

Trends in the Distribution of Body Mass Index Among Women of Reproductive Age

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The findings and conclusions in this presentation have not been formally disseminated by CDC and should not be construed to represent any agency determination or policy.



Presentation Overview

Describe distribution and trends in BMI among women of reproductive age in the United States

- Adult (20-49 y) and adolescents (12-19 y)
 - Definitions of weight status
 - National prevalence and trends
 - By age group
 - By race/ethnicity
- Summary

Data Source

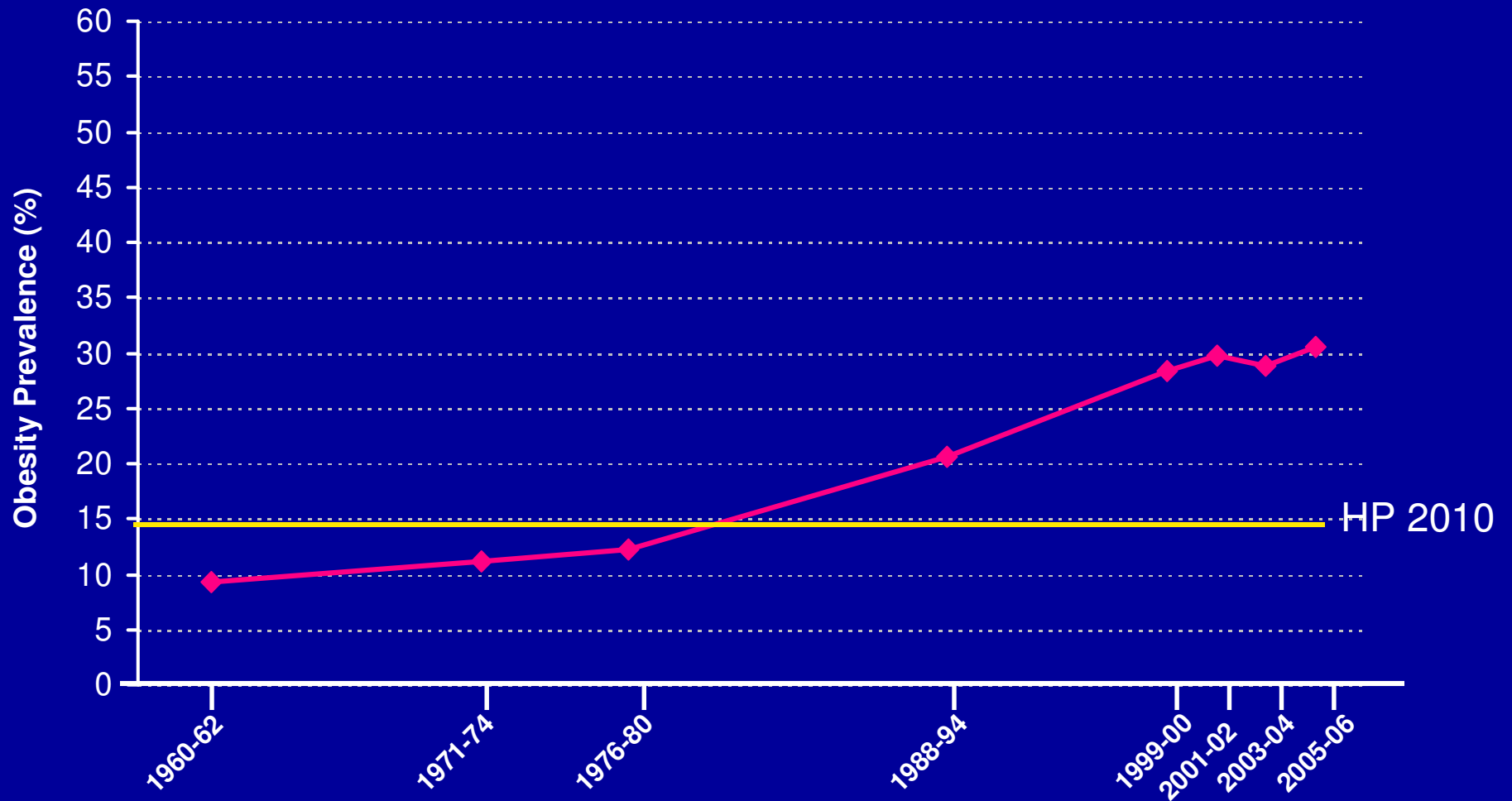
- National Health and Nutrition Examination Survey (NHANES)
 - US civilian, non-institutionalized population
 - Height and weight measured

Classification* of adult underweight, overweight and obesity by BMI

	<u>Obesity Class</u>	<u>BMI (kg/m²)</u>
Underweight		<18.5
Normal		18.5 - 24.9
Overweight		25.0 - 29.9
Obesity	I	30.0 - 34.9
	II	35.0 - 39.9
Extreme obesity	III	40+

*National Heart Lung and Blood Institute (NHLBI), 1998

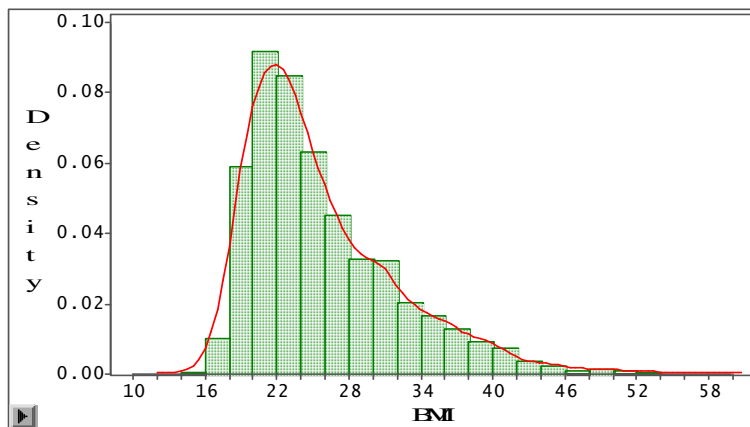
Trends in obesity among U.S. women aged 20-39 years, 1960-2006



Source: NHES and NHANES: Flegal et al, JAMA 2002; Ogden et al, JAMA 2006; Ogden et al, NCHS data brief #1, 2007. Obesity defined as BMI \geq 30.

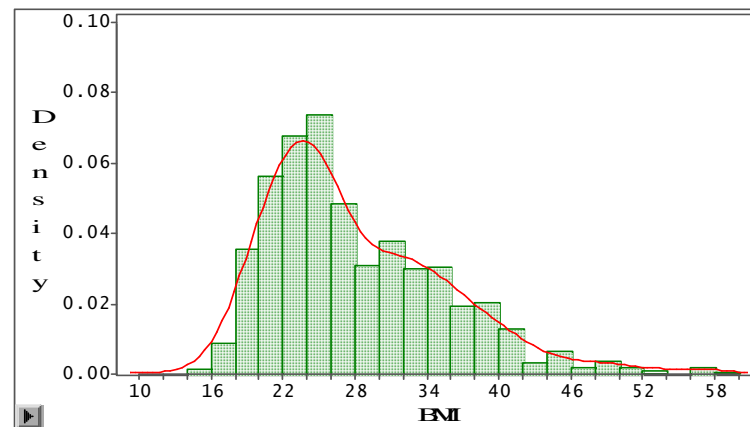
Change in the distribution of BMI between 1988-94 and 2005-06 among U.S. women aged 20-49 years

