Exploring Health Disparities in San Diego County Residents by Urbanicity

A Report to Identify Opportunities to Achieve Health Equity in San Diego County

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April 2025

This document was developed by the Community Health Statistics Unit of County of San Diego and is in support of *Live Well San Diego*.

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Exploring Health Disparities in San Diego County by Urbanicity

Demographics

In 2022, 9.5% of the total population lived in the principal urban center of San Diego County. Another 7.1% residents lived in the metro cities. The largest proportion of residents lived in the urban periphery (34.8%) and the suburban periphery (47.5%). Residents of the rural communities represented less than 1 percent (0.7%) of the total population of the county.

Health Outcomes Summary

During 2022, in San Diego County:

- Overall, the urban periphery and rural communities had many of the highest rates of morbidity from non-communicable (chronic) diseases.

- Among communicable (infectious) diseases, the principal urban center and urban periphery had the highest rates of chlamydia, gonorrhea, and syphilis.

- Deaths from traumatic brain injuries were highest in the suburban periphery. Hospitalizations for traumatic brain injury and hip fractures were highest in the metro cities.

- Of external causes of injury, the principal urban center had the highest poisoning death rate, the urban periphery had the highest motor vehicle collision death rate, and the suburban periphery had the highest death rate from falls.

- The principal urban center had a very high burden of morbidity and death from behavioral health conditions, including alcohol poisoning and

substance use, depression, mood disorders, schizophrenia, and suicide.

- Alzheimer's disease and related dementias (ADRD) death, hospitalization, and emergency department (ED) discharge rates were the highest in the metro cities.

- Rural communities had the poorest perinatal outcomes of all urbanicities. Outcomes included the lowest proportion of early prenatal care, and the highest proportions of both preterm births, and low birthweight births.

Overall, health outcomes impacted San Diego County residents differently by urbanicity. A series of health indicators are presented that describe many of the important health concerns facing residents of San Diego County.

Principal Urban Center

In the principal urban center most non-communicable disease rates were lower than San Diego County rates in 2022. The highest rates of hospitalization and ED discharge were due to overall heart disease, and falls, respectively. Rates of the sexually transmitted infections of chlamydia, gonorrhea, and syphilis were higher in the principal urban center than the county. ED discharges and hospitalization due to falls were among the highest rates in the principal urban center. Alcohol and substance use, depression, mood disorders, schizophrenia and suicide were all major health concerns for the principal urban center in 2022. Rates of death, hospitalization, and ED discharges due to opioid overdoses were highest of all urbanicities.

Metro Cities

Rates of morbidity and death from overall heart disease, hypertensive diseases, cancer, stroke, and chronic obstructive pulmonary disease (COPD) or chronic lower respiratory diseases were high in the metro cities in 2022. The ED discharge rate for urinary tract infections, and the rate of hospitalizations for pneumonia were both high. The metro cities had some of the highest rates among urbanicities of non-fatal injuries from falls, hip fractures, and traumatic brain injuries. Alcohol-related disorders and suicide ideation, attempt, and intentional self-harm were more common than in most other urbanicities. Of all urbanicities, the metro cities had the highest rates of death, hospitalization, and ED discharge for Alzheimer's and related dementias (ADRD).

Urban Periphery

In 2022, the urban periphery had high rates of morbidity and death from non-communicable diseases. Cancer, cardiovascular, respiratory and kidney diseases, diabetes, and connective tissue disorders were among the highest of all urbanicities. Incidence of chlamydia and tuberculosis, as well as deaths and ED discharges from pneumonia and COVID-19, were the highest of all urbanicities. The urban periphery had the highest hospitalization rates from poisoning, the highest ED discharge rates due to falls and hip fractures, and the highest death rate from motor vehicle collisions. Among behavioral health conditions, the urban periphery had the highest ED discharge rates for anxiety and fear-related disorders, miscellaneous mental health disorders, schizophrenia, and substance use/abuse/dependency. The urban periphery also had

the highest rate of hospitalization for congenital anomalies.

Suburban Periphery

Overall, in 2022, the suburban periphery had non-communicable (chronic) and communicable disease morbidity rates similar to, or lower than, the county. In the suburban periphery, morbidity and death rates from injuries overall were similar or lower than the county in 2022. Falls, hip fractures, motor vehicle injuries, and traumatic brain injuries were the most serious injury types in the suburban periphery in 2022. In 2022, the highest burden of morbidity and death from behavioral health issues in the suburban periphery was due to alcohol and substance use, neurodevelopmental disorders, and suicide. In 2022, the suburban periphery had the highest death rate from Parkinson's disease.

Rural

In 2022, rural communities had a disproportionate burden of morbidity from non-communicable diseases. Rates of cancer, diabetes, cardiovascular, and respiratory diseases were often the highest of all urbanicities. Morbidity from communicable disease in rural communities was primarily due to flu and urinary tract infections. In 2022, morbidity from assaults, falls, motor vehicle injuries, poisonings, and traumatic brain injuries was high in rural communities. ED discharges for alcohol-related disorders and suicide ideation, attempt, and intentional self-harm were the primary behavioral health issues in rural communities in 2022.

Introduction

Health Equity is achieved when everyone has the opportunity to reach their highest health potential, no matter their demographic, social, economic, or environmental conditions.[1]

Measuring Health Disparities
The health of a community is not simply the presence or absence of disease; rather, it is an interaction of several factors. **Social determinants of health (SDOH)** are circumstances in which people are born, grow, live, work, and age such as income, education, employment status, housing, access to health care services, and exposure to pollution.[2] Social determinants of health influence a person's ability to achieve health equity.[3]

- **Health disparities** are differences in health outcomes between groups such as age, gender, place of residence, race/ethnicity, and socioeconomic status.[4]

- **Health inequities** are health disparities that may result from systematic or unequal distribution of positive resources.[5]

