hoag.

Hoag Memorial Hospital Presbyterian
Newport Beach, Irvine and Hoag Orthopedic Institute

COMMUNITY HEALTH NEEDS ASSESSMENT 2022

Acknowledgments

The 2022 Community Health Needs Assessment report was prepared by the following team members of AdvanceOC.

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Hoag Community Health Needs Assessment Partner Organizations:

- Access California Services
- Alzheimer's Family Center
- Alzheimer's Orange County
- America on Track
- American Academy of Pediatrics
- American Red Cross
- AmeriCorps
- Asian American Senior Citizens Service Center
- BeWell OC
- Big Brothers Big Sisters of Orange County & Inland Empire
- CalOptima
- Cancer Kinship
- Care Connection Network
- Chinese American Association of Orange County
- Church of the Messiah
- CIELO
- City of Costa Mesa
- City of Irvine
- City of Newport Beach
- City of Newport Beach - OASIS Senior Center
- Community Action Partnership OC
- Community Health Initiative of Orange County
- Council on Aging - Southern California
- Crime Survivors Resource Center
- El Sol Science and Arts Academy
- Families Forward
- Family Solutions Collaborative
- Girls Inc of Orange County
- HOPE Clinic NMUSD
- Human Options
- Irvine Adult Day Health Services- Adult Day Health Care Program
- Korean Community Services
- Kid Healthy - OneOC
- Kiwanis Club of Costa Mesa
- Laguna Beach Senior and Community Center
- Latino Health Access
- Lestonnac Clinic
- LGBTQ Center of Orange County
- Life on the Streets Ministry
- Los Alamitos Medical Center
- Mariposa Women and Family Center
- MECCA
- Mercy House
- MOMS Orange County
- Neighborhood Association for Balboa Island
- Newport Mesa Unified School District
- OC Human Relations
- Omid Multicultural Institute for Development (OMID)
- Orange Coast Unitarian Universalist Church
- Orange County Behavioral Health Services
- Orange County Health Care Agency
- Orange County United Way
- Project Hope Alliance
- Project Kinship
- Project Self-Sufficiency
- Project Youth OCBF
- Radiant Health Centers
- Saddleback Church PEACE Community Research Center
- Santa Ana College Health & Wellness Center
- Second Harvest Food Bank
- Senior Center in Central Park, Huntington Beach
- Share Our Selves Community Health Center
- South Coast Outreach
- County of Orange - Social Services Agency
- St Mark Presbyterian Church
- St Peter's by the Sea Presbyterian Church Huntington Beach
- Susan G. Komen
- The Cambodian Family
- The Purpose of Recovery
- The Wooden Floor
- Trinity Episcopal Church, Orange
- United Cerebral Palsy
- Voice of Refugees
- Waymakers (DVAP)
- Waymakers (YOW)
- Waymakers Juvenile Diversion Program
- Waymakers-Huntington Beach Youth Shelter
- Waymakers OC CRIP
- Waymakers Families First

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1. Executive Summary

Community Health Needs Assessment Background

The Community Health Needs Assessment (CHNA) is designed as a tool for guiding policy, advocacy, and program-planning efforts. The Patient Protection and Affordable Care Act (ACA), enacted on March 23, 2010, introduced new requirements for nonprofit hospitals to maintain their tax-exempt status. Included in the new regulations of the Internal Revenue Code ("Code") was a requirement that all nonprofit hospitals must conduct a CHNA and develop an Implementation Strategy (IS) every three years.

The 2022 CHNA builds upon the earlier assessments, distills new qualitative and quantitative research, prioritizes local health needs, and identifies areas for improvement. Using this information, Hoag Memorial Hospital Presbyterian (Hoag) will develop strategies to address critical health needs and to improve the health and well-being of community members.

Both the CHNA reports, and the corresponding IS plans for Hoag are available publicly at https://www.hoag.org/about-hoag/community-benefit/reports. A paper copy of the CHNA is available without charge and upon request by emailing CommunityBenefit@hoag.org.

IRS regulations allow for the conduct of a joint CHNA when hospitals define their service area communities the same. In compliance with these regulations, this CHNA was conducted jointly by Hoag Hospital Newport Beach, Hoag Hospital Irvine, and Hoag Orthopedic Institute. Project oversight of the CHNA process was overseen by Minzah Malik, MBA, MPH, Manager Community Benefit Program and Lauren Tabios, MBA, MPH, Community Health Specialist. This CHNA was adopted by the Board of Directors of Hoag Memorial Hospital Presbyterian in November 2022.

Process and Methods

Hoag and AdvanceOC started planning the 2022 CHNA in March 2022 and began collecting data in May 2022. The goal was to gather community feedback, understand existing data about health status, and prioritize local health needs.

This report summarizes findings gleaned from primary data collected through stakeholder interviews, a provider survey, a community survey, and focus groups conducted with health care experts, leaders of community-based organizations (CBOs), and community members with a variety of lived experiences in Orange County, California. These investigations and evaluation tools were designed and conducted from May to August 2022 by a team of research professionals at AdvanceOC in collaboration with the Hoag Community Benefit Team.

Secondary data sources were selected to understand general county-level health, specific underserved and underrepresented populations, and to fill previously identified information gaps. The teams collected data from existing sources using the Orange County Equity Map and Social Progress Index Orange County and other online sources, such as the California Department of Public Health and the U.S. Census Bureau. Findings from the previous community health needs assessment (2019) and available sub-county data (cities and neighborhoods) were also used whenever available. In addition to traditional measures of health, broader social and environmental determinants of health such as housing, financial insecurity, education, and transportation were included.

Community health needs were identified in October 2022 by (1) synthesizing primary qualitative research data and secondary data and (2) filtering those needs against a set of criteria. Hoag and AdvanceOC collectively discussed the health needs that were identified through the community assessment and identified the greatest health needs. See Prioritization of Health Needs for a complete description. Hoag used the following criteria to determine the priority order:

- Top priorities for the community
- Community Benefit Program team input
- Community Benefit Committee feedback
- Hoag Leadership Feedback
- Hoag Board of Directors Feedback
- Known gaps in service
- Hoag's legacy priorities

Identified 2022 Community Health Needs

Based on the criteria described above, Hoag identified 8 health needs, listed below in alphabetical order.

1. Access to Health Care
2. Behavioral and Mental Health
3. Cancer/Chronic Disease
4. Community and Family Safety
5. COVID-19 / Contagious and Infectious Diseases
6. Economic and Financial Insecurity
7. Environment/ Climate Change
8. Housing and Homelessness

Identified 2022 Community Health Needs

The following descriptions of the 8 identified community health needs summarize the data, statistics and community input collected during the community health needs assessment.

1. Access to Health Care

One of the greatest barriers to healthcare identified through this needs assessment was access to and delivery of care. Seven (39%) of 18 interviewees noted healthcare access and delivery were the greatest health needs and 19% of provider survey respondents (n=160) indicated healthcare access and delivery were contributing to poor health outcomes in the communities they serve. This was also a pervasive theme throughout focus groups. Barriers associated with healthcare access included 1) costs 2) availability of services 3) navigating the healthcare system 4) lack of awareness and education about resources available in the community.

2. Behavioral and Mental Health

Consistent across all data, behavioral and mental health was identified as a significant concern in the community. Nearly a quarter (23%) of community survey respondents (n=637) indicated that the most pressing health need (out of a list of 23 needs) in their household was emotional well-being.Furthermore, when asked about the most pressing health need in their communities, focus group and interview participants overwhelmingly cited behavioral health despite not being prompted with a list. This includes 78% of interviewees (14 interviewees) and eight of the nine focus groups. Additionally, provider survey (n=160) respondents also indicated that behavioral and mental health is the most pressing health issue.

3. Cancer/Chronic Disease

Ten percent of respondents in the provider survey listed cancer as a top health concern, which placed it among the top 10 health concerns identified by a community of medical practitioners, community health workers and other service providers. Twenty-five percent of community survey respondents also cited cancer as a top health concern.

Population health data from secondary data collection shows cancer as the second leading cause of death in Orange County, and rates of childhood cancer diagnoses are higher in Orange County compared to California. Orange County also ranks in the top three highest counties in California for overall cancer prevalence. Cancer accounts for nearly one in four deaths among men and women in Orange County. Research has found that health disparities related to cancer contribute to higher, avoidable death rates among low-income and ethnic minority populations. The Orange County Health Care Agency reports that Asians are most impacted by cancer (death rate of 129 per 100,000 residents).

4. Community And Family Safety

Provider survey respondents (21%) and interviewees (22%) indicated that community and family safety was the most pressing non-behavioral health concern observed. Providers (n=160) further noted that some of the greatest contributors to poor health outcomes in the communities they serve include Adverse Childhood Experiences (29%), neighborhood violence and safety (17%), and abusive relationships (17%). These experiences can exacerbate mental and behavioral health outcomes, causing further stress and anxiety for community members. Additionally, 10% of community survey respondents (n=637) indicated that community and family safety was a top health concern in their household.

5. COVID-19 / Contagious and Infectious Diseases

When community survey respondents (n=637) were asked to rank the top three health concerns in their households from a list of 23 items, more than one-third of respondents indicated that contagious/infectious diseases was their top concern (40%).

6. Economic Insecurity

One of the top barriers to healthcare was the high cost of services. This barrier is further inflated by the economic insecurity and financial stress community members are experiencing. Seventeen percent of community member survey respondents (n=635) indicated that financial insecurity was one of the factors that contribute the most to their household's health issues. When looking at factors contributing to their household's mental or behavioral health issues (n=602), twice as many (34%) respondents indicated financial stress. This suggests that not only is financial insecurity contributing to physical health issues, but it is also contributing to mental or behavioral health issues.

7. Environment / Climate Change

Eleven percent of stakeholder interviewees cited the environment and climate change as a top health concern facing Orange County, making it one of the top 10 health needs cited by a wide range of community health leaders. Secondary data collection validates these concerns as Orange County is found to have a significantly higher density of roads compared with the state average. Roads, highways, and interstates are built very close to high density residential neighborhoods resulting in a greater exposure to particulate matter in the air from car exhaust fumes that ultimately can contribute to asthma and other respiratory ailments. In addition, Orange County has less tree canopy cover than the state average. Less trees equate to less natural defenses to carbon dioxide for neighborhoods near traffic and impact low-income communities from a lack of shade during extreme heat waves. Longer-term concerns cited by interviewees include rising sea levels and erosion that impact the coastal cities of Orange County.

8. Housing and Homelessness

One of the greatest health needs identified by providers, interviewees, and focus group participants was the need to address homelessness and housing insecurity. Half of interviewees shared that this was the greatest health need in the community and 31% of provider survey respondents (n=160) indicated that homelessness/ housing insecurity was contributing to poor health outcomes in the communities they serve. According to focus group participants, accessible housing is a concern with the rise of evictions and those needing emergency housing services. The parallel between housing and health was also acknowledged in that having housing is important for one's health.

Next Steps

After making the 2022 CHNA report publicly available on its website, Hoag will solicit feedback and comments on the report until two subsequent CHNA reports have been published. Hoag will also develop an implementation plan based on the CHNA results, which will be filed with the IRS in 2023.

2. Introduction and Background

Affordable Care Act

Enacted on March 23, 2010, the Affordable Care Act (ACA) provided guidance at a national level for CHNAs for the first time. Federal requirements included in the ACA stipulate that hospital organizations under 501(c)(3) status must adhere to new 501(r) regulations, one of which is conducting a community health needs assessment every three years. The CHNA report must document how the assessment was done, give a description of the community served, list who was involved in the assessment, describe the process and methods used to conduct the assessment, and name the community's health needs that were identified and prioritized as a result of the assessment. Final requirements were published in December 2014.

The definition of a community health need includes the social determinants of health that contribute to an issue in addition to the associated rate of morbidity and mortality. For the purposes of this assessment, Hoag did not limit the definition of "community health." The CHNA uses the term "community health" to go beyond traditional measures of health to include indicators about broader social and environmental determinants of health such as housing, financial insecurity, education, and transportation.

In addition to providing a national set of standards and definitions related to community health needs, the ACA has had an impact on upstream factors. For example, the ACA created more incentives for health care providers to focus on prevention of disease by including lower or no copayments for preventive screenings. The ACA has also established new funding to support community-based primary and secondary prevention efforts.

SB 697 and California's History of Assessments

Enacted in 1994, California Legislative Senate Bill 697 stipulates that private nonprofit hospitals submit an annual report to the California Department of Health Care Access and Information (HCAI), formerly known as the Office of Statewide Health Planning and Development (OSHPD). The report is to include a description of the activities that the hospital has undertaken to address identified community needs within its mission and financial capacity. Additionally, hospitals must describe the process by which they involve community groups and local government officials in helping identify and prioritize community needs to be addressed.The community health needs assessment must be updated at least once every three years.

The 2022 CHNA meets both CA SB 697 and federal (IRS) requirements mandated by the ACA.

Brief Summary of the Prior CHNA Conducted

In 2019, Hoag participated in a collaborative process to identify significant community health needs and to meet the IRS and SB 697 requirements. The resulting 2019 CHNA report is posted on Hoag's website.

https://www.hoag.org/about-hoag/community-benefit/reports/

The 6 health needs that were identified through the 2019 CHNA process were:

1. Mental Health
2. Access to Care
3. Economic Security
4. Prevention of Chronic Disease & Management
5. Women's Health
6. Substance Use

Written Public Comments to the Prior CHNA

To offer the public a means to provide written input on the CHNA reports, Hoag offers a public email for direct contact: CommunityBenefit@Hoag.org

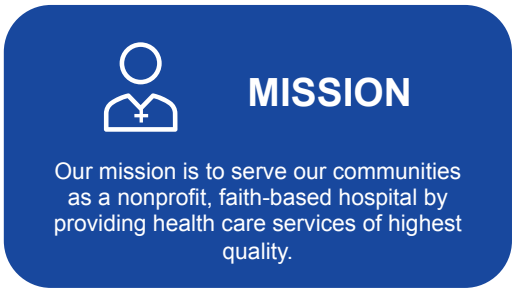
At the time the 2022 CHNA report was completed, Hoag had not received written comments about the 2019 CHNA report. Hoag will continue to accept submissions and make sure that all relevant feedback is reviewed and addressed by appropriate hospital staff.

3. About Hoag Memorial Hospital Presbyterian

Hoag's nonprofit regional health care delivery network consists of two acute-care hospitals – Hoag Hospital Newport Beach, which opened in 1952, and Hoag Hospital Irvine, which opened in 2010 – in addition to 14 urgent care centers and nine health centers and has delivered a level of personalized care that is unsurpassed among Orange County's health care providers. Renowned for its excellence, specialized health care services and exceptional physicians and staff, Hoag is admired as one of California's leading hospitals. It is one of the county's largest employers with approximately 7,000 employees and more than 2,000 volunteers. Hoag's network of more than 1,700 physicians represents 52 different specialties.

Hoag is a designated Magnet® hospital by the American Nurses Credentialing Center (ANCC) and is fully accredited by DNV. Hoag offers a variety of health care services to treat virtually any routine or complex medical condition. Through its medical staff, state-of-the-art equipment and modern facilities, Hoag provides a full spectrum of health care services including six institutes that provide specialized services in the following areas: cancer, heart and vascular, neurosciences, women's health, digestive health and orthopedics through Hoag's affiliate, Hoag Orthopedic Institute, which consists of an orthopedic hospital and four ambulatory surgical centers.

To further Hoag's commitment to provide comprehensive care to the community, Hoag Medical Group was established in 2012 with the core values of excellence, innovation and compassion. The physician group comprises specialists and subspecialists in internal medicine, family medicine, pediatrics, geriatrics, acupuncture, neuromusculoskeletal, endocrinology, genetics, rheumatology, diabetes, allergy & immunology and HIV medicine.



Community Health Initiatives

Hoag's Community Benefit Program was formalized in 1995 through Hoag's Community Health Department and has grown significantly since that time. Hoag has served over 100 nonprofit community organizations in a variety of health and social service categories. Hoag continues to emphasize the development of sustained collaborative relationships and the provision of unduplicated services to disadvantaged residents in Hoag's community as core elements of the program.

The Department of Community Health provides direct services and collaborates with other not-for-profit community-based organizations to promote the health of Hoag's communities. The department coordinates Hoag's Community Benefit activities, driven by the health needs of Hoag's surrounding communities, which are regularly reviewed in an ongoing manner.

Hoag's Community Benefit Program is guided by five Core Principles:

1. **Emphasis on Disproportionate Unmet Health-Related Needs** – Hoag concentrates on residents who have a high prevalence of severity for a particular health concern; and on residents with multiple health problems and limited access to timely high-quality health care.
2. **Emphasis on Primary Prevention** – Hoag focuses on program activities that address the underlying causes of persistent health problems as part of a comprehensive strategy to improve health status and quality of life in local communities.
3. **Build a Seamless Continuum of Care** – Hoag works to develop and sustain operational linkages between clinical services and community health improvement activities to manage chronic illnesses among uninsured and publicly insured populations.
4. **Build Community Capacity** – Hoag targets its charitable resources to mobilize and strengthen existing effective community health services.
5. **Emphasis on Collaborative Governance** – Hoag emphasizes networking to exchange information; Coordination of synergistic activities; Cooperation in sharing resources; and Collaboration to enhance the combined capacity of community health partners.

The department of Community Health provides services which are unduplicated in the community and relieve government burden. These currently include mental health services, community nurse navigation, community-based program grants, and other health and wellness programs and services. In order to promote effective access to health care and related services, the department works in collaboration with a number of not-for-profit community-based organizations to provide insurance coverage as well as free services to underserved and vulnerable residents. Charity care is an integral component of the benefit that Hoag provides to the community. The current hospital Charity Care and Self Pay Discount Policy provides assistance on a sliding scale for uninsured and self-pay patients with family income up to 400% of the Federal Poverty Level.

Community Served

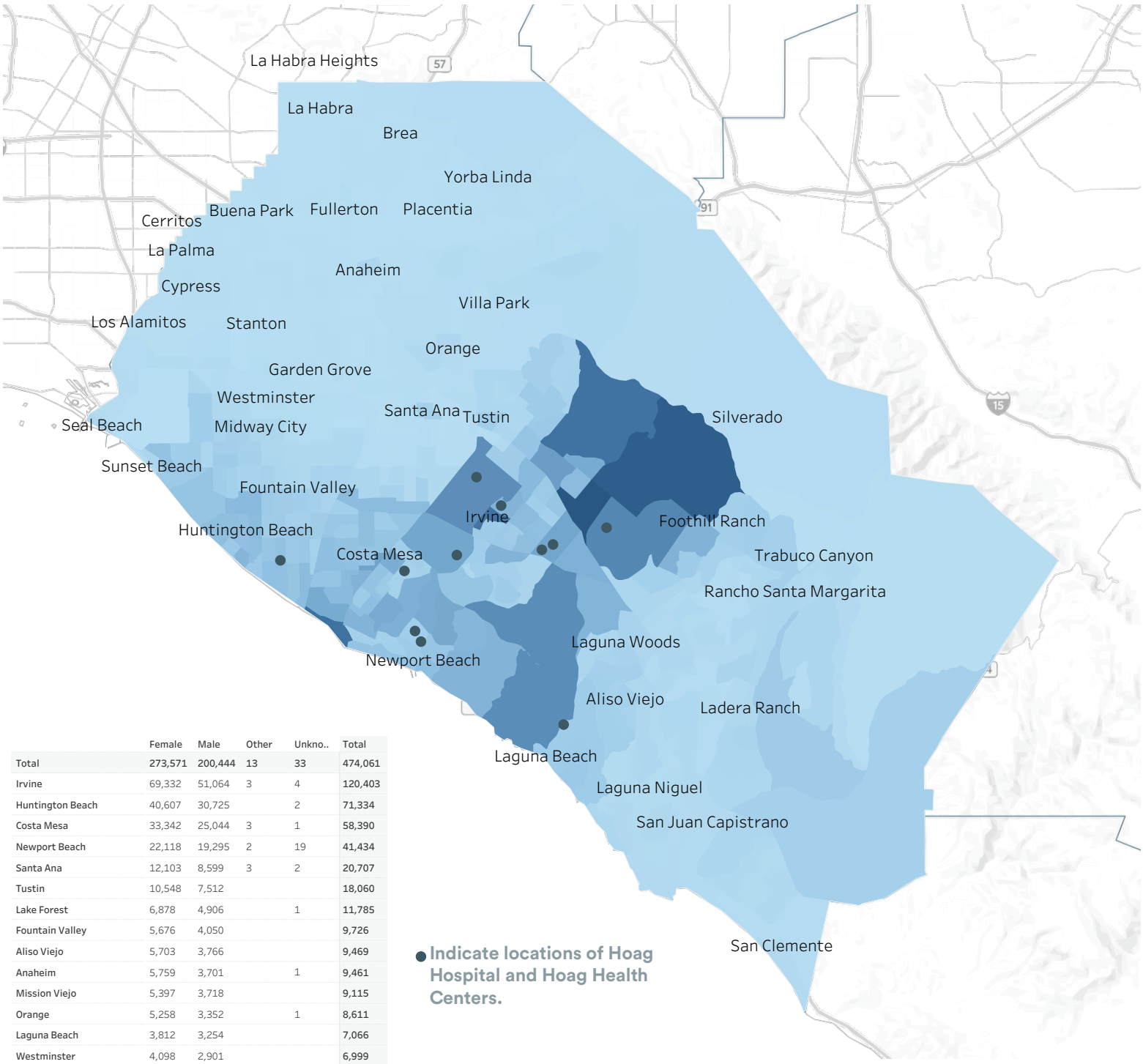
Hoag defines the community served by a hospital as those individuals residing within its hospital service area. A hospital service area includes all residents in a defined geographic area surrounding the hospital and does not exclude low-income or underserved populations. Hoag Hospital Newport Beach, Hoag Hospital Irvine and Hoag Orthopedic Institute provide Orange County communities with access to a full spectrum of health care services through its more than 1700-member medical staff, state-of-the-art equipment and modern facilities. The hospitals' service area includes all 88 zip codes and all 582 census tracts in Orange County. Hoag's patient population comes from all 34 cities and unincorporated communities in Orange County as shown on the next page.

