UNITED AGAINST CHILDHOOD TRAUMA

THE EVIDENCE

The Scientific and Statistical Case That Childhood Trauma Is America's Deadliest Public Health Crisis

Compiled from Greater Than Gravity (Menard, 2026) and the peer-reviewed literature • Every figure sourced • uactnow.com

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CAUSE OF DEATH IN AMERICA	AMERICANS KILLED EVERY DAY	OF U.S. ADULTS EXPOSED AS CHILDREN	ANNUAL COST TO THE U.S. ECONOMY

Childhood trauma is not a social problem that produces health consequences. It is a biological event that reorganizes a developing brain, immune system, and stress-response system — and then bills the body for the rest of its life. **What follows is the evidence.**

I. WHAT TRAUMA DOES TO A CHILD'S BODY

The brain is rewired, not merely upset.

A child's brain is built by experience. Chronic activation of the hypothalamic-pituitary-adrenal (HPA) axis floods the developing brain with cortisol and disrupts three regions at once. The **hippocampus** — memory and emotional regulation — loses volume; Stanford imaging studies found that traumatized children had smaller hippocampi than matched controls, and that those hippocampi **continued to shrink for 12 to 18 months after the trauma had stopped**. The **amygdala** — the threat detector — becomes hyper-responsive, firing danger signals in safe rooms. The **prefrontal cortex** — judgment, impulse control, planning — is suppressed by the overactive amygdala and by noradrenaline released from the locus coeruleus.[1]

These are not soft findings. A Harvard Medical School review of the neuroimaging literature concluded that maltreatment produces reliable morphological changes in the anterior cingulate, dorsolateral prefrontal and orbitofrontal cortex, corpus callosum, and adult hippocampus — and that childhood maltreatment is **the most important preventable cause of psychopathology, accounting for roughly 45% of the population attributable risk for childhood-onset psychiatric disorders.**[2]

The immune system is left switched on.

Sustained cortisol suppresses lymphocyte and macrophage production while driving chronic systemic inflammation. The Dunedin cohort in New Zealand followed 1,000 people for three decades and found that **20 years after childhood maltreatment, participants still showed elevated levels of four distinct inflammatory markers** compared with the non-maltreated — with adversity documented as it happened, which is what elevates the finding from correlation toward causation.[3] Elevated C-reactive protein and interleukin-6 are now the accepted biological bridge from early adversity to cardiovascular disease, autoimmune disease, metabolic disease, and depression.[4] A systematic review of 19 meta-analyses covering 20,654,832 participants attributes **19.4 million U.S. cases of elevated inflammation** to childhood adversity.[5]

The damage accelerates biological aging.

Chronic cortisol exposure destroys mitochondria — the cell's power supply — producing energy starvation, cell death, regional brain atrophy, and epigenetic changes that persist for life. This is the mechanism behind what the literature calls the *biological embedding* of early adversity: the pathway by which something that happened at age five ends a life at age fifty-five.[6]

II. THE SCALE: THIS IS NOT A MINORITY EXPERIENCE

Greater Than Gravity adopts the conservative figure: **70% of American adults and children have experienced childhood trauma.**[7] The expanded Philadelphia ACE Project, which captures community-level adversity outside the home, found **83.2%** of its participants reported at least one adverse childhood experience.[8]

Applied to the U.S. population	Number affected
Adults carrying childhood trauma (of 258 million)	**180 million**
Children under 18 carrying trauma (of 77 million)	**54 million**
Adults with an ACE score of 4 or higher	**33.2 million**
Three-person households containing at least one survivor	**97.3%**

That last line is the one that ends the argument about relevance. If 70% of individuals are affected, the probability that all three members of a household escaped is 0.30 × 0.30 × 0.30 = 2.7%. **Ninety-seven percent of American households contain someone who was wounded as a child.**[9]

III. THE DEATH TOLL: AMERICA'S LEADING ROOT CAUSE OF DEATH

Death certificates record what people die *from* — the final medical event. They do not record what people die *because of*. When a man with an ACE score of 6 dies of a heart attack at 55 instead of 75, the certificate reads *myocardial infarction*. When he overdoses at 30, it reads *accidental poisoning*. When he takes his own life at 25, it reads *suicide*. Four different codes. One root cause.

Population Attributable Fraction (PAF) is the same methodology that established tobacco as a cause of death — the basis of the familiar ~480,000 annual tobacco deaths, none of which appear on a death certificate as "smoking." Applied to childhood trauma, PAF yields the following:

511,427 American deaths every year

1,401 deaths per day • 58 per hour • one death every 61 seconds • nearly six of them children

This makes childhood trauma the leading root cause of death in the United States — ahead of tobacco.

