Connecticut Adverse Childhood Experiences (ACEs) State Profile and Trend Report: 2021

Draft Version | November 2021

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With the support from the State Epidemiological Outcomes Workgroup – Adverse Childhood Experiences Workgroup.

Table of Contents

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INTRODUCTION

Connecticut's 2021 ACE State Profile and Trend Report was developed by research staff in the UConn Health Department of Public Health Sciences (DPHS), with support from the DMHAS Center for Prevention Evaluation and Statistics (CPES) at UConn Health, and with significant input from the SEOW ACE Workgroup, a subcommittee of Connecticut's Statewide Epidemiological Outcomes Workgroup (SEOW). Like the surveillance capacity assessment upon which it is based, the 2021 State Profile and Trend Report is a foundational activity of Connecticut's Preventing Adverse Childhood Experiences – Data to Action (PACE-D2A) initiative, funded by the Centers for Disease Control (CDC). This profile takes into account data that is available to date, and will be updated annually or as significant new data become available. Data presented in this report will also provide the content base for Connecticut's ACE surveillance system, the ACE Data Portal, within the SEOW Prevention Data Portal.

The identification of the ACE/PCE indicators described in this report is the result of a collaborative review process conducted by UConn Health and the SEOW ACE Workgroup. Each indicator was assessed using the data quality criteria historically utilized by the SEOW, and described in the PACE: D2A Data Management Plan (DMP) and the Adverse and Positive Childhood Experiences (ACE/PCE) Surveillance Capacity Assessment Technical Report. For questions about this report, contact Mayte Restrepo, PhD (restreporuiz@uchc.edu).

Background

Adverse Childhood Experiences (ACEs) are preventable, potentially traumatic events that occur in childhood. Adverse childhood experiences include: physical, sexual, and emotional abuse; neglect, experiencing or witnessing domestic violence. ACEs may also include aspects of children's family environments that can undermine their sense of safety, stability, and bonding such as growing up in a household with substance misuse, mental health problems, or family instability due to parental separation or incarceration of a parent/caregiver. In addition, other conditions outside the family environment can adversely affect children's wellbeing such as experiencing or witnessing school or community violence, being victims of bullying and racial/ethnic discrimination, and being victimized by dating violence.

The link between ACEs and adverse adult health and social outcomes has been well documented (Merrick et. al, 2019). Preventing ACEs for children promotes lifelong physical and mental health and well-being, and increases educational and occupational attainment. Consequently, preventing ACEs is critical to improve health and socioeconomic outcomes throughout the lifespan. Understanding the scope and breadth of ACEs in the state is the first critical step in preventing ACEs for Connecticut's children.

The Report

Purpose

The purpose of this initial state profile and trends report is to organize, summarize, and present state-level ACE-relevant data across a variety of sources and constructs, as a collective base for understanding ACEs in Connecticut, and monitoring ACEs, ACE risk and resilience factors, and social determinants of health (SDOH) in the state over time. The state profile and trend report will be supplemented by a subsequent disparate burden report, which will examine subpopulation data (demographic, geographic, and other factors) to assess the burden of ACEs on at-risk and underserved groups in our state. These reports, and the surveillance system that will be built upon these indicators,

will help stakeholders in Connecticut to understand the scope of the ACE problem, where and when ACEs are most likely to occur, and who is at greatest risk for ACEs and ACE-related health and social impacts. Data in these profile and disparate burden reports will collectively support and inform agency decision-making, policy briefs, legislative and advocacy work, and allocation and expansion of ACE prevention services in Connecticut.

Structure

The report contains three sections that present trend data for selected ACE indicators in Connecticut as well as risk and protective factors. Section 1 contains data on ten long-established ACEs as well as additional experiences that were identified following the original ACE research (Felitti et al., 1998). This first section is organized in three sub-sections: a) Household and Community Challenges, b) Child Maltreatment, and c) ACEs in School/Peer Settings. Specific ACEs included in these subsections are presented in Table 1.

Section 2 is dedicated to selected Risk Factors that have been associated with ACEs. Given that ACEs include different types of experiences, many risk factors have been identified through the research literature. Data is presented on those risk factors most closely associated with ACEs, including living in poverty, experiencing financial and food insecurity, caregiver's education level, health insurance status, and parental adverse experiences in their childhood. Section 3 presents data on Protective Factors in youth that the literature has found significant, including the presence of caring adults, agency or self-efficacy, and community involvement. A discussion of findings and next steps are presented in the final portion of this report.

Data sources and Indicators

A careful selection of data indicators and sources was conducted for this report. Not all indicators included in the ACEs Surveillance Capacity Technical Report were included in this profile. Indicators were chosen with the goal of constructing a comprehensive and understandable profile of ACEs indicators in

Connecticut's children. Administrative data and survey data were used for this report. We have provided data for the United States as a referent where comparable national data are available and appropriate. The data sources used for each section in the report and years included for each in the trend analysis are identified in Table 1.

Table 1. ACEs, Risk & Protective Factors Included and Data Sources Used in the ACE State Report

ACEs Categories	ACEs, Risk & Protective Factors Included	Data Source	Type of Data	Data Years
Household and Community Challenges	• Exposure to physical domestic violence • Growing up in a household with mental health problems • Growing up in a household with substance use problems • Divorce or separation • Incarceration of a parent/caregiver • Death of a parent/caregiver • Racial or ethnic discrimination • Community violence	National Survey on Child Health (NSCH)	Survey data (Parent Report)	2019
Child Maltreatment	• Physical abuse • Sexual abuse • Emotional abuse • Neglect	National Child Abuse and Neglect Data System (NCANDS)	Administrative data	2015 to 2019
		CT Hospital Association - ChimeData®	Administrative data	2016 to 2020
ACEs in School/Peer Settings	• Bullying • School violence • Teen dating violence	CT School Health Survey (CSHS) National YRBS	Survey data (Youth Report)	2015 2017 2019
Risk Factors	• Poverty	American Community Survey (ACS)	Survey data (Adult Report)	2015 to 2019
	• Financial insecurity • Food insecurity	Community Wellbeing Survey (CWS)	Survey data (Adult Report)	2018 & 2021
	• Parental education attainment • Parental ACEs	Behavioral Risk Factor Surveillance System (BRFSS)	Survey data (Adult Report)	2015 to 2020
Protective Factors	• Presence of a caring adult • Agency/Self-efficacy • Community involvement	CT School Health Survey (CSHS)	Survey data (Youth Report)	2015 2017 2019

Section 1 | Indicators of Adverse Childhood Experiences

The original ACE study (Felitti et al., 1998) included ten ACEs that are commonly classified in three main categories: *child abuse, child neglect, and household challenges*. For this report, the death of a parent/caregiver has been added to the ACE inventory as well as other adverse experiences that happen outside the home or family such as experiencing violence in the school, community and with a dating partner. The data come from administrative and survey sources. When appropriate, four or five years of trend data are presented, as well as US data as a reference point.

A. Household and Community Challenges

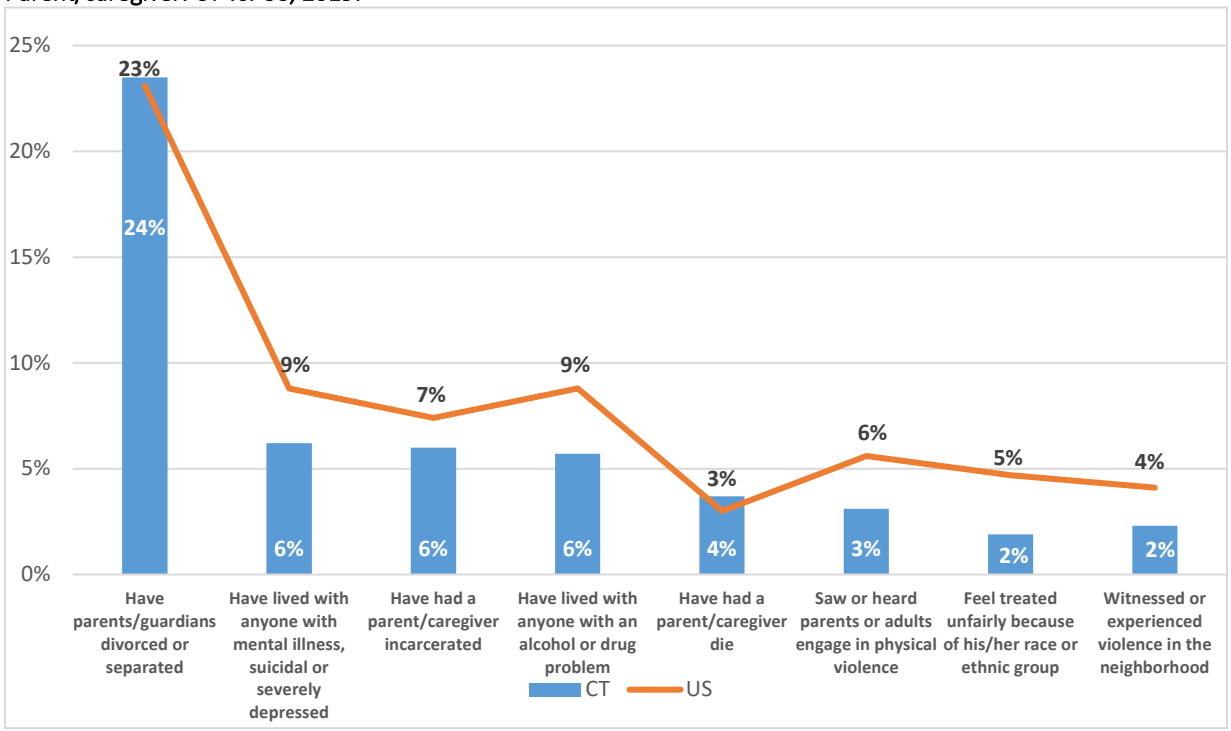
Data on ACEs related to Household and Community Challenges are available through the National Survey on Children's Health (NSCH), which is the most used survey to report ACEs data. The NSCH is funded and directed by the Health Resources and Services Administration's (HRSA) Maternal and Child Health Bureau (MCHB) and provides information on the health and well-being of children ages 0-17 years in the US. The NSCH is a mail and web-based survey conducted with a national representative sample every year by the Census Bureau in all 50 states and the District of Columbia. For the survey, participants are randomly sampled by address and selected if there is one or more children between 0 and 17 years of age living in the household. One child per household is randomly selected to be the subject of the questionnaire, which is administered to the parent/caregiver. Thus, all information pertaining to the child's experience is reported by the adult parent/caregiver. Report of household challenges by the parent/caregiver potentially involves underreporting biases due to stigma, fear of disclosure, or lack of acknowledgment of the existence of a particular challenge.

