DATA EXPLAINER – Explore our Data Model and Sources

Broadband Connectivity

As detailed in the chart below, fixed broadband data are drawn from the FCC's Broadband Data Collection (BDC) program (as of December 2022), the FCC's Form 477 data program (2022), Universal Service Administrative Company (USAC) Rural Health Care Commitments and Disbursements program (2018-2023), and the U.S. Census Bureau's American Community Survey (2016-2020). We focus on four primary dimensions of connectivity: availability (access), subscription (adoption), digital device ownership, and funding (for rural health care facilities). The broadband variables displayed and visualized in the platform were chosen to provide insights into what can be enabled and delivered through the broadband health ecosystem of networks, devices, and applications and to identify exactly where opportunities and gaps exist. These data points include – broadband access, rural broadband access, Internet adoption, digital device ownership, and rural health care funding.

BROADBAND CONNECTIVITY DATA			
Dimensions	**Measures**	**Data Year**	**Release Year**
Access	Fixed Broadband Access	2022	2024
	Mobile Access	2022	2024
	Fixed Broadband and Mobile Access	2022	2024
	Rural Fixed Broadband Access	2022	2024
	Rural Mobile Access	2022	2024
	Rural Fixed Broadband and Mobile Access	2022	2024
Adoption	Internet Adoption – Any Speed	2022	2024
	Broadband Adoption	2022	2024
	Internet Adoption – High Speed (Self-Report)	2016-2020	2023
Device Ownership	Households – Smartphone Only	2016-2020	2023
	Households – No Device	2016-2020	2023
	Households – Desktop or Laptop Only	2016-2020	2023
Funding	All Eligible Entities (Total)	2018-2023	2024
	Community Health Centers	2018-2023	2024
	Community Mental Health Centers	2018-2023	2024

	Consortia	2018-2023	2024
	Dedicated Emergency Rooms	2018-2023	2024
	Educational Institutions	2018-2023	2024
	Local Health Departments	2018-2023	2024
	Not-For-Profit Hospitals	2018-2023	2024
	Rural Health Clinics	2018-2023	2024
	Skilled Nursing Facilities	2018-2023	2024
	Other Entities	2018-2023	2024

Access

Fixed Broadband Access

Percentage of population with access to fixed terrestrial broadband services at 100/20 Mbps or higher advertised speeds. 100/20 Mbps is the Commission's current benchmark for fixed broadband service. BDC data is collected at the broadband serviceable location level. Learn more.
Data Source: Original—FCC BDC data; FCC Staff Block Estimates; Obtained from 2024 Section 706 Report, Appendix B-12.
Data Year: 2022
Variable: Fixed 100 20

Mobile Access

Percentage of population with access to outdoor stationary mobile 5G-NR service at 35/3 Mbps or higher advertised speeds. 5G-NR service at 35/3 Mbps speeds or greater is the highest speed that the Commission collects for mobile data and is the threshold speed used by the Commission for analyzing mobiles service availability. BDC data is collected at the broadband serviceable location level.
Data Source: Original—FCC BDC data; FCC Staff Block Estimates; 2020 Census; ACS Five-Year Estimates for 2018-2022; Obtained from 2024 Section 706 Report, Appendix B-12
Data Year: 2022
Variable: Mobile 5g 35 3

Fixed Broadband and Mobile Access

Percentage of population with access to fixed terrestrial broadband services at 100/20 Mbps or higher advertised speeds and outdoor stationary mobile 5G-NR service at 35/3

Mbps or higher advertised speeds. BDC data is collected at the broadband serviceable location level.
Data Source: Original—FCC BDC data; FCC Staff Block Estimates; 2020 Census; ACS Five-Year Estimates for 2018-2022; Obtained from 2024 Section 706 Report, Appendix B-12
Data Year: 2022
Variable: Fixed and Mobile

Rural Fixed Broadband Access

Percentage of population living in rural census blocks with access to fixed terrestrial broadband service at 100/20 Mbps or higher advertised speeds. 100/20 Mbps is the Commission's current benchmark for fixed broadband service. BDC data is collected at the broadband serviceable location level.
Data Source: Original—FCC BDC data; FCC Staff Block Estimates; 2020 Census Urban Areas; Obtained from 2024 Section 706 Report, Appendix B-13
Data Year: 2022
Variable: Rural Fixed 100 20

Rural Mobile Access

Percentage of population living in rural census blocks with access to outdoor stationary mobile 5G-NR service at 35/3 Mbps or higher advertised speeds. 5G-NR service at 35/3 Mbps speeds or greater is the highest speed that the Commission collects for mobile data and is the threshold speed used by the Commission for analyzing mobiles service availability. BDC data is collected at the broadband serviceable location level.
Data Source: Original—FCC BDC data; FCC Staff Block Estimates; 2020 Census Urban Areas; Obtained from 2024 Section 706 Report, Appendix B-13
Data Year: 2022
Variable: Rural Mobile 5g 35 3

Rural Fixed Broadband and Mobile Access

Percentage of population living in rural census blocks with access to both fixed terrestrial broadband services at 100/20 Mbps or higher advertised speeds and outdoor stationary mobile 5G-NR service at 35/3 Mbps or higher advertised speeds. BDC data is collected at the broadband serviceable location level.
Data Source: Original—FCC BDC data; FCC Staff Block Estimates; 2020 Census Urban Areas; Obtained from 2024 Section 706 Report, Appendix B-13
Data Year: 2022
Variable: Rural Fixed And Mobile

Adoption

Broadband Adoption

The number of fixed terrestrial connections at 100/20 Mbps or higher divided by the number of households in which fixed terrestrial services are available at 100/20 Mbps or

higher advertised speeds (the Commission's current benchmark for fixed broadband service). Data for this variable is currently only available at the state level.
Data Source: Original—FCC BDC data; FCC Staff Block Estimates; Obtained from [2024 Section 706 Report], Appendix B-7
Data Year: 2022
Variable: Adoption Fixed 100 20

Internet Adoption – Any Speed

The number of residential (consumer) connections over 200 Kbps per 100 households. This ratio reflects the number of fixed connections over 200 Kbps in one direction. Connections over 200 Kbps is the equivalent of 0.2 Mbps. Therefore, Internet adoption captures all residential locations with a fixed broadband connection.
Data Source: Internet Access Services Report. Form 477 County-Level Connection Data, Form 477 County-Level Tier Data.
Data Year: 2022
Variable: subscription_ratio

Internet Adoption – High Speed (Self-Report)

Self-reported percentage of households with a high-speed Internet connection through subscription including cable, DSL, or fiber-optic. Data collected by American Community Survey questionnaire asking whether any member of respondent's household has access to the Internet by paying an Internet service provider and using a high-speed Internet service such as cable, fiber optic, or DSL service installed in the household. [Learn more].
Data Source: Original—Census American Community Survey (ACS); Obtained from Agency for Healthcare Research and Quality (AHRQ) [Social Determinants of Health Database]
Data Year: 2016-2020
Variable: Broadband Access Acs

Device Ownership

Households - Smartphone Only

Percentage of households with a smartphone only. These households do not have any other type of computing device, such as a desktop or laptop, tablet or other portable wireless computer, or other type of computer. Data collected by American Community Survey questionnaire asking whether any member of respondent's household owns or uses any computers, including desktop, laptop, smartphone, tablet or other portable wireless computer. [Learn more].
Data Source: Original—Census American Community Survey (ACS); Obtained from Agency for Healthcare Research and Quality (AHRQ) [Social Determinants of Health Database].
Data Year: 2016-2020
Variable: Smartphone Only Pct