How the figure is built — the arithmetic, in the open.

Component	Source	Deaths / year
Deaths attributable to childhood adversity across leading causes (heart disease 219,470; cancer 82,888; chronic lower respiratory disease 66,702; suicide 39,686; stroke 26,758; others)	Grummitt et al., JAMA Pediatrics, 2021	439,072
Drug overdose deaths — explicitly excluded from the above because too few meta-analyses existed at the time (~105,000 overdose deaths × 67% attributable fraction)	Dube et al., Pediatrics, 2003	70,355
Children killed directly by abuse and neglect	HHS Child Maltreatment 2023	2,000
TOTAL		511,427

Two notes on conservatism. First, the Grummitt figure alone — 439,072 — represents **15% of all U.S. deaths** and exceeds total U.S. COVID-19 deaths in 2020; its authors state the true contribution is likely higher.[5] Second, federal data indicate **50–60% of child maltreatment fatalities are never recorded as such** on a death certificate.[10] Overdose totals fluctuate year to year (they peaked above 110,000 and stood at 79,384 in 2024), so the total is recalculated annually; at every plausible overdose figure, childhood trauma remains the leading root cause.[11]

IV. THE DISINTEGRATION: PHYSICAL, MENTAL, SOCIAL, SPIRITUAL

The Lancet Public Health meta-analysis — 37 studies, 253,719 participants — compared adults with 4 or more ACEs against adults with none. Every outcome examined showed elevated risk, in a dose-response pattern: more trauma, more damage.[12]

Outcome for adults with 4+ ACEs vs. 0 ACEs	Increased risk
Suicide attempt	30x
Problematic drug use	10x
Interpersonal and self-directed violence	7.5x
Injection drug use	11x
Alcoholism	5.3x
Depression	4.6x
Chronic obstructive pulmonary disease (COPD)	2.4x
Liver disease	2.2x
Heart disease	1.7x
Smoking	2.7x

Spiritually and socially, the collapse is just as measurable. Adults reporting the lowest sense of life purpose are **2.5 times more likely to die prematurely** than those with a strong sense of purpose.[13] Trauma survivors show 280% higher rates of serious job-performance problems and are 300% more likely to miss two to five additional workdays per month.[14] And the

wound is transmissible: the outcomes most strongly associated with multiple ACEs — violence, mental illness, substance use — are precisely the conditions that generate ACEs in the next generation.[12]

V. HOW CHILDHOOD TRAUMA MANUFACTURES ADDICTION

Addiction is not a moral failure and it is not primarily a drug-supply problem. A traumatized child's brain is flooded with stress hormones during the exact years it is building the structures responsible for emotional regulation, impulse control, and reward. Those structures come in damaged: depleted endorphins, a suppressed prefrontal cortex, a hyperactive amygdala, a disrupted endocannabinoid system. The result is a nervous system in chronic pain that has no internal capacity to soothe itself. Substances are then not chosen randomly — they are selected, unconsciously, to correct specific deficits. Opioids replace missing endorphins and supply the warmth that was absent in childhood. Stimulants compensate for prefrontal damage. Alcohol quiets the amygdala. Cannabis regulates the endocannabinoid system. The drug works, briefly, because it is doing the job the child's brain was never built to do. Then tolerance develops, withdrawal recreates the original trauma symptoms, and the brain adapts by deepening the dysfunction. **People do not become addicted because drugs feel good. They become addicted because childhood pain feels unbearable.**

- **67–72% of all substance use disorders are attributable to adverse childhood experiences.** The original CDC/Kaiser analysis found attributable risk fractions of 56% for drug use problems, 64% for drug addiction, and 67% for injection drug use.[15]
- Compared with people with 0 ACEs, people with 5 or more are 7 to 10 times more likely to report illicit drug use problems, addiction, and injection drug use.[15]
- An estimated 70–80% of adolescent opioid misuse is attributable to ACEs.[16]
- Childhood adversity accounts for 21.4 million U.S. cases of illicit drug use.[5]

America does not have a fentanyl crisis. Fentanyl did not create addicts — it killed people who were already addicted. America has a childhood trauma crisis with a fentanyl death rate.

