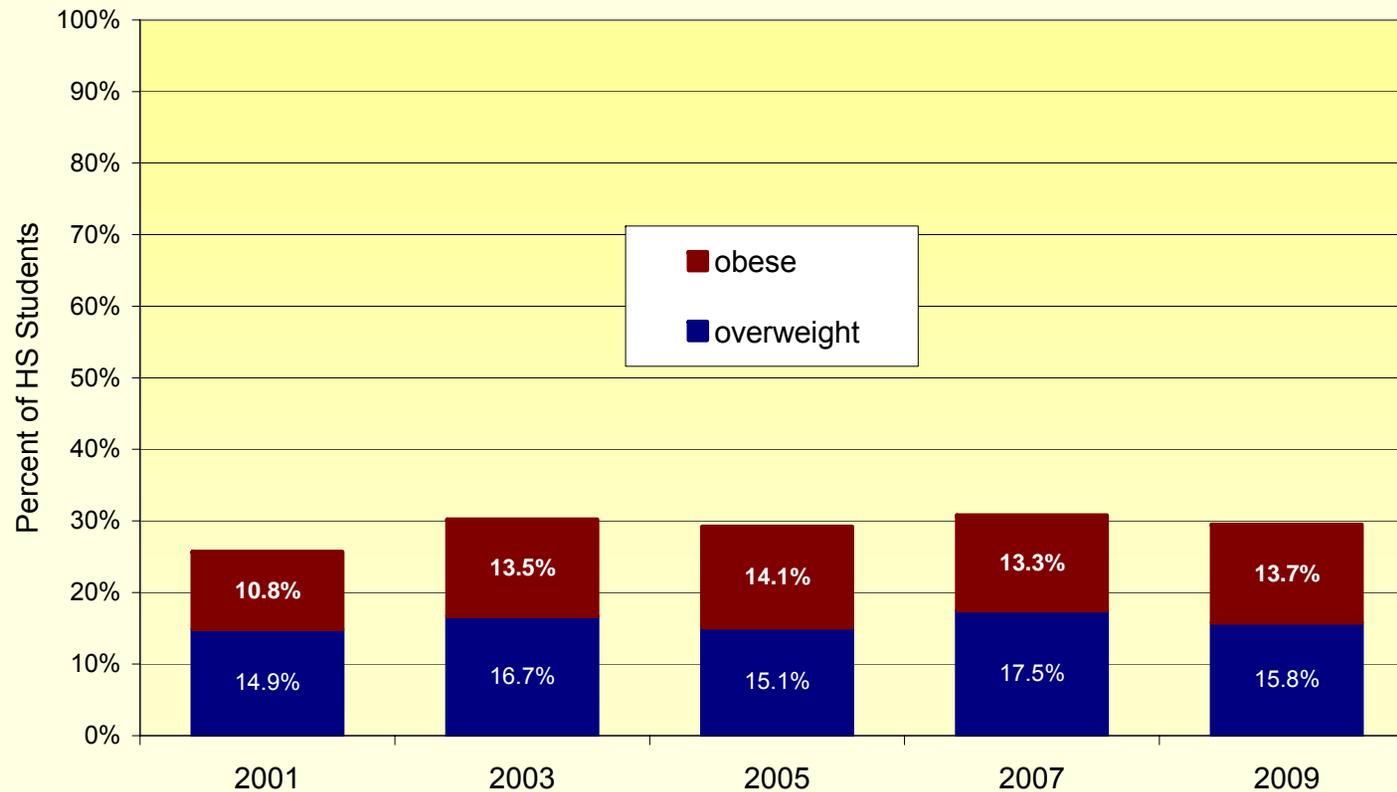
Overweight & Obesity Among DE Adults, 2000-2009



Source: Delaware Health and Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2000-2009.
Overweight = BMI 25-29.9; Obese = BMI \geq 30

Overweight and Obesity Among Delaware H.S. Students

Overweight & Obesity Among Delaware Public High School Students, 2001-2009

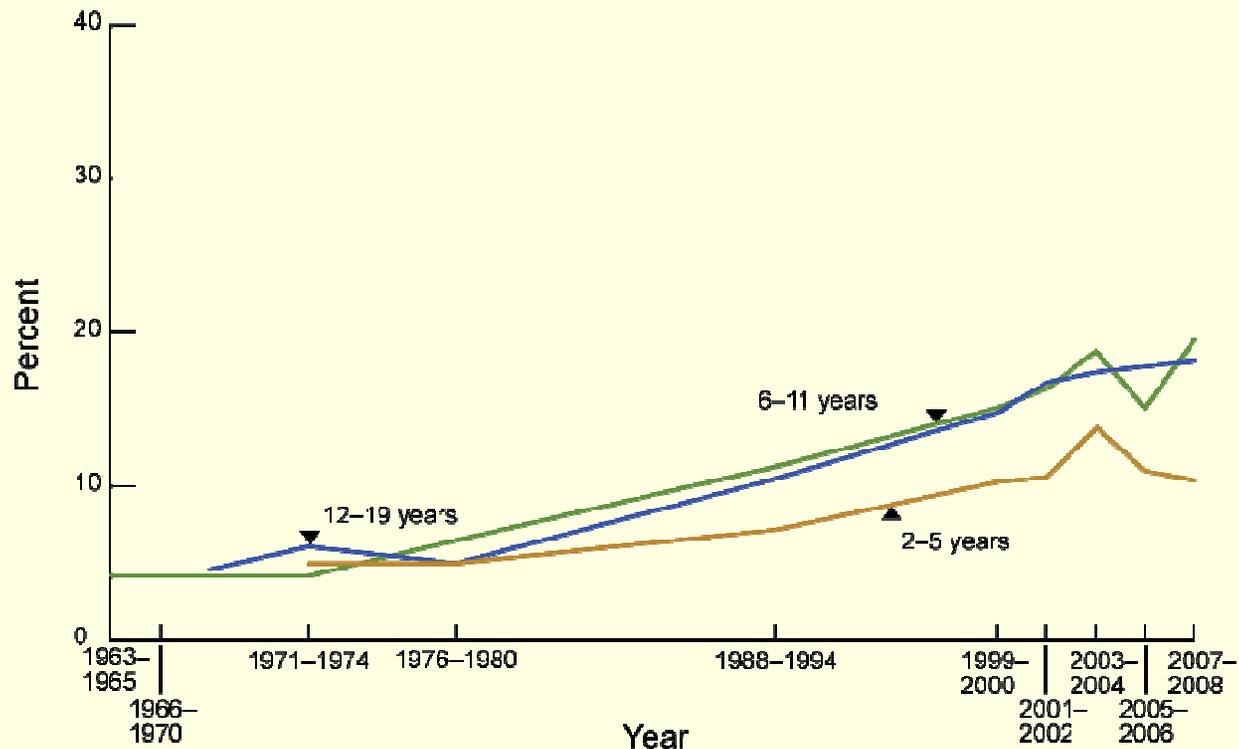


Source: Centers for Disease Control and Prevention and Delaware Department of Education, Youth Risk Behavior Survey, 2001-2009.



