UTHealth® Houston
School of Public Health
Center for Health Care Data

Navigating the Non-Medical Drivers of Health Data Library

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Table of Contents

Non-Medical Drivers of Health Data Library

Overview

Acknowledging the importance of non-medical drivers, also known as social determinants of health, the Center for Health Care Data (CHCD) developed a comprehensive data library of information related to education, social, economic, healthcare access, and neighborhood and built environment.

Our vision for the data library is to facilitate access to non-medical drivers of health data for those seeking to improve the health of Texas. In addition, the data library strives to provide detailed information at the community level.

Five Areas of Non-Medical Drivers of Health

The Centers for Disease Control and Prevention has defined 5 key areas that can influence health outcomes. They are:

- **Education**: The connection of education to health and wellbeing. This domain includes key issues such as high school graduation, enrollment in higher education, educational attainment in general, language and literacy, and early childhood education and development.

- **Economic**: The connection between the financial resources people have: income, cost of living, socioeconomic status, and health. This area includes key issues such as poverty, employment, food security, and housing stability.

- **Healthcare Access**: The connection between people's access to and understanding of health services and their health. This domain includes key issues such as access to primary care, health insurance coverage, and health literacy.

- **Neighborhood and Built Environment**: The connection between where a person lives: i.e., housing, neighborhood, and environment, their health, and well-being. This includes topics like the quality of housing, access to all forms of transportation, availability of healthy foods, air pollution, water quality, and neighborhood crime and violence.

- **Social**: The connections that people have within community systems and agencies. This includes topics like social cohesion, civic participation, discrimination, conditions in the workplace, and incarceration.

Data Library Features

The Data Library is a list of data sources that report on non-medical drivers of health. This tool can be filtered by topic area *(e.g. education, social, economic, healthcare access, and neighborhood and built environment),* geographic area *(Zip/ZCTA, County, Census Block),* and/or by keyword.

Once data filters are placed, it will populate a list of data sets related to the preferred criteria. Upon selecting the data set of interest, the tool will display a general overview of the data source with a web link, a list of variables with the corresponding year, and an indicator if the variable is included in the Data Snapshot Tables.

Data Sources

The data library includes over 25 data sources and counting! Some recognizable data sources include American Community Survey (ACS), Area Health Resource Files, Small Area Income and Poverty Estimates, and Feeding America: Map the Meal Gap.

Data variables are organized by topic area (e.g., education, social, economic, healthcare access, and environmental). Overall, the data presented is from 2010-2020, as well as various geographic levels such as county level, ZIP, and ZTCA.

Review Appendix A, for the full list of data sources

Requesting Access to Data Files

Our team welcomes inquiries to access data files within the data library. Requestors will be asked to complete a short form to gather general contact information and to select the data of interest.

Texas Data Snapshots Files

General Overview

The "**Texas Data Snapshot Tables**" contain a small portion of the data contained in the Non-Medical Drivers of Health Data Library. Overall each data file contains about 30 pre-selected variables that cover topics in education, social, economic, healthcare access, and environmental factors. Files can be viewed by zip code or county for years 2016 through 2020 and will continue to be updated.

All Data Snapshot Tables are readily available for download. Once downloaded, each file will contain:

- Read Me
    - Includes data compilation date, tips for missing data and denominators, and additional resources.
- Data Dictionary
    - Contains variable names, descriptions, data types, sources, citations, and links to the original sources.
- Data
    - Consists of the data for the geography and year selected.

Citing the Data Snapshot Tables

The Center for Health Care Data should be cited when more than one variable from the "Data Snapshot Table" will be used. We encourage the use of the following citation:

- UTHealth School of Public Health, The Center for Health Care Data. [INSERT NAME OF THE FILE]. https://sph.uth.edu/research/centers/chcd/Accessed [INSERT DATE OF ACCESS].

If a signal variable is used, we encourage you to cite the original data source. Citations for all data sources can be reviewed in Appendix A and are also include within each data file.

Intent of Data Use

The Non-Medical Drivers of Health Data Library and the Texas Data Snapshot Tables are a combination of a variety of publicly available datasets.

