

## **In the Kaiser Health Plan**

**ACEs have a strong influence on:**

- adolescent health**
- reproductive health**
- smoking**
- obesity**
- alcohol abuse**
- illicit drug abuse**
- sexual behavior**
- mental health**
- risk of revictimization**
- stability of relationships**
- performance in the workforce**

## **In the Kaiser Health Plan**

### **ACEs increase the risk of:**

- Early death**
- Heart disease**
- Chronic Lung disease**
- Lung cancer**
- Liver disease**
- Autoimmune diseases**
  - Suicide**
  - Injuries**
- HIV and STDs**

## Conclusion

ACEs determine the health and social well-being of members of the Kaiser Health Plan

# *A Public Health Framework*

Create a common terminology  
and conceptual framework

Education:  
General Public  
Human Service Providers  
Policymakers  
Legislators

## *A Public Health Framework*

Identify the scope of the problem—what  
are we dealing with?

Population-based approaches

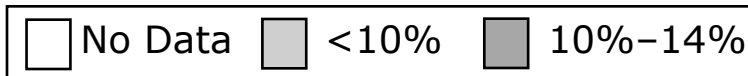
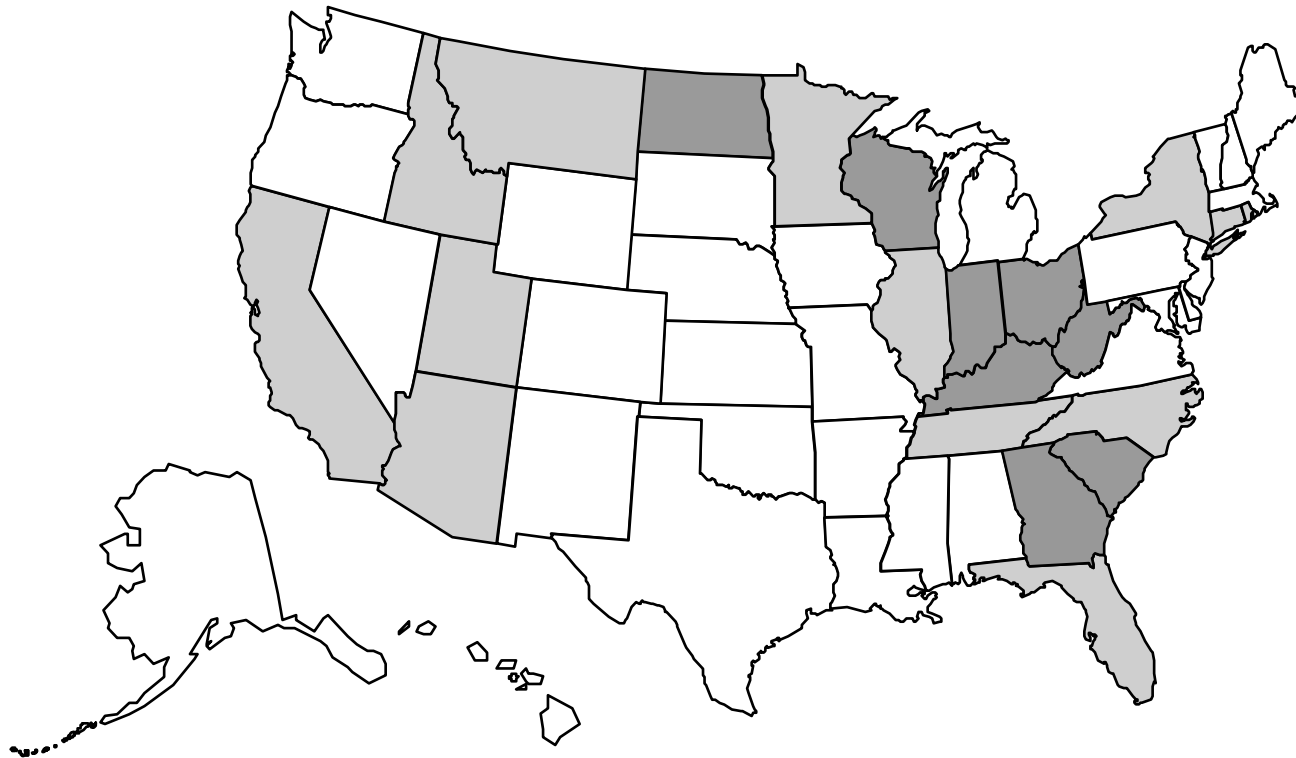
## **Getting Leverage**

### **Population-Based Surveys and Surveillance**

- Document need and are useful to obtain funding and political support**
- Useful for program planning and evaluation**
- Surveillance maintains focus and momentum**

# Obesity\* Trends Among U.S. Adults, 1985

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



Source: Behavioral Risk Factor Surveillance System, CDC.

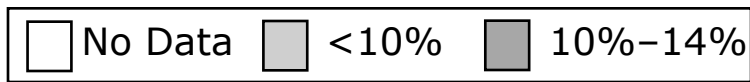
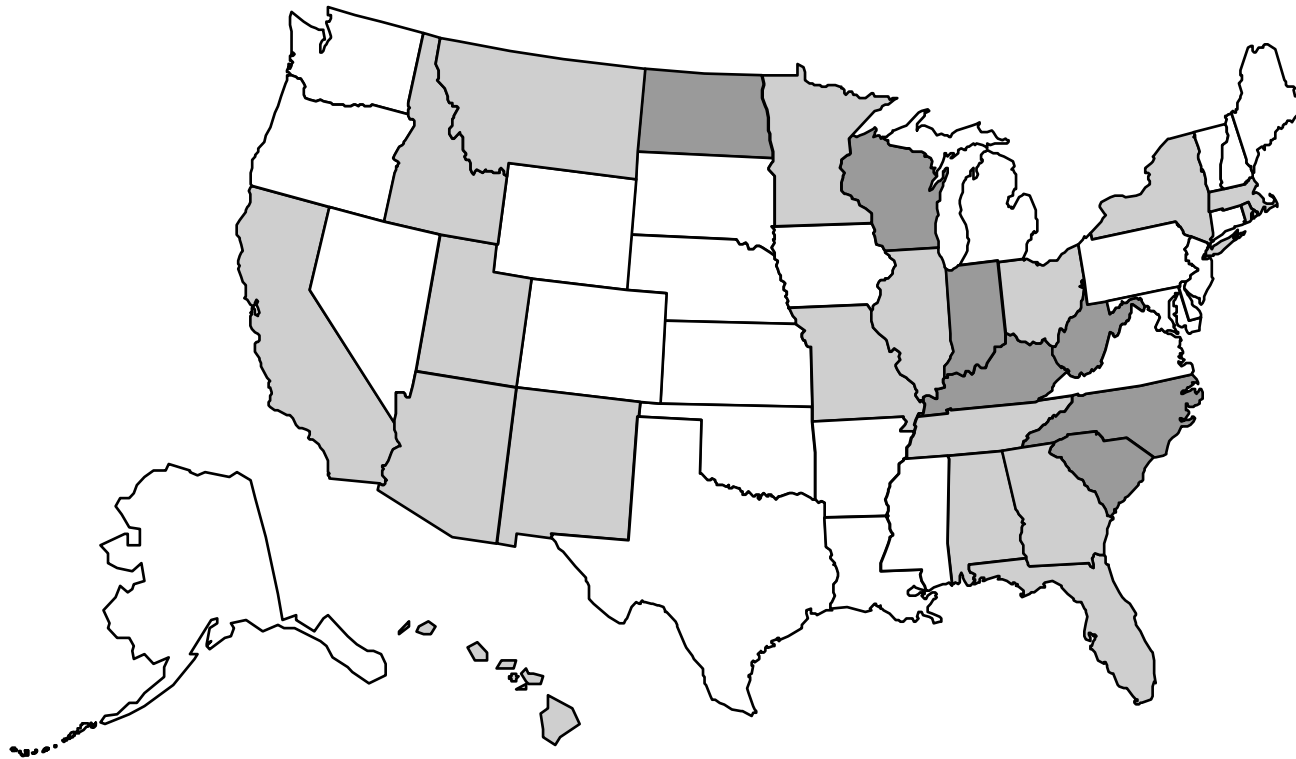


Department of Health and Human Services  
Centers for Disease Control and Prevention



# Obesity\* Trends Among U.S. Adults, 1986

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

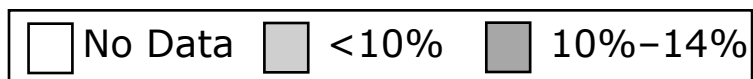
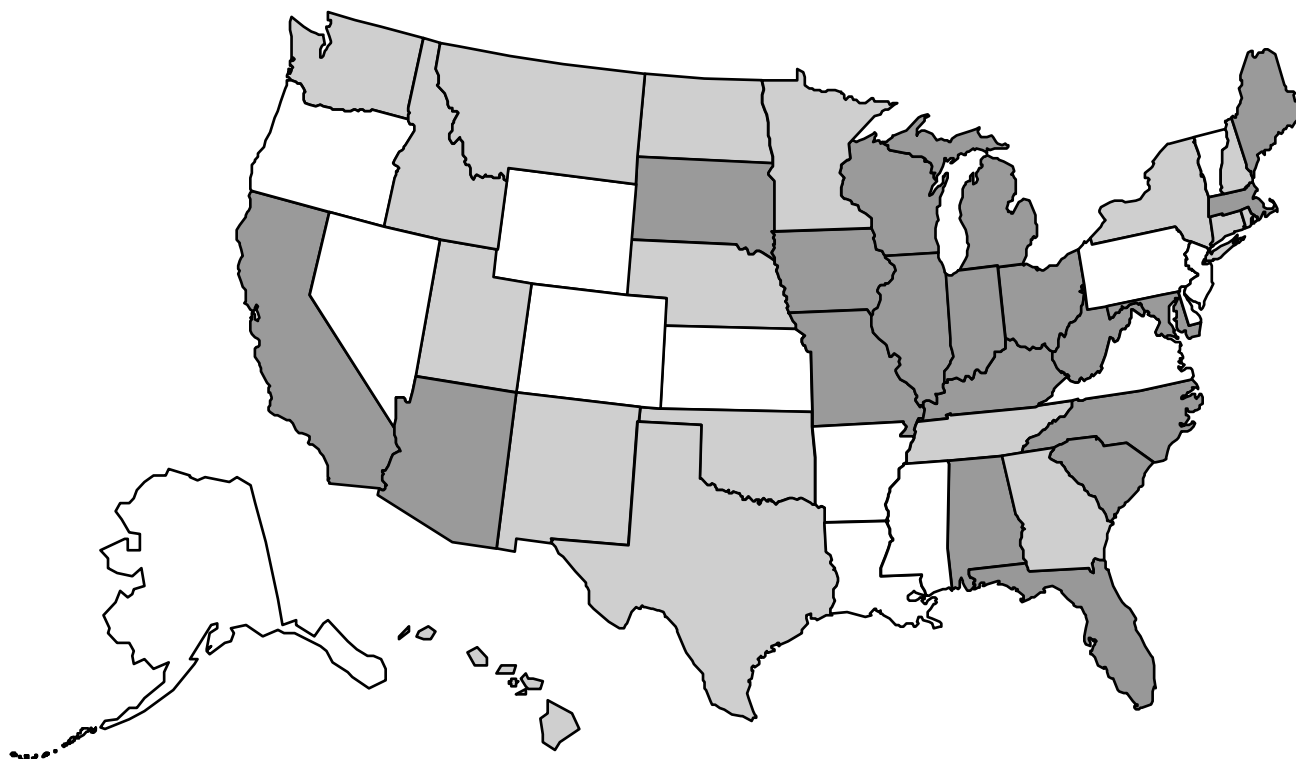


Source: Behavioral Risk Factor Surveillance System, CDC.



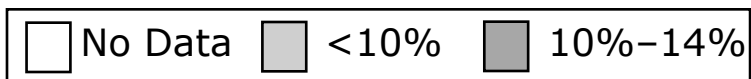
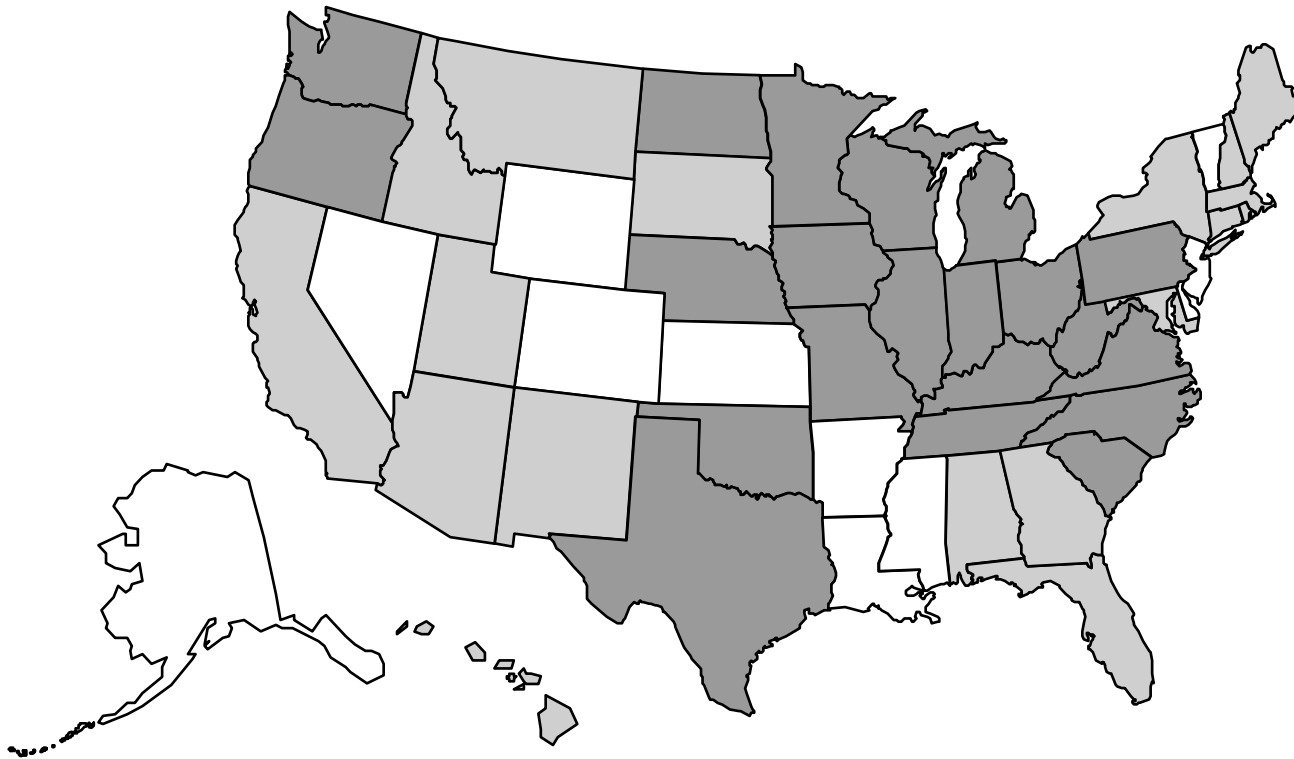
# Obesity Trends\* Among U.S. Adults BRFSS, 1988

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



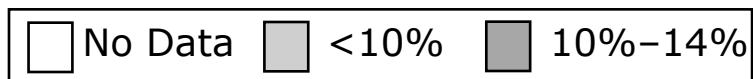
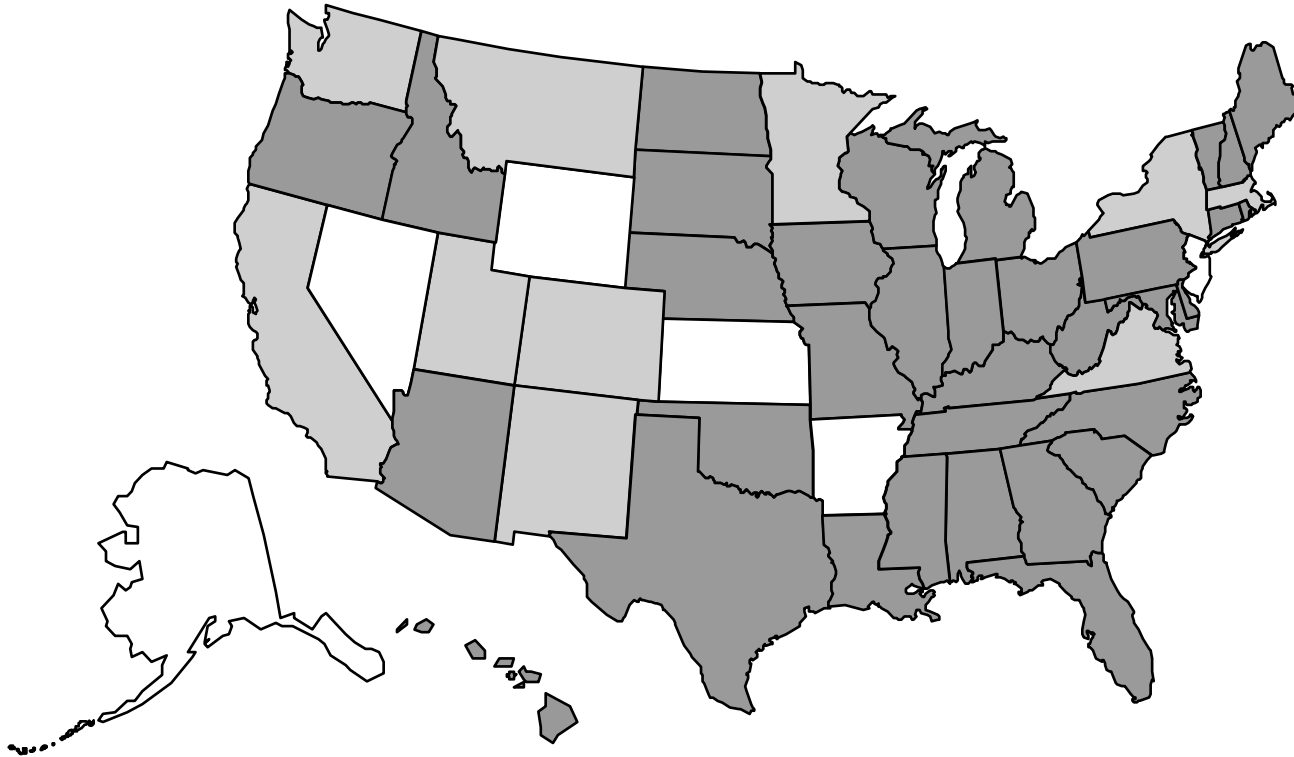
# Obesity Trends\* Among U.S. Adults BRFSS, 1989

