

**FINDINGS ON ADVERSE CHILDHOOD  
EXPERIENCES FROM THE 2018 INDIANA BRFSS**

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**ADVERSE  
CHILDHOOD  
EXPERIENCES  
AMONG INDIANA  
ADULTS**

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**JULY 2020**

# WHAT ARE ADVERSE CHILDHOOD EXPERIENCES?

Adverse childhood experiences (ACEs) are traumatic events, including abuse, household dysfunction, and neglect, that are experienced before the age of 18. Research has shown that ACEs increase the risk for a range of health risk behaviors and poor health outcomes in adulthood.

The original ACE Study, conducted by Kaiser Permanente in collaboration with the Centers for Disease Control and Prevention (CDC) from 1995 to 1997, surveyed over 17,000 predominantly white, middle-class adults about their exposure to ten types of ACEs. The results from the surveys, in combination with physical exams, revealed strong, dose-response associations between the number of

reported ACEs and various health risks (e.g. smoking, obesity, depression, and alcoholism) and chronic health conditions (e.g. heart disease, lung disease, cancer, liver disease, and perceived poor health) in adulthood.

In 2008, the CDC developed an optional Behavioral Risk Factor Surveillance System (BRFSS) ACE module with questions adapted from the original ACE Study to collect information regarding the prevalence of ACEs and their relation to major public health concerns within each state. The ACE module is comprised of 11 questions referring to the respondents' first 18 years of life that assess eight types of ACEs (listed below). Indiana first included the ACE module in 2018.

## 8 TYPES OF ACEs STUDIED IN INDIANA

### ABUSE

1. Physical
2. Emotional
3. Sexual

### HOUSEHOLD DYSFUNCTION

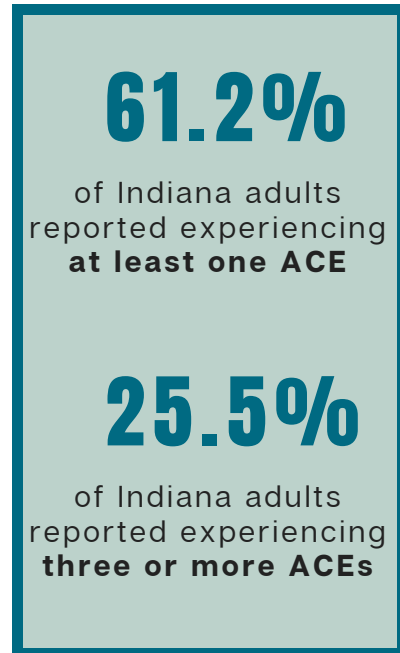
4. Mental illness in the household
5. Domestic violence in the household
6. Substance abuse in the household
7. Parental separation/divorce
8. Incarcerated household member