Users should:

- Use data for statistical reporting and analysis
- Use citations provided to credit data providers
- Downloaded Data Snapshot Tables without a formal agreement with UTHealth's Center for Health Care Data

Users should not:
- Make attempts to learn the identity of any person or establishment included in these data sets

Data Limitations

Variable availability depends on the original data source. Some variables may not be available in earlier years.

Notably unavailable in the data snapshot:

- Population under age 18 is not available before 2017
- Education attainment high school or higher and bachelor's degree or higher are not available before 2018 (but population with those degrees are available).
- Households with internet broadband is not available before 2017

If the user wishes to map ZIP codes to counties, or other geographic mapping, information and crosswalks updated quarterly can be found at the Housing and Urban Development website: https://www.huduser.gov/portal/datasets/usps_crosswalk.html

FAQ

Is the data library a national database?

No. The data library is focused on Texas data at various geographic levels. However, many of the data sources do originate from national datasets.

Can I contact the Center for Health Care Data if I have data-related questions?

Yes. Our team has a wide range of expertise and is happy to assist with data-related questions. We can be reached via email at CHCD.NMDH@uth.tmc.edu. Please be sure to include the following in the email's subject line: **Inquiry related to the non-medical drivers of health data.**

How often will data be refreshed?

Both the data library and the data snapshot tables will be updated periodically. We strive to provide the most up-to-date data available.

Appendix

Appendix A: Non-Medical Drivers of Health Data Library Sources

The following table lists sources used to compile the Data Library. In the table you will find the data source with a brief description, years and geographic area of coverage, topic area, recommended citation, webpage link, and data variables.

Non-Medical Drivers of Health Data Library Sources	
Data Source Information	**Non-Medical Drivers of Health Variables**
American Community Survey (ACS): Demographics and Housing Estimates The American Community Survey (ACS) is the nation's premier source of detailed social, economic, housing, and demographic characteristics for local communities. ACS table "Demographics" provides information on the following topics: Gender by age group (under 5 yrs. to over 65), race, Hispanic or Latino, and voting age. https://www.census.gov/programs-surveys/acs/data.html **Years and Geographic Area(s)** • 2010-2019 • Zip, ZCTA, and County **Recommended Citation(s)** • U.S. Census Bureau (2010-2019). Selected demographic and housing estimates, 2010-2019 American Community Survey 5-year estimates. https://data.census.gov/table	**Data Variables** Social • Population by age • Population by ethnicity • Population by race • Population by sex
ACS: Economic Characteristics ACS table "Economic Characteristics" provides information on the following topics: employment status, commuting to work, occupation, industry, type of workers (self-employed, government workers, etc.), earned income and benefits, health insurance coverage, and poverty levels. https://www.census.gov/programs-surveys/acs/data.html **Years and Geographic Area(s)** • 2010-2019 • Zip, ZCTA, and County **Recommended Citation(s)** • U.S. Census Bureau (2010-2019). Selected economic characteristics, 2010-2019 American	**Data Variables** Economic • Employed Status (e.g., full-time, part-time, unemployed, employed) • Employment Field (e.g., sales, service, management, etc.) • Type of work (e.g., civilian, government, self-employed, private, unpaid family workers) • Family household income (less than $10,000 to over $200,000) • Household income with supplemental income (e.g., retirement, Social Security, other)

Return to the top of the document

Community Survey 5-year estimates. https://data.census.gov/table	• Income (less than $10,000 to over $200,000)

ACS: Educational Attainment	**Data Variables**
ACS table "Educational Attainment" provides information on the following topics: education level by age, race, poverty rate, and median earnings by education. https://www.census.gov/acs/www/data/data-tables-and-tools/subject-tables/https://www.census.gov/programs-surveys/acs/data.html **Years and Geographic Area(s)** • 2010-2019 • Zip, ZCTA, and County **Recommended Citation(s)** • U.S. Census Bureau (2010-2019). Educational attainment, 2010-2019 American Community Survey 5-year estimates. https://data.census.gov/table	Education • School enrollment (e.g., early childhood to college enrollment) • Education level by age group (e.g., 18-25yr.s and older) • High school graduate or higher by age • High school graduate or higher by race & ethnicity • Associate's degree • Associate's degree by age • Associate's degree by race & ethnicity • Bachelor's degree • Bachelor's degree or higher by age • Bachelor's degree by race & ethnicity • Bachelor's degree by sex • Education level by age group (e.g., 18-25 yrs. and older) • Graduate or professional degree • Graduate or professional degree by age • Graduate or professional degree by race & ethnicity • Graduate or professional degree by sex • High school graduate • High school graduate by age • High school graduate by race & ethnicity • High school graduate by sex • Less than high school • Less than high school by age • Less than high school by race & ethnicity • Less than high school by sex • Median earnings by education