The survey is weighted to be representative of the US population of non-institutionalized children ages 0-17. In 2019, the total sample for Connecticut was 2956 families, and of those, 1879 were families with children 17 years or younger. Participants on the child's exposure to ACE Household and Community

Challenges at any time in her/his life. The NSCH does not include questions about child abuse. Traditional Household Challenge-related ACEs include the exposure to physical domestic violence, parental divorce, living with someone with mental health problems, severe depression or suicidality, living with someone with substance use problems, and having a parent or caregiver incarcerated. The NSCH provides data on three additional Household and Community Challenges, including the death of a parent/caregiver, children's experiences of discrimination because of their race or ethnicity, and children's experiences of community violence. Although data is available for several years, this report shows only data for the 2019 survey for these eight Household and Community Challenge-related ACEs given that answers are provided based on a lifetime report ("Has this child EVER experienced any of the following?").

Prevalence of ACEs Related to Household and Community Challenges in Children: CT vs. US, 2019.

Figure 1. Prevalence of ACEs Related to Household and Community Challenges in Children as Reported by the Parent/caregiver: CT vs. US, 2019.



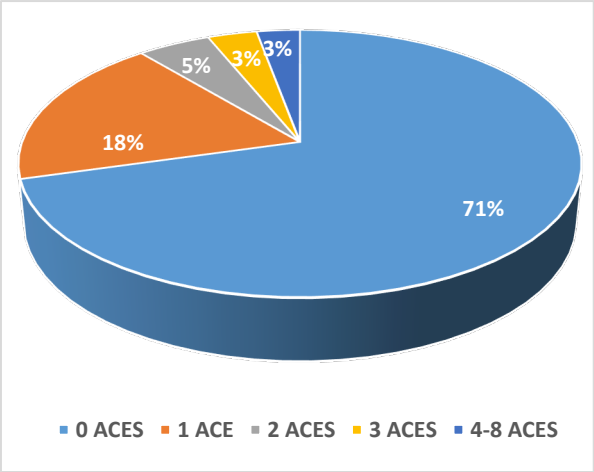
Data Source: NSCH 2019

Figure 1 shows the prevalence of each of the ACEs related to Household and Community Challenges as reported by the parent/caregiver in 2019. Data shows that parents' divorce is the most prevalent ACE

related to Household Challenges for children in Connecticut and nationally, 24% and 23% respectively. The next most prevalent ACEs are having lived with someone with substance use, alcohol problems, or having had a parent/caregiver incarcerated, 6% each in Connecticut. Based on the 2019 NSCH, just 3% of the state's children have witnessed physical violence between their parents/caregivers. Statewide, the least prevalent Household Challenge-related ACE experiences are community violence and racial discrimination. The prevalence of ACEs related to Household and Community Challenges is lower in Connecticut compared to the US with the exception of parental divorce and experiencing the death of a parent/caregiver.

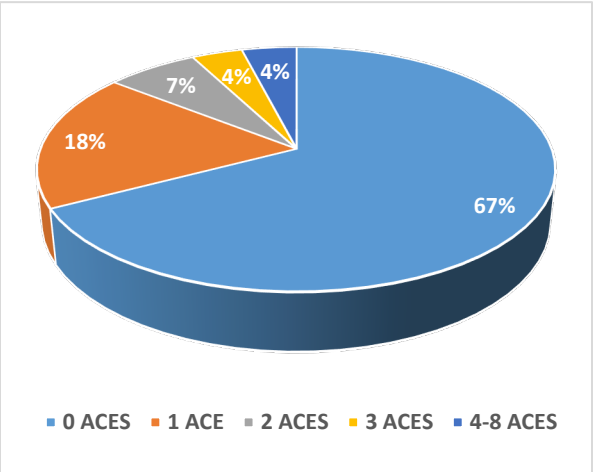
Cumulative Household and Community Challenges-Related ACEs on Children

Figure 2. Cumulative Household Challenge-Related ACEs in CT Children as Reported by Parents/Caregivers.



Data Source: NSCH 2019

Figure 3. Cumulative Household Challenge-Related ACEs in US Children as Reported by Parents/Caregivers



Data Source: NSCH 2019

Figures 2 shows the cumulative number of ACEs related to Household and Community Challenges that parents/caregivers reported. According to the adult, 71% (n=516,483)[1] of children in Connecticut did not experience any ACE-related Household or Community Challenges. Of the 29% (n=210,957) of

[1] Based on the Census Bureau estimates, there were approximately 727,440 children who were 17 years old or younger in Connecticut in 2019.

children who did experience Household and Community Challenges, 18% (n=130,939) experienced one ACE, 8% (n=58,195) experienced two or three ACEs, and 3% (n=21,823) of children experienced four or more ACEs. Figure 3 shows the cumulative number of ACEs related to Household and Community Challenges for US children as reported by the parents/caregivers. Data shows that a lower percentage of Connecticut children had experienced Household and Community Challenges-related ACEs compared to US children (29% vs 33%, respectively). Likewise, a lower percentage of Connecticut children experienced multiple ACEs related to Household and Community Challenges compared to children nationally (11% vs 15%).

B. Child Abuse and Neglect

Administrative data on child abuse and neglect from the Department of Children and Families (DCF) and Emergency Room visits were used for the present report. DCF child abuse and neglect data are publicly available and were obtained from the National Child Abuse and Neglect Data System (NCANDS) Child Maltreatment Reports, to which DCF reports annually. Hospital (ChimeData®) data were obtained from the CT Children's Medical Center Injury Surveillance System Principal Investigator, Dr. Amy Hunter. While DCF child abuse and neglect data consist of children whose parents/caregivers involved with the child welfare system, the ChimeData® reflects those children who have been taken to the emergency room and whose discharge records identify the ICD-10 code for confirmed child maltreatment (ICD-10-CM), including neglect, physical, sexual, or psychological abuse, sex exploitation, forced labor exploitation, and unspecified. Oftentimes these cases represent the most extreme cases of abuse.

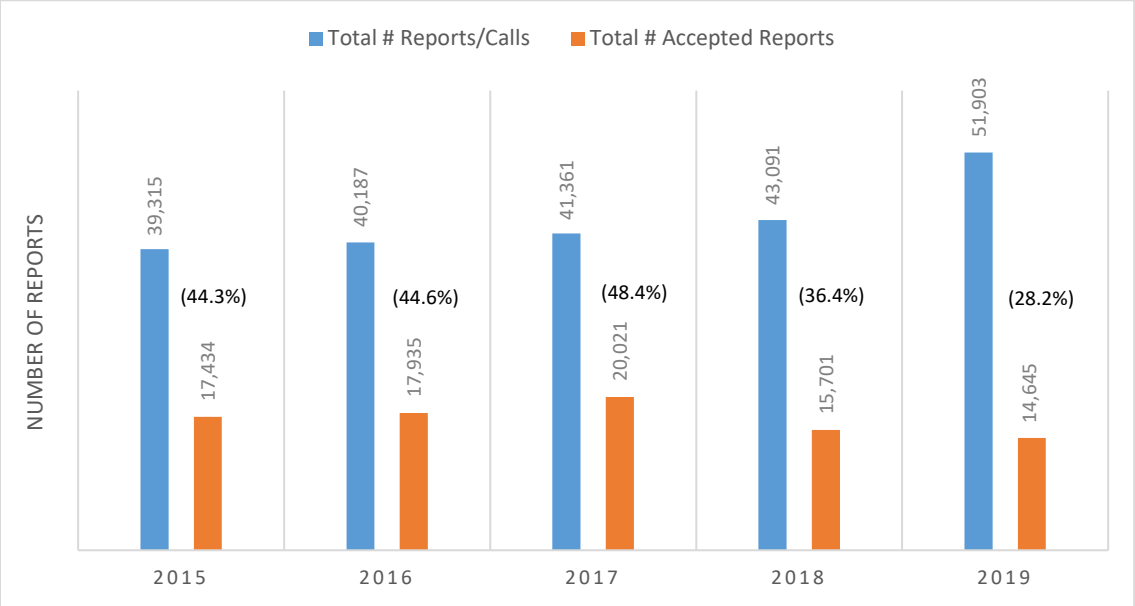
Child Abuse and Neglect in the Child Welfare System (DCF)

The NCANDS reporting year is based on the Federal Fiscal Year (FFY) calendar, October 1 through September 30. States submit case-level data by constructing an electronic file of child-specific records for each report of alleged child abuse and neglect that received a Child Protective Services (CPS) response.

Each state's file only includes completed reports with a disposition (or finding) as an outcome of the CPS response during the reporting year.

Number of calls made to DCF and number screened-in referrals

Figure 4. Number of Calls Made to DCF and Number of Screened-In Referrals by DCF: CT, 2015-2019.*



Data Source: Child Maltreatment Reports; US Children's Bureau (2015-2019)
* Reports may involve one or more children.

