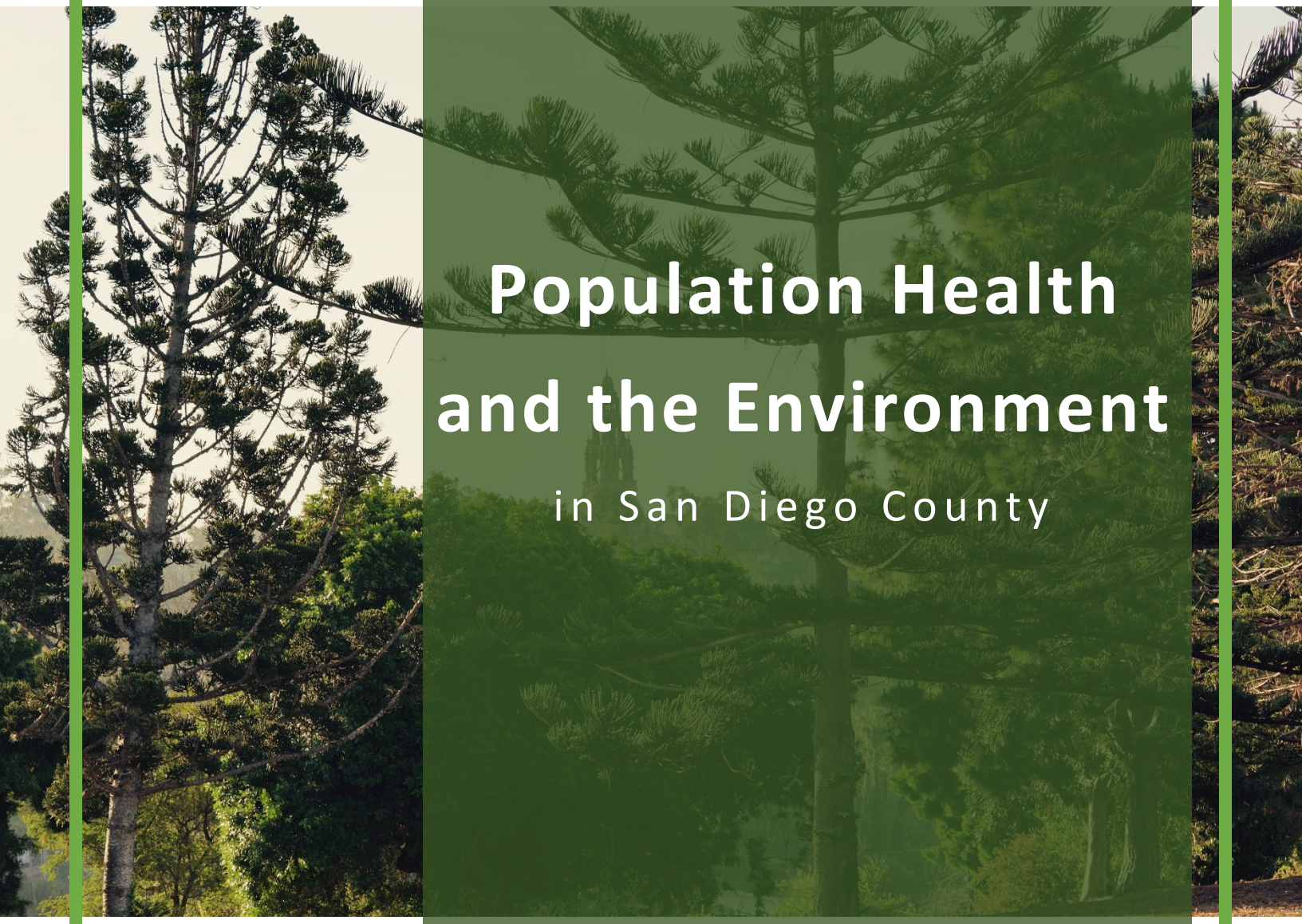

Population Health and the Environment

in San Diego County

County of San Diego, Health and Human Services Agency,
Public Health Services, Community Health Statistics Unit

Prepared September 2023

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Population Health and the Environment

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September 29, 2023

This publication of Population Health and the Environment in San Diego County utilizes estimated data that is current up through 2023 or the most current year available at the time this publication was in development. This document was developed under the Community Health Statistics Unit of the County of San Diego and is in support of Live Well San Diego.

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The Public Health Services department, County of San Diego Health and Human Services Agency, has maintained national public health accreditation, since May 17, 2016, and was re-accredited by the Public Health Accreditation Board on August 21, 2023.

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Introduction

Environmental Health

Environmental health is a branch of public health which addresses aspects of human health and disease that are impacted by factors in the natural and built environment. Healthy environments are crucial to healthy communities. According to the World Health Organization (WHO), over 13 million deaths per year, a quarter of global deaths, are due to modifiable environmental risks.[1]

Exposure to environmental pollutants, such as ozone and PM2.5, can increase the risk of developing health issues like respiratory disease, heart disease, and cancer.[2] Additionally, the way in which a neighborhood is built influences the health of communities. For example, some communities may live near polluting factories which increases the risk of exposure to environmental pollutants. Other communities may not have access to safe places to walk and exercise or access to nutritious and affordable food which influences health behaviors.[3]

Many communities across the United States bear a disproportionate burden of pollution. Some of these communities face the additional burden of social vulnerability which puts them at greater risk to the impacts of environmental hazards, natural disasters, and disease outbreaks.[4] For example, populations living below the federal poverty line are more likely to live in areas with higher pollution, and kids and older adults are more susceptible to the negative health effects of environmental pollution.

In order to achieve health equity, environmental inequities must be addressed as a public health issue.[5] Tracking environmental pollutants and hazards are crucial to understanding where and how people are exposed and the risk of environmental hazards that communities face. Additionally, identifying communities that may be more vulnerable to the impacts of pollution, environmental hazards, and climate change can help to inform policy makers of those in need of targeted resources and interventions.

The data presented in this brief come from a variety of federal, state, and local sources, including: CalEnviroScreen 4.0 (2021),[4] County of San Diego Land Use and Environmental Group (LUEG) (2021),[6] the Smart Location Database (2021),[7] American Community Survey (ACS) Estimates (2017-2021),[8] Community Resilience Estimates (2021),[9] the Social Vulnerability Index (2020),[10] CDC PLACES (2021),[11] Cal-Adapt Local Climate Change Snapshot Tool (2018),[12] CalFire Redbook (2021),[13] the National Risk Index (2023),[14] and the Esri Market Potential Estimates (2021).[15]

To view data on population health and the environment in San Diego County, visit: Population Health and The Environment | Tableau Public

Natural Environment

The natural environment can have a significant impact on the health of populations. Environmental hazards, like pollution or extreme weather, can affect human health in a number of ways, from contributing to chronic diseases like cancer or to acute illness like heat and exhaustion.[2,4]

This brief highlights the census tracts and Health and Human Services Agency (HHSA) Subregional Areas (SRA) in San Diego County with the highest pollution burden and CalEnviroScreen (CES) scores. For additional natural environment indicators, visit the Population Health and the Environment Dashboard.

The Population Health and the Environment dashboard includes a compilation of natural hazards at the census tract level.* All data come from CalEnviroScreen 4.0. To view CalEnviroScreen 4.0 Dashboard and methodology, visit:

https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

The following indicators are included in the dashboard:

- Ozone
- PM2.5
- Diesel PM
- Drinking Water Contaminants
- Lead Exposure
- Pesticide Use
- Toxic Releases from Facilities
- Traffic Impacts
- Clean-Up Sites
- Groundwater Threats
- Hazardous Waste Generators and Facilities
- Impaired Water Bodies
- Solid Waste Sites and Facilities
- Pollution Burden
- CalEnviroScreen (CES) 4.0 Score

*2010 census tracts

CalEnviroScreen 4.0

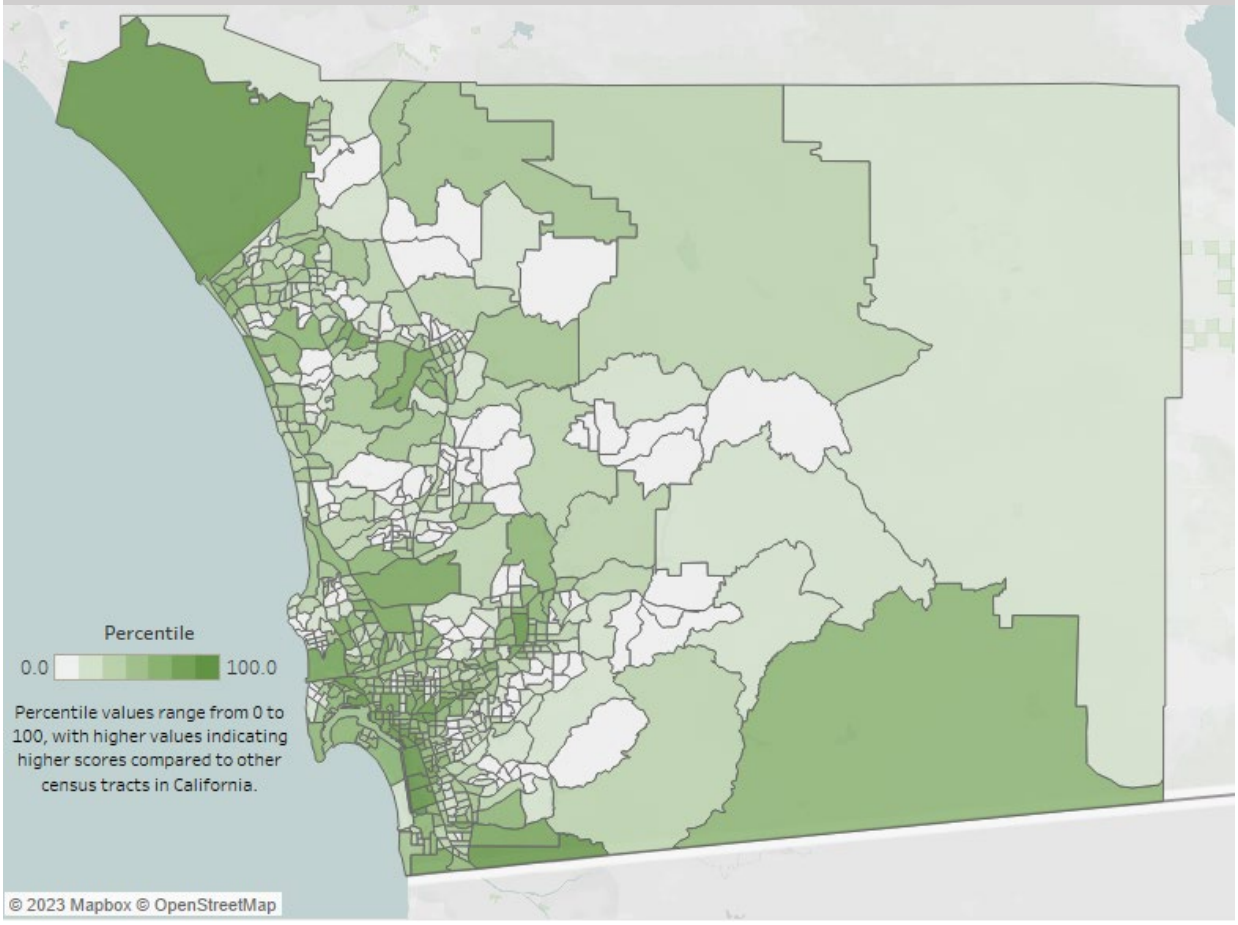
CalEnviroScreen 4.0 is the California Communities Environmental Health Screening Tool. The tool was developed by the California Environmental Protection Agency's (CalEPA) Office of Environmental Health Hazard Assessment (OEHHA). CalEnviroScreen includes an online mapping tool, a supplemental race analysis, and related documents. It analyzes data on environmental, public health, and socioeconomic conditions in California's 8,000 census tracts to provide a clear picture of cumulative pollution burdens and vulnerabilities in communities throughout California.[4]