NHANES III 1988-94



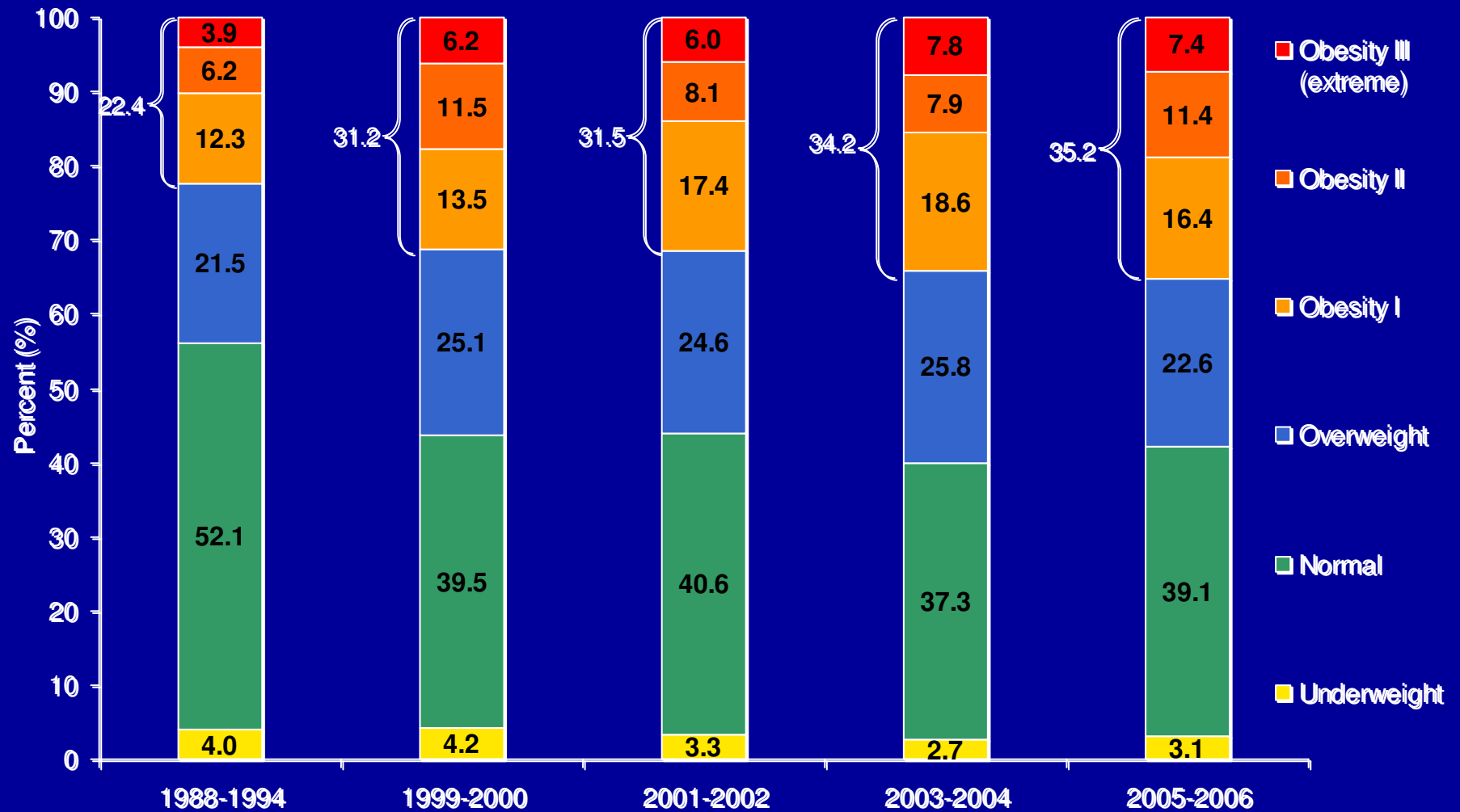
Percentile	BMI (kg/m ²)
10th	19.4
25th	21.3
50th	24.0
75th	29.1
90th	35.0

NHANES 2005-06



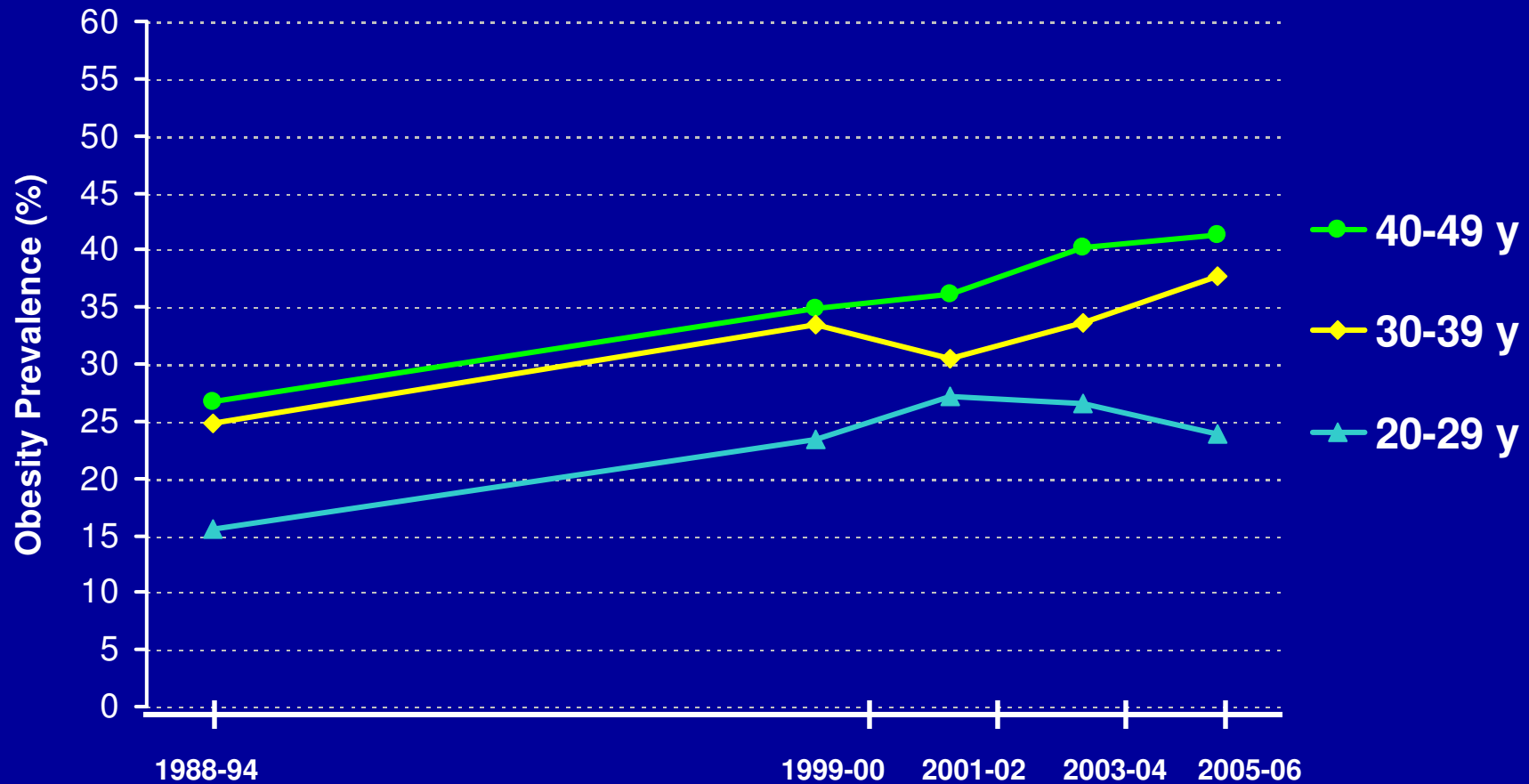
Percentile	BMI (kg/m ²)
10th	20.3
25th	22.7
50th	26.1
75th	32.8
90th	38.7

