



# **PUBLIC HEALTH**

**ALWAYS WORKING FOR A SAFER AND  
HEALTHIER WASHINGTON**

**New Insights in Health Equity**



# **New Insights in Health Equity: Moving from Dialog to Action**

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# Definitions

## Health Disparity

....difference in disease prevalence, outcomes, or access to care

## Health Inequity

....difference that is unnecessary, avoidable, unfair and unjust

## Social Determinants of Health

....economic & social conditions that influence health





# Framework for Addressing Health Inequities

## Health Care Determinants

factors that can be addressed  
by the health care system

## Social Determinants of Health

racial discrimination, economic and social  
conditions that influence health

# Achieving Health Equity

*Moving the dialog beyond access to health care to social determinants of health and health equity.*



# Community Wellness and Prevention Process to Address Health Inequity

## Objectives:

1. Learn about social and economic factors driving health inequities to create a common understanding
2. Brainstorm what public health professionals should do to address the social determinants of health
3. Create an action plan to address health inequity in a more upstream fashion.

## Process:

1. *Education:* 4 half-day sessions covering key concepts linking social and economic determinants to health and potential interventions
2. *Brainstorming:* A half-day exploration of what needs to be changed in our public health practice
3. *Action Planning:* A half-day planning session, using the Institute for Cultural Affairs model, to determine what we need to do to achieve these changes.

## **Educational Sessions Included:**

- Disparities in outcomes & connection to social policy (D. Raphael)
- Differential access to society's resources (S. Bezruchka)
- Hierarchical power structures (L. Nieto)
- Evidence-based practices and practice-based evidence  
(B. Berkowitz & C. McKeever)

## Brainstorming and Action Planning Results:

- Internal scan of environment
- Workforce development
- Leadership and partnerships
- Communications plan

# Next Steps



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## Tackling Health Inequities

- Develop the workforce
- Scan your environment
- Foster leadership
- Plan communications
- Build non-traditional partnerships
- Research “promising practices”

## Develop Your Workforce

- Raise staff awareness
- **Develop orientation for new staff**
- Provide on-going training
- **Require viewing of *Unnatural Causes***
- Use consistent language about health equity
- Teach about SDOH in schools of public health

## Scan Your Environment

- **Review state and local data on inequities**
- **Develop cross program goals and objectives**
- **Track health equity work across the organization**
- Identify priority populations
- Build opportunities for networking

## Foster Leaders

- Identify champions early
- **Seek senior management commitment**
- **Show *Unnatural Causes*, discuss, and supply state & local data**
- Reframe your message
- Emphasize – health equity is our work
- Don't give up

## Complete Communications Planning

- Educate stakeholders
- Develop consistent messages
- Use common definitions
- Practice plain talk
- Reframe the message
- Use audience-centered health promotion

## Build Non-Traditional Partners

- Start early – trust takes time
- Seek community leaders as messengers
- Educate partners about social determinants of health
- Assume public health agencies cannot do this work alone
- See health equity work as the foundation of public health

## Research Promising Practices

- Turning Point Initiative
- Louisville, KY Center for Health Equity
- Connecticut Health Equity Action Team
- Ingham County, MI Social Justice through Dialog
- King County, WA Equity & Social Justice Initiative
- OK State Health Equity & Resource Opportunities Division
- Boston, MA Mayor's Task Force to Eliminate Racial and Ethnic Disparities



NATIONAL ASSOCIATION OF  
**CHRONIC DISEASE DIRECTORS**  
Promoting Health. Preventing Disease.

## Health Equity Council

***“Eliminating Health Disparities  
through Social Justice”***

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

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## Health Equity Council Resources

- Website
- Enhanced tool kit
- Success stories template
- Promising Practices resources
- Cultural Competency assessment tool
- Networking & partnership opportunities



# Equity in Health: Distinguishing Health Inequities

Marilyn Sitaker, MPH  
Chronic Disease Prevention Unit  
Washington State Department of Health

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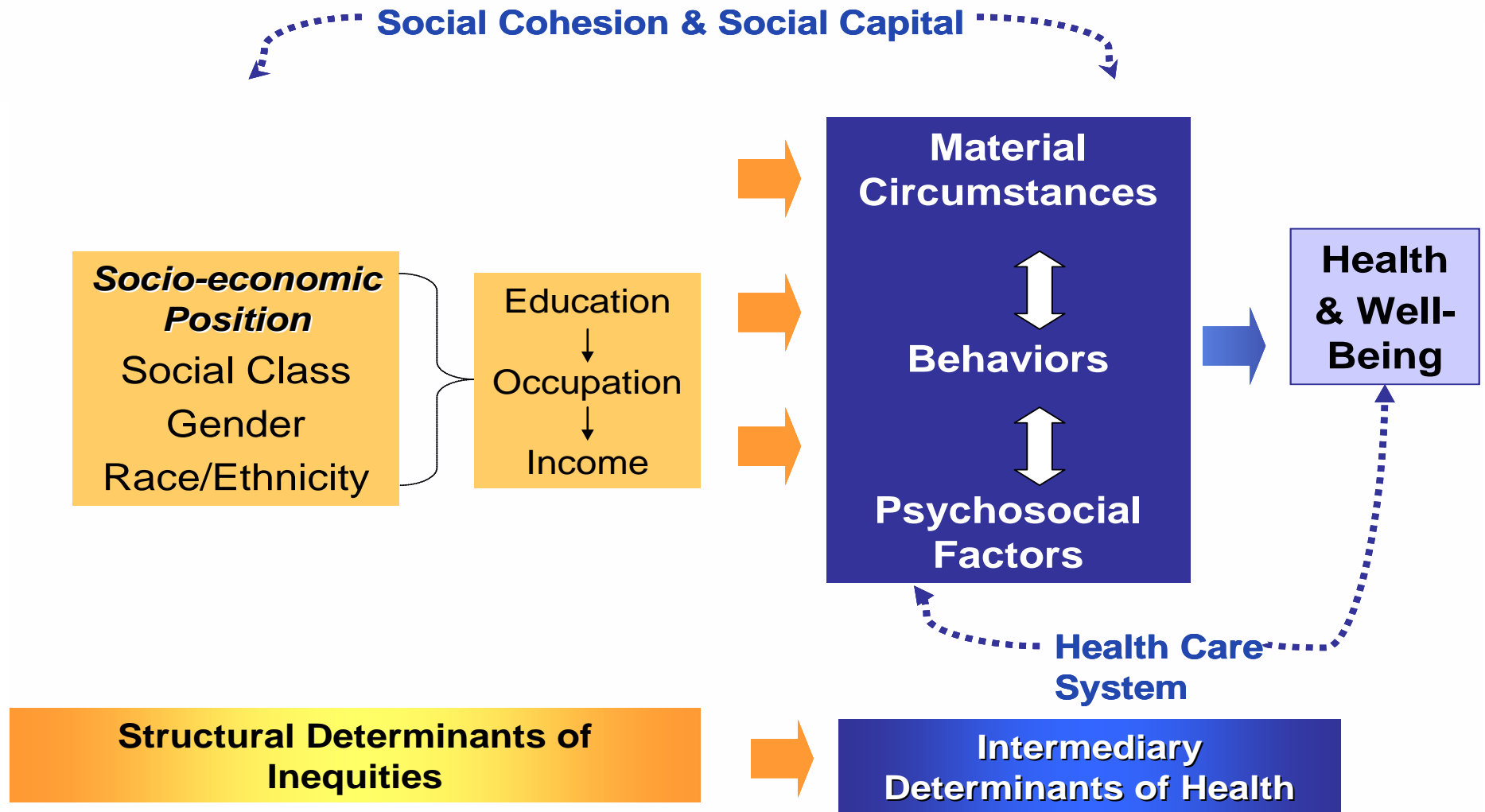
## *Which disparities are inequities?*

Women with lower income levels are more likely to be diagnosed with late-stage breast cancer than women with higher incomes

People who ski are more likely to have leg fractures than those who don't

Asians and Pacific Islanders have lower rates of coronary heart disease death than Whites

# World Health Organization Model



## Testing whether disparities are due to unfair access to social resources:

1. For observed disparities in a health indicator by socioeconomic position, do we see corresponding disparity in access to a social resource known to be directly associated with the condition of interest?