In order to describe health disparities in San Diego County, a variety of measures are used, considered together as lifestyle behaviors, socioeconomic status, healthcare access and utilization, and morbidity and mortality.
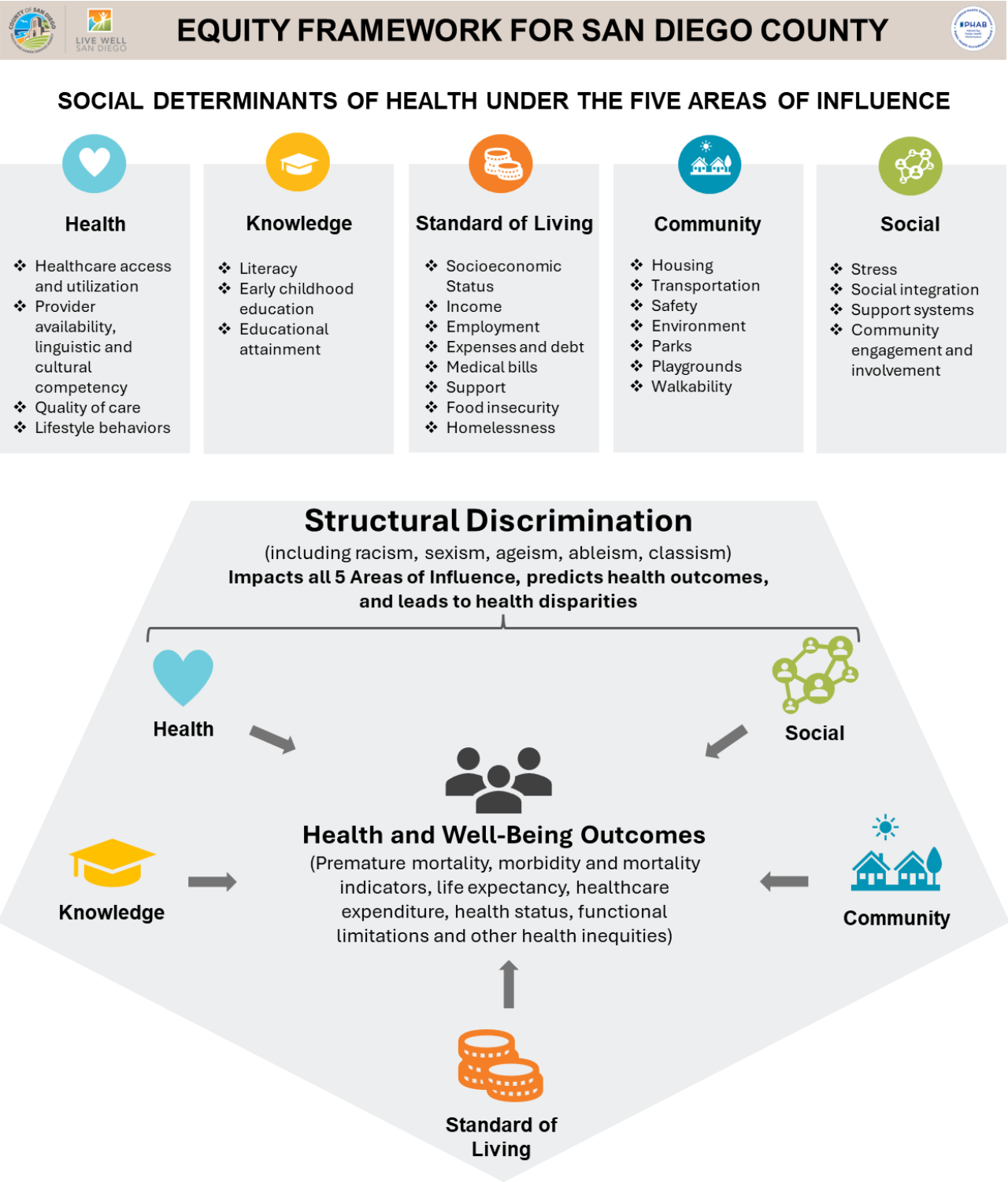
- **Lifestyle behaviors** are actions taken by individuals to attain or maintain good health and to prevent illness and injury.[6,7] Lifestyle behaviors are often the result of socioeconomic status, as well as healthcare access and utilization, and in turn, have an impact on morbidity and mortality.[6,8,9]
- **Socioeconomic status**, including the circumstances in which one lives and works, greatly affects health. Low socioeconomic status is related to poor health outcomes and can be measured by median family or household income, percent of households living below the Federal Poverty Level, unemployment rates, availability of transportation, educational attainment, and linguistic barriers.[10,11] The association between these factors is cumulative and influences the health status of an individual over a lifetime.[12,13]

- **Healthcare service access and utilization** are closely aligned with socioeconomic status and are major factors in individual and community health.[14] Lack of health insurance is also associated with reduced access to preventive care services, increasing poor health outcomes, particularly among young adults and racial/ethnic minorities.[14,15,]
- **Morbidity and Mortality Indicators:** Rates of death and medical encounter can be measured and used to describe the impact of non-communicable (chronic) disease, communicable disease, maternal and child health, injury, and behavioral health conditions on the community. By using morbidity and mortality indicators to identify health disparities, efforts can be made to address the underlying factors contributing to these differences in health outcomes.

***Live Well San Diego* and Health Equity**
Health equity is a key component of the *Live Well San Diego* vision, as well as a longstanding practice in Public Health Services (PHS). The Equity Framework for San Diego County includes the five Areas of Influence of the *Live Well San Diego* framework but is expanded by including additional measures of social determinants of health (SDOH), such as income, housing status, and access to healthcare. The equity framework acknowledges that SDOH may impact aspects of a person's life and often lead to disparities in health and well-being outcomes, irrespective of biological or genetic factors. With the goal of equity in mind, disparities in systems and health and well-being outcomes may be identified and become more balanced.

The Equity Framework aims to better understand systemic inequities with the purpose of providing data for SDOH and related health and behavioral indicators. When SDOH are examined by lenses of health equity, such as by race/ethnicity, disparities become apparent. This framework can also be applied to other vulnerable populations, such as those with disabilities, the young and the elderly, and those of low socioeconomic status. The inclusion of more measures in the Equity Framework helps to better understand the root causes of health inequities so that actions may be taken to ensure health and well-being for all San Diego County residents. To see an example of the framework under a racial equity lens, click here.

EQUITY FRAMEWORK FOR SAN DIEGO COUNTY

SOCIAL DETERMINANTS OF HEALTH UNDER THE FIVE AREAS OF INFLUENCE

Health
- Healthcare access and utilization
- Provider availability, linguistic and cultural competency
- Quality of care
- Lifestyle behaviors

Knowledge
- Literacy
- Early childhood education
- Educational attainment

Standard of Living
- Socioeconomic Status
- Income
- Employment
- Expenses and debt
- Medical bills
- Support
- Food insecurity
- Homelessness

Community
- Housing
- Transportation
- Safety
- Environment
- Parks
- Playgrounds
- Walkability

Social
- Stress
- Social integration
- Support systems
- Community engagement and involvement

Structural Discrimination
(including racism, sexism, ageism, ableism, classism)
Impacts all 5 Areas of Influence, predicts health outcomes, and leads to health disparities

Health

Social

Knowledge

Health and Well-Being Outcomes
(Premature mortality, morbidity and mortality indicators, life expectancy, healthcare expenditure, health status, functional limitations and other health inequities)

Community

Standard of Living

Health Equity in San Diego County: Urbanicity

Exploring Health Disparities in San Diego County by Urbanicity is a document prepared by the Division of Public Health Services in the County of San Diego Health and Human Services Agency.

This report identifies health disparities among San Diego County residents. The information in this report is meant to be used to identify disparities and serve as a starting point in developing solutions that will help close the gap in existing disparities. This report supports the *Live Well San Diego* regional vision by identifying health disparities and inequities critical for developing prevention and intervention measures, ultimately leading to a healthier San Diego.

This document is designed for local agencies, organizations, groups, services, and individuals who have an interest in improving the health of county residents.