Among the top 5 cities served by Hoag (Irvine, Huntington Beach, Costa Mesa, Newport Beach and Santa Ana), the average age of patients range from 29 years to 48 years old with younger patients on average residing in the cities of Costa Mesa and Santa Ana. Among Hoag's obstetrician visits, the average age of Costa Mesa and Santa Ana patients is 29 years. For Emergency Department visits, the youngest patients reside in Costa Mesa and Irvine and the oldest patients reside in Newport Beach.

The number of Medicaid patients range from 8% in the cities of Huntington Beach and Irvine to as much as 25% and 21% in the cities of Costa Mesa and Santa Ana, respectively. Medicaid patients skew female and they tend to represent a higher percentage of patients visiting the Emergency Department.

As seen in Hoag's service area, Orange County is a tale of two counties. Some of its cities have higher than average median household income while neighboring cities have some of the lowest in the state of California. To understand the social and health disparities of the county, this report will highlight different metrics that capture the characteristics of wealthier cities like Newport Beach and Irvine as well as less affluent cities such as Costa Mesa and Santa Ana.

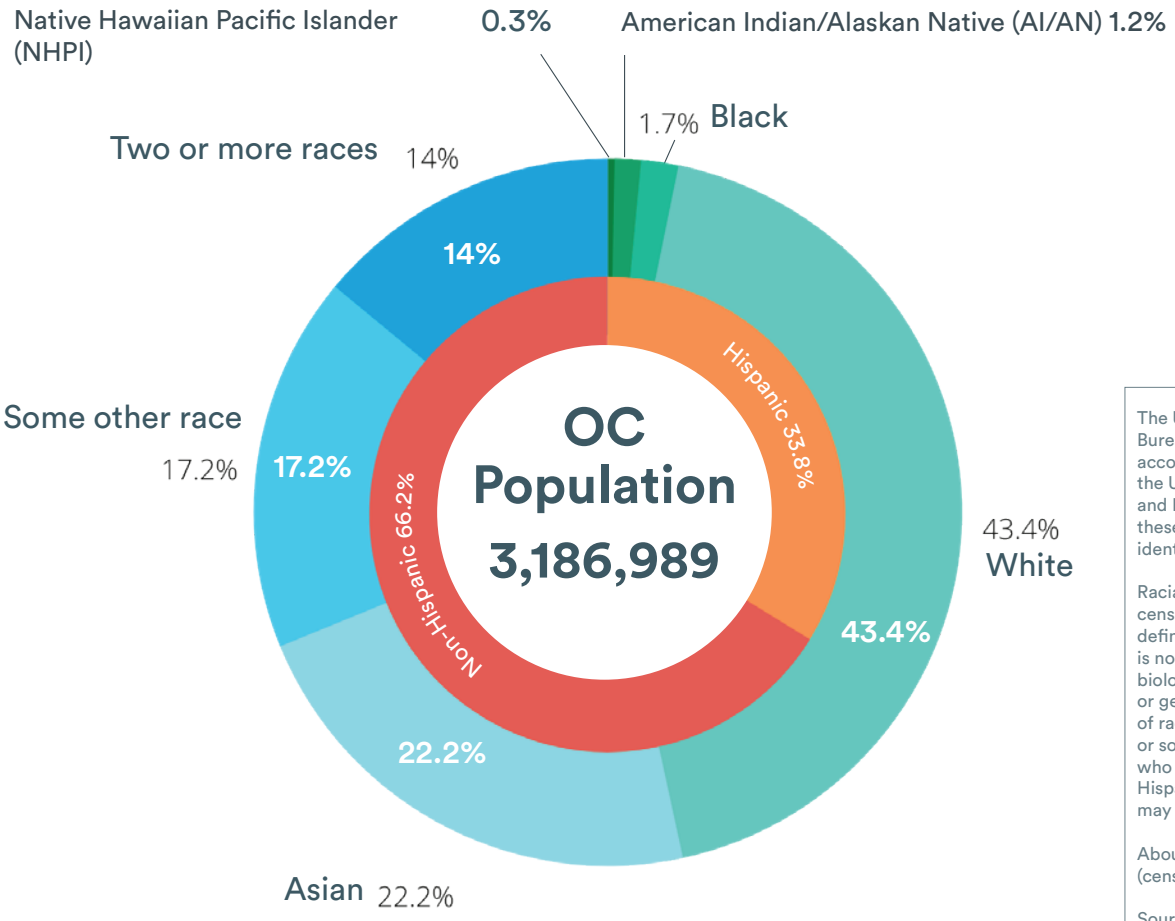
Patients serviced by Hoag Memorial Hospital Presbyterian



	Female	Male	Other	Unkno..	Total
Total	273,571	200,444	13	33	474,061
Irvine	69,332	51,064	3	4	120,403
Huntington Beach	40,607	30,725		2	71,334
Costa Mesa	33,342	25,044	3	1	58,390
Newport Beach	22,118	19,295	2	19	41,434
Santa Ana	12,103	8,599	3	2	20,707
Tustin	10,548	7,512			18,060
Lake Forest	6,878	4,906		1	11,785
Fountain Valley	5,676	4,050			9,726
Aliso Viejo	5,703	3,766			9,469
Anaheim	5,759	3,701		1	9,461
Mission Viejo	5,397	3,718			9,115
Orange	5,258	3,352		1	8,611
Laguna Beach	3,812	3,254			7,066
Westminster	4,098	2,901			6,999
Laguna Niguel	3,883	2,584			6,467
Newport Coast	3,663	2,784		1	6,448
Corona Del Mar	3,602	2,673			6,275
Garden Grove	3,681	2,330			6,011
San Clemente	3,114	1,906		1	5,021
Trabuco Canyon	2,416	1,706	1		4,123
Laguna Woods	2,370	1,426			3,796
Ladera Ranch	2,459	1,331			3,790
Rancho Santa Margarita	2,208	1,414			3,622
Yorba Linda	1,560	1,025	1		2,586
Seal Beach	1,557	940			2,497
Laguna Hills	1,463	1,004			2,467
Fullerton	1,406	1,015			2,421
San Juan Capistrano	1,346	912			2,258
Dana Point	1,351	883			2,234

Orange County is home to 3.19 million people per the latest 2020 Decennial Census with a median age of 38.3 years. The racial and ethnic makeup of Orange County is extremely diverse. The 2020 Census shows 45% of Orange County's population is White, while 55% represent another racial group or multi-racial groups. The county's largest non-White ethnic and racial groups are Hispanic/Latino and Asian Native Hawaiian and Pacific Islander. Approximately 34% of Orange County residents consider themselves of Hispanic ethnicity, while 22% are Asian Native Hawaiian and Pacific Islander. Altogether, around 30% of residents in Orange County are foreign-born, and about 45% speak a language other than English at home.

Orange County at a Glance



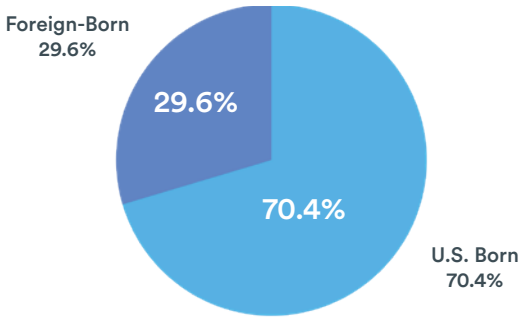
The United States (US) Census Bureau collects racial data according to guidelines by the US Office of Management and Budget (OMB), and these data are based on self-identification.

Racial categories in the census survey reflect a social definition of race in the US. It is not an attempt to define race biologically, anthropologically, or genetically. Also, categories of race include national origin or sociocultural groups. People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

About the Topic of Race (census.gov)

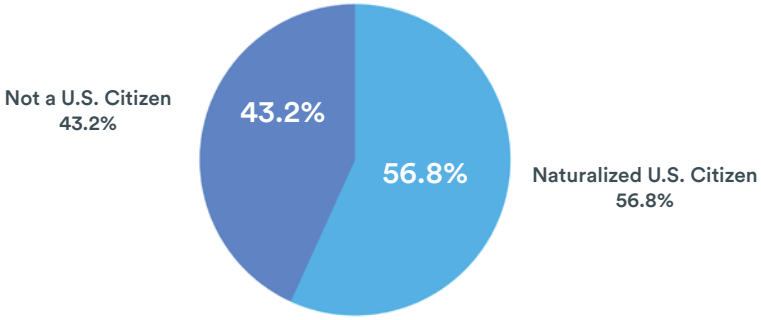
Source: 2020 Decennial Census

Population by Birth Origin



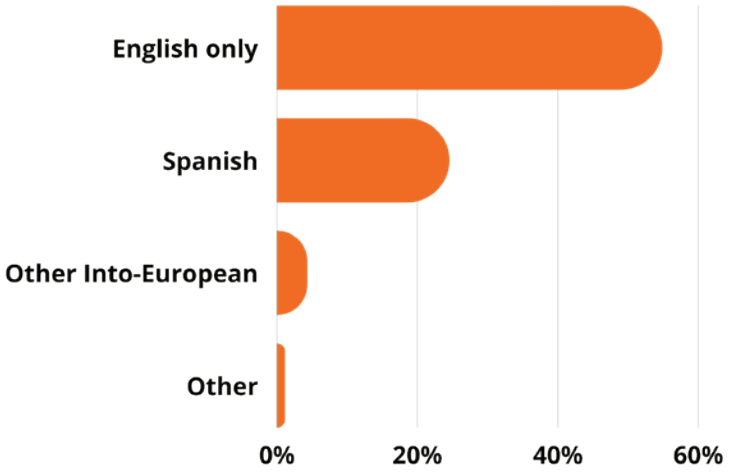
Population by Citizenship

of foreign-born residents

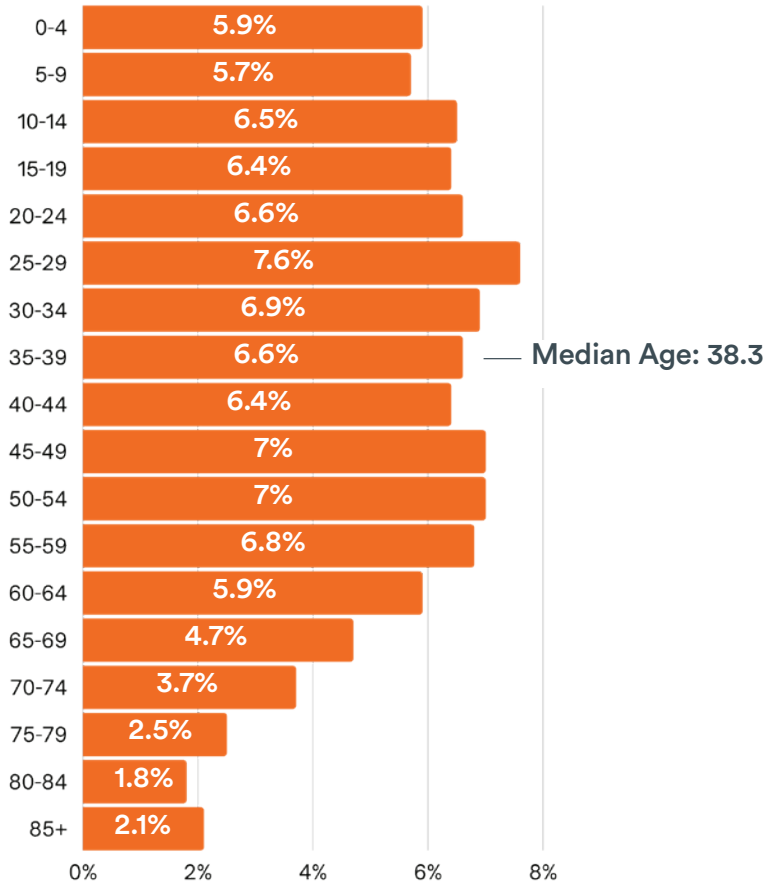


Source: U.S. Census Bureau's American Community Survey 5-Year Data, 2020

Language Spoken at Home



Population by Age Group



$94,441
Median Household Income
2020

56.9%
Home Ownership Rate
as of March 2022

1,129,785
Total Housing Units
2020

41.2%
Bachelor's Degree or Higher
2020

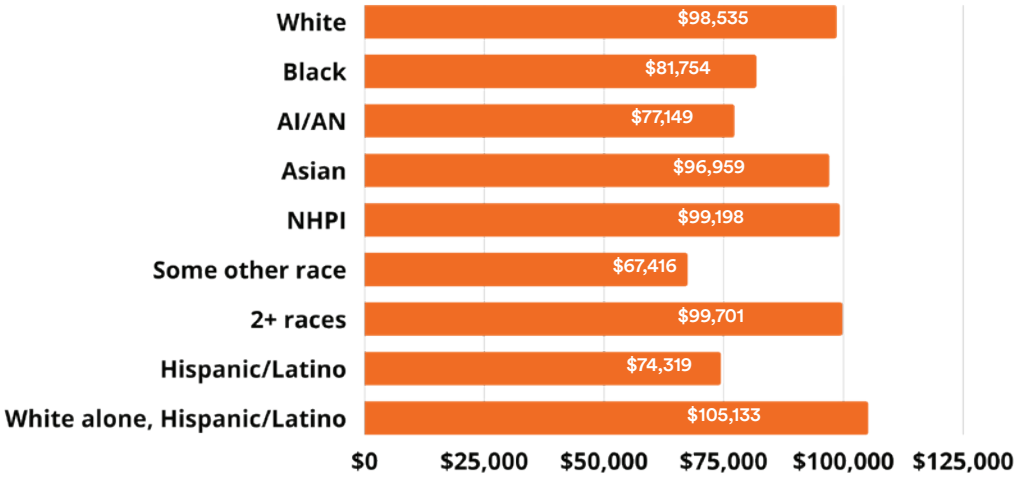
10.1%
Persons in Poverty
2020

3.1%
Unemplyment Rate
as of March 2022

Source: U.S. Census Bureau's American Community Survey 5-Year Data, 2020

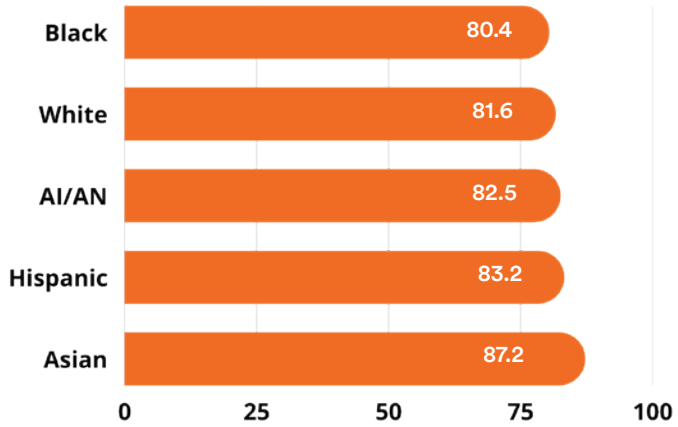
Median Houshold Income by Race/Ethnicity in Orange County

2020



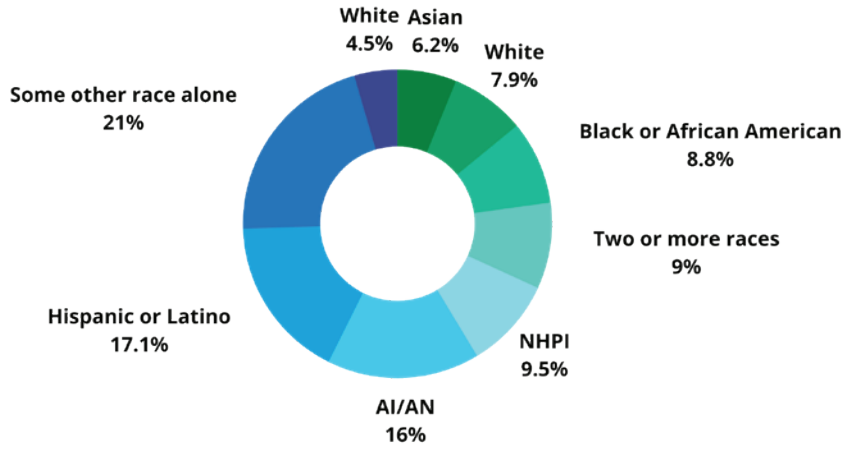
Life Expectancy at Birth in Orange County in years

2020



Uninsured Population by Race/Ethnicity in Orange County

2020



Source: U.S. Census Bureau's American Community Survey 5-Year Data, 2020

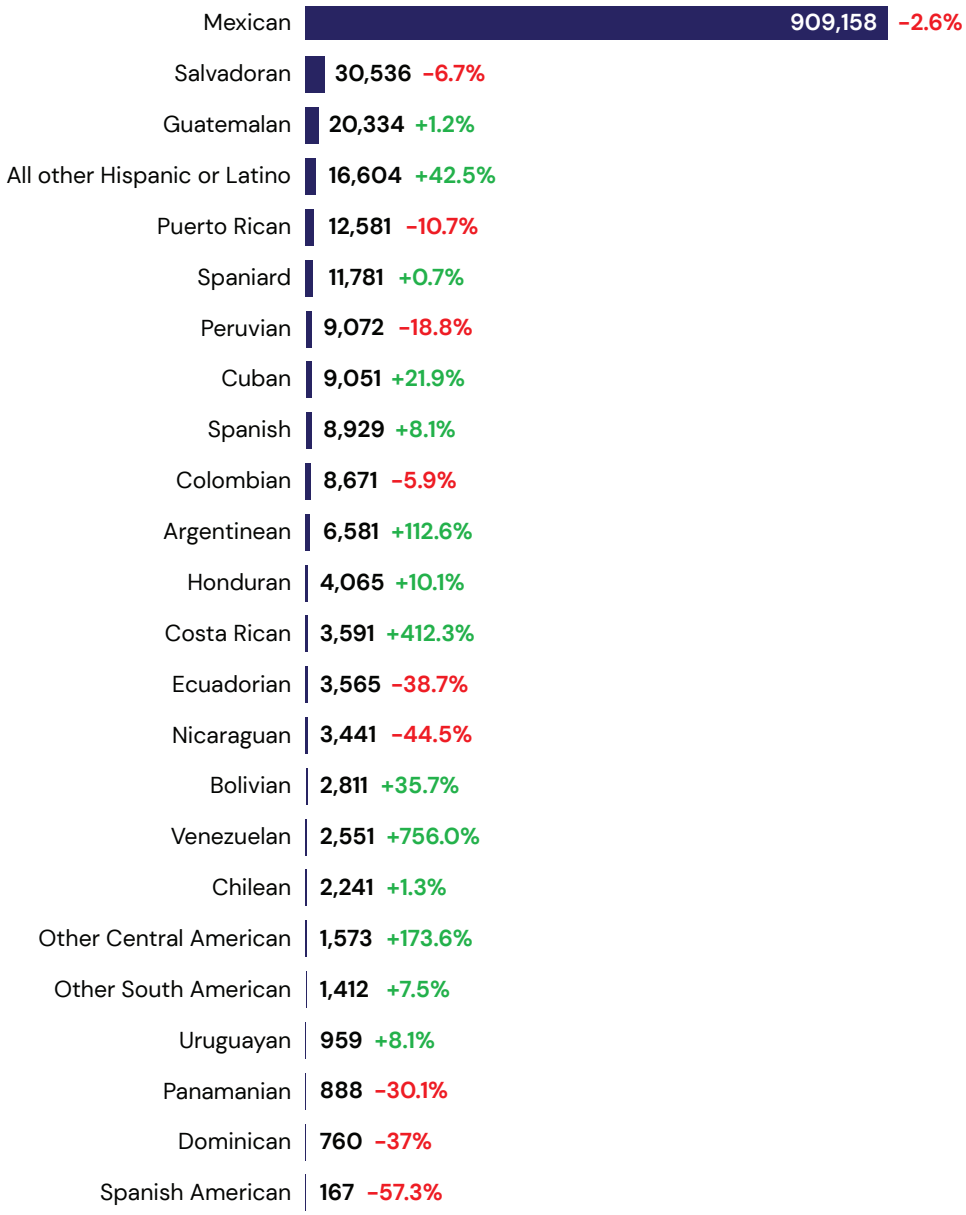
Top Cities of Hispanic and Latino Residents

2020, with percentage changes since 2015

City	2020		City	2020	
Santa Ana	252,762	-3.1%	Huntington Beach	38,116	-0.2%
Anaheim	188,179	+2.6%	La Habra	36,869	-1.8%
Garden Grove	63,289	-1.3%	Tustin	31,572	-0.4%
Orange	53,160	+0.7%	Buena Park	31,128	-0.5%
Fullerton	51,901	+6.0%	Irvine	29,184	+21.7%
Costa Mesa	41,070	+2.4%	Westminster	20,832	-1.9%

Hispanic and Latino Population by Ethnicity

Alone and in other combinations for Orange County, 2020, and percentage change since 2015