CalEnviroScreen 4.0 includes a pollution burden score, which is the average of the environmental effects and exposure components. The resulting scores provide an index of pollution burden. The higher the score, the greater the pollution burden. The CalEnviroScreen 4.0 also includes an overall CalEnviroScreen (CES) Score which is based on the CalEPA's definition of cumulative impacts. The score accounts for pollution burden and population characteristics. The resulting scores provide an index of environmental hazard risk. The greater the score, the greater the environmental hazard risk.[4]

Key Findings

The map below describes the overall pollution burden by census tract in San Diego County (Figure 1).

Figure 1: Overall Pollution Burden by Census Tract, San Diego County, 2021.



Source: CalEnviroScreen 4.0, 2021.[4] Prepared by San Diego County, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit, September 2023.

In 2021, Census Tract 219 in National City Subregional Area (SRA) had the highest overall pollution burden in San Diego County.

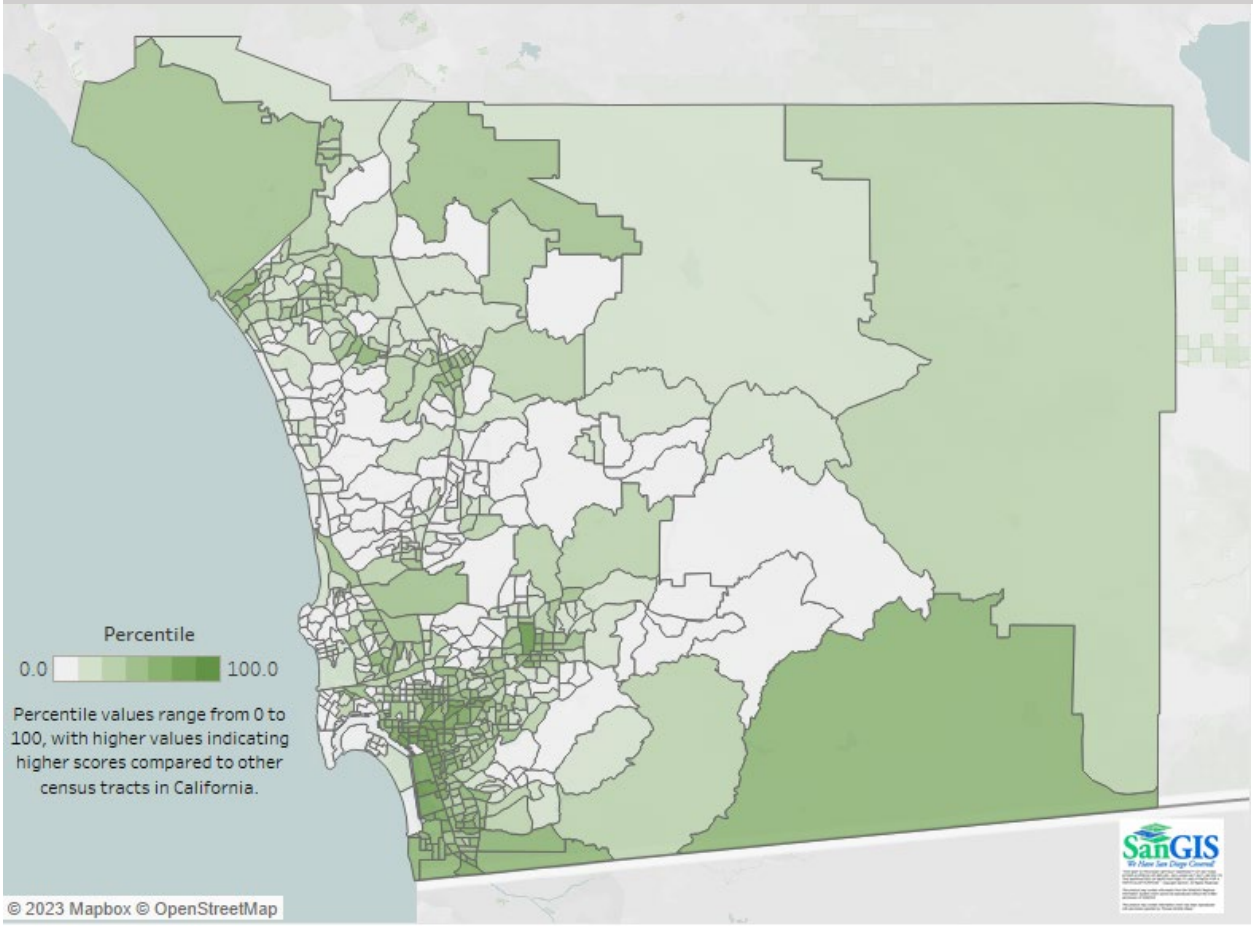
Census Tract 219 in National City SRA had 97% more pollution burden when compared to other census tracts in California.

Among SRAs in San Diego County, Pendleton, Miramar, and National City had the highest overall pollution burden in 2021.

In 2021, Pendleton SRA had nearly 93% more pollution burden when compared to census tracts in California. Miramar SRA had more overall pollution burden than 73% of census tracts in California, and National City SRA had more overall pollution burden than 62% of census tracts in California.

The map below describes the CalEnviroScreen Score by census tract in San Diego County (Figure 2).

Figure 2: CalEnviroScreen Score by Census Tract, San Diego County, 2021.



Source: CalEnviroScreen 4.0, 2021.[4] Prepared by San Diego County, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit, September 2023.

In 2021, Census Tract 36.01 in Southeastern San Diego SRA had the highest CalEnviroScreen (CES) score in San Diego County.

Census Tract 36.01 in Southeastern San Diego SRA had a higher CES score than 98% of census tracts in California.

Among SRAs, National City, Chula Vista, and Southeastern San Diego had the highest CalEnviroScreen (CES) score in San Diego County.

In 2021, National City SRA had a higher CES score than 77% of census tracts in California. Similarly, Chula Vista had a higher CES score than 66% of census tracts in California, and Southeastern San Diego had a higher CES score than 63% of census tracts in California.

Built Environment

The built environment can have a significant impact on the health of populations. The built environment is generally described as the human-made or modified structures that provide people with living, working, and recreational spaces. This includes the buildings we live in, roads, bridges, transportation systems, and access to green space.[16] The built environment has a significant influence on human health and behaviors. It affects how land is used, natural resource consumption, and community patterns of waste disposal.[7, 16]

This brief describes community access to green space, means of commuting to work, the number of vehicles per household, and neighborhood walkability in San Diego County. To view additional built environment indicators, visit the Population Health and the Environment Dashboard.

The Population Health and the Environment dashboard includes the following indicators at the census tract level*:

- Accessibility index: Transit to jobs
- Accessibility index: Auto to jobs
- High-speed road network density
- Transit service frequency per square mile
- Activity density (jobs + housing per acre)
- Jobs within a 45 min. transit ride (weighted)
- Jobs within a 45 min. drive (weighted)
- Workers per job Equilibrium Index
- Percentage of jobs within 0.25 miles of fixed-guideway transit
- Percentage of jobs within 0.50 miles of fixed-guideway transit
- Housing Units per acre
- People per acre
- Jobs per acre
- Jobs per household
- Total road work density
- Street intersection density
- Total road work density
- National walkability Index
- Transit service frequency
- Access to Park or Community Space§
- Number of Vehicles§
- Means of Transportation to get to Work§

*2010 census tracts. Smart Location Database Measures were downloaded at the Census Block Group level. CBG data were averaged to obtain the measure values at the census tract level.
§Available only at Subregional Area and Regional levels

Land Use and Environmental Group (LUEG) and American Community Survey Estimates (ACS)

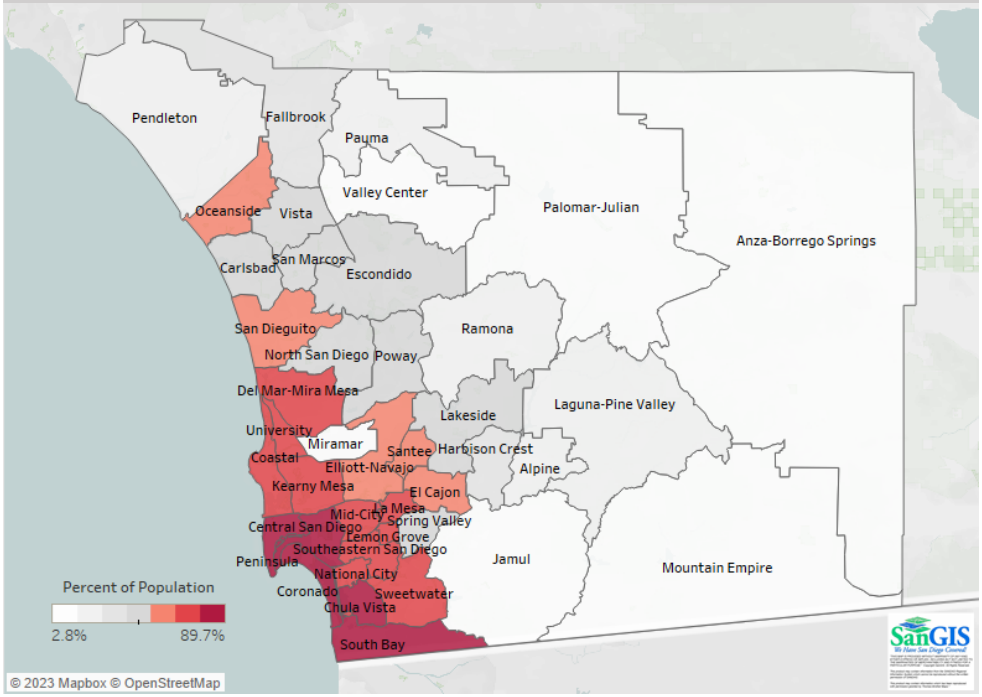
The findings below describe important built environment indicators produced by the County of San Diego Land Use and Environmental Group (LUEG) and the Census Bureau's American Community Survey (ACS).

