



# Pediatric Post-Acute Hospital & Subacute

*"Where specialized care begins and hope never ends"*

## 2022 Community Health Needs Assessment

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## I. Acknowledgements and Access

### **Acknowledgements**

This Community Health Needs Assessment (CHNA) was completed with the generous contribution of time and information from the clinical and lay leadership of HealthBridge Children’s Hospital – Orange (HealthBridge or HB), whose insights into the community and in particular pediatric complex care needs in Orange County were invaluable.

Additional thanks go to the numerous healthcare providers, agencies, educational leadership, community businesses, community leadership, residents and political representatives that provided additional viewpoints ensuring this CHNA would be as comprehensive as possible.

### **Board Action**

On June 27, 2022, the HealthBridge Children’s Hospital – Orange Board of Directors adopted the Community Health Needs Assessment report and approved publication on June 30, 2022.

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### **Electronic Access**

This publication and the related information can be accessed electronically at:

<https://www.healthbridgecc.org>.

### **Written Comments:**

We welcome comments and feedback on this report. For questions, comments, strategic partnership opportunities or other needs, please contact Roberta Consolver at

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## II. Executive Summary

HealthBridge Children’s Hospital – Orange is located in Orange County, California. This 27-bed acute care hospital specializes in brain and spinal cord injuries. As a source of care for children and adolescents in Orange County, HealthBridge is dedicated to building a strong connection with the community and improving the health of the children that live in that community.

This Community Needs Assessment, while a requirement, offers HealthBridge the opportunity to engage the community in a broad way. The Assessment identified numerous challenges facing both adults and children living in Orange County. Using the primary data, published data and statistics from various sources, several themes emerged regarding needs and/or gaps in service for those living in Orange County. As explained in more detail in the Assessment, the following community needs and HealthBridge priorities are as follows:

Identified Health Challenge Category	Identified Health Challenge Subset	HealthBridge New Priority?	Why/Why Not?
Mental Health	Teenage Suicide <sup>3</sup>	No	Inpatient counseling services available now
Mental Health	Depression <sup>3</sup>	No	Inpatient counseling services available now
Mental Health	Substance Abuse	No	Beyond the scope of services
Education	Drop Out Rate	No	Has School in the Hospital program for inpatients
Education	Violence/Bullying <sup>3</sup>	No	Inpatient counseling services available now
Education	Language Barrier	No	Interpreters currently in place
Housing	Affordability	No	Beyond the scope of services
Housing	Shelters	No	Beyond the scope of services
Nutrition	Access to Healthy Food	No	Nutrition counseling part of care plan if needed
Nutrition	Obesity	No	Nutrition counseling part of care plan if needed
Nutrition	Family Education <sup>3</sup>	No	Nutrition counseling part of care plan if needed
Nutrition	Diabetes	No	Nutrition counseling part of care plan if needed
Nutrition	Oral Health <sup>1</sup>	No	Nutrition counseling part of care plan if needed
Access to Care	Sub-Acute Beds <sup>5</sup>	Yes	Part of strategic plan to expand number of beds
Access to Care	Acute/Sub-Acute Services <sup>5</sup>	Yes	Telemetry services in process for acute care patients
Access to Care	Pediatric PT/OT/ST <sup>4</sup>	Yes	Recognized as need and expanding outpatient services
Access to Care	Clinical Child Day Care	No	Part of planned strategy – FY 2024
Child Safety	Avoidable Injury	Yes	Continue providing injury prevention education and bike helmets to community
Child Safety	Home Violence	No	Coordinate with public services if needed
Child Safety	Immunizations	No	Orange Cnty has one of highest levels of immunization

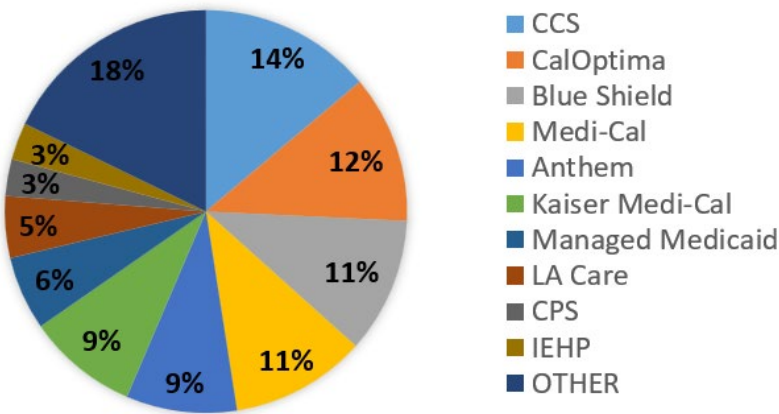
### III. HealthBridge Overview

HealthBridge was originally built in 1999 with cosmetic refurbishments occurring over time. This one-story, specialty children’s hospital encompasses approximately 21,500 square feet and sits on 3.21 total acres of land. The Orange County facility is a 27-bed Acute Care Hospital including a distinct Skilled Nursing Facility portion, with 24 individual rooms and a shared three bed suite. The facility currently serves children from the ages of 0-21 recovering from and being treated for a multitude of complex illnesses and conditions.

HealthBridge’s specialty is neurotrauma, including brain and spinal cord injury/illness and the primary cause of injury to children under the age of 21 are motor vehicle accidents, near drownings, and attempted suicide all of which typically involve neuro trauma. Our distinct skilled nursing with a rehabilitation designation allows us to care for much more medically complex children than standalone subacute programs throughout the state.

HealthBridge can receive payments proportionate to a smaller, specialty children’s hospital which represents a diverse socioeconomic population. As shown, payer agreements with multiple payers provide insurance coverage to the patients receiving care at HealthBridge. Currently, approximately 70% of California Children’s Services (CCS) eligible children are also Medi-Cal eligible. Together, the combined Medi-Cal and CCS coverages are the largest payers for HealthBridge. The cost of care for the other 30% of children is split equally between CCS Only and CCS Healthy Families.

Exhibit 1 – HealthBridge Payer Mix



Source: HB Internal Data

## IV. Regulatory Requirements

Section 501(r)(3)(A) requires a hospital organization to conduct a community health needs assessment (CHNA) every three years, and to adopt an implementation strategy to meet the community health needs identified through the CHNA.

Section 501(r)(3)(B) provides that the CHNA must:

- Consider input from people who represent the broad interests of the community served by the hospital facility, including those with special knowledge of or expertise in public health, and be made widely available to the public.
- A hospital organization meets the requirements of Section 501(r)(3) with respect to the hospital facilities it operates:
  - If the hospital facilities have conducted a CHNA in the taxable year or in either of the two immediately preceding taxable years, and
  - an authorized body of the hospital facility has adopted an implementation strategy to meet the community health needs identified through the CHNA on or before the 15th day of the fifth month after the end of such taxable year.

*Compliance on Timing* - HealthBridge Orange was acquired in September 2020. Although the acquirer and licensed operator is a single member limited liability company, the underlying single member represents the 50/50 joint venture between HealthBridge Pediatric Care (a for profit entity) and Ascension Health Alliance (a NFP entity).

While the joint venture operates as a for profit enterprise, the underlying Ascension member is subject to the 501(r) regulations governing not for profit entities. With newly acquired assets, this is due at the end of the second tax year of the not-for-profit member. Ascension has a fiscal year ending June 30. Accordingly, the initial CHNA for HealthBridge is due June 30 and will be completed every three years thereafter.

While required to conduct a CHNA, HealthBridge is also allowed to prioritize which community issues need to be addressed, and further refine that list based upon the services and impact HealthBridge will focus on as long as there is a clear rationale. Therefore, this CHNA identifies the health and/or healthcare needs of the citizens of Orange County, California, but limits the implementation plan to the narrow service niche HealthBridge offers.

## V. Methodology

The goals of the assessment are:

- To examine the current health status of children and identify unmet health needs in HB's service area identified as Orange County
- To identify the current health priorities—as well as new and emerging health concerns—among children and families within the larger social context of the community
- To explore community strengths, resources, and gaps in services to guide future programming, funding, and policy priorities for HB as appropriate
- To provide community insights into the health and well-being of the Orange County's children and families

By regulation, HealthBridge, in its efforts to assess the health needs of Orange County, must gather qualitative and quantitative data, and input received from persons who represent the broad interests of that community, including those with special knowledge of or expertise in public health. HealthBridge used publicly available information and engaged community organizations, local officials, schools, health care providers, the business communities, residents, people representing medically underserved, low-income and minority populations in the community and others. In all aspects of data collection, our process was tailored to investigating conditions impacting people in Orange County, allowing HealthBridge to better understand the health issues that most affect Orange County and potentially the requisite resources available.

The key data collection methods of the CHNA included:

- Primary data collection via distributed community surveys
- Key informant interviews with organizational, government, and community leaders
- Review of secondary data from multiple city, state, and national sources (cited in Appendix III)

Specifically, HealthBridge must both solicit and consider input received from the following sources in identifying and prioritizing significant health needs and in identifying resources potentially available to address those health needs.

1. At least one state, local, tribal, or regional governmental public health department (or equivalent department or agency), or a State Office of Rural Health described in Section 338J of the Public Health Services Act, with knowledge, information, or expertise relevant to the health needs of the community. HealthBridge reviewed and included information from, but not limited to the following:
  - a. Orange County Department of Children and Family Services
  - b. Orange County Health Department
2. Members of medically underserved, low-income, and minority populations in the community served by the hospital facility, or individuals or organizations serving or representing the interests of these populations. This included, but was not limited to:
  - a. First 5 Orange County
  - b. Orange County United Way



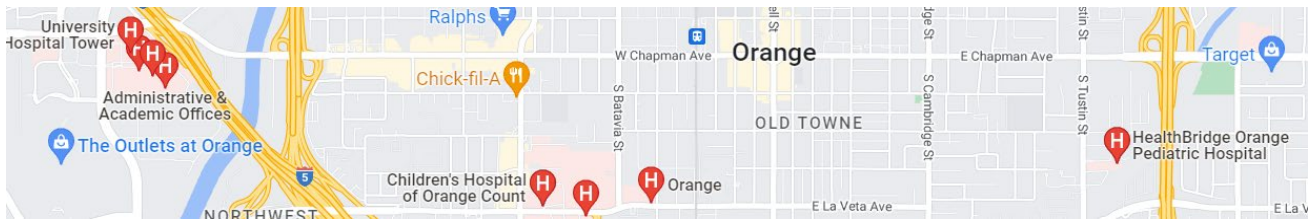
3. Written comments received on the hospital facility's most recently conducted CHNA and most recently adopted implementation strategy.
  - a. As previously identified, this is the first CHNA for HealthBridge. Therefore, there are not any previously published or received comments used in the development of this CHNA.

In addition to soliciting input from the required sources, HealthBridge received input from a broad range of persons/agencies/providers located in or serving Orange County. This includes, but is not limited to:

- Not for profit and community-based organizations
- Academic experts
- Local government officials
- Local school district
- Health care providers and community health centers
- Providers focused on medically underserved populations, low-income individuals, minority groups, or those with chronic disease needs
- Health insurance and managed care organization
- Private businesses, and
- Charitable organizations

## VI. HealthBridge Service Area – Orange County

**Exhibit 2 – HealthBridge and Primary Referral Hospital Locations**



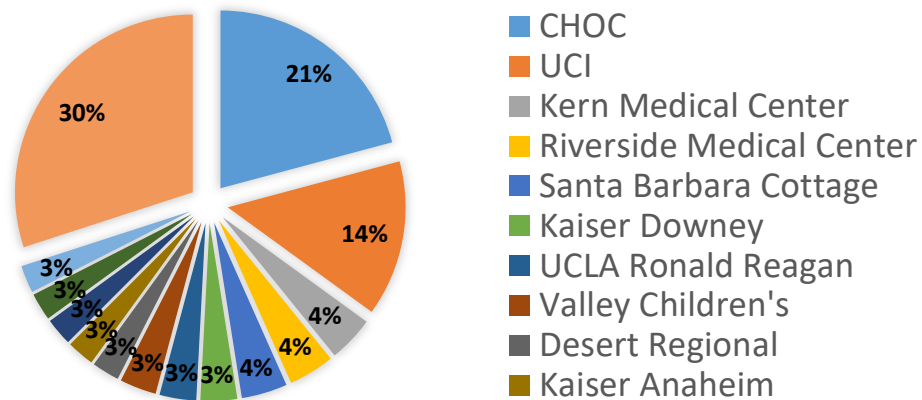
Source: Google Maps

HealthBridge has consistently identified their Community Health Assessment Service Area as Orange County, California.

HealthBridge has a close referral relationship with CHOC (Children’s Hospital of Orange County) and the University of California Irvine Medical Center (UCI) and, as shown in Exhibit I, and are also very close geographically. Together those two primary referral hospitals represent about 35% of patient admissions.