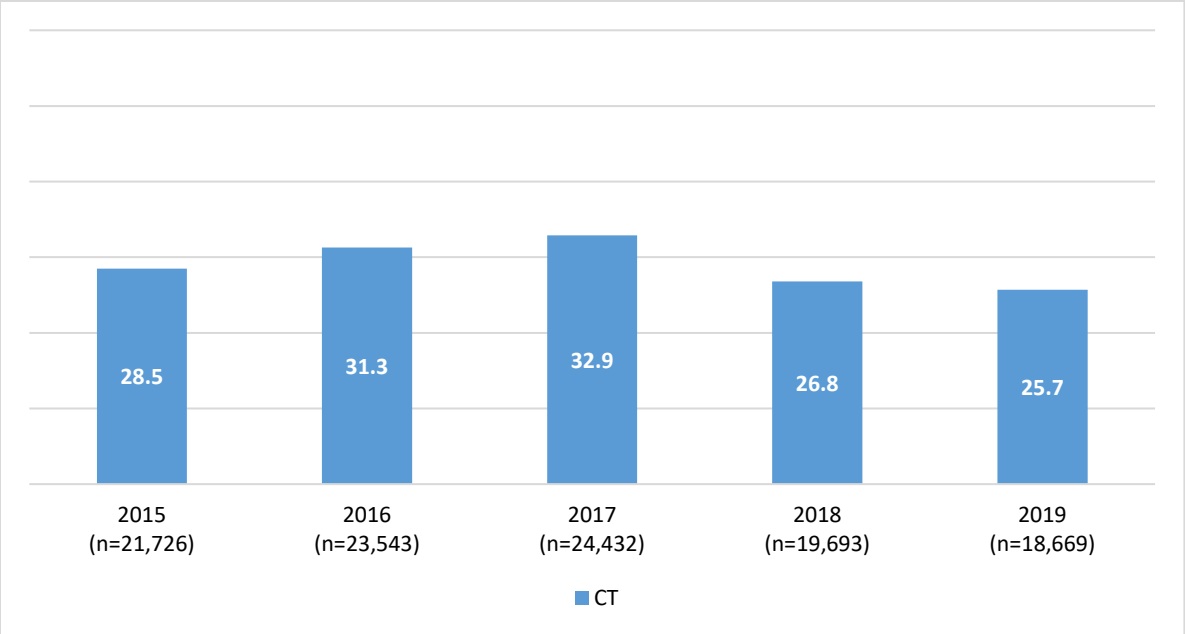
Figure 4 shows the number of annual calls made to DCF in a five-year period from 2015 to 2019 and the number and percentage of screened-in referrals, which are the referrals accepted by the DCF Careline staff for an investigation or alternative response. It should be noted that the number of referrals may reflect one or more children per report. Data shows that over time, there was a gradual increase in the number of referrals for child maltreatment to DCF. While there were 39,315 reports made in 2015, there were 51,903 reports in 2019. However, while the number of screened-in referrals increased slightly from 2015 to 2017, it decreased in 2018 and 2019. In their report to the NCANDS, DCF described two reasons that explain the increased number of reports made to DCF in 2019. These reasons include: i) having added categories of professionals who are mandate reporters to the CT General Statute Chapter 319a,

Sec. 17a-101, and ii) an increase in the number of people trained in mandated reporting (State Commentary to NCANDS, in Child Maltreatment Report 2019).

With regard to the number of screened-in referrals, DCF stated in their NCANDS reporting that there are several reasons why a referral may not be accepted for investigation or services (alternative response). Among these are: not meeting the child abuse and neglect criteria, insufficient information for a DCF response to occur, children in the referral are the responsibility of another agency or jurisdiction such as the military or a tribe, or children involved in the referral are older than 18 years of age.

Children who received an investigation

Figure 5. Rate of Children Who Received a Child Welfare Investigation (rate per 1,000 children): CT, 2015-2019.



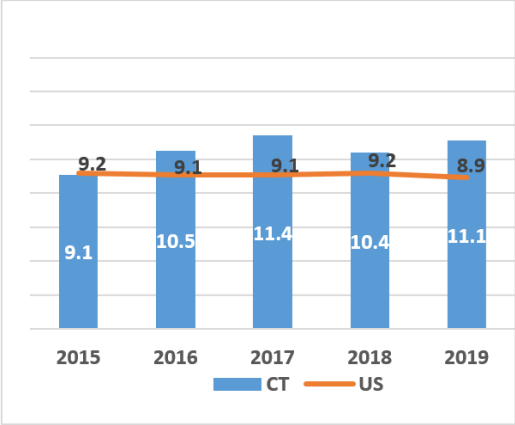
Data Source: HHS et al. Child Maltreatment, 2015-2019.

Figure 5 shows the total number of children and the rate per one thousand children for which DCF considered there were grounds for an investigation. This rate reflects unique children and is obtained by dividing the relevant reported count by the number of children 17 and younger in the population and multiplying by 1,000. NCANDS uses the child population estimates that are released annually by the U.S. Census Bureau. Trend data shows that after an increase in the rate of children who experienced

situations worthy of an investigation for child abuse and neglect by DCF from 2015 to 2017, there was a decline from 2017 to 2018 that also continued in 2019. While in 2015, statewide the child maltreatment situations of 28.5 children per 1000 children (or 2.9%) were investigated, in 2019 a smaller number, 25.7 per 1000 (or 2.6%), were investigated.

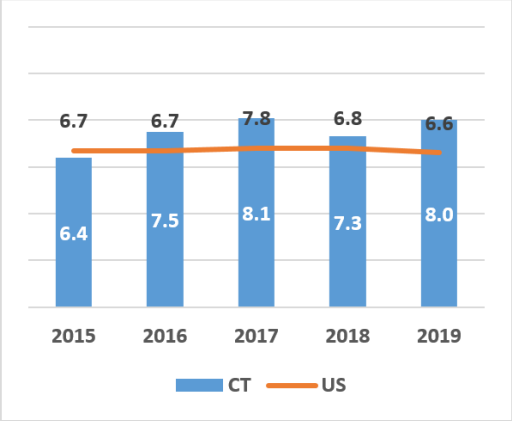
Victims of child abuse or neglect

Figure 6. Rate of Children Determined to Be Victims of Child Abuse or Neglect: CT, 2015-2019.



Data Source: HHS et al. Child Maltreatment, 2015-2019.

Figure 7. Rate of First-time Victims in the Child Welfare System: CT, 2015-2019.



Data Source: HHS et al. Child Maltreatment, 2015-2019.

The NCANDS defines as a child abuse victim a child for whom the state determined at least one maltreatment report was substantiated or indicated, with a disposition of substantiated or indicated for each child in a report. Children who died because of child abuse and/or neglect are included in the number of victims of child abuse. This rate represents unique counts.

Figure 6 shows the rate of children who were found to be victims of abuse or neglect in Connecticut and the US from 2015 to 2019. In 2015, the rate of abused or neglected children per 1,000 children in the state was very similar to the national rate and although the US rate was steady through this 5-year period, the Connecticut rate has increased and has been higher than the national average since 2016. By 2019, 11.1 children per 1,000 were found to experience abuse or neglect in Connecticut, higher than the

US rate of 8.9 per 1,000 children. As Figure 7 shows, in each year the majority of these children in the state and nationally were first-time victims.

Table 2 shows the total number of children who were found to be victims of abuse or neglect by DCF.

Table 2. Number of Children Determined to Be Victims of Abuse or Neglect by DCF: 2015-2019

Year	Number of Children
2015	6,930
2016	7,903
2017	8,442
2018	7,652
2019	8,042

Data Source: HHS et al. Child Maltreatment, 2015-2019.

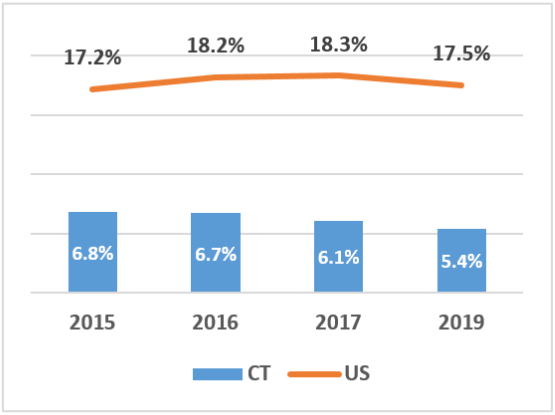
Types of Child Abuse

The following three figures (8-10) show the percent of children who were reported to be victims of physical and sexual abuse, and psychological maltreatment in Connecticut and nationally. This analysis counts victims with one or more maltreatment types, but counts them only once regardless of the number of times the child is reported as a victim of the maltreatment type. Since a child may be a victim of more than one type of maltreatment, the type of child abuse can be a duplicate count. The NCANDS did not report this analysis for 2018.

As Figures 8 and 9 show, the percentage of children with physical and sexual abuse reports in Connecticut decreased from 2015 to 2019. While 6.8% (n=472) of children experienced physical abuse in 2015, 5.4% (n=434) did in 2019. Similarly, while 5.6% (n=391) of children experienced sexual abuse in 2015, 4.7% (376) did in 2019. There are large differences between the rates of physical and sexual abuse in

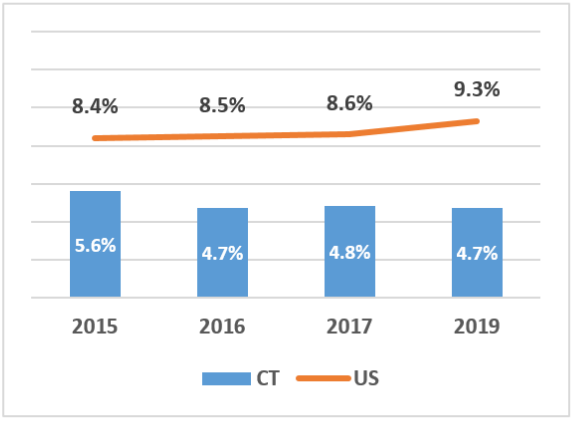
Connecticut and the US, which may be due to the different criteria used by states for physical and sexual abuse.

