

Supplementary Online Content

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eTable 1. Search Terms Used for Electronic Databases

eFigure. Screening Flow Chart of a Systematic Review of Meta-Analyses

eTable 2. References of Meta-Analyses Included in the Estimates of Associations Between Childhood Adversity and Health Outcomes by Exposure Examined

eTable 3. Prevalence of Childhood Adversity From the National Comorbidity Survey Replication Adolescent Supplement (NCS-A)

eTable 4. Definitions of How Each Adversity Was Defined

eTable 5. Range and Point Estimates of Odds Ratios and Corresponding PAFs of the Association Between Different Types of Childhood Adversity and Health Outcomes

eTable 6. Annual US Cases of Unhealthy Behaviors and Disease Markers and Annual US Deaths Attributable to Different Types of Childhood Adversity

eReferences

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Search Terms Used for Electronic Databases

Variable		Terms
Childhood	1	childhood development/ or early childhood development/ or infant development/ or adolescent development/ or developmental psychology/ or adolescent psychology/ or child psychology/ or adolescent/ or child/ or infant/
	2	("Child" or "Childhood" or "Children" or "School age" or "Early life" or "Early-life" or "Infant" or "Infancy" or "Toddler" or "Youth" or "Adolescent" or "Adolescence").ti,ab.
	3	1 or 2
Adversity	4	stress/ or chronic stress/ or environmental stress/ or psychological stress/ or social stress/ or deprivation/ or sexual abuse/ or incest/ or rape/ or child abuse/ or domestic violence/ or intimate partner violence/ or pedophilia/ or physical abuse/ or battered child syndrome/ or child neglect/ or domestic violence/ or emotional abuse/ or exposure to violence/ or trauma/ or emotional trauma/ or parental death/ or parental absence/ or divorce/ or marital separation/ or divorced persons/ or widowers/ or widows/ or institutionalization/ or orphanages/ or residential care institutions/ or orphans/ or social deprivation/ or disadvantaged/ or homeless/ or food deprivation/ or hunger/ or starvation/ or shelters/ or Spouse Abuse/ or family separation/
	5	((Family or parent*) adj3 (disorder or abuse or mental or suicid* or psychopatholog* or jail or prison or incarcerat*)).ti,ab.
	6	(Adversity OR Adverse experience OR Adverse childhood experience OR ACES OR Early-life stress OR Maltreat* OR Violen* OR Abuse* OR Domestic violence OR Victim* OR Family violence OR Childhood family violence OR Family conflict OR Interpersonal violence OR Parental Loss OR Parental death OR Parental separation OR Institutional rearing OR Institutional* OR Orphan* OR Neglect OR Enrichment OR Cognitive stimulation OR Social stimulation OR Homeless* OR Food insecurity OR Material deprivation OR Disadvantage).ti,ab.
Childhood adversity	7	4 or 5 or 6
Meta-analyses only	8	3 and 7
	9	meta-analysis.pt.
	10	meta-analysis/
	11	(meta-analys* or meta analys* or metaanalys* or (quantitativ* adj5 review*) or (quantitativ* adj5 overview*) or (quantitativ* adj5 synthesis*)).ti,ab.
Childhood adversity meta-analyses	12	9 or 10 or 11
	13	8 and 12