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



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

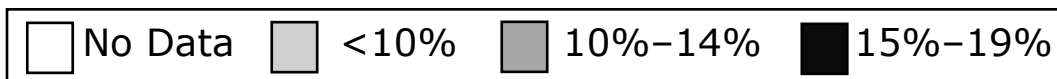
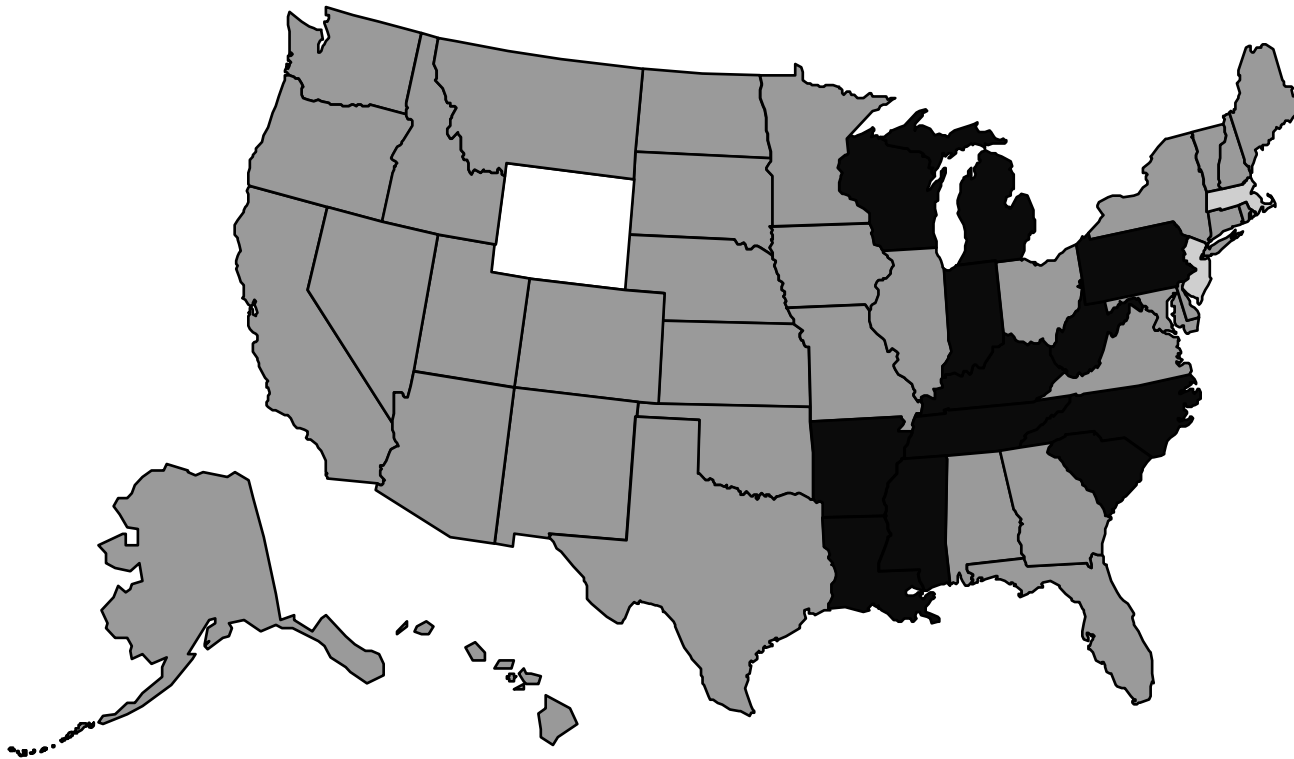






# Obesity Trends\* Among U.S. Adults BRFSS, 1993

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



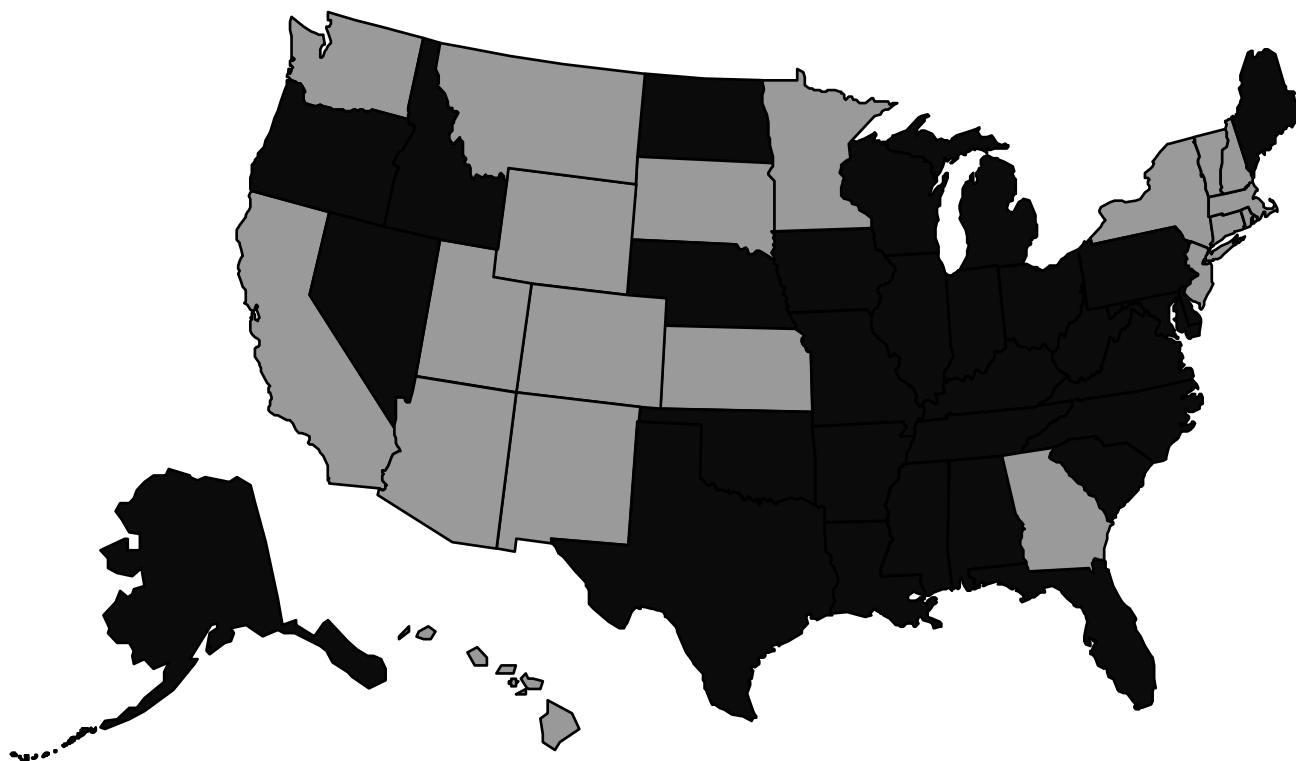






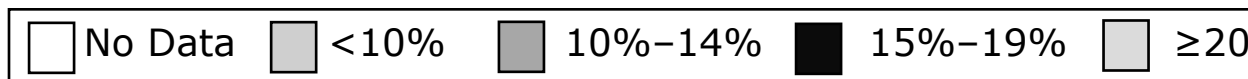
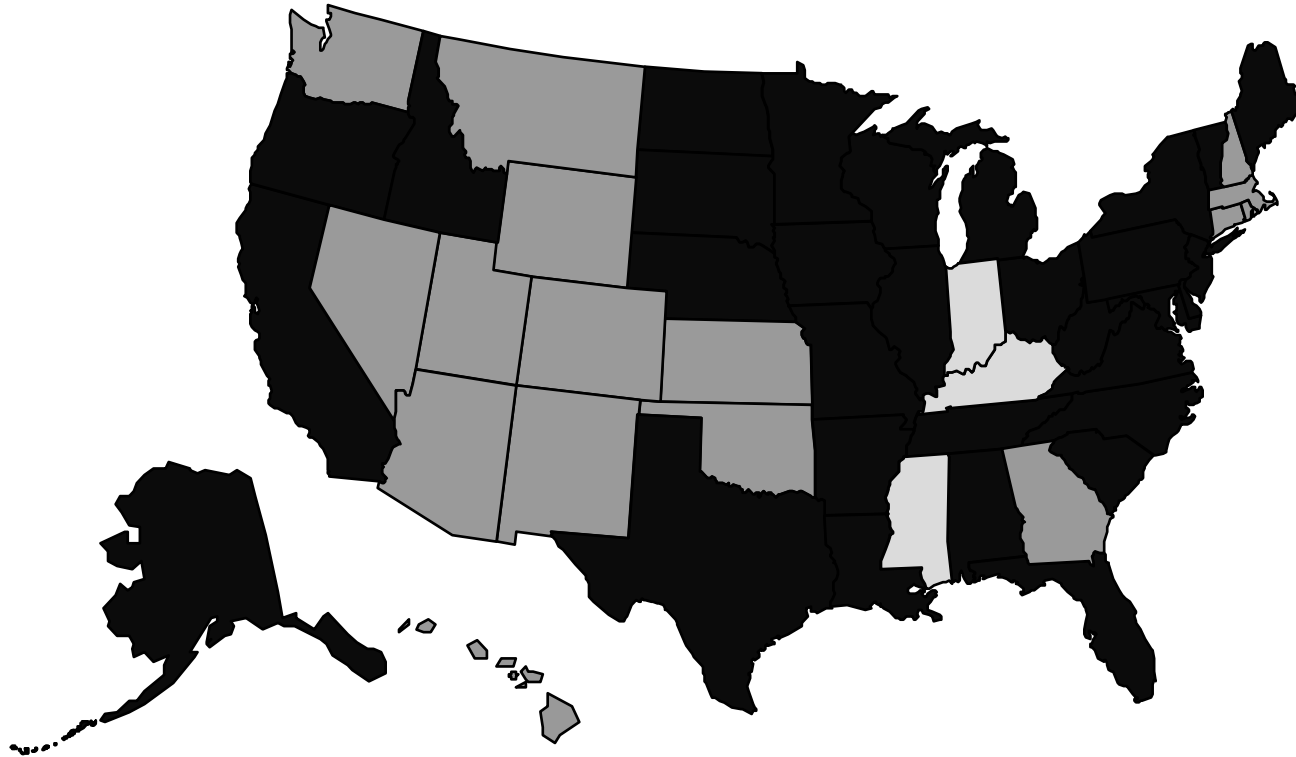
# Obesity Trends\* Among U.S. Adults BRFSS, 1996

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



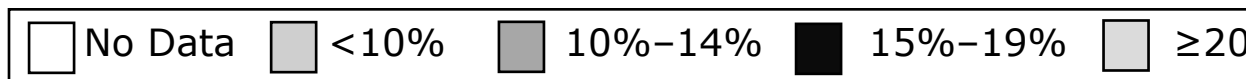
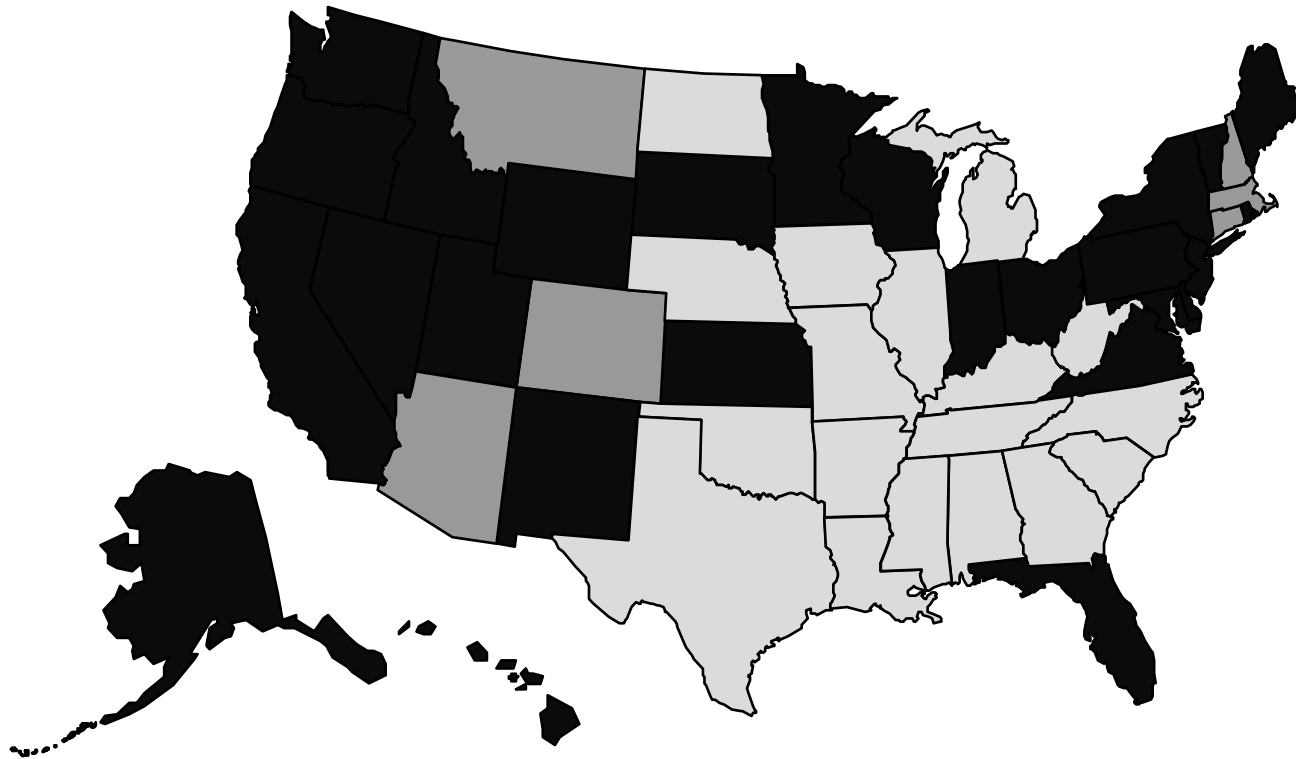
# Obesity Trends\* Among U.S. Adults BRFSS, 1997

