

Adverse Childhood Experiences (ACEs)

ACEs are stressful or traumatic events, including abuse and neglect, and household dysfunction. ACEs are strongly related to the development and prevalence of a wide range of health problems throughout a person's lifespan (**Figure 1, right**). The negative effects of ACEs are felt throughout the nation and can affect people of all backgrounds. ACEs showed high association with risk factors for diseases, disability and early mortality in many studies¹.

ACEs are Common in Connecticut

- Three out of five adults reported having experienced at least one ACE, and 21.2% reported three or more ACEs (**Figure 2, right**). Among those who experienced one ACE, 32.3% were from separated/divorced parents, 20.8% from emotional abuse, and 18.6% from drinking problems in household;
- ACEs are clustered: two-thirds of those who experienced ACEs reported two or more ACEs (59.1%) and one in five experienced more than three ACEs (22.1%);
- In Connecticut, emotional abuse (27.9%) and parents separated or divorced (26.2%) are the most prevalent ACE events (**Figure 3, below**).

Figure 1: ACEs Pyramid¹

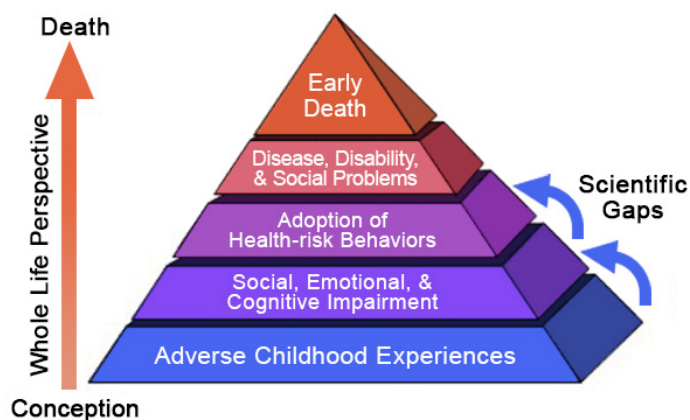


Figure 2: Prevalence of Overall ACE Exposure in Connecticut

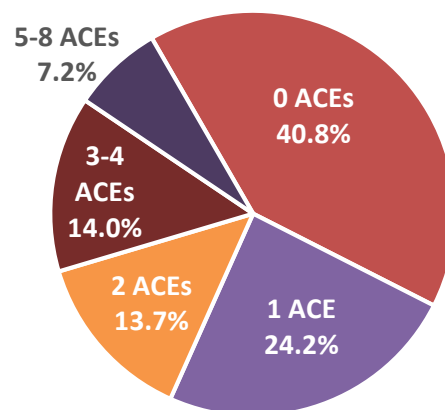
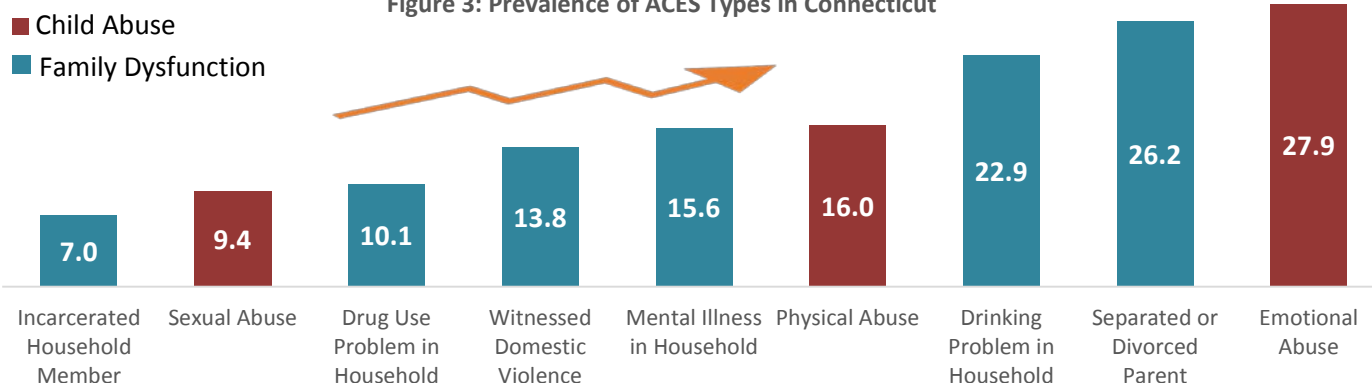