The largest referral source is “other”. This represents patients that have come from other locations but include place of origin as Orange County. As the historic information consistently identifies the majority of patients are from Orange County, HealthBridge continues to consider Orange County as its Service Area.

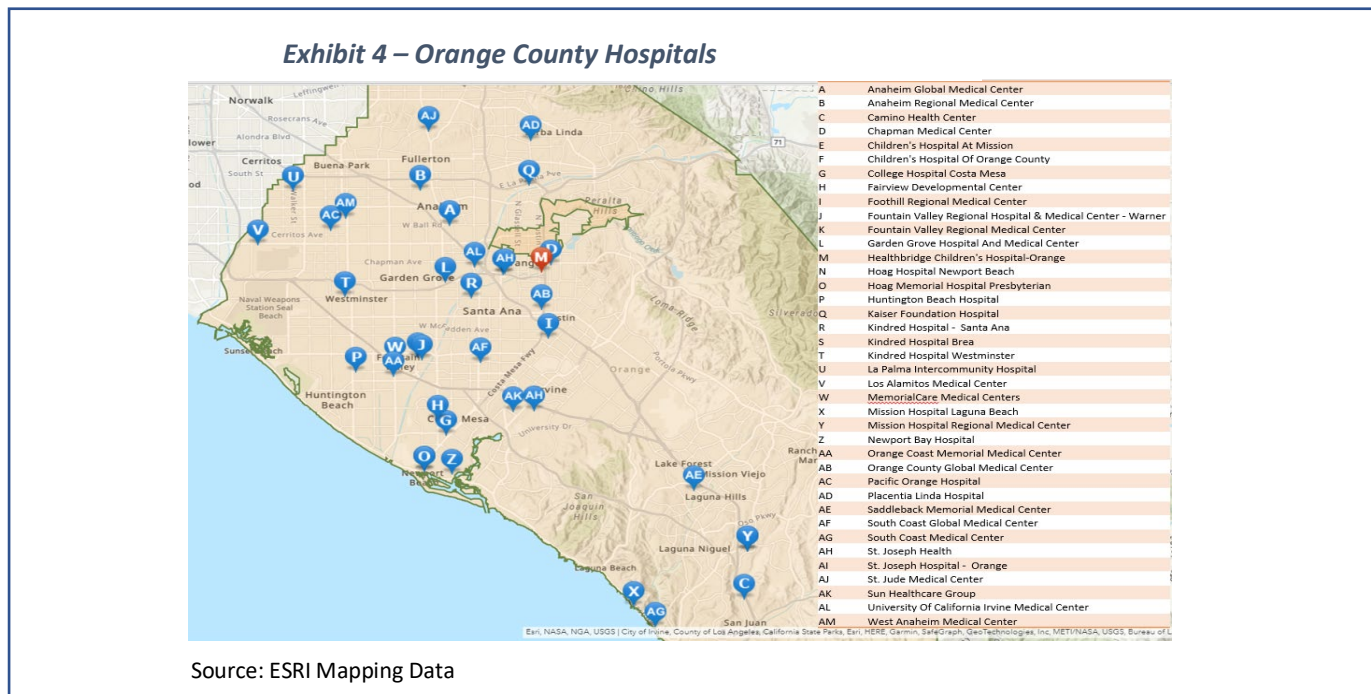
**Exhibit 3 – Patient Referrals by Provider**



Source: HB Internal Data

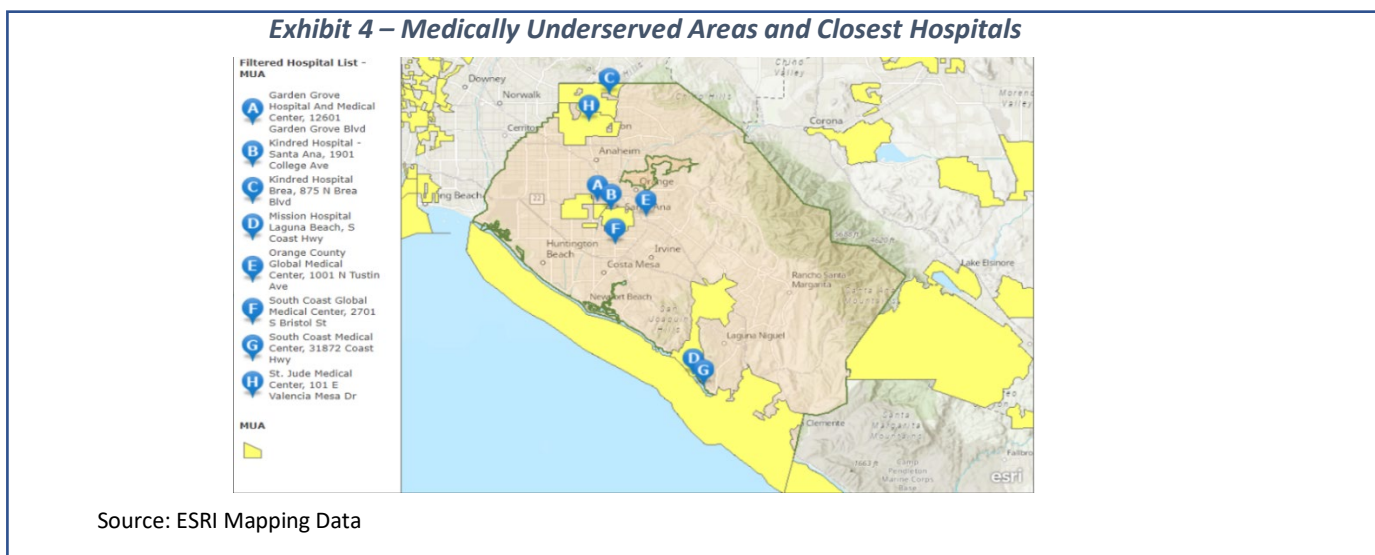
## Orange County Hospitals

One of the first components of the HealthBridge 2022 Community Health Needs Assessment was identifying the Orange County hospitals in relation to HealthBridge. As shown in the following map, HealthBridge is identified with the red “M”. The other hospitals are identified by the key displayed.



Orange County also includes areas that are medically underserved as shown in the following map. Medically Underserved Areas (MUAs) are areas or populations designated by the Health Resources Service Administration (HRSA) as having too few primary care providers, high infant mortality, high poverty or a high elderly population.

Even though they are designated as underserved, as shown, there are providers in those areas. Further, there are additional support services and outreach programs that also provide services for those living in those designated areas. The designation is not always the lack of primary care but includes the associated poverty level criteria.



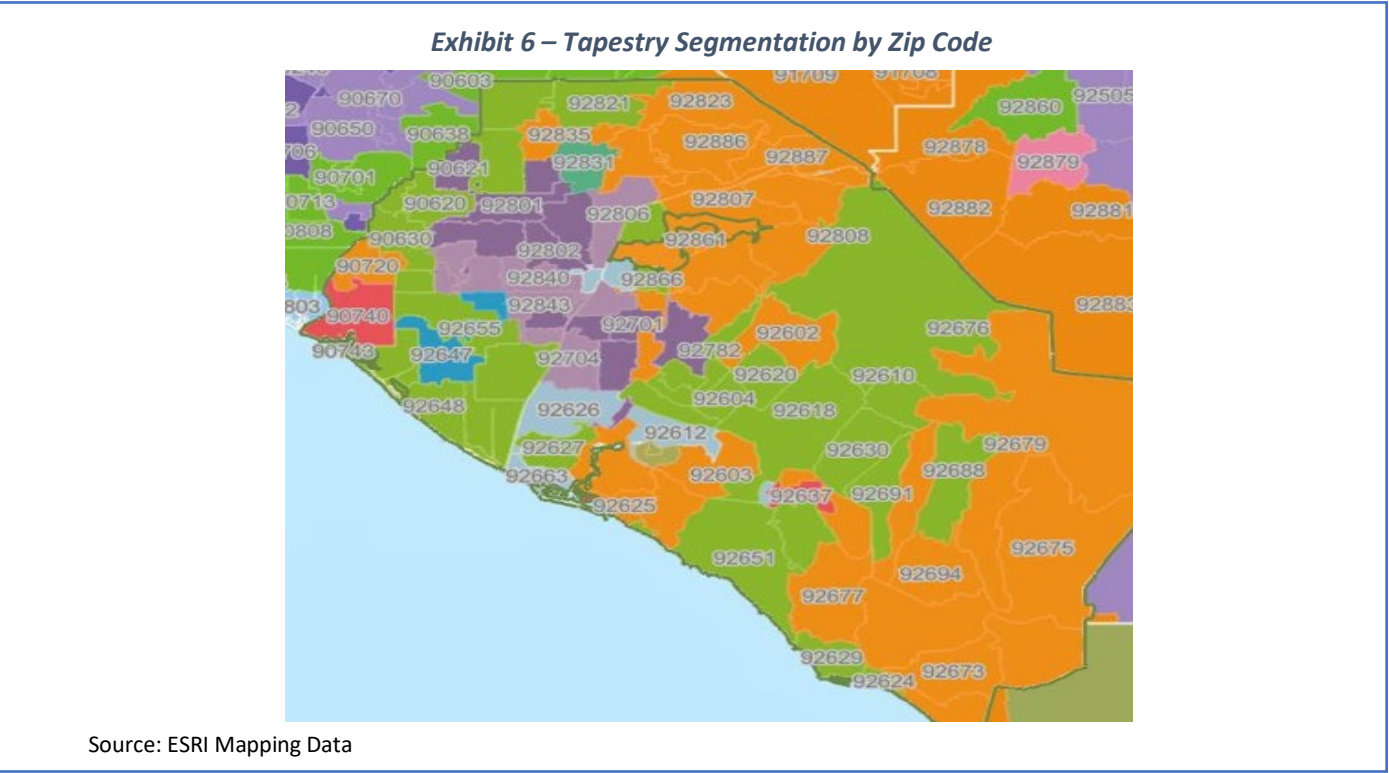
A valuable method of Assessment includes the use of tapestry segmentation. The segmentation not only details the diversity of Orange County but also identifies the unique characteristics of people living in Orange County that share similar traits, by zip code. Understanding the differences within the population helps identify the health needs and service support by area within Orange County.

ESRI ArcGIS (ESRI) connects the seemingly disconnected populations with the most comprehensive set of analytical methods and spatial algorithms. The ESRI data for Orange County identified the top 10 tapestry segments which included only five of the 14 potential LifeModes, as the map below suggests. LifeMode groups represent a population living in specific areas that share a common experience or experiences and coalesce into neighborhoods or similar community types. The 14 LifeModes represented in Orange County as follows:

**Exhibit 5 – LifeModes**

 L1: Affluent Estates	 L6: Cozy Country Living	 L11: Midtown Singles
 L2: Upscale Avenues	 L7: Ethnic Enclaves	 L12: Hometown
 L3: Uptown Individuals	 L8: Middle Ground	 L13: Next Wave
 L4: Family Landscapes	 L9: Senior Styles	 L14: Scholars and Patriots
 L5: GenXurban	 L10: Rustic Outposts	 Unclassified

Source: ESRI Mapping Data



The top LifeModes in Orange County are identified and described as:

### 1) LifeMode 1 – Affluent Estates

- Established wealth—educated, well-traveled married couples
- Less than 10% of all households, with 20% of household income
- Homeowners (about 90%) with mortgages (62.5%)
- Married families with kids ranging from grade school to college
- Expect quality; invest in timesaving svcs
- Participate actively in their communities
- Active in sports and enthusiastic travelers

### 2) LifeMode 2 – Upscale Avenues

- Prosperous married couples living in older suburban enclaves
- Subscribe to premium movie channels
- Homeowners (70%); prefer more urban settings
- Homeowners with older homes; large share in town homes
- Serious shoppers, from Nordstrom to Marshalls, who appreciate quality and bargains
- Ambitious and hardworking
- Financially responsible
- Active in fitness pursuits