Key Findings

Access to Community Space

Miramar, Anza-Borrego Springs, Mountain Empire, and Valley Center Subregional Areas (SRAs) had the lowest access to a park or community space, where less than 10% of the population was living within ¼ mile of a park or community space in 2021 (figure 3).

Figure 3: Percent of Population Living within ¼ Mile of a Park or Community Space by Subregional Area (SRA), San Diego County, 2021.



Source: County of San Diego, Land Use and Environmental Group (LUEG), 2021.[7] Prepared by San Diego County, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit, September 2023.

Commute to Work

In every SRA, except Pendleton and Miramar, the majority of workers aged 16+ drove alone to work. Among workers aged 16+, Miramar SRA had the greatest population that carpooled to work (20.4%), University SRA had the greatest population that used public transportation to get to work (7.5%), and Pendleton SRA had the greatest population that walked to work (42.7%). Nearly one third (31.7%) of workers aged 16+ in Anza Borrego Springs SRA worked from home.

Vehicles

Among SRAs, National City had the highest population with no vehicles (12.3%). Central San Diego SRA had the highest population with one vehicle (49.5%), Pendleton SRA had the highest population with two vehicles (70.9%), and Jamul had the highest population with three or more vehicles (52.9%).

Smart Location Database – Walkability

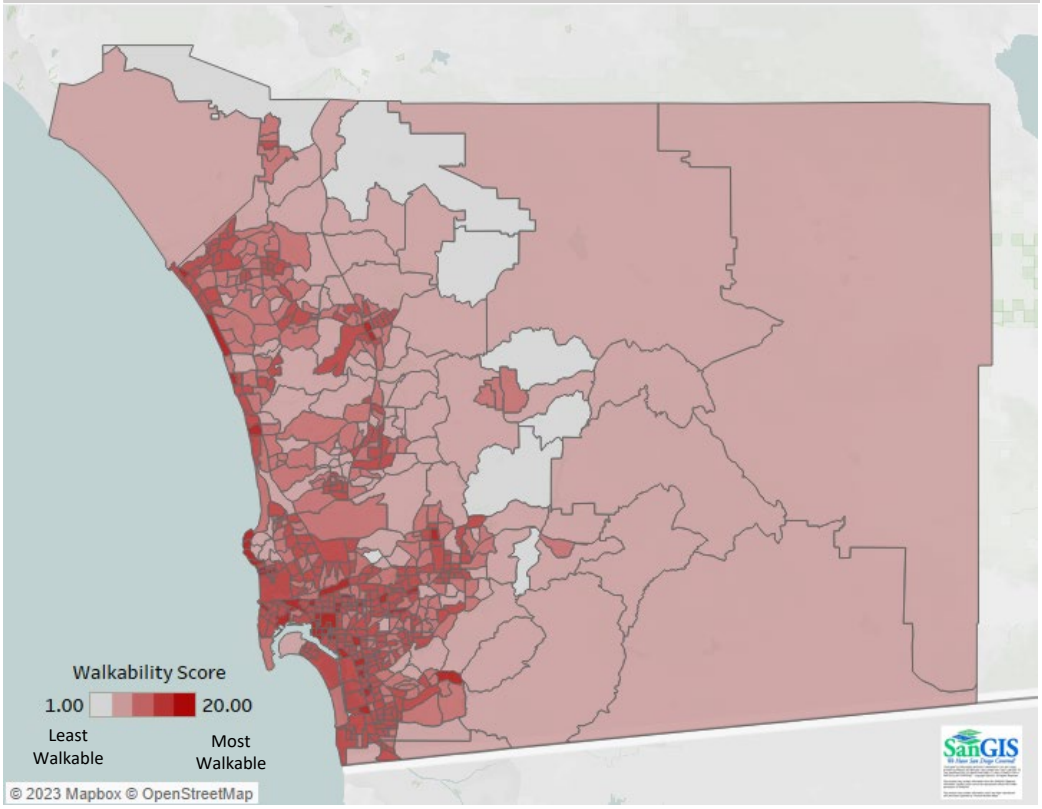
The neighborhood walkability data come from the Environmental Protection Agency (EPA)'s Smart Location Database.[7] The Smart Location Database summarizes indicators associated with the built environment and location efficiency. Additional built environment data are available at the census tract level (2010 census tracts) on the Population Health and the Environment Dashboard.

Key Findings

The map below describes neighborhood walkability by census tract in San Diego County (figure 4).

Census Tract 123.02 in Chula Vista Subregional Area (SRA) had the highest walkability score in San Diego.

Figure 4: Walkability by Census Tract, San Diego County, 2021.



Source: EPA Smart Location Database, 2021.[6] Prepared by San Diego County, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit, September 2023.

In 2021, Census Tract 123.02 in Chula Vista SRA had a walkability score of 19.5, followed by Census Tract 79.10 in Coastal SRA with a walkability score of 18.83 and Census Tract 144 in Lemon Grove SRA with a walkability score of 18.33. Scores between 15.26 and 20 indicate that the neighborhood is among the most walkable when compared to other census block groups in the United States. Overall, 101 census tracts (16.1%) in San Diego County were rated as most walkable.

Among SRAs, Central San Diego had the highest walkability score, followed by National City and Peninsula.

In 2021, Central San Diego SRA had a walkability score of 15.27 (most walkable), National City SRA had a walkability score of 15.19 (above average walkable), and Peninsula SRA had a walkability score of 14.85 (above average walkable). Pauma SRA had the lowest walkability score of 4.29 (least walkable).

Social Vulnerability

Social vulnerability is the degree to which a community exhibits certain social conditions, such as high poverty, low percentage of vehicle access, or crowded households, which may affect the community's ability to prevent human suffering and financial loss in the event of a disease outbreak or natural disaster caused by environmental hazards.

This brief describes social factors, known as social determinants of health (SDOH), that may affect a population's ability to withstand environmental hazards and climate change and highlights census tracts with the greatest social vulnerability in San Diego County. Additional data regarding social vulnerability can be found in the Population Health and Environment Dashboard.

The following indicators are included in the dashboard at the census tract* level:

- Age
- Disability
- Education
- Health Insurance
- Housing Burden
- Housing Tenure
- Internet Access
- Labor Force
- Language
- Minority Race/Ethnicity
- Poverty
- Community Resilience Estimates (2021)
- Social Vulnerability Index (2020)

*2020 census tracts

American Community Survey Estimates

The social factors below, known as social determinants of health (SDOH), may affect a population's ability to withstand environmental hazards and climate change. Data for these social factors are available by census tract on the Population Health and the Environment Dashboard and come from the 2017-2021 American Community Survey (ACS).

AGE

Some age groups are more vulnerable to environmental exposures. Older adults may have lowered immune function and may be more vulnerable to the effects of environmental pollution. Children are also more vulnerable to the negative effects of pollution due to physiological factors, such as rates of absorption and metabolism, and behaviors that put them at risk.[17]

DISABILITY

Individuals living with a disability may be at greater risk of developing poor health outcomes related to environmental pollution, including PM2.5 and other forms of air pollution. Additionally, those living with a disability may be affected disproportionally during disaster events and recovery.[17]

EDUCATION

Educational attainment is a factor of socioeconomic status. Individuals with a higher level of education usually have a higher income than those with a lower level of education. Studies have shown that individuals with low educational attainment may face a greater risk of poor health outcomes associated with environmental hazards, particularly air pollution.[4, 17]

HEALTH INSURANCE

Individuals that do not have health insurance may face issues accessing preventative care following exposure to environmental hazards, which may result in disproportionate morbidity and mortality among uninsured populations.[17]

HOUSING BURDEN

A household becomes cost-burdened when more than 30% of the household income is spent on housing. Adequate and affordable housing is crucial to living healthy lives. When individuals spend a large portion of their income on housing, they may be unable to afford other essentials including healthy food and healthcare, resulting in housing-induced poverty. Poverty is associated with poor health outcomes, including those relating to environmental hazards and climate change.[4, 17]

HOUSING TENURE

Research indicates that renters experience worse health outcomes compared to homeowners, including those related to environmental hazards and climate change. This is likely due to the complex interactions between socioeconomic status associated with housing tenure and the environments represented by rented and owned housing units.[17]

INTERNET ACCESS

The internet is an important source of information during emergencies, including environmental disasters. Lack of access to the internet may be a communication barrier during environmental emergencies and may limit an individual's ability to find or receive information following an emergency.[17]

LABOR FORCE

Unemployment is an important indicator of socioeconomic status. Without adequate employment, individuals may face financial challenges, including issues accessing healthcare, that can lead to poor health and well-being outcomes. Additionally, unemployment is associated with increased stress and stress-related inflammation which may further increase the risk of poor health outcomes among the unemployed population.[17, 18]

LANGUAGE

Adults who are unable to speak English well may face barriers when speaking to people who provide social services or medical care. Additionally, adults who do not speak English well or at all may have trouble hearing or understanding important information during environmental emergencies.[4, 17]

MINORITY RACE/ETHNICITY

Research indicates that racial/ethnic minorities are at greater risk for a number of poor health outcomes, including those associated with environmental pollution. Minority populations that experience negative health effects associated with environmental hazards may also face barriers to accessing care.[4, 17]

