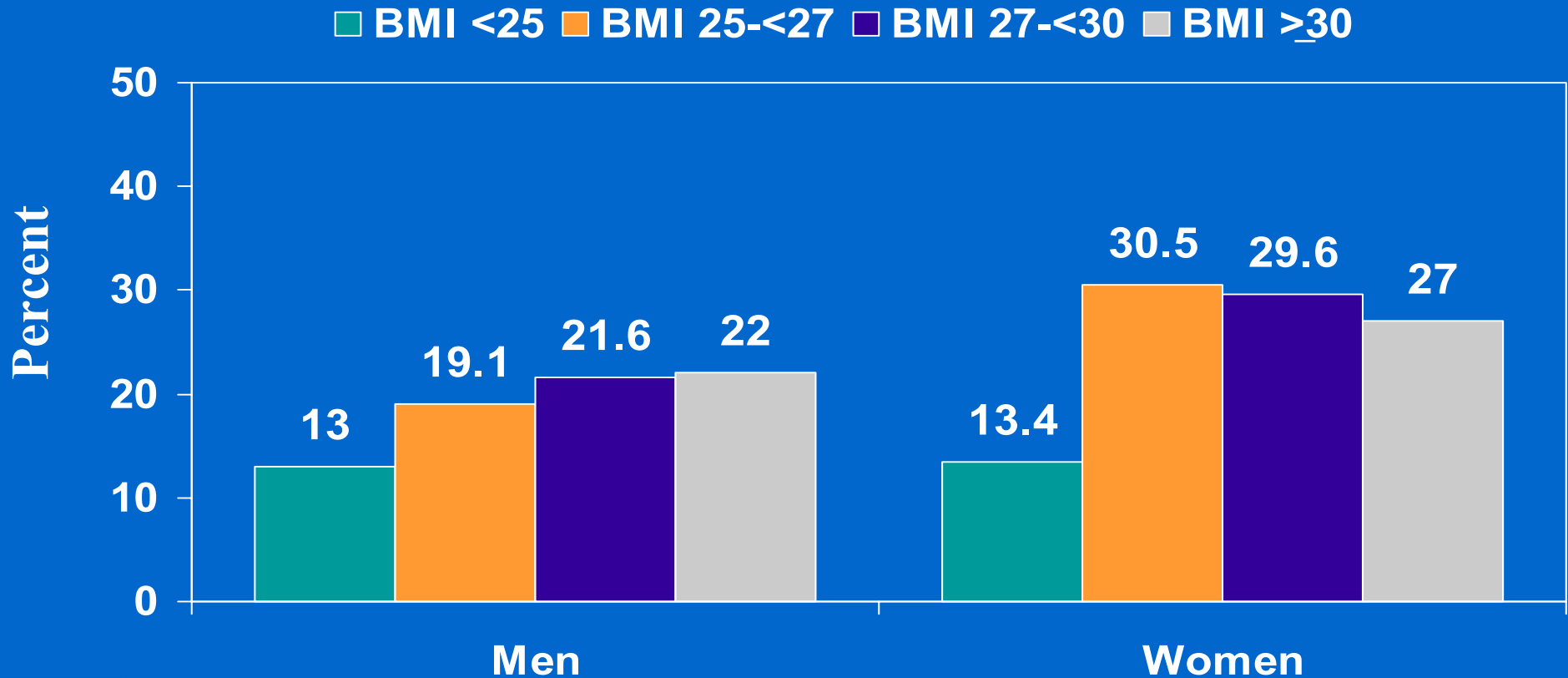


# NHANES III Prevalence of High Blood Cholesterol\* According to BMI

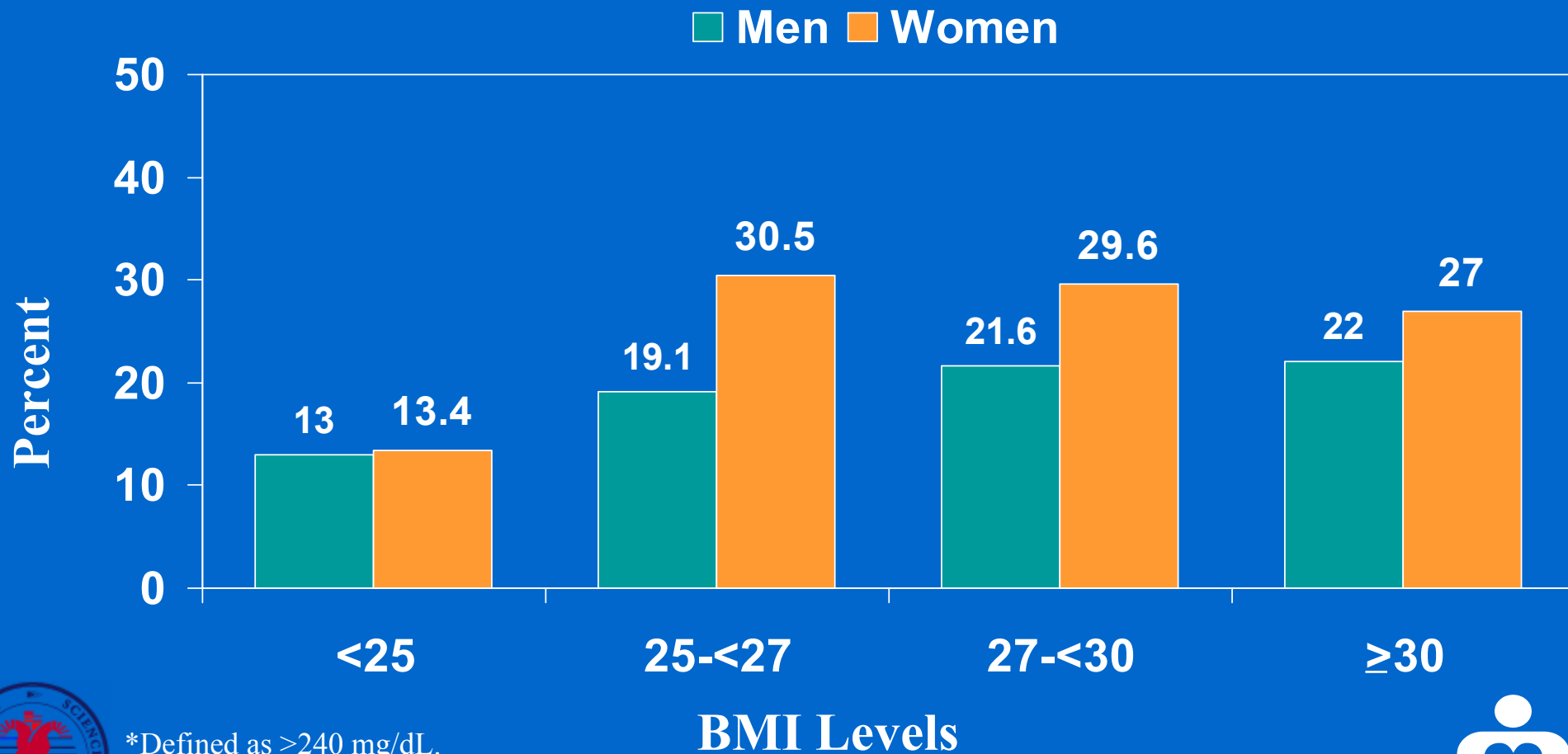


\*Defined as  $\geq 240$  mg/dL.

Brown C et al. Body Mass Index and the Prevalence of Hypertension and Dyslipidemia. *Obes Res.* 2000;8:605-619.