### 3) LifeMode 7 - Ethnic Enclaves

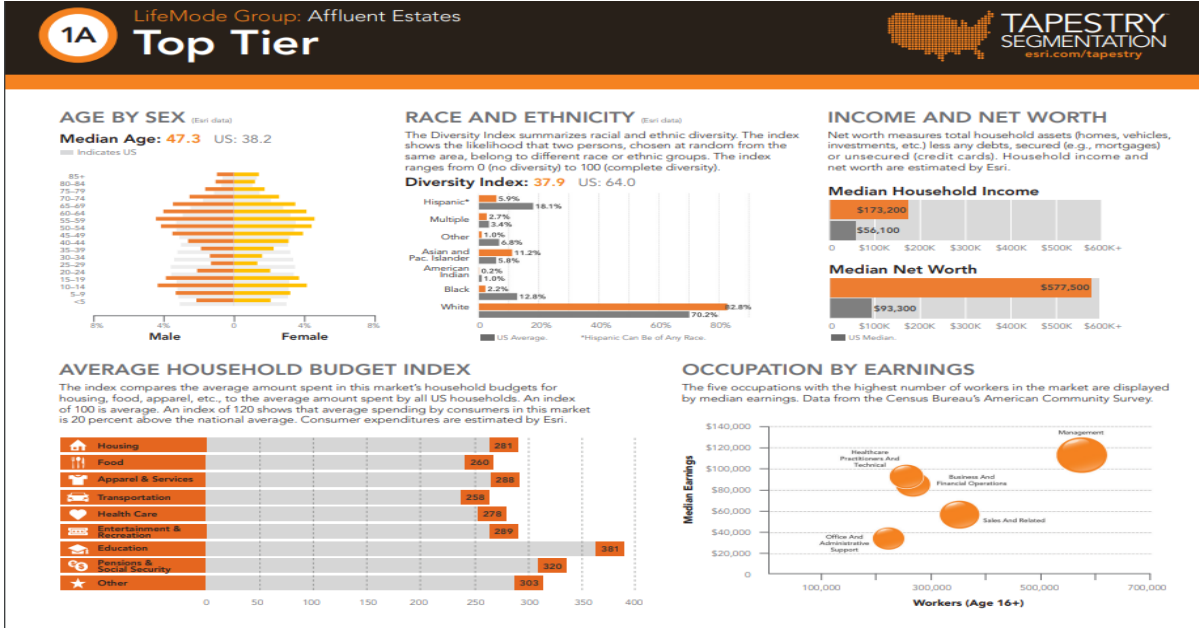
- Young homeowners with families
- Multilingual/multigenerational households / Hispanic families
- Neighborhoods feature single-family, owner-occupied homes
- Most aged 25+ with a HS diploma or some college
- Shopping and leisure with focus on their children
- Enjoy trips to theme parks, water parks, or the zoo
- Many households have dogs as pets
- Hardworking and optimistic
- Built at city's edge, primarily after 1980
- Kids enjoy video games on owned devices
- Buy baby and kid's apparel / toy products

### 4) LifeMode 13 - Next Wave

- Urban dwellers; young, hardworking families
- A large share are foreign born / speak only their native language
- Most are renters in older multiunit buildings, built 1960s or earlier
- Hardworking, long commutes to jobs, often using public transit
- Focus on children (high-end apparel) and personal appearance
- Young, multigeneration, families with kids
- Spend reflects the youth of the consumers
- Partial to soccer and basketball
- Top market for moviegoers and fast food

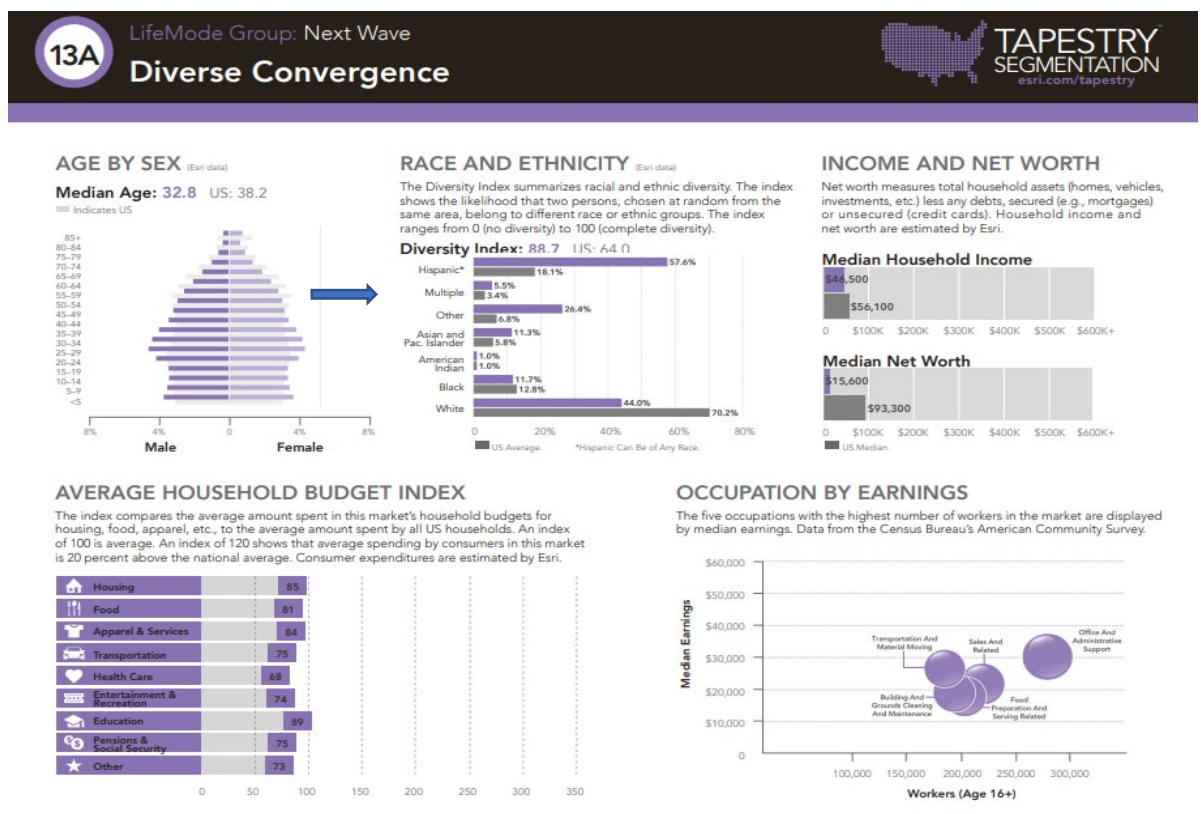
Drilling down further into the subsets of the LifeModes demonstrates even greater differentiation in Orange County. Part of LifeMode 1 is a segment called Top Tier, and part of LifeMode 13 is a segment called Diverse Convergence. Both are identified by color on the map. This information was used to help identify race and ethnicity, average household budgets and common occupations with related earnings.

### Exhibit 7 – Top Tier Demographic Diversity Information



Source: ESRI Tapestry Segmentation

### Exhibit 8 - Diverse Convergence Diversity Information



Source: ESRI Tapestry Segmentation

## VII. Demographics

*Orange County Demographic Summary* – As mentioned before, Orange County has a diverse population with pockets of people of various socioeconomic levels spread throughout. To better assess Orange County, understanding trends of the population projected through 2026 sheds light on the potential need to increase support services for those living in Orange County. Based upon the following demographic projections, one priority is affordable housing. Additionally, the trend toward a slight decrease of school age children accompanied by a large increase in those age 65+ is a shift that may put more pressure on providing senior services and shifting away from children’s services. Finally, as noted, there is a relatively large increase in minorities in the County, including those identified as one race/ethnicity of Black and Asian.

The overall population is projected to increase by 2.5% from 2021 through 2026. Of note is the increase in residents aged 65+, with growth rate of almost 15%. Additionally, those over 85 are projected to increase by almost 11%. These increases through 2026 might alter funding availability and commitment for support services.

**Exhibit 9 – Orange County Projected Population Changes by Age**

Ages	2021		2026		2021 - 2026	
	Number	Percent	Number	Percent	Number	Percent
0 - 19	781,653	24.5%	766,256	23.4%	-15,397	-2.0%
20 - 64	1,916,492	60.0%	1,938,800	59.2%	22,308	1.2%
65 - 84	432,586	13.5%	499,400	15.2%	66,814	15.4%
85+	64,428	2.0%	71,451	2.2%	7,023	10.9%
<b>Total</b>	<b>3,195,159</b>		<b>3,275,907</b>		<b>80,748</b>	<b>2.5%</b>

Source: ESRI Data

The demographics are also shifting within the number of people identified by race and/or ethnicity. Those that identify as White Alone (no mixed ethnicity) are projected to decrease by almost 2% from 2021 through 2026. However, a 12% increase is projected for those that identify as Asian Alone. That was followed by a projected increase of almost 8% for those that are more than two races, and a 6% increase in those that identified as Black Alone.

**Exhibit 10 - Orange County Change in Race and Ethnicity 2021 - 2026**

Race and Ethnicity	2021		2026		2021 - 2026	
	Number	Percent	Number	Percent	Number	Percent
White Alone	1,777,678	55.6%	1,746,846	53.3%	-30,832	-1.7%
Black Alone	60,347	1.9%	63,943	2.0%	3,596	6.0%
American Indian Alone	17,709	0.6%	17,413	0.5%	-296	-1.7%
Asian Alone	700,589	21.9%	786,290	24.0%	85,701	12.2%
Pacific Islander Alone	10,017	0.3%	10,208	0.3%	191	1.9%
Some Other Race Alone	471,894	14.8%	482,239	14.7%	10,345	2.2%
Two or More Races	156,925	4.9%	168,968	5.2%	12,043	7.7%
<b>Total</b>	<b>3,195,159</b>		<b>3,275,907</b>		<b>80,748</b>	<b>2.5%</b>

Source: ESRI Data

Hispanic Origin (Any Race) 1,093,720 34.2% 1,129,772 34.5% 36,052 3.3%

Another significant change projected through 2026 is the number of households by income level. Households earning less than \$75,000 are projected to decrease by over 12%. However, those households

earning above \$75,000 are projected to increase through 2026. The largest increase were for those households earning more than \$150,000 per year, growing by almost 18% over the projection period.

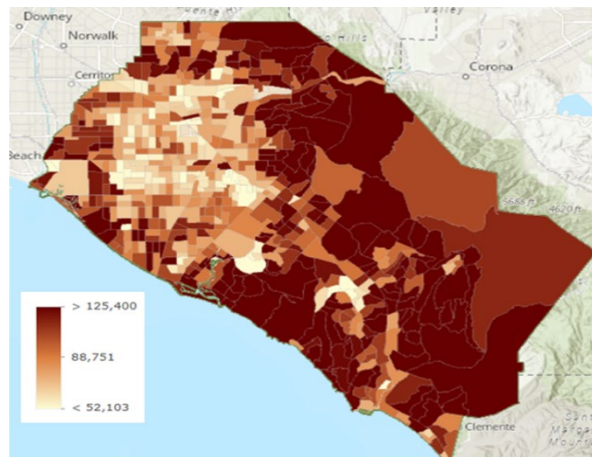
**Exhibit 11 - Orange County Households by Income 2021 - 2026**

Households by Income	2021		2026		2021 - 2026	
	Number	Percent	Number	Percent	Number	Percent
<\$15,000	68,650	6.6%	56,983	5.3%	-11,667	-17.0%
\$15,000 - \$24,999	50,990	4.9%	40,909	3.8%	-10,081	-19.8%
\$25,000 - \$34,999	57,074	5.4%	47,893	4.5%	-9,181	-16.1%
\$35,000 - \$49,999	88,352	8.4%	77,758	7.2%	-10,594	-12.0%
\$50,000 - \$74,999	144,442	13.8%	136,548	12.7%	-7,894	-5.5%
\$75,000 - \$99,999	122,246	11.7%	123,568	11.5%	1,322	1.1%
\$100,000 - \$149,999	210,263	20.1%	228,921	21.3%	18,658	8.9%
\$150,000 - \$199,999	123,222	11.8%	146,242	13.6%	23,020	18.7%
\$200,000+	182,521	17.4%	214,274	20.0%	31,753	17.4%
<b>Median Household Income</b>	<b>\$97,972</b>		<b>\$108,062</b>		<b>10,090</b>	<b>10.3%</b>
<b>Average Household Income</b>	<b>\$130,171</b>		<b>\$146,997</b>		<b>16,826</b>	<b>12.9%</b>
<b>Per Capita Income</b>	<b>\$42,721</b>		<b>\$48,187</b>		<b>5,466</b>	<b>12.8%</b>

Source: ESRI Data

The map below identifies geographic areas by median household income. The median household income was just under \$98,000 and is projected to increase by over 10% through 2026.

**Exhibit 12 - Orange County Median Household Income Heat**



Source: ESRI Data

The shifting median household income is a component of housing affordability. 2021 estimates identify the number of renters and their percentage of income going towards rent. According to multiple sources, a positive target for rent as a percent of income is approximately 30%. As shown in the next table, the largest cohort is paying more than 50% of their income towards rent. Approximately 54% of the renter population is paying greater than 30% of their income toward rent, which could be an indicator of risk for the Orange County’s real estate market, as renting may be out of reach for some residents.