National Data on Obesity in Children: Tripled Since 1970s (NHANES)

**Figure 1. Trends in obesity among children and adolescents:
United States, 1963–2008**



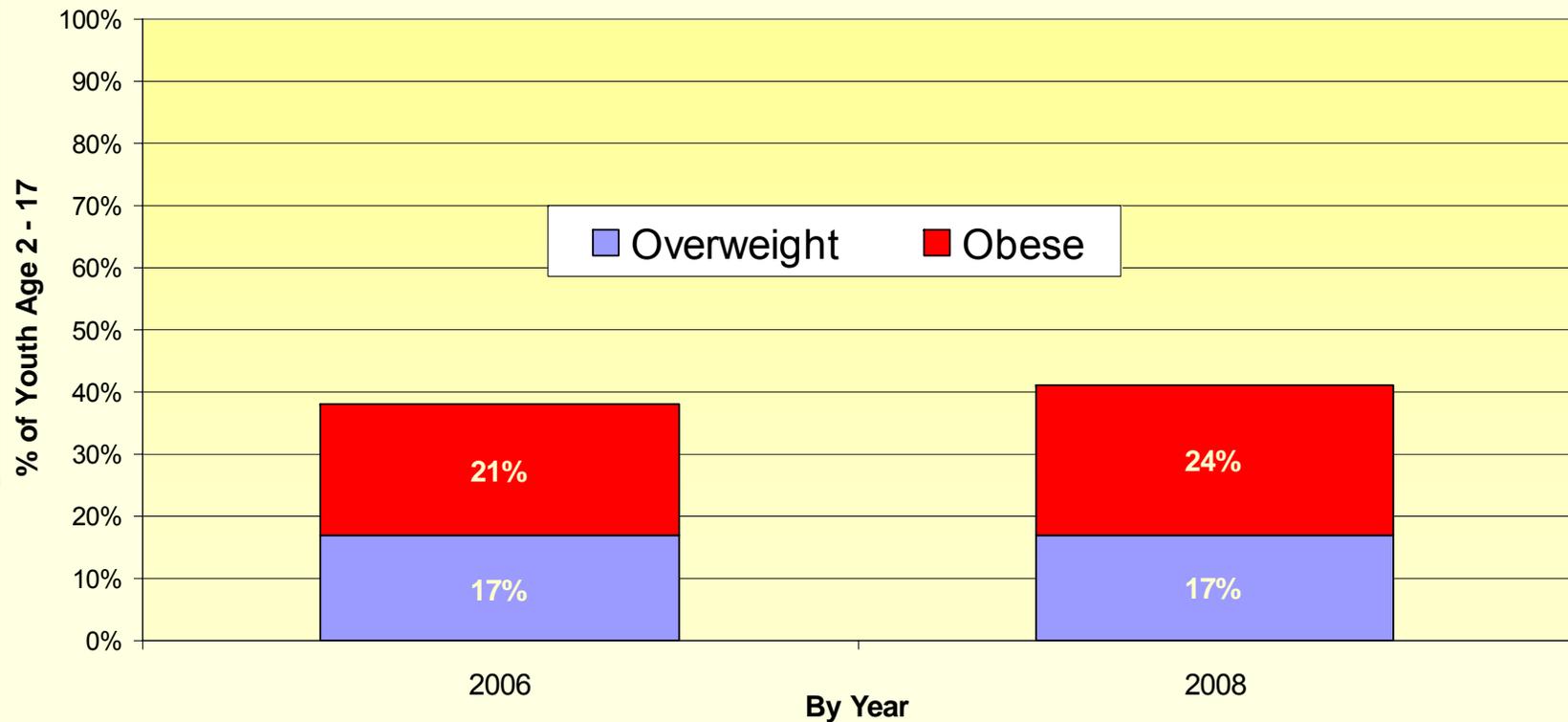
NOTE: Obesity is defined as body mass index (BMI) greater than or equal to sex- and age-specific 95th percentile from the 2000 CDC Growth Charts.

SOURCES: CDC/NCHS, National Health Examination Surveys I (ages 6–11), III (ages 12–17), and National Health and Nutrition Examination Surveys (NHANES) I–III, and NHANES 1999–2000, 2001–2002, 2003–2004, 2005–2006, and 2007–2008.