# Colorado: High School Graduation and Unemployment by Race/ethnicity

Figure 81. CPI High School Graduation Rates by Race/Ethnicity, Colorado, 2003

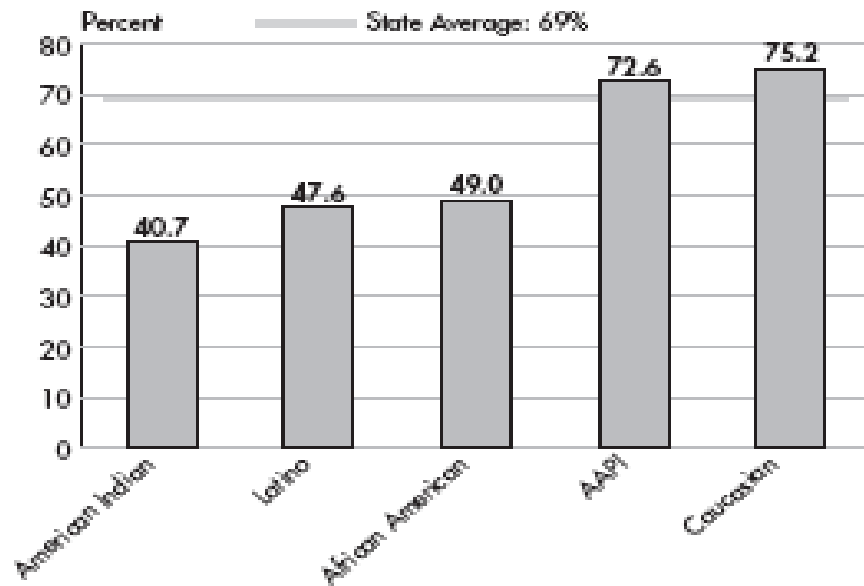
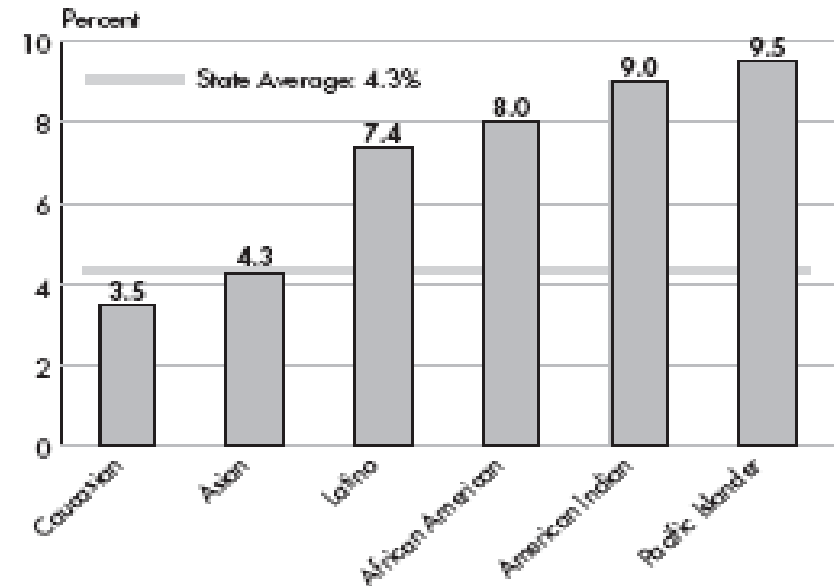


Figure 83. Colorado Unemployment Rate by Race/Ethnicity, 2000



Source: *Racial and Ethnic Health Disparities in Colorado 2005*

# Georgia: Area socioeconomic indicators by health outcomes by race/ethnicity, all counties

Health Disparities Report: Summary of Findings				
Health Outcome Category	Whole County Rate or Measure	African-American or Black Rate in County	Hispanic or Latino Rate in County	County Black-White Inequalities Ratio
<b>Social and Economic</b>				
<b>% Below Poverty</b>	18.5%	31.6%	22.7%	2.2
<b>Education (<i>adults w/ &lt;sup&gt;9&lt;/sup&gt; grade education</i>)</b>	10.7%	11.9%	26%	1.2
<b>Employment (<i>adult unemployment</i>)</b>	6.2%	12.7%	5.9%	2.9
<b>Mortality</b>				
<b>YPLL-75 Rate (<i>Life-Years Lost</i>)</b>	9,841.20	10,344.80	0	1.04
<b>Age-Adjusted Death Rate per 100,000</b>	1,063.9	1,085.4	0	1

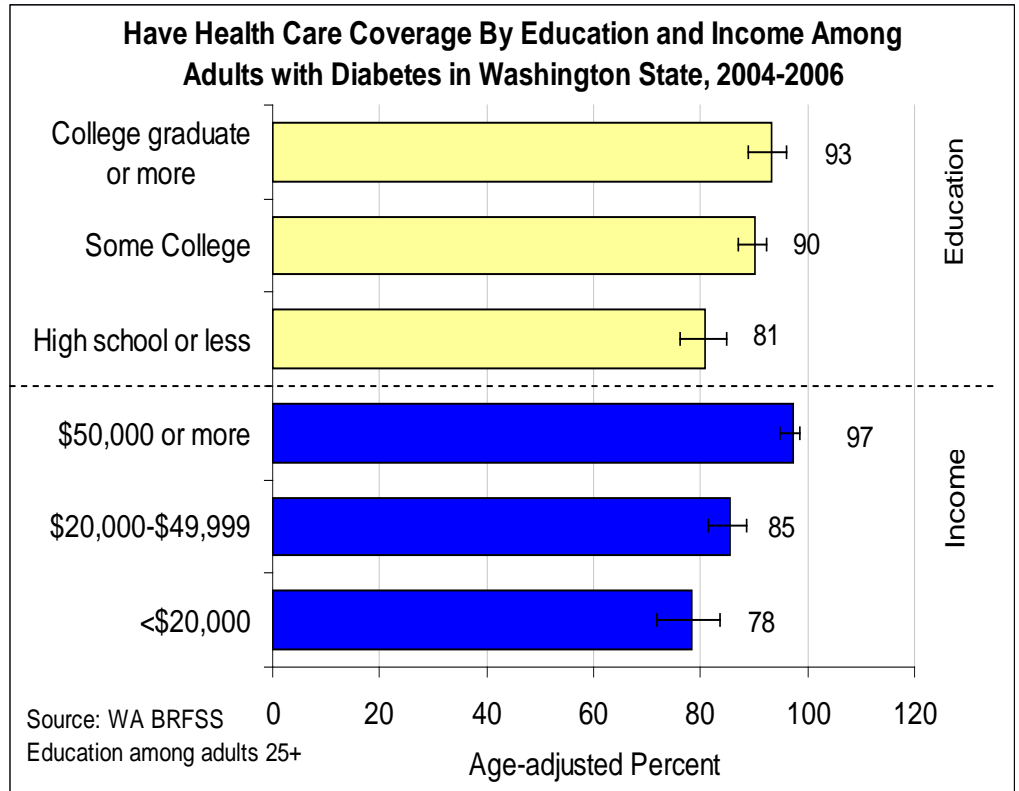
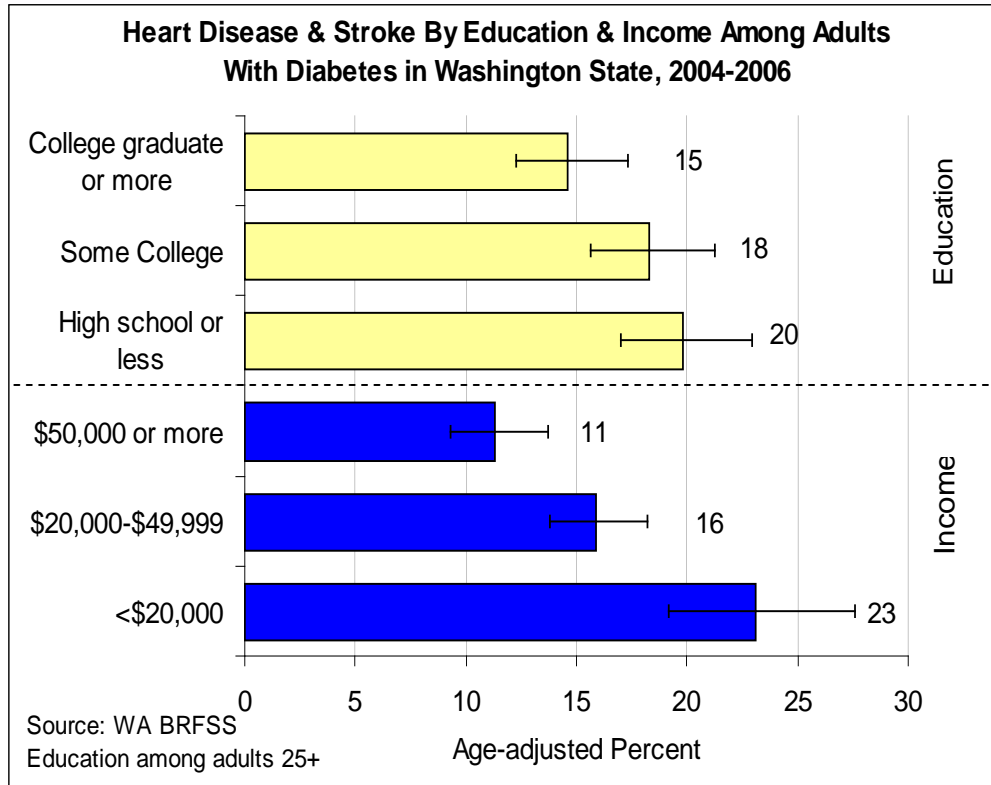
[http://dch.georgia.gov/vgn/images/portal/cit\\_1210/5/49/111684019Georgia\\_Health\\_Equity\\_Initiative\\_Health\\_Disparities\\_Report\\_2008.pdf](http://dch.georgia.gov/vgn/images/portal/cit_1210/5/49/111684019Georgia_Health_Equity_Initiative_Health_Disparities_Report_2008.pdf)