# Prevalence of High Blood Cholesterol\* According to BMI by Sex



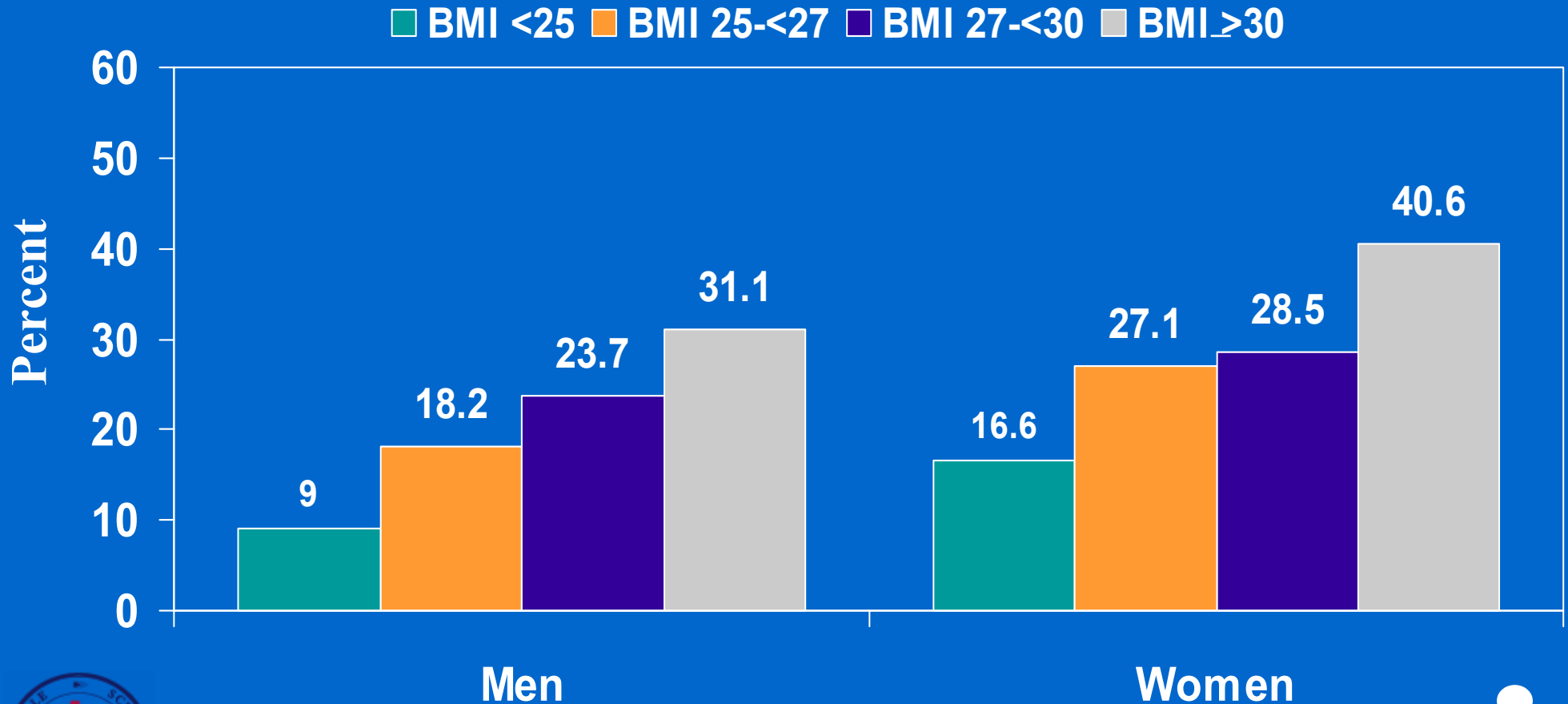
\*Defined as  $\geq 240$  mg/dL.

BMI Levels



Brown C et al. Body Mass Index and the Prevalence of Hypertension and Dyslipidemia. *Obes Res.* 2000;8:605-619.

# NHANES III Prevalence of Low HDL-Cholesterol\* According to BMI



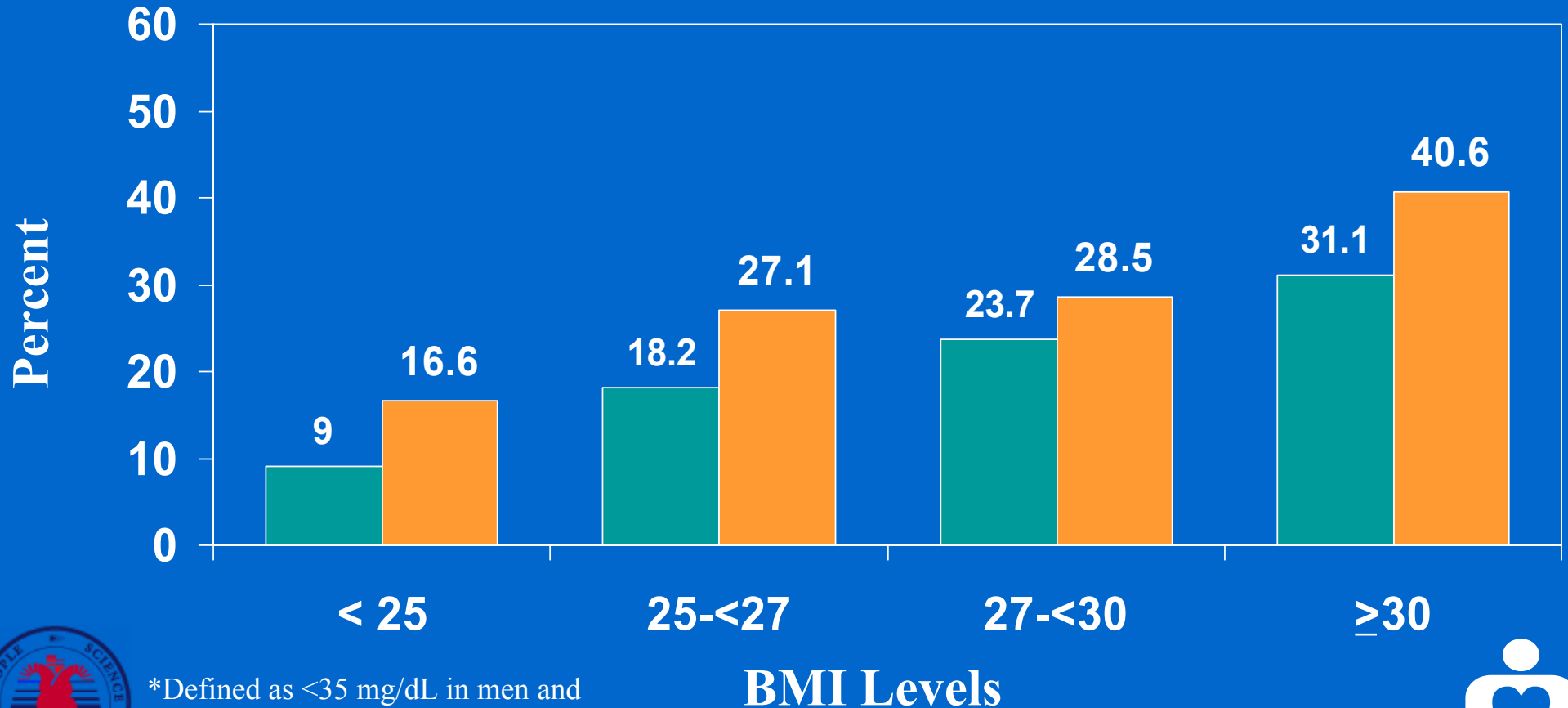
\*Defined as <35 mg/dL in men and <45 mg/dL in women.

Brown C et al. Body Mass Index and the Prevalence of Hypertension and Dyslipidemia. *Obes Res.* 2000;8:605-619.



# Prevalence of Low HDL-Cholesterol\* According to BMI by Sex

Men Women



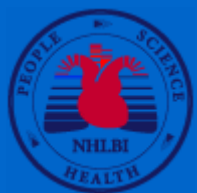
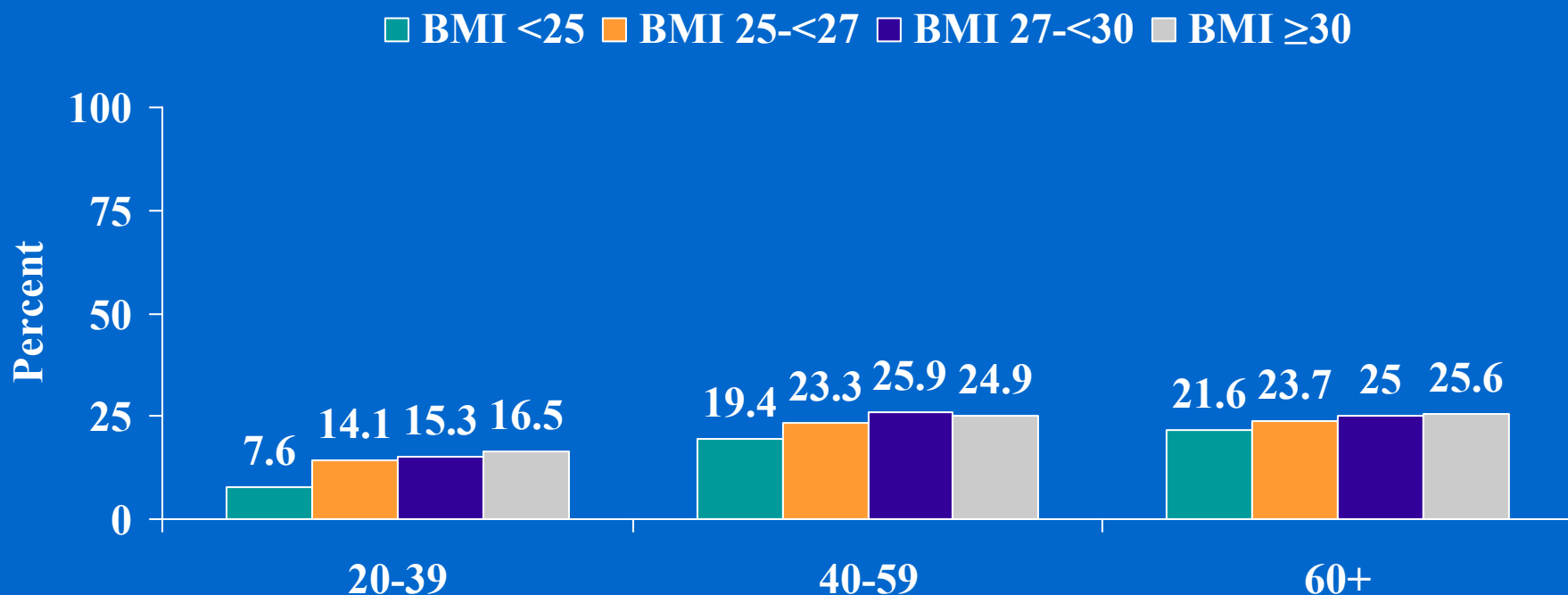
\*Defined as <35 mg/dL in men and <45 mg/dL in women.