Estimates for Delaware

Prevalence of Child Overweight and Obesity in Delaware, 2006 & 2008



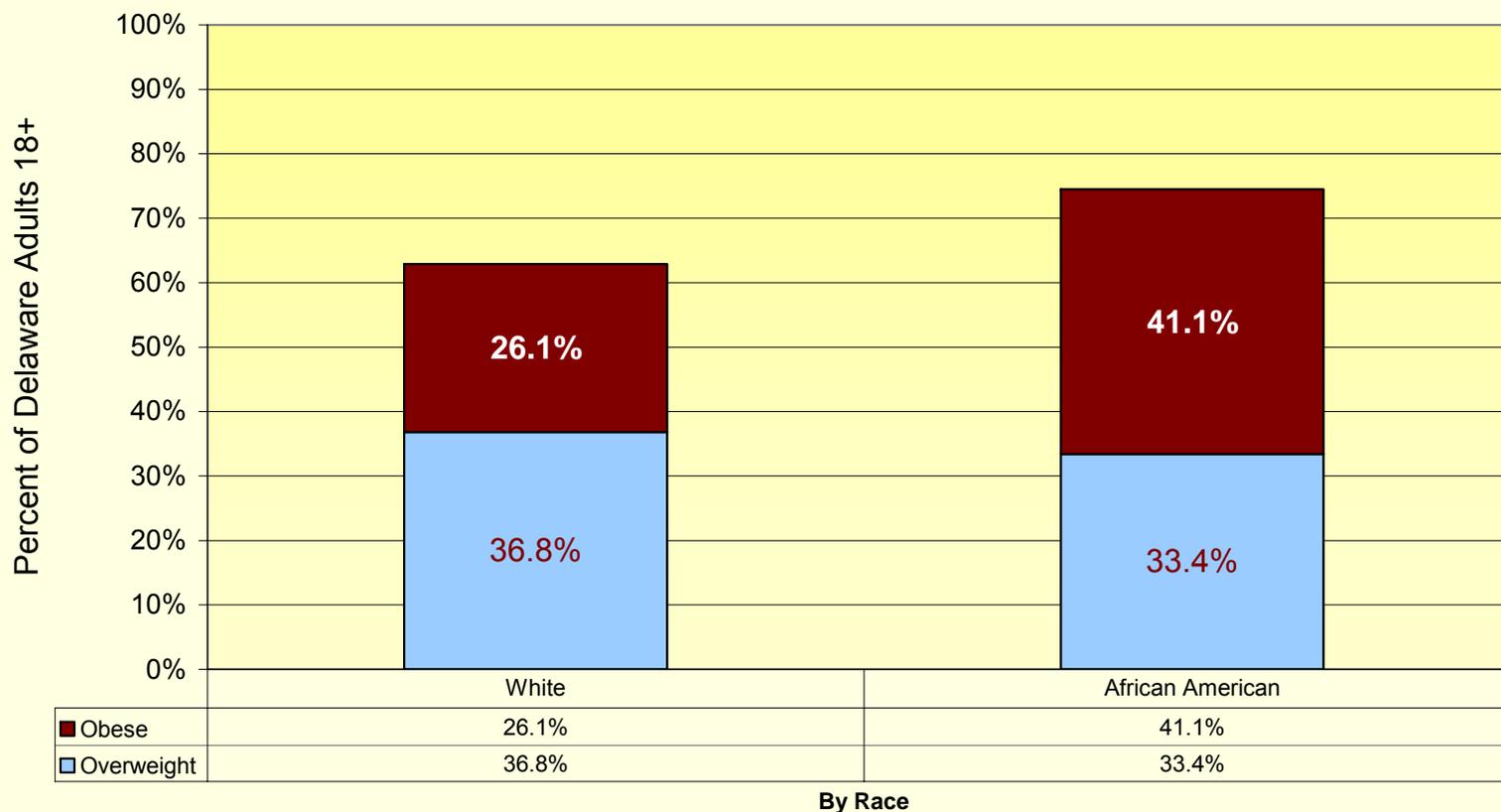
Source: Nemours Health and Prevention Services, Delaware Survey of Children's Health, 2006 and 2008; published in Health Affairs, March 2010, 29:3.



DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Health Promotion and Disease Prevention

Significant Racial Disparity Exits

White and African American Adults, 2009: Significant Disparity for Obesity



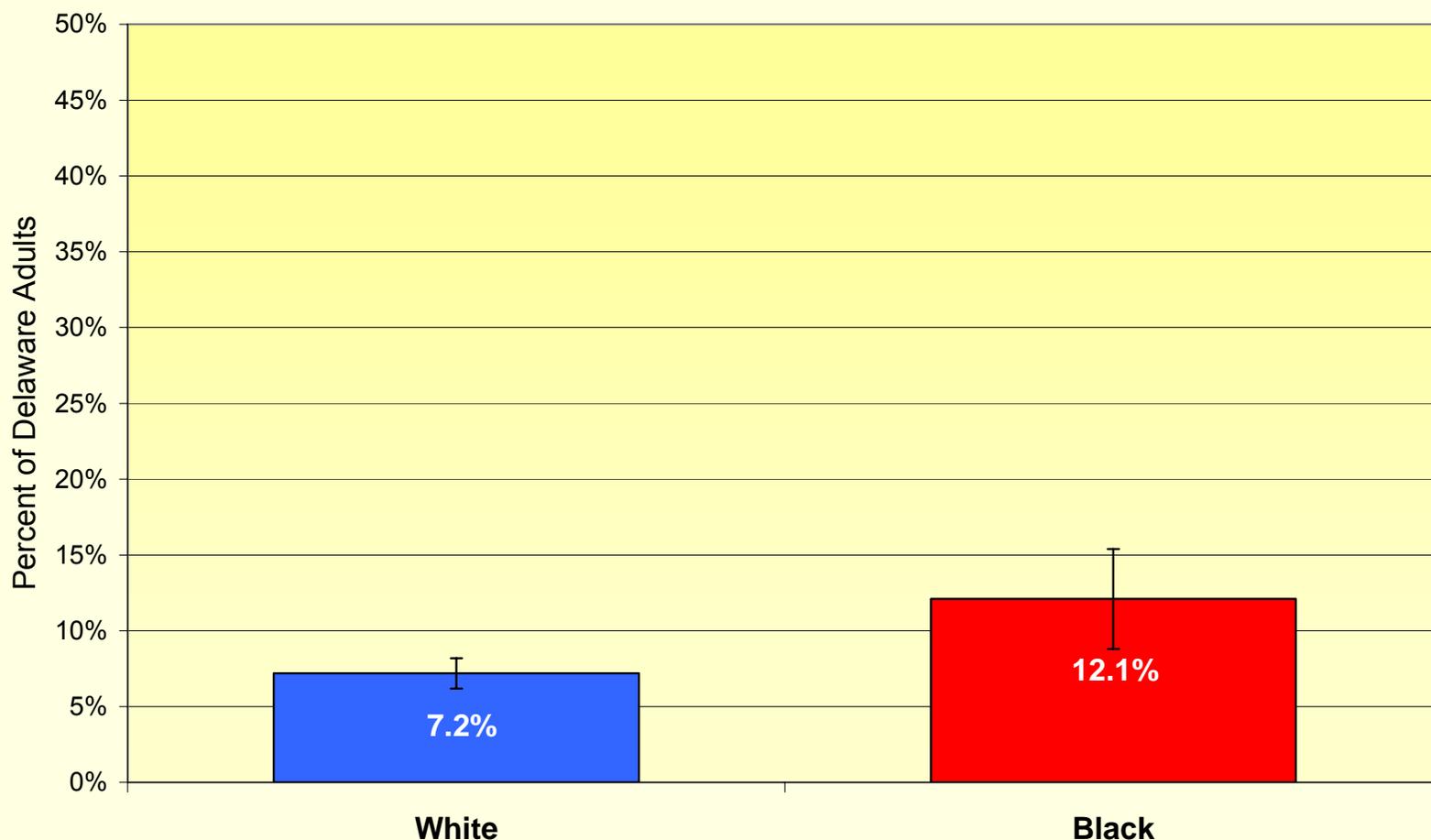
Source: DHSS, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2009.



DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Health Promotion and Disease Prevention

Diabetes Prevalence Mirrors Disparity in Obesity

Delaware Adults With Diabetes: 2009



Source: DHSS, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2009.



DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Health Promotion and Disease Prevention

1 in 3 Children Could Develop Diabetes



- If current trends continue, **1 in 3 Americans** will develop diabetes during in their lifetime, and those with diabetes will lose, on average, 10-15 years of life.
- In 2009, about **54,400 Delaware adults** had been told by a doctor that they have **diabetes**.
- In 2009, an additional **36,000 Delaware adults** had been told by a doctor that they have **pre-diabetes**.
- For people with pre-diabetes, **lifestyle changes**—including a 5 to 7% weight loss and at least 150 minutes of physical activity per week—can reduce the rate of onset of type 2 diabetes by 58%.