Figure 3: Prevalence of ACEs Types in Connecticut



Social Determinants of Health and ACEs

Table 1: Demographics, Social, Economic, and Housing Characteristics and ACEs

The prevalence of adults with **three or more ACEs** was significantly **higher** among (Table 1):

- Adults less than 65 years old;
- The LGBT population (37.0%) compared to the heterosexual group (20.8%);
- Adults who never married (30.3%) compared to adults who are currently married (15.7%);
- Adults with disabilities (27.9%) compared to adults without disabilities (19.2%);
- Adults who did not graduate from high school (26.9%), graduated from high school (22.3%), and adults with some college education (26.1%), compared to adults who graduated from college or technical school (15.4%);
- Unemployed adults (35.3%) and adults who were unable to work (35.5%), compared to adults who are employed (22.7%);
- Renters (34.8%) and adults with other housing arrangements (25.9%), compared to adults who own their houses (17.1%);
- Adults with Medicaid (37.1%), compared to non-Medicaid adults (19.7%).

Demographics	Never	1-2 ACEs	3-8 ACEs
	% (95% CI)	% (95% CI)	% (95% CI)
Total	40.8 (39.4, 42.3)	37.9 (36.4, 39.4)	21.2 (20.0, 22.5)
Age			
18-24 years old	29.2 (23.6, 34.9)	42.2 (35.8, 48.6)	28.6 (22.8, 34.4)
25-34 years old	30.8 (26.3, 35.3)	36.2 (31.5, 40.8)	33.0 (28.2, 37.9)
35-44 years old	32.7 (28.7, 36.6)	42.1 (37.7, 46.4)	25.3 (21.6, 29.0)
45-54 years old	39.2 (36.2, 42.3)	38.9 (35.8, 42.0)	21.8 (19.3, 24.4)
55-64 years old	45.3 (42.7, 47.9)	36.8 (34.3, 39.3)	17.9 (15.9, 19.8)
65+ years old	55.0 (52.8, 57.3)	34.2 (32.1, 36.4)	10.7 (9.3, 12.1)
Gender			
Male	41.4 (39.3, 43.5)	38.4 (36.3, 40.6)	20.1 (18.2, 22.1)
Female	40.3 (38.3, 42.2)	37.4 (35.4, 39.4)	22.3 (20.6, 24.0)
Sexual Orientation			
Heterosexual	41.1 (39.6, 42.6)	38.1 (36.6, 39.6)	20.8 (19.5, 22.1)
Lesbian, Gay, Bisexual, Transgender	29.5 (22.3, 36.7)	33.4 (25.8, 41.0)	37.0 (29.7, 44.4)
Race/Ethnicity			
*NH White	42.6 (41.0, 44.2)	37.2 (35.6, 38.8)	20.2 (18.8, 21.6)
*NH Black	30.0 (24.6, 35.4)	47.7 (42.0, 53.5)	22.3 (17.3, 27.2)
Hispanic/Latino	35.5 (30.7, 40.2)	38.3 (33.3, 43.4)	26.2 (21.6, 30.8)
*NH Other	46.6 (39.2, 54.0)	31.7 (24.3, 39.1)	21.7 (16.0, 27.4)
Marriage Status			
Married	47.8 (46.1, 49.5)	36.4 (34.8, 38.1)	15.7 (14.5, 17.0)
Divorced	33.8 (30.3, 37.3)	40.8 (37.2, 44.4)	25.3 (22.1, 28.6)
Never married	30.1 (27.1, 33.2)	39.6 (36.2, 43.0)	30.3 (27.1, 33.5)
Income			
Less than \$15,000	31.3 (25.2, 37.5)	35.4 (29.2, 41.6)	33.2 (26.7, 39.8)
\$15,000-\$24,999	37.9 (33.2, 42.5)	36.2 (31.4, 40.9)	26.0 (21.5, 30.5)
\$25,000-\$34,999	35.7 (30.1, 41.3)	40.1 (34.1, 46.0)	24.3 (18.9, 29.7)
\$35,000-\$49,999	37.7 (33.0, 42.4)	35.3 (30.3, 40.3)	27.0 (22.1, 31.9)
\$50,000-\$74,999	39.2 (35.2, 43.1)	40.6 (36.5, 44.7)	20.3 (17.0, 23.6)
\$75,000-\$99,999	38.8 (34.9, 42.7)	39.1 (35.1, 43.1)	22.0 (18.6, 25.5)
At least \$100,000	44.2 (41.4, 47.0)	38.2 (35.4, 41.0)	17.6 (15.3, 19.9)
Disability Status			
Disabled	34.0 (31.1, 36.9)	38.1 (35.0, 41.1)	27.9 (25.1, 30.8)
Non-disabled	43.0 (41.3, 44.6)	37.8 (36.2, 39.5)	19.2 (17.7, 20.6)