Brown C et al. Body Mass Index and the Prevalence of Hypertension and Dyslipidemia. *Obes Res.* 2000;8:605-619.



# NHANES III Prevalence of High Blood Cholesterol\* According to Sex, Age, and BMI

## Men



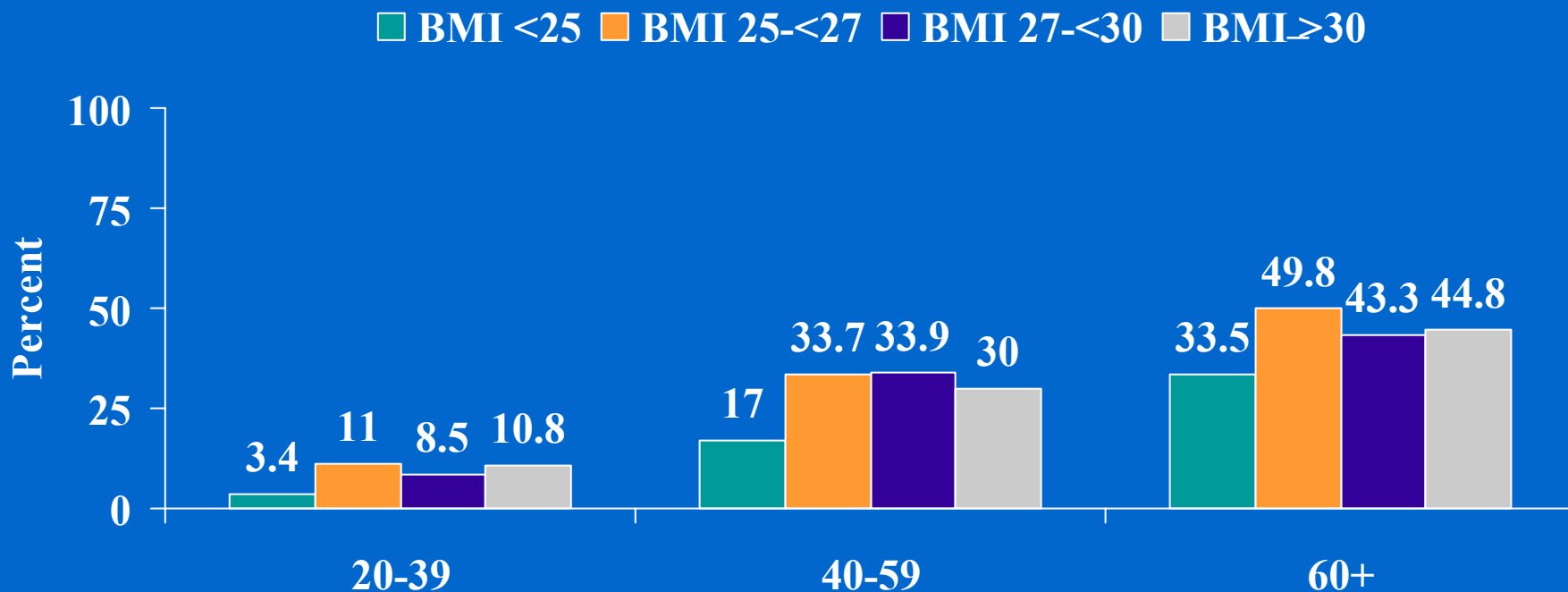
\*Defined as  $\geq 240$  mg/dL.

Brown, C et al. Body Mass Index and the Prevalence of Hypertension and Dyslipidemia. *Obes Res.* 2000; 8:605-619.



# NHANES III Prevalence of High Blood Cholesterol\* According to Sex, Age, and BMI

## Women



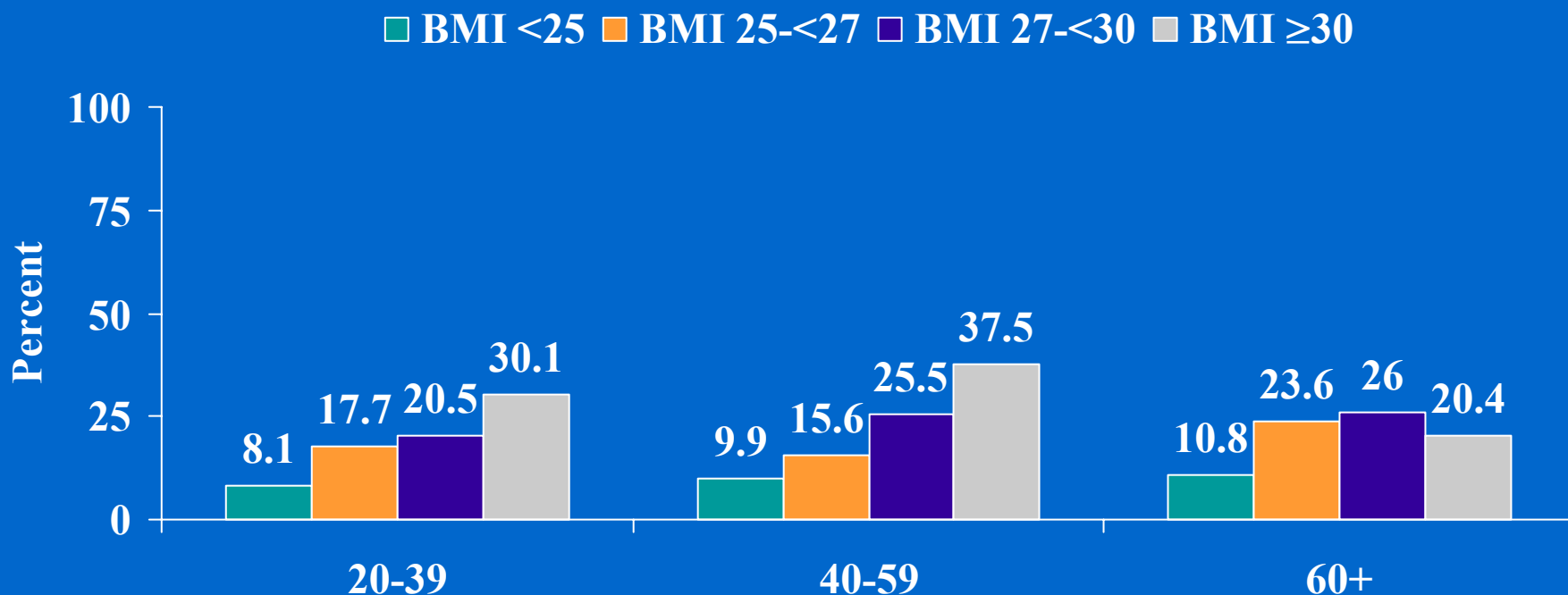
\*Defined as  $\geq 240$  mg/dL.

Brown C et al. Body Mass Index and the Prevalence of Hypertension and Dyslipidemia. *Obes Res.* 2000; 8:605-619.



# NHANES III Prevalence of Low HDL Cholesterol\* According to Sex, Age, and BMI

## Men



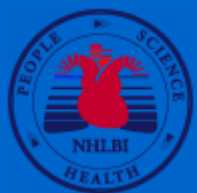
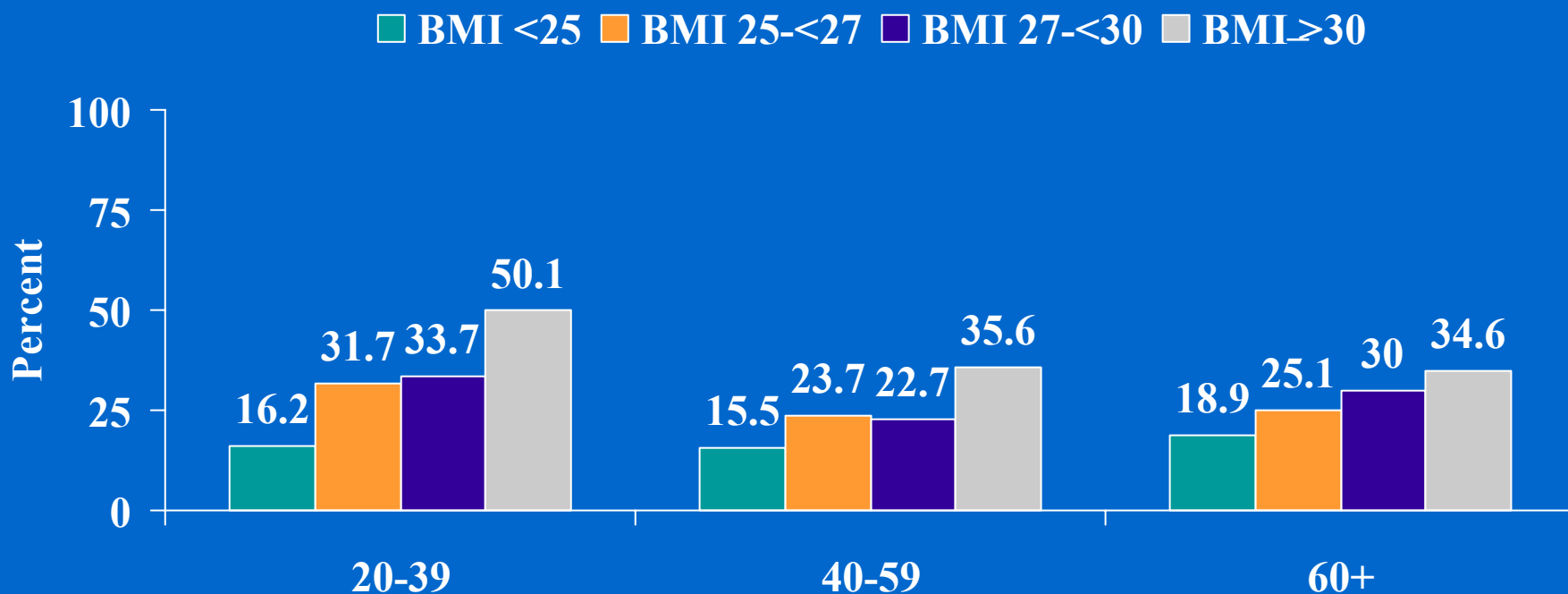
\*Defined as <35 mg/dL in men <45 mg/dL in women.