Impact on Youth



- **“No longer considered to be a condition of primarily adult onset**, type 2 diabetes has become increasingly common among children aged 6-11 years and adolescents aged 12-19 years.”
- “The increase in type 2 diabetes among children and adolescents has emerged in parallel with an **alarming rise** in the number of young people who have become overweight or obese.”

➤ Kenneth Copeland, M.D., *et al*, ***Clinical Diabetes*** October 2005; vol. 23 no. 4; 181-185



Other Disparities



- Prevalence of tobacco use, obesity and diabetes is **significantly higher among people with disabilities**.
 - Obesity: 25.8% v. 42.2%
 - Diabetes: 5.3% v. 15.5%
 - Smoking: 17.1% v. 23.3%
- **18.3%** of Delaware adults **report a disability** of some type, which limits their activities.
- **7.2%** report a disability which requires special equipment.

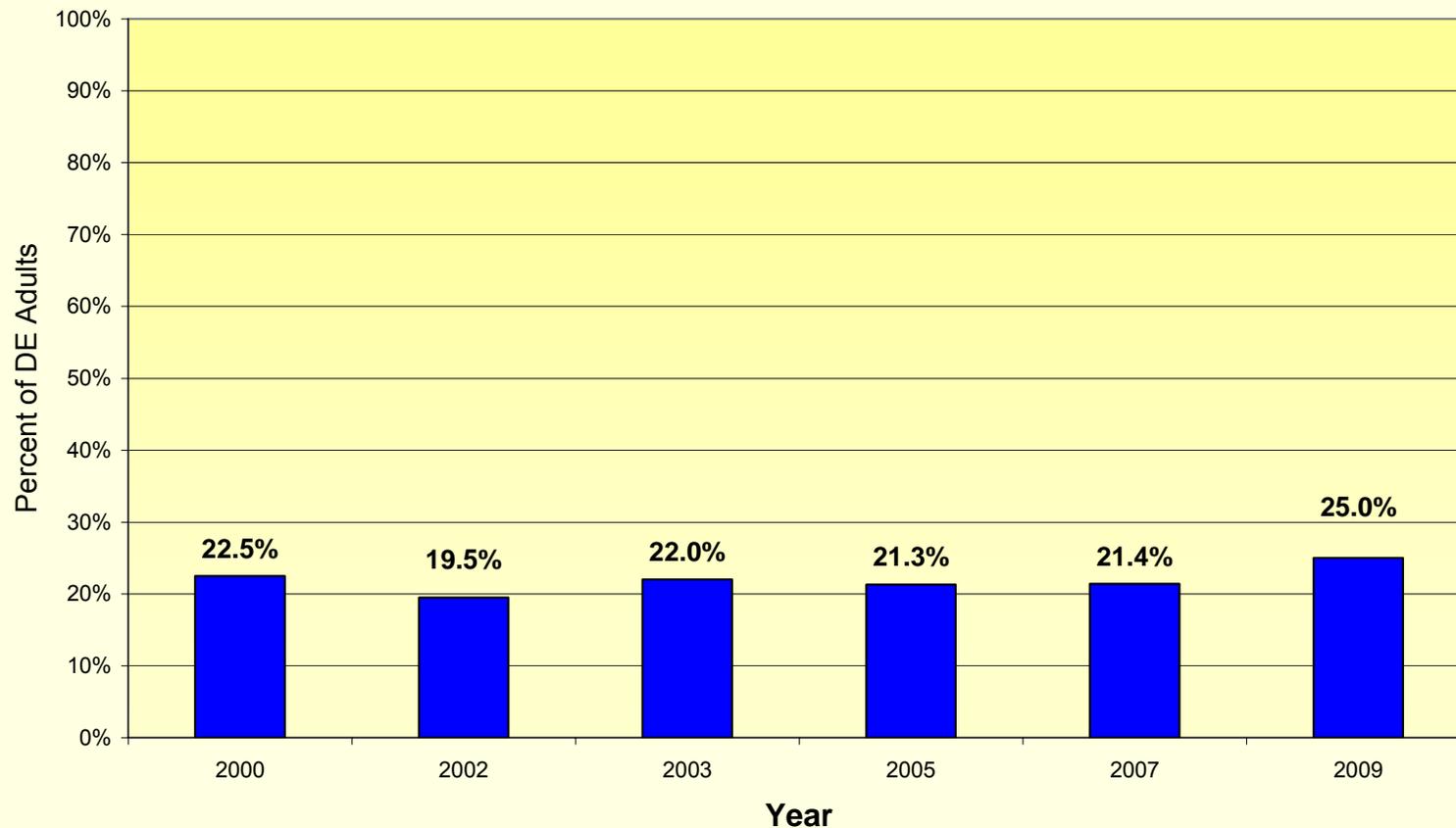
Source: DHSS, Division of Public Health, Behavioral Risk Factor Survey, 2009; crosstabs from UD study, *Disability and Health in Delaware*, Delaware Behavioral Risk Factor Survey, 2006-2008.



DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Health Promotion and Disease Prevention