Variable		Terms
		Then add specific outcome terms as below.
Stroke/CVD/Heart disease	14	exp heart diseases/ or exp vascular diseases/ or exp Ischemia/ or cerebrovascular disorders/ or cerebrovascular trauma/ or stroke/
	15	(Ischemia OR Ischemic OR Ischemic heart disease OR Myocardial ischemia OR Cardiometabolic OR Cardiometabolic diseases OR Cardiovascular OR Infarction OR Myocardial infarction OR Acute myocardial infarction OR Heart attack OR Stroke OR Cerebrovascular accident OR Cerebral stroke OR Cerebral infarction OR Brain infarction OR Brain ischemia).ti,ab.
	16	14 or 15
	17	13 and 16
Glucose	14	glucose/ or blood glucose/ or Glucose Tolerance Test/ or Glycated Hemoglobin A/
	15	(Glucose OR Blood glucose OR Plasma glucose OR Glucose tolerance OR HbA1c OR Hb A1c OR HemoglobinA1c OR Hemoglobin A1c OR Glycated hemoglobin OR Fasting glucose OR Fasting plasma glucose OR Fasting blood glucose).ti,ab.
	16	14 or 15
	17	13 and 16
Inflammation	14	Inflammation/ or cytokines/ or exp interleukins/ or Immunologic Factors/ or tumor necrosis factor-alpha/ or exp tumor necrosis factors/ or autoimmune diseases/ or acute-phase proteins/ or c-reactive protein/
	15	(Inflammatory markers or Inflammation or Inflammatory or Inflammatory biomarker or Pro Inflammatory or Proinflammation or Pro inflammatory markers or Pro inflammatory phenotype or Chronic Inflammation or Immune Function or Autoimmune or Autoimmunity or Peripheral immune system or Host defence or Host defense or Cytokine or Peripheral cytokine or Pro inflammatory cytokines or C reactive protein or C reactive protein or CRP or hsCRP or Interleukin 6 or IL 6 or Interleukin 10 or IL 10 or Tumor necrosis factor or Tumor necrosis factor alpha or TNF or TNF alpha or Fibrinogen).ti,ab.
	16	14 or 15
	17	13 and 16
Type 2 Diabetes	14	Diabetes Mellitus/ or Diabetes Mellitus, Type 2/ or diabetes complications/ or diabetes mellitus, lipotrophic/
	15	(Type II diabetes OR Type 2 diabetes OR Type 2 diabetes mellitus OR Type II diabetes mellitus OR Diabetes mellitus OR Non-insulin-dependent diabetes or T2D OR T2DM).ti,ab.

	16	14 or 15
	17	13 and 16

Variable		Terms
Obesity	14	obesity/ or obesity, abdominal/ or obesity, morbid/ or pediatric obesity/ or Overweight/ or body constitution/ or "body weights and measures"/ or body fat distribution/ or adiposity/ or body mass index/ or body size/ or body weight/ or exp waist circumference/ or waist-height ratio/ or body surface area/ or skinfold thickness/ or waist-hip ratio/
	15	(Obese OR Obesity OR "Body fat" OR "Body fat distribution" OR Adiposity OR "Central adiposity" OR "Waist circumference" OR "Waist-to-hip ratio" OR Overweight OR "Abdominal obesity" OR "Fat mass" OR "Body composition" OR "Body mass index" OR "Body-mass index" OR BMI).ti,ab.
	16	14 or 15
	17	13 and 16
Hypertension	14	Blood Pressure/ or hypertension/ or essential hypertension/ or arterial pressure/ or venous pressure/
	15	(Blood pressure OR Elevated blood pressure OR High blood pressure OR Hypertension OR Hypertensive).ti,ab.
	16	14 or 15
	17	13 and 16
Tobacco	14	exp Tobacco Smoking/ or exp "Tobacco Use"/ or "Tobacco Use Disorder"/
	15	(tobacco* or cigar* or smok* or nicot*).ti,ab.
	16	14 or 15
	17	13 and 16
Poor Diet	14	exp diet/ or eating/ or Energy Intake/
	15	(nutri* or fruit or vegetable* or (health* adj3 eating) or diet* or food or food habit* or food intake or poor diet or unhealthy eating or unhealthy diet).ti,ab.
	16	14 or 15
	17	13 and 16
Physical inactivity	14	exp exercise/ or physical fitness/ or exp Sports/ or Physical Exertion/

	15	(Exercise or physical* activ* or physical inactivity or inactiv* or sports or physical exertion or fitness or exercise).ti,ab.
	16	(physical* adj5 (fit* or train* or therap* or activit*)).ti,ab.
	17	14 or 15 or 16
	18	13 and 17