**Exhibit 14 - Orange County Percent of Income for Rent 2021**

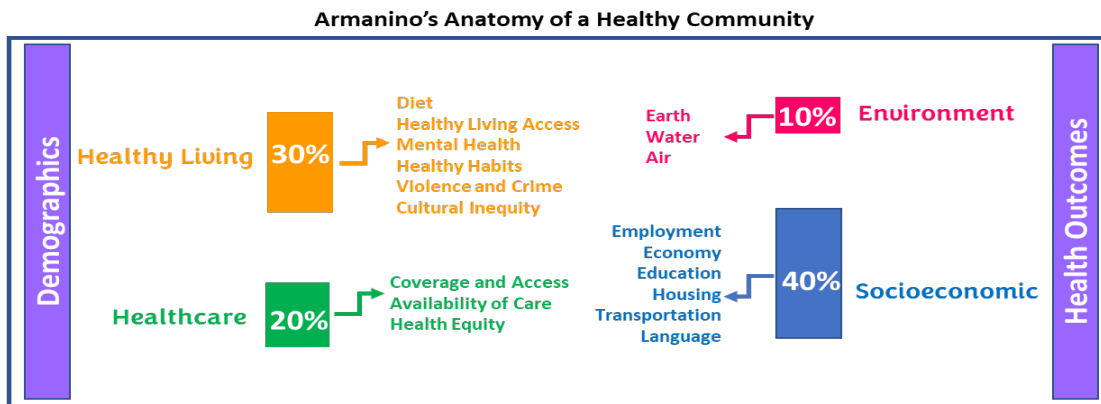
<10% of Income	10,490	2.4%	30-34.9% of	43,177	9.8%
10-14.9% of Income	25,372	5.7%	35-39.9% of	31,558	7.1%
15-19.9% of Income	43,155	9.8%	40-49.9% of	43,646	9.9%
20-24.9% of Income	53,571	12.1%	50+% of Income	120,166	27.2%
25-29.9% of Income	50,697	11.5%	<b>Gross Rent %</b>	<b>20,388</b>	<b>4.6%</b>

Source: ESRI data



## VIII. Orange County Health Assessment

To complete the HealthBridge 2022 CHNA, the *Armanino Anatomy of a Healthy Community Framework™* was adopted to assess the health needs of Orange County, and then analyze the health outcomes of the community. The Framework was developed through initial demographic identification combined with the precept, according to the Neighborhood Outreach Access to Health (NOAH), that 80% of what makes up someone’s health is determined by what happens outside of the hospital or health clinics. By then integrating the demographic information with various health factors, HealthBridge was able to identify the health outcomes of the community.



These health outcomes were then prioritized based on multiple inputs to create an action plan that HealthBridge, with its very narrow service focus, might be able to positively impact.

### Healthcare

Understanding those challenges that exist in Orange County related to the provision of healthcare is more than just identifying the hospitals and specifically pediatric hospitals in the market. Multiple factors impact the provision of healthcare services.

#### Coverage and Access

Health insurance and the ability of a patient or patient’s family to pay for the services provided is one of the top challenges for receiving care. When a patient has adequate insurance and understands how to use it, the likelihood to use this coverage allows a patient to get care prior to the condition worsening. Additionally, access to specialists when needed is more likely. Conversely, when a patient has no insurance or is underinsured, the likelihood of seeking and receiving care is more likely only through the emergency department of a hospital, which increases the cost of care significantly.

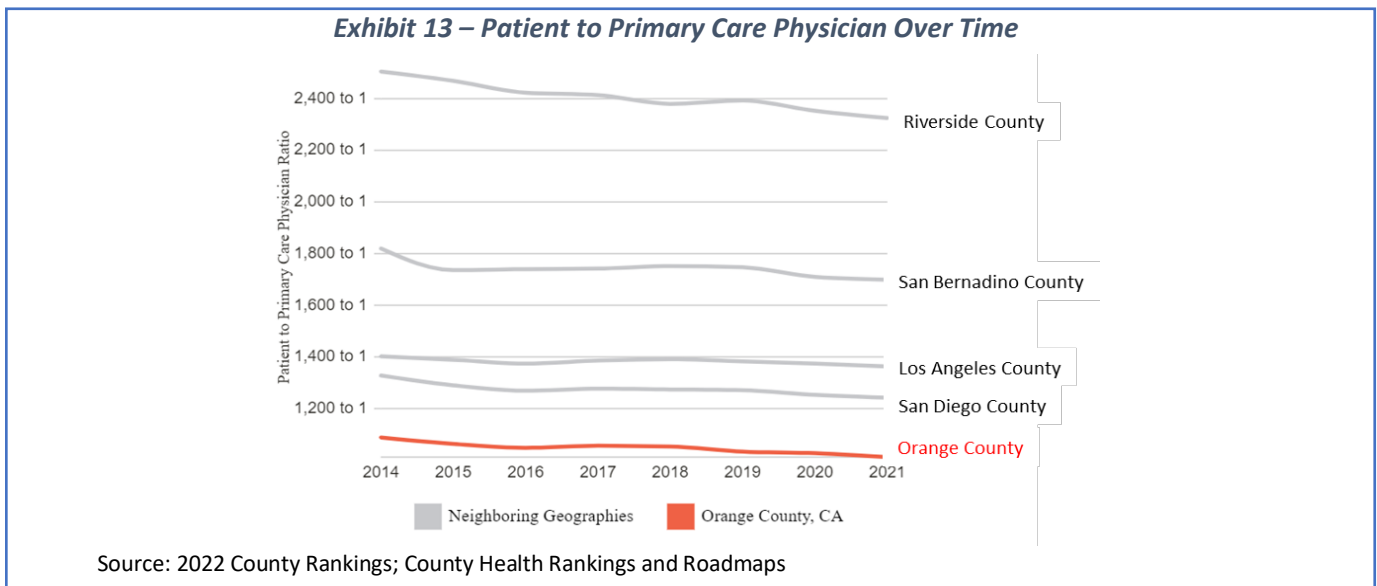
The average of uninsured residents in Orange County has increased from 7% in 2018 to the State average of 7.7% in 2019. In 2019, Orange County residents earning under \$25,000, and those earning between \$25,000 and \$49,000, saw insurance coverage increases of 2.2% and 0.9%, respectively. Adults in both the 18-34 and the 65+ age groups saw improvements in health coverage by 0.9% and 0.2%, respectively. The pediatric group also saw an increase in coverage during this same time frame. All other groups saw a decline

in coverage, with the most significant decline of 4.1% occurring in residents earning between \$75,000 and \$99,000.

### Availability of Care

The number of primary care physicians per patient in Orange County is an estimate for the availability of care. According to the Primary Health Care Performance Initiative, availability of effective primary care services includes “the presence of competent, motivated health workers at a health facility or in a community when patients seek care”. Effective primary care also requires a relationship between the provider and patient, so care becomes a participatory event and not just transactional. Health worker motivation is also crucial as that helps drive a better patient experience and oftentimes better outcomes.

Although the number of primary care physicians were not cross referenced against the specialty and characteristics of the primary care providers, there are significantly more physicians to see and treat patients in Orange County compared to the rest of the State. Orange County physicians saw an average of about 1,012 patients per year. A lower the number of patients per doctor is considered a positive indicator of coverage. Orange County has a much better ratio compared to other California counties and has been consistent over time.



### Health Equity

According to the Robert Wood Johnson Foundation, gaps in health are inconsistent throughout the country. Some of the gaps are caused by barriers, both real and perceived, that prevent patients from receiving required care. Health equity means “increasing opportunities for everyone to live the healthiest life possible, no matter who we are, where we live, or how much money we make.”

One measure of health equity is the availability of multiple types of care providers and support services in the community, which supports people living the healthiest life possible. Additional providers could be in the form of care support, referral opportunity to other resources, financial support, linguistic support, cultural sensitivity, and other value beyond just the direct provision of patient care. The following are healthcare providers and support services identified throughout Orange County. Based upon this

information, there are services available in Orange County for almost all needs identified in the Community, thus increasing the health equity in the community.

The sources for the following information are numerous and varied but primarily were identified through Armanino market research. Further, the list is not exhaustive as it does not include the numerous physicians practicing throughout the County that are both hospital-based and independent.

### Exhibit 14 - Available Health Services in Orange County

Organization/Agency	Address	Health Services	Hospital	Denial	Housing	Nutrition	Health Insurance	Social Services	Mental Health	Substance Abuse/Addiction	Child Safety/Health
2-1-1 Orange County	P.O. Box 10473 Santa Ana, CA 92711				X	X		X			X
Advantage Plus Medical Center	18021 Sky Park Cir., Bldg 68, Ste. G, Irvine, CA 92614	X						X	X	X	
Anaheim Regional Medical Center	1111 West La Palma Avenue Anaheim, CA 92804	X	X								
American Lung Association	17881 Sky Park Cir Suite H/J, Irvine, CA 92614							X			
AmeriPharma Infusion Center	132 S. Anita Dr., Suite A, Orange, CA 92868	X									
Anaheim Global Medical Center	1025 South Anaheim Boulevard Anaheim, CA 92801	X	X								
Asana Recovery	1730 Pomona Ave Suite 3, Costa Mesa, CA 92627	X			X					X	
Be Well Orange County	265 S Anita Dr, Orange, CA 92868				X			X	X	X	
CalOptima Medi-Cal	505 City Pkwy W, Orange, CA 92868						X				
Camino Health Center	30300 Camino Capistrano, San Juan Capistrano, CA 92675	X		X					X		
Cardiology Specialists of Orange County	700 N Tustin Ave, Santa Ana, CA 92705	X									
Chapman Medical Center	2601 East Chapman Avenue Orange, CA 92869	X	X								
Children's Hospital At Mission	27700 Medical Center Road Mission Viejo, CA 92691	X	X								
Children's Hospital Of Orange County	1201 West La Veta Avenue Orange, CA 92869	X	X								
CHOC Children's at Mission Hospital	27700 Medical Center Road, Mission Viejo, CA 92691	X	X	X					X		X
CHOC Children's at Orange Hospital	1201 W. La Veta Avenue, Orange, CA 92868	X	X	X					X		X
CHOC Hyundai Cancer Institute Clinic	1201 W. La Veta Ave., 2nd Floor, Orange, CA 92868	X	X								X
City of Hope Newport Beach Lido	351 Hospital Road, Suite 610, Newport Beach, CA 92663	X	X					X			
College Hospital	1634 W 19th St, Santa Ana, CA 92706	X	X						X		X
College Hospital Costa Mesa	301 Victoria Street Costa Mesa, CA 92627	X	X								
Cornerstone of Southern California	1950 East 17th Street Suite 150, Santa Ana, CA 92705	X							X	X	
Fairview Developmental Center	2501 Harbor Boulevard, Costa Mesa, CA 92627	X							x		
Family Life Center at St. Francis Hospital	3630 East Imperial Highway Lynwood, CA 90262	X	X								
Foothill Regional Medical Center	14662 Newport Avenue Tustin, CA 92780	X	X								
Fountain Valley Regional Hospital	17100 Euclid St, Fountain Valley, CA 92708	X	X								X
Fountain Valley Regional Hospital & Medical Center - Warner	11250 Warner Avenue, Fountain Valley, CA 92708	X	X								
Garden Grove Hospital And Medical Center	12601 Garden Grove Boulevard Garden Grove, CA 92647	X	X								
HealthBridge Orange Pediatric Hospital	393 South Tustin Street Orange, CA 92866	X	X								
Healthy Smiles for Kids of Orange County	10602 Chapman Ave, Garden Grove, CA 92840	X		X			X	X			X
Hoag Hospital Irvine	16200 Sand Canyon Avenue, Irvine, CA 92618	X	X								
Hoag Hospital Newport Beach	1 Hoag Drive Newport Beach, CA 92663	X	X								
Hoag Orthopedic Institute	16250 Sand Canyon Ave. Irvine, CA 92618	X			X						
Huntington Beach Hospital	17772 Beach Boulevard, Huntington Beach, CA 92649	X	X								
Kaiser Foundation Hospital – Orange County – Anaheim	3440 East La Palma Avenue, Anaheim, CA 92804	X	X								
Kindred Hospital - Santa Ana	1901 College Avenue, Santa Ana, CA 92705	X	X								
Kindred Hospital Brea	875 North Brea Boulevard Brea, CA 92603	X	X								
Kindred Hospital Westminster	200 Hospital Circle Westminster, CA 92690	X	X								
La Palma Intercommunity Hospital	7901 Walker Street La Palma, CA 92653	X	X								
Laguna Treatment Hospital	24552 Pacific Park Dr, Aliso Viejo, CA 92656	X			X					X	
Lighthouse Treatment Center : Alcohol & Drug Rehab Orange County	1310 W Pearl St, Anaheim, CA 92801	X			X					X	
Los Alamitos Medical Center	3751 Katella Avenue Los Alamitos, CA 92646	X	X								
Meals on Wheels Orange County	1200 N Knollwood Cir, Anaheim, CA 92801					X		X			
Medi-Cal (issued by the County of Orange Social Services Agency)	1928 S. Grand Ave., Bldg B, Santa Ana, CA 92705						X				
MemorialCare Medical Centers	17360 Brookhurst Street Fountain Valley, CA 92708	X	X								
MemorialCare Saddleback Medical Center	24451 Health Center Drive Laguna Hills, CA 92653	X	X								
Mission Hospital Laguna Beach	South Coast Highway Laguna Beach, CA 92653	X	X								
Mission Hospital Regional Medical Center	27700 Medical Center Road Mission Viejo, CA 92691	X	X								
MOMS Orange County	1128 W Santa Ana Blvd, Santa Ana, CA 92703							X	X		X
Newport Bay Hospital	1501 East 16th Street Newport Beach, CA 92663	X	X								
No Matter What Recovery	3409 W Temple St, Los Angeles, CA 90026								X	X	
Northbound Treatment Center	3822 Campus Dr, Newport Beach, CA 92660	X						X	X	X	
OC Integrative Medical Center	1525 Superior Avenue, Suite 206 Newport Beach, CA 92663	X							X	X	
Ocean Recovery Drug Rehab Orange County	1601 W Balboa Blvd, Newport Beach, CA 92663							X	X	X	