Adult Fruit/Veggie Consumption Low – But Up Slightly in 2009

**Adults Who Eat 5 or More Servings
of Fruits and Vegetables Daily: 2000-2007**



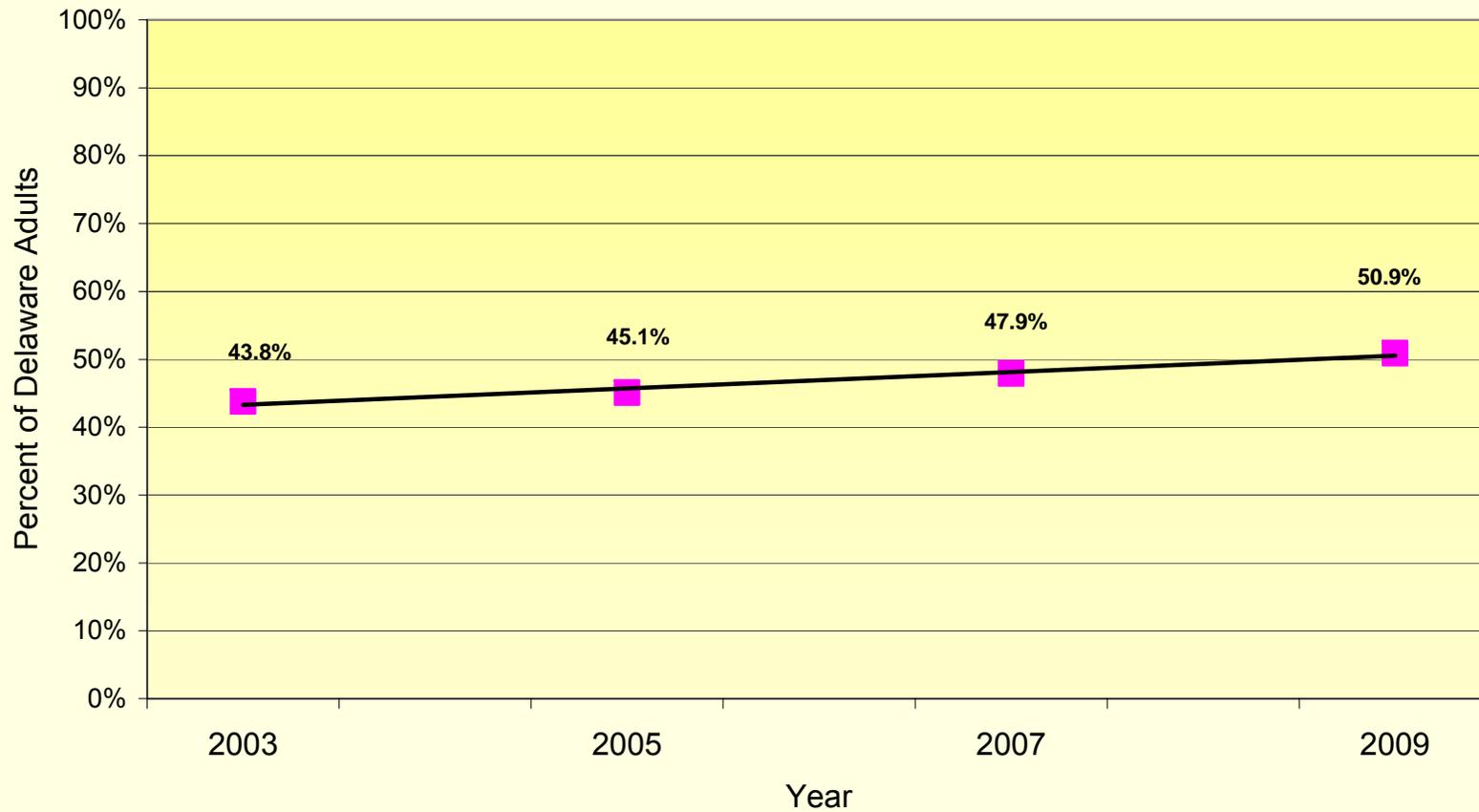
Source: DHSS, DPH, Behavioral Risk Factor Survey (BRFS), 2000 – 2009.



DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Health Promotion and Disease Prevention

Adult Physical Activity Slowly, But Steadily Increasing

**Delaware Adults Who Meet Recommendations
for Moderate and/or Vigorous Physical Activity: 2003-2009**



Source: DHSS, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2003-2009.

High School Physical Activity

Only **40.4%** of Delaware high school students were physically active for a total of **60 minutes per day on five of the past seven days.**

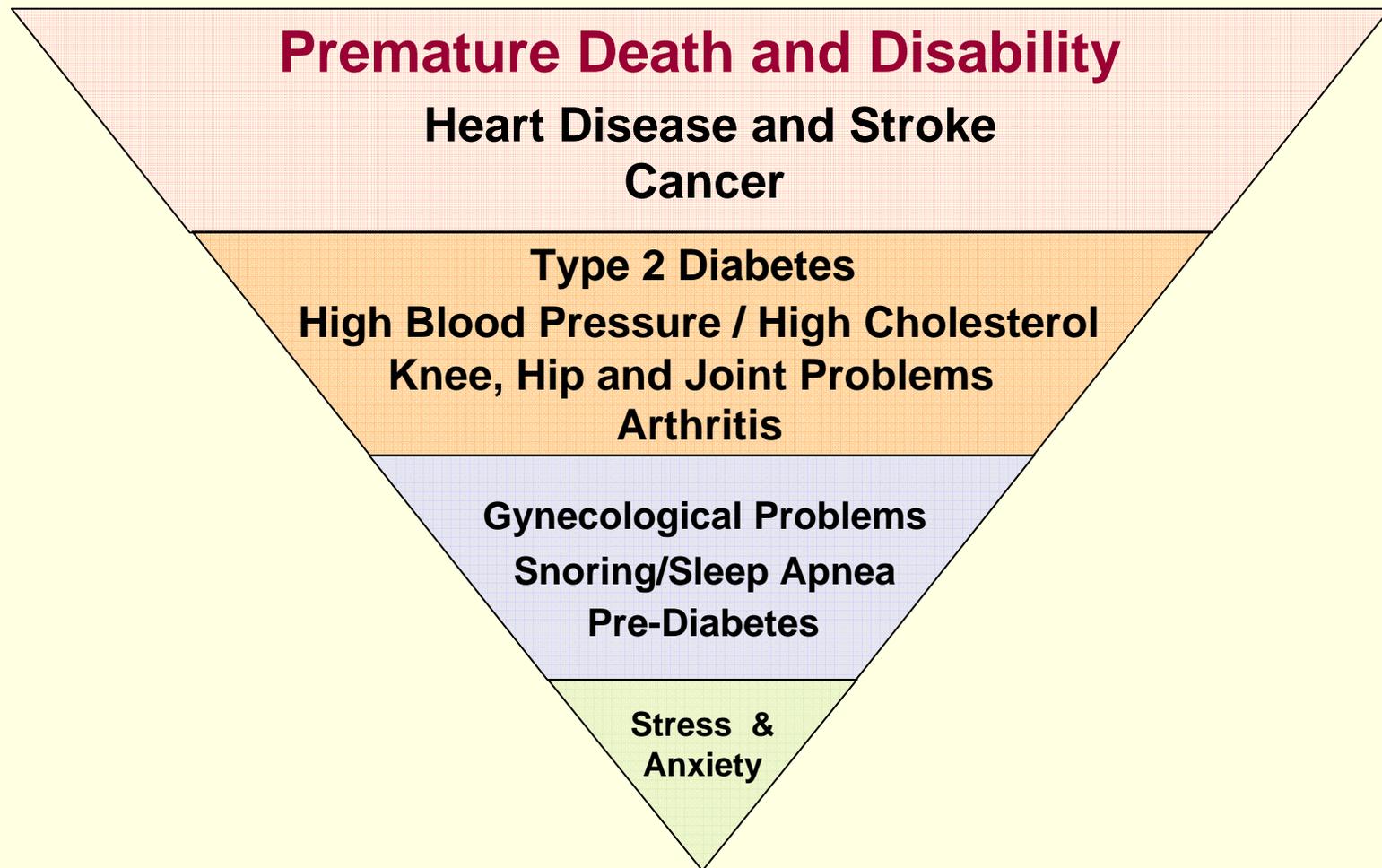
-2009 Youth Risk Behavior Survey (YRBS);
criteria based on CDC recommendations.