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



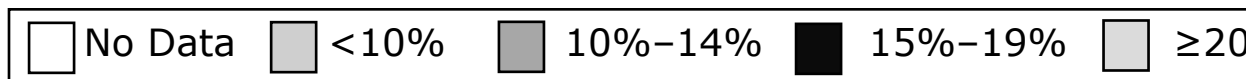
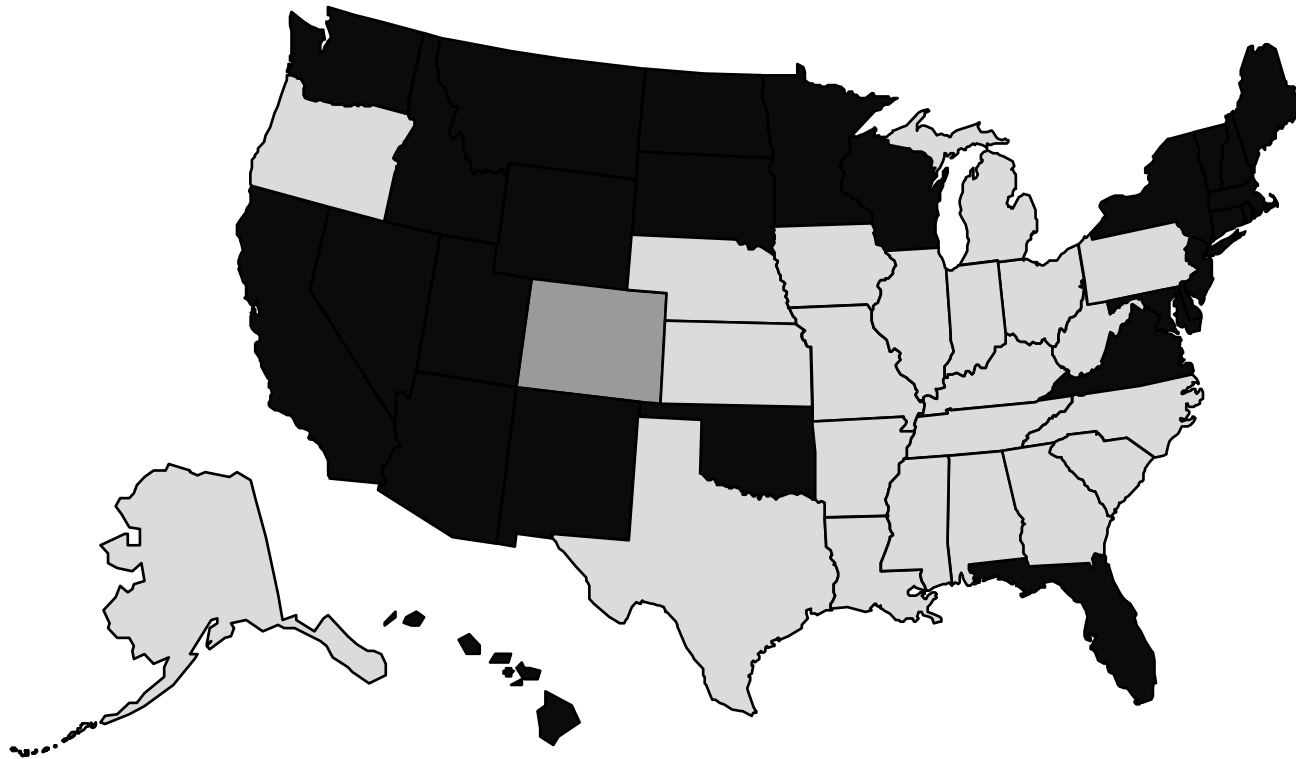
# Obesity Trends\* Among U.S. Adults BRFSS, 1999

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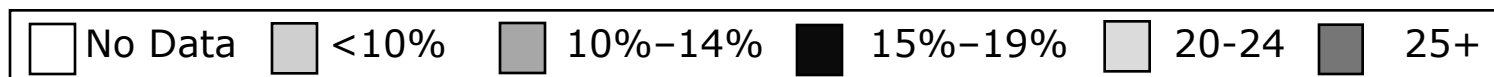
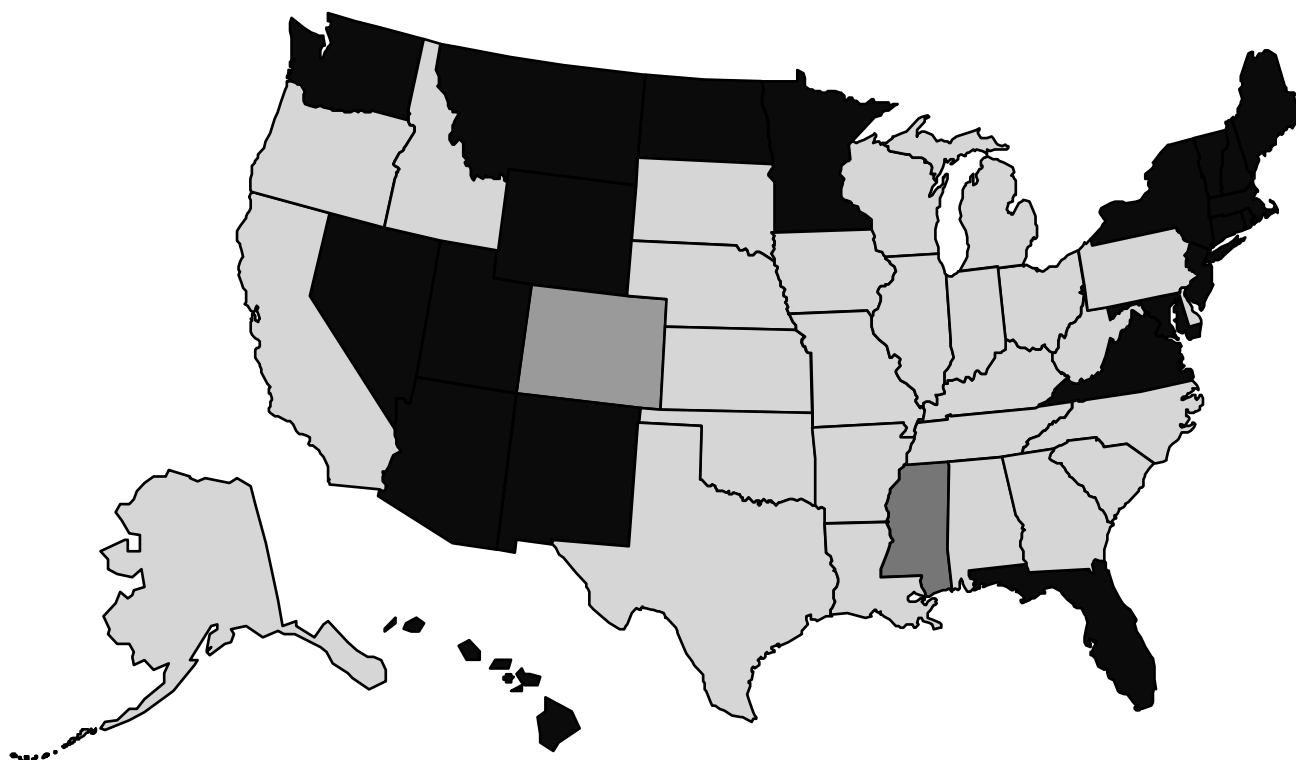
# Obesity Trends\* Among U.S. Adults BRFSS, 2000

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



# Obesity Trends\* Among U.S. Adults BRFSS, 2001

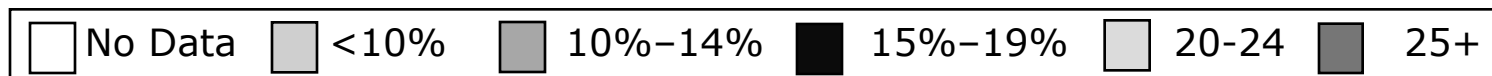
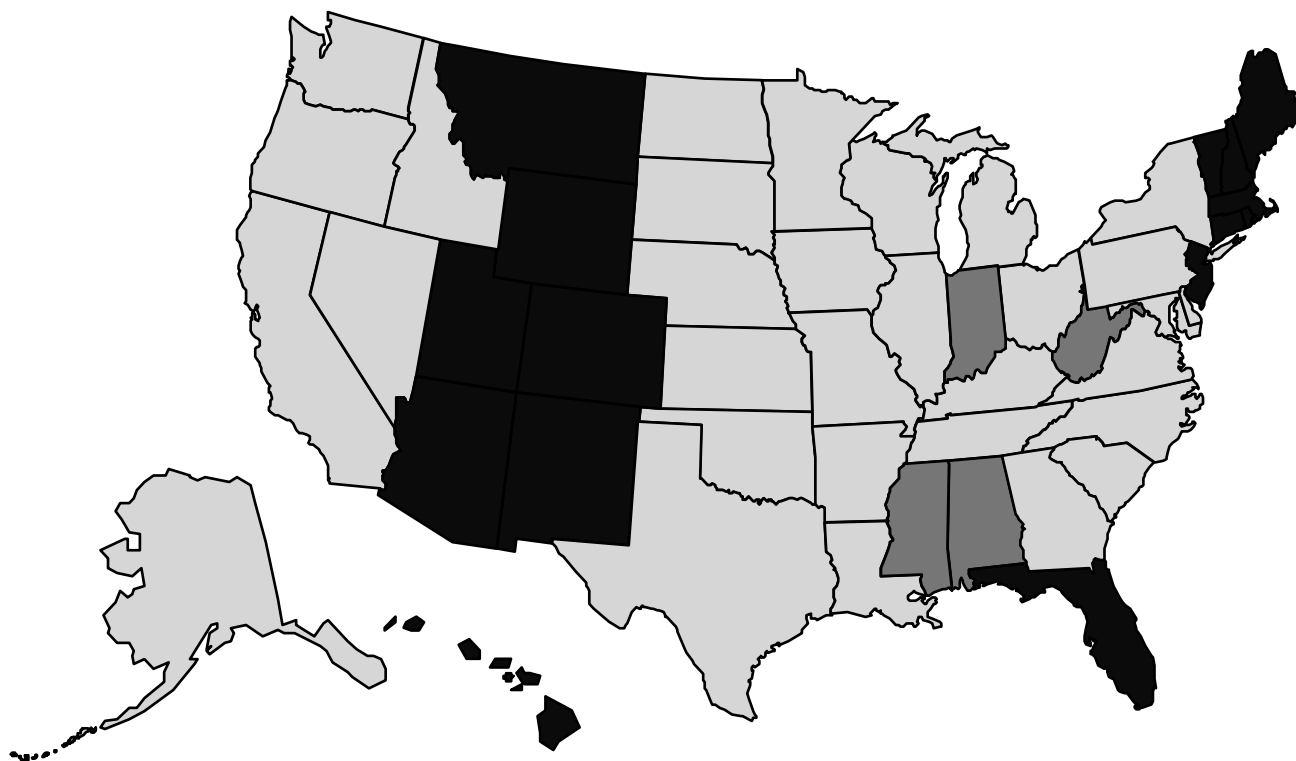
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" person)





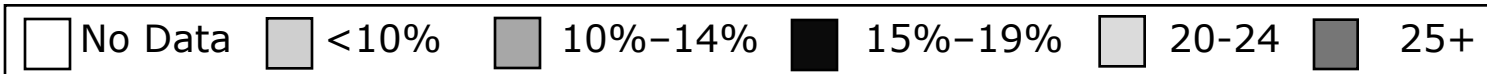
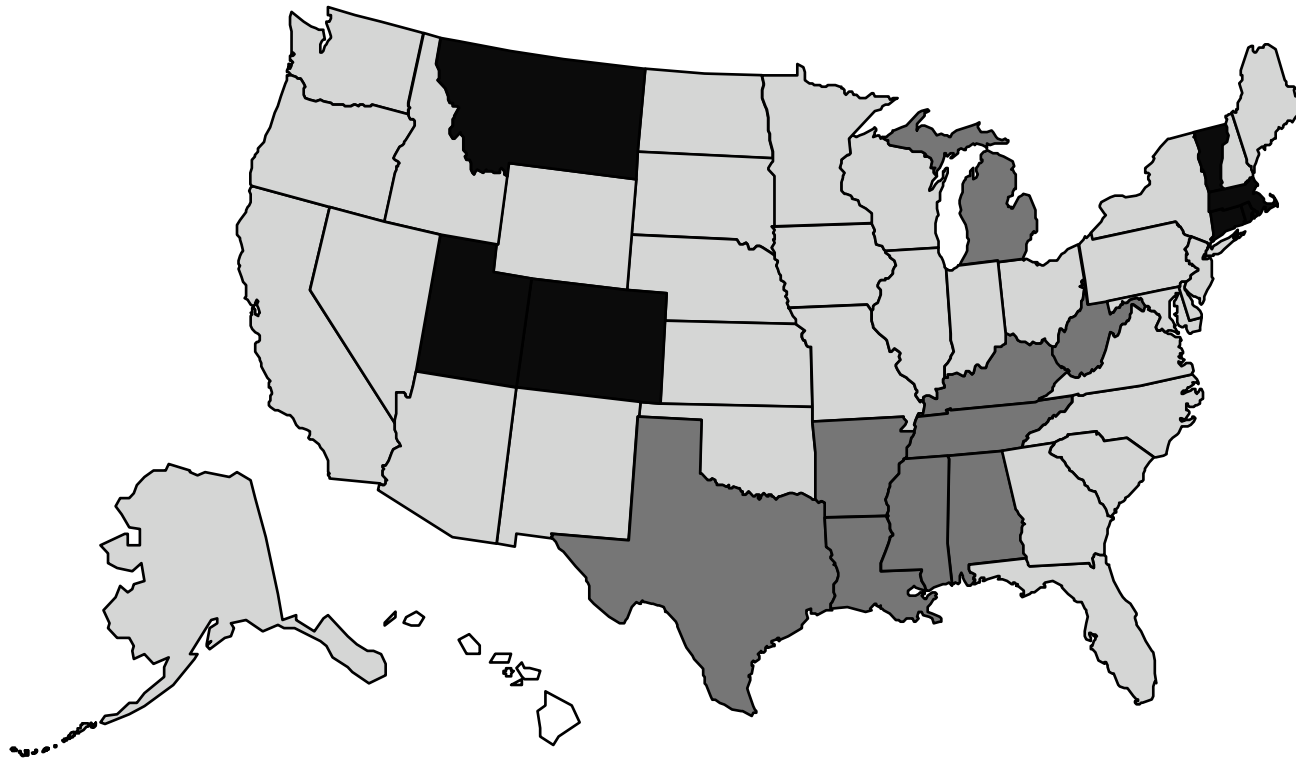
# Obesity Trends\* Among U.S. Adults BRFSS, 2003

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



# Obesity Trends\* Among U.S. Adults BRFSS, 2004

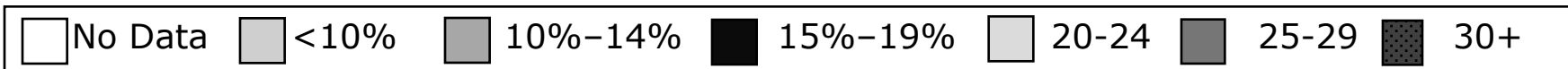
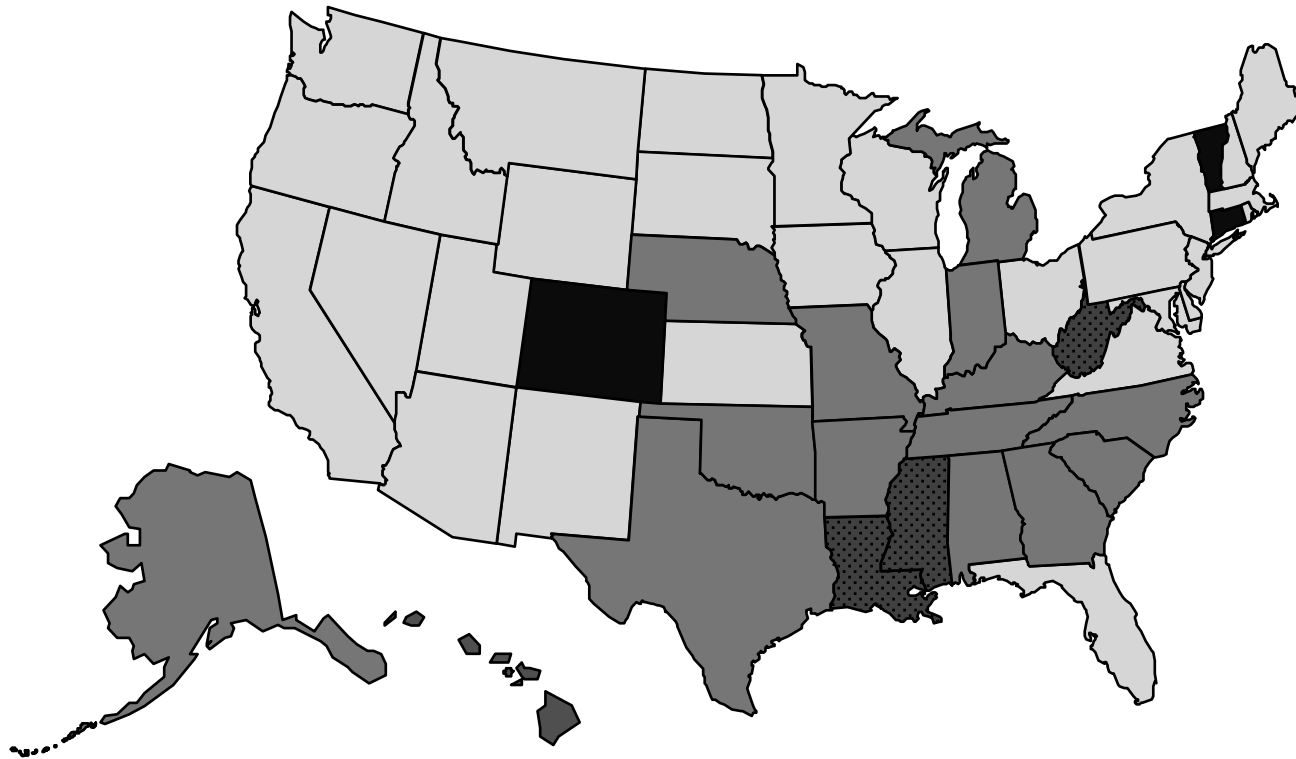
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" person)