Return to the top of the document

	• Poverty rate by education
ACS: Housing Characteristics ACS table "Housing Characteristics" provides information on the following topics: home structure, occupancy rates, utility information, house value, mortgage rates, and renter rates. https://www.census.gov/programs-surveys/acs/data.html **Years and Geographic Area(s)** • 2010-2019 • Zip, ZCTA, and County **Recommended Citation(s)** U.S. Census Bureau (2010-2019). Selected housing characteristics, 2010-2019 American Community Survey 5-year estimates. https://data.census.gov/table	**Data Variables** Economic • Homeownership with or without mortgage costs (less than $500 - more than $3,000) • Rent Information
ACS: Income in the Past 12 Months ACS table "Income in the Past 12 Months" provides income information. https://www.census.gov/acs/www/data/data-tables-and-tools/subject-tables/ **Years and Geographic Area(s)** • 2010-2019 • Zip, ZCTA, and County **Recommended Citation(s)** • U.S. Census Bureau (2010-2019). Income in the past 12 months, 2010-2019 American Community Survey 5-year estimates. https://data.census.gov/table	**Data Variables** Economic • Household Income: less than $10,00 to $200,00 or more in the past 12 months (family income/non-family income • Median earnings in the past 12 months • Median earnings in the past 12 months by education level
ACS: Poverty Status in the Past 12 Months ACS table "Poverty Status in the Past 12 Months" shows poverty status breakdown by age, race, education, employment status, and work experience. https://www.census.gov/acs/www/data/data-tables-and-tools/subject-tables/ **Years and Geographic Area(s)** • 2010-2019 • Zip, ZCTA, and County **Recommended Citation(s)**	**Data Variables** Economic • Percentage of families and people whose income has been below the poverty level in the past 12 months with children • Population below the poverty level • Poverty by education level • Poverty by race and ethnicity • Poverty status by age

8

• U.S. Census Bureau (2010-2019). Poverty status in the past 12 months, 2010-2019 American Community Survey 5-year estimates. https://data.census.gov/table	• Single females whose income has been below the poverty level in the past 12 months with children
ACS: Selected Social Characteristics ACS table "Social Characteristics" provides information on the following topics: household type, marital status, education level, immigration status, Veteran status, and languages spoken at home. https://www.census.gov/programs-surveys/acs/data.html **Years and Geographic Area(s)** • 2010-2019 • Zip, ZCTA, and County **Recommended Citation(s)** • U.S. Census Bureau (2010-2019). Selected social estimates, 2010-2019 American Community Survey 5-year estimates. https://data.census.gov/table	**Data Variables** Healthcare Access • Health Insurance access among the civilian population • No health insurance • Health insurance: employed • Health insurance: unemployed • Health Insurance: not in the labor force Neighborhood and Built Environment • Housing Characteristics • Housing 0ccupancy Rates (owned & renters) • Housing Values: Value Range ($50,000 to 999,999 • Transportation to employment (e.g., drive, carpool, bus, etc.) • Computer and Internet Access Social • Family households (e.g., married, cohabitating couples, families with children, single parents, etc.) • Head of Household: Grandparents • Household Relationships • Marital Status (e.g., married, single, divorced, separated, etc.) • Civic Participation: voting age and gender
Area Deprivation Index (ADI) The Area Deprivation Index (ADI) ranks neighborhoods by socioeconomic disadvantage. It includes factors for the theoretical domains of income, education, employment, and housing quality. https://www.neighborhoodatlas.medicine.wisc.edu/ **Years and Geographic Area(s)** • 2015-2019 • Census Block Group	**Data Variables** Economic • National Area Deprivation Index (ADI) • State Area Deprivation Index (ADI)

Return to the top of the document

Recommended Citation(s)

- Kind AJH, Buckingham W. [Making Neighborhood Disadvantage Metrics Accessible: The Neighborhood Atlas](). *New England Journal of Medicine*, 2018. 378: 2456-2458. DOI: 10.1056/NEJMp1802313. PMCID: PMC6051533.