About **38%** of DE high school students reported watching **three or more hours of TV per day on school days.**

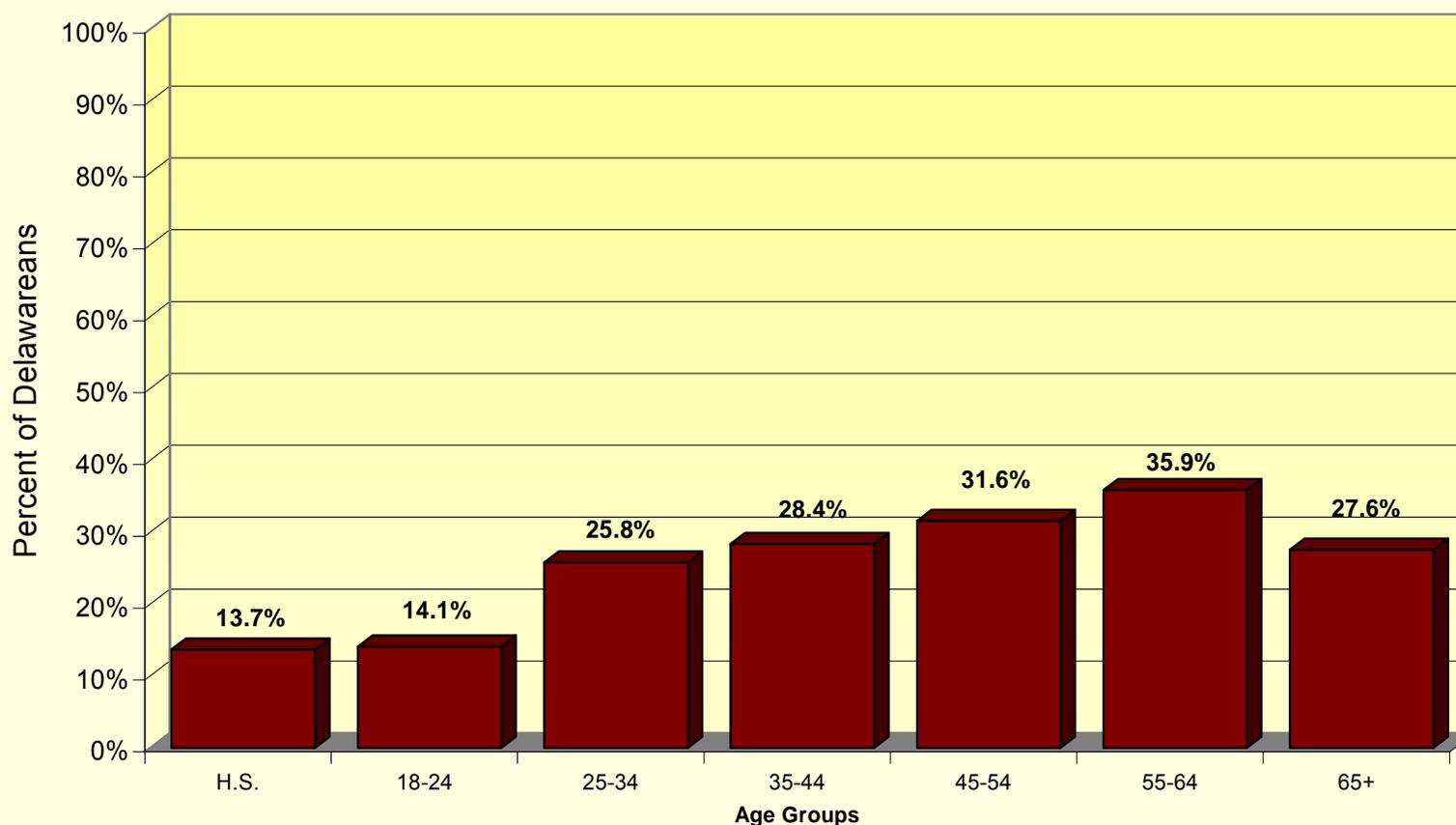


Cumulative Impact of Obesity



Prevalence of Obesity Increases With Age

Obesity in Delaware by Age, 2009



Sources: H.S. data from DOE Youth Risk Behavior Survey, 2009; adult data from DHSS/DPH, Behavioral Risk Factor Survey, 2009.



Health Costs of Smoking & Obesity

- Heart Disease and Stroke
- Several Types of Cancer
- Lung Diseases: Asthma, COPD, Emphysema
- Type 2 Diabetes
- Sleep Apnea
- Arthritis
- Liver and Gallbladder Diseases
- Gynecological Problems
- Stress and Emotional Problems



Tobacco-Related Health Costs

- In 2004, there were an estimated **1,297 deaths** in Delaware attributable to smoking.
- Between **18 and 20%** of annual deaths in **Delaware** are attributable to use of tobacco products.
- About 18,800 years of potential life lost (YPLL) are attributable annually to smoking in Delaware.

Sources: Centers for Disease Control and Prevention, *Smoking Attributable Mortality, Morbidity, and Economic Costs*, 2004. Most recent available research.

Economic Costs . . .



- Smoking-attributable health care expenditures per year in Delaware = **\$473 million.**
- Annual productivity losses in Delaware attributable to smoking = **\$367.8 million**
- Annual adult obesity-attributable medical expenditures in Delaware = **\$207 million**

Sources: Finkelstein, Fiebelkorn and Wang, "State-Level Obesity-Attributable Expenditures," *Obesity Research*, 12:1:January 2004; and the Centers for Disease Control and Prevention, *Smoking Attributable Mortality, Morbidity, and Economic Costs*, 2004. Most recent available research.