POVERTY

Poverty can contribute to inequitable access to resources and opportunities and increase the risk of adverse health outcomes, including those associated with environmental hazards. Communities living in poverty face institutional inequities, including barriers to accessing health care and limited educational resources. Living conditions are also significantly impacted by poverty, including limited access to healthy foods or food insecurity, unstable housing, neighborhood violence, and chronic stress, which all contribute to susceptibility to the negative health effects of environmental hazards and climate change.[17, 18]

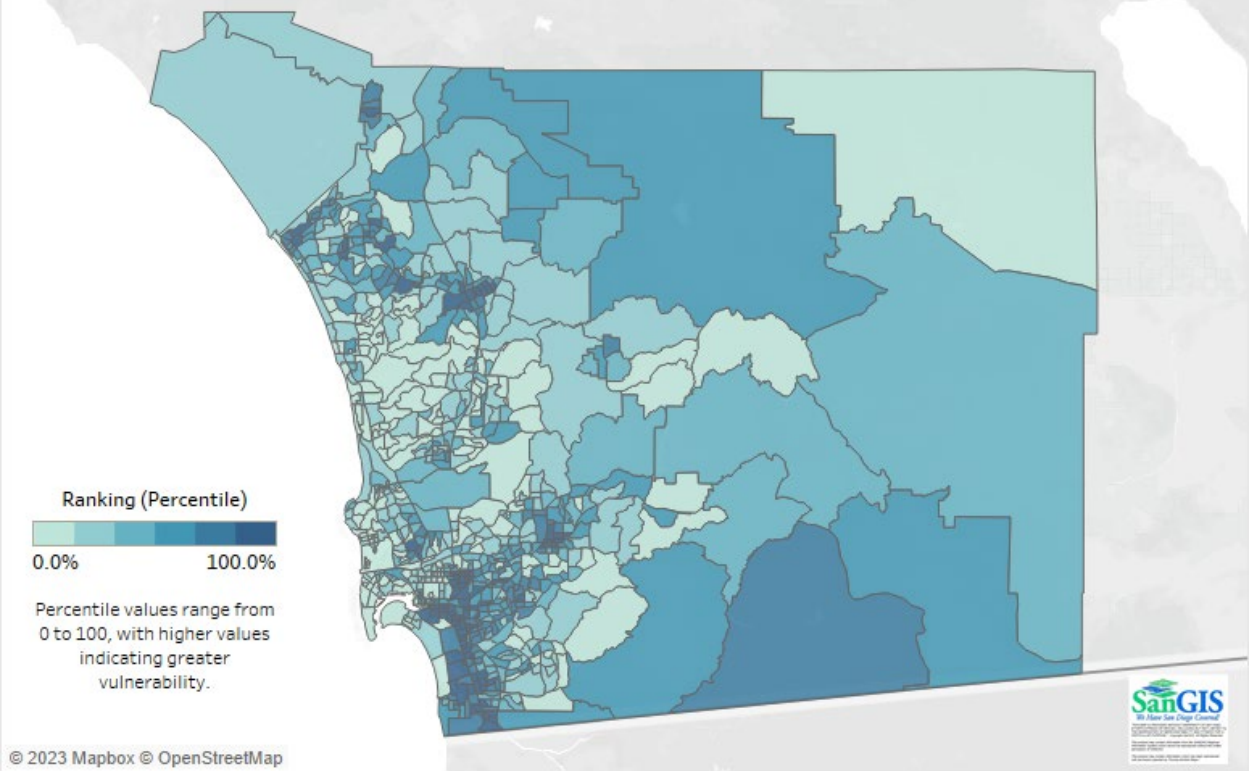
Social Vulnerability Index (SVI)

The Social Vulnerability Index (SVI) is a composite measure of social factors related to a population's ability to withstand environmental hazards and climate change. The resulting index provides relative community vulnerability by census tract. The ranking includes 16 social factors from the American Community Survey (ACS), including the social factors listed above, and further groups them into four related themes.[10] The SVI is meant to inform and prepare communities to respond to emergency events, including natural disasters and disease outbreaks.[10]

Key Findings

The map below shows the Overall Social Vulnerability Rankings by Census Tract in 2020 (figure 5).

Figure 5: Overall Social Vulnerability Rankings (Percentile) by Census Tract, San Diego County, 2020.



Source: Social Vulnerability Index, 2020.[10] Prepared by San Diego County, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit, September 2023.

Throughout San Diego County, clusters of census tracts were ranked at least 95% more vulnerable than other census tracts in California.

Census Tract 202.07 was the most vulnerable Census Tract in San Diego County.

In 2020, Census Tract 202.07 in Escondido Subregional Area (SRA) and North Inland Region was more vulnerable than 99.67% of other census tracts in California. Clusters of census tracts throughout San Diego County in each of the Health and Human Services (HHSA) regions were ranked as at least 95% more vulnerable than other census tracts in California. Identification of these communities may help to improve preparation for emergency events, including natural disasters.

Community Resilience Estimates (CRE)

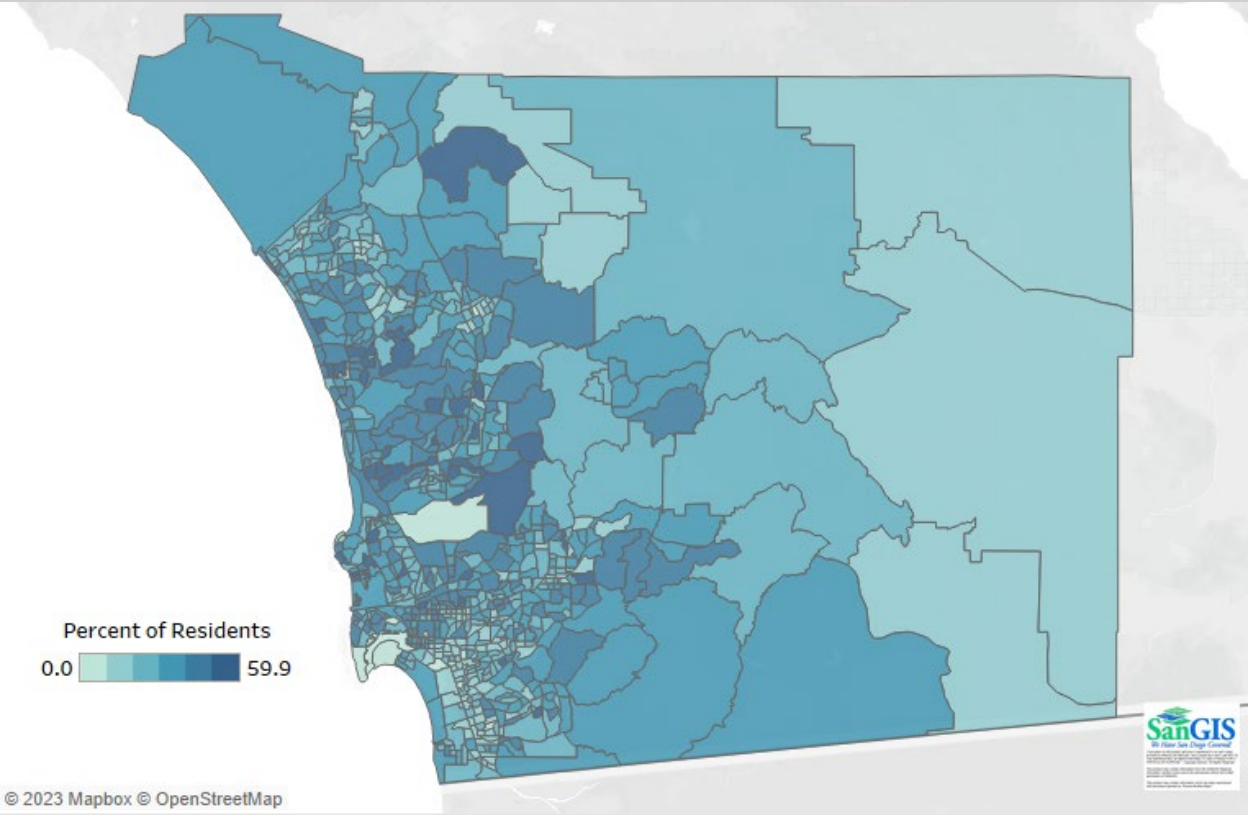
Community resilience is the capacity of individuals and households to absorb, endure, and recover from the health, social, and economic impacts of a disaster, such as a hurricane or pandemic. In the summer of 2020, the Census Bureau launched the Community Resilience Estimates (CRE).[9] The CRE identifies the neighborhood risk to impacts of disasters in the United States. The data below come from the CRE and is available at the census tract level (2010 census tracts).

Individual and household characteristics from the 2021 American Community Survey (ACS) were modeled, in combination with data from the Population Estimates Program, to create composite measures for the CRE. Risk Factors from the 2021 ACS include: income to poverty ratio, single or zero caregiver household, crowding, communication barrier, households without full-time and year-round employment, disability, no health insurance, age 65+, no vehicle access, and no broadband internet access.

Key Findings

The map below shows the percent of residents who have three or more risk factors by census tract (figure 6).

Figure 6: Percent of Residents who have Three or More Risk Factors by Census Tract, San Diego County, 2021.



Source: Community Resilience Estimates, 2021.[9] Prepared by San Diego County, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit, September 2023.

Census Tract 157.06 in El Cajon Subregional Area (SRA) had the highest rate of individuals with three or more risk factors, followed by Census Tract 118.02 in National City SRA.

In 2021, nearly 60%of the residents in Census Tract 157.06 had three or more risk factors. In Census Tract 118.02, over 50% of residents had three or more risk factors.

Among SRAs, Mountain Empire had the highest rate of individuals with three or more risk factors, followed by National City and Anza-Borrego Springs.

In 2021, nearly 32% of residents in Mountain Empire SRA had three or more risk factors. In National City SRA, 27.1% of residents had three or more risk factors, and 26.7% of residents in Anza-Borrego Springs SRA had three or more risk factors.

Health Outcomes

The natural and built environment can have a significant impact on the health of populations. Environmental hazards, like pollution or extreme weather, can affect human health in a number of ways, from contributing to chronic diseases like cancer or to acute illness like heat and exhaustion.[2,4] Additionally, climate change can exacerbate environmental hazards and further increase the risk of adverse health outcomes in affected populations.[19]

The findings in this section outline the census tracts with the highest crude prevalence of health conditions most frequently associated with environmental hazards and climate change. This includes asthma, cancer, chronic kidney disease (CKD), chronic obstructive pulmonary disease (COPD), depression, diabetes, coronary heart disease (CHD), high blood pressure, and stroke.