Defining Urbanicity in San Diego County

San Diego Association of Governments (SANDAG) is the official census holder for San Diego County. SANDAG develops annual demographic estimates and long-range forecasts in addition to maintaining census data files. Data are available for the county and its municipalities, census tracts, Subregional Areas (SRAs), zip codes, and other geographies.
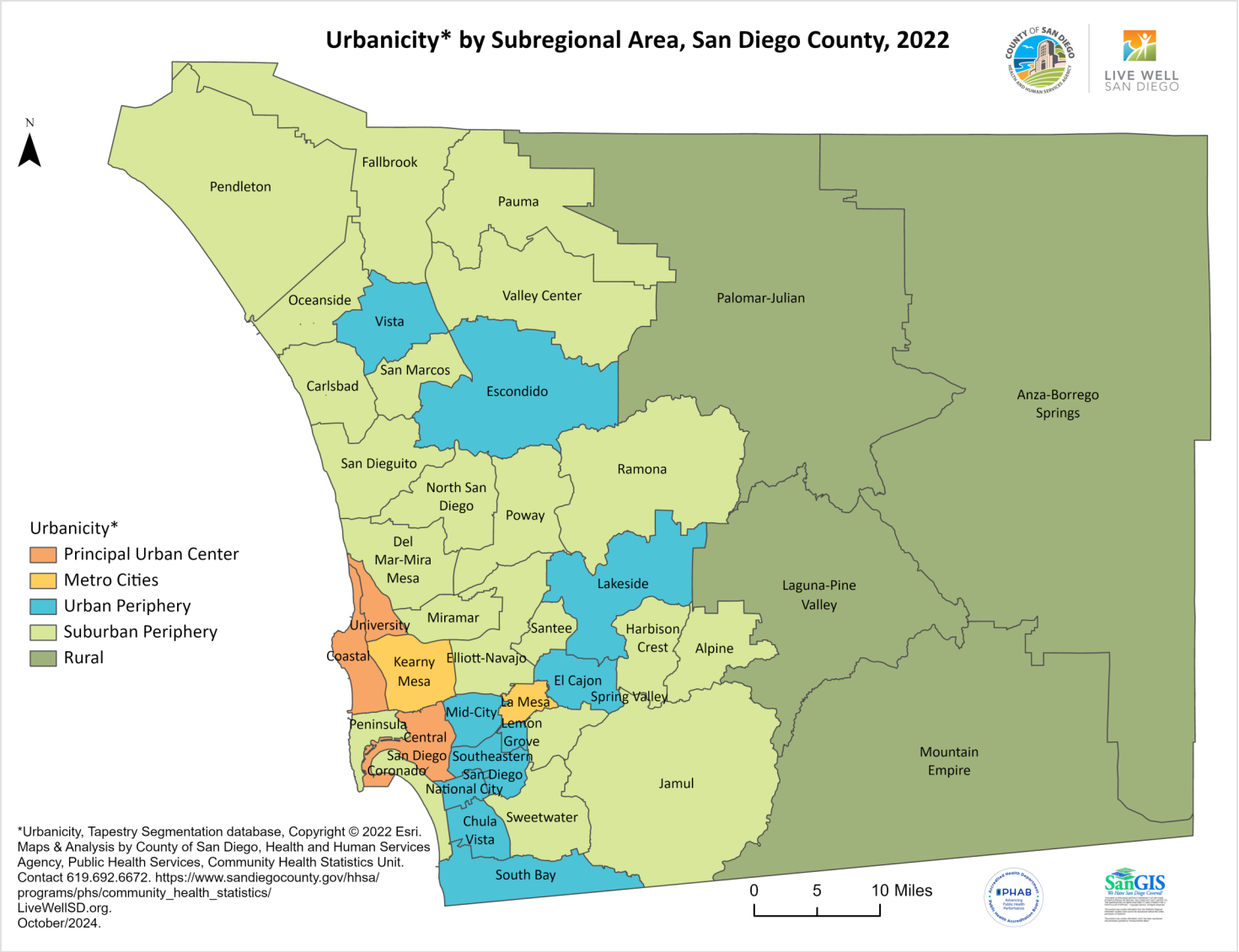
San Diego County has 41 SRAs, which are aggregations of census tracts to allow meaningful comparisons over time. While SRAs are composed of census tracts, they are defined by SANDAG, not the Census Bureau. Additionally, the boundaries of many geographical areas, such as cities, change over time, SRAs have remained essentially the same since their formation.

The term "urbanicity" is used to define relationships between geographies based on population density, geographic extent (area), and proximity to urban centers. For example, an area could be mostly urban, suburban or rural. In this report, SRAs are the areas described by urbanicity. The map shows the classification of each of the SRAs based on urbanicity metrics (see Appendix. Methodology).

## Understanding Population Health by Urbanicity

Health outcome data were compiled from the County of San Diego Community Health Statistics Unit's San Diego County Community Profiles. Death, hospitalization, and emergency department (ED) discharge rates for various health outcomes were analyzed to identify health disparities within San Diego County's populations.

In addition to identifying health disparities, demographic information is provided to highlight some of the potential contributing factors to these health outcomes. Prevention strategies, as well as links to related websites, are provided for further information on non-communicable (chronic) disease, communicable disease, maternal and child health, injury, and behavioral health.

Urbanicity* by Subregional Area, San Diego County, 2022

Urbanicity*
- Principal Urban Center
- Metro Cities
- Urban Periphery
- Suburban Periphery
- Rural

*Urbanicity, Tapestry Segmentation database, Copyright © 2022 Esri. Maps & Analysis by County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics Unit. Contact 619.692.6672. https://www.sandiegocounty.gov/hhsa/programs/phs/community_health_statistics/LiveWellSD.org. October/2024.

For further resources, including local health and demographic information, please visit **www.sdhealthstatistics.com.**

DEMOGRAPHICS
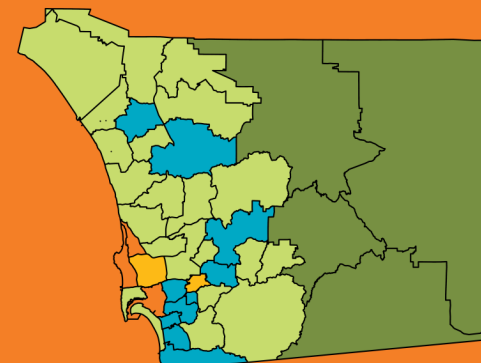
Urbanicity
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PRINCIPAL URBAN CENTER[16]

In 2022, 9.5% (nearly 314,000) of the total San Diego County population lived in the principal urban center. On average, over half of the residents were non-Hispanic (NH) White (55.2%), compared to 43.6% in the county. One of every four (24.4%) residents was Hispanic, compared to 1 of 3 (34.5%) in the county overall. The principal urban center had the highest proportion of residents in the armed forces (7.7%).

Residents in the principal urban center were the most highly educated population of all urbanicities. Nearly 3 of every 5 residents (59.6%) held a bachelors degree or higher.

The median household income in the principal urban center was $108,571, the second highest among the urbanicities. The principal urban center also had the highest median house value ($987,682).

The proportion of residents with income below 100% of the Federal Poverty Level (100% FPL) was higher than the county in 2022 (13.1% versus 10.6%). Further, the proportion of residents 65 years and older living below

100% FPL was higher than the county in 2022 (10.7% versus 9.4%) .

Although the poverty rate was higher in 2022, the 5-year average unemployment rate was lower in the principal urban center than the county (5.3% versus 6.0%, respectively). In addition, the proportion of residents without health insurance (6.7%) was lower than the county (7.3%).

METRO CITIES[16]

There were more than 230,000 residents living in the metro cities in 2022, representing 7.1% of the San Diego County population. On average, half of the residents in the metro cities were NH White (50.8%), higher than the county (43.6%). Only 1 out of 4 residents was Hispanic in the metro cities, compared to 1 of 3 residents in the county (24.8% versus 34.5%, respectively).

