



Wisconsin ACE Brief 2011 and 2012 DATA

Produced By

Children's Trust Fund



Adverse Childhood Experiences (ACEs) have been linked to a range of negative outcomes in adulthood. An ACE is a traumatic experience, which occurs prior to the age of 18, such as child physical or sexual abuse, having an incarcerated household member, exposure to domestic violence or parental divorce. Currently, states and U.S. territories use the Behavioral Risk Factor Surveillance System (BRFSS), a nationwide health surveillance system, to collect data on a range of general and chronic health conditions as well as risk factors, including ACEs. Data is collected annually by telephone surveys of the adult population, with a total of 500,000 interviews completed nationally in 2011 and 2012. The collection of data on actual behaviors informs planning, initiating, supporting, and evaluating health promotion and disease prevention programs.

What's New About This Data?

In January 2012, the Children’s Trust Fund and the Child Abuse Prevention (CAP) Fund of Children’s Hospital of Wisconsin issued the report: “Adverse Childhood Experiences in Wisconsin: Findings from the 2010 Behavioral Risk Factor Survey,”¹ detailing the prevalence of ACEs in Wisconsin and identifying correlations between ACEs and a number of adult health and well-being outcomes. Since then, two additional years of data have been collected and analyzed. The data presented in this report are from the combined 2011 and 2012 WI BRFSS samples. While the BRFSS has been conducted since 1984, 2011 was the first year that data collection included cell phone numbers, thus making it possible to capture a broader sample of Wisconsin residents. In total, 9,039 Wisconsin residents² were surveyed from varying geographical locations, income levels, races and ethnicities, offering a diverse picture of Wisconsin residents. This report assesses socio-demographic differences in ACE prevalence rates by cumulative “score” and by type.

Prevalence of ACEs

2011 and 2012 data show that approximately 58% of Wisconsin residents have experienced an ACE, with 14% experiencing 4 or more. As depicted in the pie chart in Figure 1, among those who have experienced ACEs, 61% experienced more than 1, and 25% have experienced 4 or more. This mirrors the 2010 findings and re-iterates the need for using ACE data to inform statewide policies and prevention efforts.

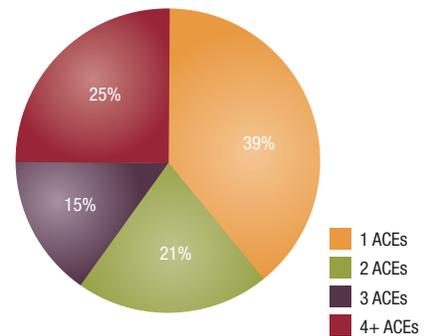


Figure 1. Distribution of ACE scores among those with any ACEs

Particular ACEs are associated with a higher count of ACEs overall (hereinafter called the “ACE score”). For example, in the 2011-2012 data, domestic violence and incarceration of a household member were most strongly correlated with having 4 or more ACEs. While divorce and emotional abuse were least predictive of having 4 or more ACEs, there is still a strong overlap between those ACEs and a high ACE score overall. Thirty-nine percent of those who reported a parental divorce or separation during childhood and forty-four percent of those who reported childhood emotional abuse had an ACE score of 4 or more.

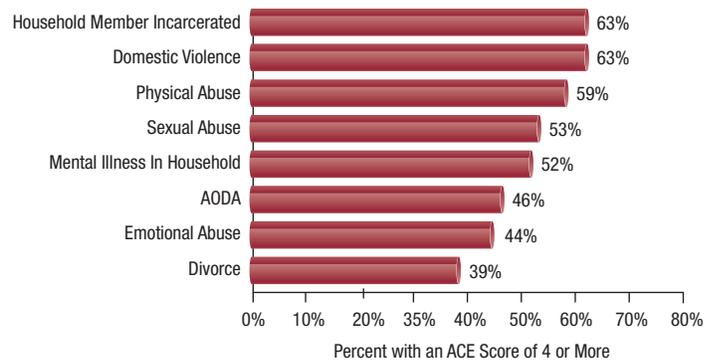


Figure 2. Prevalence of high ACE scores among those with specific ACE types

1. This information is provided as an update to the “Adverse Childhood Experiences in Wisconsin: Findings from the 2010 Behavioral Risk Factor Survey” publication. Please see the original publication for additional and historical information about ACEs in Wisconsin.