**Exhibit 15 - Available Health Services in Orange County (continuation of Exhibit 16)**

Organization/Agency	Address	Health Services	Hospital	Dental	Housing	Nutrition	Health Insurance	Social Services	Mental Health	Substance Abuse/Addiction	Child Safety/Health
Orange Coast ENT Head and Neck Surgery	16100 Sand Canyon Avenue, Suite 230 A Irvine, CA 92618	X	X								
Orange Coast Medical Center of Hope	496 Old Newport Blvd. Suite 7, Newport Beach, CA 92663	X	X								
Orange Coast Memorial Medical Center	9920 Talbert Avenue Fountain Valley, CA	X	X								
Orange County Child Protective Services	800 N Eckhoff St, Orange, CA 92868							X			X
Orange County Global Medical Center	1001 North Tustin Avenue Santa Ana, CA 200 W. Santa Ana Blvd., Suite 100 Santa Ana, CA 92701	X	X								
Orange County Health Care Agency	26921 Crown Valley Parkway, #120-A, Mission Viejo, CA 92691	X		X		X		X	X		X
Orange County Orthopedic Center	18012 Mitchell S, Irvine, CA 92614	X									
Orange County United Way	280 S Main St. Suite 200, Orange, CA 92868				X	X		X			X
Orthopaedic Specialty Institute Medical Group of Orange County	3350 West Ball Road Anaheim, CA 92804	X									
Pacific Orange Hospital	3350 West Ball Road Anaheim, CA 92804	X	X								
Pacific Sands Recovery Center - Orange County Drug Rehab + Alcohol Rehab	1909 W Carlton Pl, Santa Ana, CA 92704	X						X		X	
PADRE Foundation	505 S Main St 4th floor, Suite 431, Orange, CA							X			X
Placentia-Linda Hospital	1301 North Rose Drive Placentia, CA 92870	X	X								
Regional Center of Orange County	1525 N Tustin Ave, Santa Ana, CA 92705				X	X	X	X	X		
SoCal Respiratory Care	1509 W Alton Ave, Santa Ana, CA 92704	X						X			X
South Coast Global Medical Center	2701 South Bristol Street Santa Ana, CA 92704	X	X								
South Coast Medical Center	31872 Coast Highway Laguna Beach, CA 92651	X	X								
St. Joseph Health	3345 Michelson Drive, Irvine, CA 92612	X	X								
St. Joseph Hospital Orange	1100 West Stewart Drive Orange, CA 92868	X	X								
St. Jude Medical Center	101 East Valencia Mesa Drive, Fullerton, CA 92835	X	X								
Sun Healthcare Group	18831 Von Karman Avenue #400, Irvine, CA 92612	X	X								
Tustin City Urgent Care	13095 Jamboree Rd, Tustin, CA 92782	X									
Twin Town Treatment Centers - Orange	705 W La Veta Ave UNIT 208, Orange, CA 92868	X						X		X	
UCI Medical Center	101 The City Drive South, Orange, CA 92868	X	X								
West Anaheim Medical Center	3033 West Orange Avenue, Anaheim, CA 92804	X	X								

## Healthy Living

### Diet

The 2022 U.S. News and World Report Healthiest Communities information identified multiple data points related to the population of Orange County. The data included several metrics related to one’s diet categorized into food, nutrition, and food availability. The overall ranking of each category had a maximum score of 100. As the data shows below, Orange County scored 79 in Overall Food Nutrition category, but only 44 in Food Availability. Orange County could provide more resources to the community to make food more available to residents.



*Nutrition* has three additional subcategories including diabetes prevalence, obesity prevalence and at-home food expenditures on fruits and vegetables. According to the 2022 U.S. News and World Report Healthiest Communities information, Orange County has better scores than both the U.S. and State of California in all three subcategories. Particularly, a higher consumption in fruits and vegetables plays a key factor in obesity avoidance. Based on the data below, Orange County residents spend more on fruits and vegetables, and that has led to a lower obesity rate in comparison to California and other states.

**Exhibit 16 - Orange County Nutrition Metrics**

	Orange	US	State
Diabetes Prevalence	9.3%	10.5%	8.1%
Obesity Prevalence	21.6%	35.5%	23.5%
At-Home Expenditures on Fruits/Veg	14.2%	11.9%	14.1%

Source: 2022 US News and World Report Healthiest Communities

By focusing diet healthiness at children’s level, the 27th Annual Report on the Conditions of Children in Orange County’s data below indicates that children ages 12 to 17 years old have higher percentage at 36.5% that eat more than five servings of fruits/vegetables daily in 2020 in comparison to 19.8% in 2011. By having higher percentage of children consuming fruits/vegetables, that will surely keep the children and the community healthier.

*Food Availability* had three additional metrics. The first is the Food Environment Index Score which is relative score based upon the availability of healthy vs unhealthy food in the community. The higher the score means more healthy food is readily available. The second is the number of local food outlets per 100,000 population and the third is a percentage of people without access to a large grocery store.

**Exhibit 17 - Orange County Food Availability Metrics**

	Orange	US	State
Food Environment Index	8.17	9.53	10.53
Local Food Outlets /100K	0.80	4.30	2.2
Without Access to Large Grocery Store	7.6%	21.6%	13.4%

Source: 2022 US News and World Report Healthiest Communities

Additionally, the California Department of Education (CDE) Nutrition Services Division (NSD) is committed to a well-nourished and educated California. The Child Nutrition Program (CNP) offer meals and snacks in schools, childcare and adult care centers, day care homes, parks, and to community agencies. Together they serve nearly six million nutritious meals at over 34,000 locations daily.

The CalFresh Program, formerly known as Food Stamps and federally known as the Supplemental Nutrition Assistance Program (SNAP), can add to the Orange County population’s food budget to put healthy and nutritious food on the table. The program issues monthly electronic benefits that can be used to buy most foods at many markets and grocery stores.

In addition, the 27th Annual Report on the Conditions of Children in Orange County points out that Orange County has been consistently providing free and reduced-price lunch to around 60% of students, which is about 10% higher than State of California. This is a very positive sign that Orange County is committed to making sure students have greater access to food.

### Healthy Living Access

Healthy Living Access has many characteristics including access to gyms, museums, outdoor parks, live music, cultural exhibits and many more. Two measures used in this Assessment for Orange County include a ranking of access to the natural environment and physical activity.

*Exhibit 18 - Orange County Healthy Living Access*

	Orange	US	State
<b>Area with Tree Canopy</b>	2.7%	20.5%	3.8%
<b>Population w/in 0.5 Miles of a Park</b>	78.0%	18.0%	65.0%
<b>Adults - No Leisure Time Phys Activity</b>	18.7%	26.5%	21.6%

Source: 2022 US News and World Report Healthiest Communities

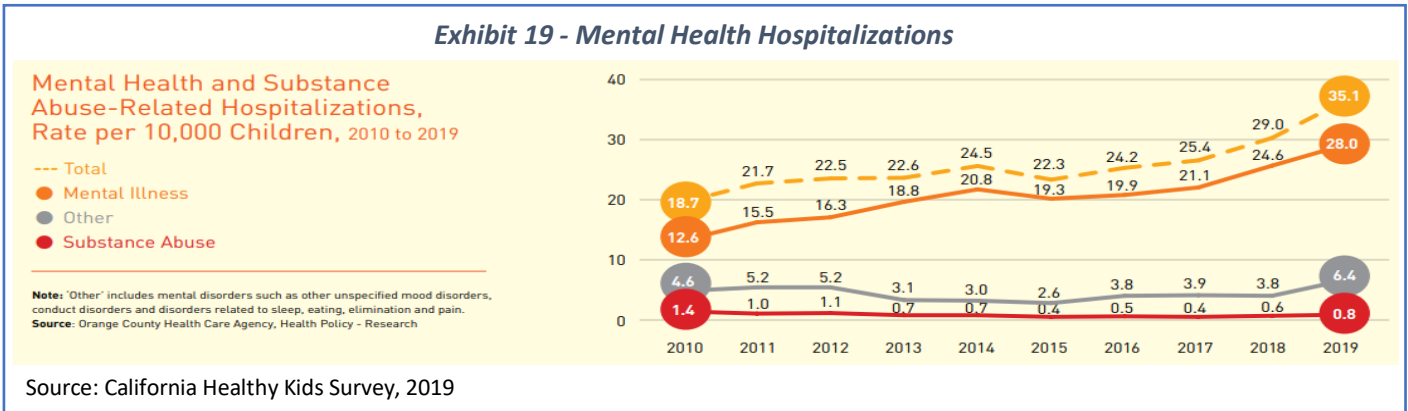
### Mental Health

According to the CDC, mental health includes emotional, psychological, and social well-being. It affects how we think, feel, and act. It also helps determine how we handle stress, solve issues, create and maintain relationships, and make healthy choices. Mental health is critical at every life stage, from childhood through adulthood. Additionally, poor mental health can lead to diabetes, heart disease and other chronic conditions.

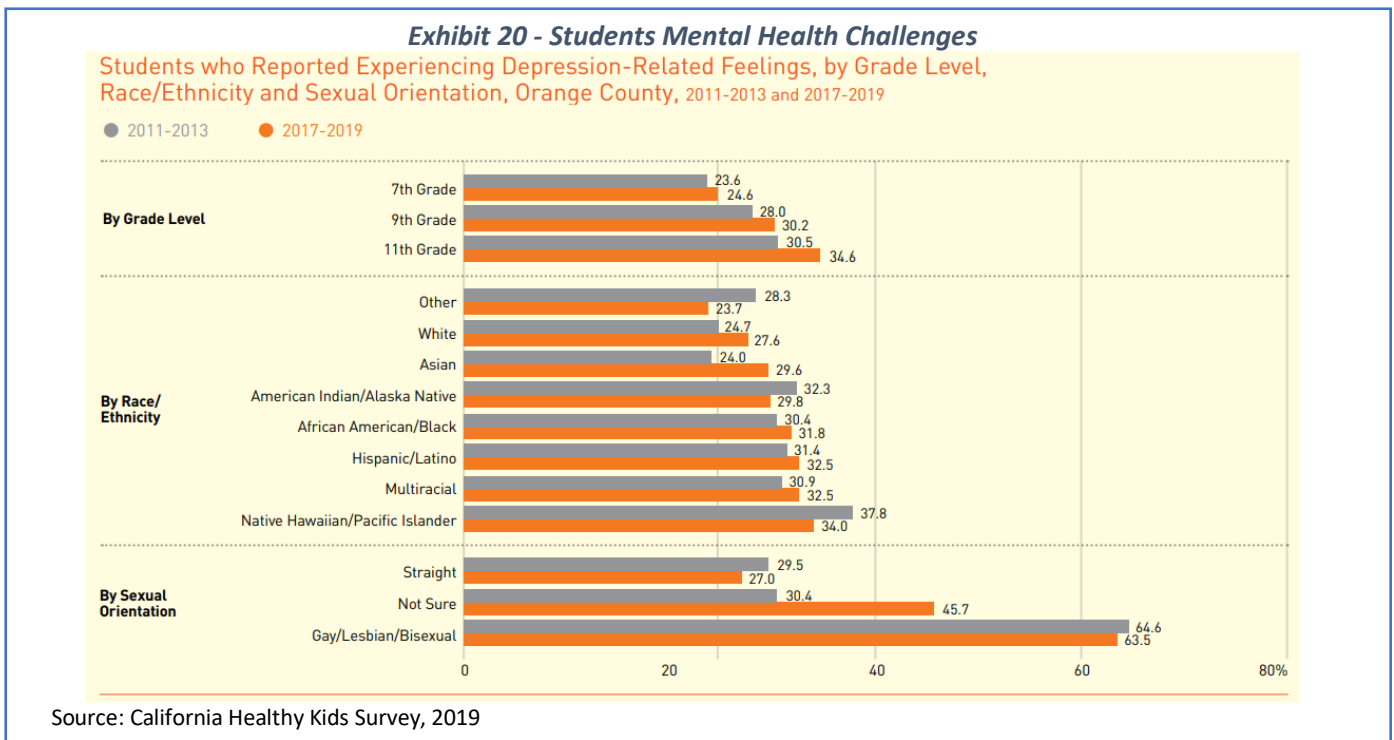
In Orange County, 6.7% of adults experienced mental distress in the past year, and that is slightly lower than the state average of 8.2%, according to the Orange County Needs and Gaps Analysis report. By comparing different races/ethnicities in California, Latino (8.4%) and African American (7.8%) have more serious psychological stress.