Households - No Device

Percentage of households without a computing device (e.g., smartphone, desktop or laptop, tablet or other portable wireless computer, or other type of computer). Data collected by American Community Survey questionnaire asking whether any member of respondent's household owns or uses any computers, including desktop, laptop, smartphone, tablet or other portable wireless computer. Learn more.
Data Source: Original—Census American Community Survey (ACS); Obtained from Agency for Healthcare Research and Quality (AHRQ) Social Determinants of Health Database
Data Year: 2016-2020
Variable: No Computing Devices Pct

Households - Desktop or Laptop Only

Percentage of households with a desktop or laptop only. These households do not have any other type of computing device, such as a smartphone, tablet or other portable wireless computer, or other type of computer. Data collected by American Community Survey questionnaire asking whether any member of respondent's household owns or uses any computers, including desktop, laptop, smartphone, tablet or other portable wireless computer. Learn more.
Data Source: Original—Census American Community Survey (ACS); Obtained from Agency for Healthcare Research and Quality (AHRQ) Social Determinants of Health Database.
Data Year: 2016-2020
Variable: Desktop Laptop Only

Funding

All Eligible Entities (Total)

Total funding committed from the FCC's Rural Health Care program to All Eligible Entity Types. The Rural Health Care Program, provides funding to eligible health care providers for telecommunications and broadband services necessary for the provision of health care.
Data Source: Universal Service Administrative Company (USAC) Rural Health Care Commitments and Disbursements (FCC Form 462/466/466A)
Data Year: June 1, 2018 – July 30, 2024 (Note: The data years cover the funding years of 2018-2023, but each funding year begins on June 1 and ends on July 30 of the next year. Thus, the actual data year range is 2018-2024 as indicated.)
Variable: RHC_committed_total

Community Health Centers

Funds committed from the FCC's Rural Health Care program to community health centers or health centers providing health care to migrants. The Rural Health Care Program, provides funding to eligible health care providers for telecommunications and broadband services necessary for the provision of health care.
Data Source: Universal Service Administrative Company (USAC) Rural Health Care Commitments and Disbursements (FCC Form 462/466/466A)

Data Year: June 1, 2018 – July 30, 2024 (Note: The data years cover the funding years of 2018-2023, but each funding year begins on June 1 and ends on July 30 of the next year. Thus, the actual data year range is 2018-2024 as indicated.)
Variable: RHC_committed_community_health_center

Community Mental Health Centers

Funds committed from the FCC's Rural Health Care program to community mental health centers. The Rural Health Care Program, provides funding to eligible health care providers for telecommunications and broadband services necessary for the provision of health care.
Data Source: [Universal Service Administrative Company (USAC) Rural Health Care Commitments and Disbursements (FCC Form 462/466/466A)](#)
Data Year: June 1, 2018 – July 30, 2024 (Note: The data years cover the funding years of 2018-2023, but each funding year begins on June 1 and ends on July 30 of the next year. Thus, the actual data year range is 2018-2024 as indicated.)
Variable: RHC_committed_community_mental_health_center

Consortia

Funds committed from the FCC's Rural Health Care program to consortia of not-for-profit hospitals and rural health clinics. The Rural Health Care Program, provides funding to eligible health care providers for telecommunications and broadband services necessary for the provision of health care.
Data Source: [Universal Service Administrative Company (USAC) Rural Health Care Commitments and Disbursements (FCC Form 462/466/466A)](#)
Data Year: June 1, 2018 – July 30, 2024 (Note: The data years cover the funding years of 2018-2023, but each funding year begins on June 1 and ends on July 30 of the next year. Thus, the actual data year range is 2018-2024 as indicated.)
Variable: RHC_committed_consortium

Dedicated Emergency Rooms

Funds committed from the FCC's Rural Health Care program to dedicated emergency rooms of a rural for-profit hospital. The Rural Health Care Program, provides funding to eligible health care providers for telecommunications and broadband services necessary for the provision of health care.
Data Source: [Universal Service Administrative Company (USAC) Rural Health Care Commitments and Disbursements (FCC Form 462/466/466A)](#)
Data Year: June 1, 2018 – July 30, 2024 (Note: The data years cover the funding years of 2018-2023, but each funding year begins on June 1 and ends on July 30 of the next year. Thus, the actual data year range is 2018-2024 as indicated.)
Variable: RHC_committed_dedicated_ER

Educational Institutions

Funds committed from the FCC's Rural Health Care program to post-secondary educational institutions offering health care instruction. The Rural Health Care Program, provides funding to eligible health care providers for telecommunications and broadband services necessary for the provision of health care.
Data Source: [Universal Service Administrative Company (USAC) Rural Health Care Commitments and Disbursements (FCC Form 462/466/466A)](#)
Data Year: June 1, 2018 – July 30, 2024 (Note: The data years cover the funding years of 2018-2023, but each funding year begins on June 1 and ends on July 30 of the next year. Thus, the actual data year range is 2018-2024 as indicated.)
Variable: RHC_committed_educational_institution

Local Health Departments

Funds committed from the FCC's Rural Health Care program to local health departments or agencies. The Rural Health Care Program, provides funding to eligible health care providers for telecommunications and broadband services necessary for the provision of health care.
Data Source: [Universal Service Administrative Company (USAC) Rural Health Care Commitments and Disbursements (FCC Form 462/466/466A)](#)
Data Year: June 1, 2018 – July 30, 2024 (Note: The data years cover the funding years of 2018-2023, but each funding year begins on June 1 and ends on July 30 of the next year. Thus, the actual data year range is 2018-2024 as indicated.)
Variable: RHC_committed_local_health_dept

Not-For-Profit Hospitals

Funds committed from the FCC's Rural Health Care program to not-for-profit hospitals. The Rural Health Care Program, provides funding to eligible health care providers for telecommunications and broadband services necessary for the provision of health care.
Data Source: [Universal Service Administrative Company (USAC) Rural Health Care Commitments and Disbursements (FCC Form 462/466/466A)](#)
Data Year: June 1, 2018 – July 30, 2024 (Note: The data years cover the funding years of 2018-2023, but each funding year begins on June 1 and ends on July 30 of the next year. Thus, the actual data year range is 2018-2024 as indicated.)
Variable: RHC_committed_not_for_profit_hospital

Rural Health Clinics

Funds committed from the FCC's Rural Health Care program to rural health clinics. The Rural Health Care Program, provides funding to eligible health care providers for telecommunications and broadband services necessary for the provision of health care.
Data Source: [Universal Service Administrative Company (USAC) Rural Health Care Commitments and Disbursements (FCC Form 462/466/466A)](#)

Data Year: June 1, 2018 – July 30, 2024 (Note: The data years cover the funding years of 2018-2023, but each funding year begins on June 1 and ends on July 30 of the next year. Thus, the actual data year range is 2018-2024 as indicated.)
Variable: RHC_committed_rural_health_clinic

Skilled Nursing Facilities

Funds committed from the FCC's Rural Health Care program to skilled nursing facilities. The Rural Health Care Program, provides funding to eligible health care providers for telecommunications and broadband services necessary for the provision of health care.
Data Source: Universal Service Administrative Company (USAC) Rural Health Care Commitments and Disbursements (FCC Form 462/466/466A)
Data Year: June 1, 2018 – July 30, 2024 (Note: The data years cover the funding years of 2018-2023, but each funding year begins on June 1 and ends on July 30 of the next year. Thus, the actual data year range is 2018-2024 as indicated.)
Variable: RHC_committed_nursing_facility