Brown C et al. Body Mass Index and the Prevalence of Hypertension and Dyslipidemia. *Obes Res.* 2000; 8:605-619.



# NHANES III Prevalence of Low HDL Cholesterol\* According to Sex, Age, and BMI

## Women



\*Defined as <35 mg/dL in men <45 mg/dL in women.

Brown C et al. Body Mass Index and the Prevalence of Hypertension and Dyslipidemia. *Obes Res.* 2000; 8:605-619.

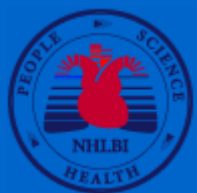
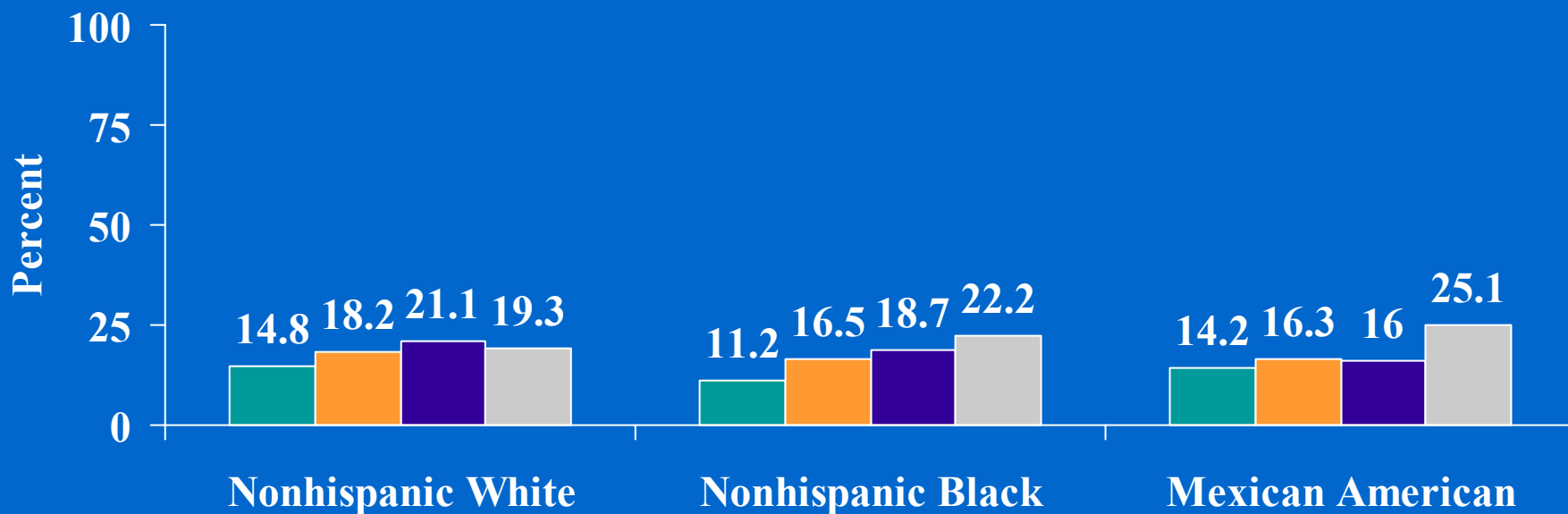




# NHANES III Age-Adjusted Prevalence of High Blood Cholesterol\* According to Sex, Race/Ethnicity, and BMI

## Men

■ BMI <25 ■ BMI 25-<27 ■ BMI 27-<30 ■ BMI >30



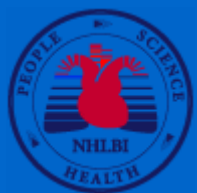
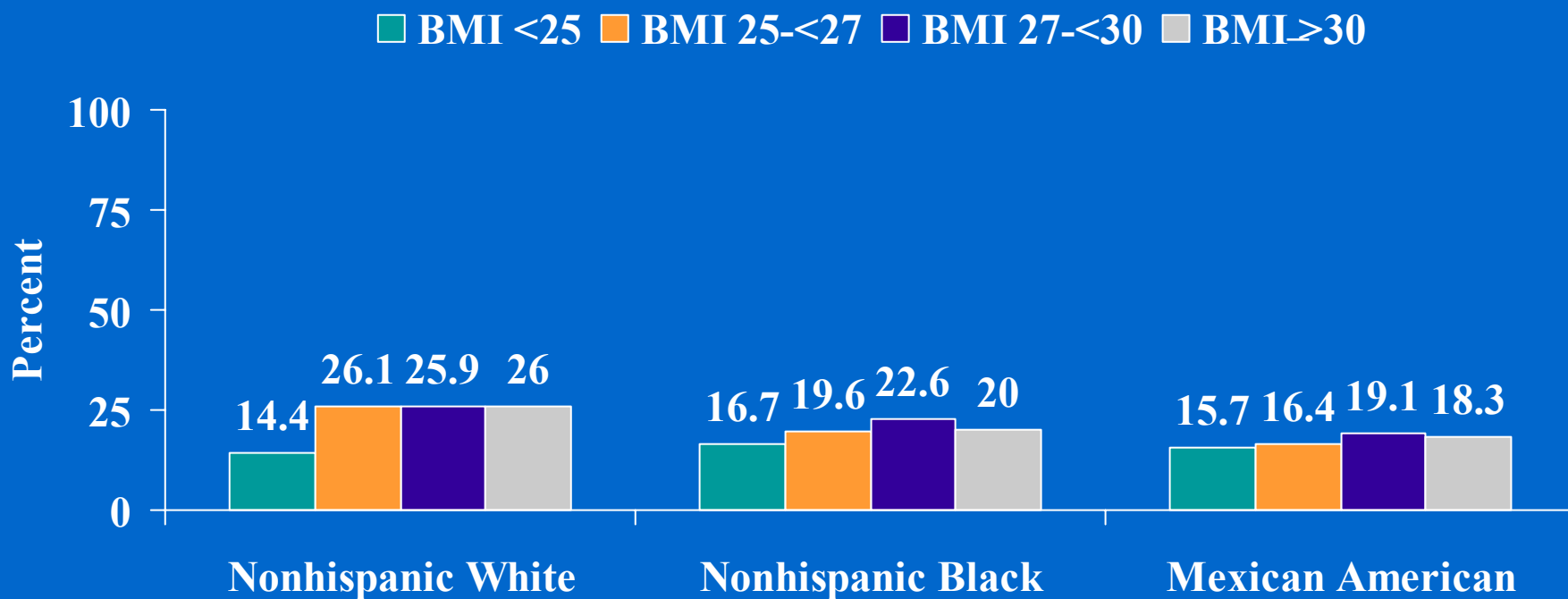
\*Defined as  $\geq 240$  mg/dL.

Brown C et al. Body Mass Index and the Prevalence of Hypertension and Dyslipidemia. *Obes Res.* 2000; 8:605-619.