Residents 25 years and over in metro cities were more likely to have a high school diploma or greater education compared to the county overall (92.5% versus 88.7%) in 2022.

In 2022, the median household income in the metro cities was $94,858, slightly lower than that of the county ($96,974). Similarly, the median house value was $712,235, lower than the county median house value of $725,200.

The proportion of all residents in the metro cities with income below 100% FPL was similar to the county (10.7% and 10.6%, respectively). In 2022, 9.2% of adults over 65 years lived below 100% FPL, compared to 9.4% of county residents overall.

Metro cities had a 5-year average unemployment rate of 5.8%, slightly lower than the county rate (6.0%). However, the percent of residents without health insurance was substantially lower than that of the county (5.9% versus 7.3%, respectively).

URBAN PERIPHERY[16]

In 2022, over 1.1 million San Diego County residents (34.8%) lived in the urban periphery. Among all the urbanicities, the urban periphery had the highest proportions of Hispanic (50.1%), NH Black (6.2%), and NH Native Hawaiian/Pacific Islander residents (0.6%).

The urban periphery had the lowest percent of adults 25 years and over with a high school diploma or higher. Nearly 1 of every 5 (19.1%) residents did not have a high school diploma.

Urban periphery residents had the lowest median household income ($81,578), 15.9% lower than the county ($96,974) in 2022. The median house value of $581,246 was nearly 19.9% lower than that of the county ($725,200).

The proportion of residents living below 100% FPL was 32.4% higher than the county (14.0% versus 10.6%). Further, 12.9% of adults 65 years and older lived below 100% FPL, 37.8% higher than the county (9.4%) in 2022.

The 5-year average unemployment rate in the urban periphery was 7.5%, higher than the county (6.0%). Compared to all other urbanicities, the urban periphery had the lowest proportion of insured residents in 2022. Moreover, 10.1% of residents in the urban periphery lacked health insurance.

SUBURBAN PERIPHERY[16]

In 2022, over 1.5 million residents (47.8%) lived in the suburban periphery of San Diego County. The suburban periphery had the highest proportion of NH Asian residents (14.2%), and the highest proportion of residents who were of 2 or more races (5.1%) out of all urbanicities.

Nearly half of adults 25 years and older had a bachelor's degree or higher (48.6%), more than county residents overall (41.0%). The suburban periphery had the highest

median household income ($116,446), and the second highest median house value ($857,231).

Of all urbanicities, the suburban periphery had the lowest proportion of total residents (7.5%), and residents over 65 years and over (6.9%), who were living below 100% FPL in 2022.

The suburban periphery also had the lowest 5-year average unemployment rate (5.1%) and the lowest proportion of residents without health insurance (5.4%) of all urbanicities.

RURAL COMMUNITIES[16]

In 2022, about 23,000 residents lived in the rural communities, representing less than 1% of the total population. The rural communities had the highest proportion of residents aged 65 years and over (26.9%) of all urbanicities, nearly double the proportion in the county (14.7%). Two of every 3 residents were NH White (66.9%), the highest of all urbanicities. However, rural communities also had the highest proportion of NH American Indian/Alaska Native (AIAN)residents (2.9%), 10 times higher than the county overall (0.3%).

Nearly 1 of 3 residents 25 years and over (30.4%) held a high school diploma or GED, while 34.7% attended some college or attained an associate's degree. Rural communities had the second lowest median household income ($84,418) and the lowest median house value ($425,513) of all urbanicities in 2022.

In 2022, rural communities had the highest proportion of residents (15.1%) living below 100% FPL in 2022. The proportion of residents 65 years and older living below 100% FPL was also higher than the county in 2022 (10.3% versus 9.4%, respectively).

Rural communities 5-year average unemployment rate was the highest of all urbanicities (8.7%) and substantially higher than the county rate of 6.0%. However, the percent of residents without health insurance (7.8%) was only slightly above that of the county (7.3%).
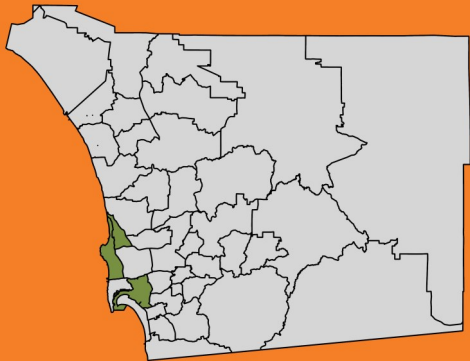
NON-COMMUNICABLE (CHRONIC) DISEASE

In the principal urban center most non-communicable disease rates were lower than those of San Diego County in 2022. However, hospitalization and emergency department (ED) discharge rates for overall heart disease were among the top rates in the principal urban center.

Chronic Obstructive Pulmonary Disease (COPD) or Chronic Lower Respiratory Diseases

Hospitalization for chronic obstructive pulmonary disease (COPD) or chronic lower respiratory diseases was 1.3 times higher in the principal urban center than the county rate in 2022.

Overall heart disease

Although lower than the county rates, ED discharge and hospitalization rates for overall heart disease were among the top 5 health conditions within the principal urban center in 2022.

COMMUNICABLE (INFECTIOUS) DISEASE

The incidence of sexually transmitted infections was higher in the principal urban center than San Diego County overall in 2022.

CHLAMYDIA

The incidence rate for chlamydia was one of the top 5 rates for the principal urban center in 2022, and was 13% higher than the county rate.

GONORRHEA

The principal urban center had the highest incidence rate of gonorrhea of all urbanicities and was 1.5 times higher than the county.

SYPHILIS

The highest syphilis incidence rate was in the principal urban center, nearly three times higher than the county rate in 2022.

INJURY

ED discharges and hospitalization for falls were in the top 5 highest rates in the principal urban center in 2022. Injuries from assault and poisoning were also concerning.

ASSAULT

In 2022, the hospitalization rate for assault injuries in the principal urban center was more than twice that of San Diego County.

FALLS

In 2022, ED discharge and hospitalization for falls were among the top 5 rates of injury in the principal urban center. The hospitalization rate for falls in the principal urban center was over 1.4 times higher than the county.

POISONING

In 2022, the principal urban center had the highest rate of poisoning deaths, more than 1.4 times higher than the county.

BEHAVIORAL HEALTH

The principal urban center had a high burden of death and morbidity due to behavioral health issues. Alcohol and substance use, depression, mood disorders, schizophrenia and suicide were all major issues in the principal urban center in 2022.

Alcohol poisoning

In 2022, the ED discharge rate for alcohol poisoning in the principal urban center was 2.3 times higher than the county overall.

depression

The hospitalization rate for depression in the principal urban center was 4.8 times higher than that of the county in 2022. In addition, the ED discharge rate for depression in the principal urban center was 1.3 times higher than the county rate in 2022.

Mood disorders

The rate of hospitalization for mood disorders in the principal urban center was nearly 4.4 times higher than that of San Diego County in 2022. The ED discharge rate for mood disorders was also the highest in the principal urban center in 2022.

Opioid overdoses

In 2022, the principal urban center had the highest rates of ED discharge, hospitalization, and death from all opioid overdoses. Rates were more than twice those of the county.

SCHIZOPHRENIA

The schizophrenia hospitalization rate in the principal urban center was 3.8 times higher than the county in 2022.