Other Entities

Funds committed from the FCC's Rural Health Care program to off-site data centers and off-site administrative offices that help eligible entities to function. The Rural Health Care Program, provides funding to eligible health care providers for telecommunications and broadband services necessary for the provision of health care.
Data Source: Universal Service Administrative Company (USAC) Rural Health Care Commitments and Disbursements (FCC Form 462/466/466A)
Data Year: June 1, 2018 – July 30, 2024 (Note: The data years cover the funding years of 2018-2023, but each funding year begins on June 1 and ends on July 30 of the next year. Thus, the actual data year range is 2018-2024 as indicated.)
Variable: RHC_committed_other

Chronic Disease and Health Behaviors

Health data is drawn in part from the 2024 release of the County Health Rankings & Roadmaps program, a collaboration between the Robert Wood Johnson Foundation and University of Wisconsin Population Health Initiative. This dataset reflects the most recent data on the metrics of interest from the Centers for Disease Control and Prevention, Health Resources and Services Administration, and Centers for Medicare and Medicaid Services, among others. Other data sources include U.S. Cancer Statistics Data (Incidence from CDC's National Program of Cancer Registries (NPCR) and NCI's Surveillance, Epidemiology, and End Results (SEER) Program), CDC PLACES and Behavioral Risk Factor Surveillance Survey (BRFSS), and HRSA, Area Health Resource Files. As detailed in the chart below, the metrics reflect four dimensions of health – health outcomes, access to care, quality of care, and risk factors – where broadband connectivity may be used to enable effective and cost-saving interventions. We also include statistics on selected community factors of interest.

CHRONIC DISEASE DATA			
Health Dimensions and Factors	Health Measures	Data Year	Release Year
Outcomes	Diabetes	2021	2024
	Obesity	2021	2024
	Poor/Fair Health	2021	2024
	Sick Days	2021	2024
	Premature Death	2019-2021	2024
	Breast Cancer – Incidence	2017-2021	2024
	Breast Cancer – Mortality	2018-2022	2024
Access to Care	Physician Access	2021	2024
	Dental Providers	2022	2024
	Hospitals –Mammography Services	2021	2024
Quality of Care	Preventable Hospitalization	2021	2024
Risk Factors	Smoking	2021	2024
	Excessive Drinking	2021	2024
	Physical Inactivity	2021	2024
	Mammography Screening	2020	2024

Outcomes

Diabetes

Percentage of adults (aged 20 and older) with diagnosed diabetes (age-adjusted). Includes Type 1 & Type 2 diabetes (and excludes gestational diabetes). Data collected via landline and cellphone survey. Learn more.

Data Source: Original—CDC Behavioral Risk Factor Surveillance System; Obtained from County Health Rankings & Roadmaps program
Data Year: 2021
Variable: Diabetes Pct

Obesity

Percentage of adults (aged 18 and older) that report a body mass index (BMI) greater than or equal to 30 kg/m2 (age-adjusted). Participants self-report height and weight, and BMI is calculated for reported values. Data collected via landline and cellphone survey. Learn more.
Data Source: Original—CDC Behavioral Risk Factor Surveillance System; Obtained from County Health Rankings & Roadmaps program
Data Year: 2021
Variable: Adult Obesity Pct

Poor/Fair Health

Percentage of adults who consider themselves to be in poor or fair health (age-adjusted). Data collected via landline and cellphone survey asking respondents to self-report health as "excellent," "very good," "good," "fair," or "poor." Learn more.
Data Source: Original—CDC Behavioral Risk Factor Surveillance System; Obtained from County Health Rankings & Roadmaps program
Data Year: 2021
Variable: Poor/Fair Health

Sick Days

Average number of physically unhealthy days reported in the past 30 days (age-adjusted). Data collected via telephone survey asking respondents to self-report the number of days that their "physical health" was "not good." Learn more.
Data Source: Original—CDC Behavioral Risk Factor Surveillance System; Obtained from County Health Rankings & Roadmaps program
Data Year: 2021
Variable: Poor Physical Health Days Within Last 30 Days

Premature Death

Years of potential life lost before age 75 per 100,000 persons (age-adjusted). Calculated by adding all the years of potential life lost during a three-year period and dividing by total population during that same period. Years of potential life lost is the age of the individual at the time of death subtracted from 75. Learn more.
Data Source: Original—National Center for Health Statistics – Natality and Mortality Files; Census Population Estimates Program; Obtained from County Health Rankings & Roadmaps program
Data Year: 2019-2021

Variable: Years Lost Per 100000

Breast Cancer – Incidence

Age-adjusted incidence rate of the total number of new breast cancer cases diagnosed in 2017-2021 for all ages, all races and ethnicities, in females, divided by the at-risk population for that category and multiplied by 100,000.
Data Source: Original—CDC's National Program of Cancer Registries (NPCR) and NCI's Surveillance, Epidemiology, and End Results (SEER) Program; Obtained from U.S. Cancer Statistics
Data Year: 2017-2021
Variable: Cancer Incidence Breast

Breast Cancer – Mortality

Age-adjusted death rate of the total number of breast cancer deaths during 2018-2022 for all ages, all races and ethnicities, and all male and female, divided by the at-risk population for that category and multiplied by 100,000.
Data Source: Original—CDC's National Center for Health Statistics (NCHS) National Vital Statistics System (NVSS); Obtained from U.S. Cancer Statistics
Data Year: 2018-2022
Variable: Cancer Mortality Breast

Access to Care

Physician Access

Ratio of primary care physicians per 100,000 population. Primary care physicians include practicing non-federal physicians (M.D.s and D.O.s) under age 75 specializing in general practice medicine, family medicine, internal medicine, and pediatrics. Learn more.
Data Source: Original—Area Health Resource File / American Medical Association; Obtained from County Health Rankings & Roadmaps program
Data Year: 2021
Variable: Pcp Rate Per 100000

Dental Providers

Number of dentists.
Data Source: Original—Area Health Resource File/National Provider Identification; Obtained from County Health Rankings & Roadmaps program
Data Year: 2022
Variable: Dentist Total

Hospitals – Mammography Services

Number of hospitals with breast cancer screening/mammography services.

Data Source: Original—Area Health Resource File / American Medical Association; Obtained from HRSA, Area Health Resource File
Data Year: 2021
Variable: hospitals_breast_cancer_screening

Quality of Care

Preventable Hospitalization

Rate of hospital stays for ambulatory-care sensitive conditions per 100,000 Medicare enrollees (age-adjusted). The rate is calculated by taking the number of discharges for Medicare beneficiaries aged 18 years or older continuously enrolled in Medicare fee-for-service Part A and hospitalized for ambulatory-care reasons, divided by the number of Medicare beneficiaries aged 18 years or older. Ambulatory-care sensitive conditions are diagnoses that are usually treatable in an outpatient setting, but hospitalization for these conditions suggests that quality of care in the outpatient setting was less than ideal. Learn more.
Data Source: Original—Mapping Medicare Disparities Tool; Centers for Medicare & Medicaid Services Office of Minority Health; Obtained from County Health Rankings & Roadmaps program
Data Year: 2021
Variable: Preventable Hospital Stays Per 100000