Figure 8. Percent of Children in Child Welfare Who Are Victims of Physical Abuse: CT vs. US, 2015-2019.



Data Source: HHS et al. Child Maltreatment, 2015-2019.

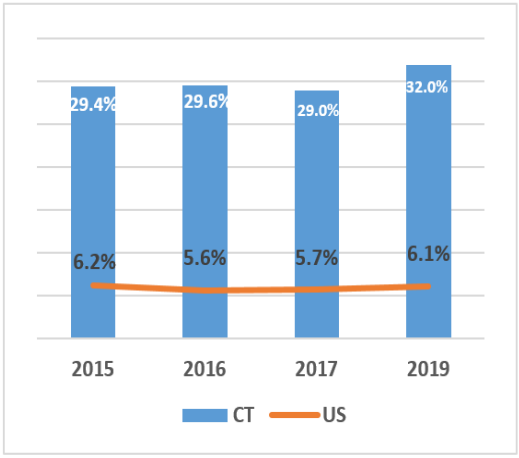
Figure 9. Percent of Children in Child Welfare Who Are Victims of Sexual Abuse: CT vs. US, 2015-2019.



Data Source: HHS et al. Child Maltreatment, 2015-2019.

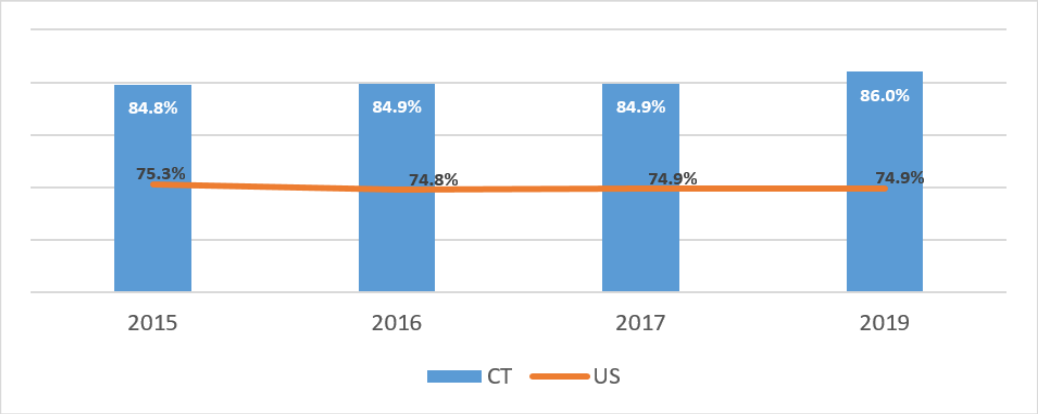
NCANDS data show that a higher percentage of children in Connecticut's welfare system were identified as experiencing psychological abuse compared to those nationally (Figure 10), which may be due to the broad criteria Connecticut uses for psychological abuse. Connecticut considers psychological abuse any act or statement or threat that has had, or is likely to have an adverse impact on the child, and/or interferes with a child's positive emotional development. Emotional abuse includes, but is not limited to, rejecting or degrading a child, isolating and victimizing a child with excessive methods of discipline, and exposure to domestic violence.

Figure 10. Percent of Children in Child Welfare Who Are Victims of Psychological Abuse: CT vs. US, 2015-2019.



Data Source: HHS et al. Child Maltreatment, 2015-2019.

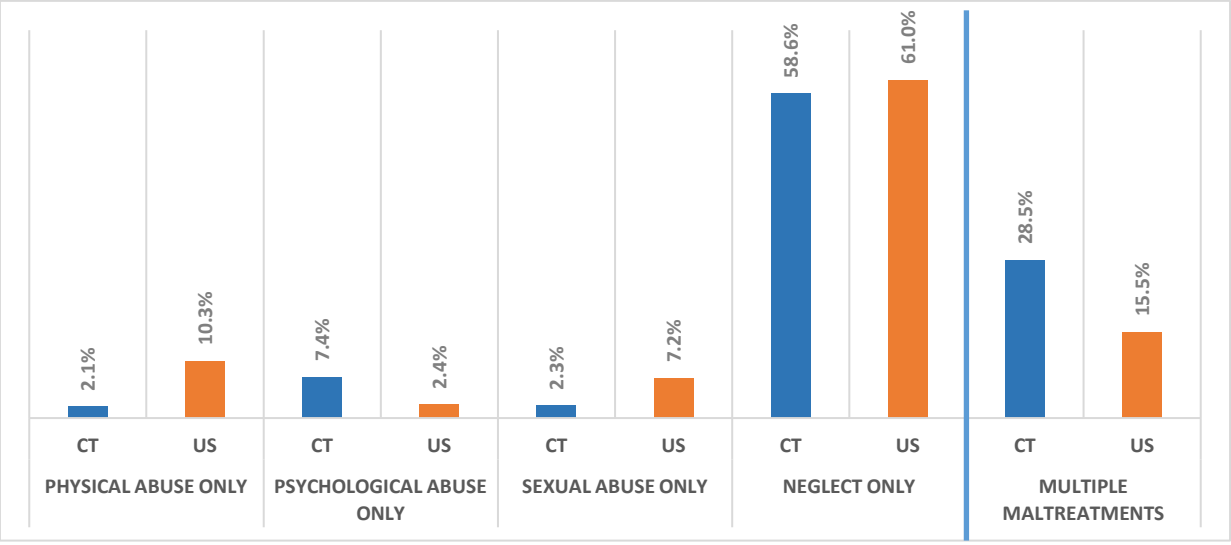
Figure 11. Percent of Children in Child Welfare Who Are Victims of Neglect: CT vs. US, 2015-2019.



Data Source: HHS et al. Child Maltreatment, 2015-2019.

A large majority of children that have come to DCF's attention experience neglect, which may include physical, educational and emotional neglect (Figure 11). DCF defines physical neglect as a failure - whether intentional or not - of the person responsible for the child's health, welfare, or care. It includes cases of abandonment, action or inaction resulting in failure to thrive or death, and lack of proper physical care and attention such as inadequate clothing or hygiene, malnutrition, inadequate supervision, and inadequate shelter. Emotional neglect relates to the denial of proper care and attention, or failure to respond, to a child's affective needs by the caregiver that has an adverse impact on the child's emotional development. Educational neglect occurs when a caregiver fails to register a child (5 – 17 years old) for school, fails to allow the child to attend, fails to take appropriate steps to ensure regular attendance at school if the child is registered (DCF Structured Decision Making. Policy and Procedures Manual, 2008).

Figure 12. Children in the Child Welfare System with Unique and Multiple Types of Abuse: CT vs. US, 2019

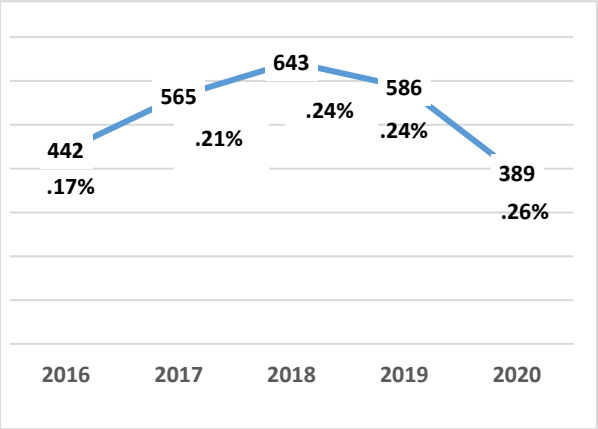


Data Source: HHS et al. Child Maltreatment, 2015-2019.

Additional data from NCANDS for 2019 show the percent of children who experience only one type of abuse/neglect in Connecticut and nationally. This analysis counts victims with a single type of maltreatment, for example, psychological abuse only or neglect only. If a victim is reported with two or more abuse/neglect types, the victim is counted in the multiple maltreatments category once. If a victim is reported with the same maltreatment type twice, the victim is counted in that category once. In 2019, more than half of Connecticut's children involved with the child welfare system experienced only neglect while more than a quarter experienced multiple types of abuse (Figure 12).

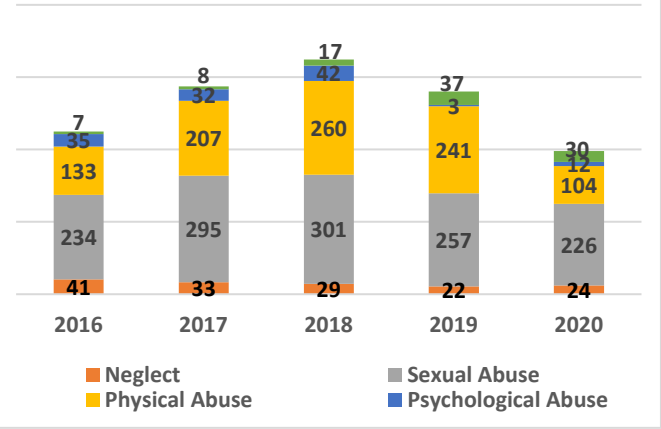
Emergency Department Visits Due to Child Abuse

Figure 13. ED Visits Related to Child Maltreatment



Data Source: ChimeData® (2016-2020)

Figure 14. ED by Type of Child Maltreatment



Data Source: ChimeData® (2016-2020)

The hospital data reported here are derived from discharge records from emergency departments that identified ICD-10 codes of confirmed child maltreatment (T74-) including physical, sexual, and psychological abuse as well as sex and labor exploitation, and cases where the type of abuse was unspecified. This data is available from the ChimeData® system held by the Connecticut Hospital Association and obtained through collaboration with the CCMC Injury Surveillance System Principal Investigator. It should be noted that the ChimeData® likely captures the most severe physical and sexual abuse cases resulting in trauma requiring emergency medical care.