Substance use/abuse/dependency

Hospitalization rates for substance use/abuse/dependency in the principal urban center were 5.7 times higher than the county rate in 2022.

Suicide

In 2022, the suicide death rate for the principal urban center was 1.6 times that of the county. The hospitalization rate for suicide ideation, attempt, and intentional self-harm was 1.4 times higher in the principal urban center than the county in 2022.
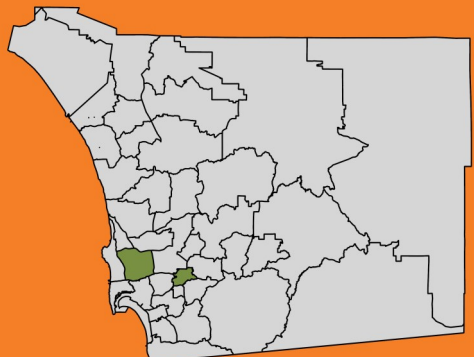
NON-COMMUNICABLE (CHRONIC) DISEASE

Non-communicable diseases were the heaviest burden of morbidity and death in the metro cities of San Diego County in 2022. In particular, rates of emergency department (ED) discharge and hospitalizations for overall heart disease were in the top 5 of all rates in the metro cities. The metro cities had the highest death rates from chronic obstructive pulmonary disease (COPD) or chronic lower respiratory diseases, overall cancer, and overall hypertensive diseases.

Chronic Obstructive Pulmonary Disease (COPD) or Chronic Lower Respiratory Diseases

In 2022, the metro cities had the highest death rate from chronic obstructive pulmonary disease (COPD) or chronic lower respiratory diseases, 1.3 times higher than the county.

Overall cancer

The metro cities had the highest death rate from overall cancer of all urbanicities. The rate was nearly 15% higher than the county rate in 2022.

Overall heart disease

In 2022, rates of overall heart disease ED discharge and hospitalization were among the top 5 rates of disease in the metro cities. In addition, the rate of death from overall heart disease in the metro cities was 1.2 times higher than the county rate in 2022.

Overall hypertensive diseases

In 2022, the metro cities had the highest death rate from overall hypertensive diseases, nearly 1.5 times higher than the county rate.

Stroke

In 2022, the metro cities had the highest ED discharge rate for stroke, which was 1.2 times higher than the county.

COMMUNICABLE (INFECTIOUS) DISEASE

Rates of respiratory disease and sexually transmitted infections in the metro cities were similar to those of the county. However, the ED discharge rate for urinary tract infections was among the highest rates for the metro cities in 2022.

Pneumonia

The rate of hospitalization for pneumonia was 14% higher in the metro cities than the county in 2022.

Urinary tract infections

ED discharge for urinary tract infections was in the top 5 rates for the metro cities in 2022. The rate of hospitalization for urinary tract infections in the metro cities was nearly 20% higher than the county rate in 2022.

INJURY

Among injuries, falls accounted for high morbidity in the metro cities. Hip fractures and traumatic brain injuries in the metro cities accounted for the highest hospitalization rates of all urbanicities.

FALLS

In 2022, the hospitalization rate for falls in the metro cities was nearly 20% higher than the county rate. The ED discharge rate for falls in the metro cities was also higher than the county by 10%. Overall, rates of ED discharge and hospitalization were among the top 5 rates in the metro cities in 2022.

Hip fractures

The hospitalization rate for hip fractures in the metro cities was the highest of all urbanicities, and 1.3 times higher than the county rate in 2022.

Traumatic brain injuries

In 2022, the hospitalization rate of traumatic brain injury in the metro cities was the highest of all urbanicities.

BEHAVIORAL HEALTH

Alcohol-related disorders were a significant burden of morbidity and death in the metro cities in 2022. In addition, suicide ideation, attempt, and intentional self-harm was higher in the metro cities than in other urbanicities in 2022.

Alcohol-Related Disorders

In 2022, the rate of hospitalization for alcohol-related disorders in the metro cities was the highest among all urbanicities, over 1.6 times higher than the county rate. In addition, the rates of ED discharge and death for alcohol-related disorders in the metro cities were both over 1.4 times higher than the county rates in 2022.

Neurodevelopmental disorders

Although not the highest rate for all urbanicities, the metro cities' ED discharge rate for neurodevelopmental disorders was over 80% higher than the county rate in 2022.

suicide

Rates of ED discharge and hospitalization for suicide ideation, attempt, and intentional self-harm were approximately 1.2 times higher in the metro cities than the county in 2022.

ALZHEIMER'S DISEASE AND RELATED DEMENTIAS (ADRD)

In 2022, the metro cities had the highest rates of death, hospitalization, and ED discharge for Alzheimer's and related dementias (ADRD) of all urbanicities. The death rate was over 1.4 times higher, the hospitalization rate was nearly 1.3 times higher, and the ED discharge rate was over 1.5 times higher in the metro cities than the county.

URBAN PERIPHERY
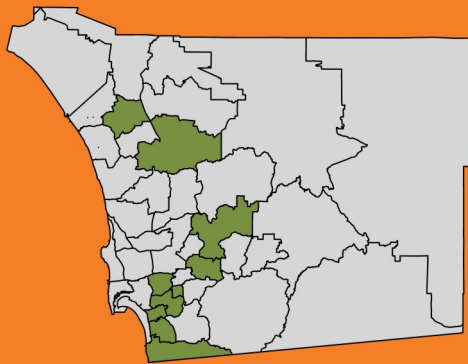
NON-COMMUNICABLE (CHRONIC) DISEASE

The urban periphery had high rates of non-communicable diseases in 2022, including cancer, heart diseases and stroke, respiratory and kidney diseases, diabetes, and connective tissue disorders.

ASTHMA

In 2022, the urban periphery had the highest asthma hospitalization rate, which was nearly 1.5 times higher than San Diego County residents overall.

CHRONIC KIDNEY DISEASE

In 2022, the death and hospitalization rates from chronic kidney disease in the urban periphery were the highest of all urbanicities.

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) OR CHRONIC LOWER RESPIRATORY DISEASES

In 2022, the urban periphery had the highest hospitalization rate for chronic obstructive pulmonary disease (COPD) or chronic lower respiratory diseases, nearly 1.4 times higher than the county.

DIABETES

The death rate from diabetes was highest in the urban periphery and 1.4 times higher than the county in 2022.

LUPUS AND CONNECTIVE TISSUE DISORDERS

In 2022, the urban periphery had the highest hospitalization rate for lupus and connective tissue disorders, which was nearly 90% higher than the county rate.

OVERALL CANCER

In 2022, the emergency department (ED) discharge rate for overall cancer was highest in the urban periphery, nearly 20% higher than the county rate.

OVERALL HEART DISEASE

Of all urbanicities, the urban periphery had the highest ED discharge rate for overall heart disease in 2022.

STROKE

The urban periphery had the highest rate of stroke death, nearly 20% higher than the county in 2022.

COMMUNICABLE (INFECTIOUS) DISEASE

Communicable disease rates were high in the urban periphery in 2022. Respiratory and sexually transmitted infections, tuberculosis, and urinary tract infections were all health concerns. ED discharge and death rates due to COVID-19 were the highest in the urban periphery.

CHLAMYDIA

In 2022, the urban periphery had the highest incidence rate of chlamydia, nearly 1.2 times higher than the county.