## Testing whether disparities are due to unfair access to social resources:

1. For observed disparities in a health indicator by socioeconomic position, do we see corresponding disparity in access to a social resource known to be directly associated with the condition of interest?
2. Can we show a connection between socioeconomic position, disparities in access to social resources, and disparities in the health indicator?

# Example: Diabetes-related Deaths and Access to Health Care



People with diabetes who have lower levels of income and education are more likely to develop complications—like heart disease

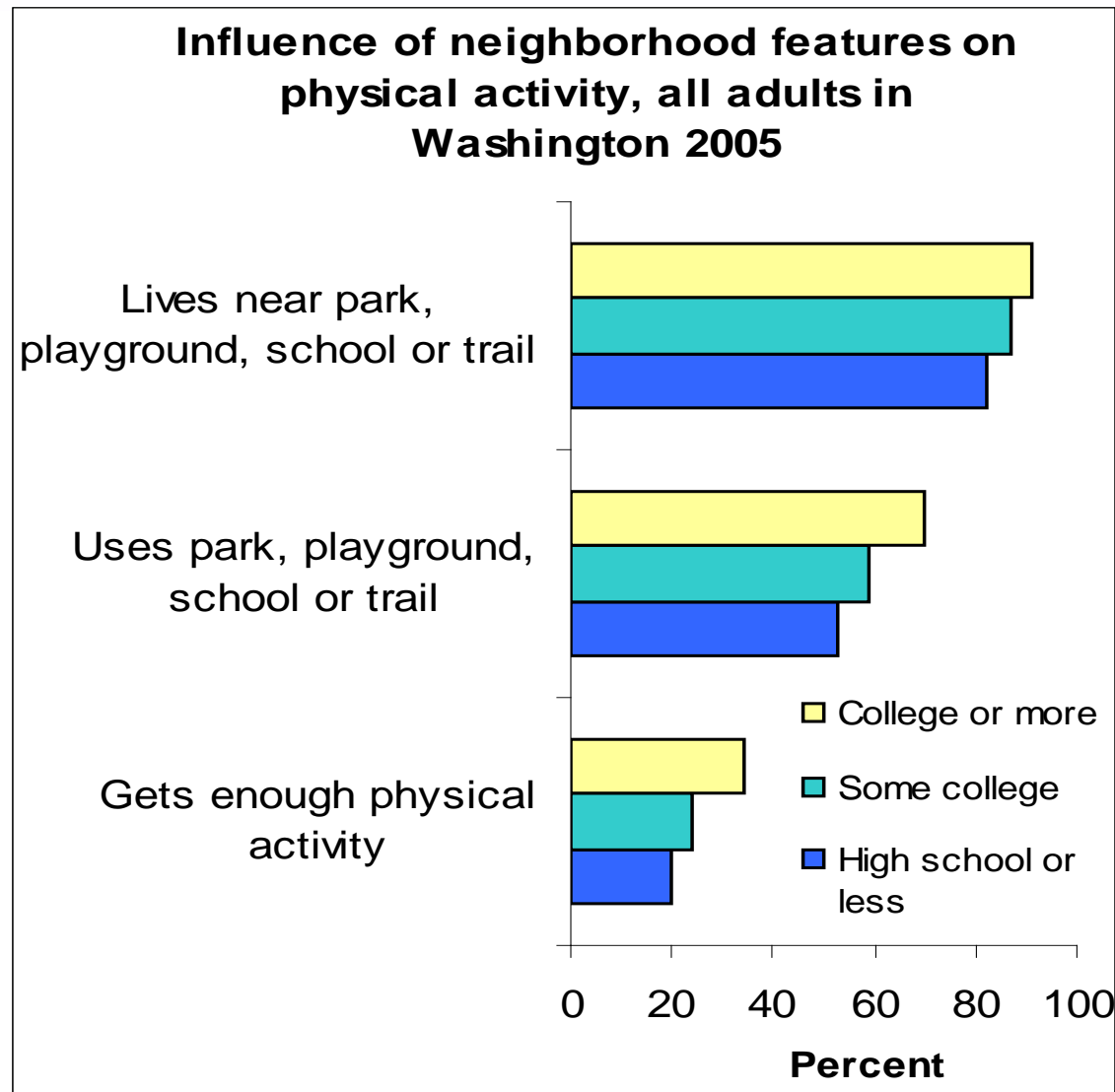
People with diabetes who have lower levels of income and education are less likely to have access to health care

# Example: Resources in the built environment, socioeconomic position & health behavior

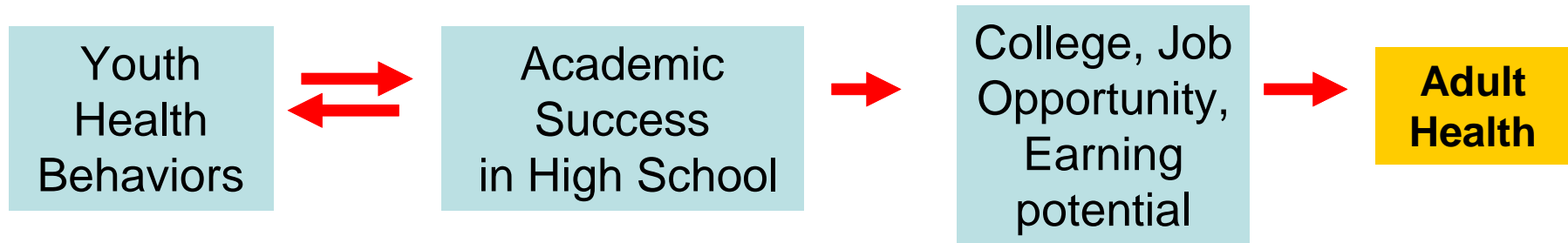
Health Indicator: *physical activity behavior*