Prevalence of underweight, overweight and obesity among U.S. women aged 20-49 y



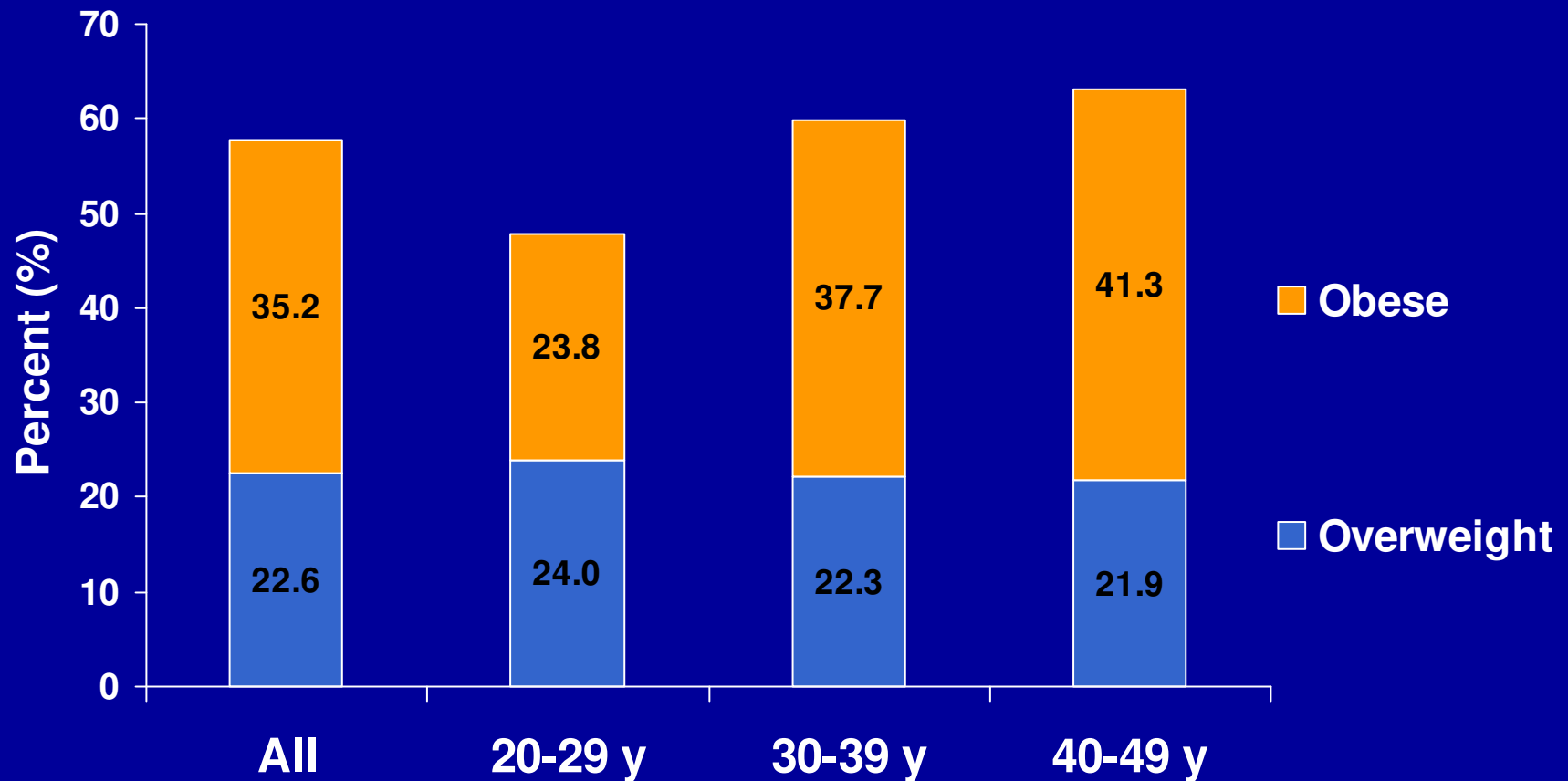
Source: NHANES, unpublished analysis

Trends in obesity among U.S. women of reproductive age by age group, 1988-2006



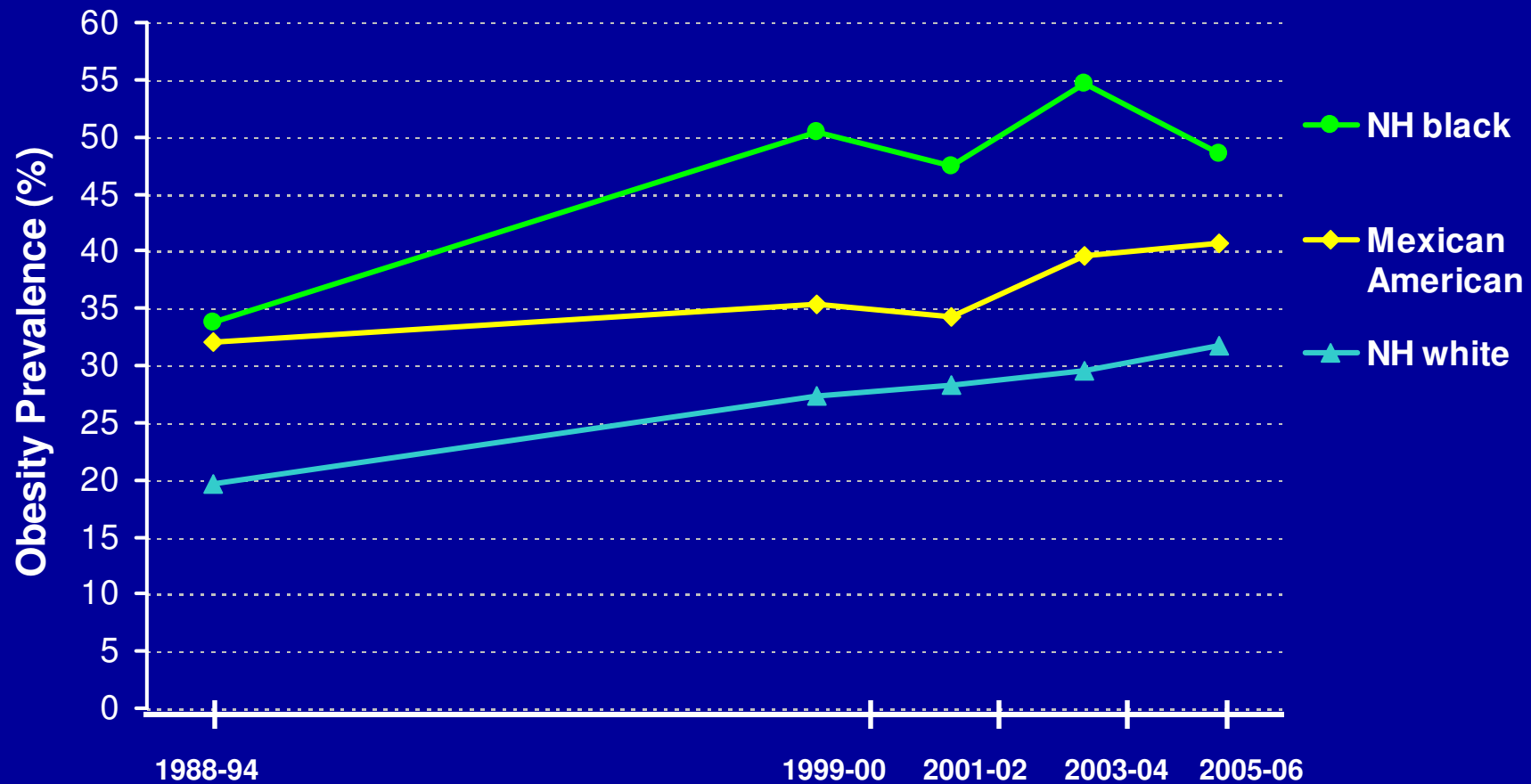
Source: NHANES: unpublished analysis
Obesity defined as BMI ≥ 30.

