Written Testimony
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Statement of
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Chairman Cummings, Ranking Member Jordan, thank you for bringing attention to the important problem of childhood trauma that has been devastating communities across the United States. Due to the tremendous impact that childhood trauma has on the future health and opportunity of our nation's children, the work towards prevention requires collaboration across sectors and the Federal Government. By building and enhancing the resilience of our communities and focusing on prevention as well as treatment, we can meet the immediate needs of those already affected, reduce the long term devastating effects of trauma, and prevent future risk. Working together, we can help create neighborhoods, communities, and a world in which every child can thrive.

Major sources of childhood trauma are adverse childhood experiences, or ACEs. CDC defines ACEs as all types of abuse, neglect, and other potentially traumatic experiences that occur to people under the age of 18. Examples of ACEs include exposure to physical, emotional, or sexual abuse; physical and emotional neglect; and witnessing violence, serious mental illness, or substance misuse in the home. As the number of ACEs increase, so too, does the risk for long-term negative effects on learning, behavior, and health. ACEs can signal dangerous levels of stress, often referred to as toxic stress, that can derail healthy brain development, and increase risk for alcohol and substance use disorders, suicide, mental health conditions, heart disease, and dozens of other chronic illnesses, such as diabetes and heart disease, and risk behaviors throughout life[1]. While experiencing and coping with stress is a normal part of life and healthy development, a large and growing body of research demonstrates that chronic, repeated exposure to stress, especially in the absence of stable, nurturing and supportive relationships, can lead to prolonged activation of the body's stress response system. Prolonged stress can harm the most basic levels of the nervous, endocrine, and immune

[1] Monnat S, Chandler R. Long-term physical health consequences of adverse childhood experiences. Socio Q. 2015;56(4):723–752.

systems; can alter brain structure and messaging systems can impact other organ systems in the body; and can even alter the physical structure of DNA. These changes to the brain in turn can affect such things as attention, impulsive behavior, decision-making, learning, emotional regulation, and responses to stress in the future[2,3,4]. CDC research shows more than 60 percent of American adults have as children experienced at least one ACE, and almost a quarter of adults have experienced 3 or more ACEs, likely an underestimate[5] . Although we do not know the biological and other mechanisms, high ACEs have been associated with eight of the 10 leading causes of death, shortening a person's life span by as much as 19 years[6] [7]. The chances of dying by two of the leading causes of death, suicide and drug overdose, are increased in people who experience ACEs. Conversely, by decreasing the number of ACEs, it may be possible to decrease risk for future self-harm, including suicide and drug overdose.[8] In addition to preventing ACEs, protective factors like school connectedness and social and emotional learning, can be enhanced during childhood and adolescence and have been shown to ameliorate the impact of ACEs on a variety of outcomes and prevent further trauma, like experiences of school-based violence. ACEs are common across all populations. Some populations are more vulnerable to experiencing ACEs because of the social and economic conditions in which they live, learn, work and play. Importantly, having even a single

[2] De Bellis MD, Zisk A. The biological effects of childhood trauma. Chlid Adolesc Psychiatr Clin N AM. 2014; 23(2):185-222.
[3] Edwards, VJ, Anda, RF., Dube, S. R., Dong, M., Chapman, D. F., & Felitti, V. J. In: Kendall-Thakett, and Giacomoni, S (eds). *Victimization of Children and Youth: Patterns of Abuse, Response Strategies*, Kingston, NJ: Civic Research Institute. 2005:8-1-8-12.
[4] De Bellis M.D. Developmental Traumatology: the psychobiological development of maltreated children and its implications for research, treatment, and policy. Development and Psychopathology. 2001;13(3):539-564.
[5] Merrick MT, Ford DC, Ports KA, Guinn AS. (2018). Prevalence of Adverse Childhood Experiences From the 2011-2014 Behavioral Risk Factor Surveillance System in 23 States. JAMA Pediatrics, 172(11), 1038-1044.
[6] Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, Koss MP, Marks JS. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. American journal of preventive medicine. 2019;56:774-86
[7] Brown DW, Anda RF, Tiemeier H, Felitti VJ, Edwards VJ, Croft JB, Giles WH. Adverse childhood experiences and the risk of premature mortality. American journal of preventive medicine. 2009;37:389-96.
[8] Cleare S, Wetherall K, Clark A, et al. Adverse Childhood Experiences and Hospital-Treated Self-Harm. Int J Environ Res Public Health. 2018;15(6):1235. Published 2018 Jun 11. doi:10.3390/ijerph15061235.