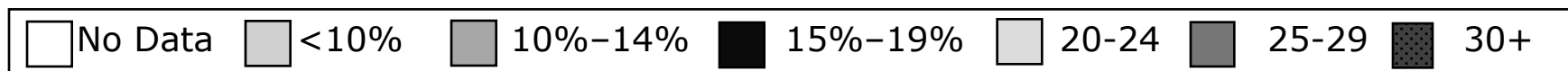
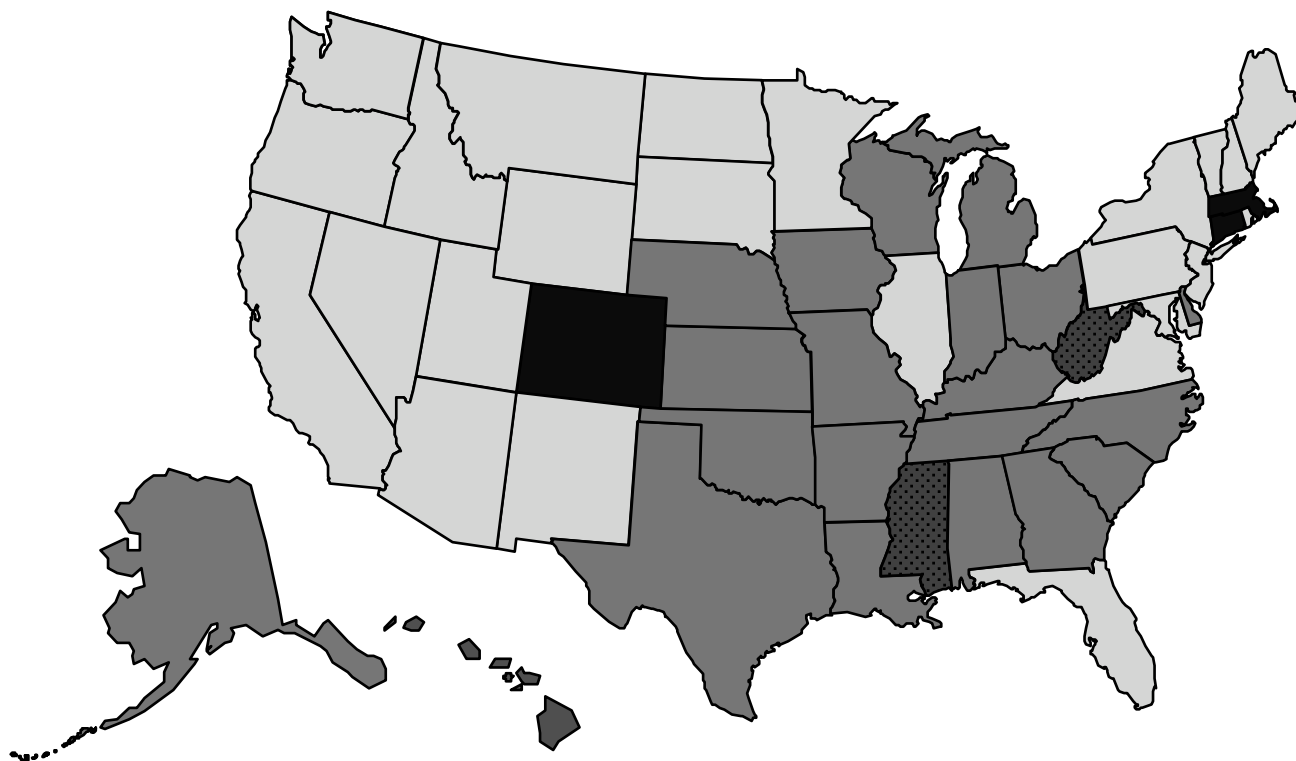
# Obesity Trends\* Among U.S. Adults BRFSS, 2005

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



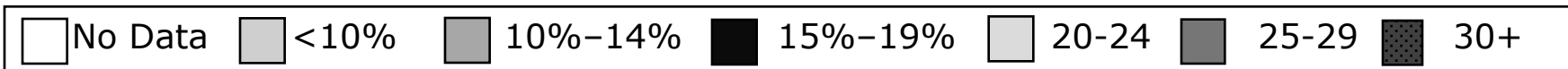
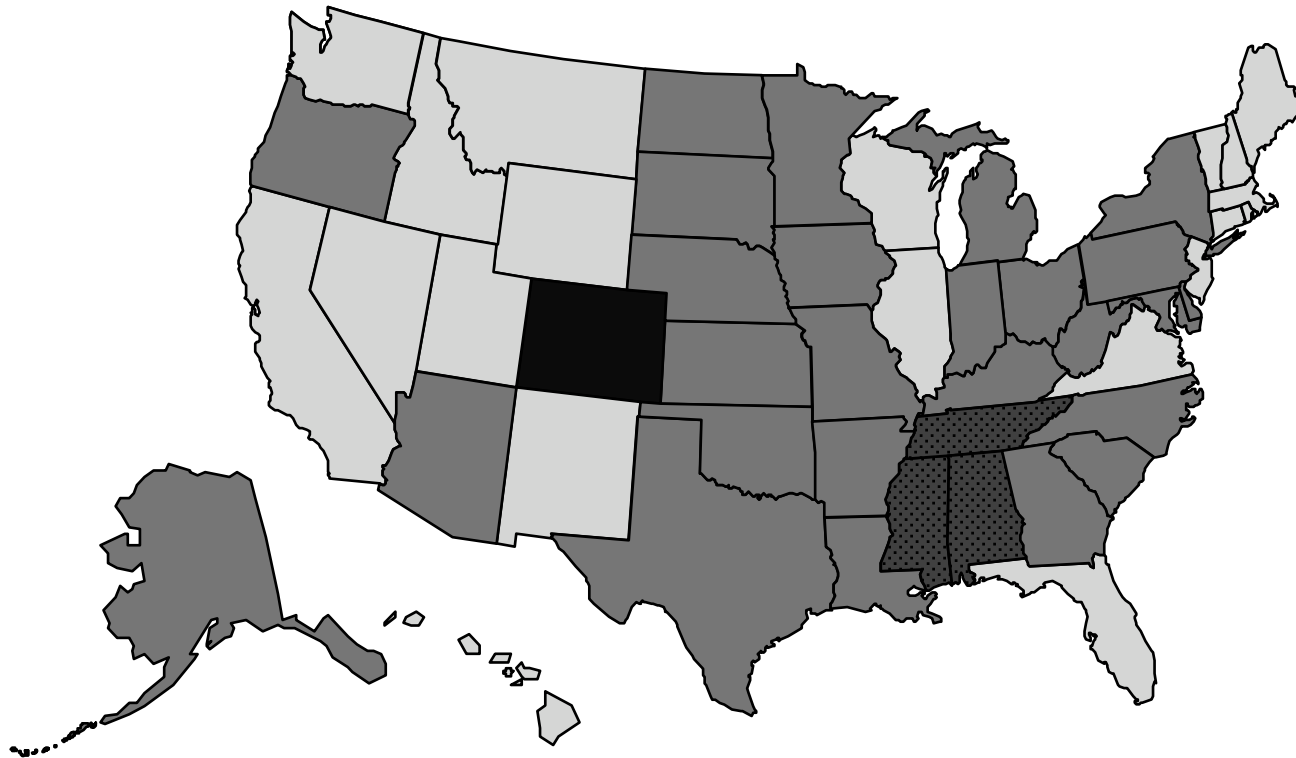
# Obesity Trends\* Among U.S. Adults BRFSS, 2006

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



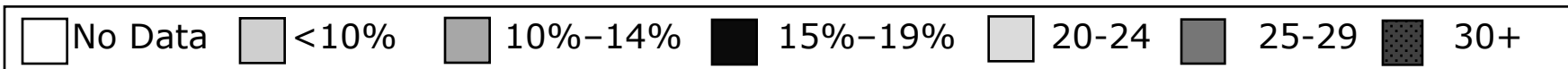
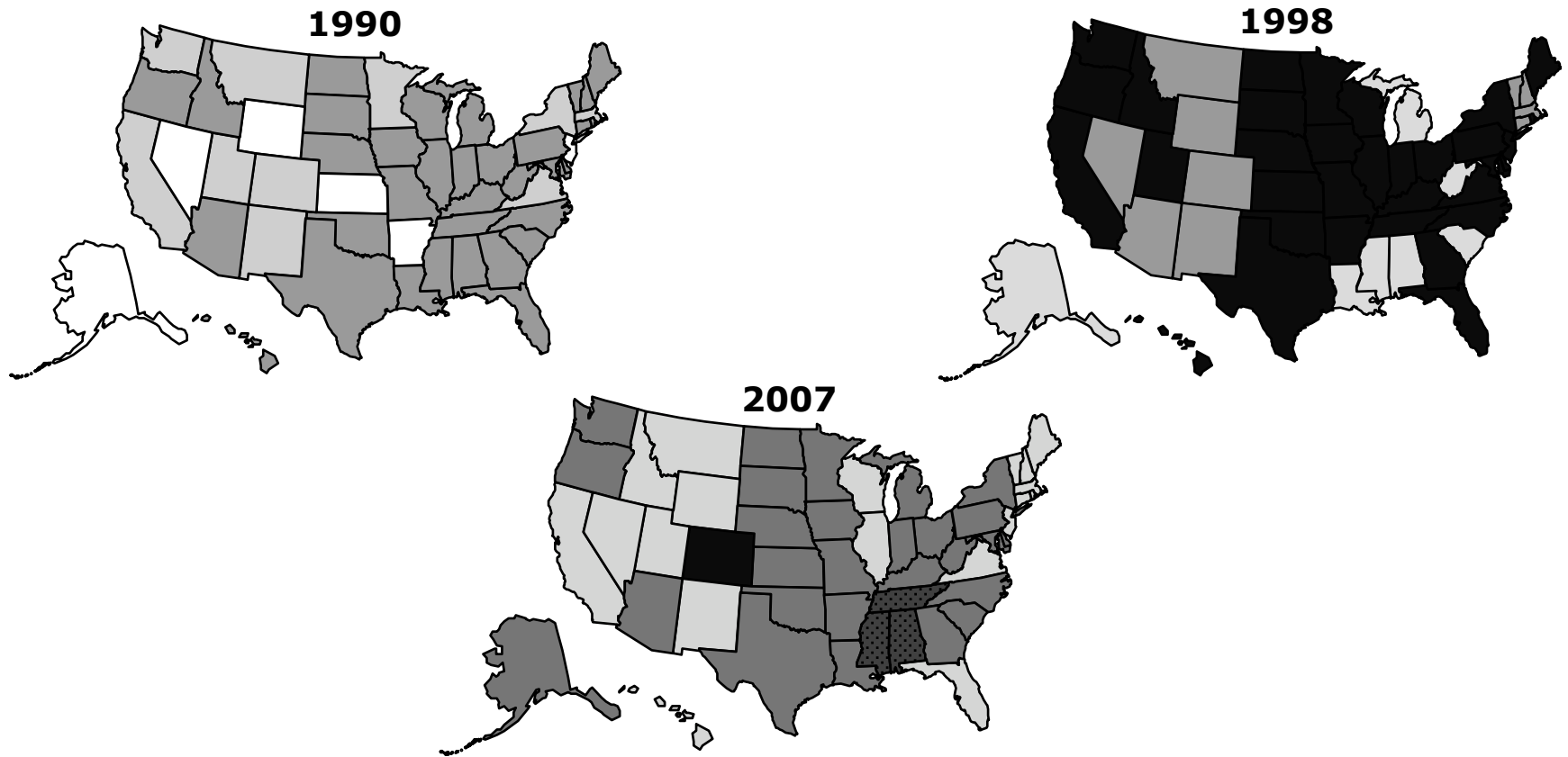
# Obesity Trends\* Among U.S. Adults BRFSS, 2007

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

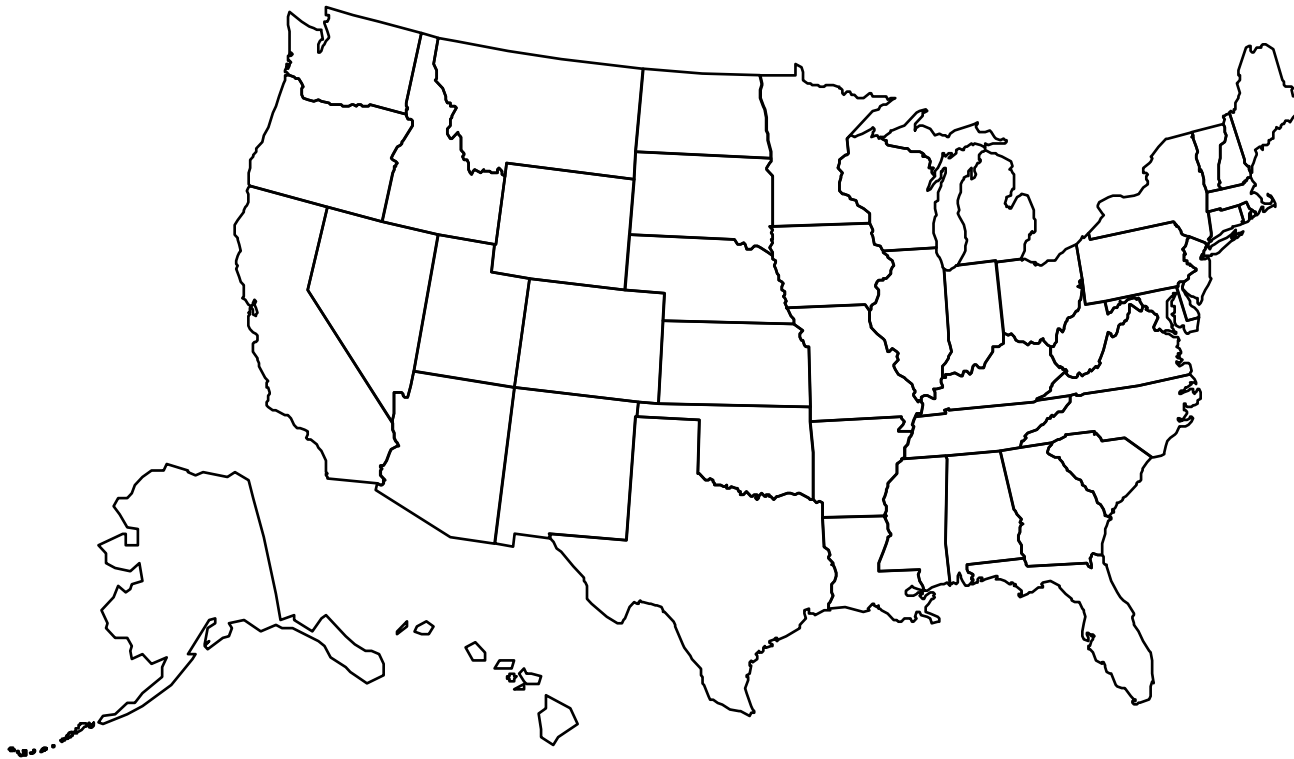


# Obesity Trends\* Among U.S. Adults BRFSS, 1990, 1998, 2007

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



# States Collecting ACE Data in 2008

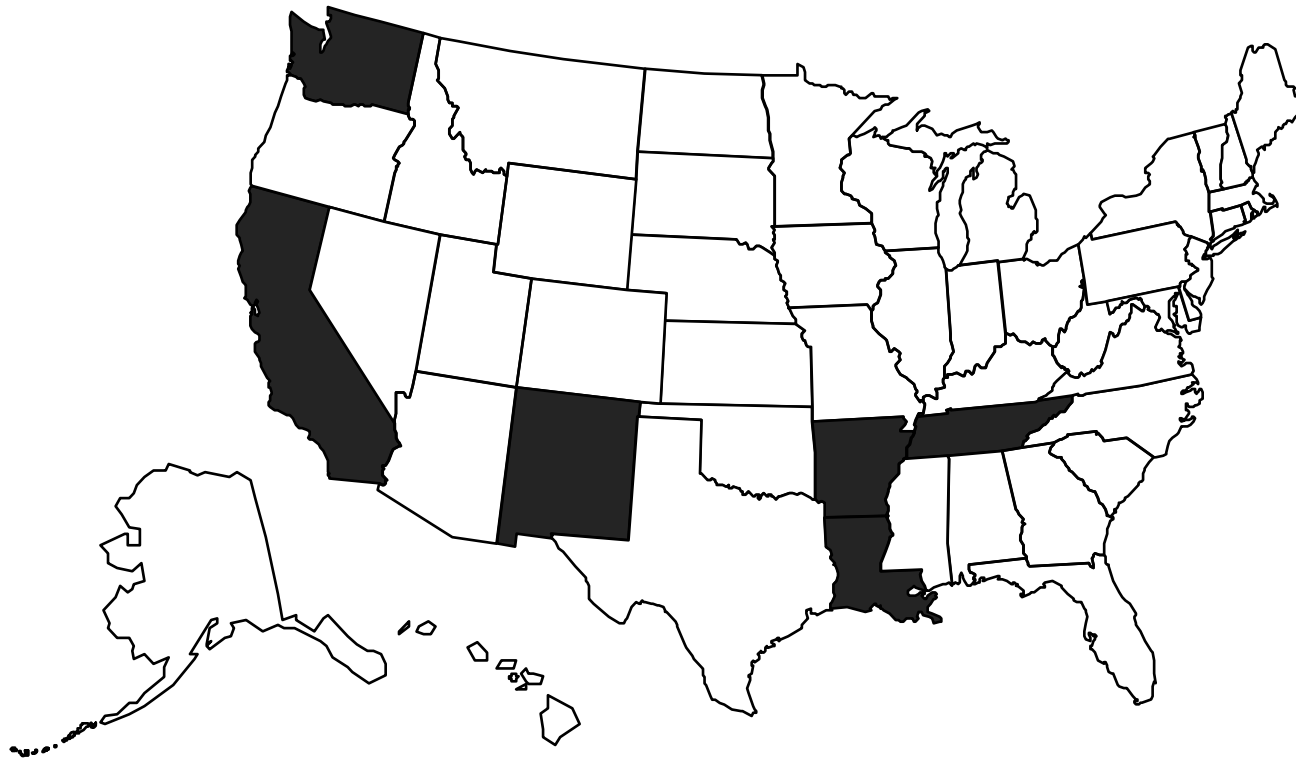


No data

Source: Behavioral Risk Factor Surveillance System, CDC.