Prevalence of overweight and obesity among U.S. women aged 20-49 years by age group, 2005-2006



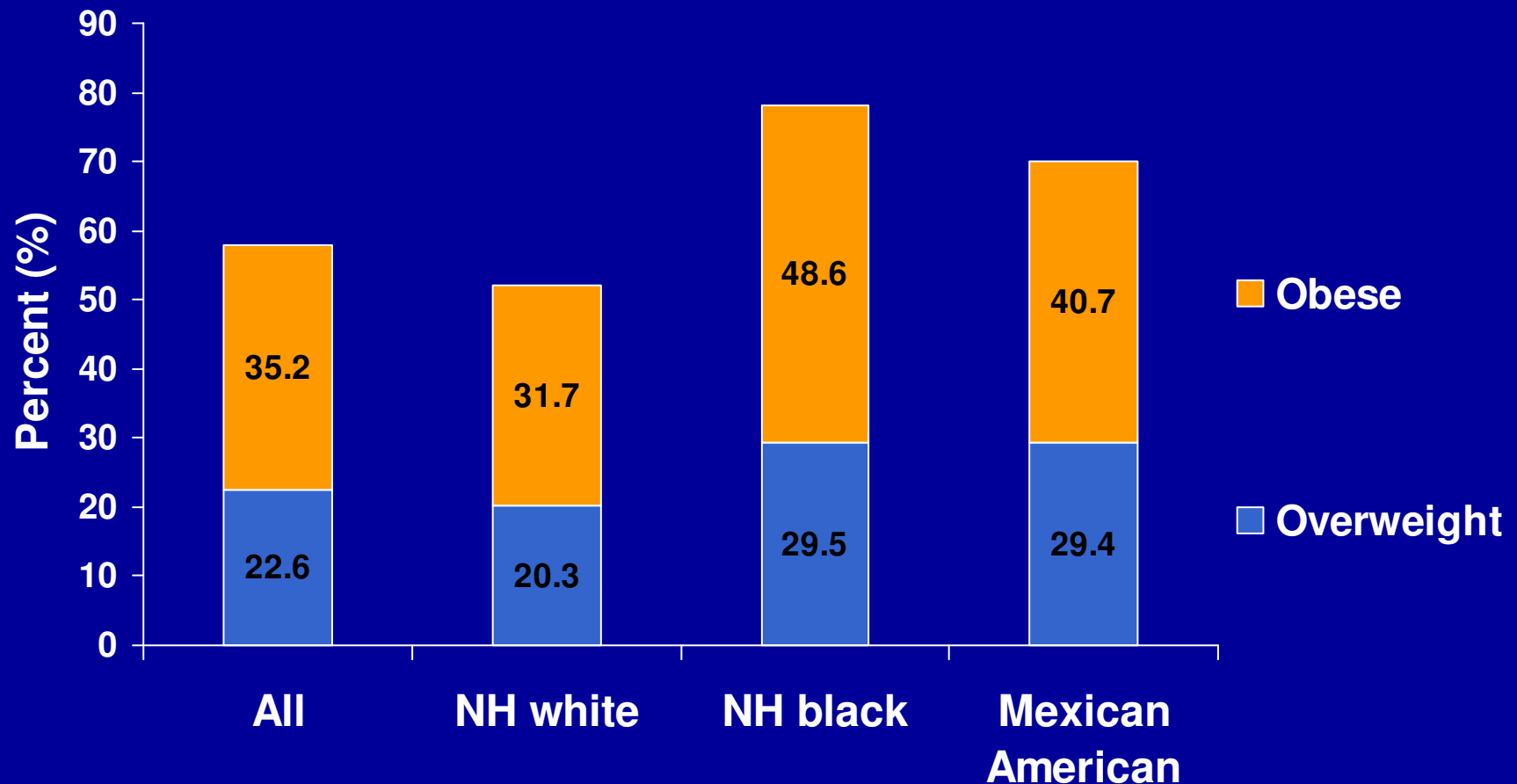
Source: NHANES: unpublished analysis
Overweight defined as BMI= 25.0-29.9; Obesity defined as BMI \geq 30.

Trends in obesity among U.S. women aged 20-49 years by race/ethnicity, 1988-2006



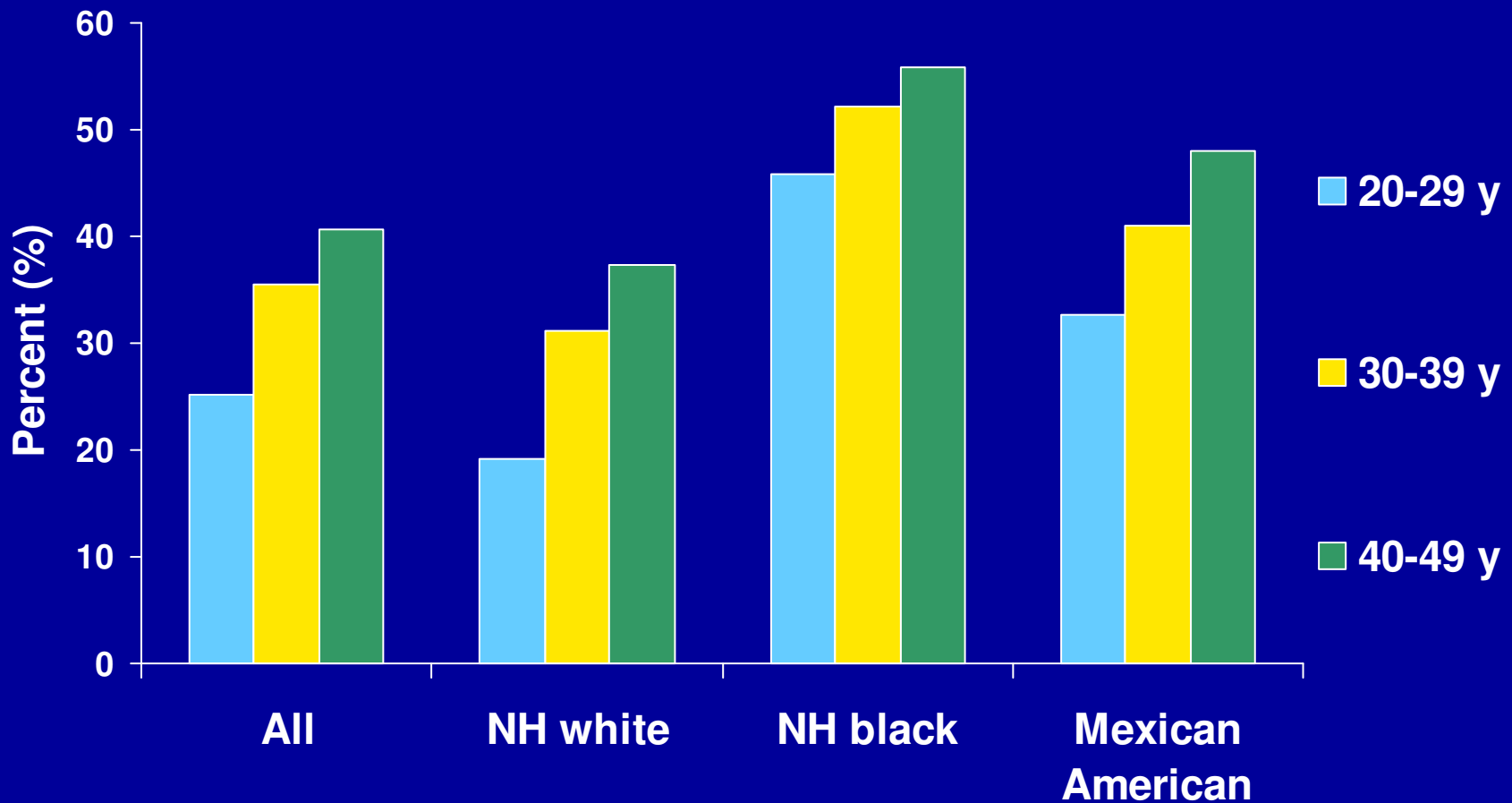
Source: NHANES: unpublished analysis
Obesity defined as BMI \geq 30. NH=non-Hispanic.

