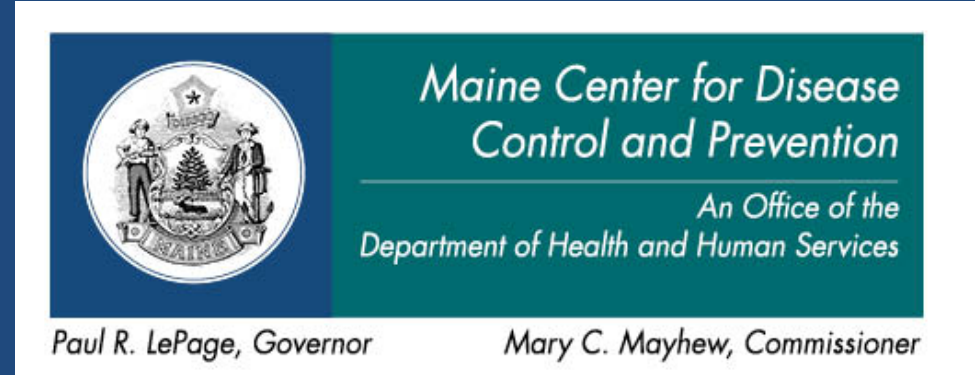


Adverse Childhood Experiences in Maine: Health and Behavioral Outcomes

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DATA COLLECTION: BRFSS

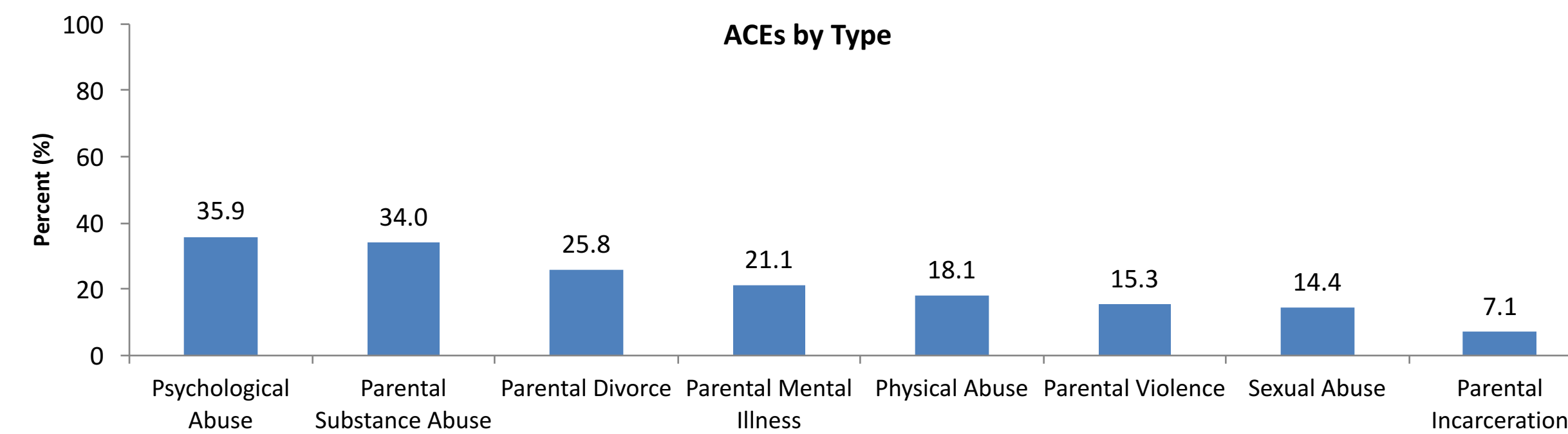
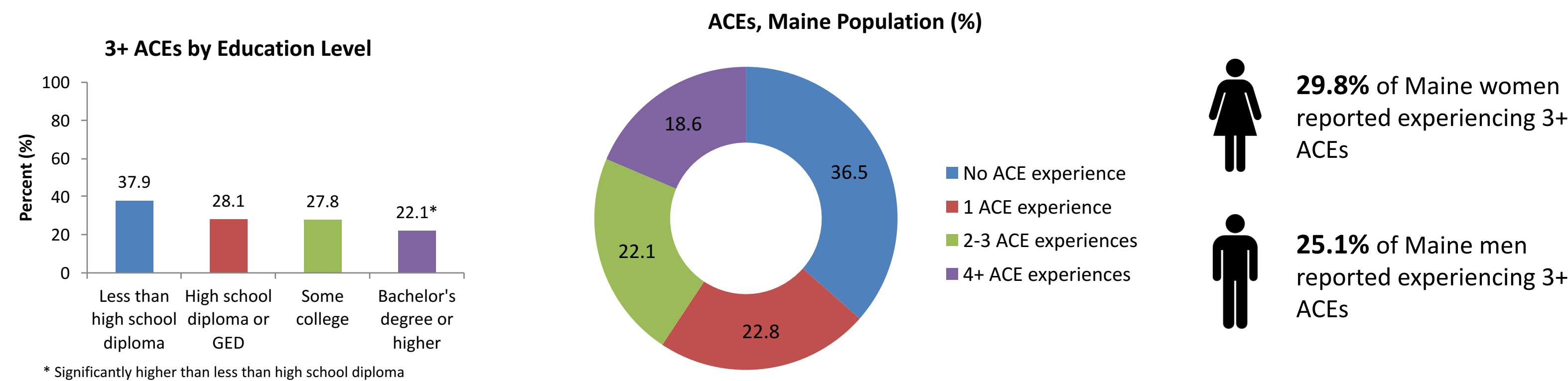
- Behavioral Risk Factor Surveillance System (BRFSS) administered since 1987 in Maine
- BRFSS is administered in 50 states and Washington, D.C.
- Surveys U.S. residents on health risk behaviors, health status, and preventive health behaviors
- 400,000 interviews annually nationwide
- Telephone survey – cell phones starting in 2011
- ACE questions first asked in Maine in 2010, again in 2011
- Original ACE study defines 10 ACE categories
- BRFSS asks 11 questions, covering all eight ACE categories - two categories have multiple questions
- Changes in weighting between 2010 and 2011 mean data cannot be combined or compared