COVID-19

Urban periphery residents had the highest rates of death and ED discharge from COVID-19 in 2022. The hospitalization rate for COVID-19 was the second highest of all urbanicities. All rates were approximately 1.3 times higher than rates for the county.

FLU

The hospitalization rate for flu was highest in the urban periphery, over 1.3 times higher than the county in 2022. The rate of ED discharge in the urban periphery was over 1.5 times higher than the county in 2022.

PNEUMONIA

Pneumonia morbidity and death rates were highest in the urban periphery in 2022. The death rate in the urban periphery was nearly double the county rate.

TUBERCULOSIS

In 2022, the tuberculosis incidence rate was highest in the urban periphery, 2.8 times higher than the county.

URINARY TRACT INFECTIONS

In 2022, rates of ED discharge and hospitalization for urinary tract infections were highest in the urban periphery.

INJURY

In 2022, injury from assaults, falls, firearms, hip fractures, motor vehicle collisions and poisoning were all substantial in the urban periphery.

ASSAULT

In 2022, the urban periphery had assault hospitalization and ED discharge rates that were approximately 1.4 times higher than the county.

FALLS

In 2022, among all urbanicities, the urban periphery had the highest ED discharge rate for falls.

FIREARM INJURIES

In 2022, the urban periphery had the highest hospitalization rate for firearm injuries, nearly 3 times higher than the county.

HIP FRACTURES

The urban periphery had the highest ED discharge rate for hip fracture injuries in 2022, more than double the county rate.

MOTOR VEHICLE INJURIES

The urban periphery had the highest motor vehicle injury death rate, more than 1.8 times higher than the county in 2022.

POISONING

In 2022, the urban periphery had the highest poisoning hospitalization rate, which was 32% higher than the county rate.

BEHAVIORAL HEALTH

In 2022, the urban periphery had high rates of anxiety and fear-related disorders, miscellaneous mental health disorders, schizophrenia, and substance use/abuse/dependency.

ANXIETY AND FEAR-RELATED DISORDERS

In 2022, the ED discharge rate for anxiety and fear-related disorders in the urban periphery was over 30% higher than the county.

MISCELLANEOUS MENTAL HEALTH DISORDERS

The urban periphery had the highest ED discharge rate for miscellaneous mental health disorders, 2.5 times higher than the county overall in 2022.

SCHIZOPHRENIA

In 2022, the urban periphery had the highest ED discharge rate for schizophrenia, nearly 1.4 times the county rate.

### SUBSTANCE USE/ABUSE/DEPENDENCY

In 2022, the urban periphery had the highest ED discharge rate for substance use/abuse/dependency, nearly 1.4 times higher than the county.

MATERNAL AND CHILD HEALTH

CONGENITAL ANOMALIES

In 2022, the highest rate of hospitalization for congenital anomalies was in the urban periphery; the rate was 1.2 times higher than the county.

SUBURBAN PERIPHERY
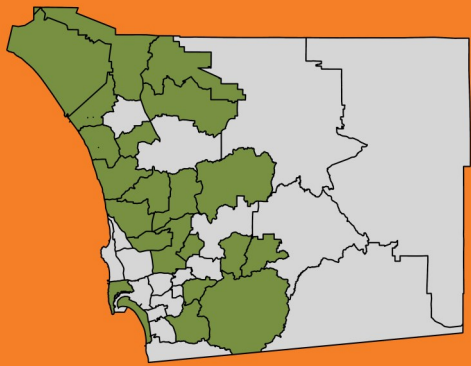
NON-COMMUNICABLE (CHRONIC) DISEASE

Overall, in 2022, the suburban periphery had non-communicable disease morbidity rates similar to, or lower than, the county.

CHRONIC KIDNEY DISEASE

In 2022, the suburban periphery had the highest emergency department (ED) discharge rate for chronic kidney disease among all urbanicities, 1.3 times higher than the county rate.

LUPUS AND CONNECTIVE TISSUE DISORDERS

In 2022, the hospitalization rate for lupus and connective tissue disorders in the suburban periphery was 30% higher than the county rate.

OVERALL HEART DISEASE

In 2022, the rates of ED discharge and hospitalization for overall heart disease were among the top rates of morbidity in the suburban periphery, although the rates were similar to the county.

COMMUNICABLE (INFECTIOUS) DISEASE

Communicable disease rates in the suburban periphery were similar to, or lower than, the county rates in 2022.

URINARY TRACT INFECTIONS

In the suburban periphery, the ED discharge rate for urinary tract infections was the highest communicable disease rate in 2022.

INJURY

In the suburban periphery, morbidity and death rates from injuries overall were similar to, or lower than, those of the county in 2022. Falls, hip fractures, motor vehicle injuries, and traumatic brain injuries were the most serious injury types in the suburban periphery in 2022.

FALLS

In the suburban periphery, ED discharges for falls were the highest overall rate of all health conditions. The death rates from falls in the suburban periphery was the highest of all urbanicities, nearly 60% higher than the county.

HIP FRACTURES

The ED discharge rate for hip fractures in the suburban periphery was nearly double that of the county in 2022.

MOTOR VEHICLE INJURIES

In the suburban periphery, ED discharges for motor vehicle injuries were among the highest rates of all health conditions in 2022.

TRAUMATIC BRAIN INJURIES

Deaths from traumatic brain injuries in the suburban periphery were highest of all urbanicities, and 1.5 times higher than the county rate in 2022.

BEHAVIORAL HEALTH

In 2022, the highest burden of morbidity and death from behavioral health issues in the suburban periphery was due to alcohol and substance use, neurodevelopmental disorders and suicide.

ALCOHOL-RELATED DISORDERS

In 2022, the death rate for alcohol-related disorders in the suburban periphery was the highest of all urbanicities and 1.6 times higher than the county.

ALL OPIOID OVERDOSES

In the suburban periphery, the death rate from all opioid overdoses was 16% higher than the county rate in 2022. In addition, the hospitalization rate for all opioid overdoses in the suburban periphery was 18% higher than the county in 2022.

NEURODEVELOPMENTAL DISORDERS

In 2022, the ED discharge rate for neurodevelopmental disorders was over 3 times higher in the suburban periphery than the county, and the highest of all urbanicities.

SUICIDE

Although not the highest rate of all urbanicities, the suicide death rate was 34% higher in the suburban periphery than the county in 2022.
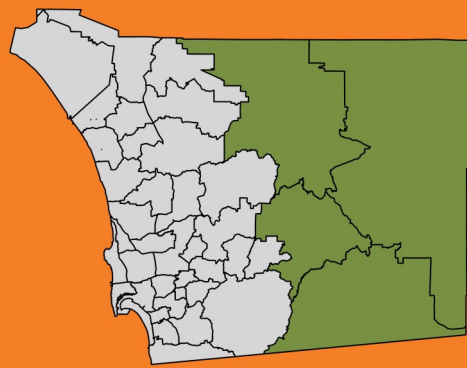
ALZHEIMER'S DISEASE AND RELATED DEMENTIAS (ADRD)

PARKINSON'S DISEASE

In 2022, the suburban periphery had the highest death rate from Parkinson's disease, having a rate 1.7 times higher than the county.