Prevalence of overweight and obesity among U.S. women aged 20-49 years by race/ethnicity, 2005-2006



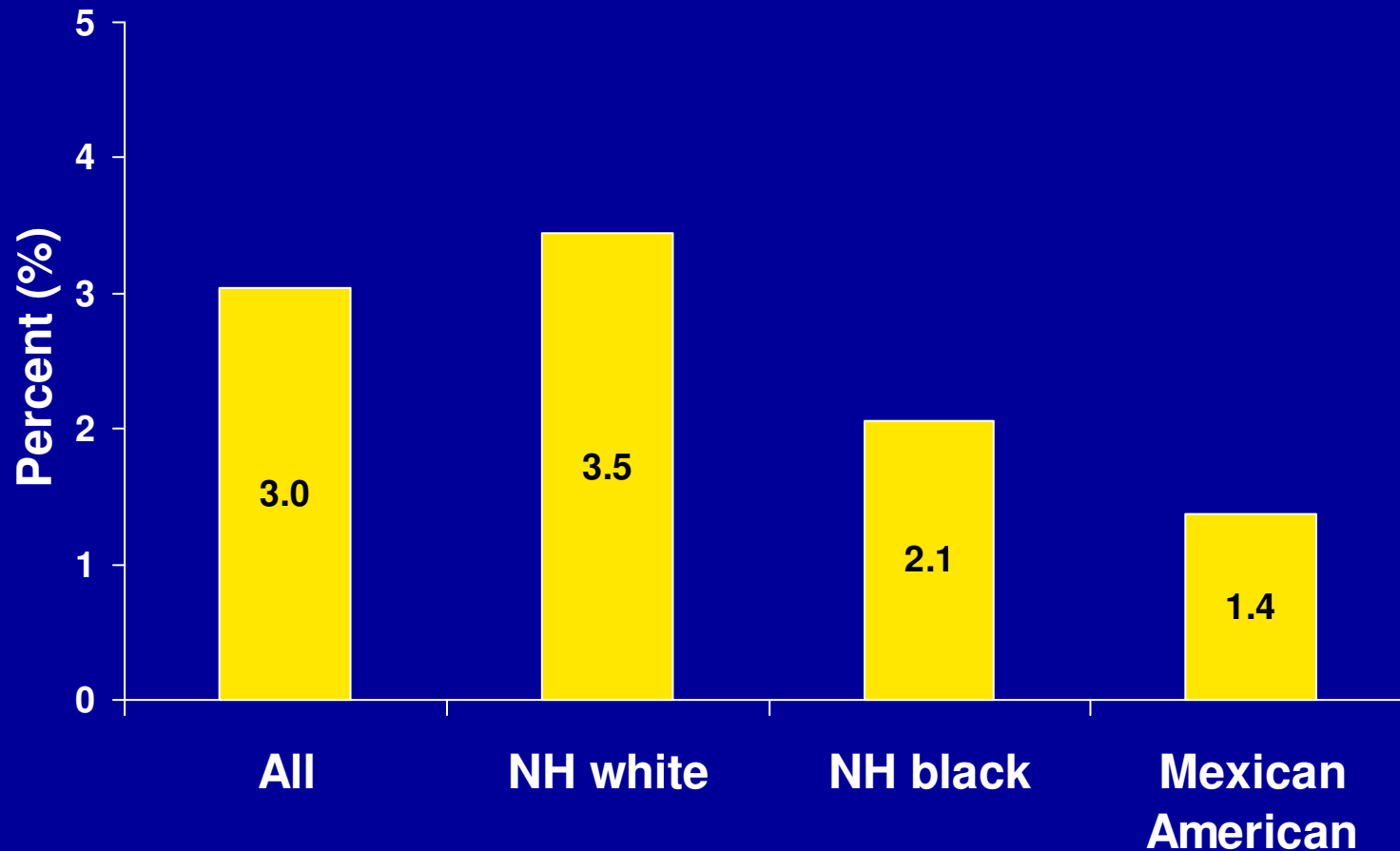
Source: NHANES: unpublished analysis
Overweight defined as BMI 25-29.9; Obesity defined as BMI \geq 30. NH=non-Hispanic.

Prevalence of obesity among U.S. women aged 20-49 years by age and race/ethnicity, 2003-2006



Source: NHANES: unpublished analysis
Obesity defined as BMI ≥ 30. NH = non-Hispanic.

Prevalence of underweight among U.S. women aged 20-49 years by race/ethnicity, 2001-2006



Source: NHANES: unpublished analysis
Underweight defined as BMI<18.5. NH=non-Hispanic.

Classification of adolescent* underweight, overweight and obesity by gender- and age-specific BMI percentile

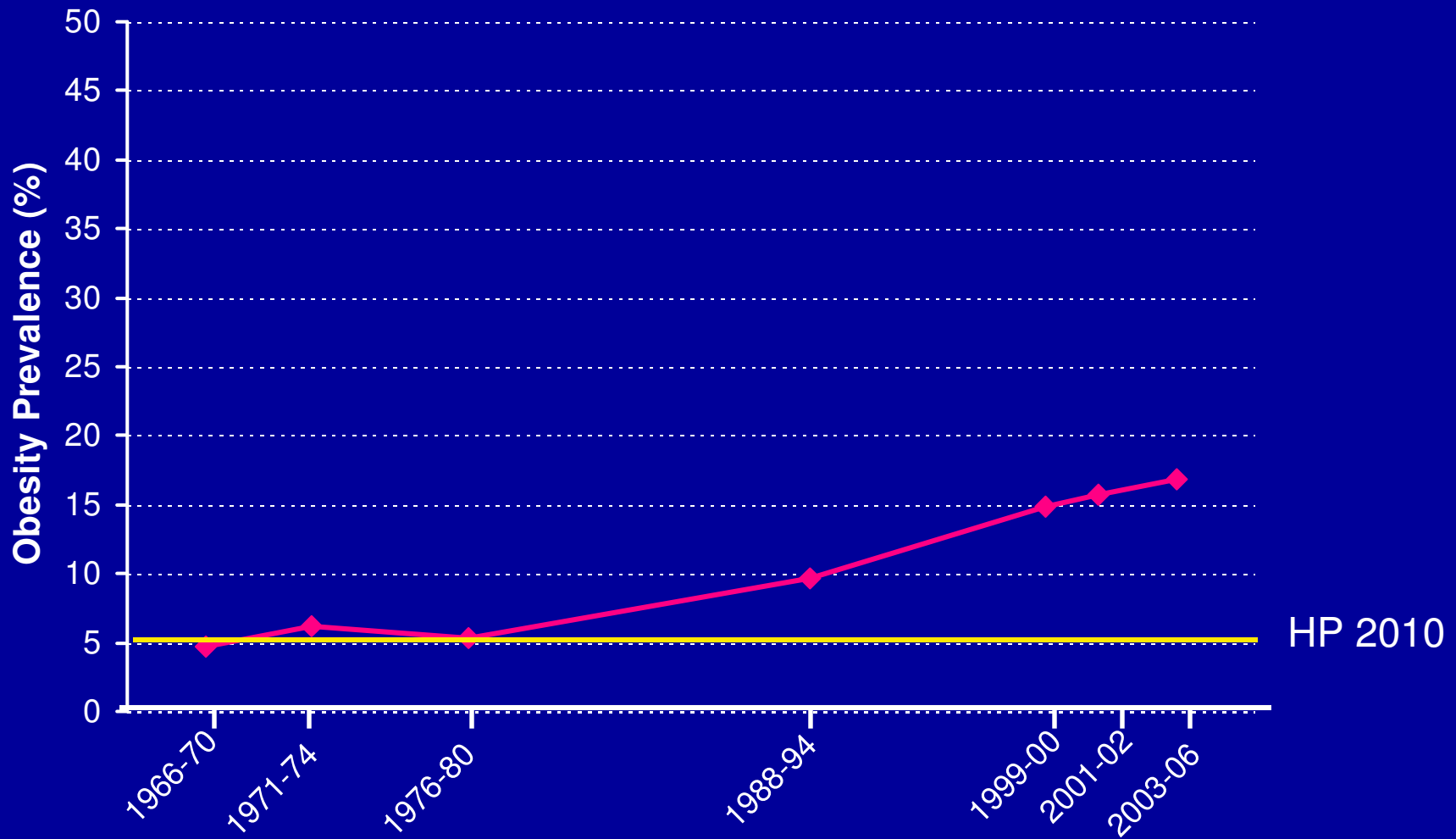
	<u>Gender- and age-specific BMI percentile†</u>
Underweight	<5 th
Normal	5 th - <85 th
Overweight ‡	85 th - <95 th
Obesity ‡	≥95 th