ACE is associated with the risk for using illicit drugs, abusing alcohol, or attempting suicide[9]. Men with 6 or more ACEs were found to be 46 times more likely to inject drugs, compared to men without early adversity[6]. In addition, the estimated U.S. population economic burden of child maltreatment, major contributors to childhood trauma and ACEs, based on 2015 data was $428 billion[10], but this number may underestimate the total cost of ACEs because it is focused solely on child maltreatment. This estimate accounts for increased health care costs, public spending for child protective services and special education, increased criminal justice spending, as well as reduced quality of life for survivors and life lost for fatal victims. Furthermore, the estimated lifetime costs for survivors of child maltreatment was $830,928 per case, and for fatal cases was $16.6 million per case[10]. These estimates demonstrate the vast magnitude of child maltreatment in the U.S. and illustrate the need for prevention strategies that can alleviate costs, prevent long-term health consequences of child maltreatment, and prevent further trauma. Although these statistics are alarming, decades of research show that ACEs are preventable and there are effective strategies to prevent ACEs in communities. Preventing ACEs requires using data to inform prevention and action; changing the context in which children are being raised through norms change, programs, and policies that are supportive of children and families; and raising awareness and commitment to promote safe, stable, nurturing relationships and environments for all children and their families.

CDC is well-positioned to continue to lead coordinated efforts to help prevent ACEs and to help communities in their ACE prevention efforts. To understand the scope and burden of ACEs, CDC analyzes data in the Behavioral Risk Factor Surveillance System (BRFSS) to determine how frequently ACEs occur, where they occur, trends, and who the victims and perpetrators are. The

[9] Gilbert LK, Breiding MJ, Merrick MT, Parks SE, Thompson WW, Dhingra SS, Ford DC. Childhood adversity and adult chronic disease: An update from ten states and the District of Columbia, 2010External. Am J Prev Med. 2015;48(3):345-9.
[10] Peterson C, Florence C, Klevens J. The economic burden of child maltreatment in the United States, 2015. Child Abuse Negl. 2018 Dec;86:178-183

BRFSS is an annual, state-based, random-digit-dial telephone survey that collects data from non-institutionalized U.S. adults regarding health conditions and risk factors. Forty-two states and the District of Columbia have included ACE questions in their BRFSS. Last November, CDC released research on the prevalence of ACEs across 23 states grouped by demographic characteristics using the BRFSS data– this is the largest and most diverse collection of ACE data from the BRFSS to date[11]. Findings highlighted the importance of understanding why some groups are at higher risk of experiencing ACEs than others and how this increased risk may worsen health inequities across the lifespan and future generations. This year, CDC is supporting six additional states to include the ACE module in their BRFSS survey. This will bring the total number of states who have used the ACE module to 48 states. This expansion provides useful data for these states to characterize exposure to ACEs among their state population to inform prevention and also provides data for the nation. BRFSS also asks questions related to substance use; therefore, this will be a data source that can help assess the relationship between ACEs and substance use, and also determine the effect substance use may have on contributing to ACEs. In November 2019, CDC anticipates releasing a new study on the importance of preventing ACEs for achieving multiple public health goals. The most recent data from BRFSS will be analyzed from states that included ACEs items from 2015-2017.

In addition to collecting data on ACEs, CDC supports state and local health departments to prevent ACEs in their communities through evidence-based strategies. In 2016, CDC released a technical package, Preventing Child Abuse and Neglect: A Technical Package of Policy, Norm, and Programmatic Activities. This document is a collection of strategies that represent the best available

evidence, to prevent child abuse and neglect. Examples of strategies include encouraging and supporting positive parenting, providing quality care and education early in life, and enhancing parenting skills to promote healthy child development. In November 2018, CDC released Violence Prevention in Practice, a web-based resource to help states and communities implement strategies included in the technical package. This resource helps ensure that community and state programs are implementing effective prevention strategies. In addition, CDC implements the Essentials for Childhood program in seven state health departments (CA, CO, KS, MA, NC, UT, and WA) to utilize prevention strategies in the technical package in order to address state-specific needs. For example, in Washington, a coalition of schools, city government, mental health, social services agencies, law enforcement and others launched the Children's Resilience Initiative to raise awareness of ACEs and their effect on brain development, to foster resilience, and to embed the principles in the community. It led to the community adopting in its schools practices informed by research on trauma; it increased community awareness of ACEs by five-fold; and it led to a drop in suspensions in a high school of 85 percent in one year. Approximately 30 states have voluntarily participated in Essentials for Childhood at some level over the past six years, for the value it adds to their communities. CDC also funds 23 state health departments through the Core State Violence and Injury Prevention Program (Core SVIPP) to implement, evaluate and disseminate strategies that address the most pressing injury and violence issues including child abuse and neglect. For example, Virginia is implementing the Safe Environment for Every Kid (SEEK) Program. This model is designed to help detect child abuse and neglect in primary care settings through screening and referral to services. Virginia is working to pilot the SEEK model in the Care Connection for Children network and compile a resource guide for practitioners. Care Connection for Children is a statewide network of centers of excellence for children and youth with special health care needs that provide leadership in the enhancement of specialty medical services. CDC, through its Overdose