Figure 13 shows counts for maltreatment-related emergency department visits in children living in Connecticut from 2016-2020 and the percentage of child maltreatment-related emergency department visits compared to the percent of all emergency department visits for each year. Findings show that from 2016 to 2018, the number of children that were seen at the emergency department increased gradually and then declined in 2019 and 2020. It is important to note that the Covid-19 pandemic probably accounts for the total number of visits to the emergency department decreasing in 2020. Although the counts of child maltreatment-related visits was lower in 2020 compared to previous years, the percentage of all emergency

department discharges was higher. The trend data shows that the percentage of emergency department visits related to child maltreatment has progressively increased in the last five years, but they are very low (less than 1%) and include a small number of children. Figure 14 shows that of those children who went to the emergency department because of maltreatment, the large majority sought medical services because of sexual and physical abuse.

C. ACEs in School/Peer Settings

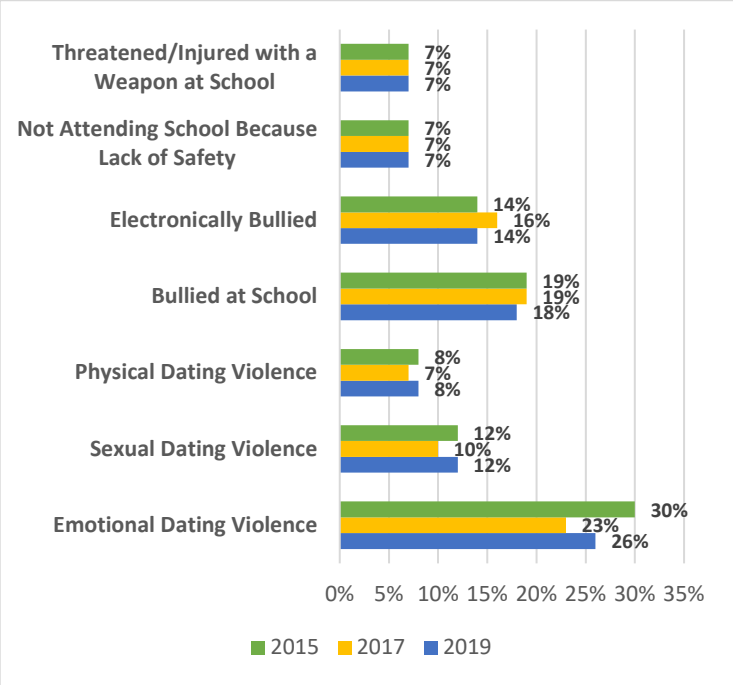
Bullying, school violence, and teen dating violence have been identified as additional ACEs. Data for these variables for Connecticut's high school-aged population are available from the Connecticut School Health Survey (CSHS), which is the state's Youth Behavioral Risk Survey (YRBS). The CSHS is a weighted, representative school-based survey of students in grades 9 – 12 in the state, based on randomly chosen classrooms within selected schools, and is anonymous and confidential. The YRBS is one component of the Youth Risk Behavior Surveillance System (YRBSS) developed by the Centers for Disease Control and Prevention in collaboration with representatives from state and local departments of education and health, other federal agencies, and national education and health organizations. The YRBS measures behaviors among youth related to the leading causes of mortality and morbidity to assess how these risk behaviors change over time. Comparative data are available from the national YRBS.

In 2020, the CT Department of Public Health (DPH), which manages the CSHS, was awarded funding from the Centers for Disease Control to include an ACE module in the 2021 administration of the CSHS, including items on abuse, neglect, and household/family challenges. The focus of the 2021 CSHS will make this survey a key surveillance tool for ACEs, as well as an important source of data on positive childhood experiences and resilience factors that can serve to mitigate the effects of ACEs. Youth reports will reflect their experiences in the last 12 months. While these data are not yet available, the 2019 CSHS, as well as prior administrations,

have captured data on bullying, school violence, and teen dating violence, which have been identified as additional ACEs which occur outside the family environment, in school and peer settings.

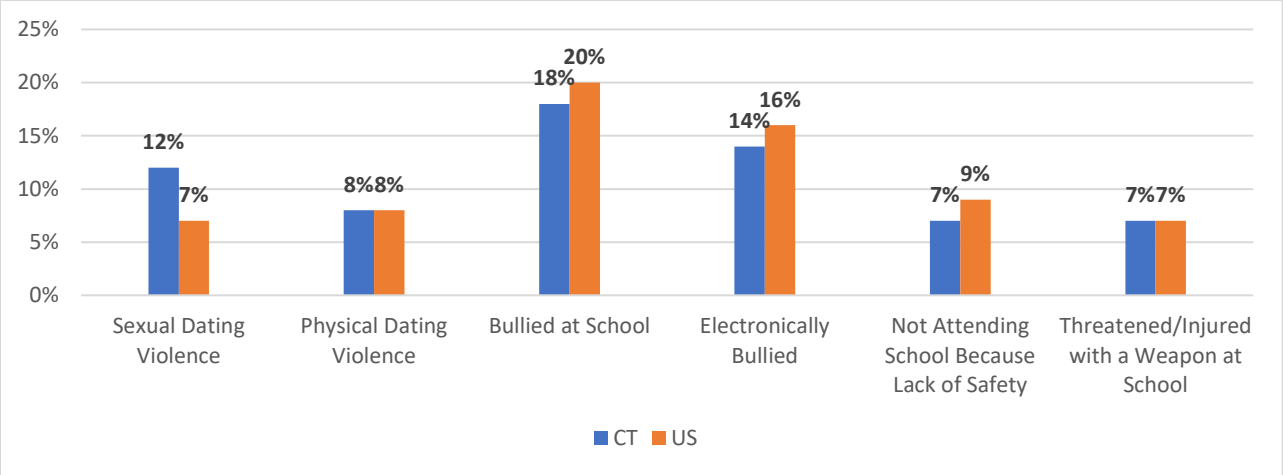
As Figure 15 shows, the most prevalent ACE reported by Connecticut youth in recent administrations of this survey is being emotionally hurt or controlled by a dating partner, 26% in the most recent year for which data are available. Being bullied at school and electronically are ACEs that are reported next most often. In general, the reported rates of these ACEs have stayed relatively stable over time and statistical analysis conducted by DPH shows no change in these indicators from 2017 to 2019.

Figure 15. ACEs in School/Peer Settings as Reported by CT Youth: 2015, 2017, & 2019.



Data Source: Connecticut School Health Survey (CT DPH)

Figure 16. ACEs in School/Peer Settings for CT and US Youth, 2019.



Data Sources: 2019 Connecticut School Health Survey (CT DPH) & 2019 YRBS

When compared to the national data, the prevalence of ACEs in School/Peer Settings in Connecticut are similar to that reported by their peers nationally (see Figure 16), with the exemption of sexual dating violence, in which a higher percentage of Connecticut youth experience compared to national estimates. Unfortunately, data are not available on emotional dating violence at the national level and consequently a comparison is not feasible.

Section 2 | Risk Factors for ACEs

Data on the following risk factors is presented in this report: poverty, financial and food insecurity, parental educational attainment, and parental ACEs.

Poverty and financial stress has been found to be strongly associated with childhood adversities. A recent system review found 29 studies that reported strong associations between poverty and child maltreatment (Hunter and Flores,2020). In addition, families living in poverty are more likely to be reported to the child welfare system for neglect (Yang, 2015). Poverty and financial challenges are also linked to parental divorce/separation, maternal mental health problems, and sexual abuse. Lacey et al. (2020) explain that financial hardship place great stress on parental relationships and increases the risk for conflict, violence and separation while poverty has also been identified as a risk factor for maternal mental health problems. Additional studies have found that individuals living in poverty conditions or experiencing great financial stress tend to report higher ACE scores (Liming, 2018; Metzler et al., 2017; Steele et al., 2016). A sytematic review identified 11 studies that reported associations between housing instability and child maltreatment and one study that linked food insecurity to increased rates of parental aggression (Hunter and Flores, 2020). Thus, reduction in poverty and increasing economic wellbeing of families are critical for the prevention of ACEs. Economic and social measures that help families to break the poverty cycle such as supplemental income and housing interventions have shown effective to reduce ACEs, in particular child maltreatment and parental substance use (Courtin et al., 2019).

Several studies have shown the association between low parental education attainment, measured as less than a high school diploma, and child maltreatment (Hunter, A., and Flores, G., 2020; Weissman et al., 2003; Slack et al., 2004; Slack et al., 2017; Greely et al., 2016; Coulton et al., 1999; Berger, 2007). Low education levels have been associated with financial stress and increased mental health risk (Callander and Schofield, 2016).

The literature suggests that parental exposure to ACEs in childhood is a risk factor for their children's risk of ACEs; parents often perpetuate the risks they experienced in their own childhood. Research has shown that having experienced abuse and lack of family support as a child has been linked to perpetrating child abuse later in life (Black et al., 2001). Likewise, one of the potential risk factors for experiencing domestic violence is early exposure to violence during childhood. Women exposed to domestic violence in their childhood or adolescence experience intimate partner violence later in life more than twice as often as those who did not experience domestic violence in their childhood (Flury et al., 2010). An additional risk factor for domestic violence is low family income (Smith Slep et al., 2015). Among the risk factors that have been found for substance abuse are family history of substance use and traumatic experiences including sexual abuse, physical violence and witnessing violence (Danielson, C., et al., 2009), as well as a family history of mental health disorders (Swendsen, J., et.al., 2009). ACEs often predict mental illness in later life such as depression and other psychological distress symptoms (Kim et al., 2021). Furthermore, parental mental health problems and stress have been associated with child physical abuse (Black et al., 2001). The most commonly reported major contributors to divorce could be lack of commitment, infidelity, and conflict/arguing, but the true risk factors were often substance abuse and domestic violence (Scott et al., 2013).