2. The BRFSS data do have some limitations. Specifically, the data do not include information on some of the most disadvantaged Wisconsin residents, including persons who are homeless, incarcerated or institutionalized, or who lack a landline or cellular phone. Moreover, nearly 15% of respondents did not complete the ACE portion of the survey, and those who did not respond to the ACE questions are, on average, more socioeconomically disadvantaged. As a result of these limitations, the numbers presented in this report may underestimate the prevalence of ACEs in the state.

ACEs in Wisconsin

The following map shows the counties in Wisconsin with the highest rate of four or more ACEs. The yellow shade indicates that fewer than 10% of the county's adult residents have four or more ACEs (19 counties). The green shade indicates that 10-15% of the county's adult residents have four or more ACEs (20 counties). The purple shade indicates that 15-20% of the county's adult residents have four or more ACEs (20 counties). Finally, the red shade indicates that more than 20% of the county's adult residents have four or more ACEs (13 counties). These rates are based on the combined 2011-2012 survey responses, which, when weighted, are representative of the state's population.

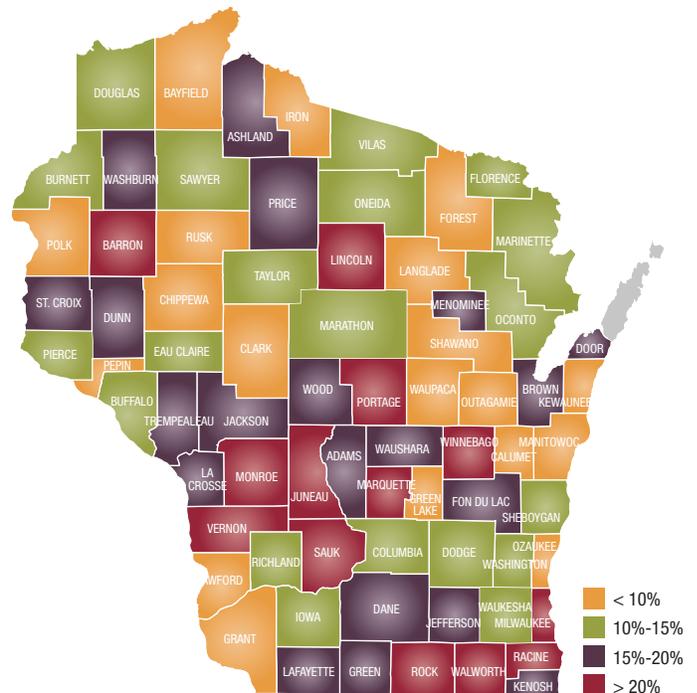


Figure 3. Prevalence of 4 or more ACEs in Wisconsin Counties

ACEs and Socioeconomic Status

Findings confirm that ACEs are correlated with adult income. While the 2010 report showed data on four income categories, it is observed in the 2011 and 2012 data that most of the difference in the ACE score is captured by comparing those with \$25,000 or less in annual household income to those with higher incomes. Respondents with \$25,000 or less in yearly income are 27 percent less likely to report zero ACEs, and nearly twice as likely to report 4 or more. However, no differences are observed between income groups for experiencing 1, 2 or 3 ACEs.

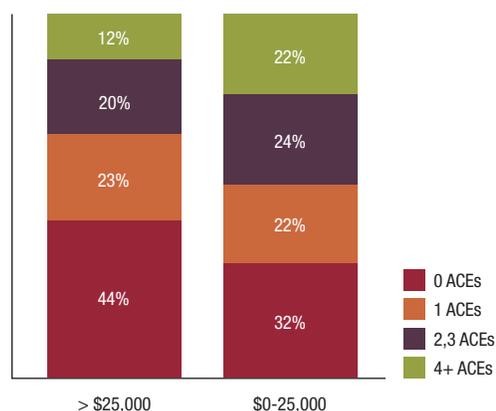


Figure 4. Distribution of ACE scores by income

Analysis of survey data on types of ACEs demonstrates that the largest differences between income groups are for divorce/separation and incarceration of a household member. Lower income adults are 64 percent more likely than adults with annual incomes above \$25,000 to report a parental divorce/separation during childhood and three times more likely to report an incarcerated household member during childhood.