Diabetes Is Costly:



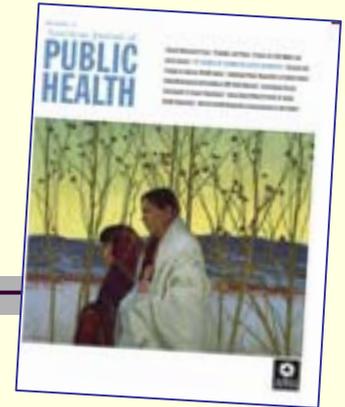
- Total US costs (direct and indirect) of diabetes: **\$174 billion**.
- Direct US medical costs: **\$116 billion**.
- Indirect US costs (related to disability, work loss, premature death): **\$58 billion**.
- People with diagnosed diabetes have medical expenditures that are about **2.3 times higher** than medical expenditures for people without diabetes

■ *US data from CDC*



DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Health Promotion and Disease Prevention

Potential Medical Care Savings From Primary Disease Prevention



- National estimate: **“reducing diabetes and hypertension prevalence by 5% would save approximately \$9 billion annually in the near term.”**
- Savings could rise to about **\$24.7 billion annually in the medium term.**
- Returns were greatest in absolute terms for private payers, but **greatest in percentage terms for public payers.**
- Well-designed interventions that achieve improvements in lifestyle-related risk factors could result in sufficient savings to **offset intervention costs.**

American Journal of Public Health, January 2011



DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Health Promotion and Disease Prevention

Potential Medical Care Savings From Primary Disease Prevention

- Short-term and medium-term modifiable diseases:
 - Diabetes
 - High blood pressure
 - Heart disease
 - Cerebrovascular disease
 - Renal disease
- Estimated **Delaware medical expenditure savings** following a **5% reduction in prevalence** of the above conditions:
 - Short-run: **\$33 million** a year
 - Medium-run: **\$92.4 million** a year



Source: Ormand *et al*, "Potential National and State Medical Care Savings from Primary Disease Prevention," *American Journal of Public Health*, November 18, 2010.
<http://ajph.aphapublications.org/cgi/content/abstract/AJPH.2009.182287v1>



DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Health Promotion and Disease Prevention

Next Steps . . .

What can
we do?



Changes in Risks → Big Results

✓ **No smoking**



✓ **More physical activity**

✓ **Healthier eating**

✓ **No alcohol or drug abuse**



Reduction in smoking prevalence and obesity work together to prevent many of the major chronic health problems.

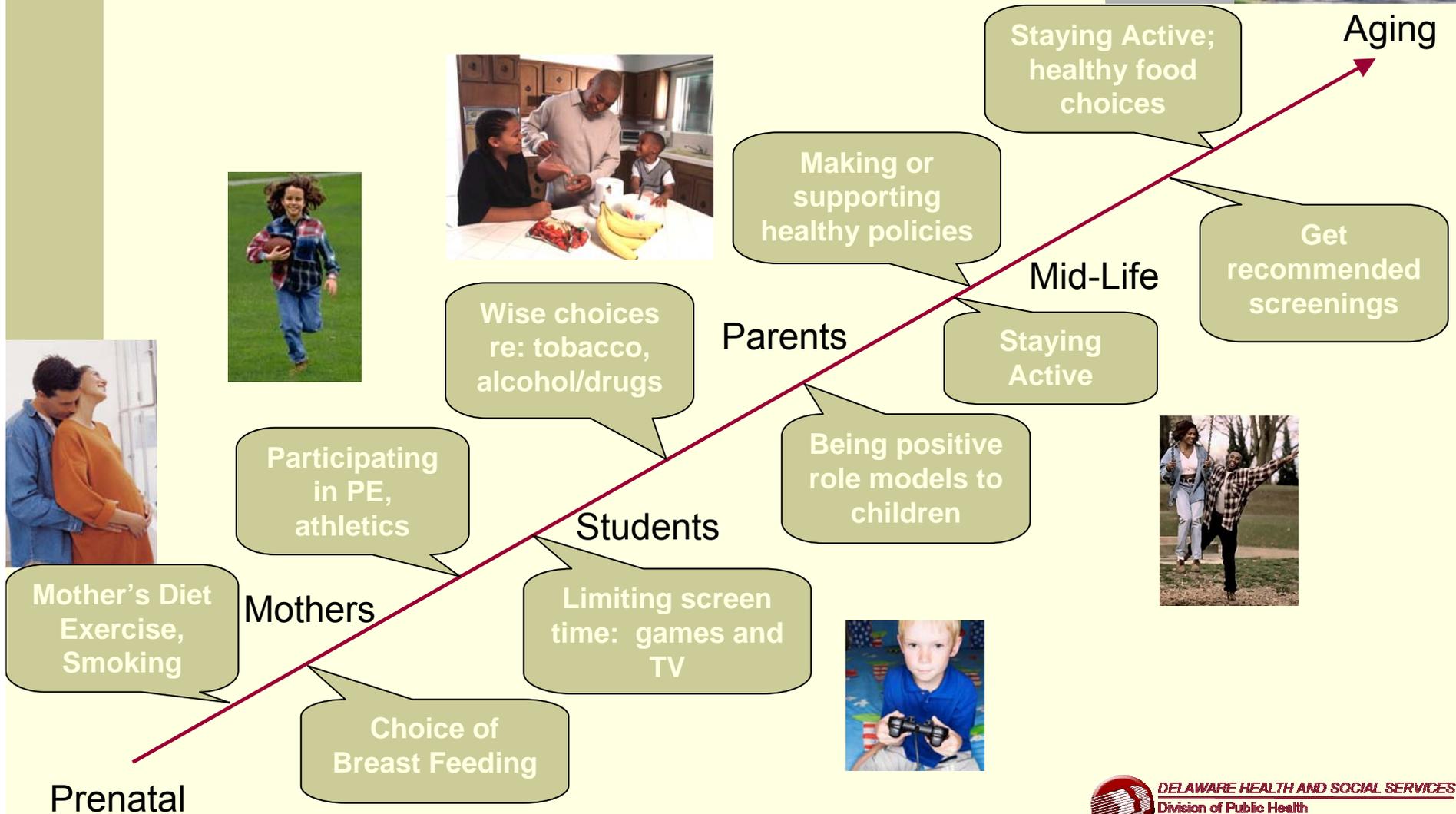
The greater the changes, the lower the risk!

Behavior Change Barriers

- Addiction
- Long-term habits and cultural norms
- Marketing by tobacco & food industries
- Influence of parents, older siblings, role models
- Environments which promote unhealthy behaviors
- Lack of funding and infrastructure for prevention



Making Healthy Choices Throughout Life



What is “Health Promotion”?

“Health promotion and disease prevention are the aggregate of all purposeful activities designed to improve personal and public health through a combination of strategies” – including the competent implementation of behavior change strategies, health education, health protection measures, risk factor detection, supportive policy and environmental change, health enhancement and health maintenance.

- From the *Report of the 1990 Joint Committee on Health Education Terminology*



What Is Primary Prevention?