NON-COMMUNICABLE (CHRONIC) DISEASE

Rural communities had a disproportionate burden of morbidity from non-communicable diseases in 2022. Rates of cancer, diabetes, heart diseases, stroke, and respiratory diseases were often the highest in the rural communities in 2022.

ASTHMA

In 2022, the emergency department (ED) discharge rate for asthma in rural communities was the highest of all urbanicities and nearly double the county rate.

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) OR CHRONIC LOWER RESPIRATORY DISEASES

In 2022, the rate of ED discharge for chronic obstructive pulmonary disease (COPD) or chronic lower respiratory diseases was the highest of all urbanicities and 3.5 times higher in rural communities than the county.

DIABETES

The rates of diabetes hospitalization and ED discharge in rural communities were the highest of all urbanicities in 2022. The rate of hospitalization for diabetes in the rural communities was 2.6 times higher than the county. In addition, rural communities had an ED discharge rate for diabetes that was 1.7 times higher than the county rate in 2022.

OVERALL CANCER

The overall cancer rate of hospitalization in rural communities was 1.7 times higher than the county and the highest of all urbanicities in 2022.

OVERALL HEART DISEASE

In 2022, death and hospitalization rates for overall heart disease in rural communities were the highest of all urbanicities. The death rate from overall heart disease in rural communities was nearly 3.5 times that of the county in 2022, and the hospitalization rate was 1.6 times higher.

OVERALL HYPERTENSIVE DISEASES

Rates of ED discharge and hospitalization for overall hypertensive diseases in rural communities were the highest of all urbanicities in 2022. The hospitalization rate from overall hypertensive diseases in rural communities was 1.6 times higher than the county in 2022, while the ED discharge rate was 1.5 times higher.

STROKE

In 2022, the stroke hospitalization rate in rural communities was 1.9 times higher than the county, and the highest of all urbanicities.

COMMUNICABLE (INFECTIOUS) DISEASE

Morbidity from communicable disease in rural communities was primarily due to flu, urinary tract infections, and COVID-19 in 2022.

COVID-19

The COVID-19 hospitalization rate in rural communities was the highest of all urbanicities, and over 2.3 times higher than the San Diego County rate.

FLU

The ED discharge rate for flu was the highest in rural communities and 1.6 times higher than the county rate in 2022.

URINARY TRACT INFECTIONS

In 2022, the ED discharge rate for urinary tract infections were one of the top 5 rates in rural communities, although it was not much higher than the county rate.

INJURY

In 2022, morbidity from assaults, falls, motor vehicle injuries, and poisoning were the main external causes of injury in rural communities. Traumatic brain injuries were particularly high in rural communities in 2022.

ASSAULT

The ED discharge rate for assault was nearly 1.5 times higher in rural communities than the county in 2022.

FALLS

ED discharge for fall injuries was the highest rate in rural communities in 2022. The hospitalization rate for falls in rural communities in 2022 was the highest of all urbanicities and 45% higher than the county.

MOTOR VEHICLE INJURIES

The ED discharge rate for motor vehicle injuries was among the top 5 rates in rural communities in 2022; the rate was 1.8 times higher than the county. The hospitalization rate for motor vehicle injuries was the highest of all urbanicities and 6 times higher than the county in 2022.

POISONING

The ED discharge rate for poisoning in rural communities was 2.1 times higher than the county rate in 2022.

TRAUMATIC BRAIN INJURIES

In 2022, the ED discharge rate for traumatic brain injuries in rural communities was 2.2 times higher than the county, and the highest of all urbanicities.

BEHAVIORAL HEALTH

Morbidity from alcohol-related disorders and suicide ideation, attempt, and intentional self-harm were the primary behavioral health issues treated in the ED in rural communities in 2022.

ALCOHOL-RELATED DISORDERS

In 2022, the rate of ED discharge for alcohol-related disorders in rural communities was the highest among all urbanicities, and over 1.7 times higher than the county rate.

SUICIDE

In 2022, the rate of ED discharge for suicide ideation, attempt, and intentional self-harm in rural communities was the highest of all urbanicities and more than 1.6 times higher than the county.

MATERNAL AND CHILD HEALTH

In 2022, several maternal and child health issues were highest in rural communities.

EARLY PRENATAL CARE

In 2022, rural communities had the lowest proportion of newborns receiving early prenatal care, 17% lower than the county.

LOW BIRTH WEIGHT

In 2022, rural communities had the highest proportion of low birth weight births, nearly 20% higher than the county.

PRETERM BIRTH

In 2022, rural communities had the highest proportion of preterm births, nearly 30% higher than the county.

Actions to Support *Live Well San Diego*

Creating an environment that encourage residents to live healthy, safe, and thriving lives is a priority in San Diego County. *Live Well San Diego* plans to advance the health and overall well-being of all San Diegans through a collective effort that involves residents, community and faith-based organizations, businesses, schools, law enforcement, local city and tribal jurisdictions, and the County of San Diego. *Live Well San Diego* is a framework to help achieve health equity among all residents. To learn more, visit www.livewellsd.org.

For more local health data and statistics, visit the County of San Diego's Community Health Statistics Unit website.

NON-COMMUNICABLE (CHRONIC) DISEASE

Eliminating tobacco use, adopting active lifestyles, eating healthier diets, and decreasing excessive use of alcohol are key transformations that can reduce the burden of non-communicable (chronic) disease among San Diego County residents.[19]

For more information on chronic disease, visit the County of San Diego's Chronic Disease and Health Equity Unit website.

COMMUNICABLE DISEASE

Taking protective measures including vaccination and avoiding close contact with sick individuals, seeking testing and early treatment, and visiting a doctor regularly are key strategies that can reduce the burden of communicable disease among San Diegans.[18]

For more information on communicable disease, visit the County of San Diego's Epidemiology and Immunization Services Branch website, the HIV, STD, and Hepatitis Branch website, or the Tuberculosis Control and Refugee Health Branch website.

MATERNAL AND CHILD HEALTH

The health of mothers, infants, and children are key indicators of the health of the community overall. Health outcomes often reflect the health of future generations as well as emerging public health concerns.[21] Prevention measures such as increased nutrition, early prenatal care, as well as cessation of smoking, alcohol consumption, and illicit drug use are all key ways to improve maternal and child health.[19, 20]

For more information on maternal and child health, visit the County of San Diego's Maternal, Child and Family Health Services Branch website.

INJURY

Of the major causes of disability and death, injuries are among the most preventable. Increased safety education, awareness of fall prevention strategies, and investing in safer communities are key ways to reduce the burden of injury among county residents.[21]

For more information related to fall prevention, visit the County of San Diego's Aging and Independence Services Fall Prevention website.