AND

- University of Wisconsin School of Medicine and Public Health. *{specify year}* Area Deprivation Index *{specify version}*. Downloaded from https://www.neighborhoodatlas.medicine.wisc.edu/ *{date}*

- Kind AJH, Buckingham W. [Making Neighborhood Disadvantage Metrics Accessible: The Neighborhood Atlas](). *New England Journal of Medicine*, 2018. 378: 2456-2458. DOI: 10.1056/NEJMp1802313. PMCID: PMC6051533. AND University of Wisconsin School of Medicine Public Health. 2015 Area Deprivation Index v2.0. Downloaded from https://www.neighborhoodatlas.medicine.wisc.edu/ May 23, 2019

Area Health Resources Files The Area Health Resources Files (AHRF) include data on Health Care Professions, Health Facilities, Population Characteristics, Economics, Health Professions Training, Hospital Utilization, Hospital Expenditures, and Environment at the county, state, and national levels from over 50 data sources. https://data.hrsa.gov/topics/health-workforce/ahrf **Years and Geographic Area(s)** - 2018-2020 - County **Recommended Citation(s)** - Area Health Resource Files. [Health Resources and Services Administration (HRSA)]. Washington, D.C.:U.S. Dept. of Health and Human Services. https://data.hrsa.gov/topics/health-workforce/ahrf	**Data Variables** Healthcare Access - Active Osteopathic Medicine (D.O) - Active Dentists - Active M.D. - Active Physicians
Bureau of Labor Statistics The Bureau of Labor Statistics is a United States Department of Labor unit. It is the principal fact-finding agency for the U.S. government in the broad field of labor	**Data Variables** Economic - Employment

10

economics and statistics. It serves as a principal agency of the U.S. Federal Statistical System. https://www.bls.gov/data/ **Years and Geographic Area(s)** • 2012-2021 • County **Recommended Citation(s)** • Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, on the Internet at https://www.bls.gov/data/	• Labor Force • Unemployment • Unemployment rate
CDC's Interactive Atlas of Heart Disease and Stroke CDC's Interactive Atlas of Heart Disease and Stroke is an online mapping tool allowing users to create and customize county-level heart disease and stroke maps. https://nccd.cdc.gov/DHDSPAtlas/?state=County **Years and Geographic Area(s)** • 2014, 2016, and 2018 • County **Recommended Citation(s)** Centers for Disease Control and Prevention. Interactive Atlas of Heart Disease and Stroke. http://nccd.cdc.gov/DHDSPAtlas.Accessed on [insert date]	**Data Variables** Healthcare Access • Obesity Percentage • Physical Inactivity
CDC's Social Vulnerability Index The CDC/ATSDR SVI uses U.S. Census data to determine the social vulnerability of every census tract. The CDC/ATSDR SVI ranks each tract on 15 social factors, including poverty, lack of vehicle access, and crowded housing, and groups them into four related themes. Maps of the four themes are shown in the figure below. Each tract receives a separate ranking for the four themes and overall order. https://www.atsdr.cdc.gov/placeandhealth/svi/data_documentation_download.html **Years and Geographic Area(s)** • 2010, 2014, 2016, 2018 • County **Recommended Citation(s)** • Centers for Disease Control and Prevention/ Agency for Toxic Substances and Disease Registry/ Geospatial Research, Analysis, and	**Data Variables** Healthcare Access • Overall SVI