- **Primary Prevention** – aimed at behavior change to increase prevalence of healthy behaviors, and decrease prevalence of unhealthy conditions related to those risk factors
 - **Secondary Prevention** – aimed at reducing severity or duration of existing health problems
 - **Tertiary Prevention** – aimed at reducing consequences or disability resulting from diseases



Socio-Ecological Model

- Behavior is **influenced at all levels.**
- Effective programs **must be comprehensive, addressing all levels.**



CDC MAPPS Strategies

- Developed by the U.S. Centers for Disease Control and Prevention (CDC)
- Developed from review of programs that worked
- Utilize the *Guide to Community Preventive Services*—“what works to promote community health”



www.thecommunityguide.org



DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Health Promotion and Disease Prevention

MAPPS Strategies

- **M**edia and social marketing should be used to promote health and counter negative messages.
- **A**ccess to healthy options and opportunities and a supportive environment.
- **P**oint-of-decision prompts should be used to promote healthy choices.
- **P**rice can be used as an incentive for healthy choices or a disincentive for unhealthy ones.
- **S**ocial support and services are vital to support positive changes in behavior.

Recommended MAPPS Strategies

Media / Social Mktg.	Access to Healthy Options	Point of Decision Prompts	Price Disincentives/Incentives	Social Support / Services
<ul style="list-style-type: none"> •Counter-marketing 	<ul style="list-style-type: none"> •Tobacco-free campuses •Enforce and expand Clean Indoor Air Act 	<ul style="list-style-type: none"> •Restrict point of purchase tobacco advertising as allowed under federal law •Enforce product placement behind counters 	<ul style="list-style-type: none"> •Tax equity for cigars and smokeless tobacco products 	<ul style="list-style-type: none"> •Maintain DE Quitline and other cessation services
<ul style="list-style-type: none"> •Promote healthy food and drink choices •Counter-marketing against unhealthy choices 	<ul style="list-style-type: none"> •Attract markets to “food deserts” •Farmers’ Markets •Provide healthier choices in child care, schools, and workplaces •Menu labeling •Community gardens •Local farm to institution projects •Changing procurement policies to obtain healthier choices. 	<ul style="list-style-type: none"> •Encourage retailers to improve product placement of healthy food choices 	<ul style="list-style-type: none"> •Provide incentives to retailers to offer healthier food choices •Establish excise tax on sugar added drinks like soda and energy drinks 	<ul style="list-style-type: none"> •Support breast feeding through policy change and maternity care practices •Expand school nutrition programs •Weight loss support groups
<ul style="list-style-type: none"> •Promote increased physical activity as fun and healthy •Promote walking and cycling •Promote public transit •Design campaigns to encourage less television watching and other “screen time” •Share the Road and safe driving campaigns to encourage safe bicycling. 	<ul style="list-style-type: none"> •Develop safe, attractive and accessible places for activity •Fully implement “Complete Streets” •Develop or complete Rails to Trails and other trails •Make state more “bikable,” •Ensure crime-free parks with adequate crime prevention measures •Provide bike lockers, bike racks and other facilities to encourage bicycling 	<ul style="list-style-type: none"> •Stairwell prompts near elevators in office buildings; with improved, safe and clean stairwells. •Signage for neighborhood destinations in walkable, mixed-use neighborhoods. •Signage for walking trails and bike lanes. 	<ul style="list-style-type: none"> •Reduce prices for parks and recreational facilities to encourage more use. •Incentives for active transit •Subsidize memberships in recreational facilities 	<ul style="list-style-type: none"> •Safe Routes to Schools •Challenge programs and organized walking/bicycling groups •After school programs for community residents •Neighborhood watch or community policing programs to ensure street and part safety.

SAMPLE FORM



A Tool for Children's Health: Planning To Address Child Obesity

From the American Academy of Pediatrics . . .

http://www.aap.org/obesity/matrix_1.html

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

Home | Parenting Corner | Health Topics | Bookstore & Publications | Professional Education & Resources | Advocacy | Members | About

PREVENTION AND TREATMENT OF
Childhood Overweight and Obesity

ABOUT OBESITY | WHAT AAP IS DOING | HELPFUL LINKS | POLICY TOOL | Search >

Print Version

Home : Policy Tool

Policy Tool

The **Policy Opportunities Tool** is designed to showcase the various policy strategies that support healthy active living for children and families. This tool is designed for healthcare professionals who have experience in advocacy and are interested in focusing their advocacy efforts on obesity prevention.

As healthcare professionals you regularly address healthy active living messages (eg, 5,2,1,0 breastfeeding and BMI) in your office with your patients and their families. This **Policy Opportunities Tool** identifies specific strategies to create healthier environments. As an advocate, there are many levels (i.e. practice, community, school, state, and Federal) at which you can work on positive policy change.

Use your mouse to click on the cells of the matrix to learn more about the various healthy active living policy strategies.

These strategies are recommended by the AAP, the Centers for Disease Control and Prevention (CDC), the Institute of Medicine (IOM), the Robert Wood Johnson Foundation (RWJF), and/or the National Governor's Association (NGA).

For pediatricians who are less experienced advocates and who would like to learn about advocacy, the Academy offers multiple resources including the AAP Advocacy Guide, the AAP Online Resident Advocacy Modules, and live training opportunities.

	Practice	Community	Schools	State	Federal
5	• Increased Access to				

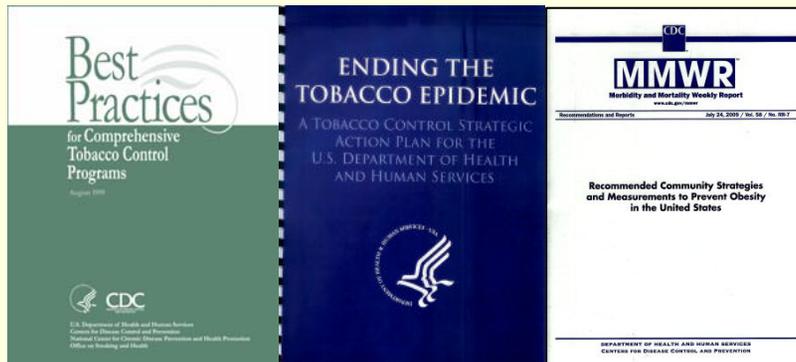


Plans for Action Already Exist

Examples of Delaware Plans:



CDC Documents:



How do we know what works?

- Are we doing the **right things**?
 - Science/evidence base
 - Best and promising practices
- Are we doing the right things **right**?
 - Evaluation
 - Faithful implementation
- Are we doing **enough** of the right things **to make a difference in outcomes**?
 - Adequate funding
 - Infrastructure
 - Collaboration and coordination

It Can Be Done



- CDC's "Six Winnable Battles" include:
 - **Smoking**
 - **Obesity / nutrition / physical activity**
 - AIDS
 - Teen Pregnancy
 - Auto Injuries
 - Health Care Infections

—*Dr. Thomas Frieden, CDC Director*



It Can Be Done



in Delaware

Because . . .



- We have experience from other successful efforts;
- We're working in a cooperative, collaborative manner;
- We're working to improve the health of the people of Delaware; and
- We have the right people around the table to make things happen.



?

Questions and Discussion