Source: U.S. Census Bureau's American Community Survey 5-Year Data, 2020

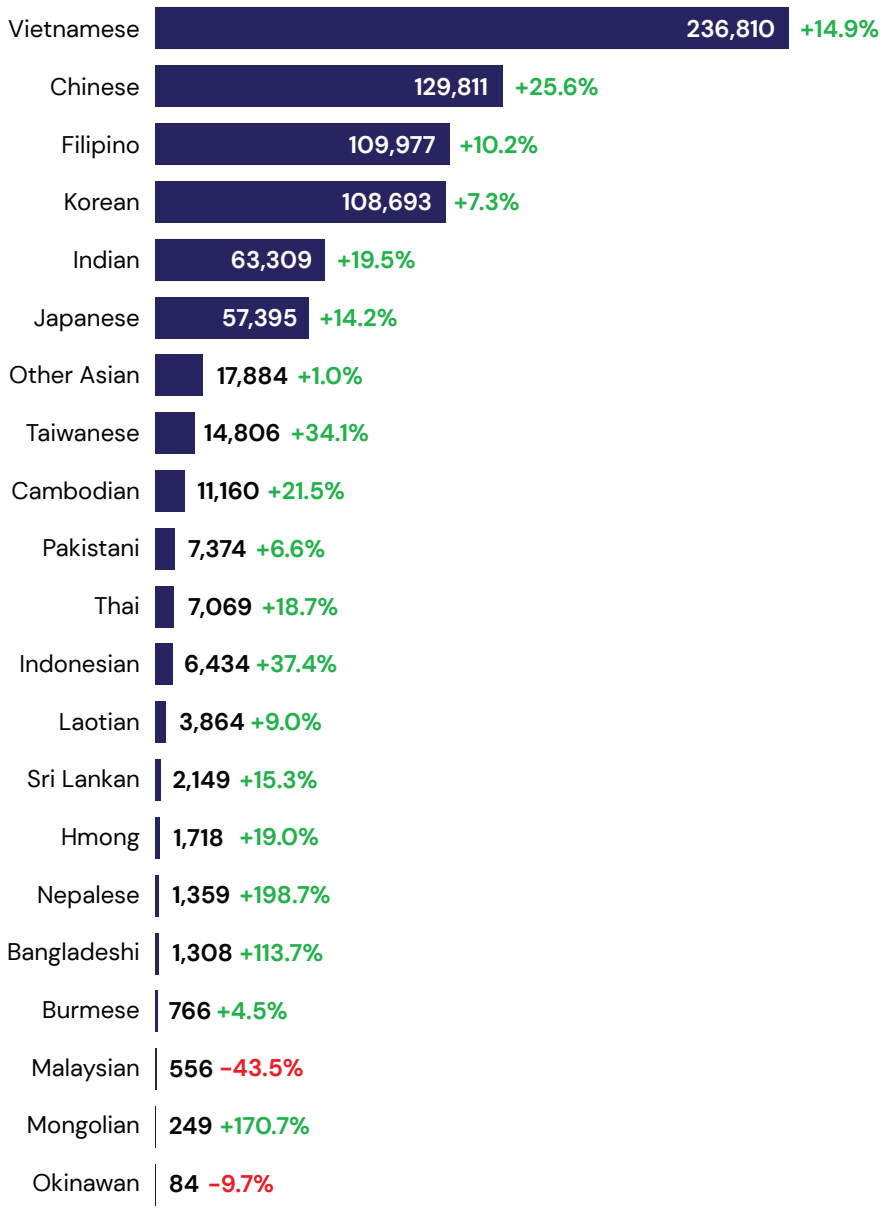
Top Cities of Asian Residents

2020, with percentage changes since 2015

City	2020		City	2020	
Irvine	136,809	+27%	Huntington Beach	34,001	+23%
Garden Grove	76,367	+7%	Buena Park	29,699	+17%
Anaheim	69,832	+12%	Fountain Valley	22,549	+6%
Westminster	49,985	+8%	Tustin	23,994	+26%
Santa Ana	44,402	+15%	Orange	22,099	+13%
Fullerton	38,699	+1%	Lake Forest	19,697	+36%

Asian Population by Ethnicity

Alone and in other combinations for Orange County, 2020, and percentage change since 2015



Source: U.S. Census Bureau's American Community Survey 5-Year Data, 2020

Income, as a key social determinant, has a significant impact on health outcomes. The Orange County community earns one of the highest annual median incomes in the U.S., but also bears some of the highest costs of living. 2020 median household income in Orange County is $94,441; however, Orange County is also ranked as one of the 10 most expensive counties in California in 2021 according to the Insight Center.

The California Family Needs Calculator published by the Insight Center reports that a family of 4 with 2 school aged children needs to earn an hourly wage of $23.99 per adult in the household or $101,336 as a household to pay for basic living expenses in Orange County. Orange County's median household income is $94,441, which is approximately $7,000 short of what is needed to make ends meet. This income disparity will continue to put pressure on social services in Orange County to fill the gap and will exacerbate housing and financial insecurities that lead to poor health and homelessness.

The income disparities experienced by Orange County families are not unique to Orange County. 1 in 3 California households are not being paid enough to feed their families, a number that has increased by 31,000 households since 2018.

Monthly Costs in Orange County, CA 2021

Rent	$2232
Utilities	$99
Child Care	$1986
Health Care	$628
Food	$1005
Transportation	$654
Miscellaneous	$661
Taxes	$1612
Child Care Tax Credit (-)	($100)
Child Tax Credit (-)	($333)
Earned Income Tax Credit (-)	($0)
SELF SUFFICIENCY STANDARD	
Hourly Wage	$23.99
Monthly Wage	$8,445
Annual Wage	$101,336
Emergency Savings (Monthly)	$177

Source: California Family Needs Calculator, Insight Center

Since 2018, the cost of living in counties in the southern and central portions of the state witnessed steep increases: Orange County (26%), Santa Barbara (40%), and Santa Cruz (45%). Prior to the pandemic, childcare overtook housing as the top expense for households in almost every California county.

Along with these findings, the Insight Center cites significant disparities among ethnic communities statewide in their recently published report:The Cost of Being Californian in 2021. Among the key findings are:

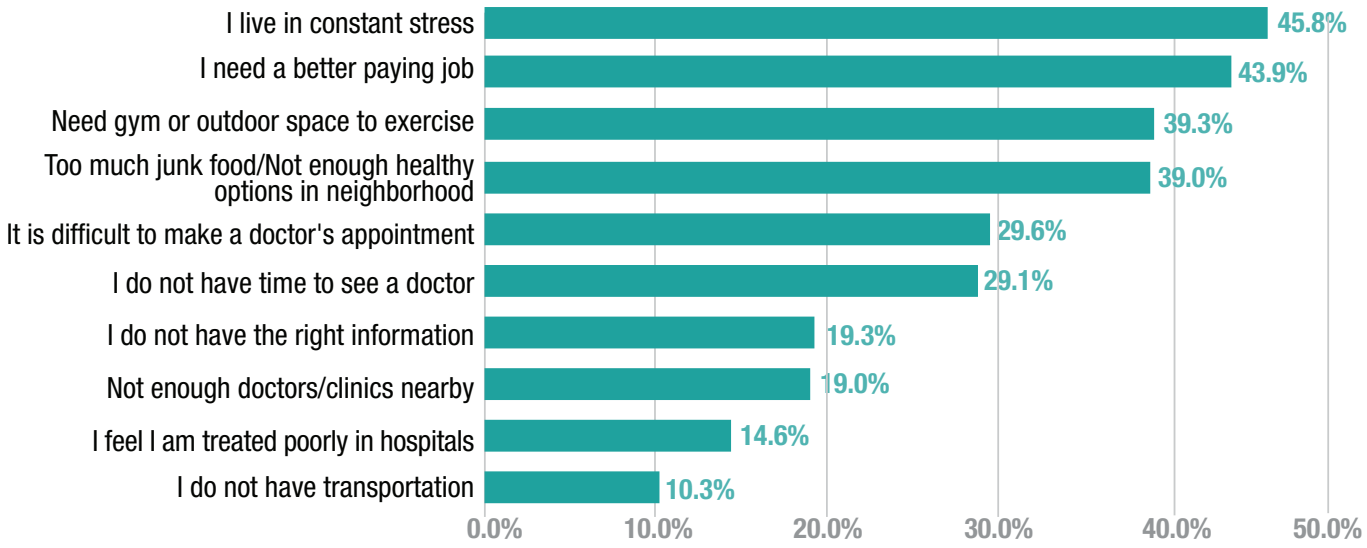
- Households of color in California are overrepresented among essential workers who have borne the brunt of a dual health and economic crisis. While making up 39% of the population, Latinx workers are 71% of California's cooks, 77% of the state's dishwashers, and more than 80% of the state's housekeepers. Asian people make up 90% of manicurists, 24% of wait staff, and 20% of home health and personal care aides.
- The typical Latinx household in California has an income that is $40,000 less than their white peers. White households with one full-time worker are more likely to be able to afford basic needs than Latinx households where two or more adults are employed full-time.

- Black and Latinx families who are not citizens face the greatest economic insecurity. Sixty-four percent of Black households and 75% of Latinx households struggle to put food on the table and keep the lights on.
- Asian and Pacific Islander Californians are in a far more precarious economic position than popular portrayals of overall success, with close to one in three struggling to make ends meet. Nearly one half of Californian's Asian American households where an Asian or Pacific Islander language is the household's primary language are not paid enough by employers to afford basic household goods.

In 2021, AdvanceOC, in partnership with the Orange County Health Care Agency and several community-based organizations, published the COVID-19 Needs Assessment and Community Health Survey, which illuminated numerous social and health disparities across the county. Key findings include:

- When asked about what significantly impacts their health, living in constant stress was the factor most often cited by survey respondents. 45.8% of total respondents said they lived in constant stress. Almost 44% of survey respondents selected the need for a better paying job. The two are not unrelated as financial insecurity is the biggest source of stress experienced by many Orange County families.

Which of the following significantly impacts your health?



Source: 2022 Report on COVID-19 Needs Assessment & Community Health Survey

- Unemployment increased 10.6% for respondents during the measurement period of this survey. Among income brackets, those who earned between $25,000 - $49,999 saw the largest increase in unemployment (+6.4%). Among minority groups surveyed, LGBQ (Lesbian, Gay, Bisexual and Queer or Questioning was used to define sexual orientation in this study) (+11.2%), multi-race (+9.2%) and Latino/ Chicano/ Hispanic (+6.0%) respondents reported the greatest change in unemployment.
- The percentage of respondents who said it was very difficult to pay for basic necessities more than doubled from before March 2020 to June 2021. Older adults (65+ years of age) reported the greatest increase in difficulty paying for basic necessities (a 12-fold increase).

COVID-19 increase in respondents who said it was "Very Difficult" to pay for basic necessities

	Before March 2020	May/June 2021	Increase
All Respondents	4.9%	11.9%	2.4x
Income under $25K	10.0%	29.3%	2.9x
Cambodian	6.2%	22.6%	3.6x
Income between $50K and $74,999	1.8%	9.1%	5.1x
LGBQ	3.8%	21.3%	5.6x
Low-income LGBQ (total: 23)	4.4%	39.1%	8.9x
Older adults (total: 117)	0.85%	10.3%	12.1x
Low-income older adults (total: 45)	2.2%	26.7%	12.1x

Source: 2022 Report on COVID-19 Needs Assessment & Community Health Survey

- Overall, 3.9% of respondents said they did not have enough to eat often or sometimes, the main reason being they could not afford to buy food, but fear of going out during the pandemic was also a major reason. Among those who reported not having enough to eat, lower income residents as well as LGBQ and Latino/Chicano/Hispanic residents expressed the greatest need.
- 9.2% of respondents said their household will have to leave their home by eviction or foreclosure, either voluntarily or involuntarily, in the next 4 months. Among those who expressed the greatest concern were lower income residents of different racial backgrounds and Income under $25k adults. When asked to identify the biggest problem with housing, respondents cited high costs, public safety, and lack of cash for a down payment as top issues in Orange County.

** Note: Citations of key findings used the same classifications of populations segments such as Latinx or LGBQ that were used in the original reports. For example, LGBQ is used in this study to represent a population defined by sexual orientation, not both sexual orientation and gender identity. Please refer to these publications for specific definitions.*

4. Assessment Team

Identity and Qualifications of Consultants

AdvanceOC, an independent local 501(c)(3) nonprofit with a mission to close social and health disparities, completed the CHNA.

For this assessment, AdvanceOC assisted with CHNA planning, conducted primary research, collected secondary data, synthesized primary and secondary data, facilitated the processes of identifying community health needs and assets, assisted with determining the prioritization of community health needs, and documented the processes and findings into a report.

The project principal for this assessment was Katie Kalvoda, co-founder and President of AdvanceOC. She was assisted by Elsy Salcedo, MPH; Leanna Fong; Daniele Bryant; Tristen Reese Jovellanos; Keaton Marc Nguyen; Fares Salib; Trisha Nguyen; Karina Tran; and Mary Zhuang. In addition, the study team included analysts from The Mark including Traci Shirachi, Jessica Martone, Rick Orlina, and Patricia Villa.

AdvanceOC helps organizations discover and act on data driven insights. The nonprofit specializes in data intelligence in the areas of health, education, economic development, and advancement of community initiatives towards a more just and equitable Orange County. AdvanceOC conducted community needs assessments and data research and analytics for numerous public and private organizations in Orange County. In addition, the Orange County Health Care Agency has partnered with AdvanceOC to provide strategic planning and data support for its $23 million Equity in OC Initiative launched in 2021.

More information about AdvanceOC is available on the organization's website: www.advanceoc.com.

5. Process and Methods

AdvanceOC conducted the CHNA in a mixed-methods sequential explanatory assessment intended to produce the most accurate and meaningful story of community health possible.

Hoag and AdvanceOC started planning the 2022 community health needs assessment in March 2022 and began collecting data in May 2022. This report summarizes preliminary findings gleaned from stakeholder interviews, a provider survey, a community survey, and focus groups conducted with health care experts, leaders of community-based organizations (CBOs), and community members with a variety of lived experiences in Orange County, California. These investigations and evaluation tools were designed and conducted from May to August 2022 by a team of research professionals at AdvanceOC in collaboration with the Hoag Community Benefit Team. Secondary data was analyzed to provide a global and local view of the most pressing health issues in various neighborhoods across the service area and raise strategic lines of inquiry for community engagement. Findings from both the secondary and primary data collection processes were then combined to produce a robust story of community health needs.

01 CHNA Planning: identifying intention of use; reviewing opportunities for improvement; developing a work plan and community engagement strategy

02 Primary and Secondary Data Collection: identifying research protocols and assessing which data indicators will be most meaningful

03 Health Needs Prioritization: synthesizing the data from primary and secondary sources to arrive at the most impactful priorities

Primary Data Collection (Community Input)

The study team designed four strategies for collecting community input: key stakeholder interviews with health experts and community service experts, provider surveys, community surveys, focus groups with residents, and focus groups with professionals who represent and/or serve the community or residents. Individuals representing high-need populations (low-income, minority, medically underserved, older adult, homeless/unhoused and youth) were included.

To ensure consistency across every interview and focus group, the study team generated research protocols. The study team sought to build upon prior CHNAs by focusing the primary research on topics and subpopulations that are less well understood by statistical data. For example, Health Care Access, and Mental and Behavioral Health, were identified as major health needs in the 2019 CHNA. Relatively less quantitative data exists on these subjects, especially Mental and Behavioral Health, so the 2022 study team sought to understand the community's perception of mental and behavioral health and its experience with health care access and delivery through primary qualitative research.

PART 1

Key Stakeholder Interviews

To gain insight into the health needs of Hoag's service area, a series of interviews were conducted in May 2022. Drawing from a list of Hoag partner organizations that provide direct services to the Orange County community, invitations were sent to organizational leaders to participate in stakeholder interviews. Stakeholders were chosen to ensure that the organizations represented would cover a wide range of perspectives including public health. From those invitations, 18 interviews were conducted. Interview sessions were conducted and recorded via Zoom and transcribed using artificial intelligence software (Otter.ai) with human review. Transcriptions were uploaded into a qualitative analysis software where a deductive coding process took place. The discussions centered around the following questions:

- What are the top three health conditions most important to address in the next three years for the population you serve?
- What barriers exist to seeing better health in this area?
- Are you seeing any trends related to this need over the last three years?
- What are some services that are already in place for community members to address this health need?
- Can you please describe how accessible and adequate are the following care/services in Orange County? Primary Care, Specialist Care, Mental/Behavioral Health, and Human/Social Services
- What are the biggest challenges your population faces when trying to access healthcare?
- In your opinion, what do you think a hospital's role should be in meeting the health needs of the community it serves beyond providing direct health care to patients within the hospital?
- What services would you like to see that aren't already in place in the communities you serve?
- What new or revised policies or other public health approaches are needed?

Stakeholder Interview Analysis

As an initial step in the interviews, interviewees were asked what populations they serve. Based on their responses, organizations represented in the interview sample serve the following Orange County populations:

- Lower income and low-to-moderate income individuals and families
- Uninsured individuals and families
- People and families experiencing homelessness or at risk of homelessness
- Children, youth, and young adults from birth to 22 years old; students ages 7 to 12; girls ages 5 to early adulthood
- Women of all ages; adults ages 30 to 50
- LGBTQIA+ (Lesbian, Gay, Bisexual, Transgender, Queer (or Questioning), Intersex, and Asexual/ Aromantic/ Agender or Another) community
- BIPOC (Black, Indigenous, and People of Color) individuals and families
- Immigrants, refugees, asylum seekers
- Non-English speakers and/or those with limited English proficiency
- Victims and survivors of domestic violence
- Individuals with mental health needs
- People living with addiction or substance abuse
- Individuals with neurodevelopmental disability, cerebral palsy, autism; other mental, physical disabilities
- All Orange County residents from the perspective of public and population health

The interviewees were then provided a list of previously known health needs, displayed on the following page. The interviewees were asked what additional health needs were missing from this list. Answers included the lack of access to non-emergency services and services addressing child well-being as well as health equity and social determinants of health including built environment and education.

List provided to stakeholders of previously known health needs	Additional Health Needs Identified by Stakeholders
• Alzheimer's Disease & Dementia • Arthritis • Behavioral Health • Emotional Well-Being • Mental Health • Substance Abuse • Birth Outcomes • Cancers • Heart Disease & Stroke • Childhood Obesity • Climate Change • Communicable Diseases • Community & Family Safety • Diabetes & Obesity • Diet/Fitness/Nutrition • Economic Security • Health Care Access & Delivery • Health Literacy • Housing & Homelessness • Oral/Dental Health • Respiratory Conditions • Sexual Health • Tobacco Use • Transportation & Traffic • Unintentional Injuries	• Access to minor surgeries (non-emergency services) • Access to whole person care • Built environment • Early childhood development • Child well-being (as a subset of emotional well-being) • Eating disorders (as a subset of diet/nutrition) • Education achievement and equity • Food insecurity (as a subset of diet/nutrition) • Health equity (structural inequity) • Reproductive health care, including information and education • One interviewee suggested separating diabetes from obesity; another interviewee suggested combining diabetes and hypertension • Pandemics (as a subset of communicable diseases) • Sexual assault (as a subset of Community & Family Safety) • Social emotional learning • Youth who are questioning their identity

Top Health Needs Identified by Stakeholders

When prompted to identify the top health needs of the community, stakeholders cited 17 health needs. The top 10 are listed below. The most pressing need that was identified was regarding behavioral health / mental health, with 77.8% (14 of 18) of interviewees indicating it as a top health need. Other top concerns were housing and homelessness with half (9 of 18) of the interviewees declaring it a top health need, economic security (7 of 18) and healthcare access and delivery (7 of 18) tied as the next top priority.

Health Need	# of Mentions	% of stakeholders
Behavioral Health/ Mental Health	14	78%
Housing and Homelessness	9	50%
Economic Security	7	39%
Health care access and delivery	7	39%
Community and family safety	4	22%
Climate change / Environmental Health	2	11%
Health Literacy	2	11%
Public social spaces, parks	2	11%
Sexual and reproductive health	2	11%
Access to minor surgery	1	6%

Several interviewees linked experiencing homelessness, behavioral health, and economic insecurity as overlaping issues.

Health Need #1: Behavioral Health/ Mental Health

Behavioral health and mental health were identified as significant health concerns within the community by key stakeholders. Many interviewees cited the COVID-19 pandemic as a precipitating factor in the deterioration of their community's mental health, as well as the racial uprisings of 2020. Referencing the COVID-19 pandemic, one interviewee reflected that,

"...coming out of the pandemic, I think that there's just a deep sense of kind of loneliness."

Social and environmental factors like these make a significant difference in the acute and chronic behavioral and mental health issues facing these communities. Interviewees also spoke to the unique ways in which behavioral and mental health concerns intersected with various aspects of identity for their communities such as race and ethnicity, culture, and LGBTQ identities as well as social statuses like immigration and economic/ class. Another interviewee shared the impact of the COVID-19 pandemic on LGBTQ youth:

"...We've had increased anxiety across the board as [well as] suicidality. Isolation, based on current circumstances, folks being stuck at home, youth being stuck at home, and they may or may not have affirming parents, so they may not be out with their parents. So, it's created a bit of a crisis actually within the LGBTQ community because of the circumstances surrounding the pandemic."

Mental health challenges due to isolation extend beyond the impact of the COVID-19 pandemic and the LGBTQ community. As one interviewee noted,

"...adults that are single and homeless, at any age, that and ... as people grow older, they become more socially isolated in many cases, that would also be an area to me that's a concern."

Isolation, and the resulting mental health impacts, is a health concern that spans multiple disadvantaged groups within these communities.

Lastly, a lot of focus has been appropriately placed on de-stigmatizing mental health and educating communities on resources, but there also needs to be a focus on building up mental health services to meet the needs of all community members. One interviewee reflected on this point:

"...As we are destigmatizing mental health, and as we're educating people to seek for mental health services, now we get in trouble because we don't have an infrastructure to meet the needs."

Those needs include culturally responsive therapeutic approaches, gender-affirming practices, affordable and accessible resources, more BIPOC and LGBTQ affirming practitioners as well practitioners that reflect and represent the demographics of the community and more community-based mental health services in general.

Health Need #2: Housing and homelessness

Experiencing homelessness was expressed by many key informants to intersect with behavioral and mental health issues. Several interviewees linked experiencing homelessness, behavioral health, and economic insecurity as their top 3 health issues that the community faced. As one interviewee highlighted, behavioral health

"...may mean addiction, mental health disabilities, emotional well-being... In fact, one could make an argument that a significant portion of the population we serve is homeless, in fact, because of behavioral health issues."

As the interviewee reflected on the health concerns of their community, they concluded that behavioral health issues are inseparable from homelessness issues, as community members who experience one often face the other.

"...mental illness and substance use issues, behavioral health generally can be an underlying condition factor that becomes part of the root causes of losing shelter, losing housing. And then it can also go the other way, because people, you know, fall into homelessness, for a variety of reasons that may not have to do with that, but then they start experiencing those issues when they're on the streets."