Risk Factors

Smoking

Percentage of adults who are current smokers. Current smokers are those who self-report smoking every day or most days and have smoked at least 100 cigarettes in their lifetime. Data collected via landline and cellphone survey. Learn more.
Data Source: Original—CDC Behavioral Risk Factor Surveillance System; Obtained from County Health Rankings & Roadmaps program
Data Year: 2021
Variable: Smoking Pct

Excessive Drinking

Percentage of adults reporting binge or heavy drinking during the last 30 days. Binge drinking is defined as a woman consuming more than four alcoholic drinks during a single occasion, or a man consuming more than five. Heavy drinking is defined as a woman drinking more than one drink on average per day, or a man drinking more than two. Data collected via landline and cellphone survey. Learn more.
Data Source: Original—CDC Behavioral Risk Factor Surveillance System; Obtained from County Health Rankings & Roadmaps program
Data Year: 2021
Variable: Drinking Pct

Physical Inactivity

Percentage of adults (age 20 and over) reporting no leisure-time physical activity. Data collected via landline and cellphone survey wherein respondents were asked if during the past month they had participated "in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise." Learn more.
Data Source: Original—CDC Behavioral Risk Factor Surveillance System; Obtained from County Health Rankings & Roadmaps program
Data Year: 2021
Variable: Physical Inactivity

Mammography Screening Prevalence

Model-based estimate for crude prevalence of mammography use in the previous two years among women aged 50–74 years.
Data Source: Original—Behavioral Risk Factor Surveillance Survey (BRFSS); Obtained from CDC PLACES
Data Year: 2020
Variable: Mammography Screening Rate

Maternal Health

Maternal mortality and death rate data come from the Centers for Disease Control and Prevention, National Vital Statistics System, Morality files which were accessed via the CDC WONDER Online Database. Severe maternal morbidity data comes from the Agency for Healthcare Research and Quality, Healthcare Cost and Utilization Project (HCUP). Data on infant health and maternal health risk factors come from the Health Resources and Services Administration, Maternal and Child Health Bureau's Maternal and Infant Health Mapping Tool. Access to maternal health care were obtained from March of Dimes.

MATERNAL HEALTH DATA			
Health Dimensions and Factors	**Health Measures**	**Data Year**	**Release Year**
Outcomes	Maternal Deaths	2018-2021	2023
	Maternal Mortality Rate	2018-2021	2023
	Late Maternal Death Rate	2018-2021	2023
	Severe Maternal Morbidity Rate	2019	2023
	Infant Mortality Rate	2017-2019	2023
Risk Factors	Maternal Hypertension	2017-2019	2023
	Maternal Diabetes	2017-2019	2023
	Pre-Pregnancy Obesity	2017-2019	2023
	Low Birth Weight	2017-2019	2023
	Preterm Births	2017-2019	2023
	Smoking During Pregnancy	2017-2019	2023
	Breastfeeding Initiation	2017-2019	2023
Access to Care	Maternity Care Deserts	2019-2020	2023
	Mental Health Provider Shortage	2020-2023	2023
	Prenatal Care (First Trimester)	2017-2019	2023
Demographics	Race (Maternal Health)	2019	2023
	Ethnicity (Maternal Health)	2019	2023
	Maternal Age	2016-2021	2023

Outcomes

Maternal Deaths

Counties reporting maternal deaths (up to 42 days postpartum) or no maternal deaths. Data are based on the underlying cause of death listed on death certificates for U.S. residents. Learn more. Data representing one to nine deaths are suppressed; data where the death count is less than 20 is marked as "unreliable." See more.
Data Source: Original—Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Mortality; Obtained from CDC WONDER Online Database

Data Year: 2018-2021
Variable: Maternal Deaths

Maternal Mortality Rate

Number of maternal deaths (up to 42 days postpartum) per 100,000 live births. Data are based on the underlying cause of death listed on death certificates for U.S. residents. Learn more. Data representing one to nine deaths are suppressed; data where the death count is less than 20 is marked as "unreliable." See more.
Data Source: Original—Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Mortality; Obtained from CDC WONDER Online Database
Data Year: 2018-2021
Variable: Maternal Mortality Rate

Late Maternal Death Rate

Number of maternal deaths (from birth up to 1 year postpartum) per 100,000 live births. Data are based on the underlying cause of death listed on death certificates for U.S. residents. Learn more. Data representing one to nine deaths are suppressed; data where the death count is less than 20 is marked as "unreliable." See more.
Data Source: Original—Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Mortality; Obtained from CDC WONDER Online Database
Data Year: 2018-2021
Variable: Late Maternal Mortality Rate

Severe Maternal Morbidity Rate

Number of women experiencing unexpected outcomes of labor and delivery (20 indicators) per 10,000 in-hospital deliveries. Data are for in-hospital deliveries where the discharge record include International Classification of Diseases, Tenth Revision (ICD-10-CM) codes for severe maternal morbidity indicators (such as sepsis, infection, eclampsia, hemorrhage, and other complications). Blood transfusion codes are not included. Learn more. Data is currently only available at the state level.
Data Source: Agency for Healthcare Research and Quality, Healthcare Cost and Utilization Project (HCUP) Fast Stats
Data Year: 2019
Variable: Hcup Smm Rate

Infant Mortality Rate

Estimated infant mortality rate per 1,000 live births. Data are based on death certificates linked to corresponding birth certificates for deaths of children under one year of age. Learn more.

Data Source: Original—Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Linked Birth / Infant Deaths on CDC WONDER Online Database; Obtained from Health Resources and Services Administration, Maternal and Child Health Bureau's Maternal and Infant Health Mapping Tool
Data Year: 2017-2019
Variable: Infant Mortality Rate

Risk Factors

Maternal Hypertension

Estimated percentage of live births to women with any hypertension diagnosis (pre-pregnancy or gestational). Hypertension is the elevation of blood pressure above normal for age, sex, and physiological condition. Pre-pregnancy hypertension is a diagnosis of hypertension before pregnancy and gestational hypertension (pregnancy-induced hypertension or preeclampsia) is hypertension first diagnosed during pregnancy. Estimates are derived from the National Center for Health Statistics' Birth Files as compiled from data provided through the Vital Statistics Cooperative Program.
Data Source: Original—Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Natality on CDC WONDER Online Database; Obtained from Health Resources and Services Administration, Maternal and Child Health Bureau's Maternal and Infant Health Mapping Tool
Data Year: 2017-2019
Variable: Maternal Hypertension

Maternal Diabetes

Estimated percentage of live births to women with any diabetes diagnosis (pre-pregnancy or gestational). Diabetes is a glucose intolerance requiring treatment. Pre-pregnancy diabetes is a diagnosis of diabetes before pregnancy and gestational diabetes is diabetes first diagnosed during pregnancy. Estimates are derived from the National Center for Health Statistics' Birth Files as compiled from data provided through the Vital Statistics Cooperative Program.
Data Source: Original—Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Natality on CDC WONDER Online Database; Obtained from Health Resources and Services Administration, Maternal and Child Health Bureau's Maternal and Infant Health Mapping Tool
Data Year: 2017-2019
Variable: Maternal Diabetes

Pre-Pregnancy Obesity

Estimated percentage of live births to women with pre-pregnancy body mass index (BMI) greater than or equal to 30 kg/m^2. Estimates are derived from the National Center for Health Statistics' Birth Files as compiled from data provided through the Vital Statistics Cooperative Program.