The 2021 Orange County Community Indicators Report shows an accelerated upward trend of children and youth having more severe mental illness, depression, and mood disorders while adults remain relatively consistent. This is a warning sign that the county and local government should take seriously, and that more action is required to help children and youths fight mental illness.

The upward trend in mental health acuity is supported by the mental health hospitalization rate per 10,000 children, which increased from 12.6 to 28.0 from 2010 through 2019. Substance abuse hospitalizations decreased from 2010 through 2019 as shown below.



Of the students in Orange County that experience mental health problems, 11<sup>th</sup> graders, Pacific Islanders, and those that identify as Gay/Lesbian/Bisexual are the ones that experience the highest levels of depression.



Part of the mental health issues identified include drug/alcohol overdoses and poisonings. According to the Orange County Health Care Agency, drug/alcohol overdoses and poisonings result in over 5,500 hospitalizations and nearly 700 deaths among Orange County residents each year. There were nearly 70,000 hospital bed-days with an average stay length of 4.3 days, which resulted in approximately \$430 million in total charges, according to the report.

Identifying those with mental health issues is only one aspect of the Orange County Assessment. The Orange County Needs and Gaps Analysis report shows that almost half of people who have mental issues do not undergo any treatment. Particularly, youths and young adults have the lowest rate of treatments. In

addition, language barriers, education levels and health insurance status play a major role in preventing residents from seeking mental illness treatment.

As shown in the following exhibit, the groups that appear to lack treatment for mental health issues include those with limited English proficiency, males, Latinos and API (non-Latino), and those aged 18 – 24.

**Exhibit 21 - Groups Seeking Mental Health Help**

Demographics	No Treatment	Some Treatment	MAT	p-value
	%	%	%	
<b>Overall</b>	45.9%	34.4%	19.7%	
<b>Gender</b>				
Male	57.6%	31.1%	11.4%	0.0731
Female	38.3%	36.5%	25.2%	
<b>Age (years)</b>				
18-24	57.7%	28.7%	13.6%	> 0.10
25-34	52.9%	31.2%	15.9%	
35-44	33.0%	40.3%	26.8%	
45-54	41.2%	31.6%	27.2%	
55-64	47.0%	35.0%	18.0%	
65+	23.9%	60.1%	16.0%	
<b>Race/Ethnicity</b>				
Latino	59.6%	28.1%	12.2%	0.0115
White (non-Latino)	29.0%	40.8%	30.3%	
African American (non-Latino)	48.1%	35.4%	16.6%	
API (non-Latino)	65.7%	30.5%	3.8%	
Other (non-Latino)	23.4%	35.6%	41.1%	
<b>Limited English Proficiency</b>				
No	42.2%	36.3%	21.5%	> 0.10
Yes	64.1%	24.7%	11.2%	
<b>Marital Status</b>				
Married	46.6%	31.5%	22.0%	> 0.10
Not Married	45.7%	35.5%	18.8%	
<b>Sexual Orientation</b>				
Straight/heterosexual	47.4%	35.6%	17.0%	0.0128
Gay/Lesbian/Bisexual/Celibate	44.4%	7.5%	48.2%	
<b>Education</b>				
Less than High School	47.0%	31.8%	21.3%	>0.10
High School	56.4%	29.1%	14.5%	
Some College	35.2%	37.2%	27.6%	
Bachelor's degree or higher	46.2%	37.6%	16.2%	
<b>Employment</b>				
Unemployed	36.0%	37.6%	26.5%	>0.10
Employed	53.7%	31.8%	14.5%	
<b>Health Insurance Status</b>				
Uninsured in past 12 months	50.0%	36.2%	13.9%	>0.10
Insured all past 12 months	44.6%	33.7%	21.7%	

NOTE: Orange County statistical estimates are based on a subset of the CHIS adult sample, which is limited to adults with serious psychological distress, n = 358.

NOTE: Due to small sample size Native Hawaiians and Pacific Islanders were grouped with Asians (API)

NOTE: Due to small sample size American Indians and Alaska Natives and adults reporting ≥2 races were grouped in the 'Other' category.

NOTE: Race is defined according to the California Department of Finance where Latino is considered a race category. All other racial groups are non-Latino.

NOTE: p-value assess the association between 3-level treatment categories (no treatment, some treatment and MAT) in Orange County and demographic characteristics.

NOTE: No estimate reported on treatment by Veteran status due to the low number of Veterans identified as having serious psychological distress in the past year.

Source: 2019 Orange County Needs and Gaps Analysis – Final Report

The increasing incidences of mental health challenges were identified as one of the more significant health issues by survey participants, as well. Community action is being taken to help those with mental health issues, including the Be Well Orange County organization. Be Well Orange County aligns Orange County's key stakeholder organizations to harness their collective power of coordinated community-wide action.



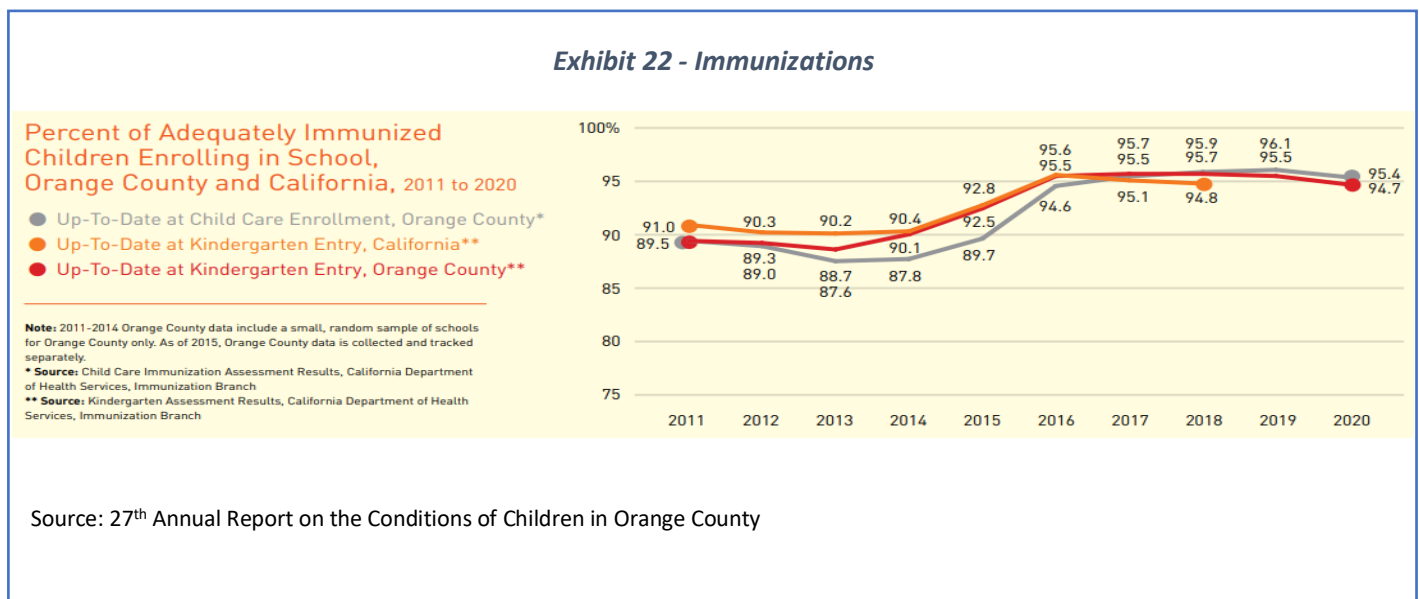
## Healthy Habits

Based upon primary and secondary data collection for this assessment, almost all agree that healthy habits create a strong opportunity for someone to maintain their own health and reduce the need for acute medical intervention. Further, those healthy habits can be any activity or behavior that can benefit someone's well-being, including physical, mental, or emotional behaviors. There are potentially hundreds of healthy habits. Only a few will be addressed in this assessment.

## Immunizations

In order to maintain a healthy community, having a high percentage of immunizations within the community is vital as it helps to prevent many health problems. According to the 27<sup>th</sup> Annual Report on the Conditions of Children in Orange County, the percentage of children adequately immunized by kindergarten has increased from 89.5% in 2011 to 94.7% in 2020. That data clearly shows Orange County has mobilized efforts to get children immunized.

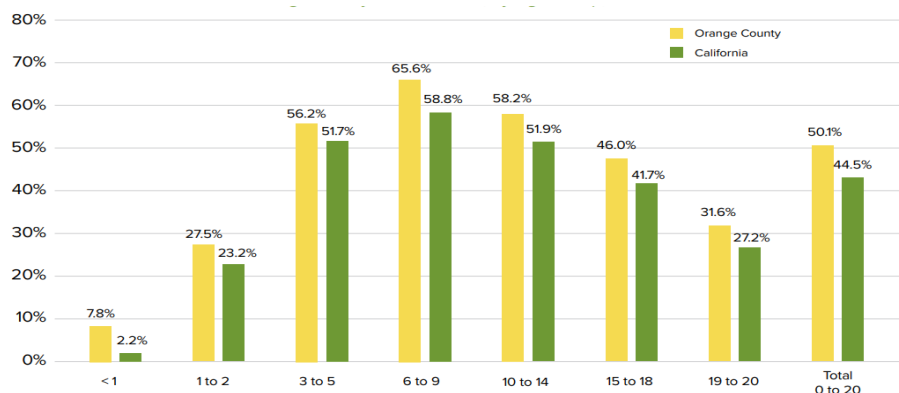
Effective July 1, 2016, California law removed the personal belief exemption from statute and requires almost all schoolchildren to be fully vaccinated to attend public or private elementary, middle, and high schools. For kindergarten entrance, children must be immunized against 10 diseases: Diphtheria, Haemophilus Influenza Type B (Bacterial meningitis), Measles, Mumps, Pertussis (whooping cough), Polio, Rubella, Tetanus, Hepatitis B and Varicella (chicken pox).



## Oral Health

According to the Oral Health Foundation, dental visits are important, and it is an effective way to check mouth cancer, as well as head and neck cancer. Additionally, according to the Orange County Health Improvement Plan 2020 – 2022, there are around 110 dentists per 100,000 population as of 2017, which is higher than California at 83 and the U.S at 68. Also, Orange County had a higher percentage of children who visited a dentist in the past year.

**Exhibit 23 - Orange County Children Oral Health**



Source: Orange County 2020 Health Improvement Plan

### Community Violence and Crime

Violence and criminal activity affect the community at large beyond the impact to the individual(s) that are victims of violence or crime. High crime rates may lead to population reduction and those who remain in crime-filled areas may feel unsafe in general, particularly if they witness crime which negatively impacts their overall well-being. A person’s health outcomes may be negatively affected by repeated exposure to crime and violence which are more likely to occur in low-income neighborhoods than in high-income neighborhoods.

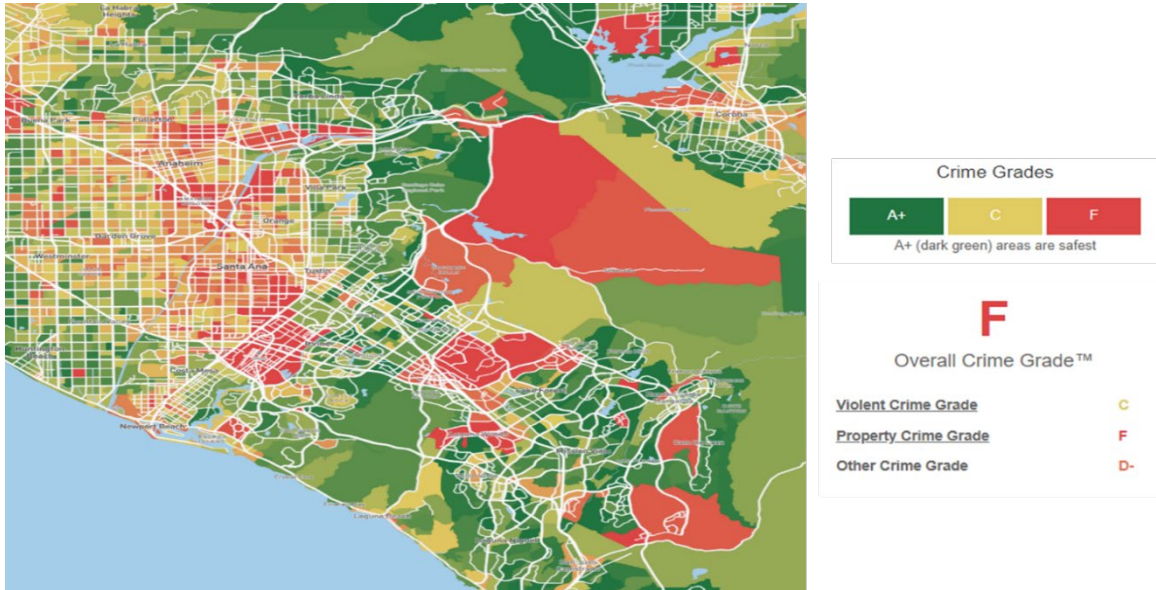
According to the CDC, community violence affects millions of people, and their families, schools, and communities every year. Community violence can cause significant physical injuries and mental health conditions such as depression, anxiety, and post-traumatic stress disorder (PTSD). The CDC also reported that “over half of US homicides in 2020 occurred among people ages 15 to 34. A community’s younger demographic are disproportionately affected by violence and are more likely to have short-term and chronic physical and mental health conditions and behavioral difficulties.