# States Collecting ACE Data 2009



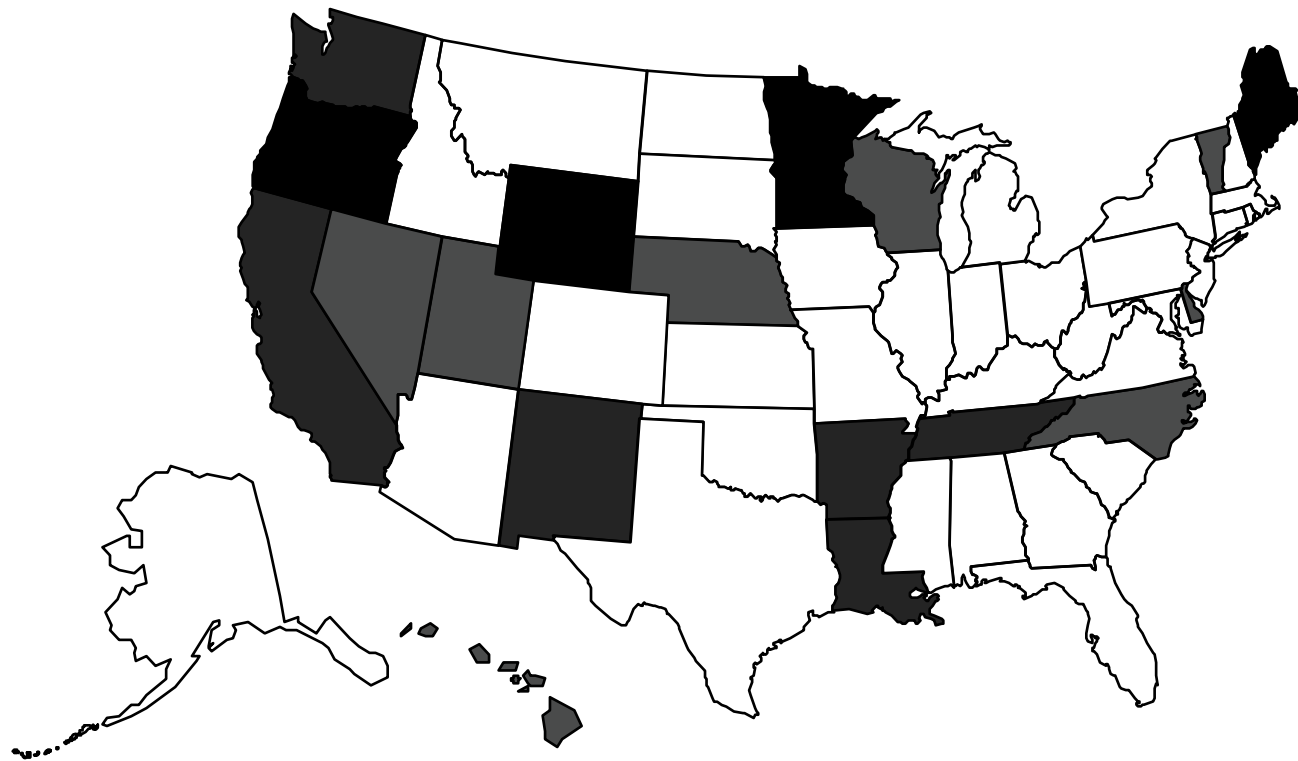
**6 States**

□ No data   ■ 2009

Source: Behavioral Risk Factor Surveillance System, CDC.



# States Collecting ACE Data 2009-2011



**18 States**

□ No data   ■ 2009   ■ 2010   ■ 2011

Source: Behavioral Risk Factor Surveillance System, CDC.

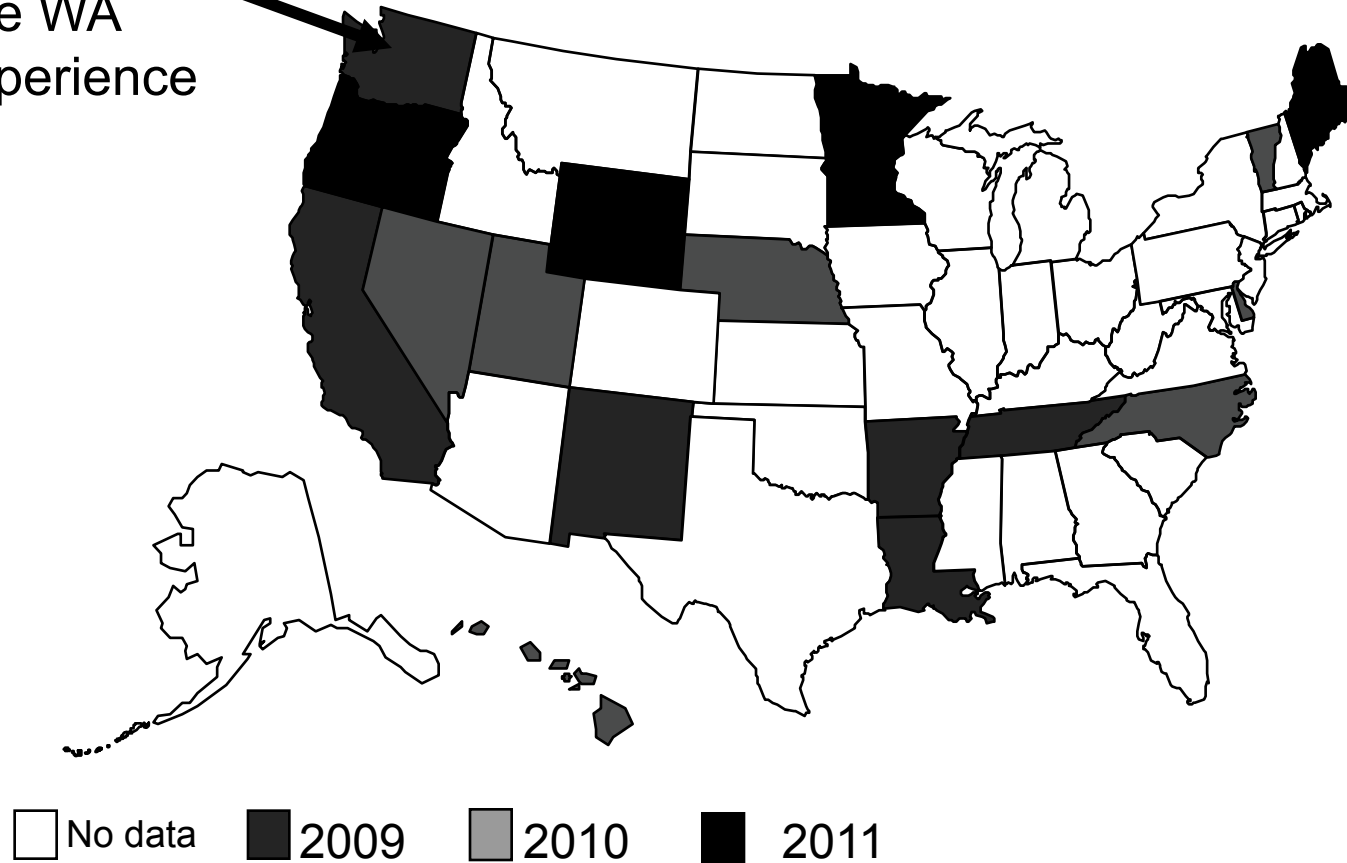


# Washington State

*Added Public Health  
Surveillance of ACEs  
to the  
Efforts in 2009*

# States Collecting ACE Data 2009-2011

The WA  
Experience

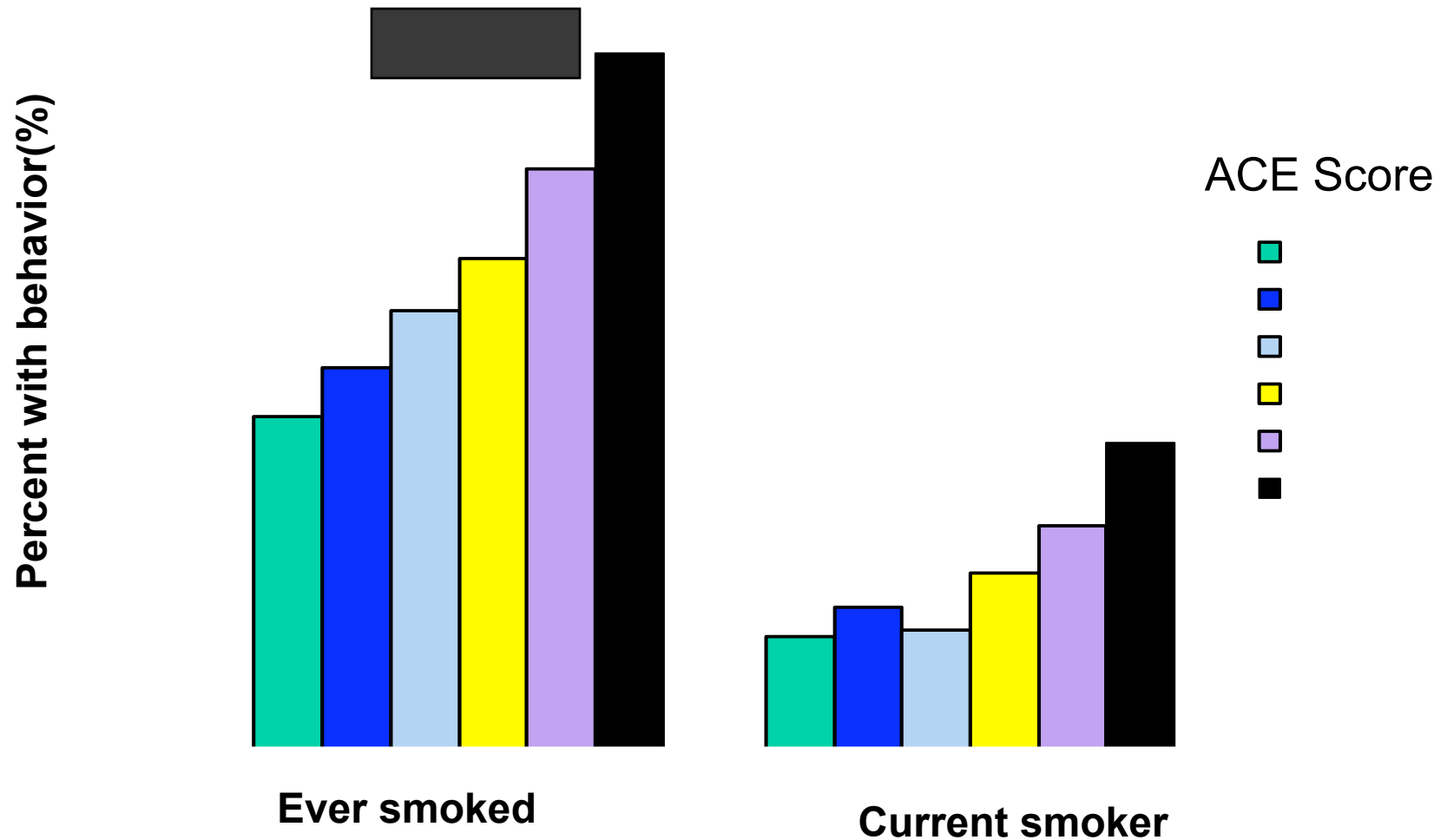


Source: Behavioral Risk Factor Surveillance System, CDC.

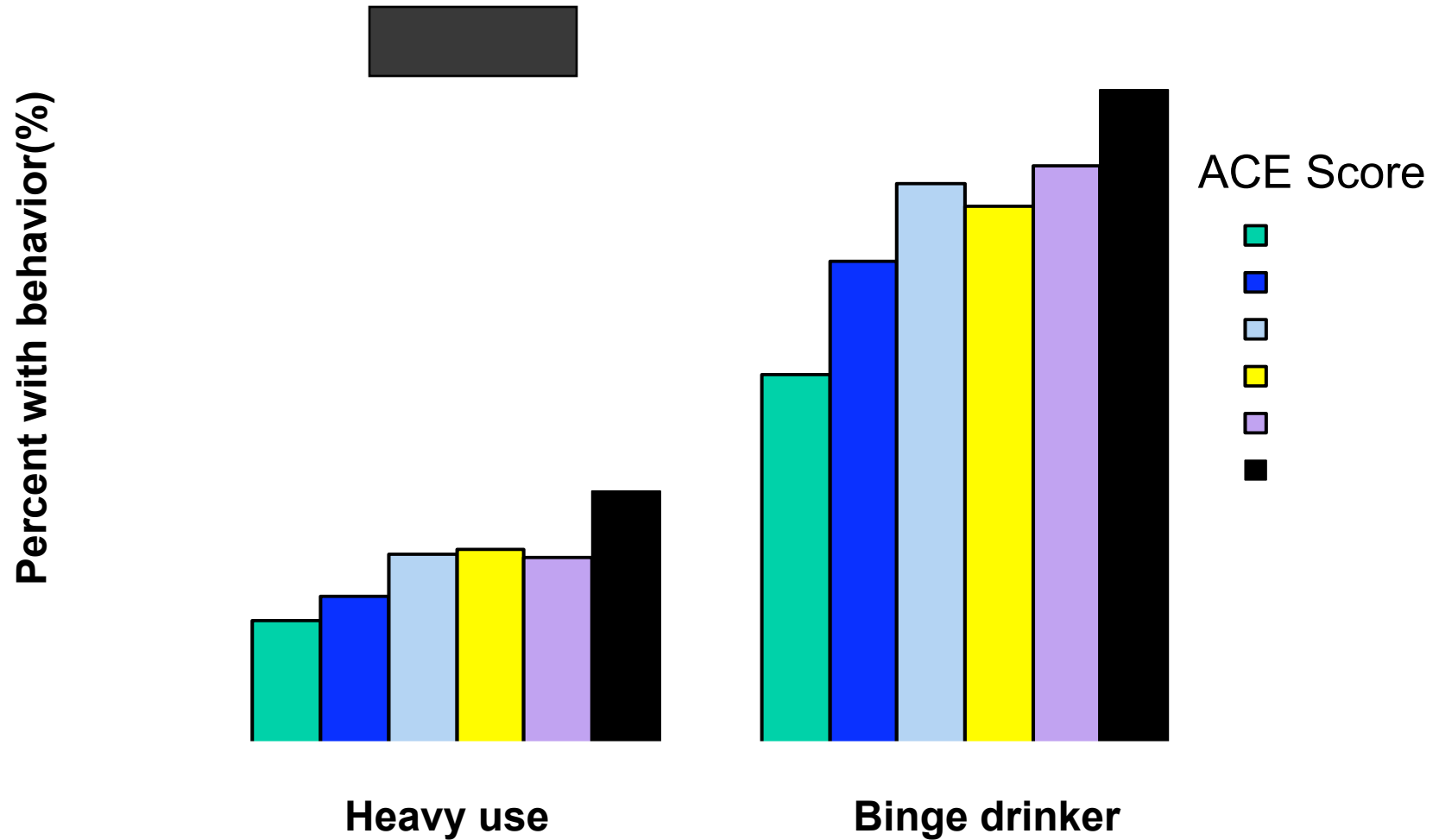
# **Adverse Childhood Experiences Score in the Kaiser Health Plan *and in Washington***

| <b><u>ACE score</u></b> | <b><u>Kaiser<br/>Prevalence</u></b> | <b><u>Washington<br/>Prevalence</u></b> |
|-------------------------|-------------------------------------|---|
| <b>0</b>                | <b>33%</b>                          | <b>38%</b>                              |
| <b>1</b>                | <b>26%</b>                          | <b>21%</b>                              |
| <b>2</b>                | <b>16%</b>                          | <b>14%</b>                              |
| <b>3</b>                | <b>10%</b>                          | <b>10%</b>                              |
| <b>4 or more</b>        | <b>16%</b>                          | <b>17%</b>                              |