# NHANES III Age-Adjusted Prevalence of High Blood Cholesterol\* According to Sex, Race/Ethnicity, and BMI

## Women



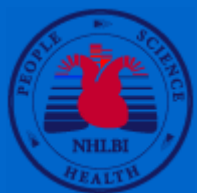
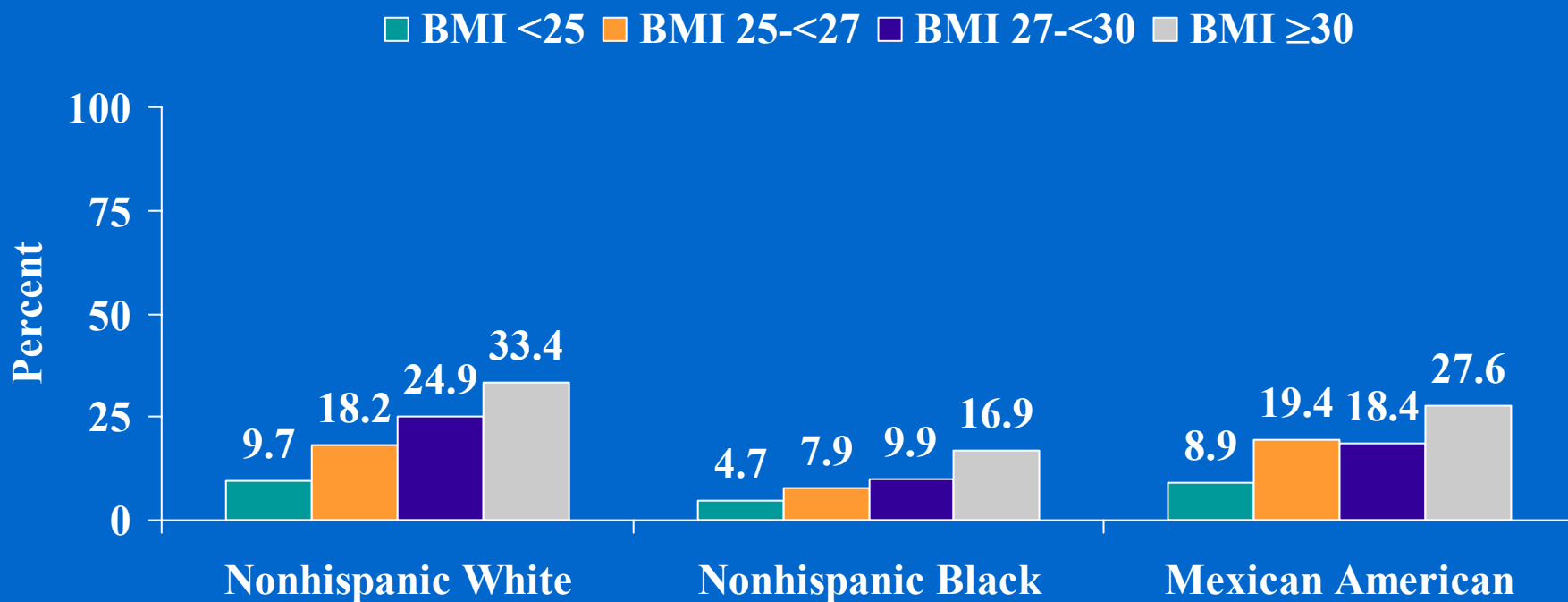
\*Defined as  $\geq 240$  mg/dL.

Brown C et al. Body Mass Index and the Prevalence of Hypertension and Dyslipidemia. *Obes Res.* 2000; 8:605-619.



# NHANES III Age-Adjusted Prevalence of Low HDL Cholesterol\* According to Sex, Race/Ethnicity, and BMI

## Men



\*Defined as <35 mg/dL in men <45 mg/dL in women.

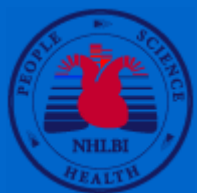
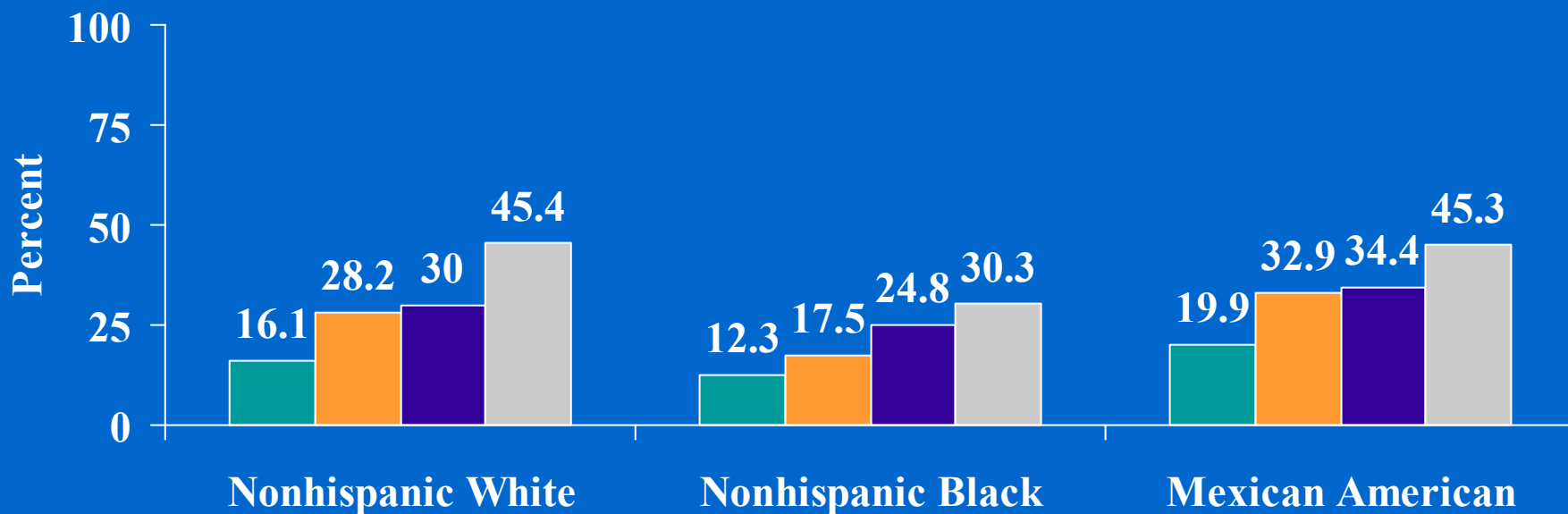
Brown, C et al. Body Mass Index and the Prevalence of Hypertension and Dyslipidemia. *Obes Res.* 2000; 8:605-619.



# NHANES III Age-Adjusted Prevalence of Low HDL Cholesterol\* According to Sex, Race/Ethnicity, and BMI

## Women

■ BMI <25 ■ BMI 25-<27 ■ BMI 27-<30 ■ BMI >30

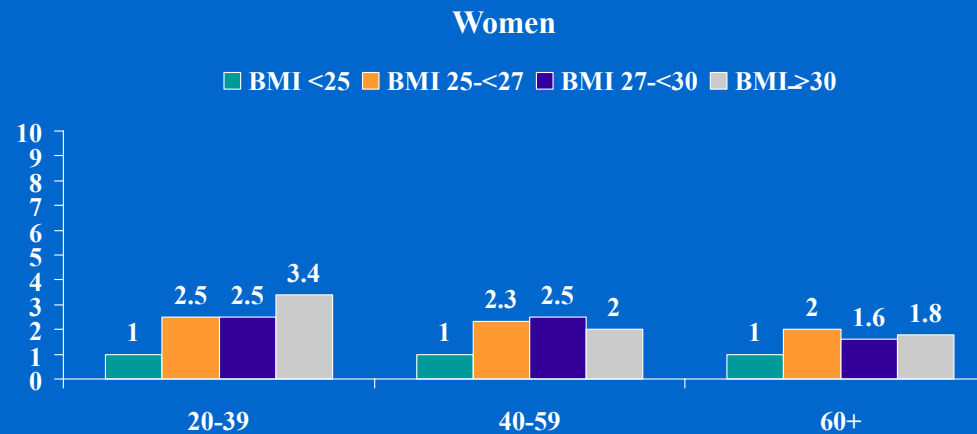
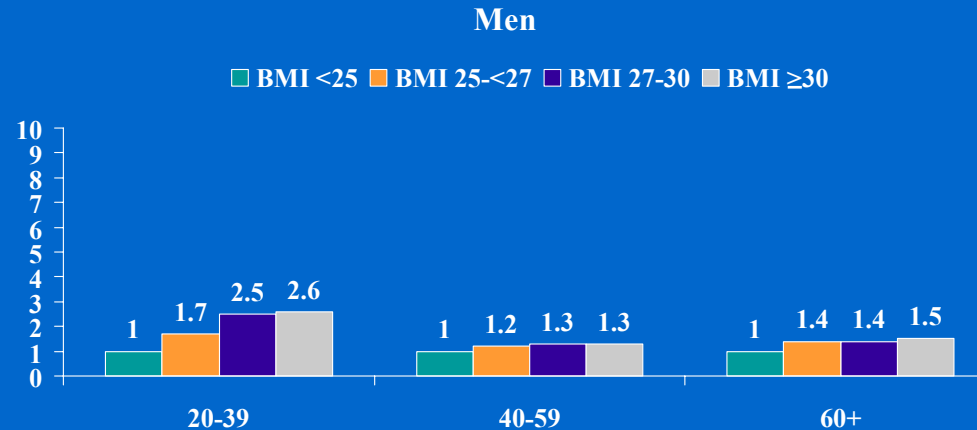


\*Defined as <35 mg/dL in men <45 mg/dL in women.