Additionally, communities of color often disproportionately experience these negative conditions, placing residents at greater risk for poor health outcomes. For example, Black or African American, American Indian and Alaskan Native, and Hispanic or Latino persons have higher homicide rates than other racial and ethnic demographic groups.

As the map below indicates, almost the entirety of Orange County has pockets of crime that according to CrimeGrade classifies Orange County with an overall “crime grade” of F. The overall F grade means the rate of crime is much higher than the average U.S. county. Orange County is in the 1st percentile for safety, meaning 99% of counties are safer and 1% of counties are more dangerous. The rate of crime in Orange County is 134.39 per 1,000 residents during a standard year. People who live in Orange County generally consider the east part of the county to be the safest.

CrimeGrade's crime map shows the safest places in Orange County in green. The most dangerous areas in Orange County are in red, with moderately safe areas in yellow. Crime rates on the map are weighted by the type and severity of the crime.

**Exhibit 24 - Orange County Crime Grade**



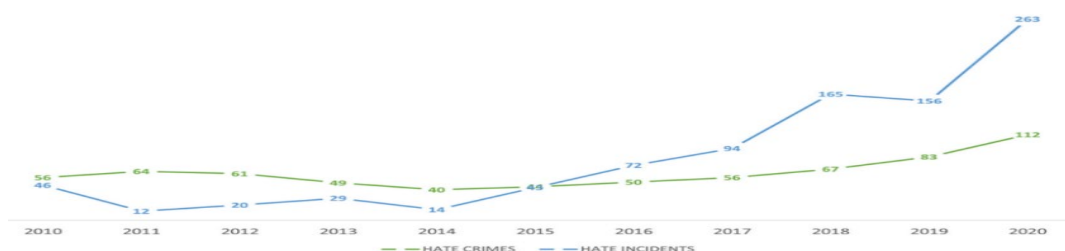
Source: *CrimeGrade.org*

In addition to higher crime rates in Orange County, there is also a recognized violence issue in the Orange County schools. The Violence Prevention Education (VPE) program was created to “reduce violence and/or its impact in schools, local neighborhoods and/or families”. The VPE targets students, families, and school staff at participating schools from elementary through high schools.

Part of the violence challenge is directly related to gang violence. Gang Prevention Services (GPS) was developed and is a “school-based collaboration with the Gang Reduction Intervention Partnership (GRIP) operated by the Orange County District Attorney’s (OCDA) Office in conjunction with the OC Probation Department, local police departments and school staff”. The goal is to provide case management services to students who display signs of increased risk for gang activity from 4<sup>th</sup> grade through 8<sup>th</sup> grade. These students are therefore at risk of increased violence and of developing mental health conditions. The OCDA Office and the OC Probation Department select schools to participate in the program based on high rates of truancy, discipline issues and gang proximity.

The final area of violence that impacts those living in Orange County is the increase in the number of hate crimes which has a direct impact on a person’s sense of well-being and can have lasting physical, mental and spiritual conditions. According to the 2020 Hate Crimes Report sponsored by Orange County Human Relations Commission, the county has witnessed an increase in hate activities towards, but not limited to, different ethnic groups, political affiliations, religious groups, and the trans-community.

**Exhibit 25 - Trend of Hate Crimes and Incidents - Orange County**



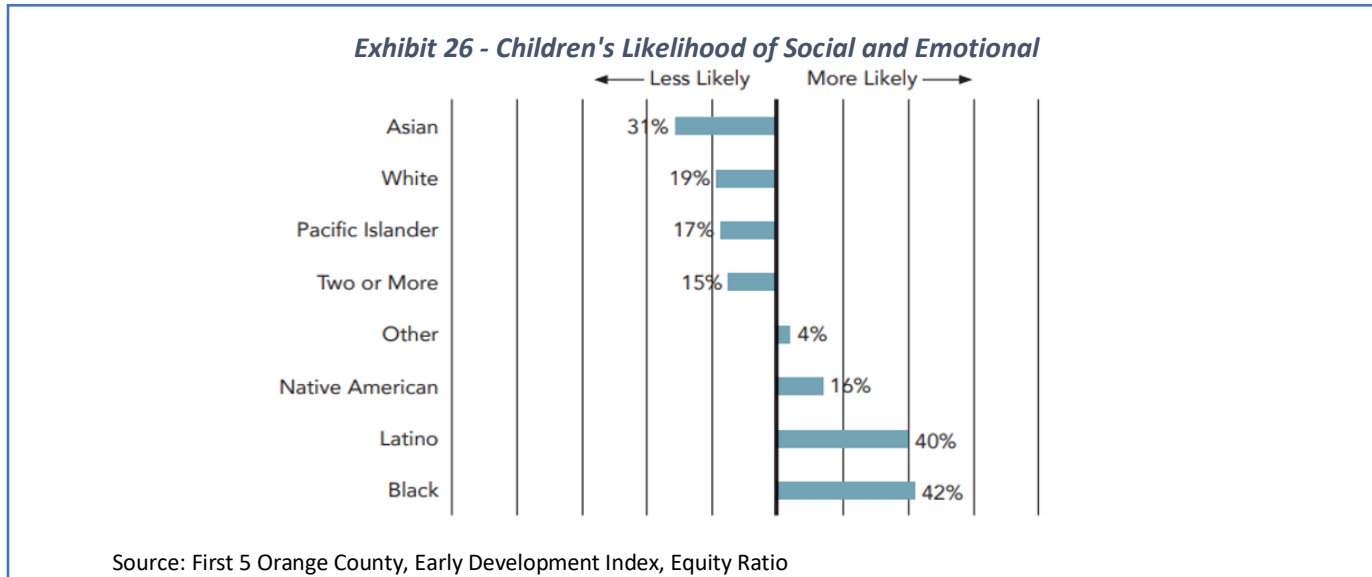
Source: Orange County Human Relations Commission 2020 Hate Crime Reports

## Cultural Disparities

Cultural disparities applies to a situation where individuals are unfairly treated because of their cultural background both formally and informally. Ordinarily, people who are subjected to cultural discrimination or inequity, according to the Centers for Disease Control and Prevention (CDC), are more likely to experience higher rates of poor health and disease in a range of health conditions including diabetes, hypertension, obesity, asthma, and heart disease.

The CDC further reported that centuries of racism in this country has had a profound and negative impact on communities of color. The impact is deeply embedded in our communities as it affects ones living locations, education access, employment options, places of worship and creates inequities in access to a range of social and economic benefits. These conditions are key drivers of health inequities within communities of color, placing those within these populations at greater risk for poor health outcomes. According to a report published by Princeton University, the life expectancy of non-Hispanic/Black Americans is 3.6 years lower than that of White Americans. The COVID-19 pandemic, and its disproportionate impact among racial and ethnic minority populations is another stark example of these enduring health disparities.

Further examples of the cultural inequity are found in Orange County children health outcomes. Approximately 9.7% of Orange County 2019 kindergarteners were considered vulnerable in their social-emotional development. However, Black and Latino children were 42% and 40% more likely to be vulnerable, respectively, than other groups.



An additional example of cultural inequity centers around the availability of childcare services in Orange County. According to First 5 Orange County, “there is a severe lack of childcare services in Orange County, which has allowed childcare costs to increase much more rapidly than median household incomes in the past few years”. The availability is even more scarce in lower socioeconomic areas within the county. Many parents are therefore forced to decide between childcare and full-time employment. The COVID-19 pandemic only exacerbated this issue, as more childcare facilities were forced to close.

These childcare disruptions cost Orange County approximately \$4.3 billion in lost productivity annually, and \$372 million in lost tax revenues. Some workers quit or only worked part-time to accept childcare responsibilities.

*Exhibit 27 - Impact of Lack of Childcare Services*

	LOST JOBS	LOST EARNINGS	LOST TAXES
Impact on Orange County Families and the Overall Economy*	36,376	\$2.27 Billion	\$202 Million
Impact on Orange County Employers**	31,013	\$2.04 Billion	\$170 Million
<b>Total Economic Impacts</b>	<b>67,389</b>	<b>\$4.3 Billion</b>	<b>\$372 Million</b>

\* Due to voluntary and involuntary separations from work, going from full- to part-time, and not being able to go full-time due to child care challenges  
 \*\* From turnover, absenteeism, and recruitment

Source: First 5 Orange County

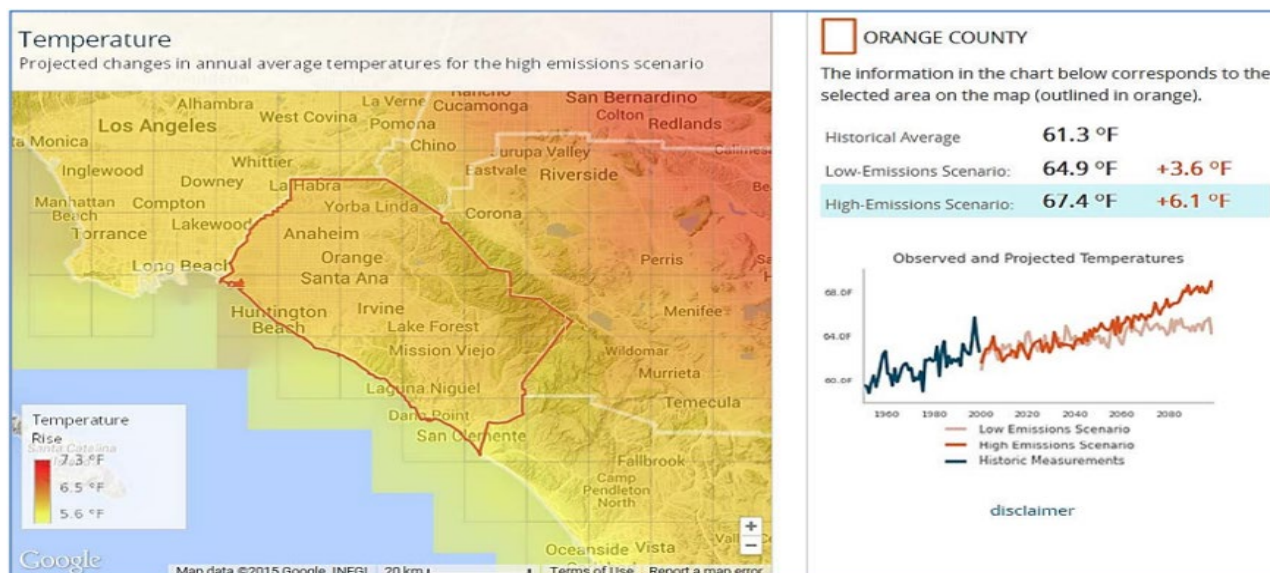
## Environment

Orange County is impacted by three significant environmental issues: ozone pollution, climate change and chronic drought. Annual ozone values continue to exceed public health standards established by the National Ambient Air Quality Standards. This issue has been deepened by the impacts of climate change in Southern California.

The U.S. Environmental Protection Agency (EPA) has designated Orange County as extreme nonattainment and serious nonattainment for ozone and fine particulate matter respectively (Source: Current Nonattainment Counties for All Criteria Pollutants | Green Book | US EPA). According to the 2022 American Lung Association State of the Air Report, there are over 682,000 children exposed to air pollution in Orange County with more than 46,000 diagnosed with pediatric asthma. USEPA research has linked high ozone levels to worsening of asthma and notes “children are the greatest risk from exposure to ozone pollution.”

According to the Climate Change and Health Profile Report developed by the California Department of Public Health, Orange County is experiencing increased heat waves, high-fire risk, and an average temperature increase of 3-6°F with summer temperatures increasing 10°F by 2100 (see Exhibit below). The health impacts linked to climate change include asthma, cardiovascular disease, heat-related illness, and water and food supply impacts. While all Californians are impacted, children and populations in underserved communities are the most vulnerable.