Social determinant: *recreational physical activity environments*

Measure of social position: *individual educational attainment*



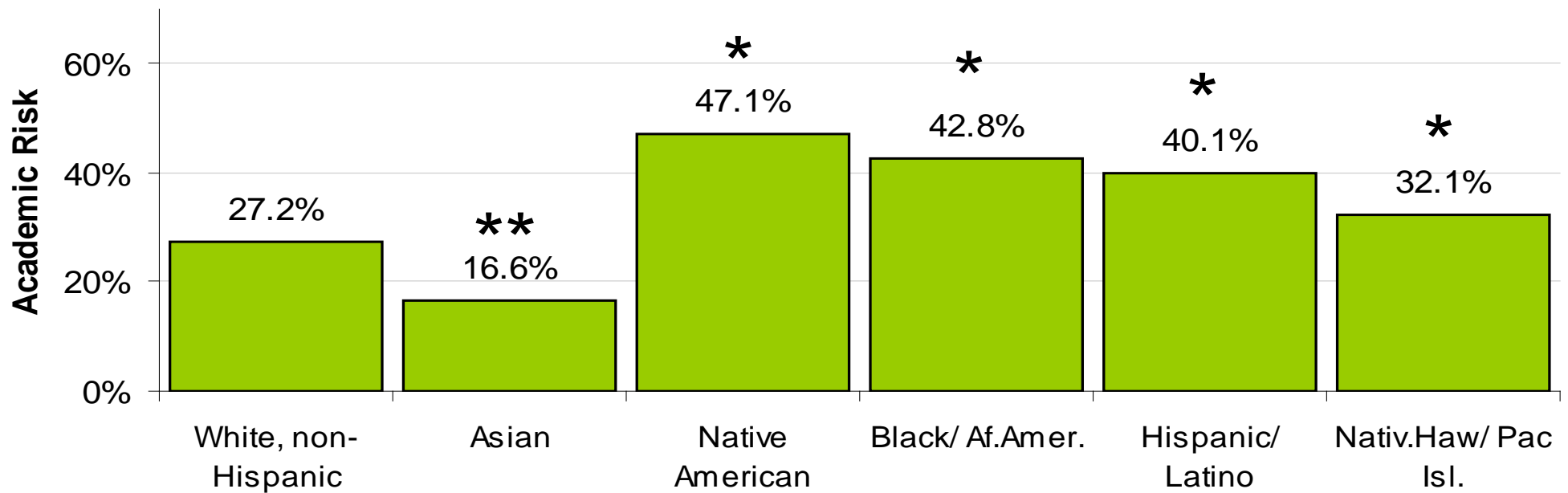
# Disparities in Youth Health & Academic Success



- Academic success in youth affects future opportunities that in turn influence adult health
- Poor health behaviors are associated with academic risk; youth need to have healthy behaviors so they can achieve academically
- Do academic risk and poor health behaviors vary by race/ethnicity?

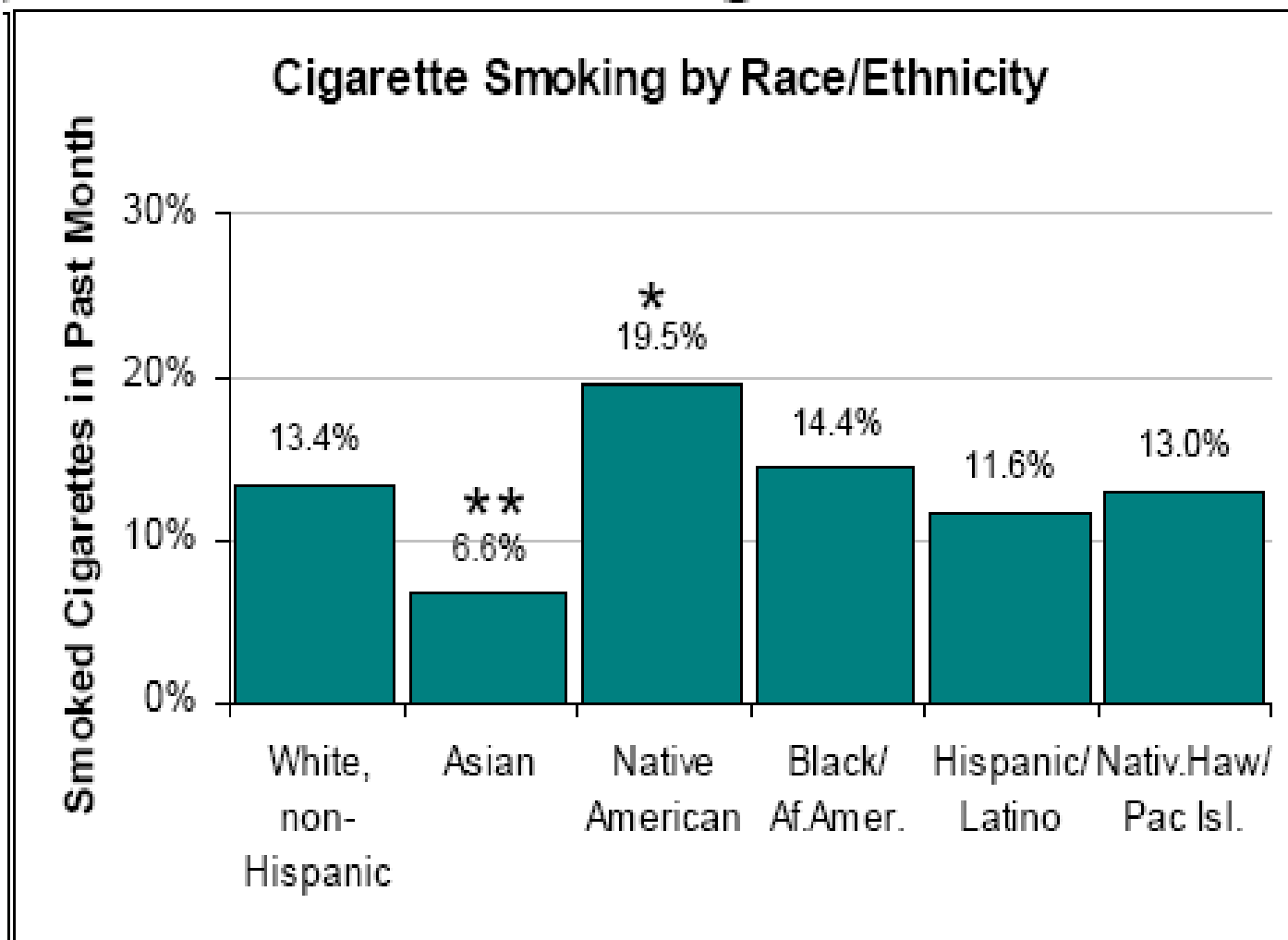
# Race/Ethnicity are linked to both health behaviors & academic achievement

Academic Risk by Race/Ethnicity



Source: 2006 Washington Healthy Youth Survey, state sample, grades 8-10-12 combined.

# Cigarette Smoking



Source: 2006 Washington Healthy Youth Survey, state sample, grades 8-10-12 combined.



## “Testing” whether disparities are due to unfair access to social resources:

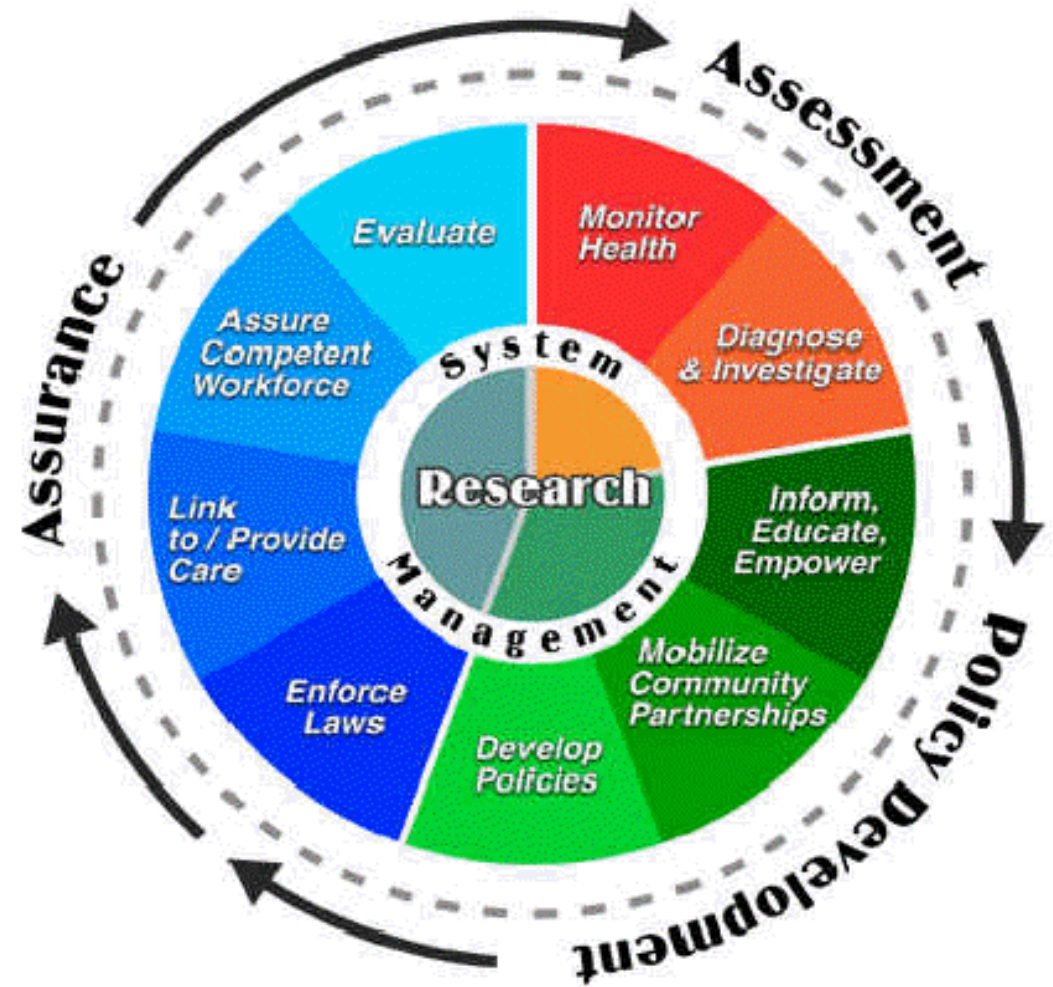
1. For observed disparities in a health indicator by socioeconomic position, do we see corresponding disparity in access to a social resource known to be directly associated with the condition of interest?
2. Can we show a connection between socioeconomic position, disparities in access to social resources, and disparities in the health indicator?
3. Are disparities we see in access to social resources or health outcomes by socioeconomic position consistent with findings from rigorous epidemiologic studies?