BEHAVIORAL HEALTH

Seeking help for an emotional, behavioral health, or alcohol/drug problem, engaging in activities to reduce stress, avoiding social isolation, and fostering environments that reduce the stigma of behavioral health issues are major prevention strategies that can help reduce poor behavioral health outcomes among San Diegans.[22]

Appendix. Risk Factors and Prevention Strategies

NON-COMMUNICABLE (CHRONIC) DISEASE

Tobacco use, lack of physical activity, poor diet, and abuse of alcohol are leading risk factors for the development of non-communicable (chronic) disease.[17]

Changes in modifiable risk factors such as tobacco use, lack of physical activity, poor diet, and abuse of alcohol, as well as increased access to and utilization of medical services, are key ways to reduce the burden of noncommunicable (chronic) disease.[17]

What You Can Do to Reduce Your Risk of Non-Communicable (Chronic) Disease and Live Well:

- Exercise at least 150 min/week
- Avoid smoking
- Limit alcohol consumption
- Eat more fruits & vegetables
- Visit your doctor for preventive check-ups

What Your Community Can Do to Reduce the Risk of Non-Communicable (Chronic) Disease and Live Well:

- Invest in safe parks and recreational facilities
- Increase the availability and affordability of fresh produce
- Encourage healthy behaviors
- Adopt walkable communities

COMMUNICABLE DISEASE

Prevention measures against communicable diseases, such as increased condom usage, frequent testing, seeking early treatment, completing treatment regimens, and staying current with recommended age appropriate vaccinations are key ways to reduce the burden of communicable disease.[18]

What You Can Do to Reduce Your Risk of Communicable Disease and Live Well:

- Get all recommended age appropriate vaccinations
- Visit your doctor regularly
- Get early treatment for infections, and complete entire treatment regimens

What Your Community Can Do to Reduce the Risk of Communicable Disease and Live Well:

- Encourage education about protective measures
- Promote vaccination opportunities
- Support public health campaigns aimed at reducing disease

MATERNAL AND CHILD HEALTH

Maternal and child health outcomes are influenced by several factors including age, race/ethnicity, socioeconomic status, and a mother's health. Specifically, lack of prenatal care, poor nutrition, alcohol and tobacco use, and lack of physical activity are major lifestyle risk factors for adverse maternal and child health outcomes.[19,20] The health of mothers, infants, and children are key indicators of the health of a community overall. Their health outcomes often reflect the health of future generations, as well as emerging public health concerns. Therefore, engaging in healthy behaviors associated with favorable maternal and child health outcomes has the potential to positively impact the health of the county overall.[19]

What You Can Do to Reduce Your Risk of Poor Maternal and Child Health Outcomes and Live Well:

- Seek early prenatal care
- Eat a balanced diet
- Avoid smoking, alcohol consumption, or using drugs while pregnant
- Engage in physical activity

What Your Community Can Do to Reduce the Risk of Poor Maternal and Child Health Outcomes and Live Well:

- Encourage early prenatal care
- Develop lactation policies
- Provide affordable daycare options
- Encourage enrollment in nutrition assistance programs for eligible mothers and children

INJURY

Failure to use protective equipment and active restraints, mismanagement of medication, violence, and not being aware of safety hazards increase the risk of an injury.[21]

What You Can Do to Reduce Your Risk of Injury and Live Well:

- Be aware of your surroundings
- Never drink and drive
- Always wear your seatbelt
- Always wear your helmet while on a bike or skateboard

What Your Community Can Do to Reduce the Risk of Injury and Live Well:

- Invest in walkable sidewalks and safe roads
- Invest in drug and alcohol treatment programs
- Make safety a priority through education

BEHAVIORAL HEALTH

Risk factors for poor behavioral health outcomes include genetics, stress, experiencing a traumatic event, and social isolation.[22]

What You Can Do to Reduce Your Risk of Poor Behavioral Health Outcomes and Live Well:

- Seek help for an emotional, behavioral health, or alcohol/ drug use problem
- Seek out healthy activities to reduce stress, and stay socially connected, such as exercising or volunteering

What Your Community Can Do to Reduce the Risk of Poor Behavioral Health Outcomes and Live Well:

- Educate residents about the warning signs of behavioral health issues
- Foster environments that reduce the stigma associated with behavioral health issues

LIVE WELL SAN DIEGO

Building Better Health | Living Safely | Thriving

Live Well San Diego focuses on creating an environment that encourages all San Diego County residents to live healthy, safe, and thriving lives.

Appendix. Methodology

Exploring Health Disparities in San Diego County by Urbanicity is part of series of reports exploring disparities among San Diego County residents. The goal of this report was to identify health and sociodemographic disparities which could provide local agencies, organizations, groups, services, and individuals a starting point in developing solutions to improve the health and wellbeing of the residents of San Diego County.

The series of reports can be found in the Health Equity Reports section of www.sdhealthstatistics.com.

Disclaimer: It should be noted that these reports are not an update of the series of health equity reports published in March 2016 and March 2022.

DATA SOURCES

DEMOGRAPHIC DATA

In addition to identifying health disparities, demographic information on each group was provided to highlight some of the potential contributing factors to these health outcomes.

American Community Survey (ACS): Sociodemographic and economic data data were used from the U.S. Census Bureau's ACS 2022 5-year estimates (data years 2018-2022).

HEALTH OUTCOMES DATA

Health outcome data were compiled from the County Community Health Statistics Unit's San Diego County Community Profiles. Specifically, death, hospitalization, and emergency department discharge rates for various health outcomes were analyzed to identify health disparities within San Diego County's populations.

Emergency department and patient discharge data was provided by the California Department of Health Care Access and Information (HCAI). Morbidity conditions were grouped via the Healthcare Cost and Utilization Project (H-CUP) Clinical Classification Software (CCS) groupings. H-CUP is a family of healthcare databases and related software tools developed through a Federal-State-Industry partnership and sponsored by the Agency for Healthcare Research and Quality (AHRQ).

Mortality data was provided by the California Department of Public Health, Center for Health Statistics, Office of Health Information and Research, Vital Records and Business Intelligence System (VRBIS). Mortality codes were grouped according to the National Center for Health Statistics (NCHS) ICD-10 Mortality Codebook 2e-v1, 2017.

Alzheimer's Disease and Related Dementias (ADRD) morbidity ICD-10 codes were grouped according to the Centers for Medicare & Medicaid Services Chronic Conditions Data Warehouse.

Maternal and child health indicators (excluding congenital anomalies or maternal complications) were from the State of California, Department of Public Health, Center for Health Statistics and Informatics, Birth Statistical Master Files and California Comprehensive Birth Files for 2022.

Chlamydia, gonorrhea, and syphilis incidence data were from the STD Morbidity Surveillance Data (California Reportable Disease Information Exchange, CalREDIE) for 2022. Tuberculosis data were from the County of San Diego, Health and Human Services Agency, Tuberculosis Control, Report of Verified Case of Tuberculosis Database for 2022.

Additional information on code grouping sources for health indicators, population data, and geographies are available in Community Health Statistics Data Guide and Metadata file.

OVERALL METHODS

Death and medical encounter data from the Community Health Profiles was analyzed for chronic, communicable, injury, behavioral health, and maternal and child health outcomes. Each section highlights the conditions and death and/ or medical encounters most relevant among the subgroup of the population. Where relevant, differences across groups are also mentioned in the text.

For this report, San Diego County Subregional Areas (SRAs) were classified by type based on ESRI's Urbanicity Tapestry ™ data[23]. ESRI defines urbanicity as the "degree of population density, size of city, and location relative to a metropolitan area."[23] Each of the 41 SRAs of San Diego County was assigned into one of six urbanicity groups: rural, semirural, suburban periphery, metro cities, urban periphery, and principal urban center. SRAs were a combination of urbanicity types and were assigned into the

urbanicity with the highest distribution in the SRA. Based on this criteria, San Diego County SRAs fell into one of five urbanization categories because none of the SRAs could be categorized as semirural.

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