Crude prevalence rates for census tracts* in San Diego County are available in the Population Health and the Environment Dashboard. Health conditions include:

- Asthma
- Overall Cancer
- Chronic Kidney Disease (CKD)
- Chronic Obstructive Pulmonary Disease (COPD)
- Coronary Heart Disease (CHD)
- Depression
- Diabetes
- High Blood Pressure (HBP)
- Stroke

*2010 census tracts

Healthy PLACES Crude Prevalence Estimates

Crude prevalence data are provided at the census tract level (2010 census tracts) and come from the Centers for Disease Control and Prevention (CDC) PLACES. PLACES provides health data for small areas across the country. Estimates are based on the Behavioral Risk Factor Surveillance System (BRFSS) data from 2021. All estimates are among adults aged 18 or older.

The tables below describe the census tracts in San Diego County with the highest crude prevalence of asthma, cancer, chronic kidney disease (CKD), chronic obstructive pulmonary disease (COPD), depression, diabetes, coronary heart disease (CHD), high blood pressure, and stroke in 2021.

Table 1: Highest Crude Prevalence of Asthma by Census Tract, San Diego County, 2021.

	Census Tract (CT)	Subregional Area (SRA)	Region	Supervisorial District	Crude Prevalence	Pollution Burden	CES Score
1.	CT 29.04	Mid-City	Central	2	12.7%	40.82	26.59
2.	CT 157.03	El Cajon	East	2	12.3%	35.87	32.10
3.	CT 144	Lemon Grove	East	2	12.0%	54.98	49.87
4.	CT 159.01	El Cajon	East	2	12.0%	46.94	46.67
5.	CT 33.05	Southeastern San Diego	Central	1	11.9%	49.01	43.21
6.	CT 24.02	Mid-City	Central	4	11.8%	45.37	46.22
7.	CT 22.01	Mid-City	Central	4	11.8%	44.09	39.05
8.	CT 28.01	Mid-City	Central	2	11.8%	43.50	31.29
9.	CT 33.01	Southeastern San Diego	Central	1	11.7%	50.38	50.00
10.	CT 186.03	Oceanside	North Coastal	5	11.6%	50.30	37.65

Source: CDC PLACES, 2021.[11] Prepared by San Diego County, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit, September 2023.

Table 2: Highest Crude Prevalence of Overall Cancer by Census Tract, San Diego County, 2021.

	Census Tract (CT)	Subregional Area (SRA)	Region	Supervisorial District	Crude Prevalence	Pollution Burden	CES Score
1.	CT 170.14	North San Diego	North Inland	3	17.2%	26.73	6.53
2.	CT 198.08	Carlsbad	North Coastal	5	13.1%	27.43	10.20
3.	CT 170.19	Poway	North Inland	3	13.1%	27.27	9.00
4.	CT 185.12	Oceanside	North Coastal	5	12.5%	33.45	12.28
5.	CT 82	Coastal	North Central	4	11.7%	29.92	7.14
6.	CT 83.01	Coastal	North Central	4	11.5%	34.48	3.61
7.	CT 176.01	San Dieguito	North Coastal	3	11.3%	43.36	4.02
8.	CT 83.03	Coastal	North Central	4	10.8%	38.30	4.08
9.	CT 210	Anza-Borrego Springs	North Inland	5	10.1%	32.89	18.24
10.	CT 106.01	Coronado	South	1	10.0%	28.79	6.95

Source: CDC PLACES, 2021.[11] Prepared by San Diego County, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit, September 2023.

Table 3: Highest Crude Prevalence of Chronic Kidney Disease by Census Tract, San Diego County, 2021.

	Census Tract (CT)	Subregional Area (SRA)	Region	Supervisorial District	Crude Prevalence	Pollution Burden	CES Score
1.	CT 170.14	North San Diego	North Inland	3	5.8%	26.73	6.53
2.	CT 185.12	Oceanside	North Coastal	5	5.1%	33.45	12.28
3.	CT 210	Anza-Borrego Springs	North Inland	5	4.6%	32.89	18.24
4.	CT 120.02	National City	South	1	4.5%	38.80	37.35
5.	CT 170.19	Poway	North Inland	3	4.5%	27.43	9.00
6.	CT 123.02	Chula Vista	South	1	4.4%	33.18	26.43
7.	CT 198.08	Carlsbad	North Coastal	5	4.4%	27.27	10.20
8.	CT 125.01	Chula Vista	South	3	4.3%	53.15	52.53
9.	CT 200.19	San Marcos	North Inland	1	4.3%	41.94	12.45
10.	CT 203.08	Escondido	North Inland	5	4.3%	36.91	24.67

Source: CDC PLACES, 2021.[11] Prepared by San Diego County, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit, September 2023.

Table 4: Highest Crude Prevalence of Chronic Obstructive Pulmonary Disease (COPD) by Census Tract, San Diego County, 2021.

	Census Tract (CT)	Subregional Area (SRA)	Region	Supervisorial District	Crude Prevalence	Pollution Burden	CES Score
1.	CT 157.03	El Cajon	East	2	10.6%	35.87	32.10
2.	CT 210	Anza-Borrego Springs	North Inland	5	10.3%	32.89	18.24
3.	CT 158.02	El Cajon	East	2	9.6%	40.70	36.34
4.	CT 185.12	Oceanside	North Coastal	5	9.4%	33.45	12.28
5.	CT 209.03	Palomar-Julian	North Inland	5	9.3%	36.16	15.71
6.	CT 203.08	Escondido	North Inland	3	9.2%	36.91	24.67
7.	CT 202.09	Escondido	North Inland	3	9.1%	28.63	21.66
8.	CT 125.01	Chula Vista	South	1	8.8%	53.15	52.53
9.	CT 211	Mountain Empire	East	2	8.7%	46.56	32.34
10.	CT 200.19	San Marcos	North Inland	5	8.4%	41.94	12.45

Source: CDC PLACES, 2021.[11] Prepared by San Diego County, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit, September 2023.

Table 5: Highest Crude Prevalence of Coronary Heart Disease by Census Tract, San Diego County, 2021.

	Census Tract (CT)	Subregional Area (SRA)	Region	Supervisorial District	Crude Prevalence	Pollution Burden	CES Score
1.	CT 170.14	North San Diego	North Inland	3	11.5%	26.73	6.53
2.	CT 210	Anza-Borrego Springs	North Inland	5	10.3%	32.89	18.24
3.	CT 185.12	Oceanside	North Coastal	5	10.3%	33.45	12.28
4.	CT 170.19	Poway	North Inland	3	8.9%	27.43	9.00
5.	CT 198.08	Carlsbad	North Coastal	5	8.7%	27.27	10.20
6.	CT 203.08	Escondido	North Inland	3	8.6%	36.91	24.67
7.	CT 200.19	San Marcos	North Inland	5	8.6%	41.94	12.45
8.	CT 209.03	Palomar-Julian	North Inland	5	8.3%	36.16	15.71
9.	CT 120.02	National City	South	1	8.3%	38.80	37.35
10.	CT 125.01	Chula Vista	South	1	8.0%	53.15	52.53

Source: CDC PLACES, 2021.[11] Prepared by San Diego County, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit, September 2023.

Table 6: Highest Crude Prevalence of Depression by Census Tract, San Diego County, 2021.

	Census Tract (CT)	Subregional Area (SRA)	Region	Supervisorial District	Crude Prevalence	Pollution Burden	CES Score
1.	CT 29.04	Mid-City	Central	2	25.7%	40.82	26.59
2.	CT 28.01	Mid-City	Central	2	23.9%	43.50	31.29
3.	CT 99.01	Peninsula	North Central	1	23.7%	47.89	NA
4.	CT 157.03	El Cajon	East	2	22.9%	35.87	32.10
5.	CT 95.10	Elliott-Navajo	North Central	3	22.4%	44.85	20.92
6.	CT 168.04	Lakeside	East	2	22.1%	44.30	28.30
7.	CT 159.01	El Cajon	East	2	22.0%	46.94	46.67
8.	CT 28.04	Mid-City	Central	2	22.0%	35.06	24.07
9.	CT 75.01	Peninsula	North Central	4	21.8%	39.58	9.15
10.	CT 158.01	El Cajon	East	2	21.7%	44.56	35.24

Source: CDC PLACES, 2021.[11] Prepared by San Diego County, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit, September 2023.

Table 7: Highest Crude Prevalence of Diabetes by Census Tract, San Diego County, 2021.

	Census Tract (CT)	Subregional Area (SRA)	Region	Supervisorial District	Crude Prevalence	Pollution Burden	CES Score
1.	CT 120.02	National City	South	1	20.5%	38.80	37.35
2.	CT 125.01	Chula Vista	South	1	18.2%	53.15	52.53
3.	CT 117	National City	South	1	17.7%	49.16	49.07
4.	CT 123.02	Chula Vista	South	1	16.9%	33.18	26.43
5.	CT 100.13	South Bay	South	1	16.8%	44.99	45.66
6.	CT 100.05	South Bay	South	1	16.5%	36.72	33.92
7.	CT 34.04	Southeastern San Diego	Central	1	16.0%	59.43	53.07
8.	CT 210	Anza-Borrego Springs	North Inland	5	16.0%	32.89	18.24
9.	CT 22.02	Mid-City	Central	4	15.9%	43.00	42.42
10.	CT 31.01	Southeastern San Diego	Central	4	15.6%	35.91	35.08

Source: CDC PLACES, 2021.[11] Prepared by San Diego County, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit, September 2023.

Table 8: Highest Crude Prevalence of High Blood Pressure by Census Tract, San Diego County, 2021.							
	Census Tract (CT)	Subregional Area (SRA)	Region	Supervisorial District	Crude Prevalence	Pollution Burden	CES Score
1.	CT 170.14	North San Diego	North Inland	3	45.3%	26.73	6.53
2.	CT 185.12	Oceanside	North Coastal	5	39.9%	33.45	12.28
3.	CT 210	Anza-Borrego Springs	North Inland	5	39.1%	32.89	18.24
4.	CT 170.19	Poway	North Inland	3	37.5%	27.43	9.00
5.	CT 198.08	Carlsbad	North Coastal	5	35.3%	27.27	10.20
6.	CT 120.02	National City	South	1	35.2%	38.80	37.35
7.	CT 209.03	Palomar-Julian	North Inland	5	35.2%	36.16	15.71
8.	CT 200.19	San Marcos	North Inland	5	34.6%	41.94	12.45
9.	CT 31.01	Southeastern San Diego	Central	4	34.0%	35.91	35.08
10.	CT 203.08	Escondido	North Inland	3	33.6%	36.91	24.67

Source: CDC PLACES, 2021.[11] Prepared by San Diego County, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit, September 2023.