Brown C et al. Body Mass Index and the Prevalence of Hypertension and Dyslipidemia. *Obes Res.* 2000; 8:605-619.



# Odds Ratio for High Blood Cholesterol\* According to Sex, Age, and BMI Men and Women



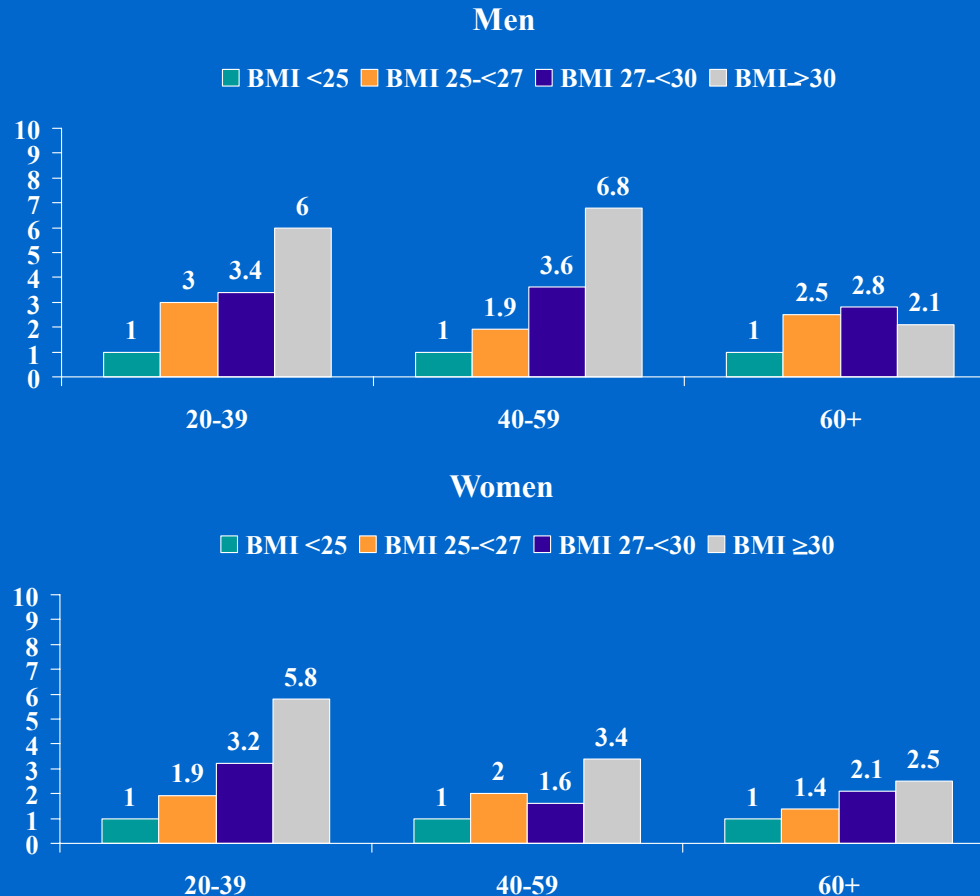
\*Defined as  $\geq 240$  mg/dL



Brown C et al. Body Mass Index and the Prevalence of Hypertension and Dyslipidemia. *Obes Res.* 2000; 8:605-619.



# Odds Ratio for Low HDL Cholesterol\* According to Sex, Age, and BMI

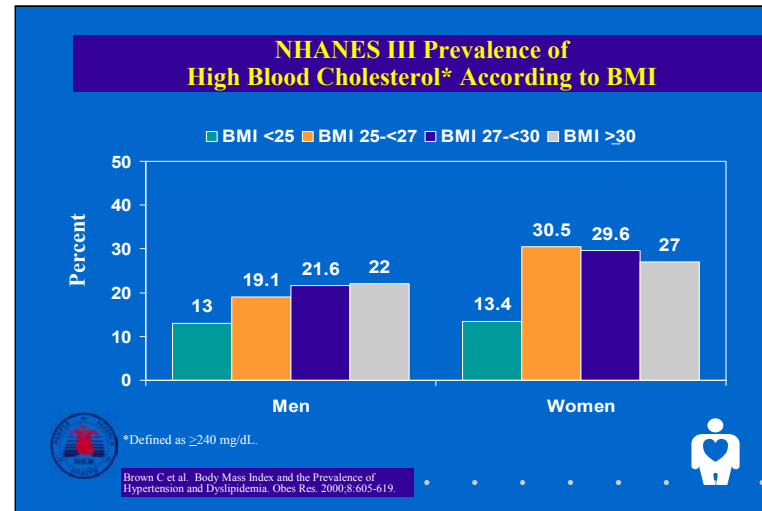


\*Defined as <35 mg/dL in men <45 mg/dL in women.



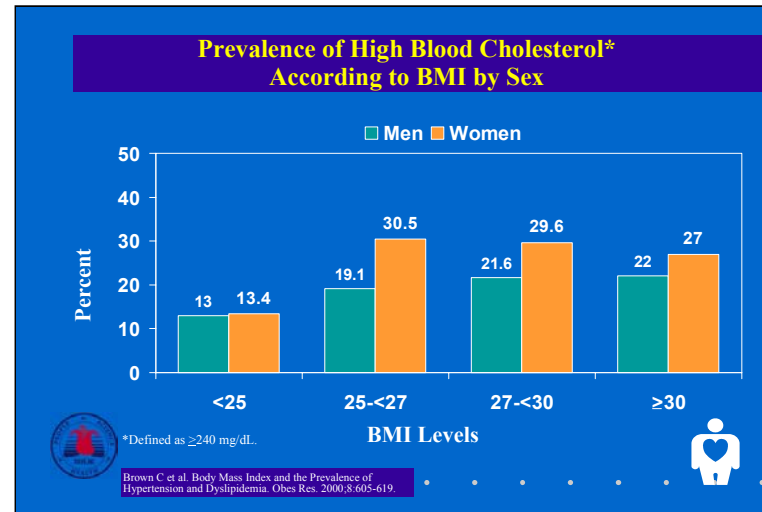
Brown C et al. Body Mass Index and the Prevalence of Hypertension and Dyslipidemia. *Obes Res.* 2000; 8:605-619.





The NHANES III data on high blood cholesterol also show that the prevalence of high blood cholesterol increases at higher BMI levels. High blood cholesterol is defined as a cholesterol level of  $\geq 240$  mg/dL.

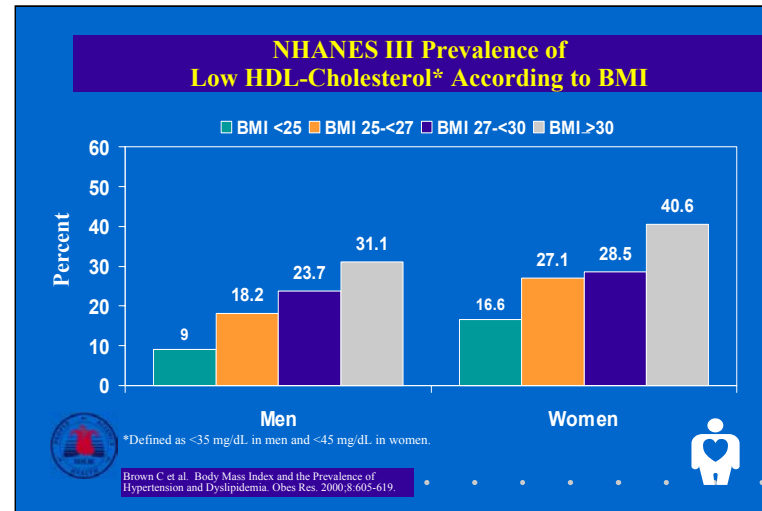
- At each BMI level, the prevalence of high blood cholesterol is greater in women than in men.
- In women, there is a significant increase in the prevalence of high blood cholesterol from a BMI level of <25 to a BMI level of 25–26.



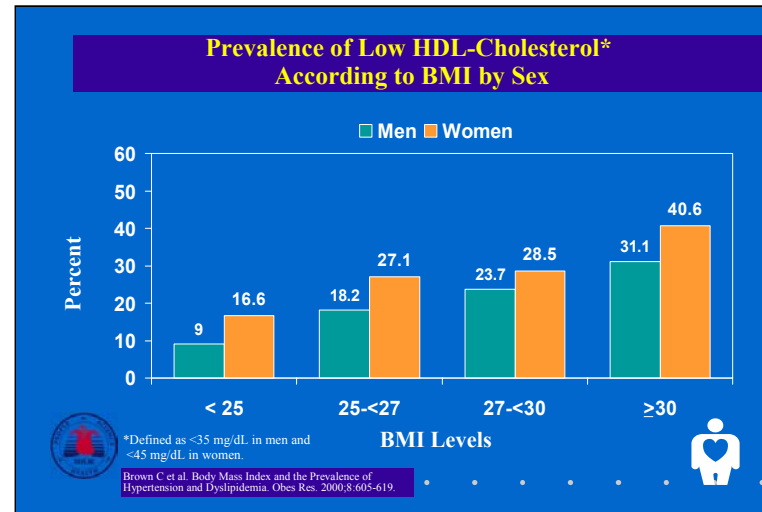
The relationship of the prevalence of high blood cholesterol, defined as  $\geq 240$  mg/dL, to BMI by sex is shown on this slide.