One of the ways local and state governments have dealt with homelessness is to enact an eviction moratorium. The impact of prevention strategies such as an eviction moratorium has made a positive impact in reducing the number of legal action, as one interviewee said,

"...we actually saw a decrease in the number of families experiencing homelessness coming into our system," so resources were diverted to focus on prevention."

Despite this positive step to decrease homelessness, this issue cannot be easily solved by laws alone. While keeping families in their homes is a great step, finding housing for those facing homelessness poses a significant issue. As one interviewee commented,

"...The big elephant in the room is housing, right? Accessible, affordable, quality housing. And I think that's a big, big challenge."

Additionally, race continues to play a role in access to affordable housing. Especially for the Black population, outlawed housing practices such as redlining still have lasting impacts on Orange County. One interviewee shared:

"...we continue to see Blacks being discriminated [in] the real estate situation here in Orange County. And those [occurrences] are as recent as a month ago."

Housing burden and the lack of affordability is a prevalent problem cited by many interviewees. One expressed the difficulty faced by

"...people who need affordable housing. And I'm not talking about the federal definition of affordable housing, but just that someone making a living wage here can get an apartment. I just see that becoming more and more out of reach for people."

Health Need #3: Economic Insecurity

Almost 40% of interviewees identified economic insecurity as a top health need within their communities. Similarly, economic insecurity was noted as a top barrier to better health outcomes. Although we've reflected on these issues separately, it is important to note as an interviewee did, that these issues are interconnected:

"...I believe it's a systemic issue...one of these issues isn't in a vacuum. They're all interconnected. Within the financial, or as you put it here, economic insecurity, from employment, housing, and cost of living."

Many people are struggling with recent increases in the cost of living due to skyrocketing costs in food, energy, and housing. Access to healthcare is already precarious for many residents in Orange County who are uninsured or underinsured, and when cost of living and job loss are factored in, it is hard for community members to pay for and prioritize their health. Indeed, one of the top barriers to better health outcomes was that community members have "other priorities." As one interviewee shared,

"...a lot of the families that we serve, the health needs become the last priority... For example, families that are not prioritizing their medication, because even though they have insurance, their copay is too large...it becomes an immediate crisis, I need to put that money towards rent, I'm not going to get my medicine this month."

Even families that are insured but are experiencing economic insecurity must make trade-offs between their housing and their health. Oftentimes, their circumstances force them to choose between

postponing treatment or medication, which may further accelerate their health condition, or pay rent and provide for their families. Thus, economic insecurity is not only concerned with financial stability, but it has rippling effects on access to housing and access to healthcare. The consensus among key stakeholders suggest that many Orange County residents are one financial calamity away from homelessness.

Other notable findings: health care access and delivery

Healthcare access and delivery is as much a financial issue as it is a cultural, linguistic, and service availability issue. One interviewee emphasized how access to healthcare is both about ability to pay and availability of services/ providers:

"...access in general ... your ability to access it in an affordable way is obviously important. And then I would say, the second part of that in terms of access is really about [the] workforce and having enough staff and providers available to be able to provide care to people when they need it. Because just because they have insurance, or just because they have a clinic doesn't equate to them being able to get in for appointments."

Thus, affordability and availability are understood to be two crucial aspects of access to healthcare.

OTHER Notable Findings: Lack of Cultural Competency Among Health Care Providers

Many interviewees mentioned terms like cultural sensitivity, cultural competency, and language barriers when discussing healthcare access. This spanned youth, LGBTQ communities, immigrant communities and non-English or limited English speaking communities. Stakeholder interviewees also indicated that doctors, nurses,, and all medical practitioners need to understand the communities they serve and provide services in a way that is culturally competent. For example, doctors and nurses may make LGBTQ patients feel awkward, unwelcome, and often do not ask the right questions. As one interviewee said in their own words below, LGBTQ patients may begin to avoid seeing the doctor which can lead to many other issues:

"...I have to consider how badly do I need to go in for my, my annual exam? Do I want to go through this? If I feel healthy, I might be like, I don't really want to deal with it. So, there's a huge problem of just healthy LGBTQ folks not getting their preventative care, because they don't want to deal with it. So, it's the access even though it's accessible. I have great insurance, I have a good doctor, I have access, but it doesn't feel good. I don't have a good rapport with my provider. So, it prevents me sometimes from going. So, there is the access problems. And I think it's around cultural competency."

The ability to feel welcomed and accepted by their healthcare provider is extremely important to prevention and early intervention for chronic health conditions. If a doctor's visit is not perceived as warm or inviting, patients will not see a healthcare provider as a trusted resource. The erosion of trust in health and science has had a detrimental effect on community health over the last few years. Other interviewees noted that immigration status plays an important role in the experience of mental health as well as access to healthcare options for mental health issues. For example, several interviewees mentioned the language barrier between patients and providers. As one interviewee noted:"

...depending on their [immigration] status, it's hard to find therapy" so we have people in the community who are struggling with "anxiety, depression, stress, and worry"

Another interviewee elaborated on this idea sharing that services are

"...still not very culturally competent, there are probably fewer practitioners of color...that can't

speak specifically to some of the traumas…I mean, they can address them from their training, but not from their own perspective or lived experience. I'm not sure that there's services in lots of different languages, either."

Representation in healthcare, therefore, is extremely important for patient well-being because having a provider with the same cultural background can make them feel more connected, heard, and understood.

Other Notable Findings: Lack of Access to Information and Difficulty Navigating Systems of Care

Another interviewee commented that perhaps they just are not communicating that they have culturally and linguistically appropriate services,

"…It doesn't feel culturally… and linguistically appropriate, or if it is, they're not, the services are not able to, like, communicate that out enough."

This shows that even if the appropriate services do exist, these resources have not been well advertised with patients, meaning that those who are looking for a culturally or linguistically appropriate provider are not being connected. Overall, these expressed observations necessitate the development of more coordination and navigation programming to meet the needs of the community and to appropriately share resources. Access to health care is a lifelong struggle that spans across generations. If early prevention habits are not established by the parent due to access issues, the child will likely be underserved as well.

One healthcare stakeholder sums up the problem as,

"…so you can have a baby. And then they need all of these support things for the rest of their life, but they don't have access, any way of getting it or fulfilling it … pediatrics is probably the least funded area in the country."

In summary, access to healthcare remains a top need in Orange County. Key informants share that the lack of primary care physicians and clinics in certain neighborhoods and the hiring challenges in the healthcare industry are having a ripple effect, magnifying other access issues such as language barriers and cultural competency. In addition, residents are having tremendous difficulty navigating the healthcare system to be connected with resources.

A few interviewees cited confusing and punitive legislative policies such as the Public Charge rule have created a sense of fear and hesitancy among households with mixed immigration status to access healthcare. Key stakeholders who work directly with financially insecure residents suggest that many households may be working multiple jobs and cannot access healthcare during normal business hours or choose to make an economic decision of not prioritizing health when basic needs are not met. The impact of these trade-offs can be felt in the pediatric population of these underserved communities as well.

PART 2

Provider Survey

The 2022 CHNA Provider Survey was developed by the study team led by AdvanceOC in partnership with Hoag. The survey was conducted online and opened on June 8, 2022 and closed on July 7, 2022. The survey was available in English, Spanish, Korean, Vietnamese, Traditional & Simplified Chinese and emailed by AdvanceOC to a predetermined list of individuals and organizations provided by Hoag. Providers represented a wide range of county, private, and non-private agencies who serve residents of Orange County. Each provider was given a link to the online survey, with a request to distribute the survey to co-workers, members of their field team, and any caretakers in their network. Individuals self-identified their organization in response to the survey. A total of 210 respondents were collected and used for analysis. The provider survey focused on the following questions.

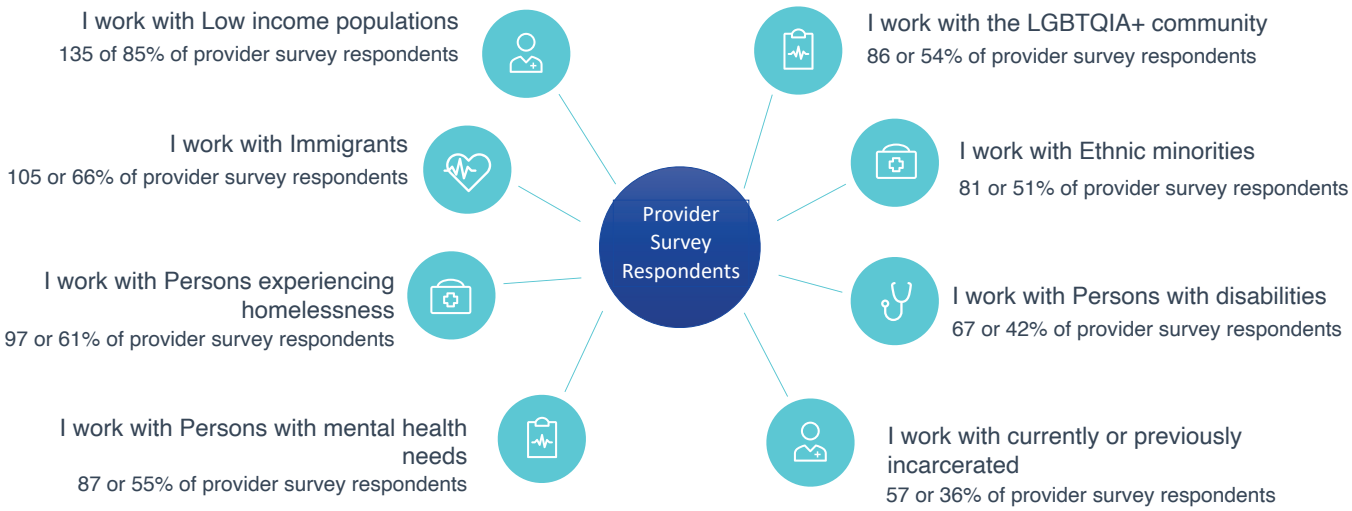
- Please indicate the most pressing health issues you are seeing in the communities you serve (may list up to 3).
- Please rate how much of a barrier each of the items below is to accessing healthcare for behavioral health: mental health; emotional well-being; substance abuse; community and family safety; Alzheimer's Disease and Dementia.
- Please prioritize the factors you believe are contributing to poor health outcomes in the communities you serve (may list up to 3).
- How easy is it to access healthcare in the communities you serve?
- Is the capacity of healthcare services sufficient?
- Please rate your engagement with Hoag Hospital's programs.

Provider Survey Analysis

With respect to the respondents' field of work, 52% or 82 respondents identified themselves as working for a community-based/ non-profit organization while 17% or 23 respondents identified themselves as working in social services. Most respondents also indicated that they work with patients or consumers of health services some or all of the time (76%).

Provider Survey Respondents

Additionally, survey results showed that respondents served 3 main groups: low income (85%), immigrants (66%), and homeless (61%) communities. A vast majority of survey respondents work with transitional age youth (61%), adults between the ages of 25-59 (61%), older adults ages 60+ (57%) and a slight majority work with children ages 0 - 5 years (55%).



When asked about the most pressing health issues seen in the communities they serve, mental health was the most frequent answer with 66% of respondents, followed by emotional well-being (57%) and substance abuse (27%), all of which surround behavioral health.

It is important to note that Behavioral Health was divided into three subcategories: mental health, emotional well-being and substance abuse. These terms may have different connotations for different service providers in the context of their work. Despite these differences, there was consensus among medical and social service providers that mental health and emotional well-being were of greatest concern.

Top Health Needs Identified by Provider Survey

Please indicate the most pressing health issues in the communities you serve (select up to 3)		
Behavioral Health/ Mental Health	66%	104
Behavioral Health/ Emotional Well Being	57%	90
Behavioral Health / Substance Abuse	27%	43
Community and family safety	21%	33
Alzheimer's Disease and Dementia	15%	23
COVID-19	14%	22
Diabetes and Obesity	14%	22
Heart Disease & Stroke	13%	20
Cancers	10%	16
Women's Health	7%	11
Note: Only top 10 responses shown		

Health Need #1, #2, #3: Behavioral Health

An estimated 26% of Americans ages 18 and older -- about 1 in 4 adults -- suffers from a diagnosable mental disorder in a given year. Prior to the pandemic, 12.1% of adults living in Orange County report suffering from severe psychological distress. Approximately 19.5% of Orange County adults need help for emotional-mental and/or alcohol-drug issues. About half of the people who reached out for help or needed help were not able to receive any treatment.

Providers who responded to our survey explained that services addressing behavioral health and mental health are disorganized and not holistic in Orange County. While access to and adequacy of behavioral and mental health services need considerable improvement, two populations have emerged as particularly vulnerable groups in Orange County: older adults and youth. Older adults face higher occurrences of social isolation and loneliness, conditions that have been exacerbated by the pandemic. Young people have also experienced significant disruption and trauma in their lives during the pandemic, which have led to an increase of anxiety and depression as well as substance use.

In 2021, there were a total of 1,346 deaths from substance use in Orange County. The Orange County Health Care Agency reports that during the COVID-19 pandemic years of 2020 and 2021, drug and alcohol-related deaths increased notably across the county. The number of deaths from drugs and alcohol among all ages increased by 32% from 2019 to 2020, and another 30% from 2020 to 2021. However, the most dramatic changes in mortality were among youths in Orange County. For residents ages 10-17 years, the number of deaths from drugs and alcohol increased by 800% from 2019 to 2020, and another 122% from 2020 to 2021. Although the number of deaths were relatively small compared to other age groups, the fact that this age group would normally have 0 or 1 deaths in pre-pandemic years, compared to 9 deaths (in 2020) and 20 deaths (in 2021), makes this rise in mortality a conspicuous and concerning trend.

Other noteworthy trends from the 2022 Drug and Alcohol Deaths Among Youths and Young Adults report were:

- Non-Hispanic White residents in Orange County had the highest rate of opioid overdoses from 2015 to 2020 but was surpassed by African American/Black residents in 2021.
- Males had higher rates of opioid overdoses compared to females. Increasing rates are seen in both male and females between 2015 and 2021.
- Fentanyl overdose death rates have increased dramatically with 2020 demonstrating the highest rate increase of 215.8% over the prior year. Fentanyl has become the most frequent type of opioid involved in opioid overdose deaths.
- While the number of opioid prescriptions has decreased 31% between 2016 and 2020, overdose deaths have increased largely due to illicit opioids, specifically illicit fentanyl.

Regarding mental health, which was the top concern of respondents in the provider survey, lack of knowledge of available services in the community was consistently cited as a major barrier to accessing behavioral and mental healthcare. Other responses included cost of services, insurance coverage, and lack of culturally appropriate services, language assistance and appointment availability.

It is interesting to note that while respondents feel it may be difficult to schedule an appointment to see a provider, wait times and inadequate medical staff did not register as a major barrier to health. These findings suggest the results of this survey can be skewed by respondents who are being asked to judge themselves as providers and their practices.

Another curious finding is the bifurcation of some responses citing lack of transportation, childcare, and hours of operation as major barriers while others rated these factors as not a barrier at all. The dual reality of Orange County residents demonstrate the stark difference in lived experiences for residents of different economic means.

Top barriers to health identified by provider survey respondents

	Not a Barrier at All		Somewhat of a Barrier		A Major Barrier		I Don't Know		Responses
	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count
Lack of knowledge of available services in the community	4	4%	29	29%	66	67%	0	0%	99
Cost of services	4	4%	31	31%	63	64%	1	1%	99
Insurance coverage	4	4%	37	37%	52	53%	6	6%	99
Lack of culturally appropriate services	12	12%	28	28%	52	53%	7	7%	99
Lack of language assistance	16	16%	38	38%	41	41%	4	4%	99
Inadequate medical staff	19	19%	37	37%	20	20%	23	23%	99
Inadequate medical staff skills/qualifications (poor quality of care)	22	22%	34	34%	16	16%	27	27%	99
Inadequate capacity to assist clients (lack of staff, space, or other resources)	13	13%	41	41%	29	29%	16	16%	99
Lack of transportation	6	6%	46	46%	44	44%	3	3%	99
Distance to available services	5	5%	52	53%	39	39%	3	3%	99
Appointment availability	7	7%	36	36%	50	51%	6	6%	99
Hours of operation	14	14%	43	43%	34	34%	8	8%	99
Limited walk-in availability	10	10%	39	39%	36	36%	14	14%	99
Lengthy wait times in lobby to see provider	14	14%	35	35%	25	25%	25	25%	99
Lack of childcare/caregiver relief	8	8%	38	38%	43	43%	10	10%	99

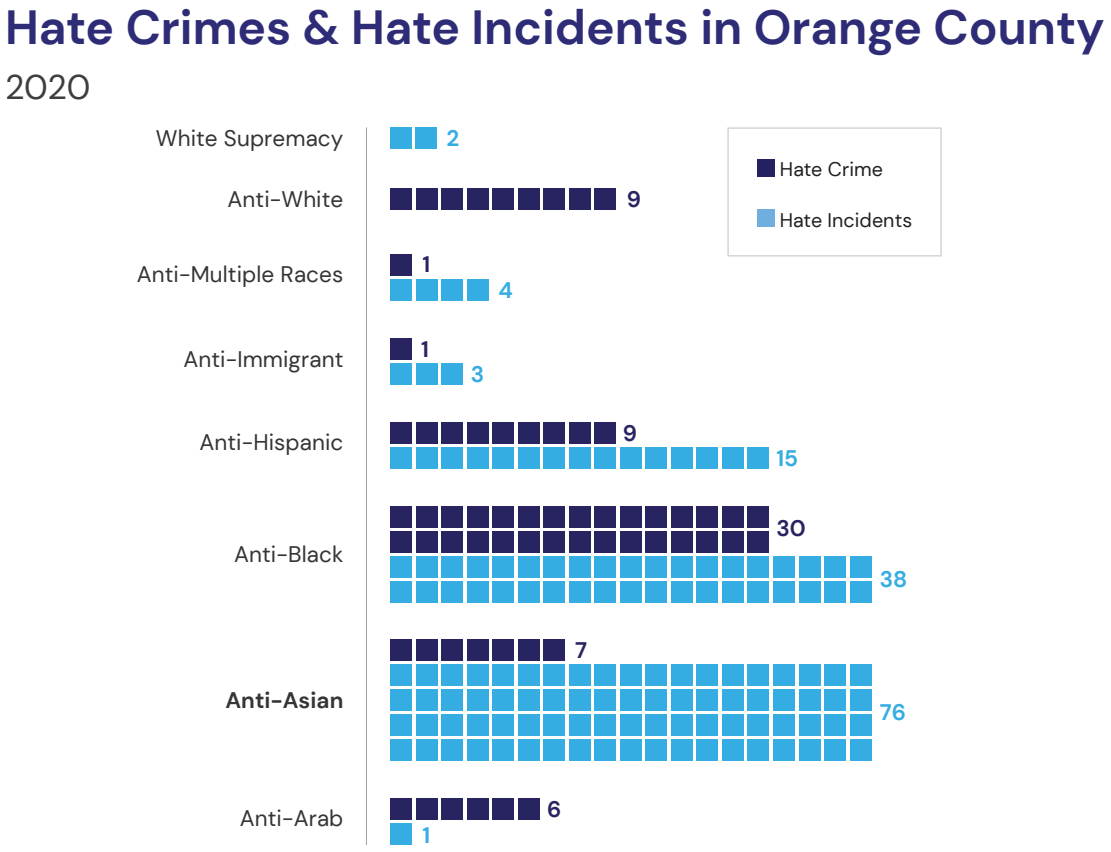
Other notable findings: Community and family safety

The top health concern cited by providers not specifically categorized under behavioral health in the survey was community and family safety. Over a fourth of all providers surveyed reported that this is an issue in Orange County.

Community safety encompasses public safety as measured in property and violent crimes as well as hate crimes, while family safety encompasses violence against household members including domestic abuse, child abuse, and elder abuse.

The results from the provider survey on the topic of community and family safety align with insights from key stakeholders in the interviews. Some interviewees expressed a great amount of trauma that has severely affected certain communities such as Asian American seniors during the COVID-19 pandemic. According to a 2021 Orange County Human Relations Commission report as shown on the next page, 112 hate crimes were reported in Orange County, representing a 35% increase from 2019.

According to the May 2021 Stop Anti-AAPI Hate Mental Health Report, Asian who have experienced racism are more stressed by anti-Asian hate than the COVID-19 pandemic itself. One in five Asians who have experienced racism show racial trauma, which is the psychological and emotional harm caused by racism. They also have heightened symptoms of depression, anxiety, stress, and physical distress. Experiences of racism during the COVID-19 pandemic are more strongly associated with symptoms of posttraumatic stress disorder (PTSD).



Source: Orange County Human Relations Commission Report, 2021

Top Contributing Factors to Poor Health Outcomes

The top three contributing factors to poor health outcomes cited in the provider survey are low income (selected by 55% of respondents), homelessness / housing insecurity (31%), and adverse childhood experiences or ACEs (29%).

Please prioritize the factors you believe are contributing to poor health outcomes in the communities you serve (select up to 3)		
Low income	55%	86
Homelessness / Housing insecurity	31%	48
Adverse Childhood Experiences (ACEs)	29%	46
Economic insecurity	21%	33
Healthcare Access & Delivery	19%	30
Substance Use	17%	27
Abusive Relationships	17%	26
Isolation	17%	26
Cancers	10%	16
Community violence and safety	17%	26

Contributing Factor #1: Low Income or Financial Insecurity

Income, as a key social determinant, has a significant impact on health outcomes. The Orange County community earns one of the highest annual median incomes in the U.S., but also bears some of the highest costs of living. 2020 median household income in Orange County is $94,441; however, Orange County is also ranked as one of the 10 most expensive counties in California in 2021, according to the Insight Center.

The California Family Needs Calculator published by the Insight Center reports that a family of 4 with 2 school aged children needs to earn an hourly wage of $23.99 per adult in the household or $101,336 as a household to pay for basic living expenses in Orange County. Orange County's median household income, is $94,441, which is approximately $7,000 short of what is needed to make ends meet. This income disparity will continue to put pressure on social services in Orange County to fill the gap and will exacerbate housing and financial insecurities that lead to poor health and homelessness. The income disparities experienced by Orange County families are not unique to Orange County. 1 in 3 California households are not being paid enough to feed their families, a number that has increased by 31,000 households since 2018.