Response Strategy partnership, works with the Office of National Drug Control Policy to fund 25 public health/public safety interventions at the local level known as Combating Opioid Overdose Through Community-level Intervention Initiatives. Programs in the initiative implement innovative, evidence-based, community-level interventions. The purpose is to create solutions that could be replicable in rural, suburban, and urban areas. For example, the Martinsburg Initiative, in West Virginia, is an innovative, police-school-community partnership focused on opioid overdose prevention that can act as a model for other communities. Through a partnership among the Martinsburg Police Department, Berkeley County Schools, and Shepherd University, this project will expand community resources and link law enforcement, schools, communities, and families in a dynamic partnership that will assess participants' ACE scores and subsequently link them to necessary resources and supports. Through a strategic focus that targets at-risk children and troubled families, the initiative will assess, identify, and reduce the basic causes of drug abuse. As of February 2019, more than 700 ACE assessments have been administered to adults; 319 community members have been trained in ACEs; almost 600 teachers/school personnel have received trauma-sensitive training; and the Martinsburg police department has made nearly 3,000 student contacts through the "Adopt a Classroom" program, which includes officers participating in activities such as classroom visits and career days.

CDC also works with 28 local education agencies around the country to increase school connectedness and parent engagement. These strategies, which include improvements in classroom management, student-led clubs focused on inclusivity and community-based mentoring and service learning, and dissemination of resources to parents and caregivers, have been demonstrated in evaluation data from CDC's Promoting Adolescent Health through School-Based HIV Prevention

program to be effective in reducing substance use, experience of violence, mental health problems and suicide ideation among middle and high school youth.

As CDC works to prevent and reduce ACEs, it is vital to recognize the interconnected nature of violence and injury and the synergy that can result from addressing the shared risk and protective factors across these topics. Within CDC, the National Center for Injury Prevention and Control's three strategic priorities are preventing suicide, preventing opioid overdoses, and preventing ACEs. These three priority areas were intentionally chosen because they have a significant impact on morbidity and mortality, are intricately linked, and can be prevented. It is important to note that children whose parents are dealing with substance use or have overdosed are experiencing ACEs, as are children whose parents attempt or die from suicide[11,6]. Substance use has a significant impact on the child welfare system. Substance use is noted as a contributing factor in a third of all foster care placements nationally, and on average every 25 minutes a baby is born suffering from opioid withdrawal[12]. The additional trauma of being taken into care may create another generation that, without appropriate evidence-based intervention and treatment, could suffer additional health and wellbeing problems. The connection between ACEs and substance use and suicide can lead to a continuous cycle of abuse for generations[13]. CDC is working with the National Network of Public Health Institutes and the Michigan Public Health Institute to establish and evaluate comprehensive community programs to prevent ACEs that impact opioid misuse. The goal of the partnership is to build the evidence base for preventing and addressing ACEs at the local level; such an evidence base will provide invaluable guidance for implementation in other communities affected by the opioid

[11] Dube, SR., et al. "Childhood abuse, household dysfunction, and the risk of attempted suicide throughout the life span: findings from the Adverse Childhood Experiences Study." JAMA.3096 3089:(24)286;2001 .
[12] Children's Bureau. The AFCARS Report. Washington, D.C.: U.S. Department of Health and Human Services; 2018.
[13] Metzler M, Merrick MT, Klevens,J, Ports, KA, Ford, DC. Adverse childhood experiences and life opportunities: Shifting the narrative, Children and Youth Services Review, Volume 72, 2017, Pages 141-149, ISSN 0190-7409.

epidemic. This project is being implemented in three communities: Cincinnati, Cleveland, and Detroit. In addition, CDC provided supplemental funding to all seven Essentials for Childhood states to implement activities to address risk and protective factors for opioid misuse/overdose and ACEs. This program supplement supports activities necessary for the delivery of prevention strategies based on the best available evidence to prevent ACEs and to address the risk and protective factors for opioid misuse and overdose. By preventing ACEs as well as treating the symptoms of ACEs early through trauma-informed approaches, we can prevent exposure in new generations that could cause future increases in substance use, suicide, and other health-risk behaviors. Understanding the overlapping causes of the three topics and the strategies that can protect people and communities from their impacts can help us better prevent trauma in all its forms.

CDC brings a unique and important prevention perspective to ACEs by tracking and monitoring ACEs and helping states and communities adopt effective strategies. With CDC's help, states and communities can implement comprehensive strategies that promote safe and supportive environments to lessen harms and prevent future risk. Implementing a comprehensive public health approach that will meet the immediate needs of those at risk or already affected as well as going further upstream to reduce factors contributing to risk will help to prevent and reduce these public health problems. CDC is committed to identifying the best evidence and continuing to partner with other Federal, state, and local agencies as well as external organizations to help address these complex issues, and ultimately, to save lives.