Variable		Terms
Alcohol Consumption	14	alcohols/ or ethanol/ or blood alcohol content/ or exp Alcohol Drinking/ or Drinking/ or exp alcohol-related disorders/ or alcoholic intoxication/ or Alcoholic Beverages/ or Drinking Behavior/
	15	(drink* or liquor* or ethanol intake or alcohol* drink* or ethanol drink* or (alcohol adj3 consum*)).ti,ab.
	16	14 or 15
	17	13 and 16
Sexual Behavior	14	exp Reproductive Behavior/ or exp Sexual Behavior/ or HIV Infections/ or Sexually Transmitted Diseases/ or Safe sex/ or unsafe sex/ or sexual abstinence/ or exp contraceptive devices/ or contraceptive agents/ or birth control/ or pregnancy in adolescence/ or pregnancy, unwanted/ or pregnancy, unplanned/ or exp Contraception Behavior/
	15	(sexual behav* or oral sex or anal sex or sex* orientation or unprotected sex or protected sex or unsafe sex or safe sex or high risk sex or extra marital or extramarital or intercourse or coital frequenc* or sexual partner* or multiple partner* or condom use* or condom* or reproductive behav* or contracepti* or family planning or sexually transmitted disease or STD or risky sex* or early sex*).ti,ab.
	16	(pregnan* adj3 (teen* or adolescen* or youth* or school-age*)).ti,ab.
	17	14 or 15 or 16
	18	13 and 17
Illicit Drug use	14	Drug-Seeking Behavior/ or amphetamine-related disorders/ or cocaine-related disorders/ or drug overdose/ or inhalant abuse/ or marijuana abuse/ or exp opioid-related disorders/ or phencyclidine abuse/ or substance abuse, intravenous/ or substance abuse, oral/ OR cannabis/ or exp street drugs/
	15	((drug OR substance) AND (misuse OR abuse OR dependence) OR (marijuana or cannabis or recreational drug* or street drug* or drug* or substance use or cocaine or amphetamine or opioid or opiate*)).ti,ab.
	16	14 or 15
	17	13 and 16