Compared to adults with annual incomes over \$25,000, lower income adults were 27 percent more likely to report childhood experiences involving substance abuse by a household member, 39 percent more likely to report domestic violence, 36 percent more likely to report sexual abuse, 24 percent more likely to report physical abuse, and 33 percent more likely to report having lived with a household member with a mental illness. No significant income differences are observed for respondents reporting emotional abuse. However, beyond the noted correlations, it is not clear how ACEs are linked with adult income. At least two explanations are possible which warrant further study. First, ACEs may increase the likelihood of being low-income in adulthood by negatively affecting

educational attainment, cognitive development, or other factors linked with adult income. Second, it is also possible that childhood ACEs are correlated with childhood poverty (which is being measured in the BRFSS for the first time in 2014), and children from lower-income households are more likely to remain in poverty as adults than are children growing up in higher income households.³

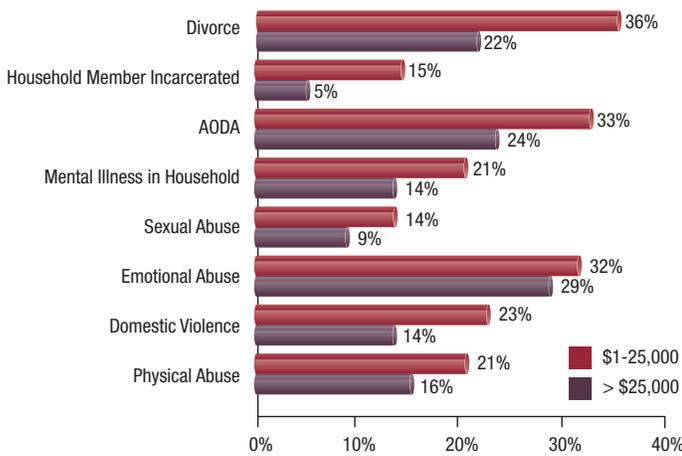


Figure 5. Types of ACEs experienced by income

Another marker of socioeconomic differences in ACEs can be found by exploring the relationship between ACE scores and types of health insurance. Primarily, there are differences in ACE scores between those with private insurance or Medicare and people with Medicaid (the state means-tested health insurance program known as BadgerCare in Wisconsin) or without insurance. This latter group is more than twice as likely to have experienced 4 or more ACEs, and is 35 percent less likely to have experienced none, when compared with people who have private insurance or Medicare. However, it is important to note that there are many differences other than ACE scores that distinguish people who receive Medicaid or are uninsured from those with private insurance or Medicare. Specifically, people who receive Medicaid are younger, less likely to be white, more likely to be unemployed or disabled, and tend to have lower income and educational attainment than those with private insurance or Medicare. People without insurance look fairly similar to the

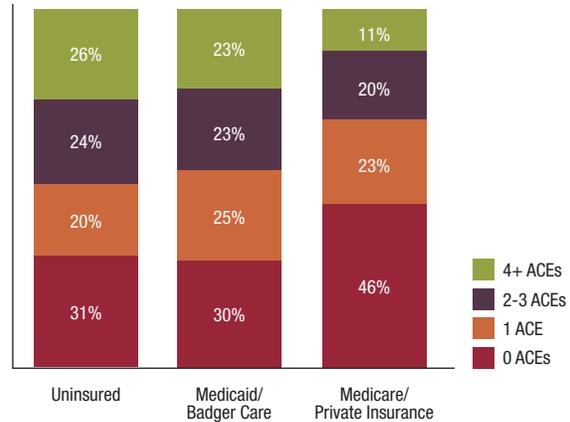


Figure 6. Distribution of ACE scores by insurance type

Medicaid population on many of these indicators. These demographic factors account for most of the differences in insurance type. In other words, ACEs are associated with a wide range of socioeconomic disadvantage, and lack of insurance and reliance on Medicaid are one symptom of that disadvantage.

ACEs and Race

There are many observed differences in ACE prevalence by race. Specifically, in Wisconsin black respondents have higher ACE scores than other races, and are least likely to report zero ACEs. White respondents are twice as likely as black respondents to report experiencing zero ACEs.⁴

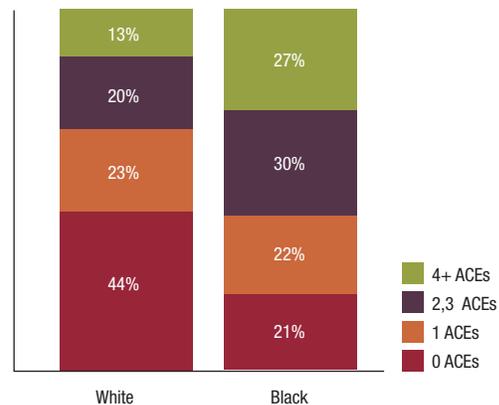


Figure 7. Distribution of ACE scores by race

3. Wagmiller, R. L. & Adelman, R. M. (2009). Childhood and intergenerational poverty: The long term consequences of growing up poor. Columbia University, National Center on Children in Poverty. http://www.nccp.org/publications/pub_909.html

4. The analyses on ACEs and race pertain only to white and black respondents, given the small numbers of BRFSS respondents who identified as neither white nor black.