VI. SUICIDE: THE ENDPOINT OF NEUROBIOLOGICAL DESTRUCTION

- **89.4% of suicide attempts among high school students are attributable to adverse childhood experiences.**[7]
- The CDC/Kaiser ACE Study calculated population attributable risk fractions of **80% for childhood and adolescent suicide attempts, 67% lifetime, and 64% in adulthood.** Adults with 7 or more ACEs had 31 times the odds of ever attempting suicide.[17]
- More than one in three suicide attempts in the United States is directly attributable to childhood adversity; 39,686 U.S. suicide deaths per year are attributable to it.[5]
- Adults with 4 or more ACEs face a 51-fold increased risk of suicide attempt.[7]

Suicide is not weakness and it is not selfishness. It is the terminal stage of a biological process that began in childhood — mitochondrial failure, cellular death, accelerated brain aging — in a body that can no longer sustain the load it was handed before it could speak.

VII. INCARCERATION: A SYSTEM THAT MANUFACTURES ITS OWN FUEL

Measure	Incarcerated	General population
At least one ACE	**98%**	**~70%**
Four or more ACEs	**45–46%**	**17%**
Average ACE score	**5.0**	**1.6**
Family member incarcerated in childhood (men)	**45%**	**9%**
Family member incarcerated in childhood (women)	**40%**	**8%**

Independent research confirms the pattern. Of 64,329 juvenile offenders studied in Florida, **97% had at least one ACE and only 2.8% had none** — compared with 34% reporting zero ACEs in the original CDC/Kaiser cohort.[18] Adult male offenders report nearly four times as many adverse childhood events as a normative male sample.[19] Parental incarceration is itself an ACE, affecting 2.7 million American children, who face 6x the risk of juvenile incarceration and 5x the risk of adult incarceration.[7] The loop is closed: **trauma → neurobiological change → behavioral adaptation → criminalization of that adaptation → incarceration → trauma in the next generation.**

VIII. THE BILL: $14.1 TRILLION A YEAR

The Centers for Disease Control and Prevention, publishing in *JAMA Network Open*, put the annual U.S. economic burden of health conditions associated with adverse childhood experiences at **$14.1 trillion** — $183 billion in direct medical spending and $13.9 trillion in lost healthy life-years. That is **$88,000 per affected adult per year and $2.4 million over a lifetime.** For adults with 4 or more ACEs — 22% of the adult population — the lifetime figure is $4.0 million each, and that group alone carries 58% of the total burden.[20]

For scale: $14.1 trillion exceeds the entire GDP of China and represents roughly 60–65% of total U.S. economic output. It is more than defense, education, and infrastructure combined. Against that, the return on prevention is not marginal — **every dollar invested in preventing childhood trauma returns an estimated $191 in avoided lifetime costs.**[7]

IX. YEARS OF LIFE LOST: THE METRIC THAT ENDS THE DEBATE

Counting deaths treats an 85-year-old cancer patient who dies three years early and a 25-year-old trauma survivor who dies by suicide as equivalent events. They are not. Years of Life Lost (YLL) weights each death by the years it cut short — and childhood trauma kills disproportionately young, through suicide, overdose, violence, and stress-accelerated chronic disease.

1.783 BILLION

years of life that childhood trauma will steal from the current U.S. population

More than 23 million complete human lifespans — the combined lifespans of everyone living in California, Texas, Florida, and New York. Roughly 127,000 years of human life vanish every single day; more than 88 complete lifetimes every hour.

The calculation applies the dose-response relationship established in the foundational ACE mortality data — 1 ACE: 2 years lost; 2 ACEs: 4 years; 3 ACEs: 6 years; 4 ACEs: 8 years; 6 or more ACEs: **20 years** — to current U.S. population data by exposure level.[7] The 20-year figure is not an estimate from advocacy; the CDC-authored premature mortality study found that people with six or more ACEs died at an average age of 60.6 versus 79.1.[21]

Total Years of Life Lost in America	Years
Childhood trauma	**1,783,000,000**
COVID-19 (peak year)	**9,600,000**
Cancer	**8,700,000**
Heart disease	**7,200,000**
All accidents combined	**5,100,000**
Stroke	**1,300,000**

Childhood trauma steals more years of American life than cancer, heart disease, stroke, accidents, and COVID-19 combined — multiplied by more than 50. We spend over $200 billion a year fighting cancer. The National Cancer Institute receives roughly $6.9 billion in annual federal funding. Childhood trauma prevention receives a fraction of comparable investment.[7]

THE BOTTOM LINE

Childhood trauma is the leading root cause of death in the United States, the primary driver of addiction, the root cause of most suicides, and the engine of mass incarceration. It affects 70% of Americans, costs $14.1 trillion a year, kills 1,401 people a day, and will steal 1.783 billion years of human life from the people alive right now.

It is also the only cause of death on that list that is entirely preventable.

You are not broken. You were wounded. Wounds heal.

SOURCES

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Name the wound. Heal the wound. Prevent the wound.

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