Data Source: Original—Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Natality on CDC WONDER Online Database; Obtained from [Health Resources and Services Administration, Maternal and Child Health Bureau's Maternal and Infant Health Mapping Tool](#)
Data Year: 2017-2019
Variable: Maternal Obesity

Low Birth Weight

Estimated percentage of live births that are low birth weight (less than 2,500 grams). Estimates are derived from the National Center for Health Statistics' Birth Files as compiled from data provided through the Vital Statistics Cooperative Program.
Data Source: Original—Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Natality on CDC WONDER Online Database; Obtained from [Health Resources and Services Administration, Maternal and Child Health Bureau's Maternal and Infant Health Mapping Tool](#)
Data Year: 2017-2019
Variable: Low Birth Weight

Preterm Births

Estimated percentage of live births that are preterm (before 37 weeks). Estimates are derived from the National Center for Health Statistics' Birth Files as compiled from data provided through the Vital Statistics Cooperative Program.
Data Source: Original—Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Natality on CDC WONDER Online Database; ; Obtained from [Health Resources and Services Administration, Maternal and Child Health Bureau's Maternal and Infant Health Mapping Tool](#)
Data Year: 2017-2019
Variable: Pre Term Birth

Smoking During Pregnancy

Estimated percentage of live births where cigarette smoking was reported during any trimester of pregnancy. Estimates are derived from the National Center for Health Statistics' Birth Files as compiled from data provided through the Vital Statistics Cooperative Program.
Data Source: Original—Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Natality on CDC WONDER Online Database; Obtained from [Health Resources and Services Administration, Maternal and Child Health Bureau's Maternal and Infant Health Mapping Tool](#)
Data Year: 2017-2019
Variable: Smoking During Pregnancy

Breastfeeding Initiation

Estimated percentage of breastfeeding initiation among live births who were not transferred to another facility within 24 hours of delivery and were alive at the time of birth certificate completion. Estimates are derived from the National Center for Health Statistics' Birth Files as compiled from data provided through the Vital Statistics Cooperative Program.
Data Source: Original—Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Natality on CDC WONDER Online Database; Obtained from Health Resources and Services Administration, Maternal and Child Health Bureau's Maternal and Infant Health Mapping Tool
Data Year: 2017-2019
Variable: Breastfeeding Initiation

Access to Care

Maternity Care Deserts

Access to obstetric care in a given county: no access (maternity care desert), low access, moderate access, or full access. Maternity care deserts are counties without a hospital, birth center, or provider offering obstetric care. Counties were classified as having low access to maternity care services if there was one or less hospital offering OB service and fewer than 60 OB providers per 10,000 births, and the proportion of women without health insurance was 10 percent or greater. Counties were classified as having moderate access to maternity care services if there was one or less hospital offering OB service and fewer than 60 OB providers per 10,000 births, and the proportion of women without health insurance was less than 10 percent. Counties with full access had either two or more hospitals offering OB services or 60 or more OB providers per 10,000 births.
Data Source: Original—Health Resources and Services Administration Area Health Resources Files; Obtained from March of Dimes
Data Year: 2019-2020
Variable: Maternity Care Deserts

Mental Health Provider Shortage

Population-weighted average score of Mental Health Professional Shortage Areas in a county. Higher scores indicate greater need or shortage. Mental Health HPSAs are scored from 0-25, with a higher number indicating a greater need or shortage of mental health providers. Scores are based on multiple factors like the population-to-provider ratio, proportion of the population living below the federal poverty level, alcohol and substance abuse prevalence, and travel time to nearest source of care among other criteria.
Data Source: Health Resources and Services Administration Area Health Resources Files
Data Year: 2020-2023
Variable: Mental Health Provider Shortage

Prenatal Care (First Trimester)

Estimated percentage of live births to women who received first trimester prenatal care. Estimates are derived from the National Center for Health Statistics' Birth Files as compiled from data provided through the Vital Statistics Cooperative Program.
Data Source: Original—Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Natality on CDC WONDER Online Database; Obtained from Health Resources and Services Administration, Maternal and Child Health Bureau's Maternal and Infant Health Mapping Tool
Data Year: 2017-2019
Variable: Prenatal Care 1st Trimester Rate

Demographics

Race (Maternal Health)

Number of women of maternal age (15-44 years) identifying as American Indian or Alaska Native, Asian, Black or African American, More than one race, Native Hawaiian or Pacific Islander, or White.
Data Source: Original—U.S. Census Bureau postcensal estimates of the July 1 resident population with six 'single-race' race categories as specified in the 1997 Office of Management and Budget (OMB) standards for the collection of data on race and ethnicity: American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Pacific Islander, White, More than one race; Obtained from Health Resources and Services Administration, Maternal and Child Health Bureau's Maternal and Infant Health Mapping Tool
Data Year: 2019
Variable: Maternal American Indian or Alaska Native, Maternal Race Aian Pct, Maternal Asian, Maternal Race Asian Pct, Maternal Black Pct, Maternal Black or African American, Maternal More Than One Race, Maternal Race Multiple Pct, Maternal Native Hawaiian or Other Pacific Islander, Maternal Race Nhpi Pct, Maternal White, Maternal Race White Pct

Ethnicity (Maternal Health)

Number of women 15-44 years of age identifying as Hispanic or Latina, or Not Hispanic or Latina.
Data Source: Original—U.S. Census Bureau postcensal estimates of the July 1 resident population with six 'single-race' race categories as specified in the 1997 Office of Management and Budget (OMB) standards for the collection of data on race and ethnicity: American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Pacific Islander, White, More than one race; Obtained from Health Resources and Services Administration, Maternal and Child Health Bureau's Maternal and Infant Health Mapping Tool
Data Year: 2019
Variable: Maternal Ethnicity Hispanic Pct, Maternal Hispanic or Latina, Maternal Non-Hispanic or Latina

Maternal Age

Majority of live births to mothers of a specific age group, either under 35 years or 35 and older.

Data Source: Original—Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Natality; Obtained from CDC WONDER Online Database

Data Year: 2016-2021

Variable: Maternal Age Under 15 Years, Maternal Age 15-19 Years, Maternal Age 20-24 Years, Maternal Age 25-29 Years, Maternal Age 30-34 Years, Maternal Age 35-39 Years, Maternal Age 40-44 Years, Maternal Age 45-49 Years, Maternal Age 50 Years and Over

Opioid Outcomes and Prescription Rates

Opioid-related death rates, opioid prescriptions rates, and trends in death and prescription rates data come from the Centers for Disease Control and Prevention. All-drug and opioid-related mortality data are based on death certificates for U.S. residents and reflects average mortality and population data over a five-year period (2015-2019). To help assess trends over time, we also calculate a percent change in mortality rate by comparing two consecutive five-year periods (2015-2019 and 2010-2014). Data on opioid prescriptions reflects estimates of the total number of opioid prescriptions filled in the United States from retail pharmacies. Percent change in prescription rate reflects data from 2020 compared to the previous year (2019). Data on opioid use disorder prevalence was obtained from the Agency for Healthcare Research and Quality (AHRQ) Social Determinants of Health Database. Additional details are provided in the chart and descriptions below.