Data on these risk factors were obtained from several sources, including the American Community Survey (ACS) conducted by the US Census Bureau every year, the Behavioral Risk Factor Surveillance System (BRFSS) conducted by DPH, and the Community Wellbeing Survey (CWS) conducted by DataHaven.

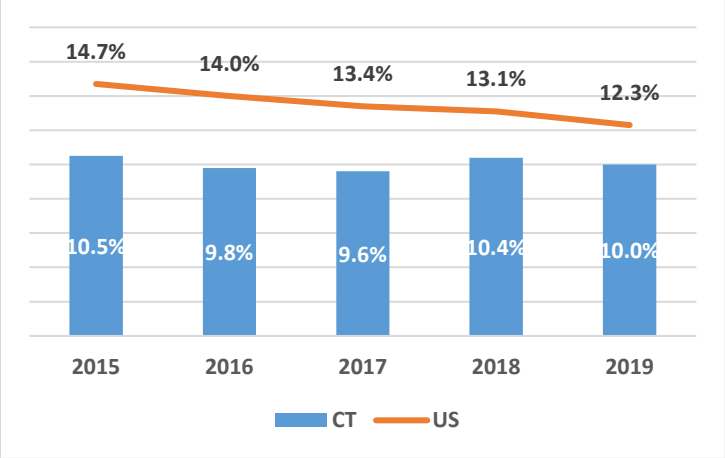
The ACS is an ongoing nationwide survey conducted by the U.S. Census Bureau that collects and produces information on social, economic, housing, and demographic characteristics of our nation's population. The Connecticut Data Collaborative (CTData) serves as the lead organization for the U.S. Census Bureau's State Data Center Program for Connecticut and is the state's official source for census data. The ACS data collection, based on a national representative sample of Americans, is conducted on a rolling monthly basis and the data are aggregated into 1, 3, or 5-year datasets. CTData maintains the five-year datasets for the state, as they are considered to be the most accurate and reliable data, especially for geographic areas that are the size of a county or smaller.

The BRFSS is a CDC-funded telephone survey of a representative sample of adults 18 and older residing in all 50 states and the territories in the U.S. In addition to the core questions, different modules focused on specific health issues are included from year to year to meet changing needs and state priorities. In 2012 and 2017, an ACE module was included in Connecticut's survey. Connecticut's BRFSS data is held by DPH and the state-level report of aggregate results are publicly available on the agency's website. The raw data are also available for analyses at the individual level. The CT BRFSS collects data from a representative sample of non-institutionalized English and Spanish-speaking adults residing in the state.

The CWS, designed by DataHaven, is a telephone survey of a representative sample of households in Connecticut that gathers information on wellbeing and quality of life in the state's diverse neighborhoods. This tri-annual survey provides unique data on the quality of life in Connecticut communities, including neighborhood safety, community support, perceived discrimination, substance use, health status and access to health care. The CWS also captures information about the presence of children under the age of 18 in the household.

Poverty and Financial Stress

Figure 17. Percentage of Households Living in Poverty in CT and US



Data Source: American Community Survey (2015-2019)

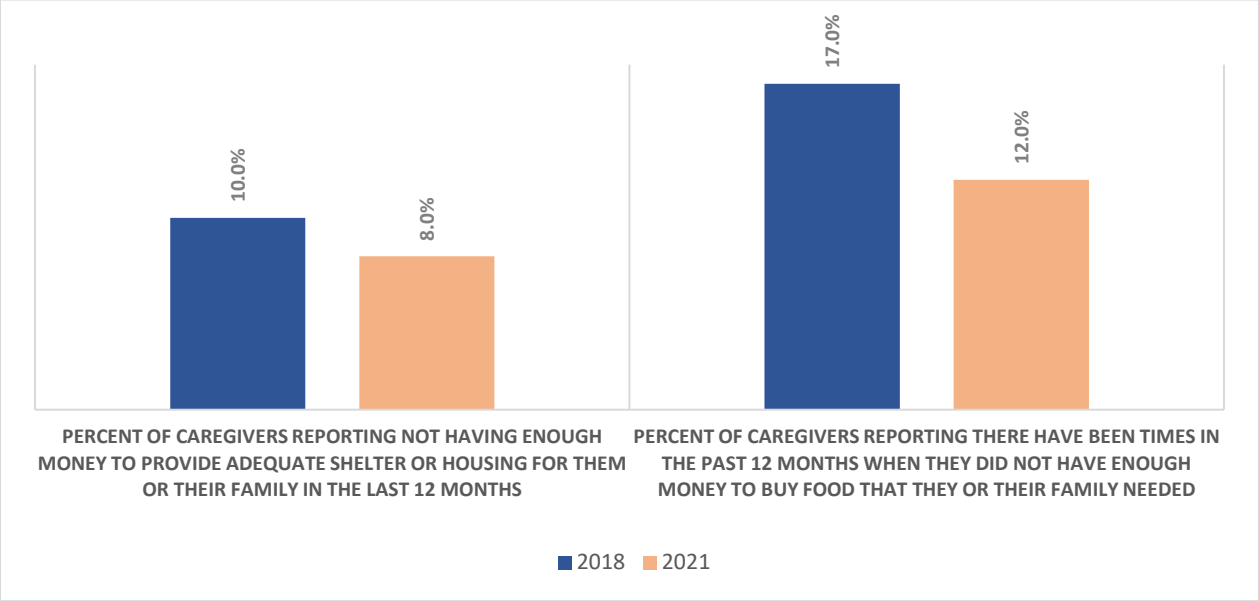
Table 3. Poverty Threshold from 2015 to 2019.

Year	Poverty Threshold (US Dollars)
2015	$24,036
2016	$24,339
2017	$24,558
2018	$25,465
2019	$25,926

Data Source: American Community Survey (2015-2019)

Figure 17 shows the percent of households living in poverty in the state and the US based on the following thresholds for a family of four with two children (see Table 3). Although the percent of families living under the poverty line is lower in Connecticut compared to the US, it is important to note that these thresholds are established at the national level and do not take into consideration the cost of living in each state. Calculations made by the Massachusetts Institute of Technology (2021) to establish the living wage for each state shows that for a family of four with two adults working in Connecticut for 2021, the living wage they need to earn to be able to pay for food, childcare, housing, transportation, other necessities, civic engagement and broadband is $22.55 dollars each. This situates the living family annual income at $74,797 dollars in Connecticut. In 2019, 37% of Connecticut families earned less than $75,000 dollars annually, of those 10% of the overall population earned $25,926 or less.

Figure 18. Financial and Food Insecurity in CT Parents/Caregivers



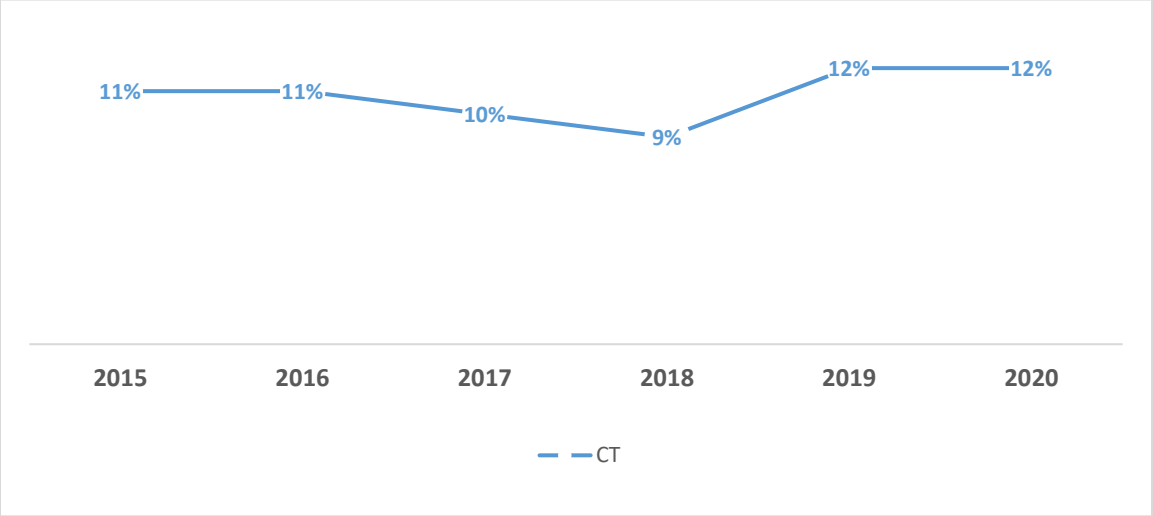
Data Source: Community Wellbeing Survey (2018 & 2021)

Data from the CWS conducted by DataHaven in 2018 and 2021 (Figure 18) show the percent of families who reported experiencing food and financial insecurity in the last 12 months. In 2018, 10% of parents/caregivers with children did not have enough economic resources to pay for adequate shelter while 17% of parents/caregivers did not have enough money to afford food for their families. Although data show a decrease on the percentage of families struggling to provide shelter and food in the state in 2021, it is important to note 2021 data are still preliminary and may also reflect effects of the COVID-19 pandemic and governmental response to help offset widespread loss of wages.