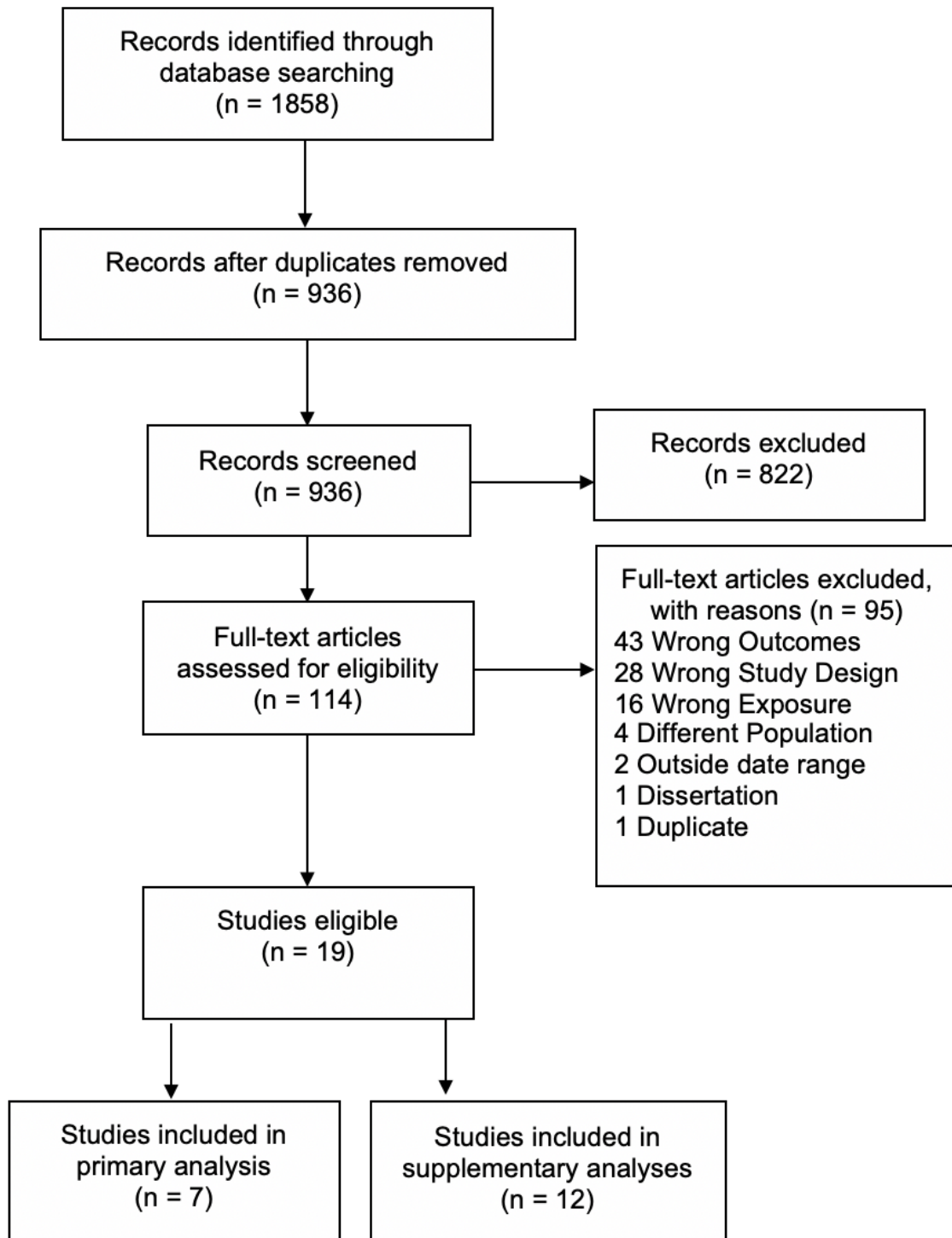
Variable		Terms
Cancer	14	exp Neoplasms/
	15	(Astrocytoma*OR blastoma* or brain tumors or cancer* or carcinoma* or craniopharyngioma* or ependymoma* or histiocytoma* or glioma* or histiocytosis or leukemia* or lymphoma* or melanoma* or mesothelioma* or mycosis fungoides or myelodysplastic syndrome* or myeloma* or neoplasm* or osteosarcoma* or papillomatosis or paraganglioma* or pheochromocytoma* or sarcoma* or retinoblastoma* or rhabdomyosarcoma* or sezary syndrome* or tumor* or waldenstrom* macroglobulinemia or wilm* tumor).ti,ab.
	16	14 or 15
	17	13 and 16
Chronic Lower Respiratory	14	Pulmonary Disease, Chronic Obstructive/ or respiratory tract diseases/ or bronchial diseases/ or asthma/ or bronchiectasis/ or bronchitis/ or bronchiolitis/ or bronchitis, chronic/ or lung diseases/
	15	(respiratory disease or chronic obstructive pulmonary disease or COPD or chronic bronchitis or emphysema or airway obstruction or respiratory tract disease or obstructive lung disease or bronchiectasis or Bronchiectasis or chronic respiratory disease, chronic lung disease, chronic obstructive lung disease, chronic airway limitation, CAL, lung disorder, asthma, obstructive lung function, lung function, spirometry, pulmonary function testing or asthma or wheeze or wheezing or bronchiolitis or bronchitis or cystic fibrosis or interstitial lung disease or pulmonary fibrosis).ti,ab.
	16	14 or 15
	17	13 and 16
Suicide	14	suicide/ or suicide, attempted/
	15	suicid*.ti,ab.
	16	14 or 15
	17	13 and 16
Microbial agents	14	exp bacterial infections/ or infection/ or exp virus diseases/ or exp parasitic diseases/ or exp Communicable Diseases/
	15	(Intestinal infectious diseases OR Tuberculosis OR bacterial diseases OR spirochetal diseases OR chlamydiae OR Rickettsioses OR Viral infectio* OR and prion infectio* OR viral fever and viral hemorrhagic fever OR herpesviruses OR Viral hepatitis OR viral disease OR virus OR Mycoses OR Protozoal diseases OR Helminthiasis OR

		Pediculosis OR acariasis OR infectio* OR parasit* OR Bacteri* OR infectious disease OR influenza OR pneumonia OR septicemia OR communicable OR transmissable disease).ti,ab.
	16	14 or 15
	17	13 and 16