OPIOID OVERDOSE DATA			
Dimensions	**Measure**	**Data Year(s)**	**Release Year**
Outcomes	All Drugs – Death Rate	2015-2019	2023
	All Drugs – Death Rate Trends	2010-2019	
	All Opioids – Death Rate	2015-2019	
	All Opioids – Death Rate Trends	2010-2019	
	Prescription Opioids – Death Rate	2015-2019	
	Prescription Opioids – Death Rate Trends	2010-2019	
	Synthetic Opioids – Death Rate	2015-2019	
	Synthetic Opioids – Death Rate Trends	2010-2019	
	Heroin – Death Rate	2015-2019	
	Heroin – Death Rate Trends	2010-2019	
	Opioid Use Disorder	2020	
Risk Factors	Opioids Prescription Rate	2019	2023
	Opioids Prescription Trends	2019-2020	
	HIV Prevalence	2021	2024

Outcomes

All Drugs – Death Rate

Mortality rate for all drug-related overdose, represented as deaths per 100,000 persons. The rates are five-year, aged-adjusted averages (2015-2019). "All drug-related overdose" mortality is classified using the International Classification of Diseases, Tenth Revision (ICD-10) and identified using the underlying cause of death codes for Drug poisonings (overdose) that are Unintentional (X40-X44), Suicide (X60-X64), Homicide (X85), and Undetermined (Y10-Y14).

Data Source: [Multiple Cause of Death 1999-2019 on CDC WONDER Online Database - United States Department of Health and Human Services, Center for Disease Control and Prevention, National Center for Health Statistics](#)
Data Year: 2015-2019
Variable: All Drugs' Death Rate

All Drugs – Death Rate Trends

Percent change in mortality rate (deaths per 100,000 persons) for all drug-related overdose. Percent change is average mortality rate over the current five-year period (2015-2019) compared to average mortality rate over the previous five-year period (2010-2014).
Data Source: [Multiple Cause of Death 1999-2019 on CDC WONDER Online Database - United States Department of Health and Human Services, Center for Disease Control and Prevention, National Center for Health Statistics](#)
Data Year: 2010-2019
Variable: Alldrugs Age Adj Mortality Rate Pct Change

All Opioids – Death Rate

Mortality rate for all opioid-related overdose, represented as deaths per 100,000 persons. The rates are five-year, aged-adjusted averages (2015-2019). "All opioids" mortality is classified using the International Classification of Diseases, Tenth Revision (ICD-10) and identified using the underlying cause of death codes for Drug poisonings (overdose) that are Unintentional (X40-X44), Suicide (X60-X64), Homicide (X85), and Undetermined (Y10-Y14) and involve opium (T40.0), heroin (T40.1), natural and semi-synthetic opioids (T40.2), methadone (T40.3), synthetic opioids other than methadone (T40.4), and other and unspecified narcotics (T40.6).
Data Source: [Multiple Cause of Death 1999-2019 on CDC WONDER Online Database - United States Department of Health and Human Services, Center for Disease Control and Prevention, National Center for Health Statistics](#)
Data Year: 2015-2019
Variable: All Opioids' Death Rate, All Opioid Mortality Rate, All Opioid Mortality Unreliable

All Opioids – Death Rate Trends

Percent change in mortality rate (deaths per 100,000 persons) for all opioid-related overdose. Percent change is average mortality rate over the current five-year period (2015-2019) compared to average mortality rate over the previous five-year period (2010-2014).
Data Source: [Multiple Cause of Death 1999-2019 on CDC WONDER Online Database - United States Department of Health and Human Services, Center for Disease Control and Prevention, National Center for Health Statistics](#)
Data Year: 2010-2019
Variable: Anyopioids Age Adj Mortality Rate Pct Change

Prescription Opioids – Death Rate

Mortality rate for all prescription opioid overdose, represented as deaths per 100,000 persons. The rates are five-year, aged-adjusted averages (2015-2019). "Prescription opioids" is classified using the International Classification of Diseases, Tenth Revision (ICD-10) and identified using the underlying cause of death codes for Drug poisonings (overdose) that are Unintentional (X40-X44), Suicide (X60-X64), Homicide (X85), and Undetermined (Y10-Y14) and involve natural and semi-synthetic opioids (T40.2) and methadone (T40.3).

Data Source: Multiple Cause of Death 1999-2019 on CDC WONDER Online Database - United States Department of Health and Human Services, Center for Disease Control and Prevention, National Center for Health Statistics

Data Year: 2015-2019

Variable: Prescription Opioid Mortality Rate, Prescription Opioid Mortality Unreliable, Prescriptionopioids Age Adj Mortality Rate

Prescription Opioids – Death Rate Trends

Percent change in mortality rate (deaths per 100,000 persons) for all prescription opioid overdose. Percent change is average mortality rate over the current five-year period (2015-2019) compared to average mortality rate over the previous five-year period (2010-2014).

Data Source: Multiple Cause of Death 1999-2019 on CDC WONDER Online Database - United States Department of Health and Human Services, Center for Disease Control and Prevention, National Center for Health Statistics

Data Year: 2010-2019

Variable: Prescriptionopioids Age Adj Mortality Rate Pct Change

Synthetic Opioids – Death Rate

Mortality rate for all synthetic opioid overdose, represented as deaths per 100,000 persons. The rates are five-year, aged-adjusted averages (2015-2019). "Synthetic opioids" mortality is classified using the International Classification of Diseases, Tenth Revision (ICD-10) and identified using the underlying cause of death codes for Drug poisonings (overdose) that are Unintentional (X40-X44), Suicide (X60-X64), Homicide (X85), and Undetermined (Y10-Y14) and involve synthetic opioids other than methadone (T40.4).

Data Source: Multiple Cause of Death 1999-2019 on CDC WONDER Online Database - United States Department of Health and Human Services, Center for Disease Control and Prevention, National Center for Health Statistics

Data Year: 2015-2019

Variable: Synthetic Opioid Mortality Rate, Synthetic Opioid Mortality Unreliable, Syntheticopioids Age Adj Mortality Rate

Synthetic Opioids – Death Rate Trends

Percent change in mortality rate (deaths per 100,000 persons) for all synthetic opioid overdose, 2010-2019. Percent change is average mortality rate over the current five-year

period (2015-2019) compared to average mortality rate over the previous five-year period (2010-2014).
Data Source: [Multiple Cause of Death 1999-2019 on CDC WONDER Online Database - United States Department of Health and Human Services, Center for Disease Control and Prevention, National Center for Health Statistics](#)
Data Year: 2010-2019
Variable: Syntheticopioids Age Adj Mortality Rate Pct Change

Heroin – Death Rate

Mortality rate for all heroin overdose, represented as deaths per 100,000 persons. The rates are five-year, aged-adjusted averages (2015-2019). "Heroin" mortality is classified using the International Classification of Diseases, Tenth Revision (ICD-10) and identified using the underlying cause of death codes for Drug poisonings (overdose) that are Unintentional (X40-X44), Suicide (X60-X64), Homicide (X85), and Undetermined (Y10-Y14) and involve heroin (T40.1).
Data Source: [Multiple Cause of Death 1999-2019 on CDC WONDER Online Database - United States Department of Health and Human Services, Center for Disease Control and Prevention, National Center for Health Statistics](#)
Data Year: 2015-2019
Variable: Heroin Age Adj Mortality Rate, Heroin Opioid Mortality Rate, Heroin Opioid Mortality Unreliable

Heroin – Death Rate Trends

Percent change in mortality rate (deaths per 100,000 persons) for all heroin overdose. Percent change is average mortality rate over the current five-year period (2015-2019) compared to average mortality rate over the previous five-year period (2010-2014).
Data Source: [Multiple Cause of Death 1999-2019 on CDC WONDER Online Database - United States Department of Health and Human Services, Center for Disease Control and Prevention, National Center for Health Statistics](#)
Data Year: 2010-2019
Variable: Heroin Age Adj Mortality Rate Pct Change