Parental Education Attainment

Data from the BRFSS show that the percentage of CT parents who attained less than a high school degree has remained stable, fluctuating between 11% in 2015 and 12% in 2020 (see Figure 19).

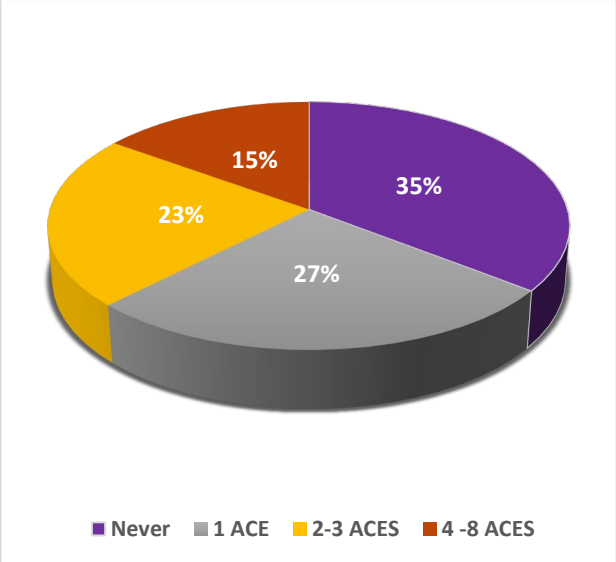
Figure 19. Percentage of parents/caregivers that have less than high school education in CT



Data Source: Behavioral Risk Factor Surveillance System (2015-2020)

Parental ACEs

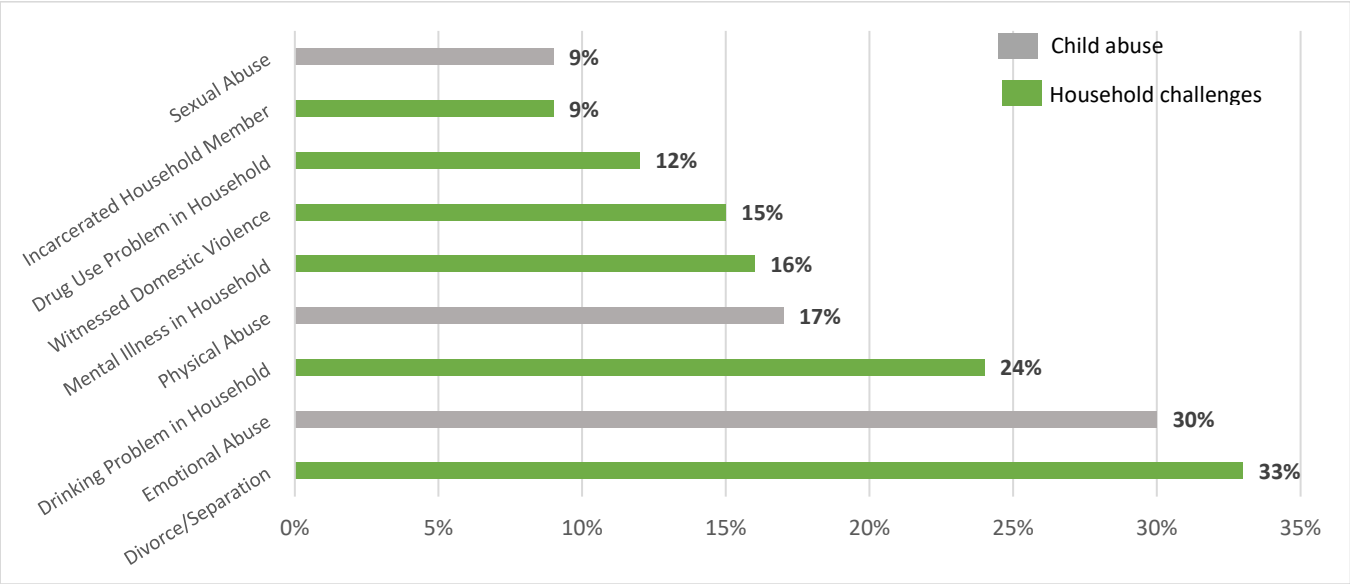
Figure 20. Cumulative ACEs in CT Parents.



Data Source: BRFSS 2017

Based on data from the 2017 BRFSS, 65% of parents/caregivers in the state reported that they experienced at least one ACE in their childhood, including 15% experiencing four ACEs or more (see Figure 20). The most prevalent ACE reported by parents/caregivers is having their parents divorced or separated. Among the ACEs related to child maltreatment, 30% of parents/caregivers reported emotional abuse while 17% experienced physical abuse and 9% sexual abuse. Almost a quarter of Connecticut parents had had a household member with alcohol use problems when they were growing up (see Figure 21).

Figure 21. Prevalence of ACEs in CT Parents



Data Source: BRFFS (2017)

Section 3 | Protective Factors for ACEs

Protective factors are those characteristics at the individual, family, and community levels that are associated with a lower likelihood of negative outcomes (National Research Council and Institute of Medicine Committee on the Prevention of Mental Disorders and Substance Abuse Among Children, Youth, & Young Adults, 2009). Protective factors at the individual level include personality traits, intellect, and self-efficacy. Family protective factors include growing up in a stable family, positive parental relationships, and supportive family relationships (Larkin et al., 2018). Protective factors at the community level are related to positive peer relationships, nonfamily adult support, community involvement, among others (Afifi & MacMilan, 2011). These protective factors are critical for children and youth to build resiliency despite adversity.

It has been pointed out that many children who have experienced adversity and trauma can avoid adverse outcomes more readily than others, which is associated with the presence of protective factors (Brodowski, et al., 2014). Table 4 lists protective factors that Brodowski et al., found to have strong evidence in counteracting adversity in children involved with the child welfare system.

Table 4. Protective Factors in Children Involved in the Child Welfare System

	Protective Factor
Individual Level	Sense of purpose
	Agency (self-efficacy)
	Self-regulation skills
	Relational skills
	Problem-solving skills
	Involvement in positive activities
Relationship Level	Parenting competences: Parenting skills Positive parent-child interactions
	Positive peers
	Caring adults
Community Level	Positive community environment
	Positive school environment
	Economic opportunities

Source: Brodowski et al., 2014

At the individual level, studies have found that educational attainment serves as a protective factor for children's wellbeing into adulthood while those who drop out of school are more likely to experience health problems later in life (Egerter et al., 2011; Crouch et al., 2021). Additionally, other studies have found an association between experiencing four or more ACEs and low educational attainment (Houtepen et al., 2020), lower school engagement (Balfanz et al., 2007; Bethell et al., 2014), and the chances of dropping out of high school (Morrow & Villlodas, 2018).

The reliable presence of a sensitive, nurturing, and responsive adult in the life of a child has been confirmed as one of the strongest factors linked with resilience to ACEs (Bartlett & Steber, 2019). The cohesion within a family is important for child's development. In addition, healthy spouse/partner relationships have been shown to promote family stability and provide greater opportunity to experience positive child development (Readdick, 2011). A finding from a study showed that a healthy mother-partner relationship was significantly associated with absence of ACEs among children despite being at high risk of experiencing adversities due to low socio-economic status (Walsh et al., 2020). The same study also found parent-child relationship was significantly associated with no observed ACEs among high risk children (Walsh

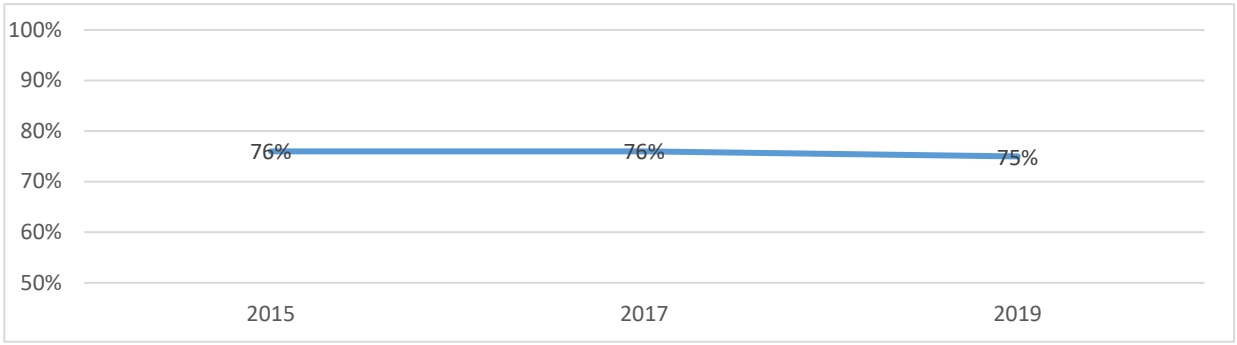
et al., 2020). Outside of the family households, caring adults in school settings were found to serve as resilience factors in terms of protecting and promoting good outcomes for students facing adversities (Liebenberg et al., 2013).

Community or neighborhood environment has also been found to be significantly associated with high-risk children with no observed ACEs (Walsh et al., 2020). Similarly, having more community support was found associated with increased positive health-related quality of life odds by 20% in Banyard et al's study (Banyard et al., 2017). Efforts should be spent in building programs revolving community support, which can help reduce ACEs (Blodgett, 2003; Pinderhughes et al., 2015).

Data for three protective factors are presented here, including educational attainment, presence of caring adults, and community involvement. All data are based on the CSHS.

Educational Attainment

Figure 22. Youth who probably or definitely will complete a post-high school program



Data Source: CT School Health Survey 2015-2017-2019

In terms of educational attainment, data from the CSHS show that three quarters of Connecticut youth report they will be most likely to complete a post high school program, such as a vocational training program, military service, community college or four-year college.