Variable		Terms
Toxic agents (lead, particulate air pollution, environmental tobacco smoke)	14	environmental pollutants/ or air pollutants/ or soil pollutants/ or water pollutants/ or hazardous substances/ or pesticides/ or Lead/ or air pollution/ or environmental exposure/ or inhalation exposure/ or occupational exposure/ or radiation exposure/ or noise/ or petroleum pollution/ or traffic-related pollution/ or waste products/ or exp poisoning/ or gas poisoning/ or carbon monoxide poisoning/ or exp heavy metal poisoning/ or lead poisoning/ or air pollution/ or air pollution, indoor/ or air pollution, radioactive/ or tobacco smoke pollution/ or exp Water Pollution/ or Tobacco Smoke Pollution/
	15	(asbestos or lead or pollut* or benzene or carbon monoxide or ozone, nitrogen dioxide or sulfur dioxide or particulate matter or second-hand smok* or toxic agent* or toxic* or air pollution or toxin or anthrax or amines or aromatic or anthrax or arsenic or chemical* or chromium or environment* smok* or hazardous metals or mold or mould or nickel dust or noise or air contaminat* or dust or radiation or radon or uranium).ti,ab.
	16	14 or 15
	17	13 and 16
Motor vehicle	14	Accidents, Traffic/ or motor vehicles/
	15	(traffic accidents OR motor vehicle accidents OR mva or motor vehicle collision).ti,ab.
	16	((accident* OR crash* OR collision* OR collide*) adj5 (car OR automobile* OR vehicle* OR traffic* OR road)).ti,ab.
	17	14 or 15 or 16
	18	13 and 17
Firearms	14	Firearms/ or Wounds, Gunshot/
	15	(firearm* OR gun OR guns OR handgun*).ti,ab.
	16	14 or 15
	17	13 and 16

Variable		Terms
Accidents/ non-intentional injury	14	accidents/ or accidental falls/ or accidents, home/ or accidents, occupational/ or drowning/ or exp "Wounds and Injuries"/ or "Drug-Related Side Effects and Adverse Reactions"/
	15	(transport accident OR falls OR trip* OR drown OR accident* OR injur* OR accidental exposure or misadventure or non-intentional injury).ti,ab.
	16	14 or 15
	17	13 and 16
Alzheimer's	14	Alzheimer Disease/
	15	Alzheimer*
	16	14 or 15
	17	13 and 16
LDL Cholesterol/Lipids	14	Cholesterol/ or lipoproteins/ or lipoproteins, hdl/ or lipoproteins, ldl/ or Triglycerides/
	15	(Cholesterol OR High density lipoprotein OR High-density lipoprotein OR HDL OR Low density lipoprotein OR Low-density lipoprotein OR LDL OR Triglycerides OR TAG).ti,ab.
	16	14 or 15
	17	13 and 16

eFigure. Screening Flow Chart of a Systematic Review of Meta-Analyses



eTable 2. References of Meta-Analyses Included in the Estimates of Associations Between Childhood Adversity and Health Outcomes by Exposure Examined

		1 CA	2 CAs	3 CAs	4+ CAs	Any adversity	Physical abuse	Sexual abuse	Emotional abuse	Neglect
Unhealthy behaviors and disease markers										
Tobacco	Range	1, 2	2	2	2, 3		4		4	4
	Point estimate	1			3					
Physical inactivity	Range	2	2	2	2, 3		4			
	Point estimate				3					
Alcohol use	Range	1, 2	2	2	2, 3		4		4	4
	Point estimate	1			3					
Illicit drug use	Range	1, 2	2	2	2, 3		4		4	4
	Point estimate	1			3					
Metabolic syndrome						5a				
Inflammation^b	Range					6, 7	7	7	7	
	Point estimate					7				
STIs					3		4		4	4
Obesity	Range	1			8		4, 9, 10, 11, 12	9, 10, 11, 12, 13	4, 9, 10, 11, 12	4, 11, 12
	Point estimate						9	9	10	4
Disease outcomes										
Diabetes	Range	1, 2	2	2	2, 3		4, 14	14	4	4, 14
	Point estimate	1			3		4			4
Suicide	Range	2	2	2	2, 3		4, 15, 16, 17	15, 16, 17, 18, 19	4, 15, 17	4, 16
	Point estimate				2		4	19	15	4
Stroke		2	2	2	2		4			4
CLRD	Range	1, 2	2	2	2, 3		4			
	Point estimate	1			3					
Cancer		1			3		4			
Heart disease	Range	1, 2	2	2	2, 3		4		4	4
	Point estimate	1			3					
Hypertension							4			4

CA: childhood adversity; CLRD: chronic lower respiratory disease; STI: sexually transmitted infection, [specifically human immunodeficiency virus (HIV), syphilis and ICD-10 codes A50-A64 (infections with a predominantly sexual mode of transmission)]. a Exposure was specifically ≥ 2 CAs. b: Outcome specifically elevated CRP ($>3\text{mg/L}$ in a high sensitivity CRP test).