*NH: Non-Hispanic

Disparities of ACEs in Connecticut

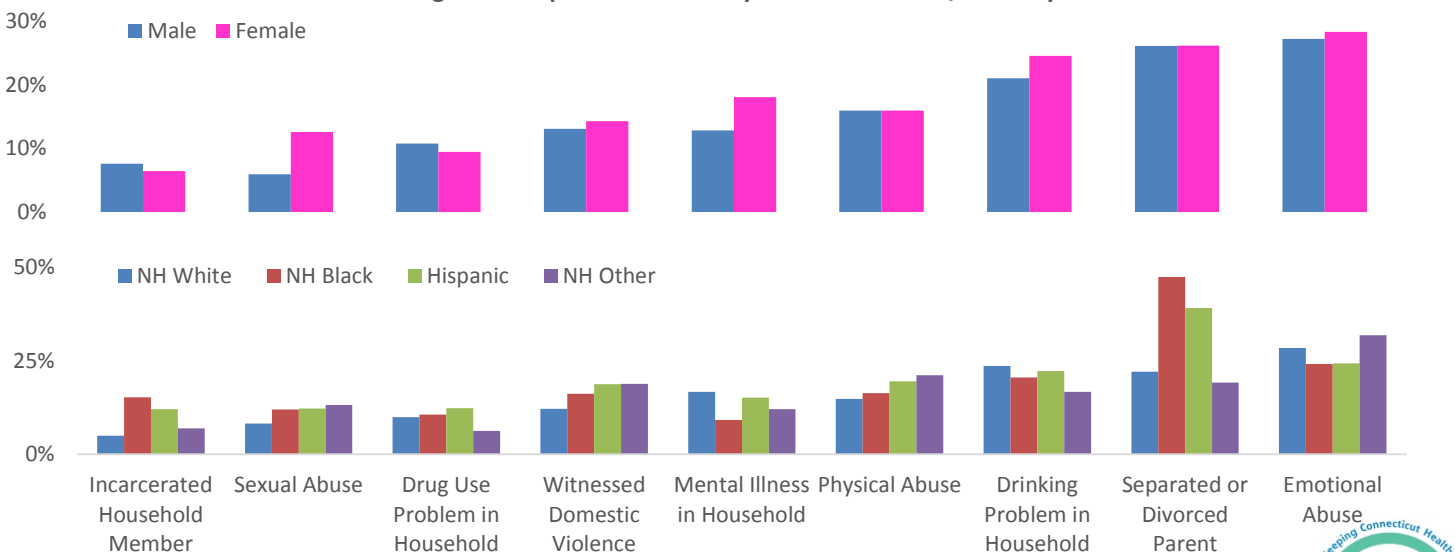
While there are similar rates for men and women and across races for most ACEs, some differences in the type of ACEs experienced by gender and race/ethnicity were found (**Figure 4**):

- Women are more likely to report experiencing sexual abuse, mental illness and problem drinking in the household.
- Compared to NH Whites:
 - NH Blacks and Hispanics are more likely to have a separated or divorced parent and an incarcerated household member;
 - Hispanics and NH Others are more likely to report experiencing sexual abuse, physical abuse, and witnessing domestic violence;
- NH Whites are more likely to report exposure to drug use problem, drinking problems, and mental illness in household, compared to NH Others.