The differences in overall ACE scores by race appear to be attributable to differences in only a few ACE types. Specifically, black respondents are two and one-half times more likely than white respondents to report a parental divorce or separation. Nearly 60% of black respondents reported this ACE, as compared 22% of whites. Moreover, black respondents were four times more likely than white respondents to report experiencing the incarceration of a household member as a child.

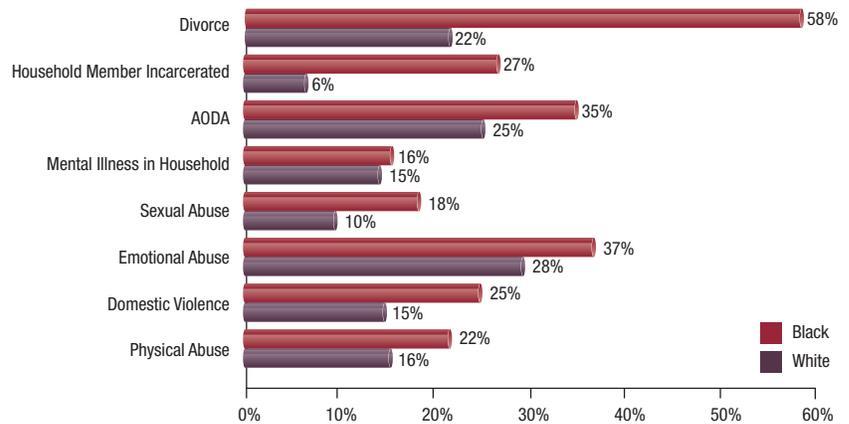


Figure 8. Types of ACEs experienced by race

While differences in divorce and incarceration of a household member were large across racial groups, no statistically meaningful racial group differences were found for the ACE of living with a person with mental illness. More modest, but still statistically meaningful, differences were found across racial groups for the remaining ACEs. Black respondents were more likely than white respondents to report the ACEs of emotional abuse and substance abuse by a household member. In addition, black respondents were more likely to report sexual abuse, domestic violence, and physical abuse than were whites.

There are many reasons racial differences in the prevalence and types of ACEs may be observed. One possible explanation is that whites are less likely to be poor, and poverty is linked to the prevalence of ACEs. The U.S. Census reports that 9.7 percent of non-Hispanic whites lived under the poverty line in 2012, compared with 27.2 percent of black Americans, 25.6 percent of Latinos, and 11.7 percent of Asian Americans.⁵ Similarly, impoverished children live in families with higher rates of family violence,⁶ risk of

maltreatment,^{7,8} rates of divorce or family dissolution,⁹ and other social ailments. The disproportionate representation of black families in poverty is indicated as a primary factor in disproportionate rates of child maltreatment between white and black families.^{10,11} A second explanation is that the sample of white respondents tends to be older, and younger age is associated with a higher prevalence of ACEs. Lastly, there is a long history of disparities in incarceration rates by race. Currently, the proportion of black males that are incarcerated is more than six times that of white males and more than twice that of Hispanic males.¹² The heightened prevalence of the incarceration ACE among black respondents is consistent with that pattern.

5. U.S. Census Bureau. (2012). People in poverty by selected characteristics: 2011 and 2012. <http://www.census.gov/hhes/www/poverty/data/incpovhlth/2012/table3.pdf>

6. Berger, L. M. (2005). Income, family characteristics, and physical violence toward children. *Child Abuse & Neglect*, 29(2), 107-133. doi: <http://dx.doi.org/10.1016/j.chiabu.2004.02.006>

7. Slack, K. S., Holl, J. L., McDaniel, M., Yoo, J., & Bolger, K. (2004). Understanding the Risks of Child Neglect: An Exploration of Poverty and Parenting Characteristics. *Child Maltreatment*, 9(4), 395-408. doi: [10.1177/1077559504269193](https://doi.org/10.1177/1077559504269193)

8. Berger, L. M. (2004). Income, family structure, and child maltreatment risk. *Children and Youth Services Review*, 26(8), 725-748. doi: <http://dx.doi.org/10.1016/j.childyouth.2004.02.017>

9. Conger, R. D., Conger, K. J., & Martin, M. J. (2010). Socioeconomic Status, Family Processes, and Individual Development. *Journal of Marriage and Family*, 72(3), 685-704. doi: [10.1111/j.1741-3737.2010.00725.x](https://doi.org/10.1111/j.1741-3737.2010.00725.x)

10. Font, S.A., Berger, L. M., Slack, K. S. (2012) Examining racial disproportionality in child protective services decision making. *Children & Youth Services Review*, 34(11), 2188-2200.