Table A2 presents references for the meta-analyses that were included in the range and point estimates of the association between different exposures of CA and health outcomes. The point estimate was extracted from the meta-analytic risk estimate that reflected the largest number of empirical datasets, with one exception for the association between 4+ CAs and suicide attempts. Here, the point estimate reflecting the largest number of empirical datasets was not consistent with observed data on the total number of suicide deaths, and the alternate point estimate was used.

eTable 3. Prevalence of Childhood Adversity From the National Comorbidity Survey Replication Adolescent Supplement (NCS-A)²⁰

Adversity category	Prevalence (%)	Standard Error	Items included in ACE Category
Any Adversity	58.3	1.3	Parental death, parental divorce, other parent loss, parent mental illness, parent substance use, parent criminal behavior, family violence, physical abuse, sexual abuse, emotional abuse, neglect, and economic adversity.
≥ 2 Adversities	33.8	1.57	2 or more of the adversities listed in the Any ACEs items
1 Adversity	24.0	1.0	Exactly one of the 12 outcomes above
2 Adversities	14.8	0.9	Exactly 2 of the adversities listed in the Any Adversity items
3 Adversities	9.1	0.8	Exactly 3 of the adversities listed in the Any Adversity items
4+ Adversities	9.9	0.8	4 or more of the adversities listed in the Any Adversity items
Physical abuse	4.2	0.5	A guardian slapping, hitting, pushing, grabbing, shoving or throwing something at the respondent often, kicking, biting, hitting with a fist, “beating up”, choking, burning, scalding, or threatening the respondent with a knife or gun often or sometimes, or reporting that the respondent was “badly beaten up by your parents or the people who raised you”.
Emotional abuse	5.9	0.7	A guardian insulting, swearing, shouting, yelling, screaming, or threatening to hit the respondent often.
Sexual abuse	4.4	0.4	Respondent reports of any rape or other inappropriate sexual touching.
Neglect	2.2	0.5	Reports of inadequate food, medical care, clothing or supervision, or doing age-inappropriate chores.

eTable 4. Definitions of How Each Adversity Was Defined

Adversity category	Definition	Source measure	Reliability statistics
Physical abuse	A guardian slapping, hitting, pushing, grabbing, shoving or throwing something at the respondent often, kicking, biting, hitting with a fist, “beating up”, choking, burning, scalding, or threatening the respondent with a knife or gun often or sometimes, or reporting that the respondent was “badly beaten up by your parents or the people who raised you”.	Conflicts Tactics Scale ²¹	Cronbach's alpha: .86 ²²
Emotional abuse	A guardian insulting, swearing, shouting, yelling, screaming, or threatening to hit the respondent often.	Conflicts Tactics Scale	Cronbach's alpha: .79 ²²
Sexual abuse	Respondent reports of any rape or other inappropriate sexual touching.	Composite International Diagnostic Interview (CIDI) ²³ .	-
Neglect	Reports of inadequate food, medical care, clothing or supervision, or doing age-inappropriate chores.	Sourced from those used in child welfare investigations ²⁴ .	-
Parental death	Reported mother died or father died before the age of 18.	-	-
Parental divorce	Reported parental separation/divorce as a reason why respondent does not live with either parent continuously their whole life.	-	-
Other parent loss	Either adopted after age 2 or foster care at any age or separated from parents for other reason or lived with other relatives or foster home or detention center before age of 16.	-	-
Parent mental illness	Either mother or father major depression, generalized anxiety disorder, or panic (yes to symptoms, all or most of childhood, with either treatment or impairment)	Family History Research Diagnostic Criteria (FHRDC) Interview and its extensions ^{25,26}	-
Parent substance use	Either mother or father having a problem with alcohol or drugs	Family History Research Diagnostic Criteria (FHRDC) Interview and its extensions ^{25,26}	-
Parent criminal behavior	Either mother or father involved in criminal activities, arrested or sent to prison	Composite International Diagnostic Interview (CIDI)	-
Family violence	Parents often hit, shoved, pushed, grabbed or slapped each other while growing up or respondent witnessed physical fights at home under the age of 18.	Conflict Tactics Scale ²¹ and Composite International Diagnostic Interview (CIDI) ²³	-
Economic adversity	Either received welfare or had single-parent household where parent often didn't work or no female head and no male head	Developed for use in the NCS.	-

eTable 5. Range and Point Estimates of Odds Ratios and Corresponding PAFs of the Association Between Different Types of Childhood Adversity and Health Outcomes