Opioid Use Disorder

Prevalence of overarching Opioid Use Disorder (OUD) among Medicare (dual and non-dual) beneficiaries. Data are based on Centers for Medicare & Medicaid Services (CMS) administrative enrollment and claims data for Medicare Part A and Part B beneficiaries enrolled in the fee-for-service program. The data identifies OUD based on procedure and diagnosis codes, hospitalization and emergency department visits due to opioid-related overdoses and poisoning events, and/or the utilization of FDA approved drugs for the treatment of OUD. [Learn more.](#)
Data Source: Original—Mapping Medicare Disparities by Population; Obtained from Agency for Healthcare Research and Quality (AHRQ) [Social Determinants of Health Database](#)

Data Year: 2020
Variable: Opioid Use Disorder

Risk Factors

Opioids Prescription Rate

Rate of retail opioid prescriptions dispensed per 100 persons. Prescriptions include any initial or refill prescription dispensed at a retail pharmacy in the sample and paid for by commercial insurance, Medicare, Medicaid, cash or its equivalent. Opioids include, but are not limited to, buprenorphine, codeine, fentanyl, hydrocodone, hydromorphone, methadone, morphine, oxycodone, oxymorphone, propoxyphene, tapentadol, and tramadol.
Data Source: [U.S. Opioid Dispensing Rate Maps, Centers for Disease Control and Prevention, National Center for Injury Prevention and Control (IQVIA Xponent 2006-2020)](#)
Data Year: 2019
Variable: Opioid Prescribing Rate

Opioids Prescription Trends

Percent change in opioid prescription rate (retail opioid prescriptions dispensed per 100 persons) in the current year (2020) compared to the previous year (2019). Prescriptions include any initial or refill prescription dispensed at a retail pharmacy in the sample and paid for by commercial insurance, Medicare, Medicaid, cash or its equivalent. Opioids include, but are not limited to, buprenorphine, codeine, fentanyl, hydrocodone, hydromorphone, methadone, morphine, oxycodone, oxymorphone, propoxyphene, tapentadol, and tramadol.
Data Source: [U.S. Opioid Dispensing Rate Maps, Centers for Disease Control and Prevention, National Center for Injury Prevention and Control (IQVIA Xponent 2006-2020)](#)
Data Year: 2019-2020
Variable: Opioid Prescribing Rate Pct Change

HIV Prevalence

Number of people aged 13 years and older living with a diagnosis of human immunodeficiency virus (HIV) infection per 100,000 persons.
Data Source: Original—National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP); Obtained from [2024 County Health Rankings & Roadmaps program](#)
Data Year: 2021
Variable: Hiv Prevalence

Demographics, Socioeconomic, and Community Health Factors

The demographic, socioeconomic, and community health data includes information that may help to contextualize the intersection between broadband and health data in a geographical area. Social determinants of health are the conditions in the places where people live, learn, work, worship, age, and play that affect a wide range of health, functioning, and quality of life outcomes and risks. Based on studies and data analytics, the Connect2Health[FCC] Task Force has concluded that broadband itself is a social determinant of health—if not a "super" determinant of health, impacting and influencing the traditionally recognized SDOH domains.

This data is drawn from several sources including the United States Census Bureau, Federal Communication Commission, County Health Rankings & Roadmaps program, Small Area Income and Poverty Estimates, Bureau of Labor Statistics, and American Community Survey via the Agency for Healthcare Research and Quality's Social Determinants of Health Database.

DEMOGRAPHICS, SOCIOECONOMIC, AND COMMUNITY HEALTH DATA			
Dimensions	**Measures**	**Data Year**	**Release Year**
Population	Population	2020	2024
	Rural	2020	2024
	Urban	2020	2024
	Density	2020	2024
	Female	2022	2024
	Male	2022	2024
	Age	2022	2024
	Veteran Status	2016-2020	2024
	Race (All)	2016-2020	2024
	Ethnicity (All)	2016-2020	2024
Community Factors	Food Insecurity	2021	2024
	Social Vulnerability Index	2018-2022	2024
	Unemployment	2022	2024
	Median Household Income	2018-2022	2024
	Poverty	2022	2024
	Education	2018-2022	2024
	Distance to ER	2020	2024
	Households – No Vehicle	2016-2020	2024
	Poor Mental Health Days	2021	2024
	Injury Deaths	2017-2021	2024
	Severe Housing	2016-2020	2024
Insurance	Medicaid	2016-2020	2024
	Medicare	2016-2020	2024
	Private Insurance	2016-2020	2024

	Health Insurance	2019	2023

Population

Population

Estimate of the resident population including all people currently residing in the United States. The population estimate is calculated using the population base (the last decennial census or previous point in the time series), adding births, subtracting deaths, and adding net migration.
Data Source: United States Census Bureau, County Population Totals
Data Year: 2020
Variable: Population

Rural

Population residing in a rural area. Rural areas include all census tracks and/or blocks that are designated as rural for the U.S. Census Bureau 2020 Census. Rural includes all census blocks/tracts not included within an urban area. Learn more.
Data Source: United States Census Bureau, County Population Totals
Data Year: 2020
Variable: Rural Percentage

Urban

Population residing in an urban area. Urban areas include all census tracks and/or blocks that are designated as urban for the U.S. Census Bureau 2010 Census. Urban includes all census blocks/tracts that meet minimum population density requirements, as well as adjacent territory containing non-residential urban land uses and with low population density included to link outlying densely settled territory with the densely settled core.
Learn more.
Data Source: United States Census Bureau, County Population Totals
Data Year: 2020
Variable: urban_pct

Density

Population per square mile. Density is calculated by taking the total population residing in the census block group and dividing it by the square miles of land in the census block group.
Data Source: United States Census Bureau, County Population Totals
Data Year: 2020
Variable: Pop Density

Female

Percentage of the population that identifies as female according to the U.S. Census Population Estimates.
Data Source: Original—Census Population Estimates Program; Obtained from County Health Rankings & Roadmaps program
Data Year: 2022
Variable: Female Pct

Male

Percentage of the population that identifies as male according to the U.S. Census Population Estimates.
Data Source: Original—Census Population Estimates Program; Obtained from County Health Rankings & Roadmaps program
Data Year: 2022
Variable: Male Pct

Age

Percentage of the population aged 65 and older according to the U.S. Census Population Estimates.
Data Source: Original—Census Population Estimates Program; Obtained from County Health Rankings & Roadmaps program
Data Year: 2022
Variable: Age Over 65 Pct

Veteran Status

Percentage of civilian population consisting of veterans (ages 18 and over). Data collected by American Community Survey questionnaire asking whether respondent ever served on active duty in the United States Armed Forces, Reserves, or National Guard. Learn more.
Data Source: Original—Census American Community Survey (ACS); Obtained from Agency for Healthcare Research and Quality (AHRQ) Social Determinants of Health Database
Data Year: 2016-2020
Variable: Veteran Pct

Race(All)

Percentage of population self-identifying as American Indian or Alaska Native, Asian, Black or African American, more than one race, Native Hawaiian or Pacific Islander, or White. Data collected by American Community Survey questionnaire asking respondent to identify race. Learn more.
Data Source: Original—Census American Community Survey (ACS), Obtained from Agency for Healthcare Research and Quality (AHRQ) Social Determinants of Health Database
Data Year: 2016-2020
Variable: race aian pct, race Asian pct, race blk pct, race multiple pct, race nhpi pct, race white pct

Ethnicity (All)