## Public Health: “Testing” for Health Equity

We rely on evidence from academic studies:

- Rigorous study designs
- Longitudinal studies (e.g., Whitehall study)
- Similar findings from many studies, many places



# Example: Stress and Health

- Chronic stress affects health through psychological and physiologic processes, and damages immune and cardiovascular systems.
- People with lower socioeconomic position are more likely to experience stress from competing work / family demands, inadequate money, job insecurity, low autonomy and exposure to noise, pollution and crime.
- While their stressors may be more potent, their coping resources may be more limited
- *It is the job of public health practitioners to translate this science in their work*

Kelly, Hertzman & Daniels. Ann Rev Pub Health, 1997;  
Wheaton, J Health & Social Behavior, 1997.



## “Testing” whether disparities are due to unfair access to social resources:

1. For observed disparities in a health indicator by socioeconomic status, do we see corresponding disparity in access to a social resource known to be directly associated with the condition of interest?
2. Can we show a connection between socioeconomic position, fairness in access to social resources, and patterns in health and health outcomes?
3. Are disparities we see in access to social resources or health outcomes by socioeconomic position consistent with findings from rigorous epidemiologic studies?
4. Is it likely that the worse health among the disparate group is due to historical social disadvantage?



## Paula Braveman: Thoughts on Health Inequities

Systematic differences in health or health determinants that are plausibly influenced by social policy are health inequities if they

- a) Occur between groups with different social position (place in the hierarchy according to power, wealth, prestige)
- b) Place groups already at social disadvantage at even greater disadvantage due to poor health

You do not need to attribute causation or prove that the disparity is avoidable if social policies were changed, as long as the impact is plausible.

## DOH's 3-step Analytic Plan

1. Time series analysis, BRFSS data: chronic diseases and their risk factors by race/ethnicity, education, and HH income
2. Multilevel analysis of individual measures of social position, area measures, and health condition or outcome
3. Cross sectional study of relationships between indicators of social position; access to socio-economically mediated resources; and health conditions

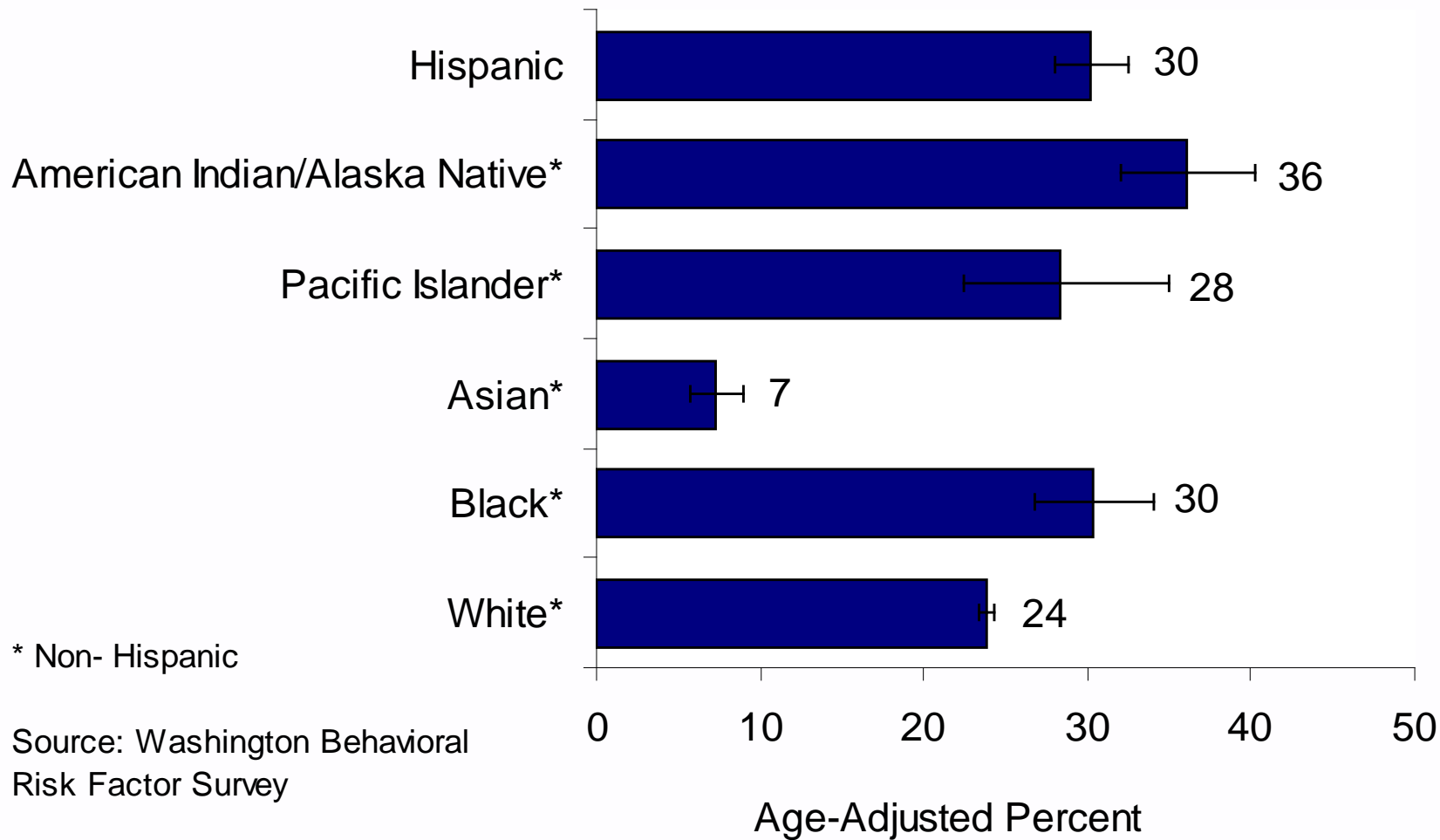


# Obesity Among Black Adults in Washington State 1990 - 2007

Behavioral Risk Factor Surveillance System  
(BRFSS)