Economic insecurity can be defined by many factors including areas relating to education, poverty, food insecurity, behavioral health and housing. COVID-19 took a toll on economic security across the country as people lost their jobs, especially those with low wages, only further accelerated food and housing insecurity. From February 2020 to October 2021, 59% of jobs lost were from the lowest paying industries according to the Labor Department. While Orange County has been recovering well economically, many are still facing economic insecurity, especially with the high median housing cost that is 3 times the national median.

Contributing Factor #2: Housing and homelessness

One of the greatest health needs identified by providers was the need to address homelessness and housing insecurity. The parallel between housing and health was also acknowledged in that having housing is important for one's health. Homelessness is a housing problem, and is much more than simply having a roof over your head. It is complex, and inherently connected to the state of your health: poor health can lead to homelessness, and homelessness can lead to poor health. Individuals experiencing homelessness have been shown to have more health issues, suffer from preventable illnesses at a greater rate, experience longer hospital stays, and have a greater risk of premature death than their non-homeless peers. Those that are homeless experience a large number of health inequities that make it extremely difficult to break out of this downward spiral.

Disparities become apparent when closely examining the distribution of Orange County's homeless population. Black community members experience homelessness at a rate grossly disproportionate to their presence in Orange County: 11.8% experience homelessness despite only making up less than 2% of the population, while Latinos make up nearly half of the homeless population. Disability is another common underlying factor of homelessness, impacting the ability to find work and generate the steady income needed to afford housing in Orange County. According to local housing experts, it is this loss of income – not substance abuse or mental health – that is responsible for the current situation.

Contributing Factor #3: Adverse Childhood Experiences (ACEs)

A top factor cited by providers that contributes to poor health outcomes is adverse childhood experiences. According to the Centers for Disease Control and Prevention (CDC), adverse childhood experiences, or ACEs, are potentially traumatic events that occur in childhood (0-17 years) that may include: experiencing violence, abuse, or neglect; witnessing violence in the home or community; having a family member attempt or die by suicide.

ACEs are linked to chronic health problems, mental illness, and substance use problems in adolescence and adulthood. In addition to these lasting negative effects on health and well-being, ACEs can impact life opportunities such as education and job potential. These experiences can increase the risks of injury, sexually transmitted infections, maternal and child health problems (including teen pregnancy, pregnancy complications, and fetal death), involvement in sex trafficking, and a wide range of chronic diseases and leading causes of death such as cancer, diabetes, heart disease, and suicide.

A timely point of context for children is the impact of the pandemic on their mental health. According to a survey conducted by the Orange County Health Care Agency (HCA) Behavioral Health Services, Mental Health Services Act Office in Fall 2020, almost 51% of parents indicated that their child (4-17 years old) was experiencing significant issues related to anxiety and depression. Children and families sought different kinds of support, with the most common type of informal support provided by family, friends and social networks. One in four families sought professional health care, including from a pediatrician, therapist or psychiatrist, regarding their child's stress or emotions. Therapists were the go-to source of support for families (58% of families who sought professional support from a therapist received help), followed by pediatricians (49%) and psychiatrists (21%). A second follow-up survey is expected to take place in October 2022.

Other Notable Findings: Healthcare Access and Delivery

Healthcare access was reported to be “moderately accessible, requiring effort and flexibility” by 74% of respondents. Healthcare service capacity was reported to be “available, but insufficient to meet the need” by 84% of respondents. When asked what services they would like to see that currently do not exist in the communities they serve, respondents answered:

- Community-based or mobile services, not only services in clinical settings
- Services for aging adults and family caregivers
- Childcare for people accessing services
- Affordable or free transportation assistance
- Community outreach in general and for specific sub-populations
- Free and low cost-services for the uninsured, under-insured, and undocumented, including emotional health, mental health, chronic disease, screening and referral services

Other Notable Findings: Role of a Hospital in Community Health

When asked what they think a hospital’s role should be in meeting the health needs of the community it serves [beyond providing direct health care to patients within the hospital] providers responded:

- Robust discharge and persistent follow-up services including referrals
- Education and outreach services for such things as screenings, health checks, preventive care, and community health issues
- Connecting with community-based and other partner organizations; leading established coordinated networks of care
- Hiring and training to meet the culturally responsive and language-specific needs of the local populations

PART 3

Community Member Survey

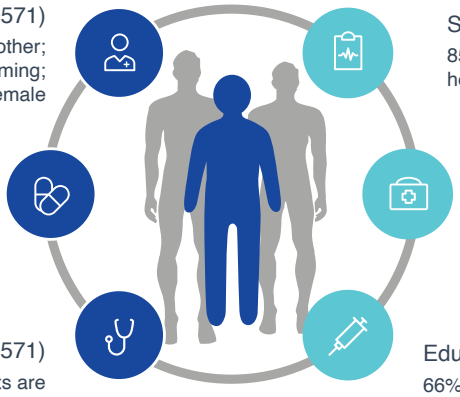
The 2022 CHNA Community Member Survey was developed by the study team in partnership with Hoag. The survey was opened on June 24, 2022 and closed on August 8, 2022. The survey was translated into 10 languages: Arabic, Chinese (Traditional & Simplified), English, Khmer, Korean, Farsi, Spanish, Tagalog, and Vietnamese and administered through direct outreach at community events and canvassing as well as indirectly through email and social media. A total of 806 responses were collected and used in the analysis.

The community survey focused on the following questions.

- What do you do to stay healthy?
- What would you do if you were sick?
- What are your top health concerns?
- What contributes most to your health issues?
- What has prevented you from seeking medical care?
- What are your top mental/behavioral health concerns?
- What are your biggest barriers to accessing mental health care

Many of the respondents for the community member survey were female, even though there are about an equal number of males and females represented in the county population. Research has shown that women are more likely to respond to surveys than men. When looking at age, people ages 65 years and older represented about twice the number of respondents than that of the other age groups. In terms of racial and ethnic identity, about half of the respondents were identified as White, which then followed with respondents who identified as Asian or Latino. From the respondents who identified as Asian, Vietnamese, and Cambodian individuals separately represented about twice the number of respondents than that of the other Asian groups. By observing household income, respondents who make between $100,000 to $200,000 represented about twice the number of respondents than that of the other income levels from the people who stated their income.

Community Survey Respondent Demographics



Gender (n=571)
78% female; 19% male; 1% another; 0.5% gender variant/ nonconforming; 0.2% transgender female

Age (n=571)
36% older adults 65+
16% ages 55 - 64
16% ages 45 - 54
15% ages 35 – 44
14% ages 25 – 34
3% younger than 25

Employment (n=571)
41% of survey respondents are working full time

Sexual Orientation (n=571)
85% of survey respondents identified as heterosexual/ straight

Race/ Ethnicity (n=571)
55% White
15% Asian
13% Latino
5% Black
3% Multiracial
3% Middle East
1% Native American
4% Prefer not to answer/ another

Education Attainment (n=571)
66% of survey respondents obtained either a bachelor's degree or higher

Majority of the survey respondents were identified as heterosexual (e.g., male or female), residing in their own home or apartment, educated, and with health insurance. Many people were able to obtain their source of insurance through an employer or as Medicare members. When the respondents were instructed to choose their top health issues and concerns, they selected contagious/infectious disease, cancers, accidental injury, and emotional well-being.

Community Survey Analysis

When community survey respondents (n=637) were asked to rank the top three health concerns in their households from a list of 23 items, more than one-third of respondents indicated that contagious/infectious diseases was their top concern (40%), followed by cancer (25%), accidental injury (24%), emotional well-being (23%), and heart disease and stroke (18%). Although provider survey respondents and interview and focus group participants did not identify contagious/infectious diseases as a top health concern, they suggested that addressing the greater community needs related to social determinants of health could help to alleviate poor health outcomes by helping people have more access to preventative care and early treatment.

Top Health Needs Identified by Community Survey

Health Need #1: Contagious/ Infectious Disease

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Most people infected with the virus will experience mild to moderate respiratory illness and recover without requiring special treatment. However, some will become seriously ill and require medical attention. Older people and those with underlying medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, or cancer are more likely to develop serious illness. Fear or concern around contagious and infectious disease are top of mind considering recent events surrounding COVID-19. Stakeholders express an ongoing concern about the regular occurrence of contagious and infectious diseases. New and mutant pathogens that humans encounter is perceived as very dangerous.

Incidence and mortality from COVID-19 are starkly elevated in poor, minority and marginalized communities. These differences compound and reflect longstanding disparities in income, housing, air quality, preexisting health status, legal protections, and access to health care. The COVID-19 pandemic and its economic consequences have made these disparities plainly visible. In Orange County, total COVID case rate per 100,000 are seen to impact the Native Hawaiian and Pacific Islander (NHPI) community with greatest intensity; however, as racial and ethnicity data was voluntary, the data may also mask the impact communities who were more hesitant to report incidences, such as the Latino and Black community. In addition, Native Hawaiians and Pacific Islanders (NHPI) and American Indians and Alaska Natives (AI/ AN) had the highest case and death rates in Orange County. However, the results of these calculations should be used with caution. Since the total population of these communities are small in Orange County, case and death rates can fluctuate depending on the reported number of cases and deaths.

Health Need #2: Cancer

Cancer is the second leading cause of death in Orange County, and rates of childhood cancer diagnoses are higher in Orange County compared to California. Cancer is the most costly illness in the United States and people with cancer often have high out-of-pocket health care costs. It is also often physically and emotionally difficult for those living with it and for their care providers. People who say they have had cancer are more likely to report poor health and symptoms of depression. Despite the fact that cancer is an important health problem, many Americans don't comply with cancer screening protocols or take preventive measures such as protecting themselves from the sun.

In addition to being the second leading cause of death in Orange County and having high rates of childhood cancer diagnoses, Orange County ranks in the top three highest counties in California for overall cancer prevalence, following Los Angeles County and San Diego County. Significant ethnic disparities in cancer occurrences are seen for White, African ancestry, Latinx and Pacific Islander populations. In Orange County, cancer accounts for nearly one in four deaths among men and women. Research has found that health disparities related to cancer contribute to higher, avoidable death rates among low-income and ethnic minority populations. The disparities may be exacerbated by delivery issues in cancer screening and follow-up. Although personal behavioral and environmental factors are significant (smoking, exposure to known carcinogens), the most important risk factors for cancer are lack of health insurance and low socioeconomic status.

Health Need #3: Accidental Injury

In the United States, unintentional injuries are the leading cause of death in children, adolescents, and adults younger than 45 years. Healthy People 2030 focuses on preventing intentional and unintentional injuries, including injuries that cause death. Many unintentional injuries are caused by motor vehicle crashes and falls, and many intentional injuries involve gun violence and physical assaults. Interventions to prevent different types of injuries are key to keeping people safe in their homes, workplaces, and communities.

Drug overdoses are now the leading cause of injury deaths in the United States, and most overdoses involve opioids. Interventions to change health care providers' prescribing behaviors, distribute naloxone to reverse overdoses, and provide medications for addiction treatment for people with opioid use disorder can help reduce overdose deaths involving opioids.

In 2021, there were a total of 1,346 deaths from substance use in Orange County. The Orange County Health Care Agency reports that during the COVID-19 pandemic years of 2020 and 2021, drug and alcohol-related deaths increased notably across the county. The number of deaths from drugs and alcohol among all ages increased by 32% from 2019 to 2020, and another 30% from 2020 to 2021. However, the most dramatic changes in mortality were among youths in Orange County. For residents ages 10-17 years, the number of deaths from drugs and alcohol increased by 800% from 2019 to 2020, and another 122% from 2020 to 2021. Although the number of deaths were relatively small compared to other age groups, the fact that this age group would normally have 0 or 1 deaths in pre-pandemic years, compared to 9 deaths (in 2020) and 20 deaths (in 2021), makes this rise in mortality a conspicuous and concerning trend.

Other Notable Findings: Environment / Climate Change

In California, environmental quality has improved over the last few decades. This is seen in improved water quality, reduced air pollution, decrease in pesticide use, continued cleanup of hazardous waste sites, increased recycling, and reduction of solid waste going into landfills. However, pollution reduction and the resulting health and environmental benefits are not uniformly distributed across the state, within a region, or among all population segments. Many communities continue to bear a disproportionate burden of pollution not only from multiple nearby sources but also from pollution in various forms, such as air and water.

Ozone pollution causes adverse health effects including respiratory irritation and worsening of lung disease. Adverse effects of ozone have been studied extensively since the late 1960s, and ongoing exposure to ozone shows inflammation and cell and tissue injury. People with asthma and chronic obstructive pulmonary disease (COPD) are considered sensitive to the effects of ozone. Studies also show that long-term ozone exposure affects respiratory and cardiovascular mortality. A 2019 study estimates 13,700 deaths in California in the year 2012 were due to long-term ozone exposure.

Other Notable Findings: Discrimination and Poor Health Experiences

One of the top health needs surfaced from the community survey is a concern about discrimination and poor health experiences. This concern is corroborated by focus group participants in more than one session.

Among the reasons cited for poor health experiences is age, with 42% of respondents naming age as the determining factor. Next is gender, cited by 30% of survey respondents, and weight (20%).

Poor health experiences, whether they lead to direct or indirect discrimination, is a serious issue. Trust is the foundation of the relationship between doctor and patient and perceptions of maltreatment erode that trust. Among the ways community residents feel discriminated is when their healthcare provider is not listening to them (42%), or when they are treated with less courtesy or respect (25%) or when they feel they received poorer service than others (23%).

These feelings of poor health experiences may be the result of conscious or unconscious bias. Ageism, for example, occurs when people face stereotypes, prejudice or discrimination because of their age. One common stereotype is that all older people are frail and helpless. Prejudice may also manifest in perceptions that "older people are difficult and unpleasant." These assumptions can lead to discrimination — a reluctance to recognize and respect the needs of older adults or to treat them less favorably than younger people.

One study reported that nearly 1 in 5 Americans age 50 and older say they have experienced discrimination in healthcare settings, which can result in inappropriate or inadequate care. About 29% of respondents who reported frequent healthcare discrimination developed new or worsening disabilities over a four-year period.

When receiving health care or services, have you ever had a poor health experience related to the following? (n=598)

Value	Percent	Count
A Physical disabilty	10%	35
Age	42%	140
Ancestry or National Origins	8%	28
Education or Income Level	14%	47
Gender	30%	101
Height	1%	3
Race	13%	44
Religion	4%	15
Sexual Orientation	5%	17
Weight	20%	68
Your shade of skin color	12%	39
Some other aspects of your physical appearance	9%	29
Another (please specify)	26%	88

What's the reason for your poor health experience in the previous question? (n=335)

	Never	Rarely	Sometimes	Most of the time	Always	**Responses**
	Row %	Row %	Row %	Row %	Row %	**Count**
Been treated with less courtesy or respect than other people.	34%	35%	25%	5%	1%	**598**
Received poorer service than other people.	40%	33%	23%	3%	0%	**593**
Felt like a healthcare professional was not listening to what you were saying.	20%	31%	42%	6%	1%	**595**
Total Responses						**598**

PART 4

Focus Groups

The study team conducted nine focus groups in Orange County in August 2022 with 98 participants. Focus group participants were recruited from Hoag's partner organizations and by the consultant study team. Focus group sessions were conducted in person as well as remotely through Zoom. Participants were given $30 gift cards to participate in the focus group(s) and transportation was also provided by AdvanceOC to ensure there were no barriers to participation. Each session lasted approximately 1 hour and was recorded and transcribed using in-language note taking. Three focus groups were conducted in Spanish, 1 in Chinese (Mandarin) and 1 in Farsi (Persian). Transcriptions were analyzed and coded into targeted themes. The discussions centered around the following questions:

- In your opinion, what are the most important or pressing health needs in your community? Are there certain groups or populations more affected than others? If yes, please elaborate.
- What do you think contributes the most to poor health in your community?
- What resources or services are available in the community you live in to help address health needs? What about mental health needs?
- How easy or hard is it to access healthcare in your community? What about mental health care?
- What prevents you (or your family) from caring for their health, accessing community health programs, or going to doctor's appointments?
- How can healthcare services be made more accessible? What about mental health services?
- Is there anything else you would like to share with us about health issues in your communities?

Focus Group	Topic / Populations	Language	Number of Participants
1	Behavioral health / Mental health	Spanish	10
2	Diabetes & Obesity, Vulnerable Communities of Oakview	Spanish	13
3	Vulnerable communities facing housing insecurity, financial insecurity, and food insecurity	Spanish	14
4	Health focus: Older adults, Cancer, Women, Refugee, MENA, API and other	English	10
5	Historically Underserved Populations: LGBTQIA+, Refugee, MENA, API and other ethnic minorities	English	10
6	Persian community in Irvine	Farsi	8
7	Chinese community in Irvine	Mandarin	13
8	Access to Care & Delivery	English	10
9	Youth	English	10
Total			98

Focus Group Analysis

Top Health Needs Identified by Focus Groups

Focus group participants were asked to identify the most pressing or important health needs in Orange County. These were the top answers that registered across all 9 focus groups.

1. Mental Health
2. Access to Health Care (Affordability)
3. Care for Older Adults
4. Housing
5. Lack of Knowledge/ Awareness of Services
6. Nutrition (Lack of)

Health Need #1: Mental Health

Many focus group participants mentioned that mental health was the most pressing or important health need in Orange County. The greatest perceived need was for increased mental health services and resources that are accessible to community members. Participants noted that even when services are available, they are not always easily accessible (e.g., too far away, lack of transportation, services in a different language). Notably, there is also a stigma around receiving mental health services that should be addressed with increased education and normalization around receiving such services. Groups that are especially in need of mental health resources include: American Indian/Alaskan Native, Black, Chinese, youth (i.e., adolescents and teens), elderly/older adults, and LGBTQ youth.

Mental health is a serious issue that affects everyone young and old. While many universities are better equipped to deal with the mental health issues at their schools, many middle schools and high schools still lack the support and resources needed to support their young students. One member of the Chinese focus group stated that:

"Normally the universities have a mental health department. But for smaller kids or students, including middle or high school students, probably this area needs to be strengthened."

In many ethnic and immigrant communities, mental health is an issue that does not get talked about often due to the stigma and fear around needing and seeking mental or emotional help. One focus group member was aware of this unfortunate situation and stated that:

"It's hard for them [Asian parents] to accept that there is a need to find a psychotherapist for their children. Even some parents are open-minded and will seek help, but for parents, it's not only about the children, the parents also need help, and the resources are insufficient. I think many people don't know where to find the resources."

Many focus group participants expressed a willingness to attend therapy sessions with their family. One participant added that:

"There should be so-called family therapy. That is to say, you can enter into a family-as-group therapy with the child, at that time you will know that people can discuss other things with each other. Then there is no gap between parent and child, and you won't feel that you don't know what the doctor has told your child, or your child doesn't know what the doctor has told the parents."

Health Need #2: Access to Care and Delivery (Affordability)

A second important health need is access to affordable health care. There are many people in Orange County who do not have insurance and they cannot afford healthcare. Even when individuals are insured, it is difficult to afford the costs associated with insurance.

"Or even though if you're insured, you're underinsured. …the co-pays, you know, there's so many hoops to jump through whenever you need something. For example, an MRI, then you get there and then the co-pay is like $600. For some people, that's way too much."

Adequate insurance was cited as an imperative when it comes to adequate health however many individuals still struggle with insurance plans due to the costly price tag. Without insurance, many people are left to pay out of pocket for services such as dental care, eye exams, physical therapy, surgeries, and much more. One participant from the Farsi speaking focus group expressed that:

"Insurance expenses need to be lower. Many have Medicare so it must be much easier for them. However, I think everyone needs to have Medicare so that-- Well, there are people who don't even have insurance. Insurance is very important. Insurance costs need to be lowered and that will be good for the health."

Another participant from that same focus group shared the same sentiment and added that:

"You can get those services [therapy] only if you have insurance. There are no free services in the US to give to people. I say it with all honesty. We have nothing. If we had no insurance, we wouldn't even have therapists or doctors."

Lack of health insurance prevents individuals from receiving the health care services they need. People without insurance tend to avoid going to the doctor and make economic trade-offs. One community member shared that:

"Doctors are expensive and doctor's visits are expensive and remedies are too expensive. There are those who work compared to their children, they sure eat you, they eat your salary to pay for insurance. Then there comes the problem of the disease, that people are afraid to go to the doctor, the fear that he will give me the remedy. And how do I buy it if it is too much."

Another focus group member added that:

"So it was the same thing I pointed out to insurance in the government. That's why people are sometimes afraid to go to the doctor, because if they don't have insurance they won't be seen, and if they do, they're sure to get it. If you barely get a pittance in salary, how are you going to pay for medicine?"

One focus group participant mentioned that they often cross the border to access cheaper healthcare. They shared:

"A lot of people lately are going to Tijuana and they are already selling them an insurance that if you leave, you get a consultation. I don't know how many are paying, but I know that right now many people go out and buy insurance and go to their doctor's office, buy their medication. Just as you say, it's about 1/4 of what you're going to pay here."

When focus group participants were asked to opine about the greatest contributors to poor health in Orange County, access issues that surfaced included lack of knowledge or poor health literacy, lack of healthy food options, lack of available healthcare facilities in their neighborhoods and long wait times.

Health Need #3: Care for Older Adults

One of the most consistently identified populations experiencing health disparities was older adults. Interviewees and focus groups both identified that older adults were worse off in regard to health disparities compared to others in the community. Four of the nine groups indicated that older adults were most impacted by behavioral/mental healthcare. They shared that specialized support for older adults is important, especially given the loneliness and isolation that they may be experiencing.

They also may not have family around to provide support. Participants expressed that older adults are more likely to be faced with chronic diseases and oftentimes do not want to go to a care facility.