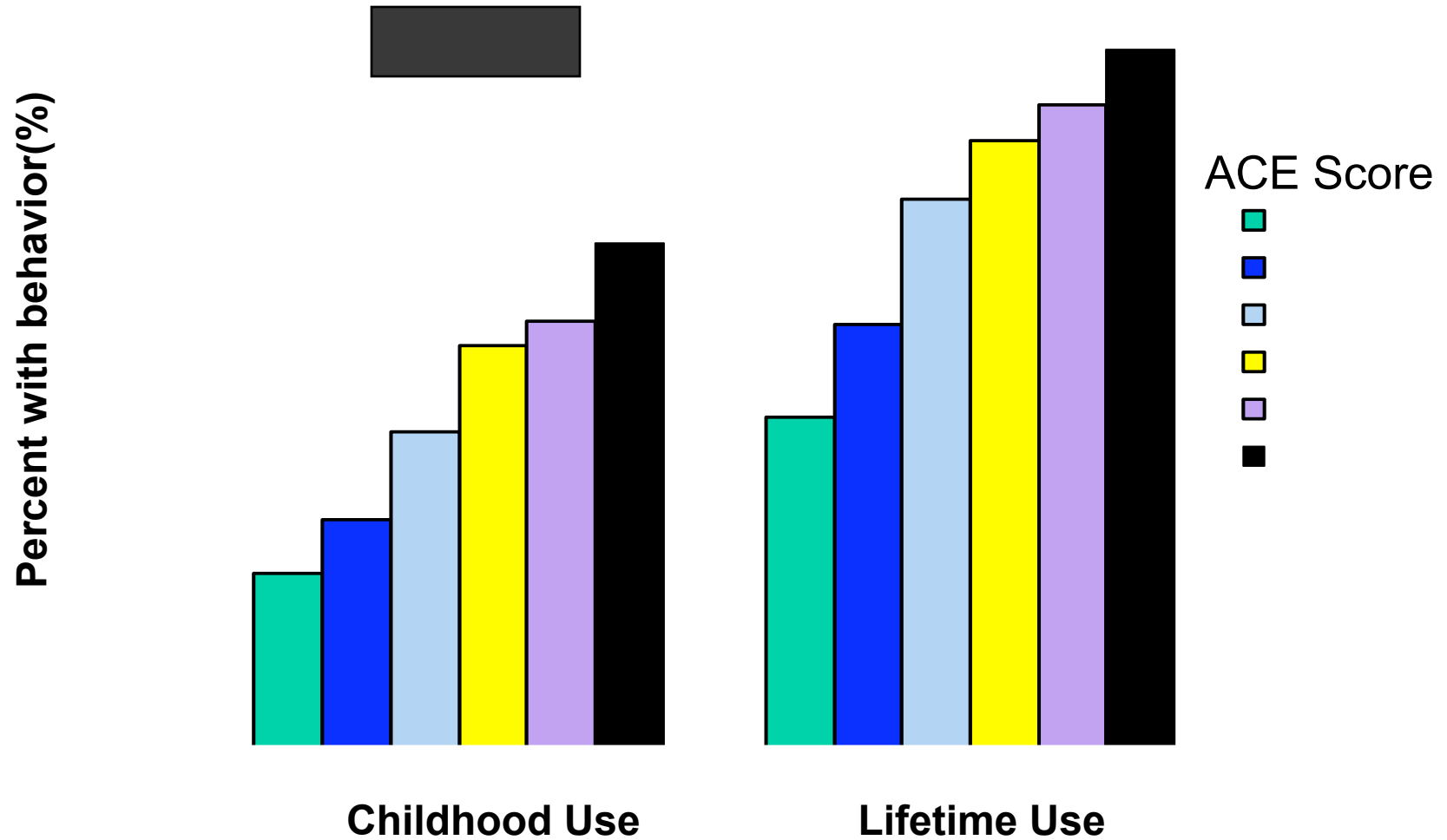
# The ACE Score and Smoking in Washington, 2009



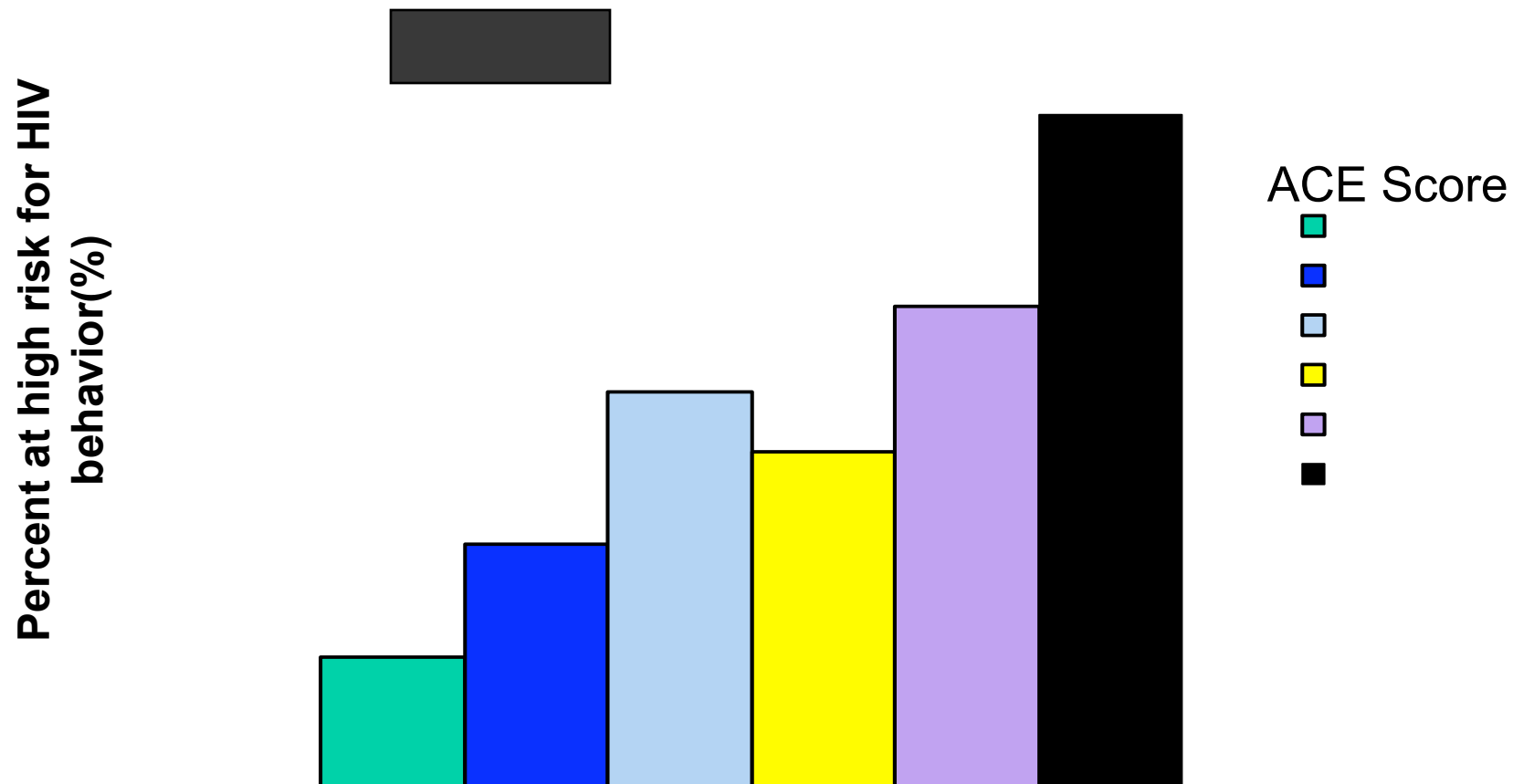
# The ACE Score and Alcohol Use in Washington, 2009



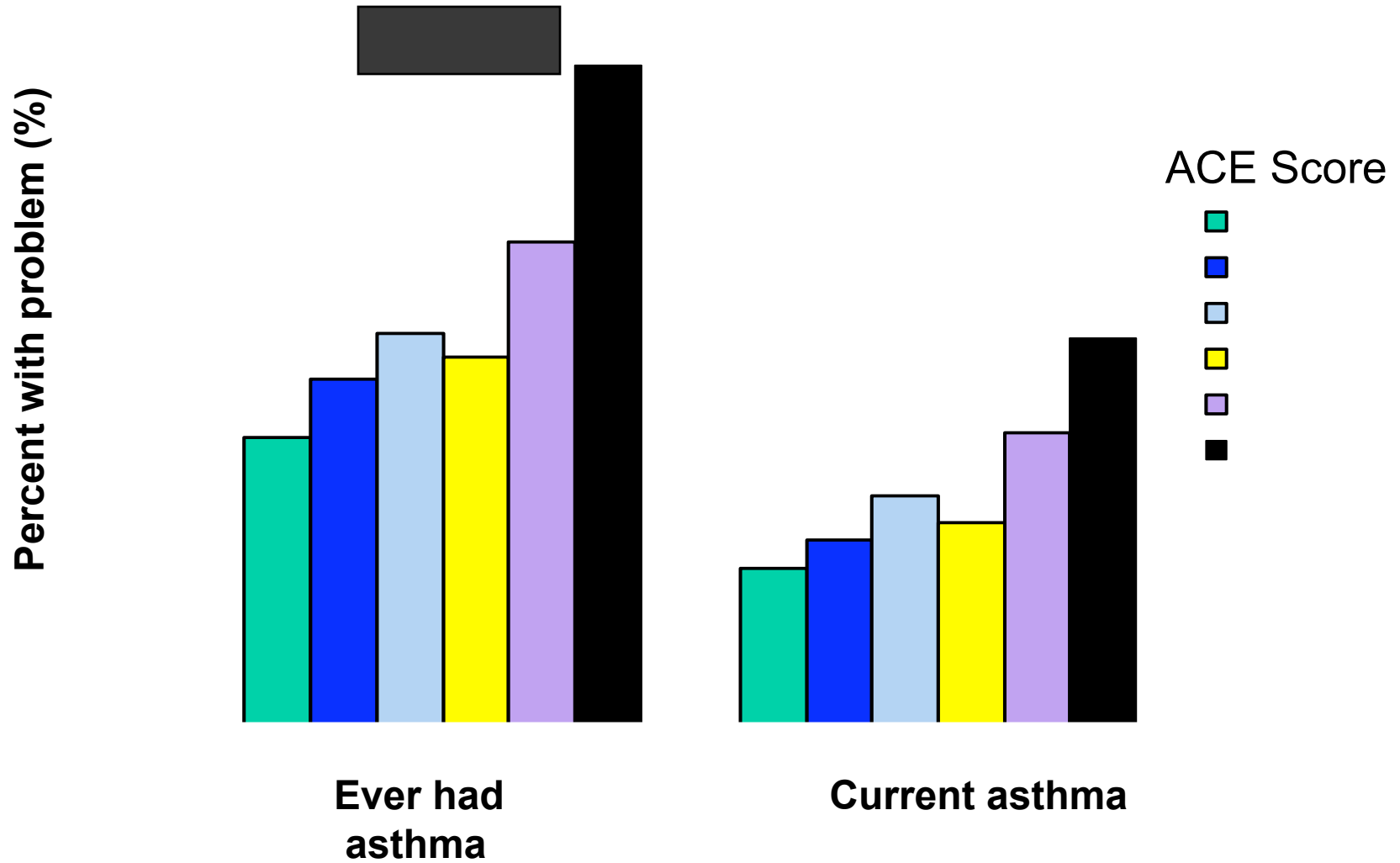
# The ACE Score and Marijuana in Washington, 2009



# The ACE Score and High Risk for HIV Infection in Washington, 2009

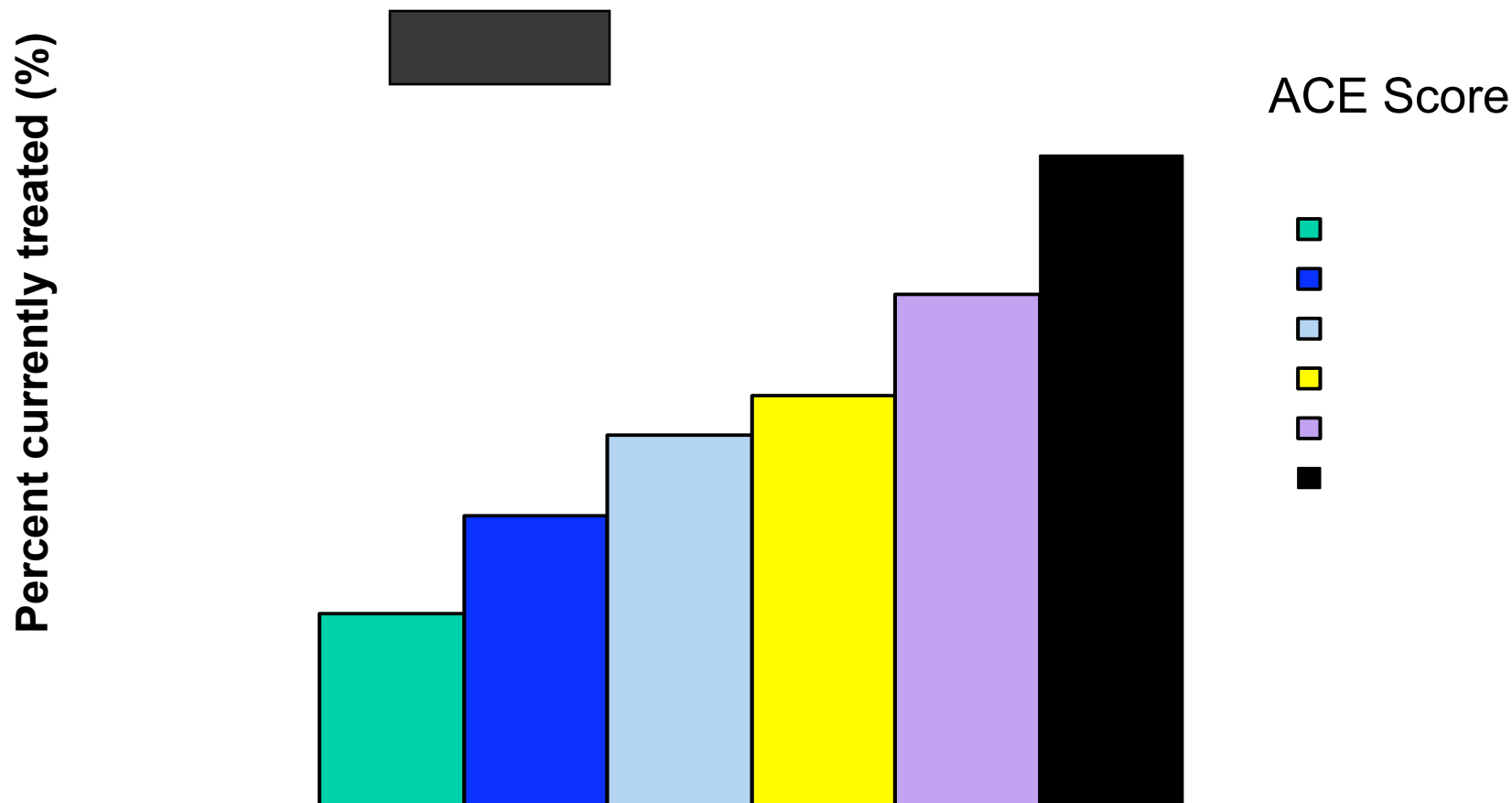


# The ACE Score and Asthma in Washington, 2009





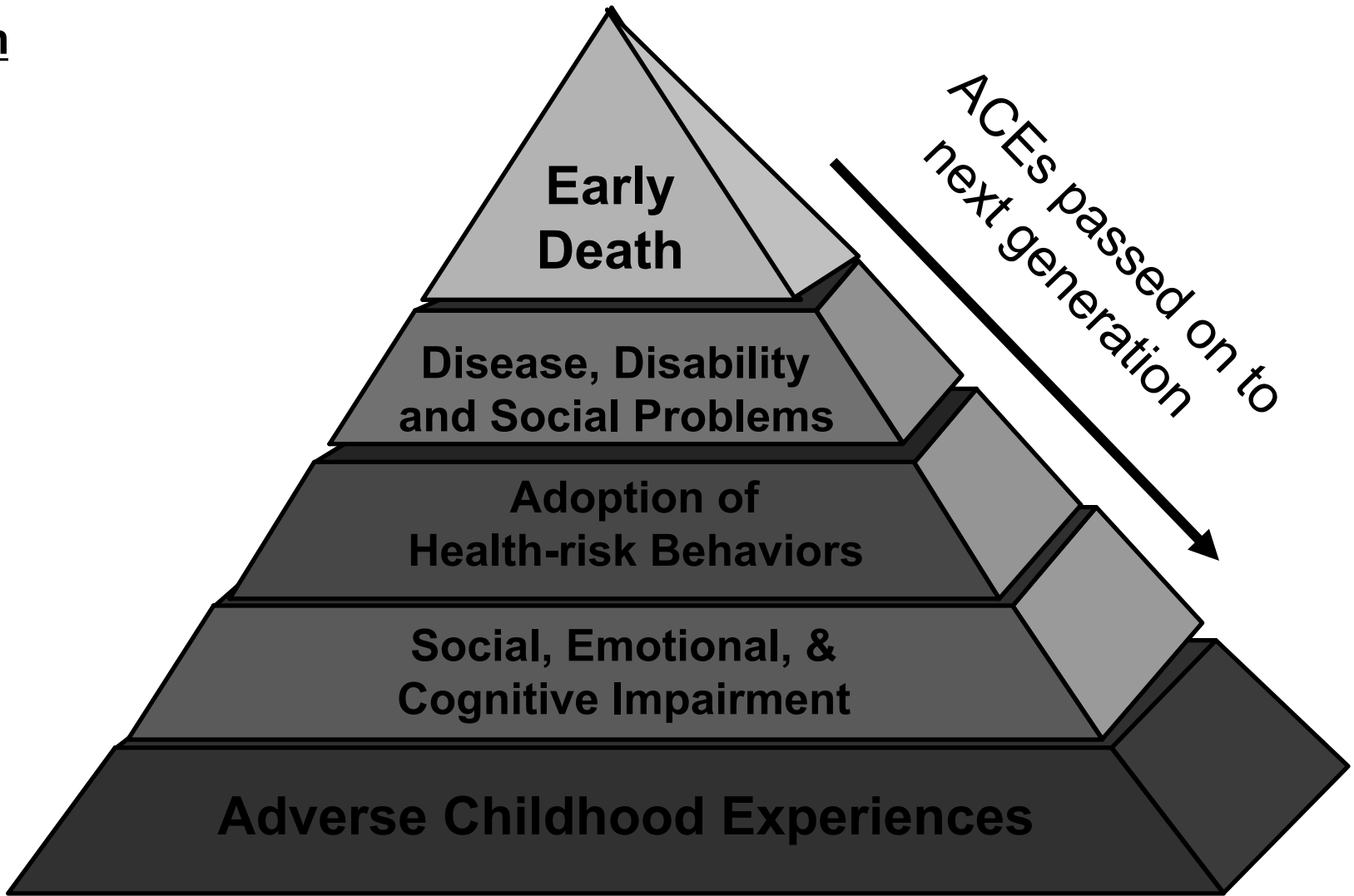
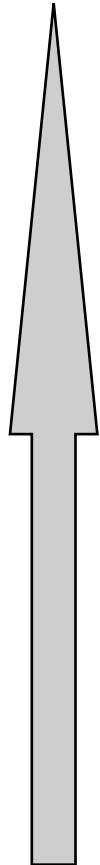
# The ACE Score and Current Treatment for a Mental Health Condition in Washington, 2009