Table 1 *Cont.* Demographics, Social, Economic, and Housing Characteristics and ACEs

Demographics	Never	1-2 ACEs	3-8 ACEs
	% (95% CI)	% (95% CI)	% (95% CI)
Education Achievements			
Did not Graduate High School	37.1 (30.7, 43.5)	36.0 (29.5, 42.5)	26.9 (20.8, 33.0)
Graduated High School	36.8 (34.0, 39.6)	40.9 (37.8, 44.0)	22.3 (19.5, 25.0)
Attended College or Technical School	35.9 (33.2, 38.7)	38.0 (35.1, 40.9)	26.1 (23.4, 28.7)
Graduated from College or Technical School	48.3 (46.3, 50.3)	36.3 (34.4, 38.2)	15.4 (14.0, 16.8)
Employment Status			
Employed	38.9 (37.0, 40.8)	38.4 (36.5, 40.3)	22.7 (21.0, 24.4)
Unemployed	31.5 (25.5, 37.4)	33.3 (26.8, 39.8)	35.3 (28.3, 42.2)
Unable to work	24.9 (19.6, 30.2)	39.5 (33.3, 45.8)	35.5 (29.1, 41.9)
House Status			
Own	44.7 (43.0, 46.4)	38.2 (36.5, 39.9)	17.1 (15.8, 18.5)
Rent	28.3 (25.5, 31.1)	36.9 (33.8, 40.1)	34.8 (31.6, 38.0)
Other arrangement	35.8 (29.0, 42.5)	38.3 (31.2, 45.4)	25.9 (19.2, 32.6)
Medicaid Status			
Medicaid	29.4 (24.5, 34.3)	33.6 (28.3, 38.8)	37.1 (31.7, 42.4)
Non-Medicaid	42.2 (40.7, 43.7)	38.1 (36.6, 39.7)	19.7 (18.4, 21.0)

Figure 4: Disparities of ACEs by Gender and Race/Ethnicity



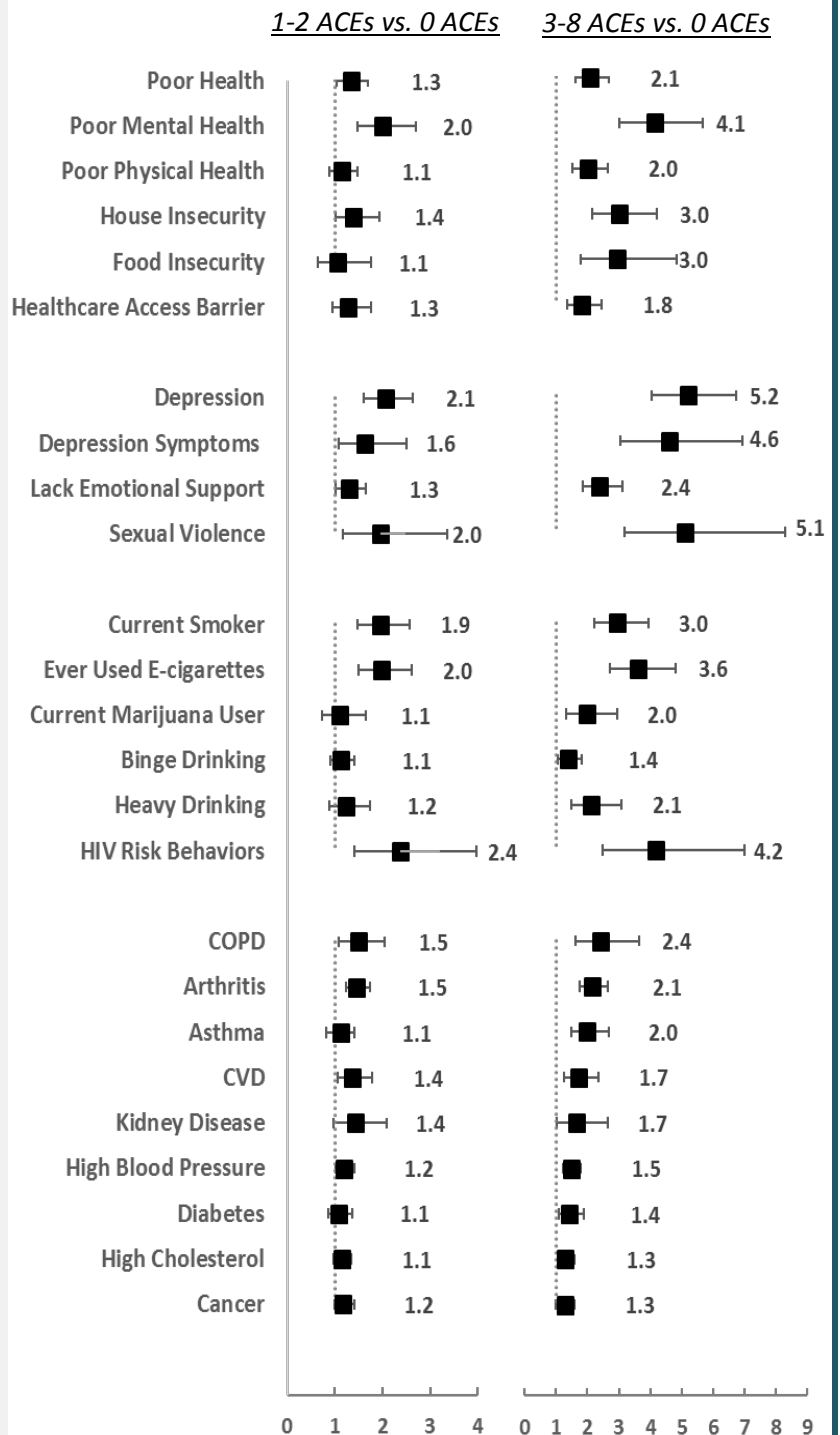
ACEs and Health Outcomes/ Risk Behaviors