Table 9: Highest Crude Prevalence of Stroke by Census Tract, San Diego County, 2021.							
	Census Tract (CT)	Subregional Area (SRA)	Region	Supervisorial District	Crude Prevalence	Pollution Burden	CES Score
1.	CT 170.14	North San Diego	North Inland	3	5.6%	26.73	6.53
2.	CT 185.12	Oceanside	North Coastal	5	5.3%	33.45	12.28
3.	CT 210	Anza-Borrego Springs	North Inland	5	5.0%	32.89	18.24
4.	CT 120.02	National City	South	1	4.8%	38.80	37.35
5.	CT 203.08	Escondido	North Inland	3	4.6%	36.91	24.67
6.	CT 125.01	Chula Vista	South	1	4.5%	53.15	52.53
7.	CT 200.19	San Marcos	North Inland	5	4.4%	41.94	12.45
8.	CT 31.01	Southeastern San Diego	Central	4	4.4%	35.91	35.08
9.	CT 170.19	Poway	North Inland	3	4.3%	27.43	9.00
10.	CT 209.03	Palomar-Julian	North Inland	5	4.3%	36.16	15.71

Source: CDC PLACES, 2021.[11] Prepared by San Diego County, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit, September 2023.

Key Findings

Overall, census tracts in San Diego County with high pollution burden tended to have higher crude prevalence rates of health conditions most frequently associated with environmental hazards and climate change. Similarly, census tracts in San Diego County with high CalEnviroScreen (CES) scores tended to have higher crude prevalence rates of health conditions most frequently associated with environmental hazards and climate change, including asthma, chronic kidney disease (CKD), chronic obstructive pulmonary disease (COPD), depression, diabetes, coronary heart disease (CHD), high blood pressure, and stroke.

ASTHMA

The highest crude prevalence of asthma among adults aged 18 and older was in Census Tract 29.04 in Mid-City Subregional Area (SRA) with a crude prevalence of 12.7%, followed by Census Tract 157.03 in El Cajon SRA, with a crude prevalence of 12.3% (Table 1). Census tracts in San Diego County with high pollution burden and high CES scores tended to have high crude prevalence rates of asthma.

CANCER

The highest crude prevalence of cancer among adults aged 18 and older was in Census Tract 170.14 in North San Diego SRA, with a crude prevalence of 17.2% (Table 2). The crude prevalence of cancer was not higher in census tracts with high pollution burden or high CES scores.

CHRONIC KIDNEY DISEASE (CKD)

The highest crude prevalence of chronic kidney disease (CKD) among adults aged 18 and older was in Census Tract 170.14 in North San Diego SRA, with a crude prevalence of 5.8%, followed by Census Tract 185.12 in Oceanside SRA, with a crude prevalence of 5.1% (Table 3). Census tracts in San Diego County with high CES scores tended to have high crude prevalence rates of CKD.

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

The highest crude prevalence of chronic obstructive pulmonary disease (COPD) among adults aged 18 and older was in Census Tract 157.03 in El Cajon SRA, with a crude prevalence of 10.6%, followed by Census Tract 210 in Anza-Borrego Springs SRA, with a crude prevalence of 10.3% (Table 4). Census tracts in San Diego County with high CES scores tended to have high crude prevalence rates of COPD.

CORONARY HEART DISEASE (CHD)

The highest crude prevalence of coronary heart disease (CHD) among adults aged 18 years and older was in Census Tract 170.14 in North San Diego SRA, with a crude

prevalence of 11.5%, followed by Census Tract 210 in Anza-Borrego Springs SRA, with a crude prevalence of 10.3% (Table 5).

DEPRESSION

The highest crude prevalence of depression among adults aged 18 years and older was in Census Tract 29.04 in Mid-City SRA, with a crude prevalence of 25.7%, followed by Census Tract 28.01 in Mid-City SRA, with a crude prevalence of 23.9% (Table 6). Census tracts in San Diego County with high CES scores tended to have high crude prevalence rates of depression.

DIABETES

The highest crude prevalence of diabetes among adults aged 18 years and older was in Census Tract 120.02 in National City SRA, with a crude prevalence of 20.5%, followed by Census Tract 125.01 in Chula Vista SRA, with a crude prevalence of 18.2% (Table 7). Census tracts in San Diego County with high CES scores tended to have high crude prevalence rates of diabetes.

HIGH BLOOD PRESSURE

The highest crude prevalence of high blood pressure (HBP) was in Census Tract 170.14 in North San Diego SRA, with a crude prevalence of 45.3%, followed by Census Tract 185.12 in Oceanside SRA, with a crude prevalence of 39.9% (Table 8).

STROKE

The highest crude prevalence of stroke among adults aged 18 years and older was in Census Tract 170.14 in North San Diego SRA, with a crude prevalence rate of 5.6%, followed by Census Tract 185.12 in Oceanside SRA, with a crude prevalence of 5.3%. (Table 9). Census tracts in San Diego County with high CES scores tended to have high crude prevalence rates of stroke.

Climate Change

Climate change refers to long-term shifts in temperature and weather patterns. Climate change poses many risks to the health and well-being of humans around the world as it can affect the food we eat, the air we breathe, and the water we drink. It also leads to extreme weather events, like flooding, droughts, wildfires, and extreme heat events.[19, 20] The effects of climate change impact health through environmental changes, and the challenges it brings exacerbate health disparities among the most vulnerable populations, making climate change a threat multiplier.[19]

This brief highlights key findings from the climate change section of the Population Health and the Environment Dashboard, including patterns in climate projections, fires, heat, and heat-related illnesses. Additionally, the brief describes the natural hazard risk among communities in San Diego County, as well as sustainability measures. Additional indicators related to climate change are included in the Population and the Environment Dashboard.

Indicators include:

- Number of Fires by Cause
- Number of Fires by Size
- Number of Acres Burned by Vegetation
- Number of Acres Burned by Cause
- Number of Heat Events
- Number of Heat Event Days
- Heat Illness/Injury Deaths
- Heat Illness/Injury Hospitalizations
- Heat Illness/Injury ED Discharges

Projections through the end of the century for San Diego County:

- Annual Avg Area Burned
- Annual Avg Max Temperature
- Annual Avg Min Temperature
- Annual Precipitation
- Extreme Heat Days
- KBDI >600 (days)

Risk levels for the following natural hazards at the census tract* level:

- National Risk Index
- Avalanche
- Coastal Flooding
- Drought
- Earthquake
- Hail
- Heat Wave
- Hurricane
- Landslide
- Lightning
- Riverine
- Flooding
- Strong Wind
- Tornado
- Tsunami
- Wildfire Risk
- Winter Weather

Additional indicators continued onto next page.

*2020 census tracts

Climate Change

Additional indicators included in the Population Health and the Environment Dashboard:

Percent of households that:

- Owns or Leases a Hybrid, Gasoline, or Diesel Fuel Vehicle
- Used Any Green Product with Home Remodeling Work
- Bought Any Climate Control Appliance Last 12 Mo
- Owns Air Conditioner (Separate Room)
- Owns Attic or Whole House Fan
- Owns Ceiling Fan (Not Bathroom Vent)
- Has Central Air Conditioner
- Used Environmentally Friendly/Green Product Last 6 Mo
- Used Biodegradable Dishwashing Liquid Last 6 Mo
- Used Biodegradable All Purpose Cleaner Last 6 Mo
- Used Biodegradable Glass or Surface Cleaner Last 6 Mo
- Used Biodegradable Laundry Detergent Last 6 Mo
- Used Environmentally Friendly Light Bulbs Last 6 Mo
- Used Recycled Facial Tissues Last 6 Mo
- Used Recycled Paper Napkins Last 6 Mo
- Used Recycled Paper Plates Last 6 Mo
- Used Recycled Paper Towels Last 6 Mo
- Used Recycled Toilet Paper Last 6 Mo
- Recycled Aluminum Beverage Cans Last 30 Days
- Recycled Batteries Last 30 Days
- Recycled Electronic Equipment Last 30 Days
- Recycled Glass Bottles Last 30 Days
- Recycled Newspapers Last 30 Days
- Recycled Plastic Bags Last 30 Days
- Recycled Plastic Bottles Last 30 Days

Percent of adults that:

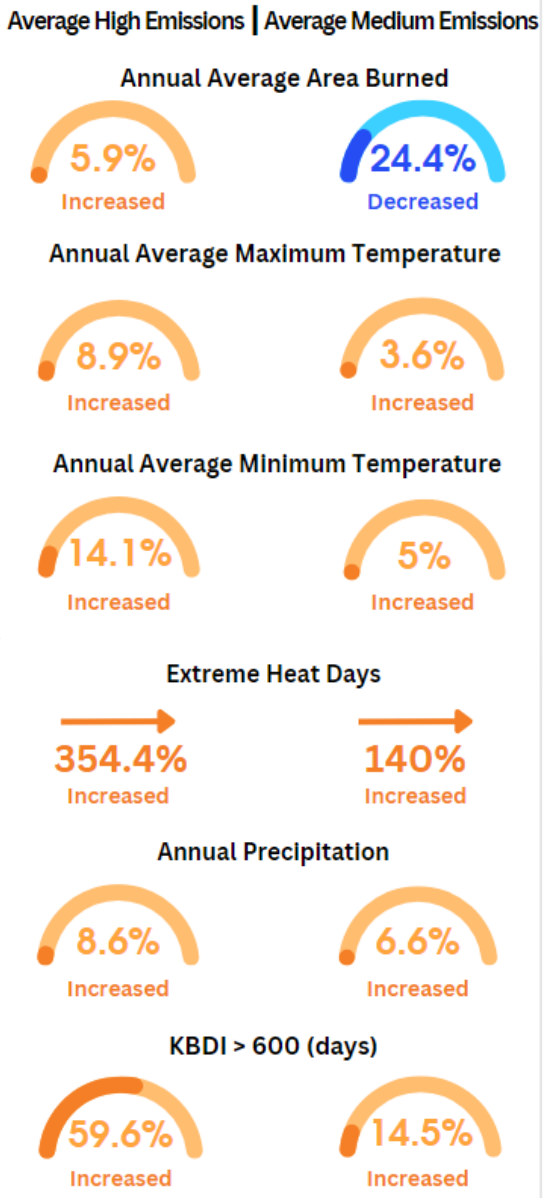
- Participated in Environmental Groups/Causes Last 12 Mo
- Recycled Products Last 12 Mo
- Contributed to Environmental Organization Last 12 Mo
- Believe Helping to Preserve Nature is Very Important
- Agree Completely: Government Should Focus More on Environmental Issues
- Agree Completely: Interested in How to Help Environment
- Agree Completely: Global Warming Is a Serious Threat
- Agree Completely: More Environmentally Conscious Than Most
- Agree Mostly: Will Pay More for Environmentally Safe Products
- Agree Mostly: Give Up Convenience for Environmentally Safe Products
- Agree Mostly: Buy Natural Products for Environmental Concerns
- Agree Completely: Buy Vehicles Supporting Environment

Cal-Adapt Climate Projections

Cal-Adapt is a tool that allows users to explore peer-reviewed data showcasing potential climate change impacts in California, both locally and statewide. It provides researchers, the public, and government organizations with valuable data and tools for planning climate adaptation, building resilience, and engaging with communities.[12] Considering California's diverse climate and topography, this snapshot tool offers climate projections for temperature, precipitation, and wildfire through the end of the century.