# WHAT IS THE PREVALENCE OF ACES IN INDIANA?

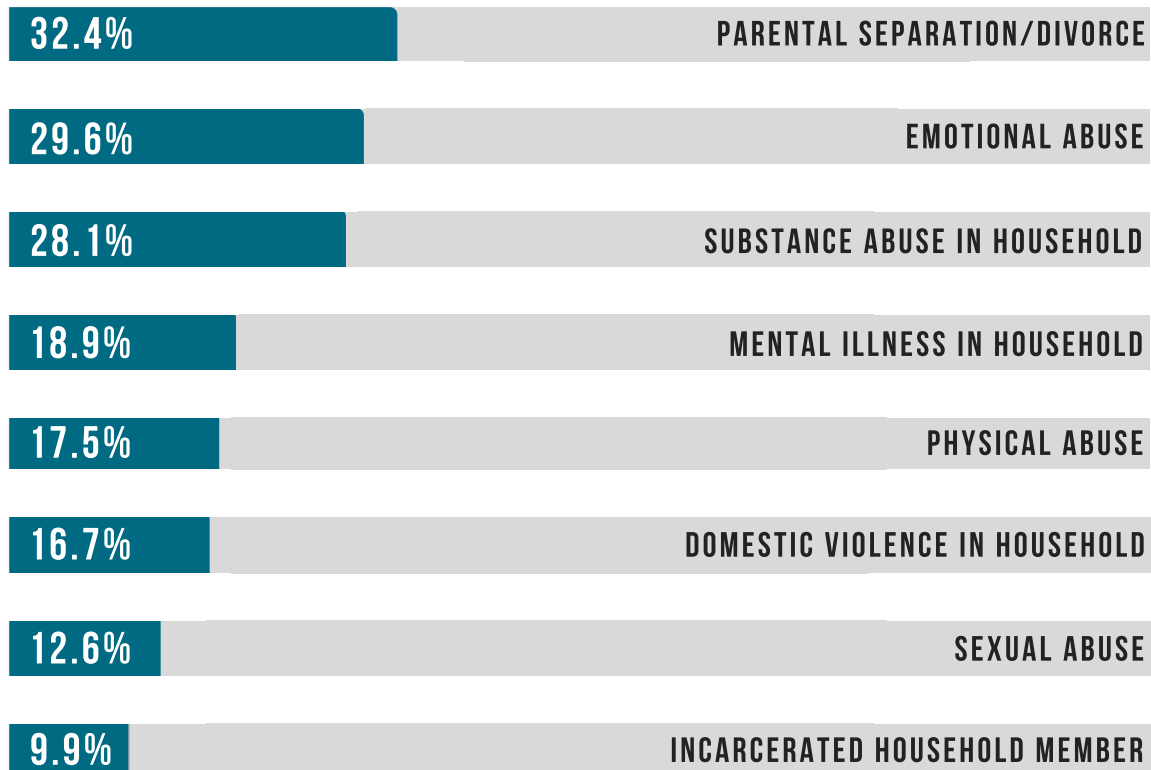
ACEs are prevalent among Indiana adults. A majority (61.2%) of respondents reported experiencing at least one ACE, and about one-fourth (25.5%) reported experiencing three or more ACEs. The most commonly experienced ACE categories were **parental separation or divorce** (32.4%), **emotional abuse** (29.6%), and **substance abuse in the household** (28.1%).

The percentage of Indiana adults who reported experiencing **three or more ACEs** was significantly **higher** among:

- Young adults compared to older adults;
- Non-Hispanic multiracial individuals compared to other non-Hispanic individuals;
- Low-income individuals compared to higher-income individuals; and
- Individuals with disabilities compared to those without disabilities



## PREVALENCE OF ACE CATEGORIES AMONG INDIANA ADULTS



# HOW ARE ACES RELATED TO ADULT HEALTH?

Indiana adults who reported experiencing **three or more ACEs** had:

**3.0x**

greater odds of **smoking\***

**3.0x**

greater odds of having **fair or poor general health\***

**3.4x**

greater odds of having **COPD\***

**4.8x**

greater odds of having **poor mental health\***

**6.3x**

greater odds of having a **depressive disorder\***

*\*compared to those who reported no ACEs after adjusting for age, sex, race, and education*

## "ACES ARE SIGNIFICANTLY ASSOCIATED WITH VARIOUS HEALTH RISKS AND ADVERSE HEALTH OUTCOMES"

Results from multivariate logistic regression models show that ACEs are significantly associated with various health risks and adverse health outcomes in adulthood after adjusting for sociodemographic factors. As the number of **ACEs increased**, the odds for various **health risks** (e.g. current smoking, heavy drinking, binge drinking, and obesity), **perceived poor health indicators** (e.g. fair or poor general health, poor physical health, and poor mental health), and **chronic health conditions** (e.g. depressive disorder, chronic obstructive pulmonary disease [COPD], coronary heart disease, and arthritis) **also increased** among Indiana adults.

These results are consistent with findings from other states and the original ACE Study. Researchers from the original ACE Study suggested that individuals who have experienced multiple ACEs may adopt certain health risk behaviors (e.g. smoking) as coping mechanisms to relieve the psychological impacts of childhood trauma. This adoption of health risk behaviors may be the link between ACEs and poor health outcomes in adulthood. Findings from this study indicate that ACEs are a significant public health concern in Indiana.

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**FOR MORE  
INFORMATION,  
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**[WWW.BIT.LY/INACE18](http://WWW.BIT.LY/INACE18)**

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