- At BMI <25, 13.4 percent of women have high blood cholesterol compared with 13 percent of men.
- As BMI increases to 30+, 27 percent of women have high blood cholesterol compared with 22 percent of men.
- At each BMI level, the prevalence of high blood cholesterol is greater in women than in men.



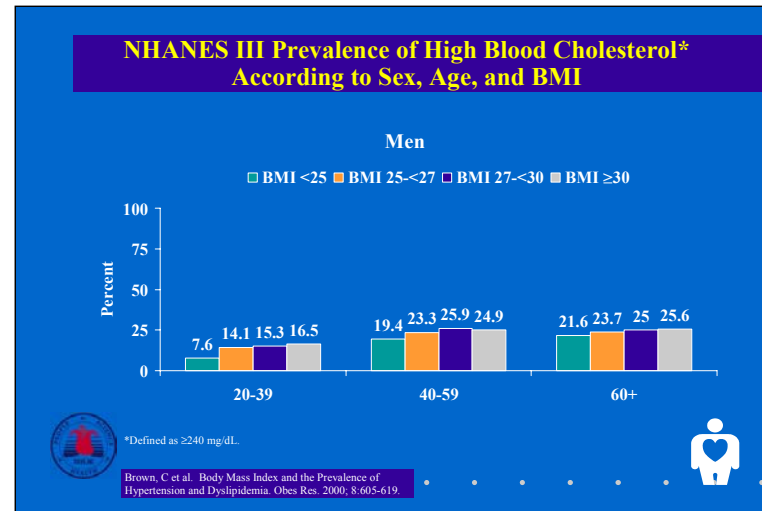


- This slide shows that with increasing BMI levels, the prevalence of low HDL increases in both men and women. Low HDL was defined here as <35 mg/dL in men and <45 mg/dL in women.
- The prevalence of low HDL is more prevalent in women than in men at each level of BMI. However, the actual levels of HDL were higher in women than in men at all BMI levels.
- Although low HDL-cholesterol in this study was defined as <35 mg/dL in men and <45 mg/dL in women, the *Third Report of the National Cholesterol Education Program’s Expert Panel on the Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults* defines low HDL-cholesterol as <40 mg/dL for men and women.



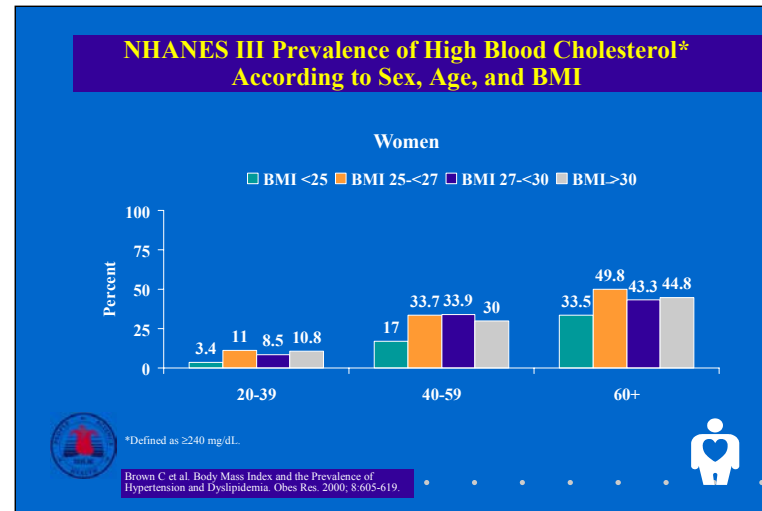
The prevalence of low HDL cholesterol in relation to BMI levels according to sex is shown on this slide.

- As BMI increases, the prevalence of low HDL-cholesterol levels increases in both women and men. Low HDL was defined here as <35 in men and <45 mg/dL in women.
- Even though the prevalence of low HDL appears greater in women than in men, the actual levels of HDL were higher in women than in men at all levels of BMI.
- Although low HDL-cholesterol in this study was defined as <35 mg/dL in men and <45 mg/dL in women, the *Third Report of the National Cholesterol Education Program’s Expert Panel on the Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults* defines low HDL-cholesterol as <40 mg/dL for men and women.



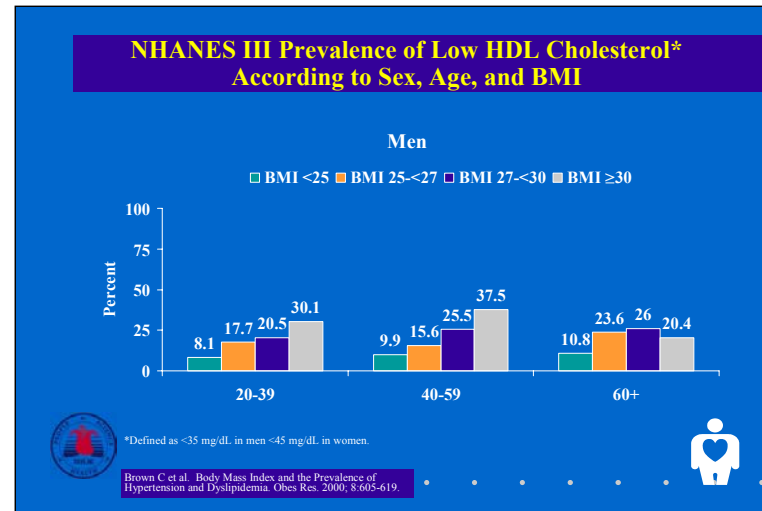
Data from NHANES III show that the rise in prevalence of high blood cholesterol associated with increasing BMI is greatest among younger men. High blood cholesterol is defined as  $\geq 240$  mg/dL.

- Men 20–39 years with a BMI  $\geq 27$  have more than twice the prevalence of high blood cholesterol compared with men of the same age with a BMI <25.
- A similar but less steep trend is apparent at older ages.



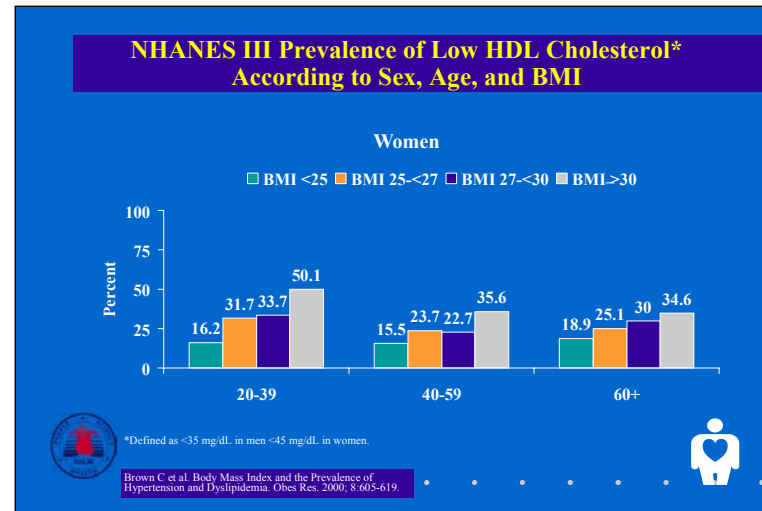
Data from NHANES III show that the prevalence of high blood cholesterol among women generally increases with age through ages 60–79, then decreases at all levels of BMI. High blood cholesterol is defined as  $\geq 240$  mg/dL.

- The increase in the prevalence of high blood cholesterol with rising BMI levels is greatest in the younger age groups, with a significant increase seen from a BMI <25 to BMI levels of 25-<27.



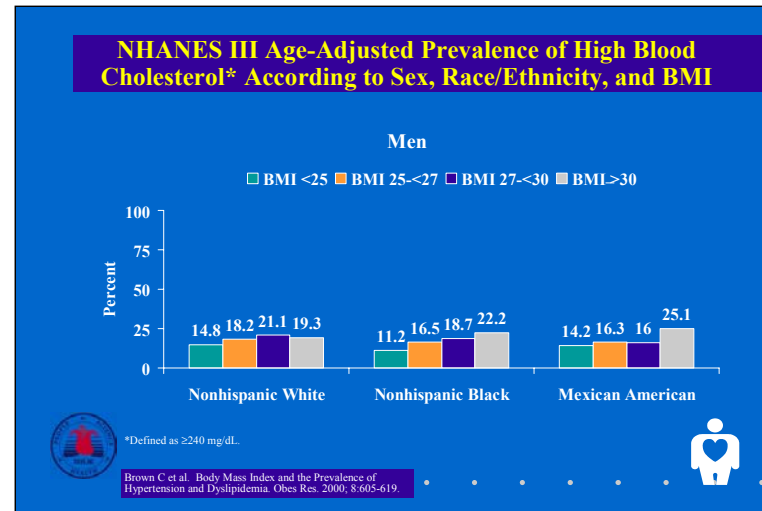
Data from NHANES III show that among men the prevalence of low HDL levels increased with rising BMI in the two younger groups, although there is no consistent pattern of increase. A low HDL level is defined as <35 mg/dL in men.