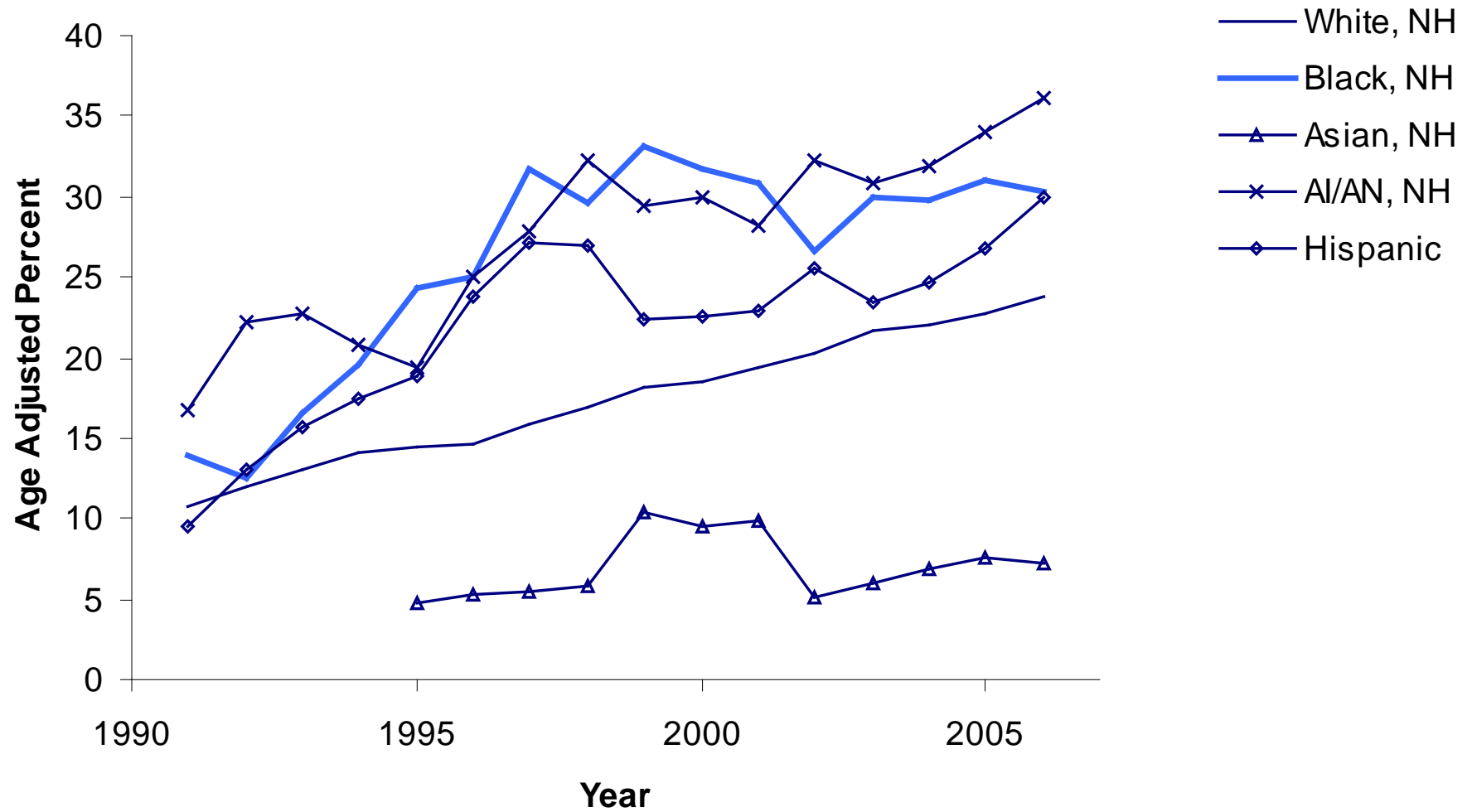


## Obesity Among Adults by Race & Hispanic Origin in Washington, 2005-2007

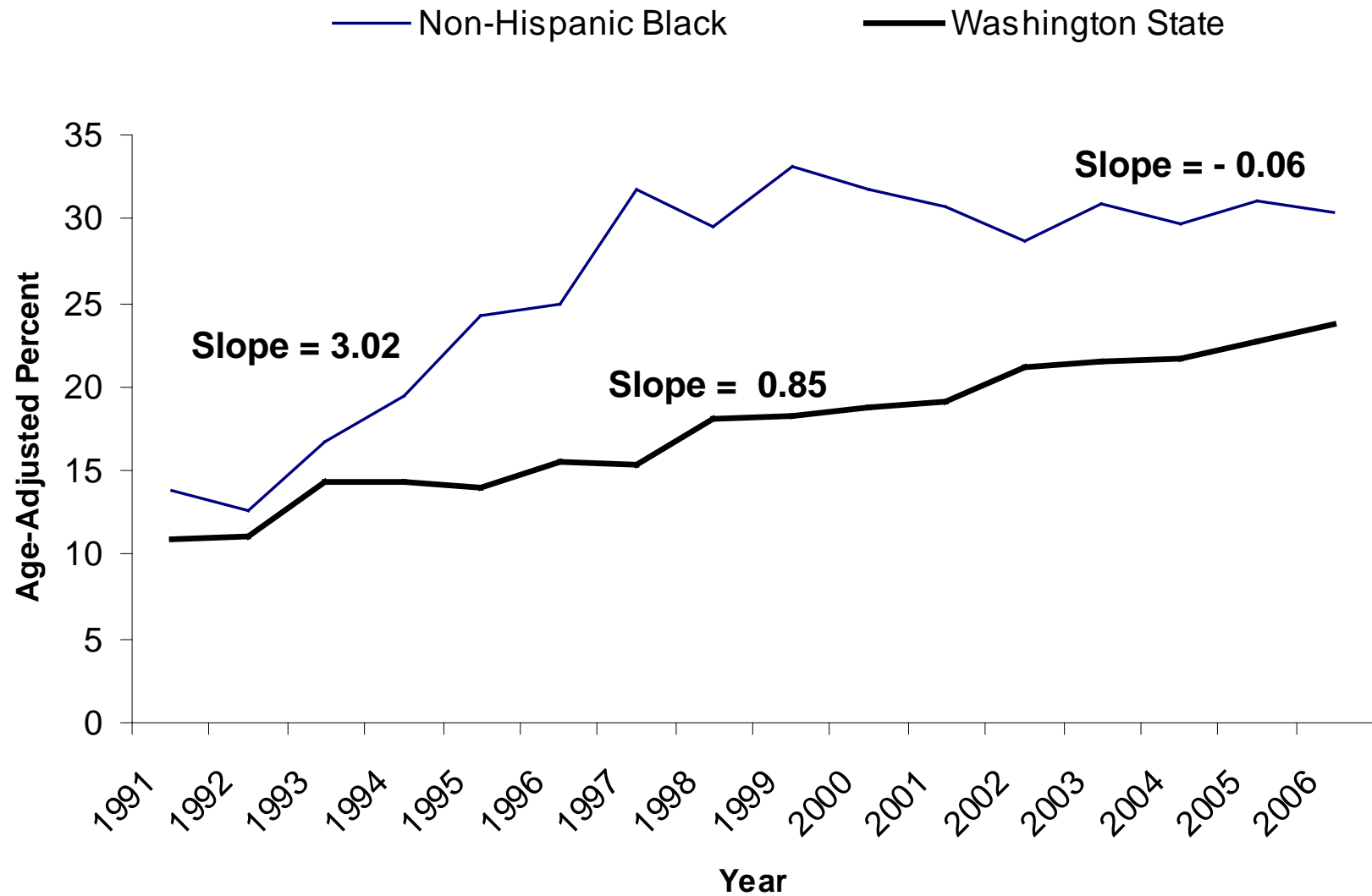




# Obesity prevalence by race / ethnicity in Washington State 3 year rolling averages 1990-2007

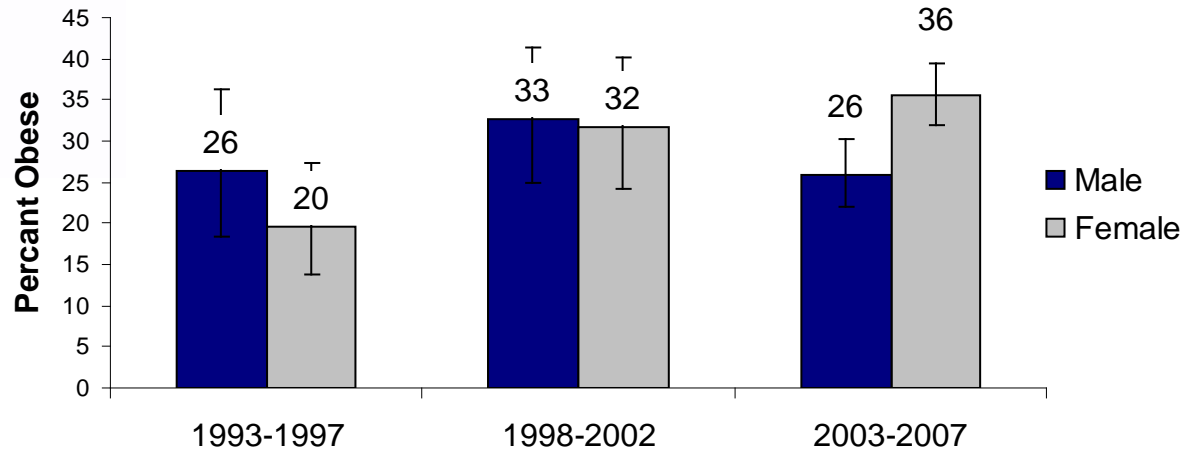


# Obesity Among Washington Adults by Race - 3 year averages, 1990 - 2007

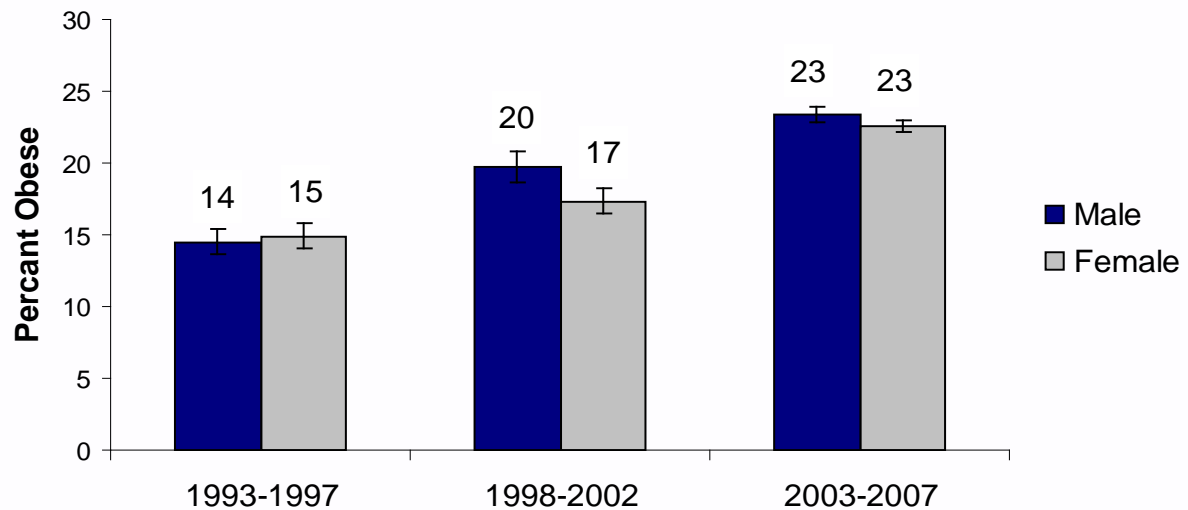




### Obesity Among Black Adults in Washington State by Sex

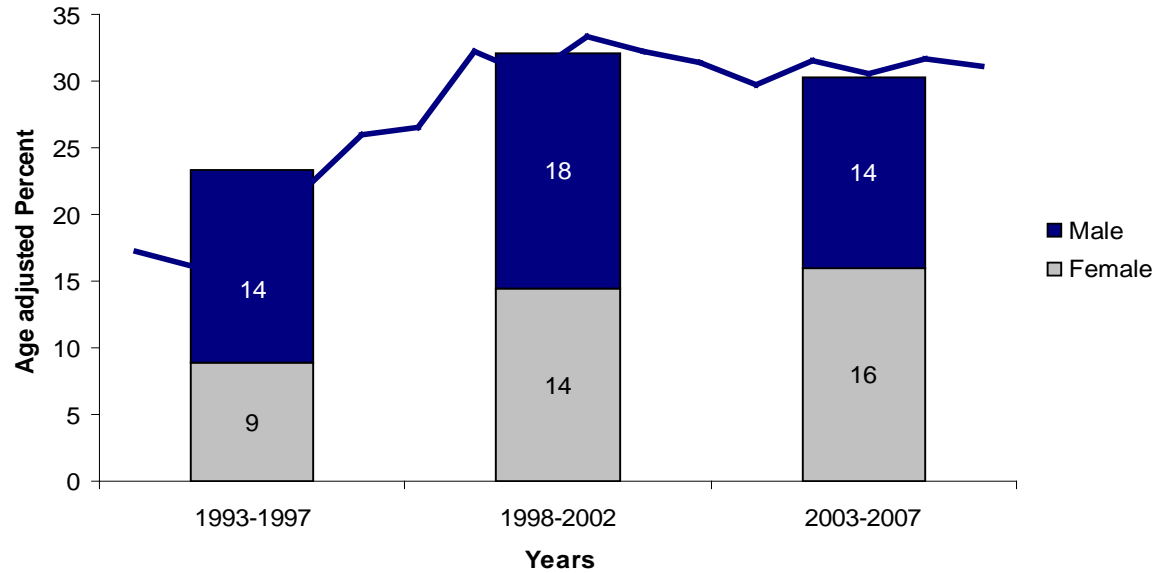


### Obesity Among All Adults in Washington State by Sex

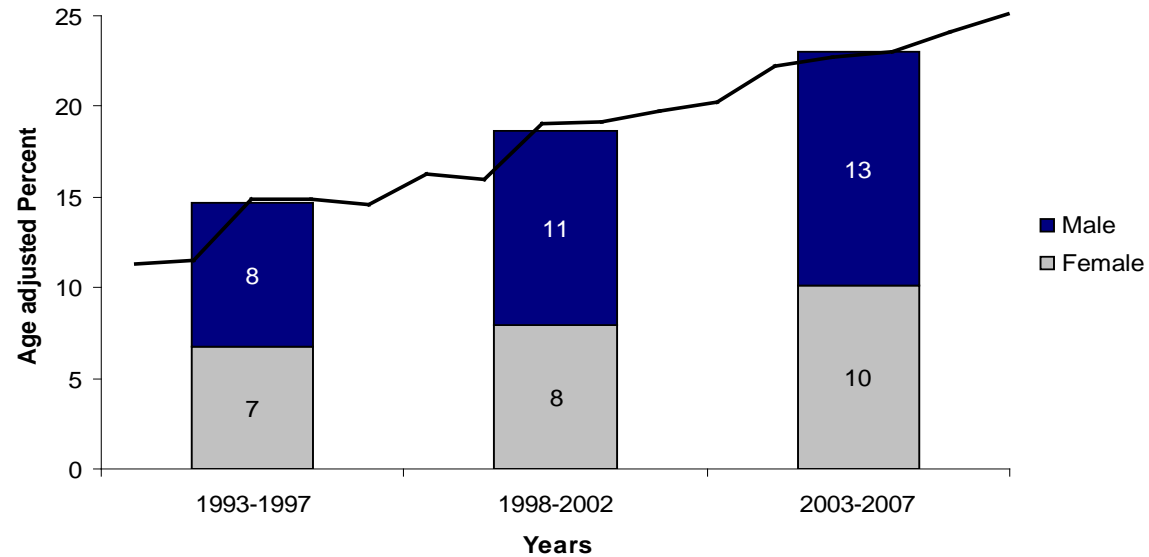




## Obesity Among Black Adults in WA State by Sex

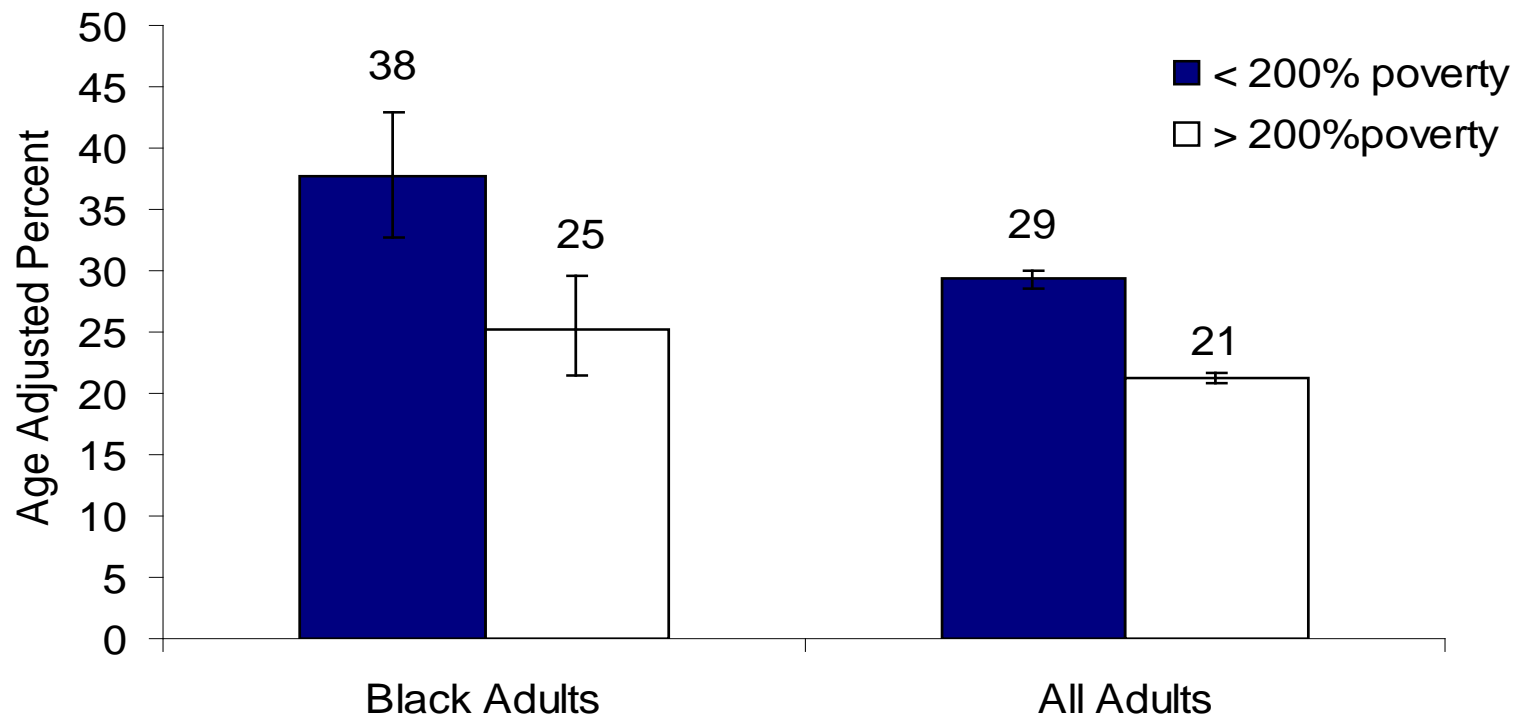


## Obesity Among Adults in WA State by Sex





# Obesity in Washington State by Income 2003-2007



**Excess risk Poor – Rich**

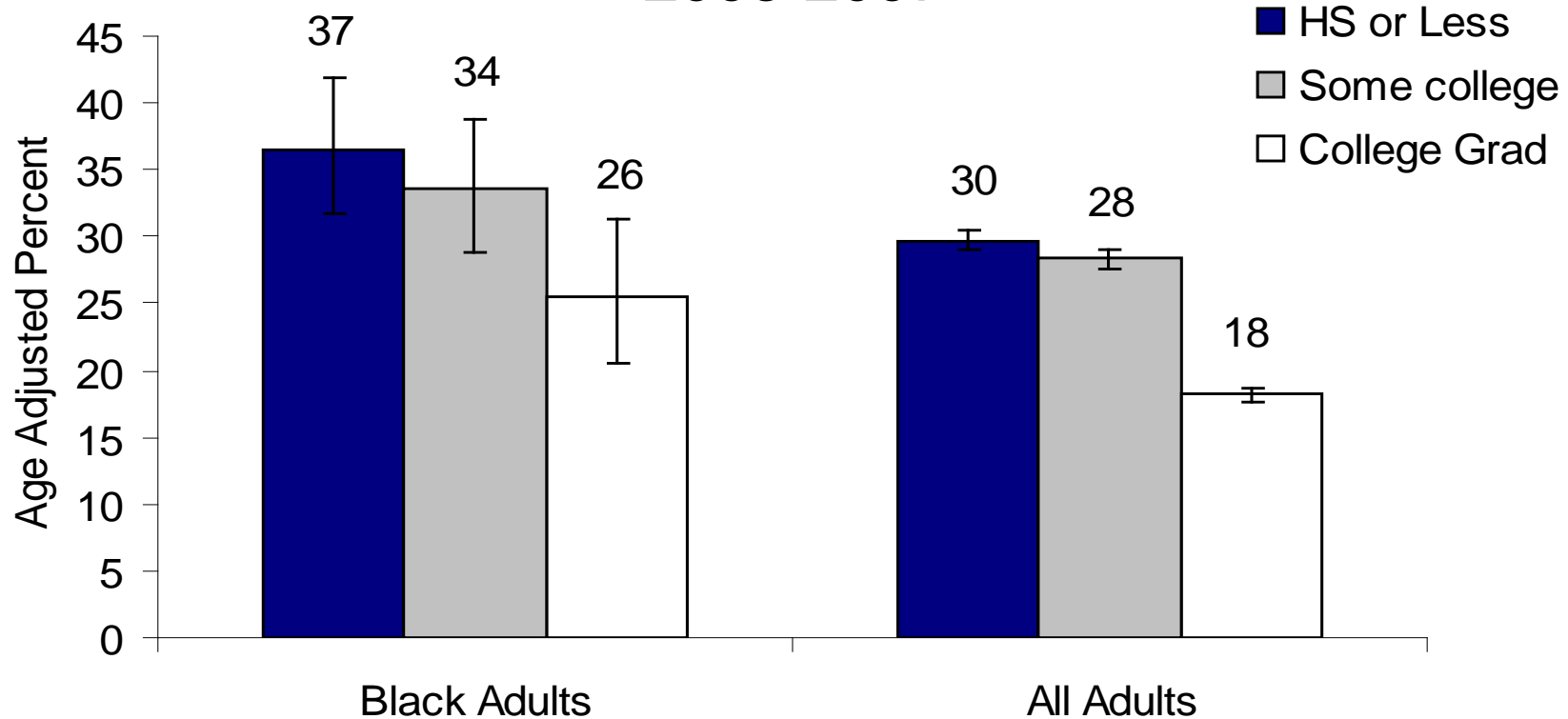
Black: 13 %points      All: 8 %points

**Risk Ratio Poor / Rich**

Black: 1.52      All: 1.38

# Obesity in Washington State by Education

## 2003-2007



### Excess risk HS – College

Black: 11 %points    All: 12 %points

### Risk Ratio HS / College

Black: 1.43    All: 1.67



# Logistic Regression – Black Adults

- Main effects model – Obesity predicted by combined effect of several factors:

Obesity = time period + age + sex + working poor + college education

Working poor = income < 200% federal poverty level