		Physical abuse		Emotional abuse		Sexual abuse		Neglect	
Outcome		Odds or Risk ratio	PAF	Odds or Risk ratio range	PAF range	Odds or Risk ratio range	PAF range	Odds or Risk ratio range	PAF range
Unhealthy behaviors and disease markers									
Tobacco smoking		1.55 (1.09 – 2.21)	.023 (.004 – .048)	1.7 (1.55 – 1.87)	.040 (.031 - .049)			1.2 (.98 – 1.48)	.004 (.000 - .010)
Illicit drug use		1.92 (1.67 – 2.2)	.037 (.027 - .048)	1.41 (1.11 – 1.79)	.024 (.006 - .045)			1.36 (1.21 – 1.54)	.008 (.005 - .012)
Physical inactivity		1.04 (.86 – 1.26)	.002 (-.006 - .011)						
Alcohol consumption		1.26 (1.03 – 1.55)	.011 (.001 - .023)	1.27 (1.11 – 1.46)	.016 (.006 - .026)			1.09 (.87 – 1.35)	.002 (-.003 - .008)
STIs	HIV	2.51 (1.16 – 5.42)	.060 (.007 - .157)	1.82 (1.34 – 2.47)	.046 (.020 - .080)			2.5 (0.77 – 8.15)	.032 (-.005 - .136)
	Other STIs	1.53 (1.13 – 2.07)	.022 (.005 – .043)	1.56 (1.26 – 1.93)	.032 (.015 – .052)			1.26 (1.08 – 1.46)	.006 (.002 – .010)
Obesity	Range (95% CI)	1.26 – 1.32 (1.06 - 1.64)	.011 - .013 (.003 - .026)	1.2 – 1.36 (1.06 – 1.71)	.012 - .021 (.004 - .040)	1.22 – 1.73 (1.05 – 1.93)	.010 - .031 (.002 - .039)	1.07 – 1.36 (0.97 - 1.55)	.002 - .008 (-.001 - .012)
	Point estimate	1.29	.012	1.36	.021	1.43	.019	1.07	.002
Inflammation		1.03 (0.65 – 1.6)	.001 (-.015 - .025)	1.12 (0.9 – 1.44)	.007 (-.006 - .025)	1.00 (0.83 – 1.2)	.000 (-.008 - .009)		
Disease outcomes									
Heart Disease		1.5 (1.4 – 1.9)	.021 (.017 - .036)	1.7 (1.5 – 1.9)	.040 (.029 - .050)			1.35 (1.17 – 1.55)	.008 (.004 - .012)

Cancer		1.26 (0.97 – 1.65)	.011 (-.001 - .027)						
CLRD	Bronchitis, emphysema	1.39 (1.19 – 1.62)	.016 (.008 - .025)						
	Asthma	1.74 (1.15 – 2.62)	.030 (.006 - .064)						
Suicide	Range (95% CI)	2.52 – 4.12 (1.66 – 7.34)	.060 - .116 (.027 - .210)	2.49 – 3.49 (1.64 - 4.74)	.081 - .128 (.036 - .181)	1.89 – 3.98 (1.66 – 6.05)	.038 - .116 (.028 - .182)	1.76 – 1.95 (0.71 – 4.36)	.016 - .020 (-.006 - .069)
	Point estimate	3.40	.092	2.49	.081	1.89	.038	1.95	.020
Diabetes	Range (95% CI)	1.01 – 1.3 (0.79 - 1.42)	.000 - .012 (-.009 - .017)	1.19 (0.74 – 1.93)	0.011 (-.016 - .052)	1.39 (1.28 – 1.52)	.017 (.012 - .022)	1.11 – 1.92 (0.97 – 2.57)	.002 - .020 (-.001 - .033)
	Point estimate	1.01	.000	1.19	.011	1.39	.017	1.11	.002
Stroke		1.76 (0.56 – 5.51)	0.031 (-.019 - .159)					3.00 (0.99 – 9.1)	.042 (.000 - .151)
Hypertension		1.16 (0.94 – 1.44)	.007 (-.003 - .018)					1.04 (0.78 – 1.39)	.001 (-.005 - .009)

CLRD: chronic lower respiratory disease; STI: sexually transmitted infection, [specifically human immunodeficiency virus (HIV), syphilis, gonorrhea, trichomoniasis, genital herpes, human papillomavirus, sexually transmitted hepatitis B virus].