*Adolescent defined as 12-19 years.

† Percentiles based on CDC growth charts.

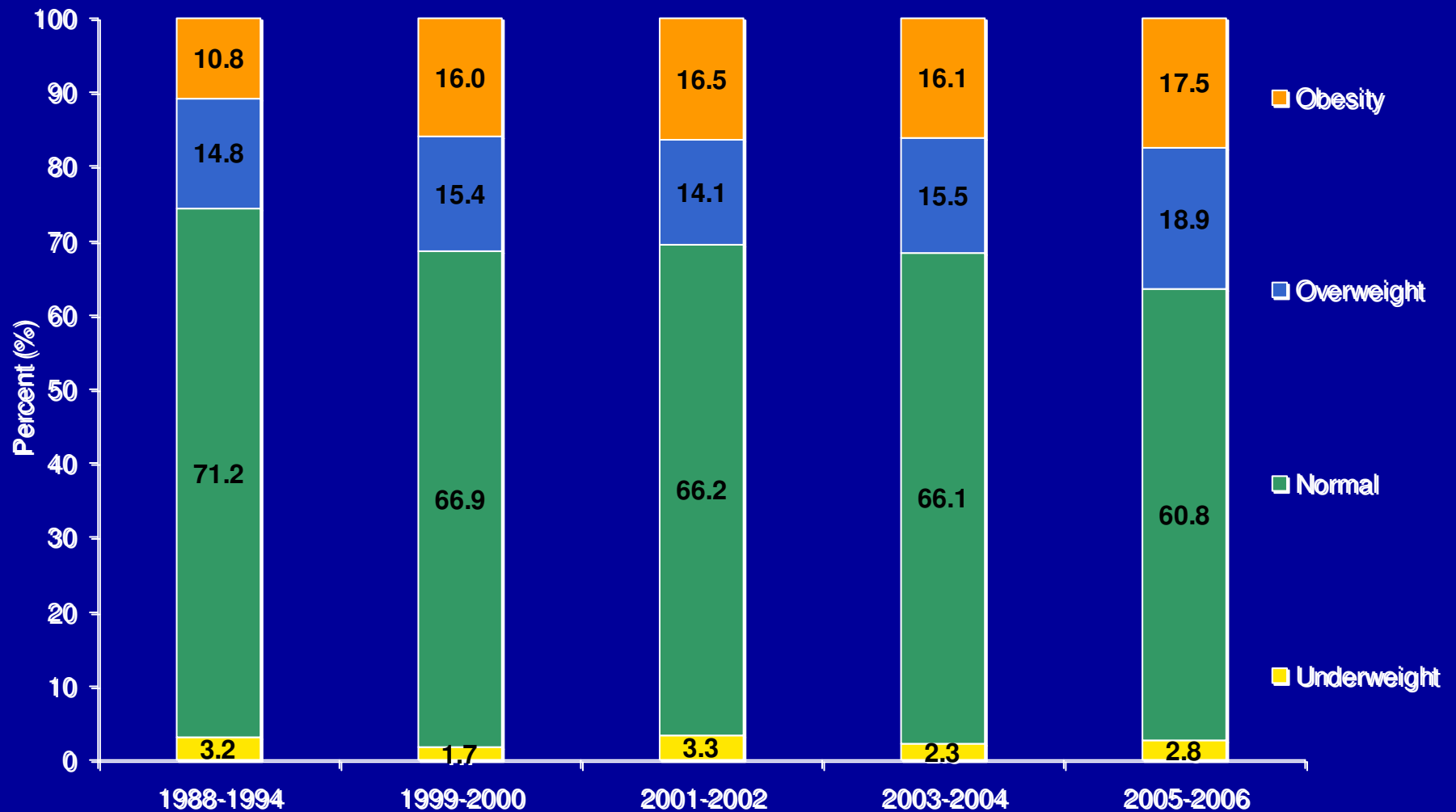
‡ Overweight formerly known as at risk for overweight. Obesity formerly known as overweight.