Services Program. CDC/ATSDR Social Vulnerability Index [2018, 2016, 2016]. Database [Texas]. https://www.atsdr.cdc.gov/placeandhealth/svi/data_documentation_download.html	
CDC WONDER: Fine Particulate Matter Request Fine Particulate Matter data is part of the CDC WONDER database. These are geographically aggregated daily measures of fine particulate matter in the outdoor air, spanning 2003-2011. CDC WONDER furthers CDC's health promotion and disease prevention mission by speeding and simplifying access to public health information for state and local health departments, the Public Health Service, and the academic and public health community. https://wonder.cdc.gov/ **Years and Geographic Area(s)** • 2005-2013 • County **Recommended Citation(s)** • Daily Fine Particulate Matter (PM2.5) (µg/m³) for 2003-2011 on CDC WONDER Online Database, released in 2012.	**Data Request** Neighborhood and Built Environment • Air Pollution: Particulate Matter Social • Teen births
County Business Patterns (CBP) CBP is an annual series that provides subnational economic data by industry. This series includes the number of establishments, employment during the week of March 12, first quarter payroll, and annual payroll. https://www.census.gov/programs-surveys/cbp/data.html **Years and Geographic Area(s)** • 2013-2020 • County and Congressional District **Recommended Citation(s)** • U.S Census Bureau (2013-2020). County Business Patterns Data. https://www.census.gov/programs-surveys/cbp/data.html	**Data Variables** Economic • Annual payroll by sector • Employment by sector (NAICS) • Number of establishments by sector
County Health Rankings A collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. The County Health Rankings measure length of life, quality of life, tobacco use, diet and exercise,	**Data Variables** Healthcare Access • Health Factors Ranking

alcohol and drug use, sexual activity, access to care, quality of care, education, employment, education, income, family and social support, community safety, air, and water quality, housing and transit. https://www.countyhealthrankings.org/explore-health-rankings/use-data **Years and Geographic Area(s)** • 2010-2021 • County **Recommended Citation(s)** • University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2021. www.countyhealthrankings.org	• Health Outcomes Ranking
Environmental Public Health Tracking Network The Centers for Disease Control and Prevention (CDC) 's Environmental Public Health Tracking Program (Tracking Program) provides information from a nationwide network of environmental health data to help drive actions to improve the health of communities. https://ephtracking.cdc.gov/DataExplorer/ **Years and Geographic Area(s)** • 2000-2020 • County **Recommended Citation(s)** • Centers for Disease Control and Prevention. National Environmental Public Health Tracking Network. (n.d.) Web. Accessed: [INSERT DATE]. www.cdc.gov/ephtracking.	**Data Variables** Neighborhood and Built Environment • Air Pollution, Particulate Matter • Number of days with ozone above regulatory level • Housing Units in FEMA-designed Flood Hazard Area
Fatality Analysis Reporting System FARS provides data on vehicle-related injuries and fatalities, including alcohol-related incidents. https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars **Years and Geographic Area(s)** • 2012-2019 • County **Recommended Citation(s)** • National Highway Traffic Safety Administration. Fatality Analysis Reporting System (FARS), 2012-2019	**Data Variables** Social • Number of drivers in fatal crashes by blood alcohol levels

13

Feeding America: Map the Meal Gap Feeding America has conducted its annual *Map the Meal Gap* study to improve our understanding of food insecurity and food costs at the local level. https://map.feedingamerica.org/ **Years and Geographic Area(s)** • 2010-2019 • County and Congressional District **Recommended Citation(s)** • Gundersen, C., Strayer, M., Dewey, A., Hake, M., & Engelhard, E. (2019). Map the Meal Gap (2010-2019): An Analysis of County and Congressional District Food Insecurity and County Food Cost in the United States in 2017. Feeding America. https://www.feedingamerica.org/research/map-the-meal-gap/by-county	**Data Variables** Economic • Child food insecurity • Child very low food security • Cost per meal • Food insecurity • Very low food insecurity
Feeding America: State of Senior Hunger in America 2019 Feeding America conducts and releases timely and relevant research on hunger among the senior population aged 60 and older and adults aged 50-59. https://www.feedingamerica.org/research/senior-hunger-research **Years and Geographic Area(s)** • 2019 • Metro Area **Recommended Citation(s)** • Ziliak, J., Gundersen, C. (August 2021). The State of Senior Hunger in America in 2019: An Annual Report. Report for Feeding America. Available from Feeding America: https://www.feedingamerica.org/research/senior-hunger-research	**Data Variables** Economic • Older adult food insecurity • Older adult very low food insecurity • Senior food insecurity • Senior very low food security
Mapping Medicare Disparities Tool The CMS Office of Minority Health has designed an interactive map, the Mapping Medicare Disparities Tool, to identify areas of disparities between subgroups of Medicare beneficiaries (e.g., racial and ethnic groups) in health outcomes, utilization, and spending. https://data.cms.gov/tools/mapping-medicare-disparities-by-population	**Data Variables** Healthcare Access • Female Medicare enrollee's mammogram screening count