Percent of population self-identifying as Hispanic or Latino, or Not Hispanic or Latino. Data collected by American Community Survey questionnaire asking respondent to identify if they are of Hispanic, Latino, or Spanish origin. Learn more.
Data Source: Original—Census American Community Survey (ACS), Obtained from Agency for Healthcare Research and Quality (AHRQ) Social Determinants of Health Database
Data Year: 2016-2020
Variable: ethnicity Hispanic pct

Community Factors

Food Insecurity

Estimated percentage of population who lack adequate access to food. Estimates are based on determinants of food insecurity, such as unemployment, poverty, disability, homeownership, and median income, as well as the percentage of the population that is Black and the percentage of the population that is Hispanic. Data Values were originally reported as decimals and were multiplied by 100 to create percentages.
Data Source: Original—Feeding America Map the Meal Gap, which estimates food insecurity from: Bureau of Labor Statistics data, Census Current Population Survey, and Census American Community Survey; Obtained from 2024 County Health Rankings & Roadmaps program
Data Year: 2021
Variable: Food Insecurity

Social Vulnerability Index

A composite measure of social vulnerability. Index scores are based on 16 demographic factors collected in the American Community Survey, including poverty, unemployment, housing cost burden, education, health insurance, age, disability status, single-parent households, English language proficiency, racial and ethnic minority status, housing type and transportation. Higher scores indicate higher social vulnerability. Learn more.
Data Source: Original—Census American Community Survey (ACS); Obtained from Centers for Disease Control and Prevention/ Agency for Toxic Substances and Disease Registry/ Geospatial Research, Analysis, and Services Program
Data Year: 2018-2022
Variable: Overall Svi

Unemployment

Percentage of the civilian labor force (aged 16 and older) who are unemployed but seeking work. Unemployed population includes individuals who had no employment during the survey week, were available for work, and had made specific efforts to find employment during the preceding four weeks. The county civilian labor force is all unemployed and

employed individuals (aged 16 and older), excluding military personnel, federal government employees, retirees, handicapped workers, and agricultural workers. Learn more.
Data Source: Original—Bureau of Labor Statistics; Obtained from County Health Rankings & Roadmaps program
Data Year: 2022
Variable: Unemployment

Median Household Income

Median household income is the income level at which half of households earn more, and half of the households earn less. Income includes, but is not limited to, wage or salary income; net self-employment income; interest, dividends, or net rental or royalty income or income from estates and trusts; Social Security or Railroad Retirement income; Supplemental Security Income; public assistance or welfare payments; retirement, survivor, or disability pensions; and all other income. Learn more.
Data Source: Original—U.S. Census Small Area Income and Poverty Estimates; Obtained from County Health Rankings & Roadmaps program
Data Year: 2018-2022
Variable: Medianhhinc

Poverty

Estimated percentage of families or individuals whose total income is below the corresponding official poverty threshold. Total income includes all money income before taxes, except capital gains or noncash benefits. Income thresholds used to determine poverty status vary by the size of family and age of members and do not vary geographically. Learn more.
Data Source: Small Area Income and Poverty Estimates
Data Year: 2022
Variable: Poverty Rate

Education

Percentage of adults (aged 25-44) with some post-secondary education (i.e., some college). Some post-secondary education includes all individuals who pursued education following high school (including vocational/technical schools, junior colleges, or four-year colleges), whether they received a degree or not. Learn more.
Data Source: Original—Census American Community Survey, 5-year Estimates; Obtained from County Health Rankings & Roadmaps program
Data Year: 2018-2022
Variable: Some College

Distance to ER

Median distance in miles to the nearest emergency department, calculated using population weighted tract centroids in the county.

Data Source: Original—Census and CMS Provider of Services data; Obtained from Agency for Healthcare Research and Quality (AHRQ) Social Determinants of Health Database
Data Year: 2020
Variable: Distance To Ed

Households - No Vehicle

Percent of housing units with no vehicle available. Data collected by American Community Survey questionnaire asking respondent to identify how many automobiles, vans, and trucks are kept at the home for use by members of the household. Learn more.
Data Source: Original—Census American Community Survey (ACS), Obtained from Agency for Healthcare Research and Quality (AHRQ) Social Determinants of Health Database
Data Year: 2016-2020
Variable: No Vehicle Pct

Poor Mental Health Days

Average number of mentally unhealthy days reported in past 30 days (age-adjusted). Data collected via landline and cellphone survey asking respondents to self-report how many days during the past 30 days their mental health was "not good." Learn more.
Data Source: Original—CDC Behavioral Risk Factor Surveillance System; Obtained from 2024 County Health Rankings & Roadmaps program
Data Year: 2021
Variable: Poor Mental Health Days

Injury Deaths

Number of deaths due to injury per 100,000 population. Injuries include both planned and unplanned incidents regardless of cause and intent. Calculated by taking number of injury deaths during a five-year period divided by the aggregate annual population during the same period. Learn more.
Data Source: Original—National Center for Health Statistics – Mortality Files; Census Population Estimates Program; Obtained from County Health Rankings & Roadmaps program
Data Year: 2017-2021
Variable: Injury Deaths Per 100000

Severe Housing

Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities. Overcrowding is measured as more than one person per room; high housing cost is measured as monthly housing costs that exceed 50% of monthly income; lack of kitchen facilities includes lack of a sink with running water, stove/range, or refrigerator; lack of plumbing facilities includes lack of hot/cold piped water, flush toilet, or bathtub/shower. Learn more.

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Data Source: Original—Comprehensive Housing Affordability Strategy (CHAS) data; Obtained from County Health Rankings & Roadmaps program
Data Year: 2016-2020
Variable: Severe Housing Problems

Insurance

Medicaid

Percentage of population with any Medicaid/means-tested public health insurance coverage. Data collected by American Community Survey questionnaire asking respondent to identify whether they are currently covered by various types of health insurance or health coverage plans, including private coverage, Medicare, or Medicaid. Learn more.
Data Source: Original—Census American Community Survey (ACS), Obtained from Agency for Healthcare Research and Quality (AHRQ) Social Determinants of Health Database
Data Year: 2016-2020
Variable: Insurance Medicaid

Medicare

Percentage of population with Medicare health insurance coverage only. Data collected by American Community Survey questionnaire asking respondent to identify whether they are currently covered by various types of health insurance or health coverage plans, including private coverage, Medicare, or Medicaid. Learn more.
Data Source: Original—Census American Community Survey (ACS), Obtained from Agency for Healthcare Research and Quality (AHRQ) Social Determinants of Health Database
Data Year: 2016-2020
Variable: Insurance Medicare

Private Insurance

Percentage of the population with private health insurance coverage. Data collected by American Community Survey questionnaire asking respondent to identify whether they are currently covered by various types of health insurance or health coverage plans, including private coverage, Medicare, or Medicaid. Learn more.
Data Source: Original—Census American Community Survey (ACS), Obtained from Agency for Healthcare Research and Quality (AHRQ) Social Determinants of Health Database
Data Year: 2016-2020
Variable: Insurance Private

Health Insurance

Percent of persons under 65 with medical insurance. Data collected by American Community Survey questionnaire asking respondent to identify whether they are currently

covered by various types of health insurance or health coverage plans, including private coverage, Medicare, Medicaid, TRICARE, Indian Health Services, or the VA. Learn more.
Data Source: Original—Census American Community Survey (ACS), Obtained from U.S. Census Bureau Small Area Health Insurance Estimates (SAHIE)
Data Year: 2019
Variable: Insurance Coverage