Navigating an ever-changing health care system is daunting for seniors. One of our focus group members surmised it as follows:

"There's no communication unless you open a portal. Again, no communication to a real person, thank you. And no one knows me, they wouldn't know me from the wall walking into a building. But it's important that as a senior, most of us are alone. We don't have the family."

Another focus group participant expresses a dependence on the younger generation to help access care.

"So these elderly people must understand their health insurance, maybe under the circumstance that most of their insurance is Medicare, they need to know how to make the best use of their health insurance to seek their health needs. I also belong to [a club of] old people; we are increasingly hopeless to depend on our young generation."

Providers of senior services are also feeling the burden. One focus group participant shares their experience:

"We're doing a huge amount of resource navigation for them. Huge amount. And they're so frustrated. There were a lot of services available. And now there's nothing. And we spent so many hours doing that navigation for them. And the social workers have just dropped the ball in some areas. And it's frustrating, because they're saying, Oh, go see them. They'll figure it out for you. Oh, yeah."

Adapting to pandemic protocols have added layers of challenges that feels insurmountable to some who work with older adults.

"I haven't been able to find housing with a voucher, even with subsidized housing, our folks, seniors, and folks with Yeah, senior population because they cannot, you know, during COVID time they can't FaceTime in or whatever you want. All these virtual things, all these virtual documents."

Many focus group participants mentioned that they are not current with medical visits and screenings as a result of the pandemic.

"A lot of elderly people have called me. I have often taken elderly people to clinic and hospital, and many of them are patients with chronic diseases. Actually it's very inconvenient for many elderly people with chronic diseases to go to hospital, their children are not around them, so it's inconvenient for people in their 80s or 90s to go to hospital."

Language barriers are substantial to overcome when patients are non-English or limited English proficient (LEP). LEP patients and families experience lower quality care, and tend to suffer worse health outcomes. It is important for a health provider to understand the needs of a patient. A member of another focus group stated that

"Is it in the work that I do, is received calls that sometimes the person doesn't, they don't have the staff that speaks Spanish because they go to the clinic and they say no, they say no, here we don't speak Spanish, so it's quite difficult no? Or the person said I had to bring my own person to translate for me. So I think that's not right."

Significant Community Needs Identified by Primary Data

After reviewing all primary data collected for Hoag's service area with a specific focus on the most vulnerable people and communities of Orange County, preliminary community needs identified included (in alphabetical order):

1. Access to health care (cultural competency, language access and availability of providers)
2. Adverse Childhood Experiences (ACEs)
3. Behavioral Health and Mental Health
4. Cancer
5. Community and Family Safety
6. COVID-19
7. Discrimination/ Poor health experiences
8. Environment/ Climate Change
9. Economic and Financial Insecurity
10. Housing and homelessness

Secondary Data Collection

Within the guiding health framework for the CHNA, publicly available data was sought that would provide detailed information about the communities and people (at the city, ZIP Code and census tract levels) within the service area.

In addition, comparison data were gathered to show how the service area communities are faring compared to the county or state. Indicators were chosen if they were widely accepted as valid and appropriate measures and would readily communicate the health needs of the service area. Preference was given to data that were obtained in the last 2 years and were available at the neighborhood or census tract level. Data sources were selected to understand general county-level health, specific underserved and/or underrepresented populations, and to fill previously identified information gaps.

The study team analyzed over 200 quantitative health indicators to increase understanding of the health needs in Orange County and to assess priorities in the community. The study team collected data from existing sources such as the Social Progress Index Orange County, the US Census Bureau American Community Survey, County Health Rankings, California Department of Health Care Access and Information (HCAI), Orange County Health Care Agency, CDC, California Department of Education, American Cancer Society, and the National Institute on Aging.

In addition to the sources mentioned above, the study team collected quantitative and qualitative secondary data from multiple reports, including:

- Conditions of Children's Report 2021
- Report on Aging in Orange County 2022
- The Impact of Synthetic Opioids During the Pandemic 2022
- 2022 Calfiornia Children's Report Card
- Equity in OC: Population Overviews

Analysis of secondary data includes an examination and reporting of health disparities for some health indicators. The report includes benchmark comparison data that measure the

data findings as compared to Healthy People 2030 objectives and the Orange County Equity Map, where appropriate.

Healthy People 2030

Healthy People, an endeavor of the U.S. Department of Health and Human Services, sets 10-year objectives for improving the health of Americans based on scientific data spanning three decades. The most recent targets for improvement are for the year 2030 (i.e., HP2030). The objectives for 2040 are currently being developed.

For the CNHA, local data was compared to HP2030's national benchmarks to help determine the severity of a health problem and to identify disparities. The following questions were asked:

- How do these indicators perform against accepted benchmarks (Healthy People 2030 objectives and statewide averages)?
- Are there disparate outcomes and conditions for people in our community?

Orange County Equity Map

The Orange County Equity Map is a data platform that spotlights social and health disparities in Orange County neighborhoods across multiple dimensions. This interactive map visualizes Orange County into 580 census tracts and displays the scores from the Social Progress Index (SPI), population data from CDC Health Indicators, and population demographic data from the American Community Survey.

PART 1

Health And Mortality

The mortality rate for Orange County in 2021 is approximately 800 per 100,000 people. Based on the following reporting from the Orange County Health Care Agency summarizing the California Comprehensive Death File, residents identifying as White and Native Hawaiian/ Pacific Islander had the highest mortality rates, followed by residents identifying as Black. These rates surpass rates reported by Asian and Latino residents. A possible explanation for this trend is that Latino and Asian communities see large numbers of migration to home countries for medical care and final repose.

Leading Causes of Death Orange County

2021

		NH White	Hispanic	NH Asian	NH Black	NH Other/Unknown	NH NHOPI	Total	Rate per 100k
1	Diseases of heart	3,442	764	737	100	50	21	5,114	159.6
2	Malignant neoplasms	2,924	762	885	84	50	19	4,724	147.4
3	COVID-19 (U07.1)	1,193	1,423	732	56	35	27	3,466	108.1
4	All Other Causes	1,735	477	333	45	29	8	2,627	82.0
5	Cerebrovascular diseases	886	212	286	22	18	5	1,429	44.6
6	Accidents (unintentional injuries)	793	436	114	46	32	6	1,427	44.5
7	Alzheimers disease	985	186	196	9	12	4	1,392	43.4
8	Chronic lower respiratory diseases	570	75	77	6	12	3	743	23.2
9	Diabetes mellitus	285	188	146	26	10	2	657	20.5
10	Chronic liver disease and cirrhosis	247	181	35	6	9	1	479	14.9
11	Essential hypertension and hypertensive renal disease	220	83	102	11	4	2	422	13.2
12	Influenza and pneumonia	242	75	97	2	5	0	421	13.1
13	Parkinsons disease	281	55	54	2	4	0	396	12.4
14	Nephritis, nephrotic syndrome and nephrosis	215	89	72	7	2	5	390	12.2
15	Intentional self-harm (suicide)	213	54	51	8	9	2	337	10.5
16	Pneumonitis due to solids and liquids 20	75	11	17	0	0	0	103	3.2
17	In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior	60	14	18	1	1	0	94	2.9
18	Assault (homicide)	15	57	5	8	2	1	88	2.7
19	Nutritional deficiencies	55	6	14	0	0	0	75	2.3
20	Congenital malformations, deformations and chromosomal abnormalities	22	26	9	2	3	0	62	1.9

Source: Orange County Health Care Agency. Population based on Claritas data 2021 . NH = Non-Hispanic

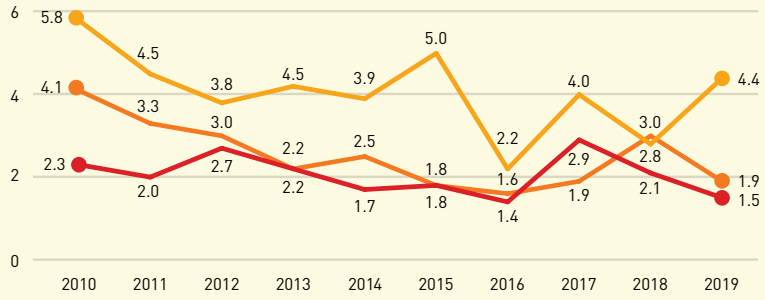
When looking at the individual case rate of chronic conditions that make up the leading causes of death for various racial and ethnic populations in Orange County, health disparities become clear. The Orange County Health Care Agency reports that Asians are most impacted by cancer (death rate of 129 per 100,000 residents) , Native Hawaiians/ Pacific Islanders and Latinos were most impacted by COVID-19 (death rate of 302 and 127 per 100,000 NHPI and Latinos, respectively) and Black Americans are most impacted by heart disease (188 per 100,000 residents).

Infant Mortality Rate per 1,000 Live Births, by Race and Ethnicity

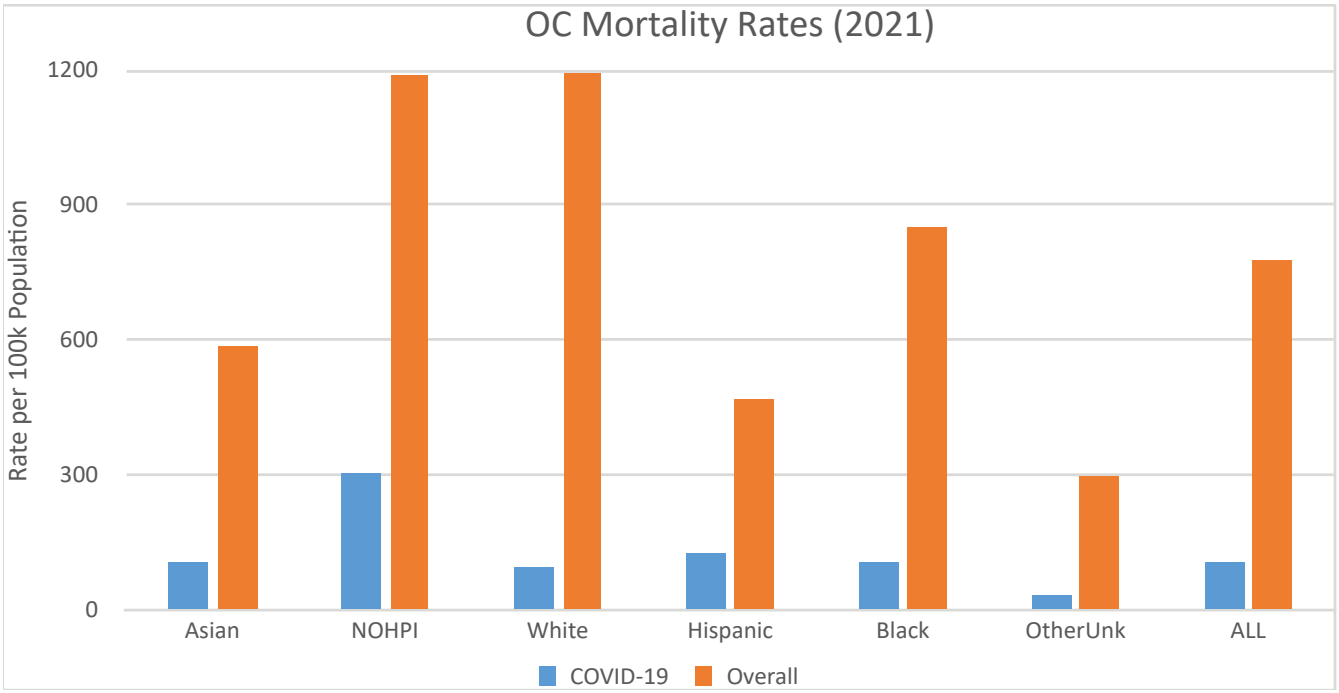
2010 to 2019

- Hispanic
- White
- Asian

Note: Rates based on less than five deaths are unstable, and therefore should be interpreted with caution. Black infant mortality rates are not included because the relatively low numbers of Black infant births and deaths in Orange County yield unreliable statistics for annual comparison.
Source: Orange County Health Care Agency



Source: Orange County Health Care Agency.



Source: Orange County Health Care Agency

PART 2

Children & Youth

The 2021 Conditions of Children Report show the health areas needing improvement include early prenatal care, low birth weight, physical fitness and nutrition, behavioral health, child poverty and housing insecurity, chronic absenteeism in school, and general child welfare.

While the infant mortality rate is improving, it is not evenly distributed across racial and ethnic groups. The infant mortality rate for the Hispanic population is 4.4 per every 1,000 live births vs.1.9 per 1,000 for the White population and 1.5 per 1,000 for the Asian population.

The 2022 California Children's Report Card published by Children Now, a nonpartisan organization that conducts research, policy development, and advocacy in support of children and youth, shows the following "grades" for pediatric health. Among these low-scoring areas of concern, several coincide with data collected from primary sources in this CHNA including healthcare access, prevention, behavioral health and mental health and substance use.

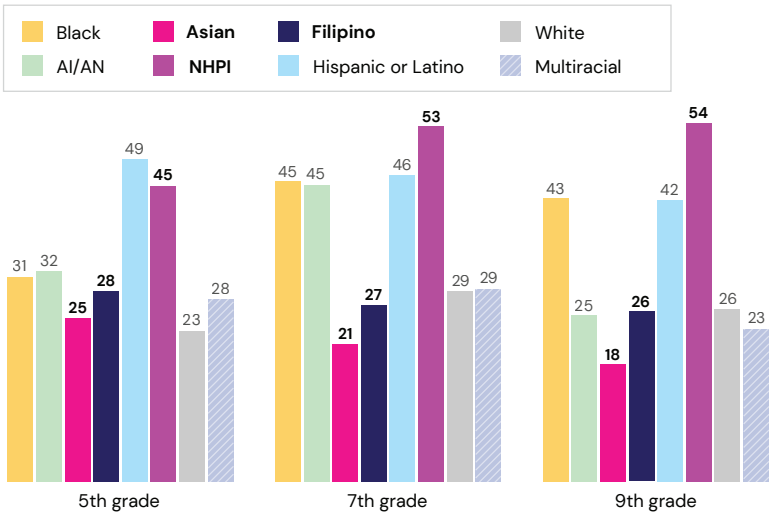
2022 California Children's Report Card	
Health Insurance	A-
Health Care Accountability	D-
Health Care Access	C-
Preventative Screenings	D
Behavioral Health Care: Mental Health	D+
Behavioral Health Care: Substance Use	D-
Preventing Trauma & Supportive Healing	C-
Oral Health Care	C
Food Security	C+
Source: Children Now	

Recent childhood obesity data in Orange County show about half of Native Hawaiian and Pacific Islander (NHPI) and Latino students in grades 5, 7, and 9 are classified as obese. Black students also show similar obesity patterns across different grade levels, matching those of NHPI and Latino students in grades 7th and 9th. Among Asian subgroups, Filipino students have higher rates of childhood obesity.

Both physical fitness and nutrition are essential to achieving and keeping a healthy weight. The habitual intake of too many calories, including the consumption of sugary beverages, without enough physical fitness, can result in obesity and are likely to develop many types of disease, including heart disease, high blood pressure, Type 2 diabetes, and oral disease.

Childhood Obesity in Orange County

Percentage by Race/Ethnicity and Grade Level, 2019



Source: Kidsdata.org

Prior to 2020, deaths from drugs and alcohol among 10 to 17-year-olds were relatively sparse (no more than 1 per year between 2017 and 2019). However, by 2020 there were nine deaths from drugs or alcohol and by 2021 there were 20 deaths according to the report on The Impact of Synthetic Opioids. In 2020, two-thirds of the deaths were among males, and two-thirds were among non-Hispanic white youths. By 2021, the number of deaths was nearly evenly split among males and females, and the proportion of deaths to non-white youths surpassed the proportion of deaths among white youths. Specifically, 40% of deaths were among Hispanics, 20% among Asians and Pacific Islanders, and 5% among Black residents.

Drug & Alcohol Deaths 10-17 year olds

Gender		Percent	Rate per 100,000 Popluation*
Male			
	2020	67%	3.5
	2021	55%	6.5
Female			
	2020	33%	1.9
	2021	45%	5.6
Race			
Non-Hispanic/White			
	2020	67%	6.0
	2021	35%	6.9
Hispanic/Latino			
	2020	33%	1.9
	2021	40%	5.1
Asian/Pacific Islander			
	2020	0%	0.0
	2021	20%	7.7
Other/Unknown			
	2020	0%	0.0
	2021	5%	6.7
Black/African American			
	2020	0%	0.0
	2021	0%	0.0

*Rates in this table are unstable, based on counts <20.

Source: 2022 Drug and Alcohol Deaths Among Youths and Young Adults: The Impact of Synthetic Opioids During the Pandemic, Orange County Health Care Agency

When looking at the type of drug and alcohol substances present at the time of death, the most frequently noted, by a large margin, was opioids/opiates. In 2020, opioids were noted in seven deaths (78% of deaths), and in 2021 that number rose to 19 (95%). Other substances present were alcohol, cannabis, sedatives, stimulus, and cocaine. None of these other (non-opioid) substances, however, was present in more than 5 deaths in a year. Note that one death can be counted towards two or more substances because multiple substances can be present at the time of death.

PART 3

Older Adults

According to the National Institute on Aging, 80% of adults 65 and older have at least one chronic condition, while 68% have two or more. The 10 most common chronic conditions include: Hypertension, High Cholesterol, Arthritis, Coronary Heart Disease, Diabetes, Chronic Kidney Disease, Heart Failure, Depression, Alzheimer's disease and Dementia, and Chronic Obstructive Pulmonary Disease (COPD).

To address health disparities related to aging, the National Institute on Aging has supported research that found Alzheimer's disease to be more prevalent among African Americans and Hispanics than among other ethnic groups in the U.S. Scientists have also observed sex differences in health and longevity. For example, overall women live longer than men, but are more likely to develop osteoporosis or depressive symptoms or to report functional limitations as they age; men, on the other hand, are more likely to develop heart disease, cancer, or diabetes.

Older Adults are relatively evenly distributed through Orange County with a slightly greater concentration in the south east and central north of the county where there are numerous communities designed for older adults in municipalities such as Laguna Woods (82.8%) and Leisure World (96.6%) in Seal Beach (39.9%).

According to the Report on Aging 2022, racial and ethnic differences also exist in older adult economic security.

- Single Asian older adults have significantly lower rates of economic insecurity (5.2%) as compared to their couple counterparts (12.8%).
- Black/African American single older adults face much higher rates of economic insecurity (16.4%) as compared to their couple counterparts (7.6%).
- Hispanic / Latino single and couple older adults face comparable rates of economic insecurity (14.4% and 14.2%, respectively) that are consistently higher than other racial / ethnic groups and the overall rate (9.0% and 9.6%, respectively).
- Single and couple White older adults have similar rates of economic insecurity (7.6% and 6.0%, respectively), with both being lower than the overall averages (9.0% and 9.6%, respectively).

Single male elders experience economic insecurity at a higher rate than any other group, at 13.5%. The lower levels of couple economic insecurity suggest that economic difficulties are accentuated among males once they live alone as compared to within a couple relationship.

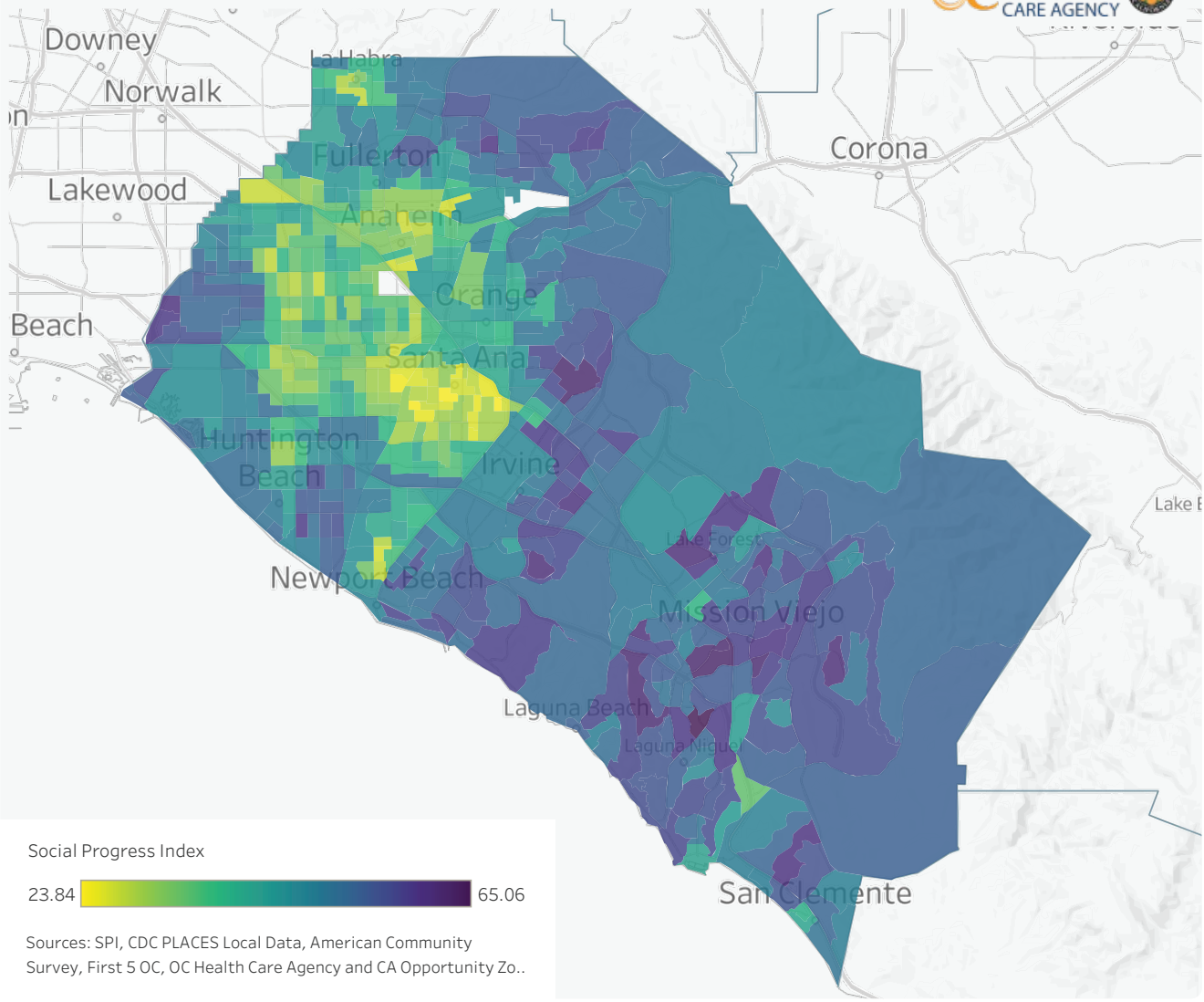
PART 4

Health Equity and Social Progress

The COVID-19 pandemic impacted Orange County communities unequally and disproportionately. As a result, the Orange County Board of Supervisors and the Orange County Health Care Agency partnered with AdvanceOC to identify vulnerable communities using health risk factors and social vulnerability. This rigorous analysis resulted in the Orange County Equity Map (OC Equity Map) and guided the county's response and management of the pandemic.