ACEs have a dose-response relationship with many health problems. After adjustment for age, gender, race/ethnicity, income and education, several health outcomes have increased odds of occurrence among individuals with ACEs.

In Connecticut, a person with 3 or more ACEs as compared to a person with no ACE is:

- **5.2 times** more likely to be at risk for **depression**;
- **5.1 times** more likely to be a victim of **sexual violence** in adulthood;
- **4.6 times** more likely to have depression symptoms (having more than 14 sad, blue or depressed days in past 30 days);
- **4.2 times** more likely to engage in **HIV risk behaviors** (including intravenous drug use, sexually transmitted disease, exchange sex for drugs or money, unprotected anal sex or having four or more sexual partners in the last year);
- **4.1 times** more likely to be at risk for **poor mental health** (had more than 14 bad mental health days in past month);
- **3.6 times** more likely to **ever use E-cigarettes**;
- **3.0 times** more likely to be **current smoker**;
- **3.0 times** more likely to be **usually or always worried about paying for house**;
- **3.0 times** more likely to be **usually or always worried about buying nutritious foods**;
- **2.4 times** more likely to **lack emotional support**;
- **2.4 times** more likely to be at risk for **COPD**;
- **2.1 times** more likely to be at risk for **arthritis**;
- **2.1 times** more likely to be at risk for **poor general health**;
- **2.0 times** more likely to be at risk for **current asthma**.

Figure 5: Number of ACEs and Health Outcomes/Risk Behaviors



Definition & Data Source

Adverse Childhood Experiences (ACEs) are experiences typically reported among adults when they were children less than 18 years of age. There are a total of eight ACEs grouped into two types: Abuse, which includes verbal, physical, and sexual abuse; and Household Dysfunction, which is witnessed as a child and includes mental illness, incarceration, drug abuse, alcohol abuse, parental separation/divorce, and domestic violence. Estimates of ACEs in Connecticut were obtained from questions in the 2017 Connecticut Behavioral Risk Factor Surveillance System (CT BRFSS)⁶. The questionnaire with the ACEs module was used on 10,588 respondents, and of those 8,018 (75.7%) answered all 11 ACEs questions were included in the analysis. The CT-BRFSS is a CDC-sponsored voluntary landline/cell phone population-based survey of randomly selected adults in the state that monitors the health and well-being of its residents⁷.