Time periods = 1990 – 2000 and 2001 - 2007



# Logistic Regression – Black Adults

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- Effect Modifiers (Interaction effects) – One factor modifies the effect of another

time x sex

time x working poor

time x college education

**Discernable effect**

# Logistic Regression – Black Adults

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Obesity = time period + age + sex + working poor + college education

Working poor = income < 200% federal poverty level

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- Effect Modifiers (Interaction effects) – One factor modifies the effect of another

time x sex

time x working poor (no discernable effect)

time x college education

**Discernable effect**

Logistic Regression: Odds ratios of obesity among blacks, modified by time period, controlling for age.

Odds Ratio	1990-2000	2001-2007
Female	0.88	1.44
College Grad.	**	0.61
Income < 200% FPL	1.34	1.34

\*\* No discernable effect

- The effect of sex on obesity prevalence among WA blacks has changed over time.
- Female sex was slightly protective in the early time period, but became a risk factor in the later time period.
- Sample sizes were too small to detect the effect of education in the early time period.



**Logistic Regression: Odds ratios of obesity among all adults, modified by time period, controlling for age.**

**All Adults**

**Black Adults**

Odds Ratio	1990-2000	2001-2007	Odds Ratio	1990-2000	2001-2007
Female	**	**	Female	0.88	1.44
College Grad.	0.67	0.67	College Grad.	**	0.61
Income < 200% FPL	1.08	1.24	Income < 200% FPL	1.34	1.34
Black	1.45	1.45			

\*\* No discernable effect

- In contrast to the black population, sex is not a predictor of obesity in the population at large.
- The effects of income on obesity prevalence among all WA adults has increased over time.



Logistic Regression: Odds ratios of obesity among all adults, modified by gender, controlling for age and time period.

Odds Ratio	All Adults	
	Male	Female
Black	1.25	1.63
College	0.73	0.62
Low income	**	1.36

\*\* No discernable effect

- Though not a significant predictor of obesity by itself in the general population, the effects of other SDOH are strongly modified by gender.

# Summary

- Obesity among black adults in Washington State is significantly higher than the general population
- Obesity among black adults in WA increased sharply through the 1990's but has held steady since 1999.
- The pattern of obesity by gender within the black population has changed over time, and differs from the statewide population



# Discussion?

# Contact Us

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# Healthy Communities Washington

Healthy people in healthy places

Presenter(s) name, email and/or phone