The OC Equity Map measures social progress in various census tracts of the county. Analyzing and layering COVID-19 cases in Orange County showed that higher concentrations of COVID-19 cases occurred in low social progress areas. The pandemic exposed and magnified existing racial, gender, and socioeconomic inequities, including flaws in the county's social safety net. As Orange County charts a path forward to rebuild and strengthen its communities, the Health Care Agency has centered these efforts around community informed, data-driven, and equity-oriented strategies.

ORANGE COUNTY EQUITY MAP

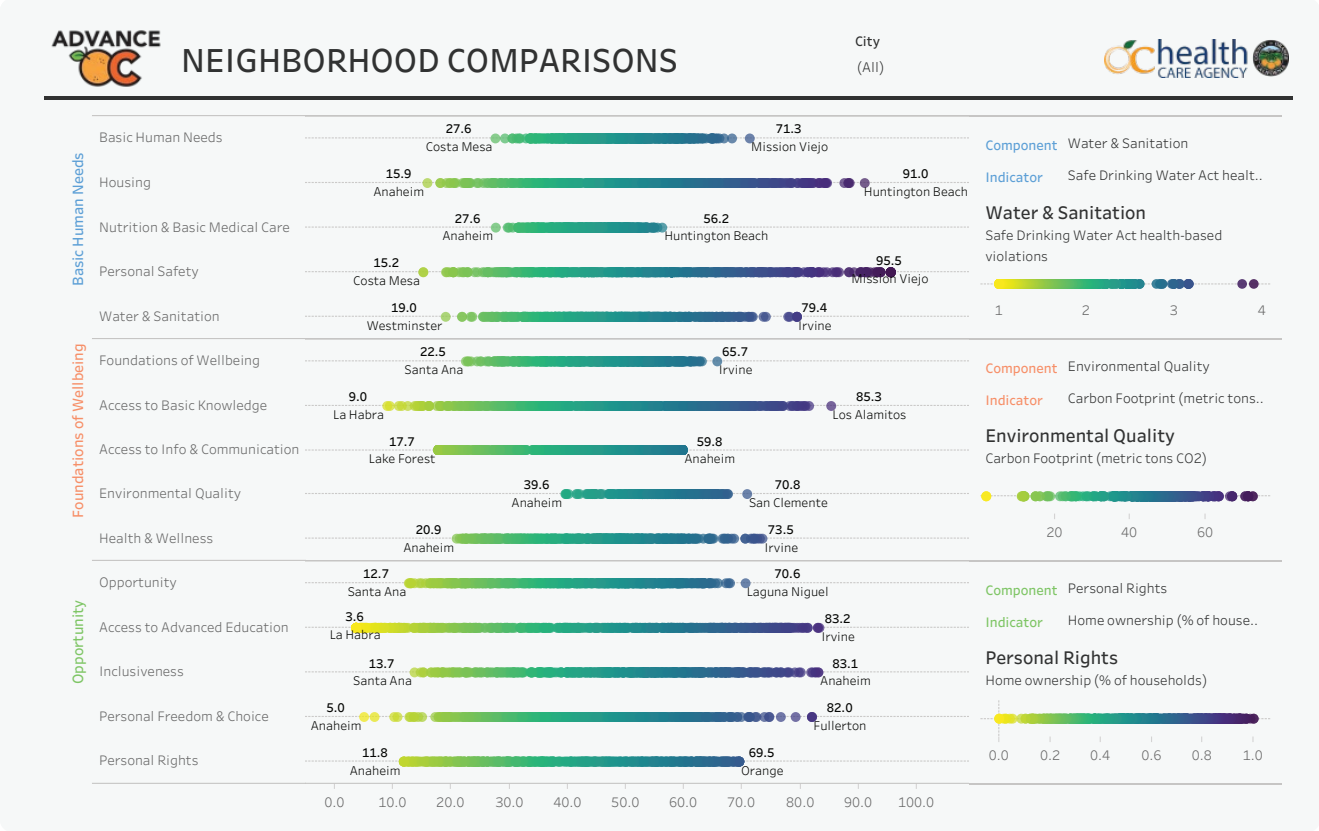


According to the Orange County Equity Map, northern and central neighborhoods of the county (identified in yellow as low scoring census tracts in social progress on the map above) lag other parts of the county to its south identified by darker hues of blue and purple.

The OC Equity Map is informed by over 50 indicators of health and wellness across three major dimensions of data (Basic Human Needs, Foundation of Wellbeing and Opportunity) captured by the Social Progress Index of Orange County. The framework for the Social Progress Index can be found in the appendix.

A closer look at the data shows considerable disparities among many different segments of society across multiple indicators. For example, housing, personal safety, access to basic and advanced education all indicate the greatest disparity between low scores from certain neighborhoods and high scores from other neighborhoods. In this analysis, neighborhood and census tracts are used interchangeably

The Neighborhood Comparisons map quantify and visualize the disparity that helps community stakeholders understand how two neighboring census tracts can have vastly different outcomes. On your left are the lowest performing census tracts in their respective categories and on the right are the highest performing census tracts. The difference between the lowest performing neighborhood and the highest performing neighborhood is the range of different scores highlighting the different lived experiences of residents in Orange County. Disparities are statistically measured by examining the range of results. The greater the range, the greater the inequity.



Taking a step further, a bivariate regression analysis is conducted between social progress indicators and different demographic groups to start to unearth disparate outcomes between racial, income, nativity, and age groups. Correlation is a mathematical and statistical tool used to test relationships between quantitative variables or categorical variables. In other words, it's a measure of how things are related. The study of how variables are correlated is called correlation analysis.

By examining the indicators that make up The Social Progress Index for Orange County and how it might be related to different demographic groups, a person can see the linkages that may not have been previously noticed. The stream of data that connects these two variables is the neighborhood or census tract.

Looking at the data outcomes in the Correlation Matrix, a relationship is observed between neighborhoods that have a high percentage of foreign-born residents with lower access to basic knowledge and advanced education. Additionally, neighborhoods with high percentages of foreign-born residents are also related to areas in Orange County that are linguistically isolated neighborhoods and residentially segregated neighborhoods.

These census tracts also exhibit high levels of housing overcrowding. Why? Studies have shown that immigrant workers are four times as likely as native-born workers to live in overcrowded housing. Data also shows that:

- Immigrant workers make up a large share of workers living in overcrowded housing in many sectors thought to be essential during the Covid-19 epidemic, including those in production, healthcare support, transportation and moving, food preparation, sales, and farming.
- In specific occupations within these sectors, immigrants (legal and illegal) comprise a disproportionate share of workers in overcrowded conditions.

For example:

- Immigrants are 47% of farmworkers, but 76% of farmworkers in crowded housing.
- Immigrants are 32% of butchers/meat processors, but 64% of such workers in crowded housing.
- Immigrants are 28% of cooks, but 57% of cooks in crowded housing.
- Immigrants are 29% of health care aides, but 52% of health care aids in crowded housing.

In 24 states immigrants account for more than one-third of workers in overcrowded households. Overall, immigrants are much more likely than native-born workers to work in low-wage jobs, reside in urban areas, and live in larger households; this partly explains why they are much more likely to live in overcrowded conditions.

The OC Equity Map shows users where these neighborhoods are located in Orange County so community stakeholders can use a data-driven, place-based approach to dissect the problem and create solutions based on neighborhood specific characteristics.

Relationships between demographic groups (racial, age, nativity, and income) and population health data were investigated as well. In this iteration of the analysis, census tracts that have a higher density of residents living below 200% of the federal poverty level also have a higher prevalence of obesity, poor mental health days, and a lower percentage of adults with regular dental visits. This kind of analysis is particularly interesting because of what is known about social determinants of health.

Numerous scholarly works in public health have concluded that clinical care is estimated to account for only 10% to 20% of the modifiable contributors to health outcomes in a population. The other 80 percent to 90 percent of modifiable health factors are health-related behaviors, socioeconomic factors, and physical environment factors – things that typically fall outside the purview of what one thinks as medical care. Consider that 80 percent to 90 percent to be public health issues or what are now commonly referred to as social determinants of health (SDoH).

These types of tools are exploratory and observational in nature. It helps to describe some possible linkages between social determinants of health and health outcomes using place-based analysis but it does not demonstrate causal relationships. In other words, observing the presence of two characteristics in a census tract does not necessarily mean that one causes the other. It may be coincidental or spurious. Additional analysis is always warranted, and professional consultation is recommended.

Health Equity has a principle meaning that "everyone has a fair and just opportunity to be as healthy as possible. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care. For the purposes of measurement, health equity means reducing and ultimately eliminating disparities in health and its determinants that adversely affect excluded or marginalized groups."

Removing obstacles to health includes understanding why structural barriers exist in the first place. Arriving at the root causes of disparities in health and its determinants require an understanding of how marginalized groups are impacted and which factors may have contributed to systems that victimize these groups.

Significant Community Needs Identified by Secondary Data

After reviewing all the secondary data collected for the hospital's service area with a specific focus on the most vulnerable people and communities of Orange County, preliminary community needs identified included (in alphabetical order):

1. Cancer
2. Community Safety
3. Economic Insecurity
4. Education
5. Housing and Homelessness
6. Immigration
7. Infant Mortality
8. Linguistic Isolation
9. Mental and Behavioral Health
10. Substance Use (Youth)

Information Gaps and Limitations

Despite best efforts, not every population group can be equally represented in the collection of primary and secondary data. The US Census Bureau, for example, did not include sexual orientation or gender identity in its 2020 decennial questionnaire. As a result, reliable data about the lesbian, gay, bisexual and transgender community are hard to come by.

Data disaggregation continues to be inadequate across racial and ethnic groups, which makes it challenging to assess health and socioeconomic trends for sub-populations. Lack of data or inadequate data collection methods often obscure consequential health outcomes and disparities for many communities, including Native American and many AANHPI communities. Disparities within these communities often go unreported or are subsumed under general categories that could be better understood if they were disaggregated. Smaller populations such as the Black community or LGBTQIA+ communities in Orange County are not sampled with any regularity, resulting in poor data availability and large information gaps.

As a result, a full picture of the way disparities and inequities are truly playing out cannot be discerned. Additionally, population health data is also limited for children under 18 years of age. These gaps and limitations in data affect the study team's ability to fully assess some of the health issues that were identified as community needs during the 2022 CHNA process.

Data Synthesis: Identification of Community Health Needs

The process used to identify community health needs involves analysis from the consultant study team through the evaluation of primary and secondary data collection. The consultant study team produced a short list of community health needs based on an examination of the following:

1. Health outcomes were ranked independently according to four criteria (prevalence, negative trends, reduction in life expectancy, and worsening performance among race/ethnic groups). Health outcomes found to have a highly negative impact on the service area population according to two or more criteria were identified for further analysis.
2. Similarly, social predictors of health predictive of 3 or more negative health outcomes were identified for further analysis.
3. Community health needs mentioned most frequently through various primary data collection modules were isolated for further exploration. The consultant study team built conceptual models of these health needs that reflected the consensus of community engagement participants.
4. Finally, the consultant study team cross-referenced the health needs derived from both the primary and secondary data to build a list of health needs that best reflected the input from participants engaged in the investigation and that incorporated the largest possible number of highly prevalent, severe and disproportionate health outcomes.

Definitions

Data source: Either a statistical dataset, such as those found throughout the California Cancer Registry, or a qualitative dataset, such as the material resulting from interviews and focus groups.

Health disparities: Preventable differences in the burden of disease or health outcomes because of systemic inequities.

Health equity: A principle meaning that "everyone has a fair and just opportunity to be as healthy as possible. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care. For the purposes of measurement, health equity means reducing and ultimately eliminating disparities in health and its determinants that adversely affect excluded or marginalized groups."

Health indicator: A characteristic of an individual, a population or an environment that can be measured (directly or indirectly) and used to describe one or more aspects of the health of an individual or population.

Health need: A poor health outcome and its associated risk(s), or a risk that may lead to a poor health outcome.

Health outcome: A snapshot of a disease/health event in a community that can be described in terms of both morbidity (illness or quality of life) and mortality (death).

Health risk: A behavioral, social, environmental, economic or clinical care factor that impacts health. May be a social determinant of health.

Prioritization of Health Needs

Before beginning the prioritization process, Hoag was given access to the secondary data (health outcomes and social predictors of health) and to the preliminary findings of the primary data analyzed according to the methodology outlined in Section Five of this report.

Community Benefit team utilized the following internal evaluation to consider these health needs and social predictors of health in light of the following additional criteria:

1. Community priority. Quantitative research data was used to ascertain the top priorities of the community, such as the high frequency with which the community prioritized the issue over others during the CHNA primary data collection process.
2. Community benefit expertise. Insights and experience are drawn upon as a major funder of community benefit programming (through grantmaking and learning from community benefit grantees).
3. Broad perspective. Hoag used the knowledge it gained from participation on various boards of directors and health-focused coalitions, which include stakeholders from diverse sectors.
4. Gaps in services. Hoag seeks to impact the well-being of the community at large beyond the traditional health services provided by our hospital. To this end, Hoag used its list of assets and resources to consider to what extent community supports were lacking in health and wellness services or programs.
5. Legacy priorities. For many years, Hoag has addressed health care access, behavioral health (social/emotional well-being), women's health and substance use, reflecting its belief in the importance and urgency of these needs and the need for ongoing investment to improve community health in these areas.

Hoag discussed the findings from the CHNA with the Board of Directors. Senior leadership also reviewed the CHNA and identified community health needs that they felt Hoag could have the highest impact and be most effective.

Based on the criteria described above, Hoag senior leadership identified 3 prioritized health needs, listed below:

1. Access to Health Care
2. Behavioral and Mental Health
3. Cancer/Chronic Disease

6. Prioritized 2022 Community Health Needs

The following descriptions of the 3 prioritized community health needs summarize the data, statistics and community input collected during the community health needs assessment.

1. Access to Health Care

One of the greatest barriers to healthcare identified through this needs assessment was access to and delivery of care. Seven (39%) of 18 interviewees noted healthcare access and delivery were the greatest health needs and 19% of provider survey respondents (n=160) indicated healthcare access and delivery were contributing to poor health outcomes in the communities they serve. This was also a pervasive theme throughout focus groups. Barriers associated with healthcare access included 1) costs, 2) availability of services, 3) navigating the healthcare system 4) lack of awareness and education about resources available in the community.

What's the Issue?

Access to comprehensive, quality affordable health care is important for health and quality of life. Components of access to care include insurance coverage, availability of services, timeliness, and workforce. Insurance coverage helps facilitate an individual's entry into the healthcare system. Availability of services affords residents greater access to primary care physicians and a regular healthcare provider which improves screening and prevention services. Timeliness is an important factor to provide care when the need is identified. Workforce refers to having adequate primary and specialty care providers and support staff who can meet the needs of the community.

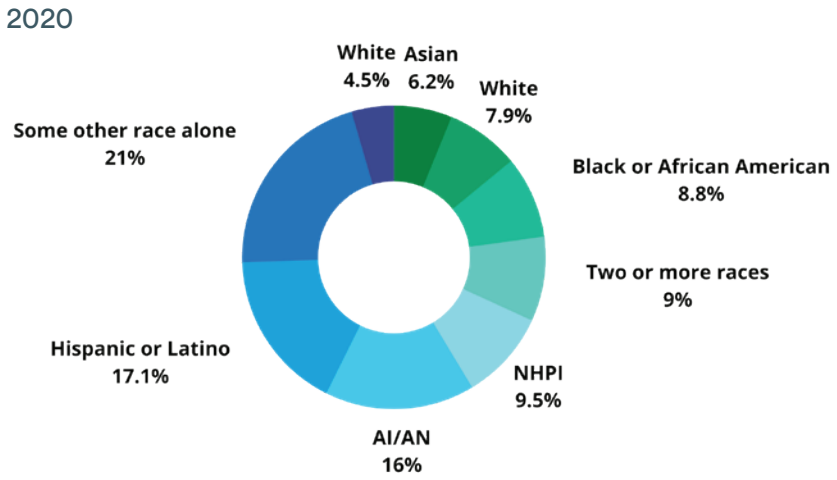
Components of delivery of care include quality, transparency and cultural competence. One of the sentiments shared by stakeholder interviewees articulated the vulnerability felt by patients who do not have access to culturally competent providers.

"...I have to consider how badly I need to go in for my, my annual exam? Do I want to go through this? If I feel healthy, I might be like, I don't really want to deal with it. So, there's a huge problem of just healthy LGBTQIA folks not getting their preventative care, because they don't want to deal with it. So, it's the access even though it's accessible. I have great insurance, I have a good doctor, I have access, but it doesn't feel good. I don't have a good rapport with my provider. So, it prevents me from going sometimes. So, there are the access problems. And I think it's around cultural competency."

— STAKEHOLDER INTERVIEWEE

In Orange County, residents with low socioeconomic status are more likely than higher-status groups to have access-related issues, such as no health insurance, an inability to afford medications, inadequate transportation to medical appointments, and a lack of recent health screenings. According to the 2020 American Community Survey, people of Latinx, Pacific Islander and other ancestries have the lowest rates of health insurance.

Uninsured Population by Race/Ethnicity in Orange County



Why is it an issue?

In Orange County, an estimated 381,543 people live in an area that has a shortage of primary care providers. According to Healthy People 2030 about 1 in 10 people in the United States do not have health insurance and these people are less likely to have a primary care provider. Availability of primary health care providers affects access to health care in the community. Based on the 2021 County Health Rankings, Orange County ranks 17 out of 58 among California counties for clinical care. When compared to California's ratio of population to health care providers, Orange County has a good ratio to access to primary care physicians (one doctor per 1,010 residents). However, the ratio of population to mental health providers shows Orange County has less mental health providers than the state ratio.

Ratio of Population to Health Care Providers

	Orange County	California
Primary care physicians	1,010:1	1,250:1
Dentists	870:1	1,150:1
Mental health providers	1340:1	270:1

Source: County Health Rankings, 2021. (Measure used data from 2018)

Cultural competency in health care means "delivering effective, quality care to patients who have diverse beliefs, attitudes, values, and behaviors." It is also an understanding of the impact that cultural differences can have on healthcare delivery. Cultural competence also refers to meeting the needs of people with disabilities, individuals from diverse socioeconomic backgrounds, and members of the LGBTQ community.

2. Behavioral and Mental Health

Consistent across all data, behavioral and mental health was identified as a significant concern in the community. Nearly a quarter (23%) of community survey respondents (n=637) indicated that the most pressing health need (out of a list of 23 needs) in their household was emotional well-being.Furthermore, when asked about the most pressing health need in their communities, focus group and interview participants overwhelmingly cited behavioral health despite not being prompted with a list. This includes 78% of interviewees (14 interviewees) and eight of the nine focus groups. Additionally, provider survey (n=160) respondents also indicated that the most pressing health.

What's the Issue?

Behavioral health is the scientific study of the emotions, behaviors and biology relating to a person's mental well-being, their ability to function in every day life and their concept of self. Behavioral health is sometimes called mental health and often includes substance use.

Why is it an issue?

An estimated 26% of Americans ages 18 and older -- about 1 in 4 adults -- suffers from a diagnosable mental disorder in a given year. Prior to the pandemic, 12.1% of adults living in Orange County report suffering from severe psychological distress. Approximately 19.5% of Orange County adults need help for emotional-mental and/or alcohol-drug issues. Of those who needed help, about half were not able to receive any treatment.

Providers who responded to our survey explained that services addressing behavioral health and mental health are disorganized and not holistic in Orange County. While access to and adequacy of behavioral and mental health services need considerable improvement, two populations have emerged as particularly vulnerable groups in Orange County: older adults and youth. Older adults face higher occurrences of social isolation and loneliness, conditions that have been exacerbated by the pandemic. Young people have also experienced significant isolation and trauma in their lives during the pandemic. For some, it has led to an increase of anxiety and depression as well as substance use.

In 2021, there were a total of 1,346 deaths from substance use in Orange County. The Orange County Health Care Agency reports that during the COVID-19 pandemic years of 2020 and 2021, drug and alcohol-related deaths increased notably across the county. The number of deaths from drugs and alcohol among all ages increased by 32% from 2019 to 2020, and another 30% from 2020 to 2021. However, the most dramatic changes in mortality were among youth in Orange County.

For residents ages 10-17 years, the number of deaths from drugs and alcohol increased by 800% from 2019 to 2020, and another 122% from 2020 to 2021. Although the number of deaths were relatively small compared to other age groups, the fact that this age group would normally have 0 or 1 deaths in pre-pandemic years, compared to 9 deaths (in 2020) and 20 deaths (in 2021), makes this rise in mortality a concerning trend.

Mental Health Indicators, Adults, Ages 18 and Older

	Orange County	California
Adults who likely had serious psychological distress during past year	12.1%	12.6%
Adults who needed help for emotional-mental and/or alcohol-drug issues in past year	19.5%	21.7%
Adults who sought/needed help but did not receive treatment	46.9%	45.6%

Source: California Health Interview Survey, 2019. http://ask.chis.ucla.edu

3. Cancer/Chronic Disease

Ten percent of respondents in the provider survey listed cancer as a top health concern, which placed it among the top 10 health concerns identified by a community of medical practitioners, community health workers and other service providers. Twenty-five percent of community survey respondents also cited cancer as a top health concern.