- In younger men, generally there is a greater increase in the prevalence of low HDL as BMI rises. It is twice as high in the overweight groups (BMI 25-<27 and BMI 27-<30) and three times as high in the obese group (BMI ≥30) compared to leaner men with BMI <25.



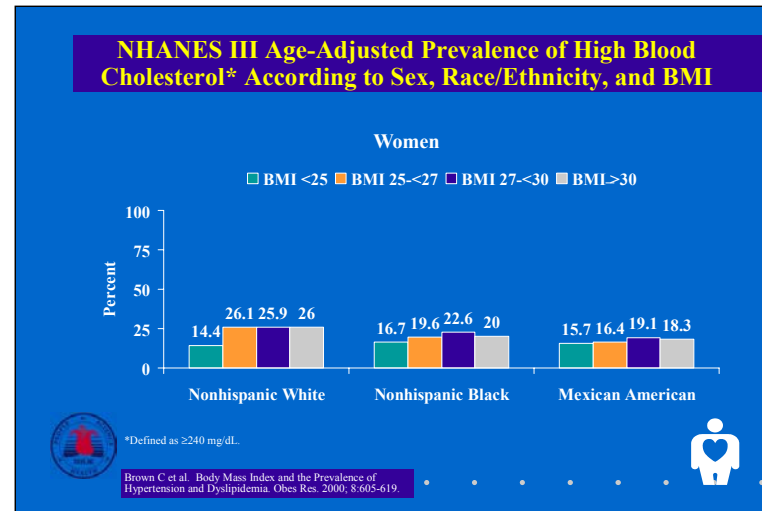
Data from NHANES III show that the prevalence of low HDL levels increases with BMI in all groups of women, although there is no consistent stepwise pattern of increase. A low HDL level is defined as <45 mg/dL in women.

- In younger women, generally there is a greater increase in the prevalence of low HDL as BMI increases. It is twice as high in the overweight groups (BMI 25-<27 and BMI 27-<30) and three times as high in the obese group (BMI ≥30) compared to leaner women with BMI <25.



Data from NHANES III show that the age-adjusted prevalence of high blood cholesterol increases with rising BMI levels in white, black, and Mexican-American men. High blood cholesterol is defined as  $\geq 240$  mg/dL.

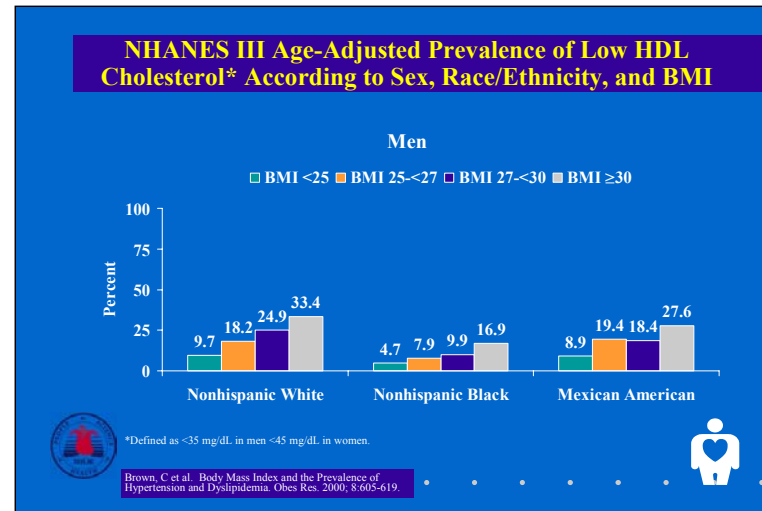
- The age-adjusted prevalence rates of high blood cholesterol are lower in black and Mexican-American men, except among obese men.



Data from NHANES III show that the age-adjusted prevalence trends in high blood cholesterol were similar among white, black, and Mexican-American women. High blood cholesterol is defined as  $>240$  mg/dL.

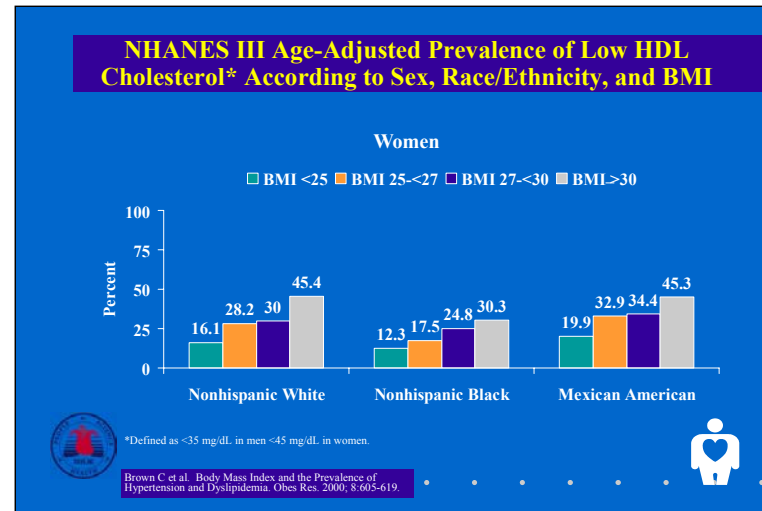
- The age-adjusted prevalence of high blood cholesterol is higher for white women as compared with black and Mexican-American women.





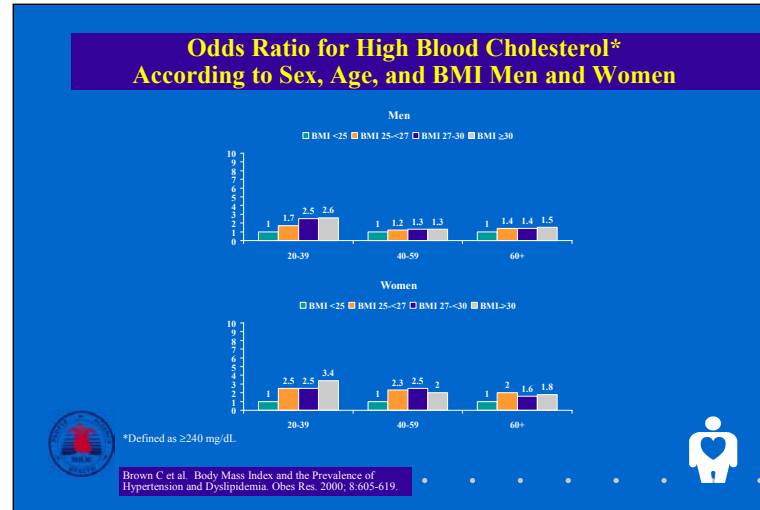
NHANES III data show that in general, there is a similar pattern of increasing prevalence of low HDL cholesterol levels with rising BMI among white, black, and Mexican-American men. Low HDL cholesterol in men is defined as <35 mg/dL.

- Black men have the lowest prevalence of low HDL cholesterol at all levels of BMI.

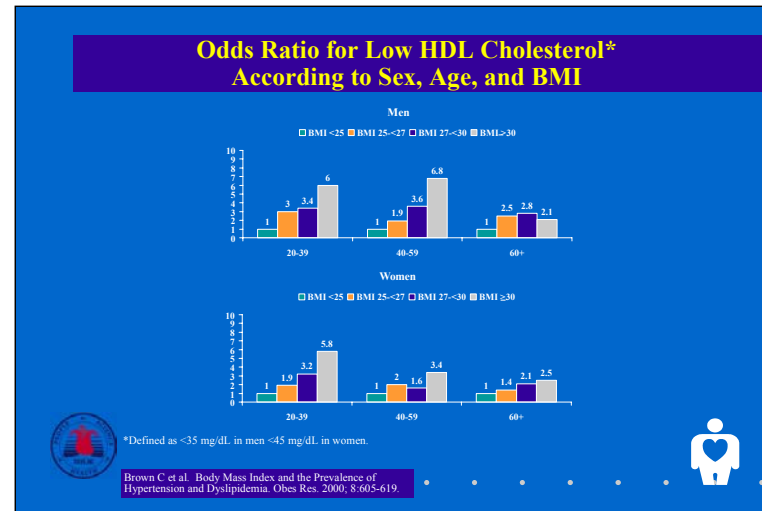


NHANES III data show that in general, there is a similar pattern of increasing prevalence of low HDL cholesterol levels with rising BMI among white, black, and Mexican-American women. Low HDL cholesterol in women is defined as <45 mg/dL.

- Black women have the lowest age-adjusted prevalence of low HDL cholesterol at all levels of BMI.
- Mexican-American women have a higher age-adjusted prevalence of low HDL cholesterol than white women at every level of BMI.



Data from NHANES III show that the odds for developing high blood cholesterol in men and women with increasing BMI levels are greatest at younger ages. High blood cholesterol is defined as  $\geq 240$  mg/dL.



NHANES III data show that odds ratios for low HDL cholesterol in men and women increase with rising levels of BMI. Low HDL cholesterol levels are defined as <35 mg/dL in men and <45 mg/dL in women.

- Odds for developing low HDL cholesterol are greatest in the younger age groups.