Odds ratios (ORs) or risk ratios (RRs) were extracted from a systematic review of meta-analyses on the association of childhood adversity with health outcomes. The PAF was calculated using the formula: $PAF = (P * (RR - 1)) / (1 + (P * (RR - 1)))$ where P is the prevalence of the exposure (experiencing at least four types of adversity), and RR is the risk ratio (we substituted ORs where RRs were not available). Where multiple meta-analytic estimates were available for the same outcome, we used the lowest and highest estimates to construct a range of ORs/RRs and used the lowest and highest bounds of the 95% confidence interval reported across the included meta-analyses to provide the 95% CI reported in brackets. Where only one meta-analytic estimate was available, the point estimate and 95% CI from that meta-analysis is reported. Reported in the “Point estimate” row is the meta-analytic estimate that reflected the largest number of empirical datasets. The PAF range was calculated using the range of OR estimates; where only one estimate was available (i.e. no range), the PAF range was calculated using the 95% CI.

When the OR/RR range includes one and the PAF range includes zero, this indicates that an included meta-analysis did not find that specific childhood adversity exposure to be associated with increased risk of that outcome.

eTable 6. Annual US Cases of Unhealthy Behaviors and Disease Markers and Annual US Deaths Attributable to Different Types of Childhood Adversity

			Physical abuse	Emotional abuse	Sexual abuse	Neglect
Unhealthy Behaviors and Disease Markers						
		Number of cases	Cases due to CA	Cases due to CA	Cases due to CA	Cases due to CA
Tobacco smoking		34,000,000 ²⁷	767,667	1,348,507		148,945
Illicit drug use		28,500,000 ²⁸	1,060,271	673,132		223,946
Physical inactivity		107,489,253 ²⁹	180,279			
Alcohol consumption		14,400,000 ³⁰	155,549	225,795		28,456
STIs	HIV	984,000 ³¹	58,684	45,409		31,435
	Other STIs	66,578,000 ³¹	1,449,755	2,129,382		378,660
Obesity		107,998,681 ³²	1,299,595	2,246,183	2,005,393	166,062
Inflammation		95,189,462 ³³	119,788	669,203	0	
Disease outcomes						
		Number of deaths	Deaths due to CA	Deaths due to CA	Deaths due to CA	Deaths due to CA
Heart Disease		659,041	13,555	26,139		5,036
Cancer		599,601	6,477			

CLRD	Bronchitis, emphysema	7,720	124			
	Asthma	3,524	107			
Suicide		47,511	4,351	3,839	1,790	973
Diabetes		87,647	37	972	1,479	212
Stroke		150,005	4,640			6,322
Hypertension		36,524	244			32
Total		1,596,663	29,837	31,184	3,269	12,736

CLRD: chronic lower respiratory disease; STI: sexually transmitted infection, [specifically human immunodeficiency virus (HIV), syphilis, gonorrhea, trichomoniasis, genital herpes, human papillomavirus, sexually transmitted hepatitis B virus].

Point estimates of the PAFs of childhood adversity for each outcome were applied to the number of cases of each unhealthy behavior and disease marker to derive the number of cases of health behaviors attributable to different levels of exposure to childhood adversity (shown in top panel) and applied to the number of deaths for each of the causes of death in 2019 to derive the number of deaths attributable to childhood adversity exposures (shown in bottom panel). The number of cases of each health behavior was sourced from the referenced data. The number of deaths for each outcome were sourced from the CDC WONDER database for 2019. The bottom total row refers only to the causes of death. It was created by summing each column and reflects the number of deaths attributable to each type of childhood adversity, i.e., the number of deaths associated with childhood physical abuse, emotional abuse, sexual abuse and neglect.

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