Key Findings

Figure 7: Climate Projections from 2023 to 2099, San Diego County, 2018.



Source: Cal-Adapt, 2018.[12]

Under high emissions scenarios, the **annual average area burned** is projected to increase by 5.9% from 2023 to 2099. Contrarily, under medium emissions scenarios, the area burned is projected to decrease by 24.4%.

Both average **maximum and minimum temperatures** are expected to increase under high and medium emission scenarios.

The number of **extreme heat days** is predicted to rise dramatically, with an increase of 354.4% under high emissions and 140.0% under medium emissions. Increased temperatures and extreme heat days can pose health risks, especially to children, older adults, and those working in construction and agriculture who are particularly sensitive to extreme heat.[12]

Precipitation levels are expected to rise by 8.6% under high emissions and 6.6% under medium emissions, potentially leading to more extreme weather events, such as flooding, that can result in injuries and increase the risk of waterborne diseases.[12]

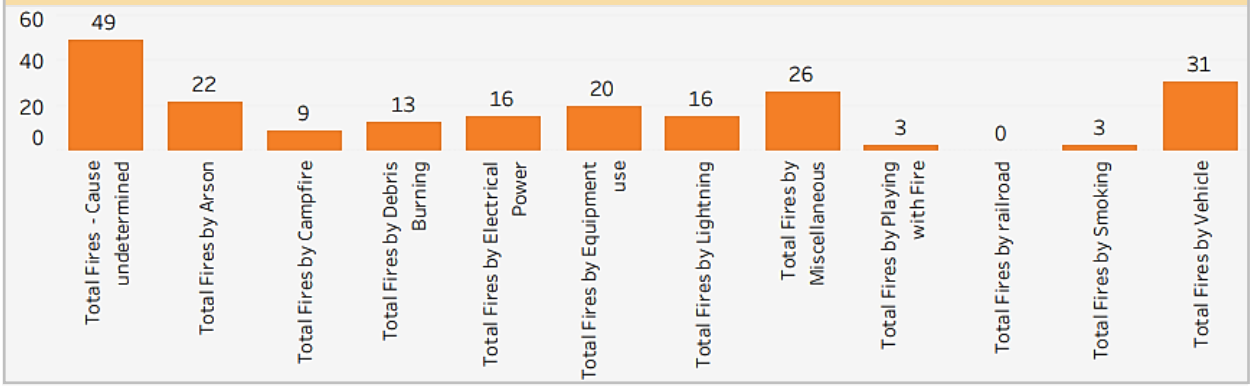
Keetch-Byram Drought Index (KBDI) provides an estimate for how dry the soil and vegetative detritus is. The number of days in a year when KBDI > 600 is projected to increase 59.6% under high emissions and 14.5% under medium emissions. KBDI >600 indicates severe drought, extreme wildfire risk, and increased wildfire occurrence.

Fires in San Diego County

Wildfires in California have become an increasingly pressing concern.[21] Climate change exacerbates the wildfire season by creating warmer, drier seasons and reducing rainfall, resulting in more flammable vegetation throughout the year. This leads to an increased frequency of fires and a heightened severity and extent of damage.[22,23] As the impacts of climate change persist, California faces a future with an intensified wildfire season and the potential for even greater destruction.

Key Findings

Figure 8: Number of Fires by Cause in San Diego County, 2021.

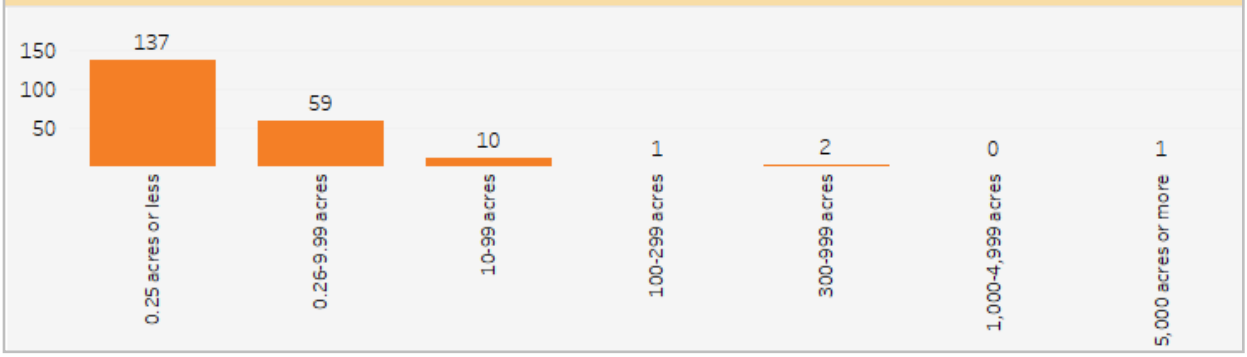


Source: CalFire Redbook, 2021.

In 2021, San Diego County experienced a total of 208 fires (figure 8).

The most common cause was 'undetermined' (49 fires), followed by vehicles (31 fires) and miscellaneous reasons (26 fires).

Figure 9: Number of Fires by Size in San Diego County, 2021.



Source: CalFire Redbook, 2021.

In 2021, the majority of fires in San Diego County burned ¼ an acre or less (figure 9).

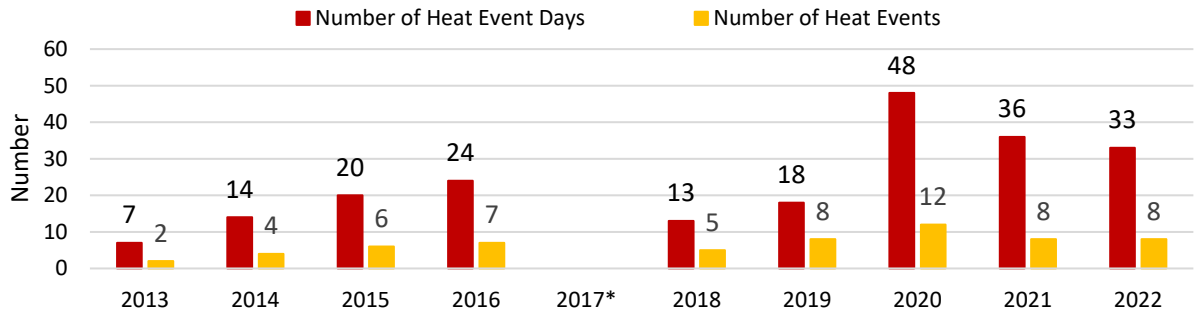
Nearly 66% of fires were a quarter of an acre or less, while 94% burned under one acre. The largest fire in 2021 burned 5,000 acres or more. Overall, a total of 6,885 acres were burned in San Diego County.

Heat in San Diego County

Climate change poses significant risks to San Diego County. It is predicted that San Diego County will not only have more hot days each year, but the hottest days are projected to get hotter and more frequent.[12] Extreme heat days can pose health risks, especially to children, older adults, and those working in construction and agriculture who are particularly sensitive to extreme heat.[23]

Key Findings

Figure 10: Number of Heat Events and Days per Year in San Diego County, 2013-2022.



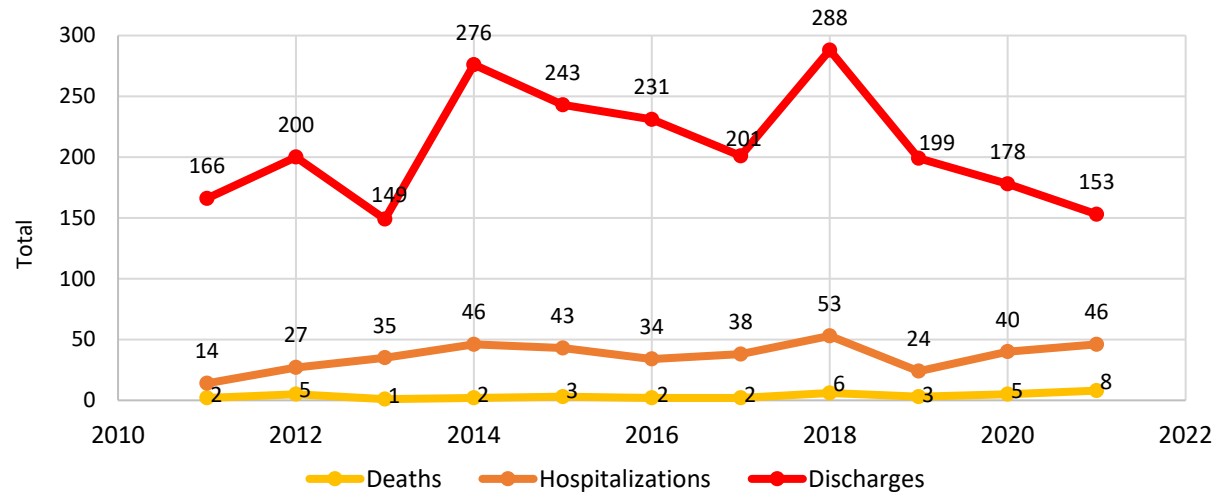
* 2017 Data not available

Source: County of San Diego, Health and Human Services Agency, Public Helath Services, Annual Excessive Heat Report, 2022.

From 2013 to 2022, the number of heat events and number of heat event days increased.