## HEALTH AND SOCIAL PROBLEMS SHOWN TO HAVE A GRADED RELATIONSHIP TO THE ACE SCORE IN WASHINGTON

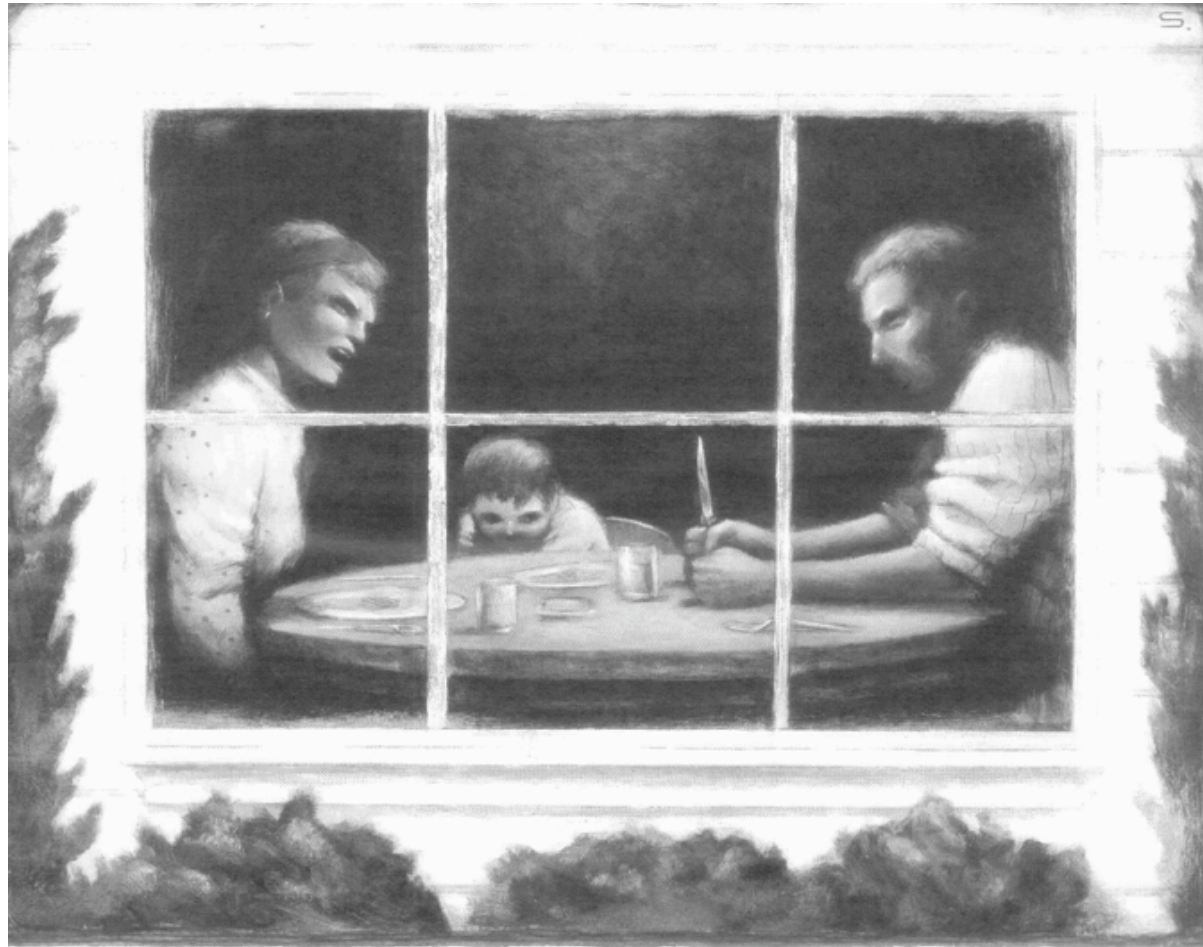
| Type of Problem                               | Outcome Associated with Adverse Childhood Experience  |
|---|---|
| Prevalent Diseases                            | Cardiovascular disease, cancer, asthma  |
| Risk Factors for Common Diseases /Poor Health | Smoking, heavy drinking, binge drinking, obesity, high perceived risk of AIDS, taking painkillers to get high, marijuana use  |
| Poor Mental Health                            | Sleep disturbances, frequent mental distress, nervousness, mental health or emotional problem requiring medication, emotional problems that restrict activities   |
| General Health and Social Problems            | Fair or poor health, life dissatisfaction, health-related quality of life   |
| Risk for Intergenerational Transmission       | <p><b>Mental Illness:</b> depression, anxiety, emotional problems that restrict activities, medication for mental health conditions</p> <p><b>Drugs and Alcohol:</b> Use of painkillers to get high, use of marijuana, smoking, heavy drinking, binge drinking</p> <p><b>Loss of a Parent:</b> Divorced-widowed-separated</p> |

Death



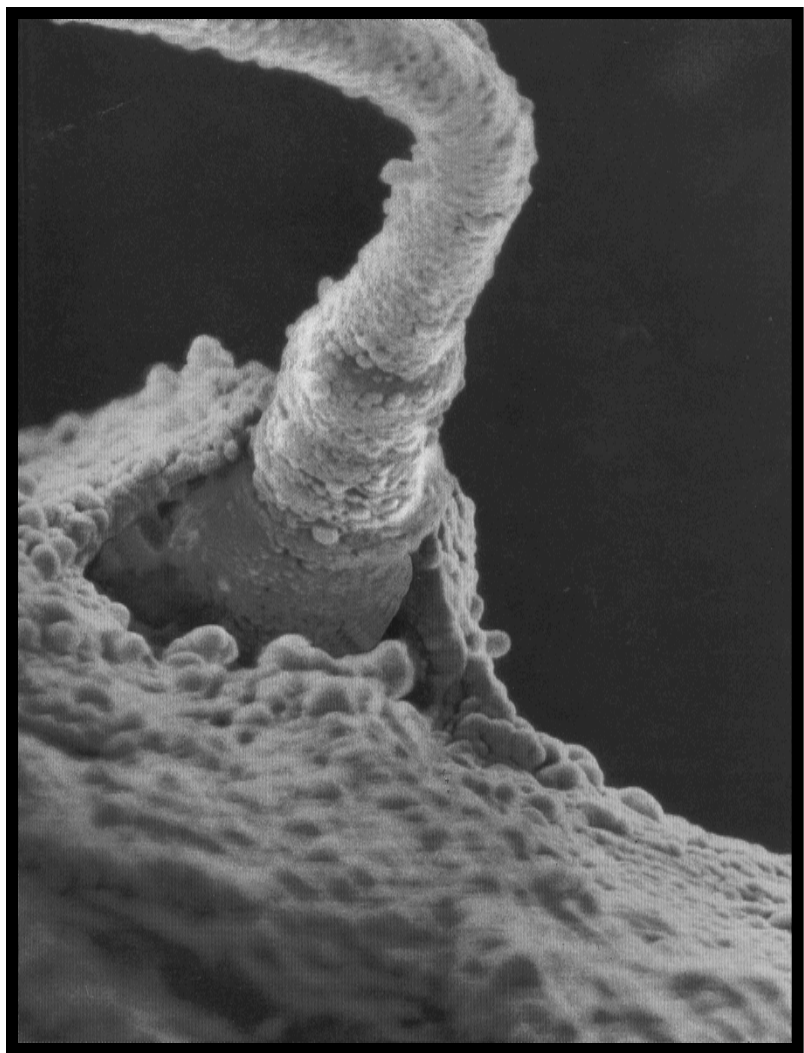
ACEs passed on to next generation

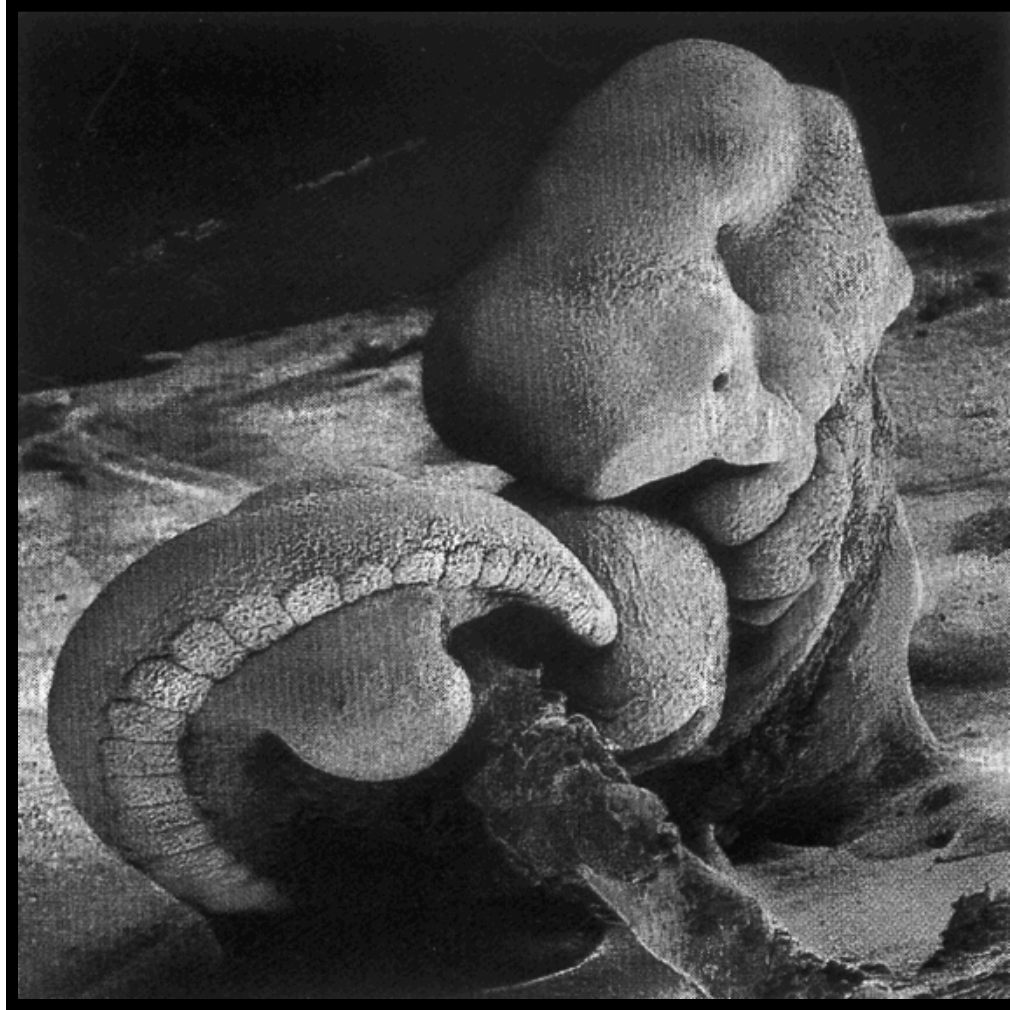
Conception

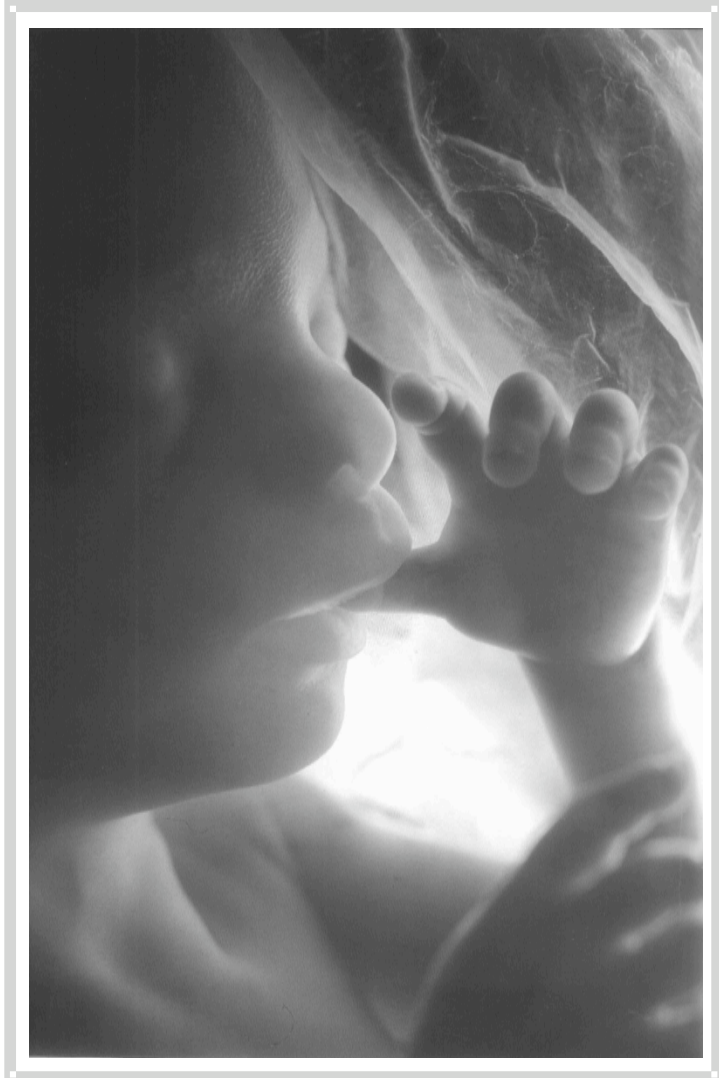


# *Seeing the Pain*

America's physicians confront family violence







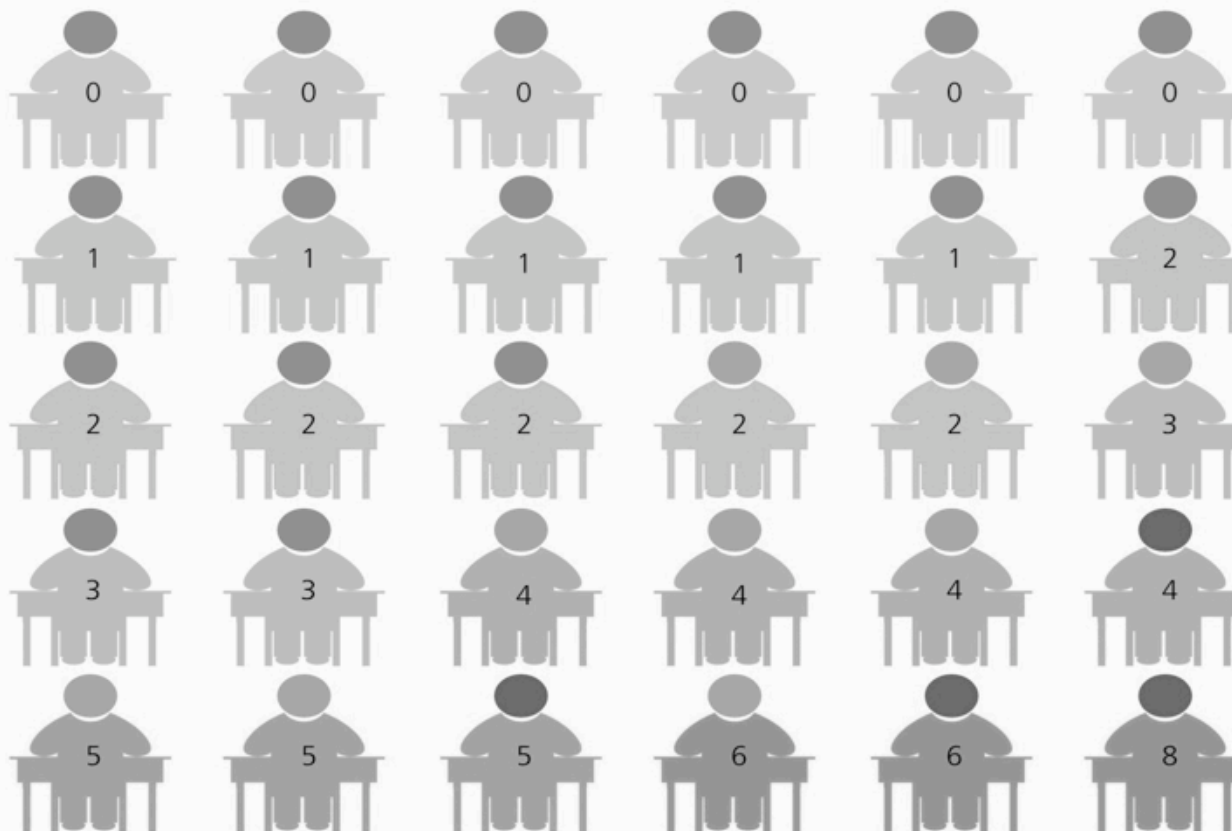


## Washington School Classroom (30 Students) Adverse Childhood Experiences (ACEs)

6 students with no ACE  
 5 students with 1 ACE  
 6 students with 2 ACEs  
 3 students with 3 ACEs  
 7 students with 4 or 5 ACEs  
 3 students with 6 or more ACEs

