

etable3: Definition of the Variables Used in the Small Area Estimation Predictive Models

Variables	Definition
Variables	Definition
Outcome	
ACEs score of 0, 1, 2-3, or 4+	ACEs exposure status for a BRFSS survey respondent; categorized as exposure to 0, 1, 2-3, or 4+ ACEs during childhood
Individual-level characteristics of a BRFSS respondent*	
Sociodemographic characteristics	
Sex	Male/female identifier
Race/ethnicity	Race/ethnicity identifier; categorized as White (non-Hispanic), African American (non-Hispanic), Asian (non-Hispanic), American Indian or Alaskan Native (non-Hispanic), Hispanic, other
Age, years	Respondent's age in years; categorized as 18-34, 35-54, and 55 years or older
Education	Respondent's education identifier; categorized as did not graduate from high school; graduated from high school; or attended college or graduated from college
Marital status	Marital status identifier; categorized as married, divorced, widowed, separated, never married, member of an unmarried couple, missing/invalid
Language	Language identifier; categorized as English or other
Annual household income from all sources, USD	Annual household income identifier; categorized as less than \$25,000 or missing, \$25,000-\$50,000, and \$50,000 or more
Employment status	Employment status identifier; categorized as employed for wage, self-employed/homemaker/student, out of work, retired, unable to work, missing/invalid
Home ownership	Home ownership identifier; categorized as own, rent, other arrangements, or missing/invalid
Metropolitan statistical area (MSA) status	MSA identifier; categorized as metropolitan/non-metropolitan areas
Urbanicity	Identifier for urban/rural counties
U.S. division	U.S. division identifier; categorized as New England (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, Pennsylvania), Mideast (Delaware, District of Columbia, Maryland, New Jersey, New York), South Atlantic (Florida, Georgia, North Carolina, South Carolina, Virginia, West Virginia), West/East South Central division (Alabama, Arkansas, Kentucky, Louisiana, Mississippi, Oklahoma, Tennessee, Texas), Great Lakes (Michigan, Illinois, Indiana, Ohio, Wisconsin), Plains (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota), Far West (Alaska, California, Colorado, Hawaii, Idaho, Montana, Oregon, Wyoming, Washington), and Mountain (Arizona, Nevada, New Mexico, Utah)
Access to care	
Access to a personal healthcare provider	Access to a personal healthcare provider identifier; categorized as yes (access to one or more providers) or no
Any health care coverage	Identifier for any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare, or Indian Health Service Health care coverage identifier; categorized as yes or no
Skipped medical visits due to cost	Identifier for respondents who had to skip medical visits within the past 12 months due to inability to cover medical costs; categorized as yes or no
Health outcomes associated with ACEs	
General health status	General health identifier; categorized as excellent, very good, good, fair, or poor/missing/invalid
Hearing impairment status	Identifier for serious hearing impairment; categorized as yes, no, or missing/invalid
Vision impairment status	Indicator of serious difficulty seeing (even when wearing glasses); categorized as yes, no, or missing/invalid
Smoking status	Four-level smoker status; categorized as current everyday smoker, current someday smoker, former smoker, never smoker, missing/invalid
Heavy drinker status	Heavy drinker identifier; categorized as yes, no, or missing/invalid
HIV risk group	HIV risk group status (if injects drugs, has sexually transmitted infections, or exchanges sex for money/drugs); categorized as yes, no, or missing/invalid
Diagnosis of	
depressive disorder	Identifier for ever having a depressive disorder
coronary heart disease	Identifier for ever being diagnosed with coronary heart disease or myocardial infarction; categorized as yes, no, or missing/invalid
cancer	Identifier for ever being diagnosed with cancer; categorized as yes, no, or missing/invalid

etable3: Definition of the Variables Used in the Small Area Estimation Predictive Models