In 2020, there were 12 heat events and 48 total heat event days, the highest recorded from 2013 to 2022. The number of heat events and heat event days decreased slightly from 2020 to 2022. In 2022, there were a total of 8 heat events, lasting a total of 33 days (figure 10).

Figure 11: Heat Illness /Injury Deaths and Medical Encounters, San Diego County, 2011-2021.



Source: California Office of Statewide Health Planning and Development (OSHPD), Patient Discharge Data, 2011-2019, California Department of Health Care Access and Information (HCAI), Patient Discharge Database, 2020-2021, Vital Records Business Intelligence System (VRBIS), 2011-2021.

From 2011 to 2021, deaths and hospitalizations due to heat illness/injury increased. However, emergency department (ED) discharges decreased slightly from 166 in 2011 to 153 in 2021.

Although 2020 saw the highest number of heat events and heat event days, 2018 had the highest number of ED discharges (288) and hospitalizations (53) due to heat illness/injury. The highest number of deaths due to heat illness/injury was in 2021 (8) (figure 11).

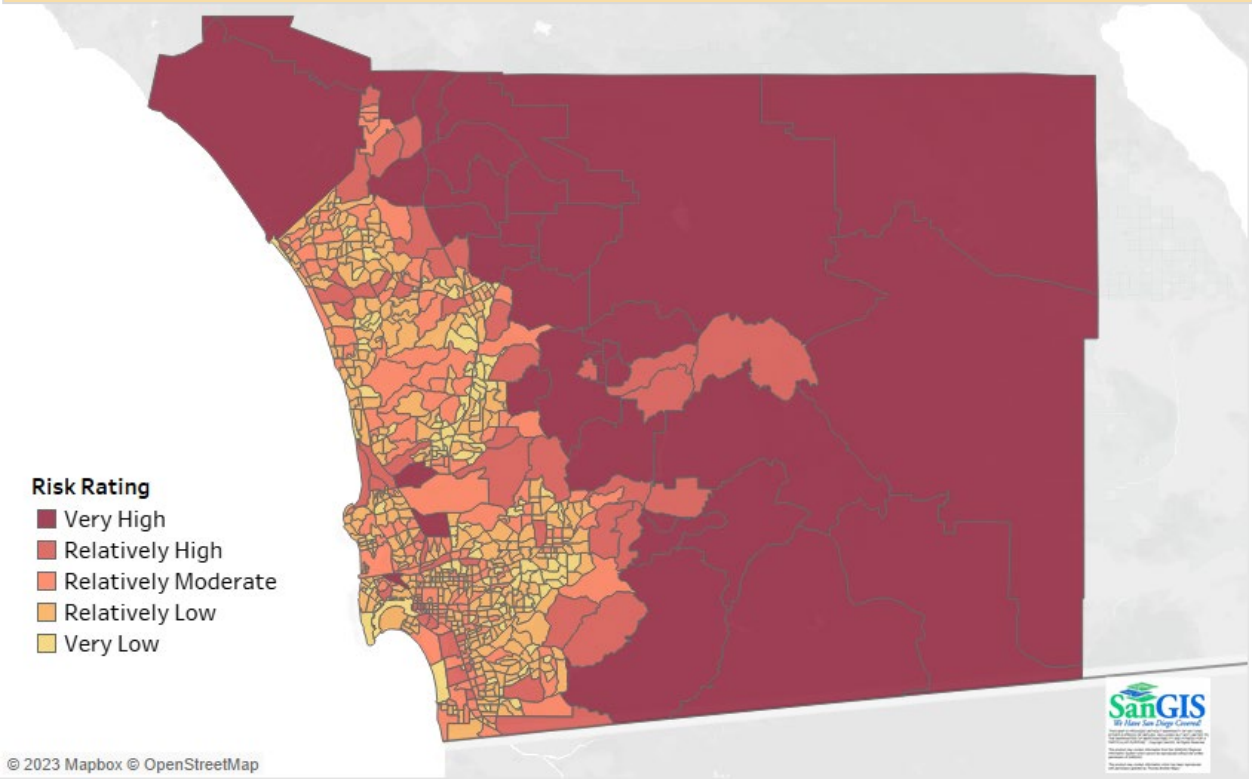
National Risk Index (NRI)

The National Risk Index for Natural Hazards (NRI). The Risk Index was designed and built by the Federally Emergency Management Agency (FEMA), in collaboration with various stakeholders and partners. The NRI shows which communities are most at risk for 18 natural hazards.[15] The Risk Index leverages available source data for natural hazard and community risk factors to develop a baseline relative risk measurement for each U.S. Census tract for all 50 states. The National Risk Index is intended to help users better understand the natural hazard risk of their communities. Intended users include planners and emergency managers at the local, regional, state, and federal levels, as well as other decision makers and interested members of the general public.[15] The findings below describe the risk of natural hazards in San Diego County.

Key Findings

The map below shows the National Risk Index by census tract in San Diego County (figure 12).

Figure 12: National Risk Index by Census Tract, San Diego County, 2021.



Source: FEMA National Risk Index (NRI), 2023.[14] Prepared by San Diego County, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit, September 2023.

Among Health and Human Services (HHSA) regions, North Inland Region faces the greatest risk of natural hazards, with many census tracts having an index rating of 'Very High' when compared to the rest of the United States.

Throughout census tracts in San Diego County, the highest risk scores were for wildfires, with the highest scores predominantly in the North Inland and East Regions.

In San Diego County, earthquakes present the greatest risk, with most census tracts having an index rating of "Relatively Moderate," "Relatively High," or "Very High" when compared to the rest of the United States.

Among census tracts in San Diego County, Census Tract 209.03 in Palomar-Julian Subregional Area (SRA) had the greatest overall risk of natural hazards in 2021.

In 2021, Census Tract 209.03 in Palomar-Julian SRA was given a "very high" risk rating and had the greatest overall risk of natural hazards in San Diego County. Census Tract 209.03 in Palomar-Julian SRA also had the greatest wildfire risk.

Among SRAs, Mountain Empire in East Region had the greatest overall risk of natural hazards in 2021.

In 2021, Mountain Empire SRA had the greatest risk overall risk of natural hazards, followed by Anza-Borrego Springs, Valley Center, and Pendleton SRAs. Anza-Borrego Springs, Mountain Empire, Pauma, Pendleton, and Valley Center SRAs generally had the greatest risk of California's most concerning natural hazards, including droughts, earthquakes, heat waves, and wildfires.

Sustainability

Sustainability refers to a population's effort to meet their own needs in the present without compromising the ability of future generations to meet their own needs.[24] The National Environmental Policy Act of 1969 declared it a national policy "to create and maintain conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations." Sustainability recognizes that resources are finite and should be used conservatively with consideration of long-term priorities and consequences.[24] The findings below highlight sustainability measures among San Diego County adults and households.

Key Findings

Among census tracts in San Diego County, Census Tract 60 in Central San Diego Subregional Area (SRA) had the highest percentage of adults who believed that general sustainability efforts were important.

According to 2021 Esri Market Potential Estimates, 60.1% of adults in Census Tract 60 believed that general sustainability efforts were important or were interested in sustainable efforts, including helping to preserve nature, government focus on environmental issues, and belief that global warming is a serious threat.

Among SRAs in San Diego County, Coastal had the highest average percentage of adults who believed that general sustainability efforts were important.

According to 2021 Esri Market Potential Estimates, 55.7% of adults in Coastal SRA believed that general sustainability efforts were important or were interested in sustainable efforts, including helping to

preserve nature, government focus on environmental issues, and belief that global warming is a serious threat. Overall, more than 52% of adults in San Diego County agreed that general sustainability efforts were important.

In the majority of census tracts in San Diego County, the average percentage of households that had recycled in the last month was less than 50%.

According to 2021 Esri Market Potential Estimates, less than 50% of households had recycled in the last month in 98.7% of census tracts in San Diego County. The average percentage of households that recycled in the last month was 50% or more in the following census tracts: Census Tract 171.06 in San Dieguito SRA, Census Tracts 83.11 and 83.03 in Coastal SRA, Census Tract 83.28 Del Mar-Mira Mesa SRA, Census Tact 154.06 in El Cajon SRA, Census Tracts 170.21 and 170.53 in Poway SRA, and Census Tract 170.29 in North San Diego SRA. Products recycled include aluminum beverage cans, batteries, electronic equipment, glass and plastic bottles, newspapers, or plastic bags.

Among SRAs, Poway, Jamul, and San Dieguito had the highest average percentage of households that had recycled in the last month.

According to 2021 Esri Market Potential Estimates, 45.8 % of households in Poway SRA recycled in the last month, followed by Jamul SRA (45.7%), and San Dieguito SRA (45.6%). Products recycled include aluminum beverage cans, batteries, electronic equipment, glass and plastic bottles, newspapers, or plastic bags.

Among census tracts in San Diego County, Census Tract 154.06 in El Cajon SRA had the highest percentage of households that owned or leased a hybrid vehicle.

According to 2021 Esri Market Potential Estimates, 7.7% of households in Census Tract 154.06 owned or leased a hybrid vehicle, followed by Census Tracts 171.06 in San Dieguito SRA (7.68%), 83.03 in Coastal SRA (7.67%), and 83.11 in Coastal SRA (7.65%).

Among SRAs, Poway, Valley Center, and Jamul had the highest percentage of households that owned or leased a hybrid vehicle.

According to 2021 Esri Market Potential Estimates, 5.8% of households in Poway SRA owned or leased a hybrid vehicle, followed by Valley Center SRA (5.6%), and Jamul SRA (5.5%). Pendleton SRA (2.1%) and Miramar SRA (2.2%) had the lowest percentage of households that owned or leased a hybrid vehicle, and the highest percentages of households that owned or leased a gas vehicle, both with a percentage of 94.1%.

Conclusion

Healthy environments are crucial to healthy communities. Environmental hazards, including pollution and extreme weather, have a significant impact on human health and disease. Additionally, the built environment affects how land is used, natural resource consumption, and community patterns of waste disposal, which all have an impact on human health. As environmental hazards continue to occur more frequently and intensely, it is imperative that environmental inequities be addressed as a public health issue.

The findings in this brief highlight communities in San Diego County that may bear a disproportionate burden of pollution, environmental hazards, and climate change. These communities may be at greater risk of poor health outcomes, which may be exacerbated by health inequities and social vulnerabilities. Identification of these communities can help to inform policy makers of those in need of targeted resources and interventions.

Additional data regarding population health and the environment in San Diego County can be viewed on The Population Health and the Environment dashboard.

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