58% (17) students with no exposure to physical abuse or adult to adult violence  
 29% (9) of students exposed to physical abuse or adult to adult violence  
 13% (4) of students exposed to physical abuse and adult to adult violence

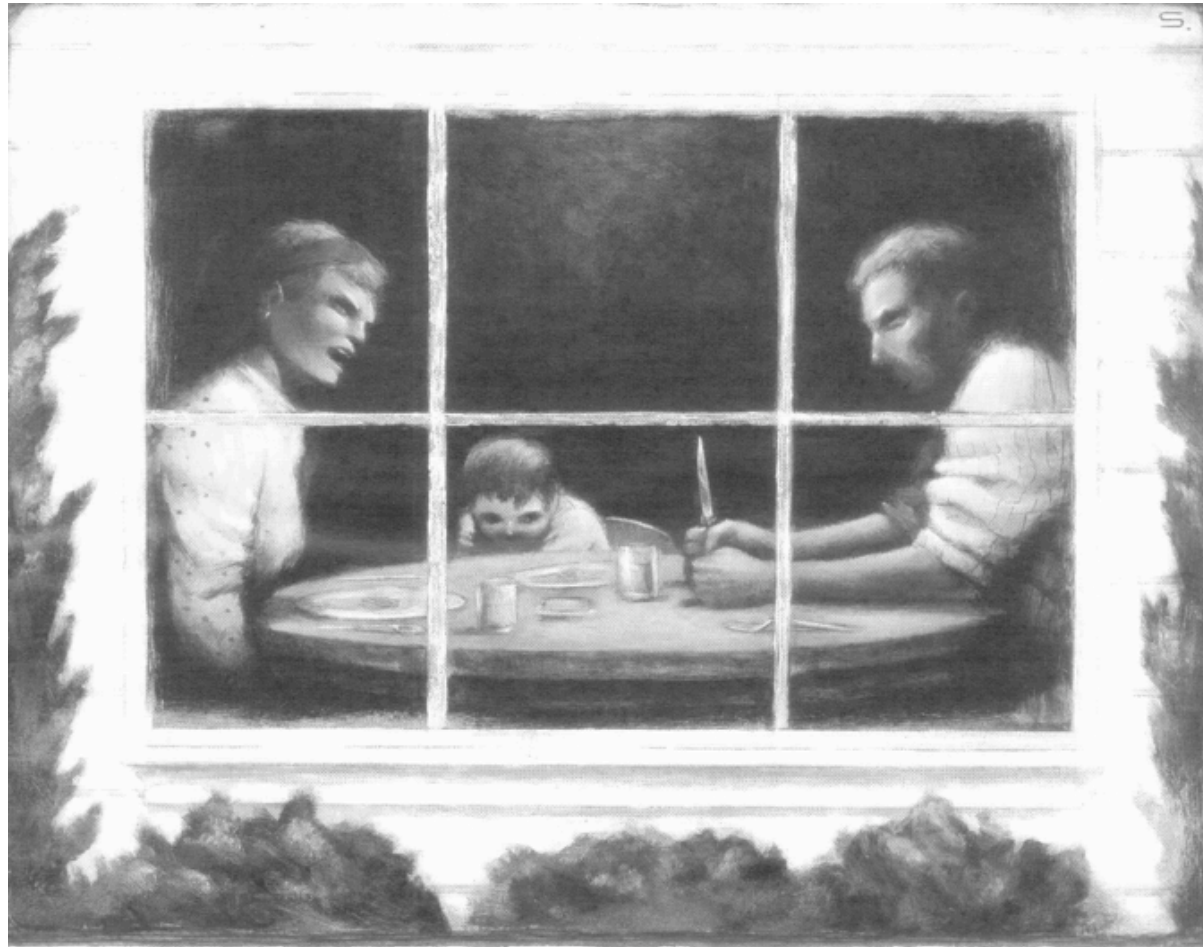
Population  
 Average





# Secretary of Department of Human Services

In November, 2010 declared that the  
systems  
she administers cannot function  
properly without addressing  
the effects of ACEs



# *Seeing the Pain*

America's physicians confront family violence

## Washington Family Policy Council

Has a statewide network of 42 community programs

10 years ago:

—unified around the themes of early childhood  
brain development  
and understanding the effects of ACEs

Where They Are..

Translating Science Into Action  
Using a Public Health Framework

Washington Family Policy Council

**Professional Education**

Numerous Conferences Throughout  
the State for All Disciplines

**Public Education Strategy**

Training the Trainers  
Has reached tens of thousands

# Washington Family Policy Council

## Mapping of Community Capacity/Health—ACES

42 Community Collaborative Groups  
Investing in the People of Washington

# Educating Washington's Children

Washington State University

The role of ACEs in the academic performance  
and health of students in Spokane public schools

Community Commitment to Children

Walla Walla

Gates Foundation

Washington Family Policy Council

# Disability Lifeline Reform

Prevention of ACE-related disability  
Improve quality of life and productivity  
&  
Reduce costs of care

State Legislators  
Family Policy Council



# Compassionate Schools—Washington

## Students with ACEs:

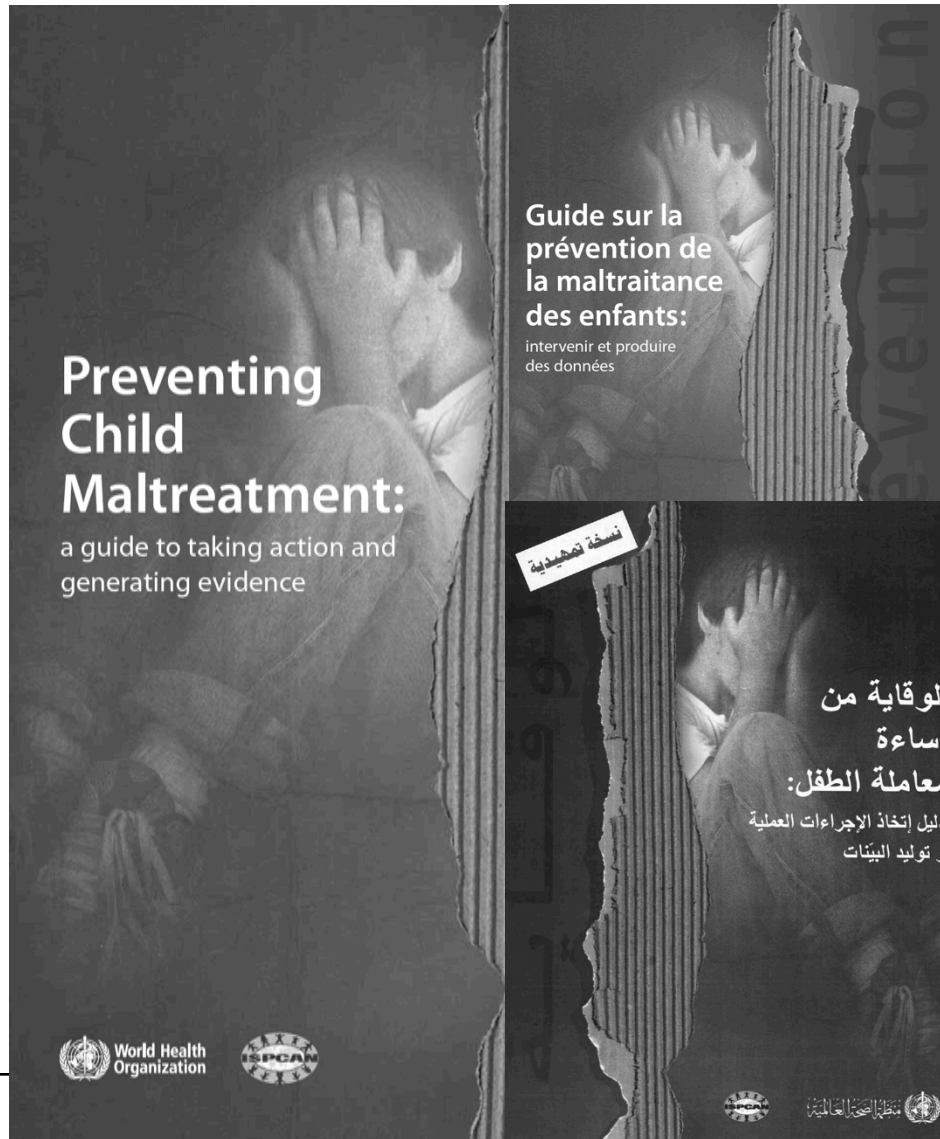
- Are 2 ½ times more likely to fail a grade
  - Score lower on standardized tests
    - Have language difficulties
  - Are suspended or expelled more
- Are designated to special education more frequently
  - Have poorer health

Courtesy of Maurene Stanton

Interim Director

Northwest Educational Service District

# ACEs: A Global Challenge



附录 1

## 童年期负性经历研究问卷<sup>1</sup>

家庭健康史：女性

这些问卷引自应用于美国加利福尼亚州童年期负性经历研究的版本。其中一些条目（如社会学问题 1b, 3a, 3b, 教育问题 4, 11a, 11b）要根据当地情况进行调整。

- |                           |  |
|---------------------------|--|
| 1. 你的出生日期？<br>_____年____月 | 5. 你目前的婚姻状况？<br>你现在…<br><input type="checkbox"/> 已婚<br><input type="checkbox"/> 没有结婚但和伴侣住在一起 |
| 1b. 你出生在哪个州？<br>_____州    |  |

## Adverse Childhood Experiences (ACE) and Health-Risk Behaviors among Adults in a Developing Country Setting

Bernadette J. Madrid and Laurie S. Ramiro

University of the Philippines Manila and Child Protection Unit Network Inc.

This study aimed to determine the relationship between adverse childhood experiences, health-risk behaviors and the occurrence of certain diseases, in a developing country setting. One thousand and sixty-eight (1,068) males and females aged 35 years and above, and residing in the selected urban communities in Quezon City, Philippines participated in the study. Using the Adverse Childhood Experiences (ACE) Questionnaires developed by the US Center for Disease Control and Kaiser Permanente, the results revealed that sexual abuse and having a smoker and an alcoholic in the home were the most common adverse experiences in childhood. The probability of being exposed to more than one category ranged from 7 percent to as high as 86 percent. Significantly more categories of exposure were found among males, those belonging to the middle socio-economic class and those who had lower levels of education. This present study revealed that certain health-risk behaviors occur even with only a single exposure or two. The results also show that just about two types of exposures can result in various diseased conditions.

Key words: adverse childhood experiences, health-risk behaviors, developing country, Philippines



Department of Health and Human Services  
Centers for Disease Control and Prevention





Department of Health and Human Services  
Centers for Disease Control and Prevention



# Secretary of Department of Human Services

Proposed to the Governor that a new entity be formed to prevent the effects of ACEs...

A public-private partnership of the Family Policy Council, foundations, corporations, and others.

Signed into law in December, 2010.





Beham, (Hans) Sebald (1500-1550): Hercules slaying the Hydra, 1545 from The Labours of Hercules (1542-1548).

“Turning our backs on the developmental effects of toxic stress is unacceptable.. it is time to lay the path.”

Laura Porter

*Washington Family Policy Council*

Casey Family Programs  
Family Policy Council  
Washington State Mentors  
“Think Tank”

10/3/2010

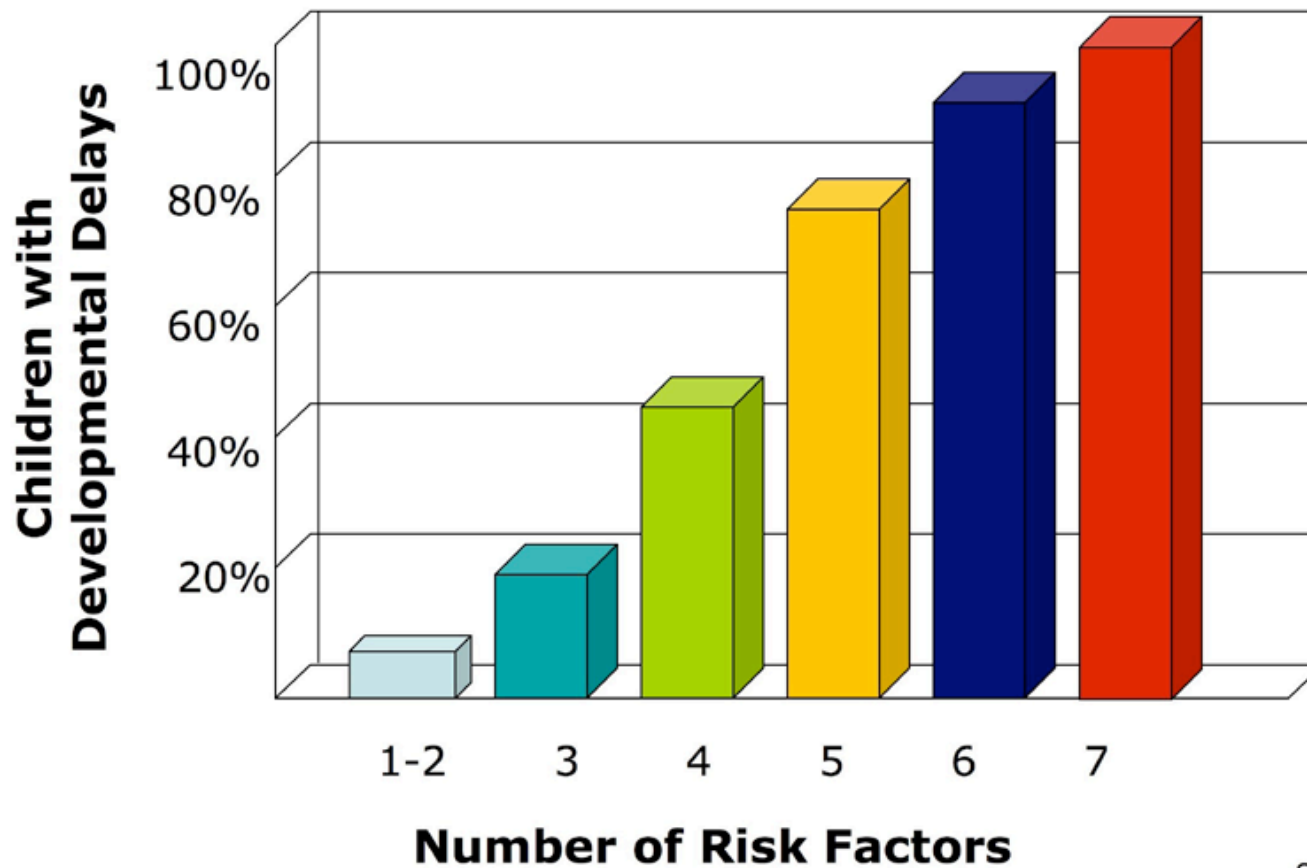
Think..

*Intergenerational*





## Significant Adversity Impairs Development in the First Three Years



Source: Barth et al. (2008)