Trends in obesity among U.S. adolescent girls aged 12-19 years, 1966-2006



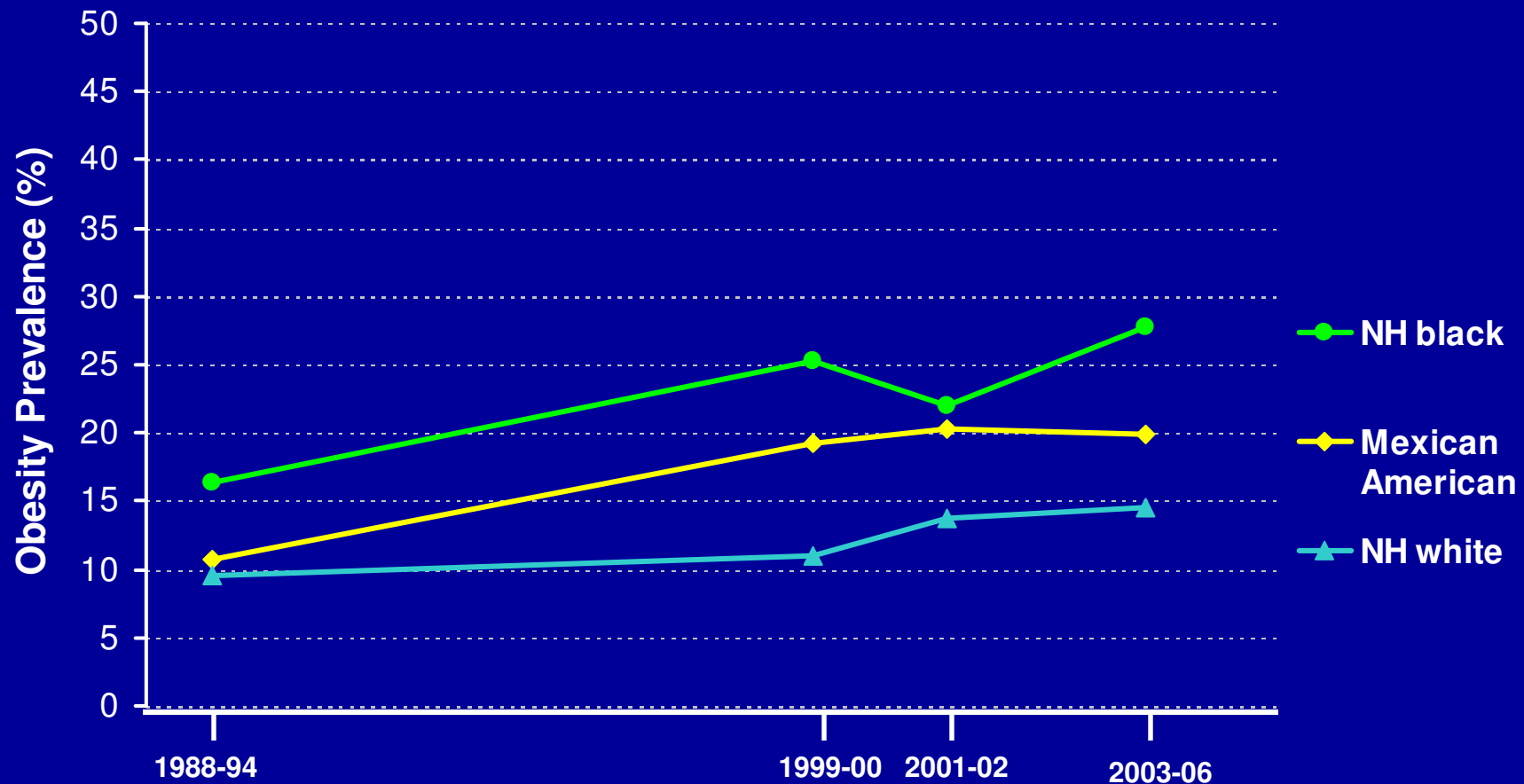
Note: Obesity is defined as BMI \geq gender- and age-specific 95th percentile from the 2000 CDC Growth Charts.
Source: NHANES: Ogden et al *JAMA* 2002; Ogden et al *JAMA* 2006; Ogden et al *JAMA* 2008.

Prevalence of underweight, overweight and obesity among U.S. adolescent girls aged 12-19 y



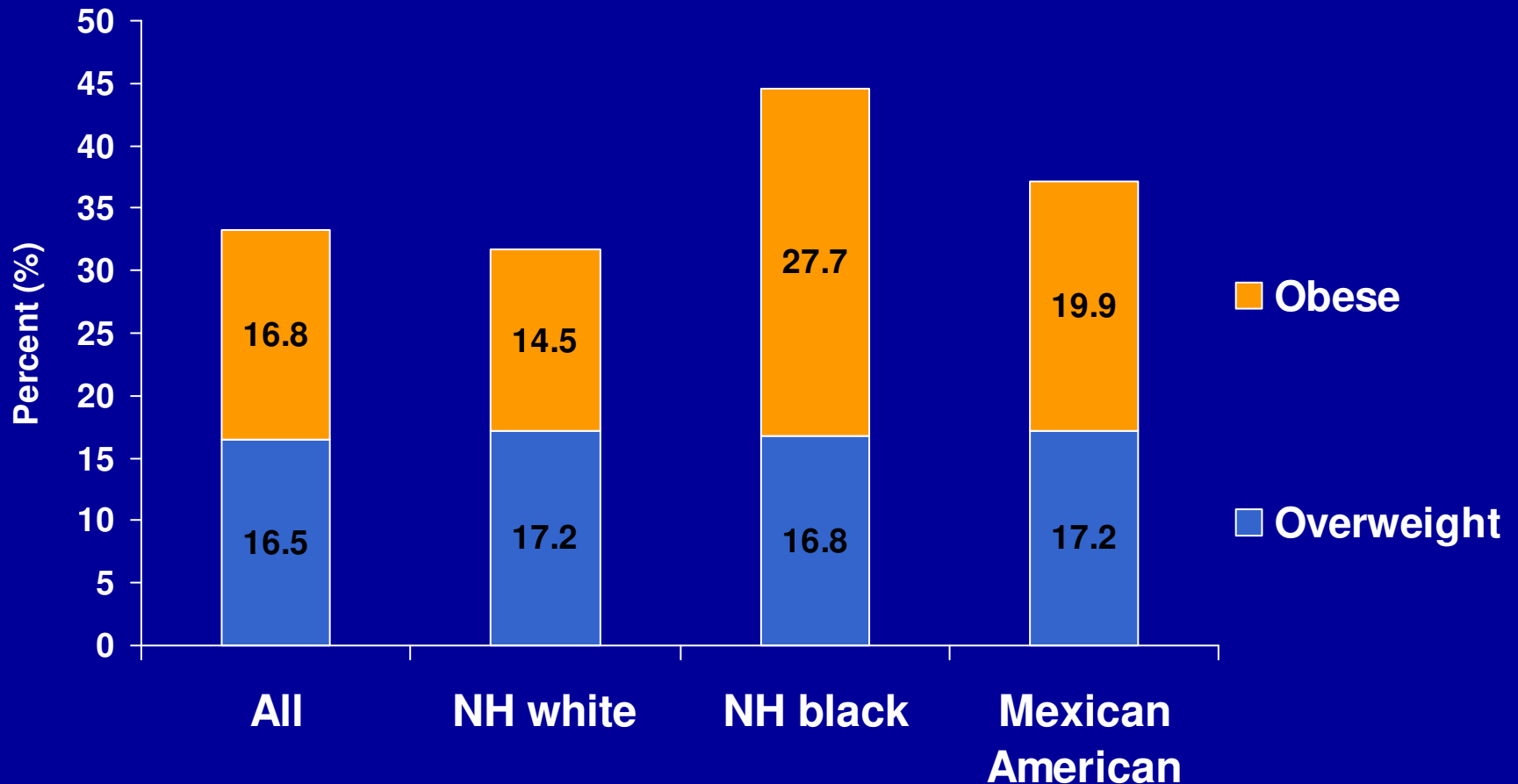
Source: NHANES, unpublished analysis

Trends in obesity among U.S. adolescent girls aged 12-19 years by race/ethnicity, 1988-2006



Source: NHANES: *MMWR* 1997; Ogden et al *JAMA* 2006; Ogden et al *JAMA* 2008.
Obesity defined as BMI \geq 95th percentile. NH=non-Hispanic.