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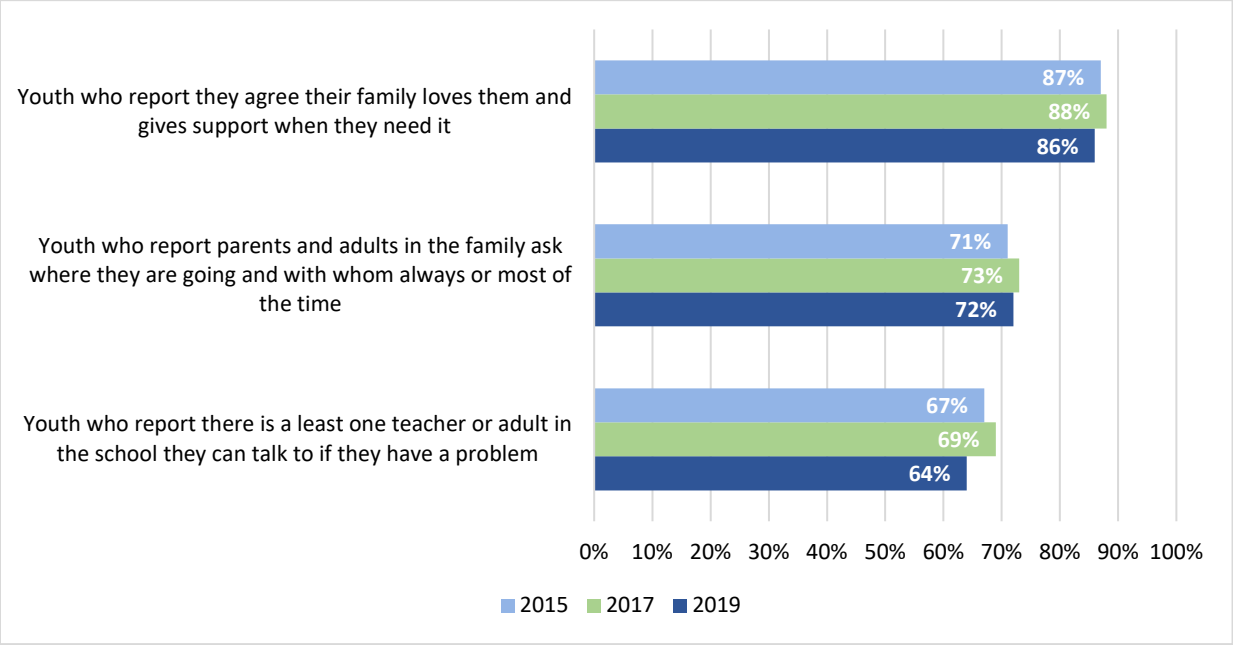
Presence of a caring adult

Figure 23. Presence of Caring Adults in the Lives of CT Youth



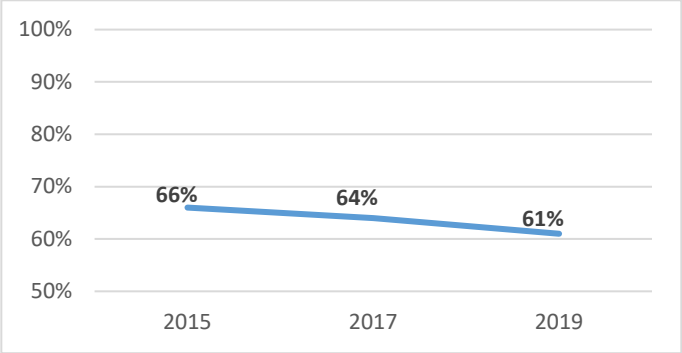
Data Source: CT School Health Survey 2015-2017-2019

Figure 23 shows the percentage of youth who had someone they could rely on either from school or family. Data shows youth received support and caring from their families more than they did from the school setting, and the trends were similar across all three years. The large majority of Connecticut youth report being loved by their families while more than 70% of parents/caregivers wanted to know the youth's whereabouts. Approximately two-thirds of youth reported having an adult in the school they who they can talk to if they have a problem, although it should be noted that this percentage decreased from 2017 to 2019, a statistically significant change (CT DPH, 2019).

Community Involvement

Although the most recent estimate indicates that more than 60% of Connecticut's youth participate in some type of organized activities after school, the percentage of youth participation in after school activities in the past week has decreased progressively since 2015 although this reduction is not statistically significant.

Figure 24. Percentage of youth who took part in organized after school activities in the seven days before the survey



Data Source: CT School Health Survey 2015-2017-2019

Summary and Discussion

The CDC recommends use of the ACEs module in the YRBS administered to secondary school students to measure ACEs in a population; however, Connecticut is only now implementing that statewide survey and the data will not be available until 2022. Therefore, this report presents selected data indicators of ACEs, as well as the risk and protective factors associated with ACEs, available from existing administrative and survey data to describe the scope of ACEs in Connecticut. Unfortunately, very few of these indicators provide direct, real-time measurement of ACEs among children. Individual ACE indicators are captured through a variety of different sources, each with its own limitations, which present challenges in interpretation and integration.

The National Survey on Children's Health (NSCH) does measure children's lifetime exposure to ACEs, but as reported by the parent. According to the 2019 NSCH, an estimated 210,957 (29%) children in Connecticut experienced at least one ACE related to eight Household and Community Challenges, mostly from separation from a parent/caregiver due to parental divorce. Given that these data are based on parental report, it is likely that this survey provides an underestimate of ACEs exposure.

We do have more direct measures of the scope of child abuse and neglect from DCF's child welfare data and emergency department discharge data. The child welfare trend data show that the percentage of

Connecticut children that come to DCF's attention has remained stable over time; from 2015 to 2019, each year DCF conducted an investigation for abuse/neglect for about 3% of children in the state with approximately 1% having confirmed situations of abuse/neglect. In 2019, 8,042 children were found to be victims of abuse/neglect. The majority of these children are first-time victims who primarily suffer from neglect. The number of children identified at emergency departments as having experienced abuse is relatively small; trend data show that medical personnel in Connecticut emergency departments identify approximately 500 children annually who are seen because of physical and sexual abuse. Due to mandated reporting requirements, these severe cases of abuse are typically referred to DCF for follow-up.

Since identification of the original ACE indicators focused on household challenges, ACE research has recognized the importance of community-level challenges occurring in the child's environment that can impact on the child's subsequent development and health. These additional ACEs include bullying, school violence, and teen dating violence, indicators collected by the biannual CSHS. In 2019, 18% of Connecticut high school students reported having been bullied in school in the past year and 14% report having been electronically bullied. Seven percent of high school students in Connecticut in 2019 were afraid to attend school because of fear for the safety. The percentage of students reporting dating violence ranged from 8% reporting physical violence, 12% reporting sexual violence, and 26% who experienced emotional violence. Clearly, sizeable minorities of our state's adolescent population are experiencing these community-based ACEs. Negative peer relationships, through bullying, exclusion, and deviant peer interactions (dating violence, for example) contribute negatively to social emotional development, decreasing resilience and potentially increasing the effects of ACEs (Pepler and Bierman, 2018).

Poverty, financial and food insecurity, low parental educational attainment, and parental experiences of ACEs are all established risk factors for ACEs. Analyses of the ACS data indicate that an estimated 37% of households in Connecticut reported making a living wage in 2019, including 10% of households subsisting on $25,926 or less, the federal threshold for poverty in the U.S. Data from the 2018 CWS showed that 17% of

adults with children did not have enough money in the past year to afford food for their families. In 2019, 12% of parenting adults in Connecticut reported that they had less than a high school education indicating that they may continue facing financial struggles and stress. Finally, data from the 2019 BRFSS showed that 65% of the adult population in Connecticut reported having experienced at least one ACE, and 15% of them had experienced four or more ACEs. This latter group would be at especially high risk not only of experiencing the negative social and health consequences of ACEs, but their children would be at higher risk of ACEs, as well.

Data were presented for three protective factors - educational attainment, presence of caring adults, and community involvement- available through the YRBS. In 2019, 86% of high school students reported that their families were loving and supportive, 64% had a teacher or other caring adult in school they could talk to, and 64% participated in after-school activities. These data showed that the majority of Connecticut youth have protective factors that promote resiliency and can protect even high-risk children from suffering the ill effects of ACEs exposure.

An important limitation of these baseline findings on the state of ACEs in Connecticut is that they do not measure the full complement of ACEs or their risk and protective factors. Administration of the 2021 CSHS, which includes an 8-item ACE module, will provide a more comprehensive picture of ACEs in the state and a better basis for estimating the percentage of Connecticut children at risk for ACEs. The NCHS data are reports of children's exposure to ACEs filtered through parental report, while the child welfare and emergency department data may reflect the most severe cases of children at risk for ACEs. They also may not capture those segments of society that have the resources to avoid coming to the attention of child welfare. Another important limitation of the CSHS data is that, while it is a sample weighted to represent high school students statewide, it does not take into account the perspectives of high school-aged youth who are not in school at the time of the survey, and those who are chronically absent or truant, and likely at higher risk for ACEs. Data show that chronic absenteeism and truancy rates are higher in Connecticut's urban

core communities, so even responses weighted demographically to reflect Connecticut's student population cannot correct for possible response differences that are disproportionately present in urban core and minority communities. Given the limitations of these various datasets, it is probably safe to assume that they underestimate the true prevalence of ACEs that our children are exposed to.

This initial report admittedly presents a very preliminary and incomplete picture of ACEs in Connecticut. It does show, however, that a significant minority of our state's children is at risk of ACEs. It is unlikely that all at-risk children can be served, but those at highest risk can be targeted for preventive services that will support the children and their families. Over the next year, additional data from the CSHS and other administrative and survey sources and analyses of those data will provide more information to assess the scope of household and community ACEs among our state's children and the populations at greatest risk for ACEs, as well as suggest priority target populations and communities for interventions designed to prevent and address ACEs.

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