What's the Issue?

Cancer is the second leading cause of death in Orange County, and rates of childhood cancer diagnoses are higher in Orange County compared to California.

Cancer is the most costly illness in the United States and people with cancer often have high out-of-pocket health care costs. It is also often physically and emotionally difficult for those living with it and for their care providers. People who say they have had cancer are more likely to report poor health and symptoms of depression. Despite the fact that cancer is an important health problem, many Americans don't comply with cancer screening protocols or take preventive measures such as protecting themselves from the sun.

Why is it an issue?

In addition to being the second leading cause of death in Orange County and having high rates of childhood cancer diagnoses, Orange County ranks in the top three highest counties in California for overall cancer prevalence, following Los Angeles County and San Diego County. Significant ethnic disparities in cancer occurrences are seen for White, African ancestry, Latino and Pacific Islander populations. In Orange County, cancer accounts for nearly one in four deaths among men and women.

Research has found that health disparities related to cancer contribute to higher, avoidable death rates among low-income and ethnic minority populations. The disparities may be exacerbated by delivery issues in cancer screening and follow-up. Although personal behavioral and environmental factors are significant (smoking, exposure to known carcinogens), the most important risk factors for cancer are lack of health insurance and low socioeconomic status.

Figure 3. Leading Sites of New Cancer Cases and Deaths – 2019 Estimates

Estimated New Cases

Male			Female		
Prostate	174,650	20%	Breast	268,600	30%
Lung & bronchus	116,440	13%	Lung & bronchus	111,710	13%
Colon & rectum	78,500	9%	Colon & rectum	67,100	7%
Urinary bladder	61,700	7%	Uterine corpus	61,880	7%
Melanoma of the skin	57,220	7%	Melanoma of the skin	39,260	5%
Kidney & renal pelvis	44,120	5%	Thyroid	37,810	4%
Non-Hodgkin lymphoma	41,090	5%	Non-Hodgkin lymphoma	33,110	4%
Oral cavity & pharynx	38,140	4%	Kidney & renal pelvis	29,700	3%
Leukemia	35,920	4%	Pancreas	26,830	3%
Pancreas	29,940	3%	Leukemia	25,860	3%
All sites	**870,970**		**All sites**	**891,480**	

Estimated Deaths

Male			Female		
Lung & bronchus	76,650	24%	Lung & bronchus	66,020	23%
Prostate	31,620	10%	Breast	41,760	15%
Colon & rectum	27,640	9%	Colon & rectum	23,380	8%
Pancreas	23,800	7%	Pancreas	21,950	8%
Liver & intrahepatic bile duct	21,600	7%	Ovary	13,980	5%
Leukemia	13,150	4%	Uterine corpus	12,160	4%
Esophagus	13,020	4%	Liver & intrahepatic bile duct	10,180	4%
Urinary bladder	12,870	4%	Leukemia	9,690	3%
Non-Hodgkin lymphoma	11,510	4%	Non-Hodgkin lymphoma	8,460	3%
Brain & other nervous system	9,910	3%	Brain & other nervous system	7,850	3%
All sites	**321,670**		**All sites**	**285,210**	

Estimates are rounded to the nearest 10, and cases exclude basal cell and squamous cell skin cancers and in situ carcinoma except urinary bladder. Estimates do not include Puerto Rico or other US territories. Ranking is based on modeled projections and may differ from the most recent observed data.

7. Evaluation Findings from 2020-2022 implemented strategies

2020 Identified Health Needs

As a result of the findings of Hoag's 2019 CHNA and through a prioritization process aligned with Hoag's mission, resources, and hospital strategic plan, Hoag identified the following areas for its 2020-2022 Community Benefit efforts:

1. Mental Health
2. Access to Care
3. Economic Security
4. Chronic Disease
5. Women's Health
6. Substance Use

Community Benefit Investments in Fiscal Years 2020 and 2021

Hoag developed and approved an Implementation Strategy to address the significant health needs identified in the 2019 CHNA. The IRS requires hospitals to report on the impact of implementation strategies.

The following section outlines the 2019 Implementations Strategies and the corresponding outcomes during 2020-2022.

Mental Health

1. Provide mental health care services through Hoag's Mental Health Center primarily focused on the low-income population
   - Provided mental health services to 1256 clients in the form of psychotherapy.
   - Provided resource brokering, and/or case management to 678 individuals.
   - Provided psychiatry services to 60 individuals.
   - Offered psychotherapeutic, psychoeducational groups and community presentations resulting in 4014 encounters
2. Provide funding and/or in-kind support to community nonprofit organizations that focus on mental health that goes beyond our scope of care.
   - Hoag's Community Benefit Grants program provided $2.5M in funding to organizations focused on Mental Health Services.
3. Provide workforce development opportunities (internships, internal and external professional development) for the mental health profession.
   - The Mental Health Center provided a supervised clinical internship training program for 16 Master of Social Work students.
   - Provided professional development trainings to 782 mental health professionals.

4. Use existing pathways to expand our continuum of care for mental health.
    - Provided 4811 individuals with wellness classes such as yoga, Zumba, and other fitness classes.
    - Collaborated in the coordination and facilitation of Be Well OC's first annual Suicide Prevention Conference during CY2021.

Access to Care

1. Provide financial assistance through free and discounted care for health care services, consistent with the hospital's financial assistance policy.
    - Provided $9,057,071 in Charity Care Service
    - Provided $106,216,442 in MediCal/CalOptima Cost of Unreimbursed care.
2. Offer information and enrollment assistance for no cost and low-cost insurance programs.
    - Social Work Assistants work closely with clients in referral and resource brokering to needed partner agencies.
    - Refer clients to on-site partner, Community Health Initiative of OC for enrollment and eligibility process.
3. Provide funding and/or in-kind support to community clinics.
    - Provided $2,946,500 in funding to Share Our Selves Corp (SOS), a Federally Qualified Health Center with special designation as a Healthcare for the Homeless provider.
4. Provide funding and/or in-kind support to community nonprofit organizations that reduce barriers to accessing care.
    - Hoag's Community Benefit Grants program invested $4.1M in funding to organizations focused on Access to Care.
5. Provide partners with space and resources at the Melinda Hoag Smith Center for Healthy Living.
    - The Melinda Hoag Smith Center for Healthy Living provides physical space for meetings, workshops, office use, and conferences to over 20 local non profit organizations serving the local community
6. Provide transportation support for seniors to increase access to health care services.
    - Provided $825,000 in transportation funding to 5 local Senior Centers

Economic Security

1. Provide funding and/or in-kind support to community nonprofit organizations that focus on economic security measures.
   - Hoag's Community Benefit Grants program invested $2.8M in funding to organizations focused on economic security specifically housing, homelessness, and transportation.
   - Provided $300,000 in rental assistance to qualified individuals.
   - In collaboration with Community Action Partnership of Orange County, distributed 233,378 diapers during CY2021
2. Build community capacity by providing collaborative partners with space and resources at the Melinda Hoag Smith Center for Healthy Living
   - Provided In-Kind contribution of $1,735,769 towards office lease and meeting space to non profit organizations.
   - Provided physical space for meetings, workshops, office use, and conferences to over 20 local nonprofit organizations serving the local community
3. Continue and expand programs that alleviate food insecurity
   - 20,145 Individuals received fresh produce and food boxes through our partnership with Second Harvest Food Bank.
   - Provided meals for 2654 individuals through Delivering with Dignity, a hot meal program to alleviate food insecurity during the COVID19 Pandemic.

Prevention of Chronic Disease and Management

1. Provide funding and/or in-kind support to community clinics.
   - In CY2020, hosted 3 COVID19 vaccine clinics serving the low-income residents of Costa Mesa and Oak View neighborhood of Huntington Beach.
   - Provided CHOC with $1.9M in funding for Pediatric Diabetes Services at the Hoag Allen Diabetes Center.
   - Provided Alzheimer's Family Center with $3.6M in funding.
2. Provide funding and/or in-kind support to community nonprofit organizations that focus on disease prevention, including obesity prevention and chronic disease management.
   - Hoag's Community Benefit Grants program provided $1.8M in funding to organizations focused on Prevention and Management of Chronic Disease.
3. Provide partners with space and resources at the Melinda Hoag Smith Center for Healthy Living.
   - The Center for Healthy Living provided space and resources for partner organizations focused on prevention and management of chronic disease, such as: CHOC PODER and Cancer Kinship
4. Offer chronic disease prevention, management, education, care navigation, screenings and support groups.
   - In CY2020, developed a COVID Crisis Response Team during the pandemic, to include case management, nursing intervention, and social support for families navigating a COVID diagnosis A total of 272 individuals was served during this one-year period.

- Crisis Response and resource brokering was provided to 5663 individuals.
- Hoag's Community Nurse Navigation Program provided classes on chronic disease prevention, management, education, and care navigation for 342 individuals.
- Invested $489,573 in Community flu immunization clinics

5. Continue to provide wellness and prevention programs to vulnerable communities.
   - During CY2020-2021, the Center for Healthy Living provided wellness and prevention programming to 4,811 individuals through yoga, Zumba, and other fitness classes.

Women's Health

1. Provide funding and/or in-kind support to organizations focused on women's health
   - Hoag's Community Benefit Grants program provided $480,000 in funding to organizations focused on Women's Health
2. Collaborate with Hoag Women's Health Institute in identifying gaps in care for the low income and vulnerable patient population
   - Worked with Women's Health Institute in identifying potential grantees focused on the health needs of low-income women
3. Offer health education, care navigation, advocacy and resource brokering.
   - In CY2021, the Center for Healthy Living hosted two free community mammogram clinics that screened 54 women.
   - Hoag's Community Nurse Navigation Program, Promotores, and Mental Health Center offered several women's health focused groups.

Substance Use

1. Provide funding and/or in-kind support to organizations focused on substance use
   - Hoag's Community Benefit Grants program provided $215,000 in funding to organizations focused on Substance Use Disorder
2. Collaborate with Hoag's Addiction Treatment Centers and community partners to develop opportunities for low-income population.
   - In CY2021, Hoag's Center for Healthy Living partnered with community partners The Phoenix and The Purpose of Recovery, to provide additional resources and peer support for the recovery community.
3. Collaborate with Federally Qualified Health Centers (FQHCs) that address substance use disorders and provide Medication-Assisted Treatment (MAT).
   - In CY2021, Hoag's Community Benefit Grants Program Supported FQHC, Korean Community Services, to expand MAT and integrated care in Irvine and surrounding cities for low-income patients.

8. References

1. Department of the Treasury Internal Revenue Service 26 CFR Parts 1, 53, and 602 Additional Requirements for Charitable Hospitals; Community Health Needs Assessments for Charitable Hospitals; Requirement of a Section 4959 Excise Tax Return and Time for Filing the Return; Final Rule E:\FR\FM\31DER2.SGM 31DER2 Tkelley on DSK3SPTVN1PROD with RULES2.; 2014. https://www.govinfo.gov/content/pkg/FR-2014-12-31/pdf/2014-30525.pdf
2. Reports | Hoag Community Health. Hoag. https://www.hoag.org/about-hoag/community-benefit/reports/
3. Price A, Villarosa A. The Cost of Being Californian. Insight Center. Published 2021. https://insightcced.org/wp-content/uploads/2021/05/INSIGHT_CostofBeingCalifornian_6_web.pdf
4. Family Needs Calculator. Insight Center. https://insightcced.org/family-needs-calculator/
5. McDowell S. Understanding Cancer Death Rates. Cancer.org. Published 2019. https://www.cancer.org/latest-news/understanding-cancer-death-rates.html
6. Rogers SE, Thrasher AD, Miao Y, Boscardin WJ, Smith AK. Discrimination in Healthcare Settings is Associated with Disability in Older Adults: Health and Retirement Study, 2008-2012. J Gen Intern Med. 2015;30(10):1413-1420. doi:10.1007/s11606-015-3233-6
7. Raudenbush DT. "We go to Tijuana to double check everything": The contemporaneous use of health services in the U.S. and Mexico by Mexican immigrants in a border region. Social Science & Medicine. 2021;270:113584. doi:10.1016/j.socscimed.2020.113584
8. Adler KG. Screening for Social Determinants of Health: An Opportunity or Unreasonable Burden? Family Practice Management. 2018;25(3):3-3. https://www.aafp.org/pubs/fpm/issues/2018/0500/p3.html#:~:text=Consider%20that%2080%20percent%20to
9. Braveman P. A New Definition Of Health Equity To Guide Future Efforts And Measure Progress. Forefront Group. Published online June 22, 2017. doi:10.1377/forefront.20170622.060710
10. Orange County Needs and Gaps Analysis. https://ochealthinfo.com/sites/hca/files/import/data/files/107926.pdf
11. Defining Housing Affordability | HUD USER. Huduser.gov. Published 2014. https://www.huduser.gov/portal/pdredge/pdr-edge-featd-article-081417.html
12. Stanfordhealthcare.org. Published 2022. https://stanfordhealthcare.org/content/dam/SHC/about-us/public-services-and-community-partnerships/docs/2019-SHC-Health-Profile-HousingHomelessness-w-SHC-comments.docx
13. Homelessness is a Housing Problem. homelessnesshousingproblem.com. https://homelessnesshousingproblem.com/
14. National Health Care for the Homeless Council. Homelessness & Health: What's the Connection? National Health Care for the Homeless Council; 2019. https://nhchc.org/wp-content/uploads/2019/08/homelessness-and-health.pdf
15. Stafford A, Wood L. Tackling Health Disparities for People Who Are Homeless? Start with Social Determinants. International Journal of Environmental Research and Public Health. 2017;14(12):1535. doi:10.3390/ijerph14121535
16. Homeless Data Integration System - California Interagency Council on Homelessness. bcsh.ca.gov. https://bcsh.ca.gov/calich/hdis.html
17. County of Orange Releases 2022 Point in Time Count Results | Orange County. ocgov.com. https://ocgov.com/news/county-orange-releases-2022-point-time-count-results
18. UCI Medical Center Community Health Needs Assessment. Published 2021. https://www.ucihealth.org/-/media/files/pdf/about/2022-community-health-needs-assessment.pdf?la=en
19. Orange County Community Indicators 2021- 2022. Published 2021. https://ocbc.org/wp-content/uploads/2021/09/2021-OC-Community-Indicators-Report.pdf
20. Tracking the COVID-19 Economy's Effects on Food, Housing, and Employment Hardships. Center on Budget and Policy Priorities. Published February 10, 2022. https://www.cbpp.org/research/poverty-and-inequality/tracking-the-covid-19-economys-effects-on-food-housing-and#:~:text=The%20unemployment%20rate%20jumped%20in

21. Family Financial Stability Index Summary Report and 2020 Neighborhood-Level Index Results for Orange County, California.; 2022. https://www.unitedwayoc.org/wp-content/uploads/2022/06/FFSI-Summary-and-2020-FFSI-OC-Results_FINAL.pdf
22. Orange, CA: Cost of Living, Salaries, Prices for Rent & food. Livingcost.org. Published July 27, 2020. https://livingcost.org/cost/united-states/ca/orange
23. II MC. Social Drivers Explored: How Economic Stability Impacts Health. www.healthify.us. https://www.healthify.us/healthify-insights/social-determinants-explored-how-economic-stability-impacts-health
24. Hernandez D. Double Jeopardy How Third-Grade Reading Skills and Poverty Influence High School Graduation.; 2011. https://folio.iupui.edu/bitstream/handle/10244/1029/DoubleJeopardyReport040511FINAL.pdf?sequence=1
25. Summative ELPAC Test Results at a Glance - ELPAC Reporting (CA Dept of Education). caaspp-elpac.cde.ca.gov. https://caaspp-elpac.cde.ca.gov/elpac/
26. County Health Rankings & Roadmaps. County Health Rankings & Roadmaps. https://www.countyhealthrankings.org/app/california/2022/measure/factors/159/data
27. Hanigan I. OC graduation rates continue to rise — and exceed state averages. OCDE Newsroom. Published December 15, 2020. https://newsroom.ocde.us/oc-graduation-rates-continue-to-rise-and-exceed-state-averages/
28. Depression-Related Feelings, by Race/Ethnicity. Kidsdata.org. https://www.kidsdata.org/topic/388/depressive-feelings-race/table#fmt=534&loc=2
29. Shortchanged: Health Workforce Gaps in Orange County. Published July 2020. https://www.chcf.org/wp-content/uploads/2020/07/ShortchangedHealthWorkforceGapsOrange.pdf
30. National Alliance on Mental Illness. Hispanic/Latinx | NAMI: National Alliance on Mental Illness. Nami.org. Published 2018. https://www.nami.org/Your-Journey/Identity-and-Cultural-Dimensions/Hispanic-Latinx
31. Tulane University. How to Improve Cultural Competence in Health Care. publichealth.tulane.edu. Published March 1, 2021. https://publichealth.tulane.edu/blog/cultural-competence-in-health-care/
32. Freestanding Federally Qualified Health Center Median Rates by County County Name Median Rate for Free-Standing FQHC Clinic Number of Active Full-Time Freestanding FQHC Clinic with Permanent Rate. https://www.dhcs.ca.gov/dataandstats/AI/Documents/FQHC/FQHC%20Median%20Rates/Median_Rates_by_County_Freestanding_FQHCs_1.30.19.pdf
33. THE 27 ANNUAL REPORT on the in ORANGE COUNTY CONDITIONS of CHILDREN. https://www.ssa.ocgov.com/sites/ssa/files/2021-11/27th%20Annual%20Conditions%20of%20Children_With%20Supplemental%20Tables_0.pdf
34. FEEDING AMERICA. Understanding Hunger and Food Insecurity | Feeding America. Feedingamerica.org. Published 2018. https://www.feedingamerica.org/hunger-in-america/food-insecurity
35. Hunger. Second Harvest Food Bank of Orange County. Published August 23, 2021. https://feedoc.org/hunger/
36. Coleman-Jensen A, Gregory C, Singh A. Household Food Security in the United States in 2013. SSRN Electronic Journal. Published online 2014. doi:10.2139/ssrn.2504067
37. Importance of Nutrition on Health in America | Feeding America. Feedingamerica.org. Published 2000. https://www.feedingamerica.org/hunger-in-america/impact-of-hunger/hunger-and-nutrition
38. Seligman HK, Laraia BA, Kushel MB. Food Insecurity Is Associated with Chronic Disease among Low-Income NHANES Participants. The Journal of Nutrition. 2009;140(2):304-310. doi:10.3945/jn.109.112573
39. USDA ERS - Struggling To Feed the Family: What Does It Mean To Be Food Insecure? Usda.gov. Published 2018. https://www.ers.usda.gov/amber-waves/2007/june/struggling-to-feed-the-family-what-does-it-mean-to-be-food-insecure/
40. Wolfson JA, Garcia T, Leung CW. Food Insecurity Is Associated with Depression, Anxiety, and Stress: Evidence from the Early Days of the COVID-19 Pandemic in the United States. Health Equity. 2021;5(1):64-71. doi:10.1089/heq.2020.0059
41. Together OCH. Orange County's Healthier Together :: Indicators :: Adults Who Are Obese :: County : Orange. www.ochealthiertogether.org. https://www.ochealthiertogether.org/indicators/index/view?indicatorId=54&localeId=267&localeChartIdxs=1
42. Orange County HEALTHIER.; 2020. https://www.ochealthiertogether.org/content/sites/ochca/OCHIP_Docs/OC_Health_Improvement_Plan_2020-2022_FINAL.pdf

43. Together OCH. Orange County's Healthier Together :: Indicators :: Adults with Diabetes :: County : Orange. www.ochealthiertogether.org. https://www.ochealthiertogether.org/indicators/index/view?indicatorId=81&localeId=267&comparisonId=927&localeChartIdxs=1%7C2%7C4

44. National Institute on Aging. Diabetes in Older People. National Institute on Aging. Published 2017. https://www.nia.nih.gov/health/diabetes-older-people

45. Together OCH. Orange County's Healthier Together. www.ochealthiertogether.org. https://www.ochealthiertogether.org/tiles/index/display?alias=leadingcauses

46. Content | UCI Health | Orange County, CA. www.ucihealth.org. https://www.ucihealth.org/health-library/content?contentTypeID=85&contentID=P07855

47. Together OCH. Orange County's Healthier Together :: Indicators :: Fast Food Restaurant Density :: County : Orange. www.ochealthiertogether.org. https://www.ochealthiertogether.org/indicators/index/view?indicatorId=242&localeId=267

48. Childhood Cancer Diagnoses. Kidsdata.org. https://www.kidsdata.org/topic/245/cancer/table#fmt=2382&loc=2

49. State Cancer Profiles > Incidence Rates Table. statecancerprofiles.cancer.gov. https://statecancerprofiles.cancer.gov/incidencerates/index.php?stateFIPS=06&areatype=county&cancer=047&stage=211&race=00&sex=0&age=001&type=incd

50. The California Cancer Care Equity Act Is Now Law! Cancer Care is Different. https://www.cancercarediff.org

51. Bill Text - SB-987 California Cancer Care Equity Act. leginfo.legislature.ca.gov. https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB987

52. UCI receives $700K from the City of Santa Ana to support new initiatives for health literacy, address barriers to COVID-19 resources in vulnerable populations – UCI Program in Public Health. https://publichealth.uci.edu/2021/08/04/uci-receives-700k-from-the-city-of-santa-ana-to-support-new-initiatives-for-health-literacy-address-barriers-to-covid-19-resources-in-vulnerable-populations/

53. Orange Air Quality Index (AQI) and California Air Pollution | IQAir. www.iqair.com. https://www.iqair.com/us/usa/california/orange

54. Bridging the Digital Divide: OC Launches WiFi on Wheels Pilot Program | First District Supervisor Andrew Do. bos1.ocgov.com. https://bos1.ocgov.com/Bridging-the-Digital-Divide-OC-Launches-WiFi-on-Wheels-Pilot-Program