METHODS

- BRFSS 2011 – Module A
- 8 ACE categories on BRFSS:
 - Childhood physical abuse (1 question)
 - Childhood psychological abuse (1 question)
 - Childhood sexual abuse (3 questions)
 - Parental divorce (1 question)
 - Witnessing parental domestic violence (1 question)
 - Parental mental illness (1 question)
 - Parental substance abuse (2 questions)
 - Parental incarceration (1 question)
- Outcomes: chronic disease and high-risk behaviors
- ACE score categories:
 - 0 ACEs
 - 1 ACE
 - 2-3 ACEs
 - 4+ ACEs
- 3+ ACE cutoff chosen based on AMCHP Life Course Indicator Project

OUTCOMES

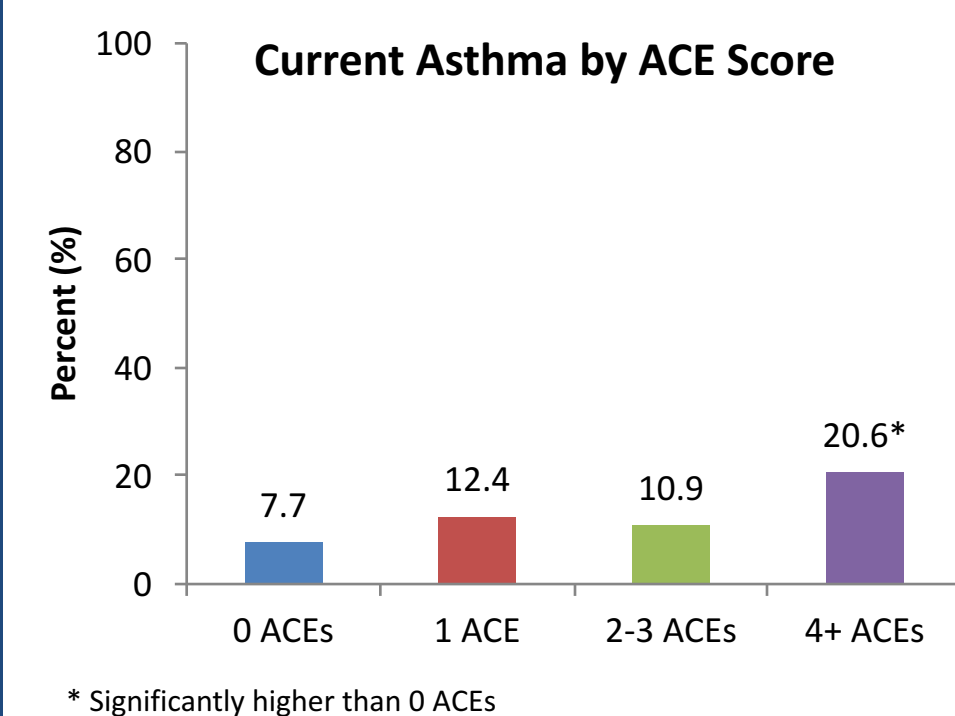
- 3,998** Maine adults were asked ACE questions in 2011
- 63.5%** of Maine adults reported experiencing at least one ACE; **18.6%** reported four or more
- Females**, those with **less education**, and those with **lower income** were more likely to report experiencing three or more ACEs



Physical

Maine adults with higher ACE scores are more likely to experience:

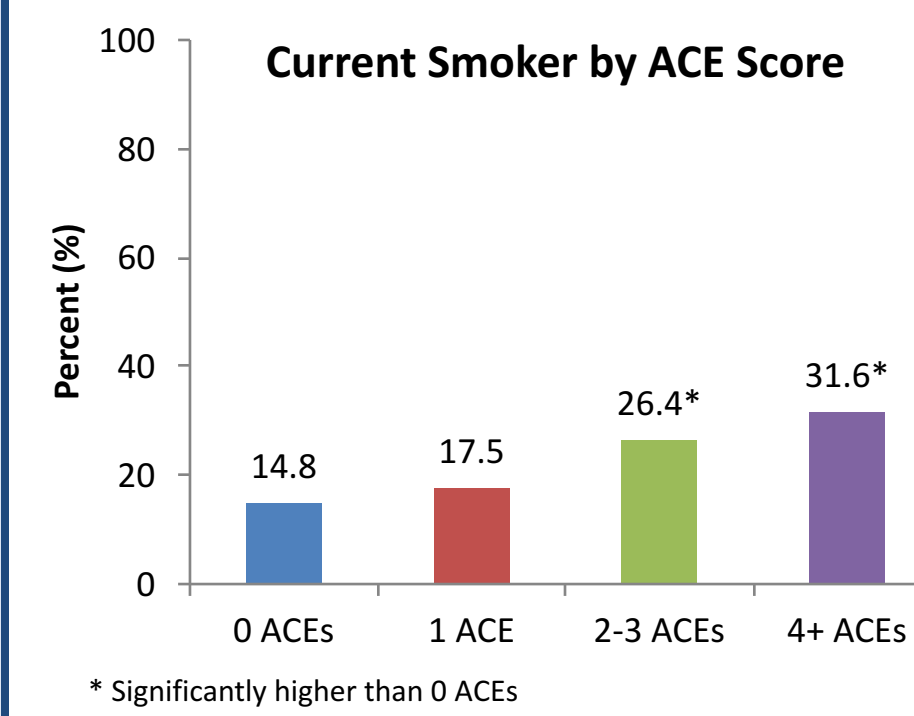
- Current asthma
- Fair/poor health
- Limited by physical, emotional, or mental health problem



Behavioral

Maine adults with higher ACE scores are more likely to experience:

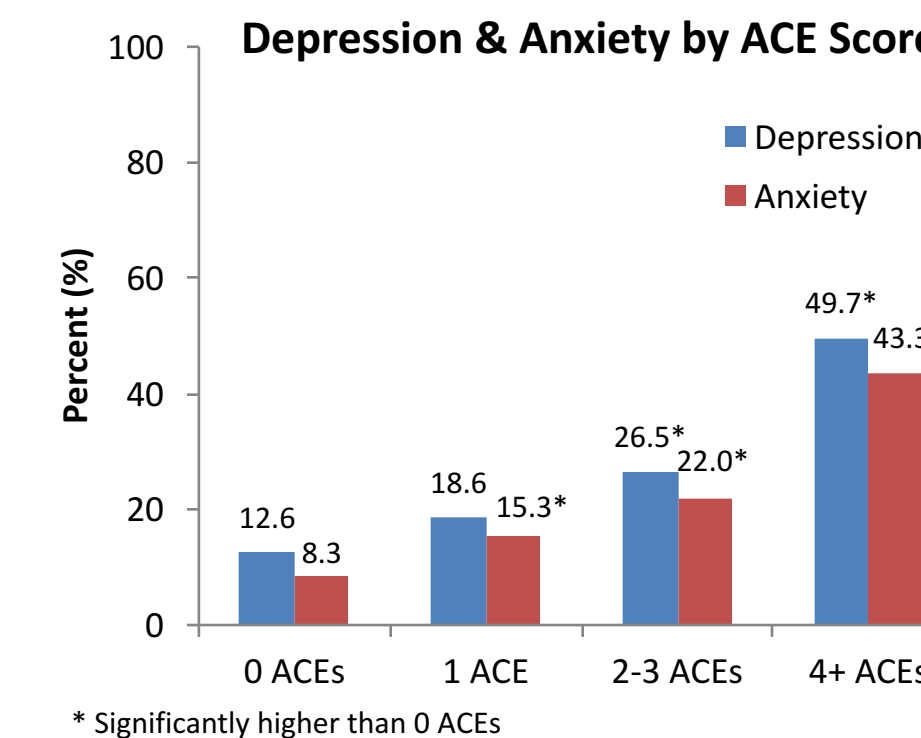
- Current smoker
- Frequent low quality sleep
- Prescription drug abuse
- Recreational marijuana use



Mental Health

Maine adults with higher ACE scores are more likely to experience:

- Anxiety
- Depression
- Treatment for mental health issue
- Frequent mental distress



CONCLUSIONS

- Maine adults with higher ACE scores report significantly more adverse mental health, physical, and behavioral outcomes than those with lower ACE scores
- Must consider a person's entire life when looking at current health status – early screening and resilience building
- Limitations:
 - 2011 data only (small sample size)
 - Cannot assume causation
 - Need more analysis to control for confounders
 - Recall/selection/social desirability biases
 - Not all ACEs are included

NEXT STEPS

- Further analyses controlling for potential confounders and mediating factors
- Determine what ACE questions would need to be asked on future BRFSS administrations to best capture ACEs in Maine
- Combine 2011 data with future data in order to increase sample size

REFERENCES

Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, Koss MP, Marks JS. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine* 1998;14:245–258.

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