Child Abuse

- ❖ Physical abuse: parent or adult in the home ever hit, beat, kick, or physically hurt you in any way once or more than once (does not include spanking);
- ❖ Sexual abuse: Anyone at least 5 years older than you or an adult, ever touch you sexually, try to make you touch them sexually, or force you to have sex once or more than once;
- ❖ Emotional abuse: parent or adult in home ever swear at you, insult you, or put you down more than once.

Household dysfunction

- ❖ Mental illness: lived with anyone who was depressed, mentally ill, or suicidal;
- ❖ Substance abuse:
 - Alcohol: lived with anyone who was a problem drinker or alcoholic;
 - Drugs: lived with anyone who used illegal street drugs or abused prescription medication;
- ❖ Divorce or separation: Parents separated or divorced;
- ❖ Domestic Violence: Parents or adults in your home ever slap, hit, kick, punch or beat each other up once or more than once;
- ❖ Incarceration: lived with anyone who served time or was sentenced to serve time in a prison, jail, or other correctional facility.

Promising Practices in Connecticut

- Legislate Trauma-Informed Practices in the school setting²

- Offer School-based treatment options²

- Educate clinical and social service providers about childhood trauma & trauma-focused care

- Screen for childhood trauma in clinic practices and programs that serve adults³

- Offer trauma-informed interventions to reduce adult risk behaviors and poor health outcomes⁴

- Emphasize trauma-focused perinatal care to improve pregnancy and birth outcomes⁵

Trauma-Focused Treatments for Children in Connecticut

Evidence-based treatments are proven by research to help children achieve better outcomes, and there are a variety of evidence-based and promising mental health treatments across Connecticut, including:

TF-CBT (Trauma Focused Cognitive Behavioral Therapy) is a psychoeducation model that helps individuals recognize and manage their stress reactions, develop improved coping mechanisms, restructure self-messaging associated with the trauma, and change negative behaviors. https://tfcbt.musc.edu/	CBITS (Cognitive Behavioral Intervention for Trauma in Schools) is school-based and provided in both group and individual formats. CBITS, like TF-CBT, uses cognitive behavioral techniques to help individuals change the narrative behind the experience, to decrease the negative reinforcement from negative self-talk. https://cbitsprogram.org/
TARGET (Trauma Affect Regulation: Guide for Education and Therapy) is a strengths-based approach intended to help trauma survivors understand how trauma changes the body's normal responses to stress. Target-Teen is specifically designed to address the adolescent and pre-adolescent population. http://www.ptsdfreedom.org/	MATCH-ADTC (Modular Approach to Therapy for Children with Anxiety, Depression, Trauma, or Conduct Problems) is an evidence-based treatment designed for children ages 6 – 15, which is designed to treat four common behavioral health concerns among children, including anxiety, depression, posttraumatic stress, and behavior problems. https://www.chdi.org/
CFTSI (Child and Family Traumatic Stress Intervention) is a structured flexible evidence-based early intervention model for youth 7 years old and older. An adaptation is also available for children ages 3-6. CFTSI is used within 45 days of a traumatic event or after the recent disclosure of physical or sexual abuse.	

For more information about trauma-focused treatments or service locations in Connecticut, please see: Child Health and Development Institute of Connecticut, Inc. <https://www.chdi.org/publications/resources/map-trauma-focused-treatments-children/>

References

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2. Connecticut State Department of Education. www.ct.gov/sde/backtoschool
3. Maternal, Infant, and Early Childhood Home Visiting Program, Connecticut Department of Public Health.
4. Stone, C (2013) Association between number of adverse events in childhood and adult risk behaviors and poor health outcomes, Connecticut Department of Public Health, Hartford, Connecticut.
5. Smith, MV, Gotman, N, Yonkers, K (2016), Early childhood adversity and pregnancy outcomes. *Matern Child Health J*; 20 (4): 790-798.
6. Connecticut Behavioral Risk Factor Surveillance System: Connecticut Behavioral Risk Factor Surveillance System Questionnaire. <https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/BRFSS/BRFSSCT2017pdf.pdf?la=en>
7. Connecticut Department of Public Health: Connecticut Behavioral Risk Factor Surveillance System. <https://portal.ct.gov/DPH/Health-Information-Systems--Reporting/Hisrhome/Connecticut-Behavioral-Risk-Factor-Surveillance-System-CT-BRFSS>