Variables	Definition
asthma	Identifier for ever being diagnosed with asthma; categorized as yes, no, or missing/invalid
chronic obstructive pulmonary disease (COPD)	Identifier for ever being diagnosed with COPD; categorized as yes, no, or missing/invalid
arthritis	Identifier for ever being diagnosed with arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia; categorized as yes, no, or missing/invalid
diabetes	Identifier for non-gestational diabetes; categorized as yes, no, or missing/invalid
kidney disease	Identifier for ever having a kidney disease (except for kidney stones, bladder infection or incontinence); categorized as yes, no, or missing/invalid
State-level ACEs-related factors that were not available at BRFSS	
Data on mental health from CDC Wonder[†] for 2018-2019	
Suicide rate	Single-race suicide rate stratified by race/ethnicity, per 100,000 U.S. Standard Population (base on the 2000 U.S. population)
Homicide rate	Single-race homicide rate stratified by race/ethnicity, per 100,000 U.S. Standard Population (base on the 2000 U.S. population)
Drug-induced death rate	Single-race drug-induced death rate stratified by race/ethnicity, per 100,000 U.S. Standard Population (base on the 2000 U.S. population)
Alcohol-induced death rate	Single-race alcohol-induced death rate stratified by race/ethnicity, per 100,000 U.S. Standard Population (base on the 2000 U.S. population)
Data on maternal health from Guttmacher Institute[‡] for 2017	
Abortions, %	Percentage of pregnancies ending in abortion among females aged 15–44
Unwanted pregnancies, %	Percentage of the wanted-later or unwanted pregnancies ending in birth among females aged 15–44
Birthrate, ages 15-17	Birthrate (the number of births per 1,000 females aged 15-17), by state of residence
Birthrate, ages 18-19	Birthrate (the number of births per 1,000 females aged 18-19), by state of residence
Data on infectious diseases from CDC AtlasPlus[¶] for 2019	
Syphilis rate	Rate of primary and secondary syphilis among all age groups stratified by race/ethnicity, per 100,000 population
HIV rate	HIV rate among ages 13 years and older stratified by race/ethnicity and sex, per 100,000 population
Chlamydia rate	Chlamydia rate among all age groups stratified by race/ethnicity and sex, per 100,000 population
Gonorrhea rate	Gonorrhea rate among all age groups stratified by race/ethnicity and sex, per 100,000 population
Data on illicit drugs use from the National Survey on Drug Use and Health^{**} for 2019	
Illicit drug use, ages 12+	Estimated percentage of population who used illicit drugs ^{††} in the past month, ages 12 and older
Illicit drug use, ages 12-17	Estimated percentage of population who used illicit drugs in the past month, ages 12-17
Illicit drug use, ages 18-25	Estimated percentage of population who used illicit drugs in the past month, ages 18-25
Illicit drug use, ages 26+	Estimated percentage of population who used illicit drugs in the past month, ages 26 and older
Data on poverty from U.S. Census Bureau^{§§} for 2019-2020	
Poverty, %	Percentage of population in poverty, a 2-year average estimate (with the annual poverty thresholds ^{¶¶} defined by the U.S. Census Bureau base on the family income and size)

^{*}Source: Centers for Disease Control and Prevention. 2020 BRFSS Survey Data and Documentation 2021. Available from: https://www.cdc.gov/brfss/annual_data/annual_2020.html

[†]Source: CDC WONDER Multiple Cause of Death, 2018-2019. Centers for Disease Control and Prevention, Atlanta, GA, <https://wonder.cdc.gov/controller/datarequest/D157>

[‡]Source: Guttmacher Institute Data Center, 2021. Guttmacher Institute, Washington, DC., <https://data.guttmacher.org/states>

[¶]Source: Centers for Disease Control and Prevention. NCHHSTP AtlasPlus, 2021. Available from <https://www.cdc.gov/nchhstp/atlas/index.htm>

^{**}Source: National Survey on Drug Use and Health (NSDUH) Population Data, 2019. Substance Abuse and Mental Health Data Archive (SAMHDA), Rockville, MD, <https://www.samhsa.gov/data/sites/default/files/reports/rpt32885/2019NSDUHsaeSpecStates/NSDUHsaeSpecificStates2019.htm>

^{††}Illicit Drug Use includes the misuse of prescription psychotherapeutics or the use of marijuana, cocaine (including crack), heroin, hallucinogens, inhalants, or methamphetamine.

^{§§}Source: Income and Poverty in the United States: 2020. United States Census Bureau, Washington, DC., <https://www.census.gov/data/tables/2021/demo/income-poverty/p60-273.html>

^{¶¶}Source: Poverty Thresholds:2020. United States Census Bureau, Washington, DC., <https://www.census.gov/data/tables/2021/demo/income-poverty/p60-273.html>