11. Drake, B., Jolley, J. M., Lanier, P., Fluke, J., Barth, R. P., & Jonson-Reid, M. (2011). Racial bias in child protection? A comparison of competing explanations using national data. *Pediatrics*, 127(3), 471-478.

12. U.S. Department of Justice. (2011). Correctional populations in the United States, 2010. Washington, DC: Office of Justice Programs, Bureau of Justice Statistics. <http://www.bjs.gov/content/pub/pdf/cpus10.pdf>

Conclusion

Consistent with myriad studies demonstrating the strong association between ACEs and poor adult mental, social and physical health outcomes, the analysis of 2011 and 2012 Wisconsin ACE data paints a vivid picture of life trajectories that are profoundly influenced by early experiences. These findings reinforce the need to understand how ACEs translate into potential social and health problems across the lifespan, the variations in rates of ACEs among different socioeconomic and demographic groups, and the impact of these associations on adult health and well-being.

Key findings from prior, current and ongoing data analysis of Wisconsin ACE data will be used to increase awareness and design effective prevention and intervention strategies that assess and address trauma and childhood adversity. Through heightened prevention of ACEs, including child maltreatment, and improved interventions with those who have experienced ACEs, Wisconsin can enhance the health outcomes and productivity of its residents while greatly reducing the financial costs to our public and private systems.

Policy Recommendations

Based on the data analysis in this brief, we recommend implementing the following strategies along with the recommendations in our earlier publication, “Adverse Childhood Experiences in Wisconsin: Findings from the 2010 Behavioral Risk Factor Survey.”

Recommendation 1:

Create an educational initiative to increase awareness of the high correlation of violence between adults in the household with high ACE scores, and the impact on the family and community.

Given the fact that 63% of those who reported violence between adults in the household also had a reported ACE score of 4 or more, it is imperative that special attention be given to mitigating this ACE. By increasing awareness among providers of domestic abuse services, health care providers, criminal justice systems and other family support systems of the impact of ACEs on the people they serve, more individuals may receive the treatment and support they need to overcome these adverse experiences.

Recommendation 2:

Partner with demographically diverse population leaders and stakeholders to better understand and develop strategies to reduce the large racial disparity in experiences of childhood adversity.

With data showing that black respondents have higher ACE scores and, in most cases, higher prevalence rates of specific ACEs than white respondents, it is critical to emphasize the reduction of racial disparities among those reporting adverse childhood experiences.

Summary of Original Policy Recommendations

Increase awareness of ACEs and their impact on health and well-being.

1. Develop an educational initiative for the general public on the impact of ACEs on physical and mental health and on school and work success.
2. Work with the state's education, child welfare, mental health, substance abuse, and corrections systems to increase awareness of the impact of ACEs on the people they serve.

Increase assessment of and response to ACEs in health care settings.

3. Partner with the health care community to improve integration of behavioral and primary health care and identify and promote strategies to assess for and respond to ACEs.
4. Identify a standard of care that includes assessing for and responding to ACEs, to be integrated into contracts as performance measures with Forward Health (Wisconsin Medicaid).

Enhance the capacity of communities to prevent and respond to ACEs.

5. Prioritize Wisconsin's investments in evidence-based prevention programming and promote and fund the implementation and evaluation of promising approaches.
6. Invest resources into evidence-based trauma interventions.
7. Build access to and capacity of mental health and substance abuse services to include trauma-informed care and evidence-based trauma interventions.

Continue to collect Wisconsin-specific data on the relationship between ACEs and health outcomes.

8. Designate funds to continue the collection, analysis, and dissemination of ACE data from Wisconsin residents.
9. Increase the utility and scope of ACE data collected in Wisconsin by:
 - Raising funds to expand the sample size of the Wisconsin BRFSS in order to build the capacity to analyze data at the county level.
 - Collecting and analyzing data on individual, family, and community well-being and resilience.
 - Collecting and analyzing information related to the social and financial cost of ACEs and their impact on Wisconsin's economy and the state budget.

See more details about these recommendations on page 28 of the full report.

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