Years and Geographic Area(s) • 2008-2019 • County **Recommended Citation(s)** • Center for Medicare and Medicaid Services (CMS). Mapping Medicare Disparities by Population. https://data.cms.gov/tools/mapping-medicare-disparities-by-population	
Small Area Health Insurance Estimates The U.S. Census Bureau's Small Area Health Insurance Estimates program produces the only data source for single-year estimates of health insurance coverage status for all counties in the U.S. by selected economic and demographic characteristics. https://www.census.gov/programs-surveys/sahie.html **Years and Geographic Area(s)** • 2009-2019 • County **Recommended Citation(s)** • U.S. Census Bureau (2010-2019). Small Area Health Insurance Estimates. Retrieved from https://www.census.gov/programs-surveys/saipe/data/datasets.html	**Data Variables** Healthcare Access • Insured • Uninsured
Small Area Income and Poverty Estimates The U.S. Census Bureau's Small Area Income and Poverty Estimates program produces single-year estimates of income and poverty for all U.S. states and counties and estimates of school-age children in poverty for all 13,000+ school districts. https://www.census.gov/programs-surveys/saipe.html **Years and Geographic Area(s)** • 2010-2019 • County and School District **Recommended Citation(s)** • U.S. Census Bureau (2010-2019). Small Area Income and Poverty Estimates. Retrieved from https://www.census.gov/programs-surveys/saipe/data/datasets.html	**Data Variables** Economic • Children in poverty

Texas Department of State Health Services (DSHS): Texas Hospital Data	**Data Variables**
Texas Hospital Data estimates healthcare facilities and licensed bed counts.	Healthcare Access
https://healthdata.dshs.texas.gov/dashboard/hospitals/texas-hospital-data	• Hospitals and Licensed Beds
Years and Geographic Area(s)	• Number of HealthCare Facilities by city, metro status, and ownership
• 2009-2018	• Number of licensed beds
• County and City	
Recommended Citation(s)	
Texas Hospital Data. Texas Department of State Health Services. United States. [Database] Retrieved from https://healthdata.dshs.texas.gov/dashboard/hospitals/texas-hospital-data	
Texas Education Agency	**Data Variables**
The Texas Education Agency (TEA) is the state agency that oversees primary and secondary public education. TEA contains data to create several reports that provide information about various topics, such as graduation rates, student performance, spending, and implementation of legislation.	Education
	• High school dropout rate by gender, race, and other groups
https://tea.texas.gov/reports-and-data	
Years and Geographic Area(s)	
• 2017-2020	
• County	
Recommended Citation(s)	
• Texas Education Agency. Completion, Graduation, and Dropout Data [database] available via https://tea.texas.gov/reports-and-data/school-performance/accountability-research/completion-graduation-and-dropout/completion-graduation-and-dropout-data	
USDA Food Environment Atlas	**Data Variables**
The Food Environment Atlas generated by the USDA contains information on each county's access to food-related resources, including SNAP and WIC.	Neighborhood and Built Environment
	• Access to the grocery store by age group, race, and other demographic categories
https://www.ers.usda.gov/data-products/food-environment-atlas/	
Years and Geographic Area(s)	• Farmers markets
• 2010-2017	• Food Banks

• County **Recommended Citation(s)** • Economic Research Service (ERS), U.S. Department of Agriculture (USDA). Food Environment Atlas. https://www.ers.usda.gov/data-products/food-environment-atlas	• Food Environment Index • Number of fast food and full-service restaurants • Number of SNAP and WIC-authorized stores • Number of supercenters, grocery, and convenience stores • Recreation and Fitness Facilities

Return to the top of the document