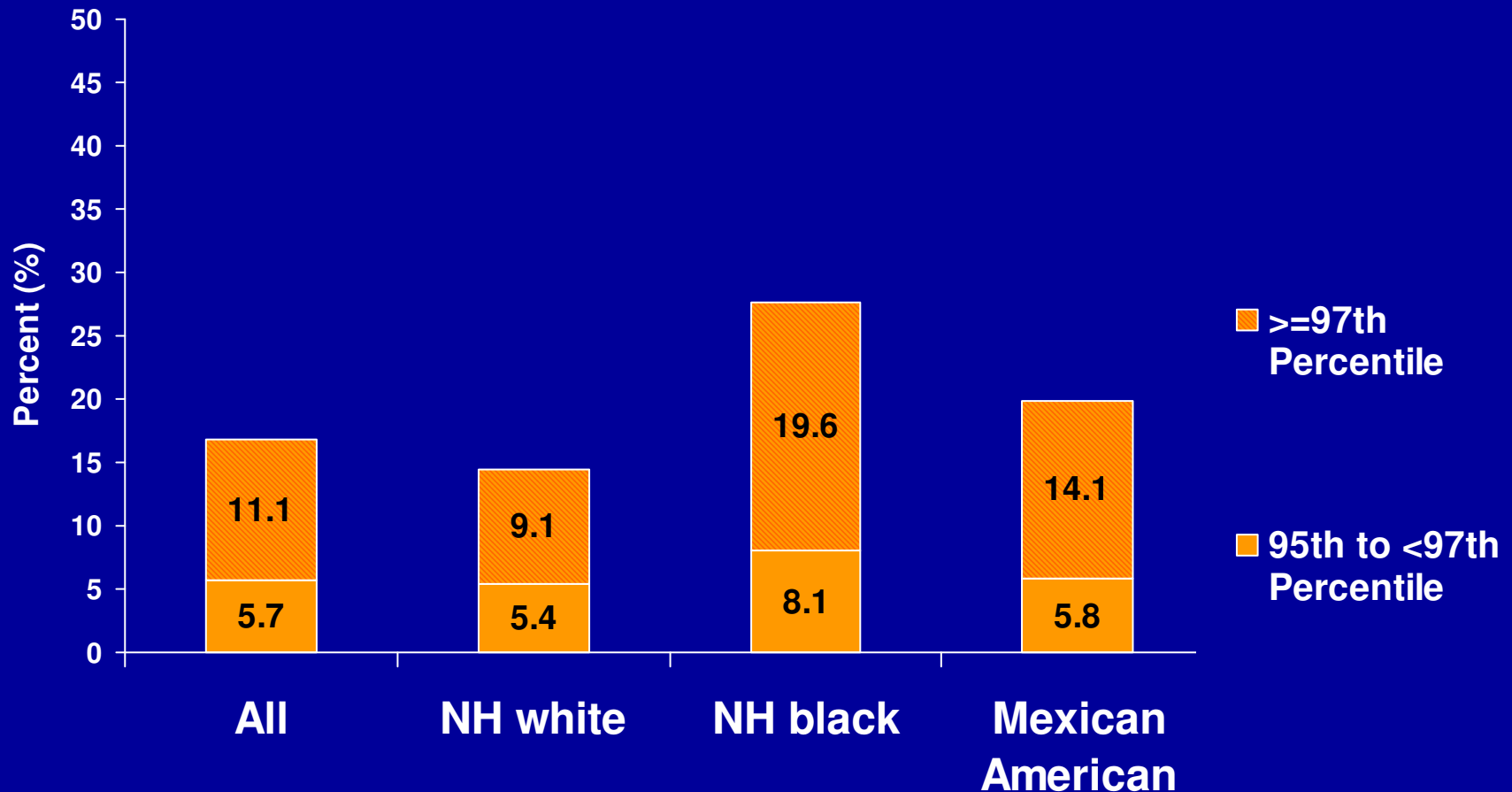
Prevalence of overweight and obesity among U.S. adolescent girls aged 12-19 years by race/ethnicity, 2003-2006



Source: NHANES: Ogden et al *JAMA* 2008

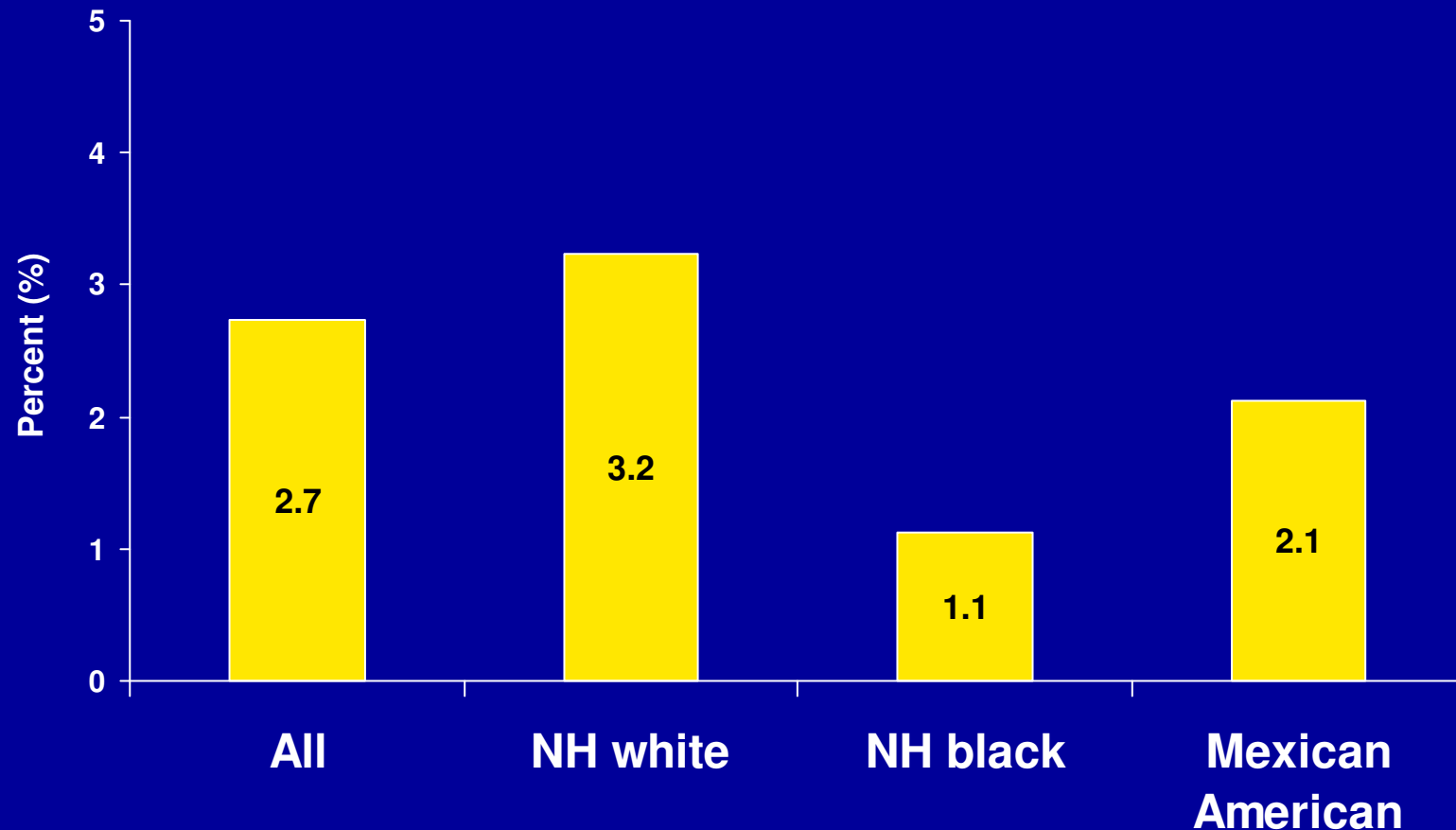
Overweight defined as BMI 85th-94th percentile; Obesity defined as BMI \geq 95th percentile. NH=non-Hispanic.

Prevalence of obesity among U.S. adolescent girls aged 12-19 years by race/ethnicity, 2003-2006



Source: NHANES: Ogden et al *JAMA* 2008
Obesity defined as BMI \geq 95th percentile. NH=non-Hispanic.

Prevalence of underweight among U.S. adolescent girls aged 12-19 years by race/ethnicity, 2001-2006



Source: NHANES: Unpublished data.
Underweight defined as BMI < 5th percentile. NH=non-Hispanic.

Summary

- Underweight relatively stable
- Since 1980, obesity doubled among women, tripled among adolescent girls
- Obesity may be reaching a plateau
- Obesity higher among older populations
- Racial disparities among women and adolescent girls

Acknowledgements

- Cathleen Gillespie, Division of Nutrition, Physical Activity and Obesity