**Exhibit 28 – Projected Annual Temperature Increase Due to Climate Change**








SOURCE: California Department of Public Health Climate Change and Health Profile Report Orange County

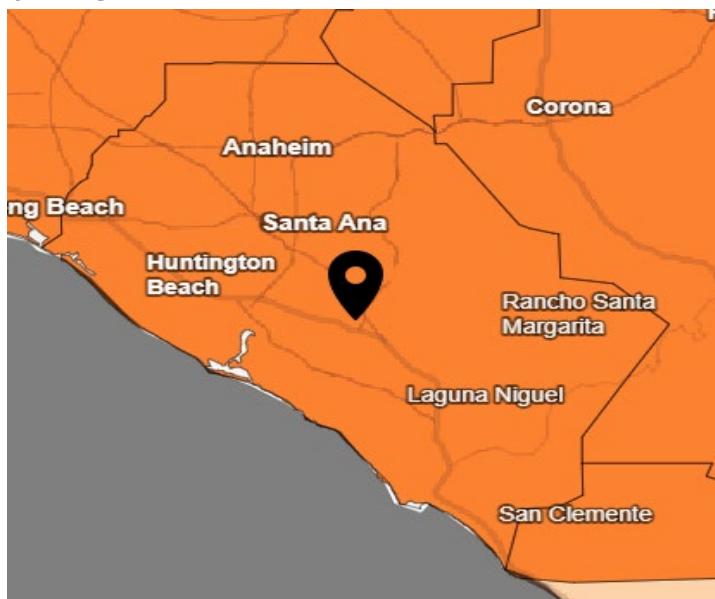
According to the National Integrated Drought Information System, 100% of Orange County, California is in **severe drought** as of June 2022 with long-term drought indicated by NOAA Climate Prediction Center (See Exhibit below). Historic climate data shows 2022 as the 3<sup>rd</sup> driest year on record over the past 128 years. According to the US Drought Monitor, water supply has been impacted by prolonged drought conditions

with 48% of streamflow sites below normal. Future projections from the California Building Resilience Against Climate Effects (CalBRACE) Project forecast decreases in availability of water for urban and agricultural uses by 2050. Children in underserved communities of Orange County are vulnerable to associated health impacts including increases in foodborne and waterborne illnesses.

*Exhibit 29 Orange County Drought Monitor – 06/14/22*

**U.S. Drought Monitor Categories**

-  D0 - Abnormally Dry
-  D1 - Moderate Drought
-  D2 - Severe Drought
-  D3 - Extreme Drought
-  D4 - Exceptional Drought



Source(s): NDMC, NOAA, USDA

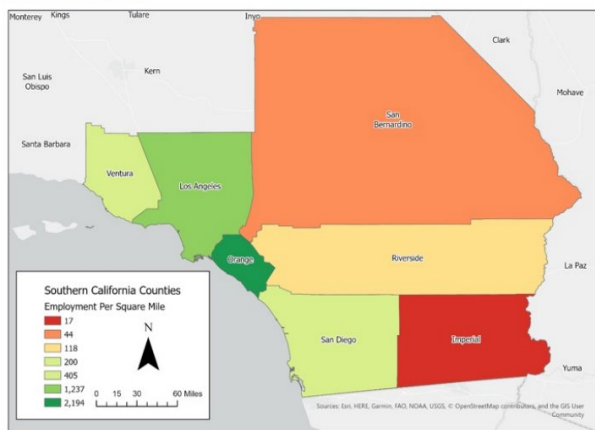
## Socioeconomic

### Employment/Unemployment

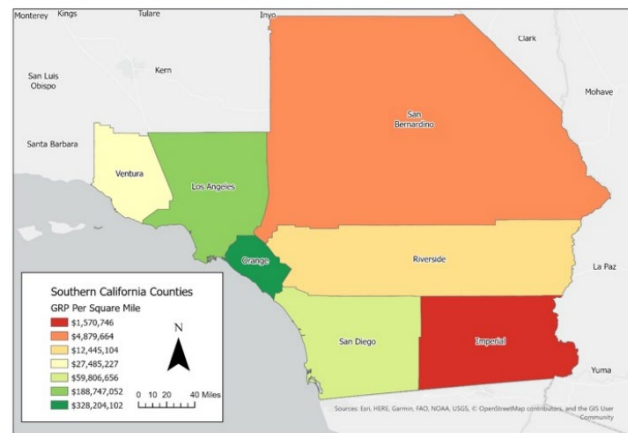
While there was a decline due to COVID-19 in 2019-2020, the economy showed significant signs of improvement in 2021. Between 2020 and 2021, Orange County posted approximately 500,000 jobs with job postings up by 37%. These openings had a median posting duration of 29 days, and a median salary of \$50,000. Employers with the most job openings included the University of California, Oracle Corporation and Amazon. High tech jobs topped the list, with software developers and software analysts in high demand, closely followed by registered nurses and heavy/tractor-trailer truck drivers.

**Exhibit 30 - Employment and GRP Orange County**

**EMPLOYMENT PER SQUARE MILE BY SOUTHERN CALIFORNIA COUNTY, 2021**



**GROSS REGIONAL PRODUCT (GRP) PER SQUARE MILE BY SOUTHERN CALIFORNIA COUNTY, 2021**



Source: State of California

Even as Orange County shows greater signs of financial strength than other counties in Southern California, a key component of future growth and strength will be the role the largest employers will play in that growth effort.

**Exhibit 31 - Orange County Largest Employers by Number of Employees**

LARGEST EMPLOYERS IN ORANGE COUNTY, 2021			
COMPANY	EMPLOYMENT IN ORANGE COUNTY	COMPANY	EMPLOYMENT IN ORANGE COUNTY
The Walt Disney Co.	28,000	MemorialCare	5,500
University of California, Irvine	25,512	Edwards Lifesciences Corp.	5,319
County of Orange	18,543	Bank of America Corp.	5,000
Providence	12,866	Boeing Co.	5,000
Albertsons Southern California Division	8,159	California State University, Fullerton	4,349
Kaiser Permanente	8,050	Home Depot Inc.	4,300
Hoag Memorial Hospital Presbyterian	6,710	Allied Universal	4,152
Walmart Inc.	6,400	Children's Hospital of Orange County	4,107
Target Corp.	6,000	Costco Wholesale Corp.	4,011
Yum Brands Inc.	5,600	loanDepot	4,000

Source: State of California



## Business Diversity

Orange County has highly diverse industry sections which is an indicator of financial stability and the ability to recover from adverse market conditions. According to the 2021 Orange County Indicators Report, manufacturing and healthcare are mainly concentrated in the central part of the county and professional and technical are mainly in South and along the coast. In addition, there are several industries in Orange County which are in the top five in terms of national ranking.

**Exhibit 32 - Orange County Nationally Leading Industry Clusters**

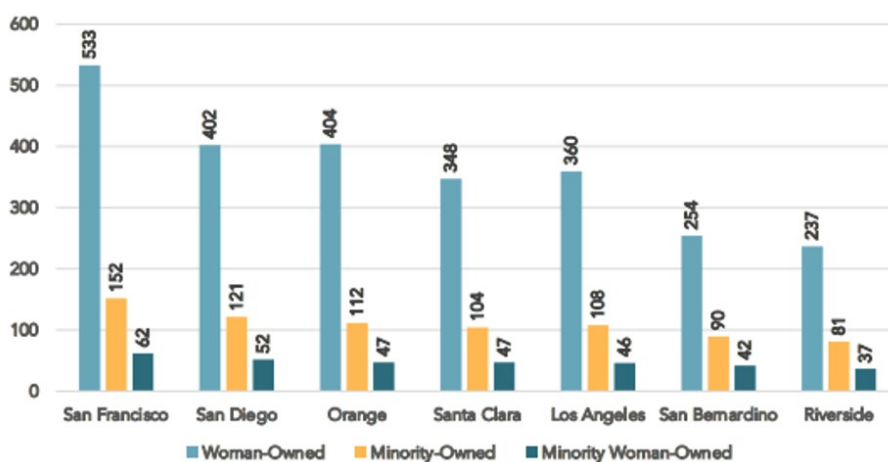
REGION	EMPLOYMENT	NATIONAL RANK	LOCATION QUOTIENT
Medical Devices	17,231	1	5.30
Apparel	2,976	3	2.32
Biopharmaceuticals	6,970	7	2.04
Lighting	6,915	2	1.90
Information Technology	30,527	5	1.87
Hospitality and Tourism	77,547	4	1.86
Communications	9,697	8	1.73
Financial Services	38,257	6	1.62

Source: US Department of Commerce, Economic Development Administration, Harvard Business School

Orange County also has a great environment for small businesses. According to the 2021 Orange County Indicators Report, 96% of the businesses in the county are small businesses, which account for 45% of all employees in the county. As a result, many different small businesses can provide a high variety of services to the community.

Women-owned businesses have also increased between 2020 and 2021. Women-owned businesses increased from 389 to 404 per 100,000 persons, while women-owned minority businesses increased from 42 to 47 per 100,000 persons during the same period and has surpassed San Diego County.

**Exhibit 33 - Orange County Women and Minority Owned Businesses Per 100,000 People**



Source: Dun and Bradstreet; Market Insight

## High-Tech Diversity and Growth

According to the ranking report by *Milken Institute 2021 Best Performance Cities Report*, Orange County has a strong employment concentration in high-tech sector, and it is tied for third place with Seattle and San Diego. High-tech companies are an example of a key sector supporting the long-term financial health of a community.

**Exhibit 34 - Ranking of High-Tech Sector Employment by Peer Metro Areas**

METRO REGIONS	RANKINGS	METRO REGIONS	RANKINGS
Oakland	1	San Francisco	15
Seattle	3	Austin	15
San Diego	3	Dallas	25
<b>Orange County</b>	<b>3</b>	Minneapolis	48
San Jose	5	Boston	48
Los Angeles	7	Riverside/San Bernardino	110

Source: Milken Institute, Best Performing Cities Report

## Unemployment

According to the U.S. Census Bureau, Orange County has the highest median household income at \$95,934, compared to nearby California regions, California, and the United States in total. The unemployment rate in Orange County in April 2022 was 2.7% according to the US Bureau of Labor Statistics. As shown below, it has the lowest unemployment rate among the selected geographies

**Exhibit 35 - Unemployment Rate by Geography April 2022**

Region	Rank	Region	Rank
Los Angeles	4.7%	<b>Orange</b>	<b>2.7%</b>
Riverside	3.8%	California	11.5%
Sacramento	3.5%	United States	3.6%
San Diego	3.0%		

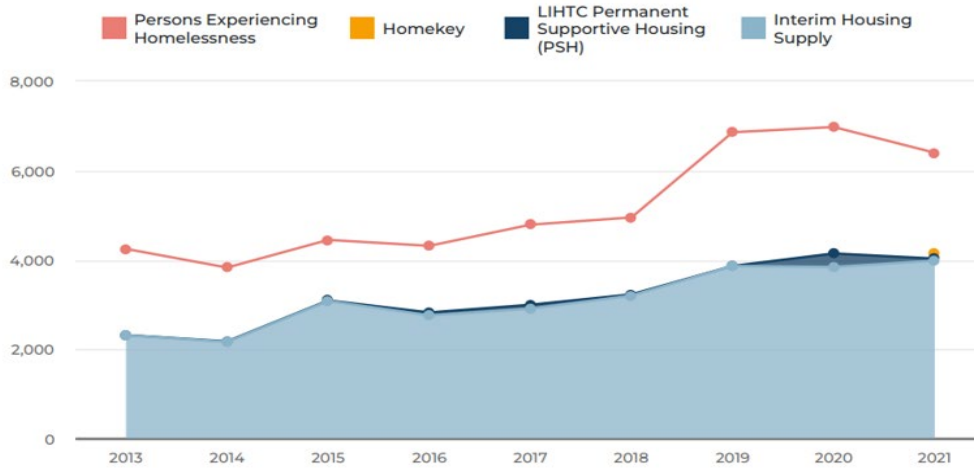
Source: US Bureau of Labor Statistics

## Housing Affordability

According to *Orange County 2022 Affordable Housing Needs Report*, Orange County has a severe challenge to provide more affordable housing to residents and the amount of homeless people which is almost 50% more than the interim housing supply. Also, based on that report, renters in Orange County must earn \$49.92 per hour, which is around 3.3 times the minimum wage to cover the average monthly rent of \$2,596.

**Exhibit 36 - Housing for People Experiencing Homelessness**

The interim and permanent housing supply available in Orange County in 2021 for persons experiencing homelessness was **4,163 beds**.



Source: Orange County 2022 Affordable Housing Needs Report

The Kennedy Commission also points out that the County should put in more effort and resources to supply more housing by initiating countywide local housing bonds. By alleviating the housing burden on lower-income Orange County residents, that can certainly help lower-income families to have more resources for medical needs and lead to higher quality of life.

Housing Availability and Security

According to the 2022 survey conducted by The Point in Time, the homeless people in Orange County have decreased around 17% over the last three years due to increased regional coordination and efforts put in place to create sheltered housing options. The report also shows many of the homeless and unsheltered people are suffering from chronic disease, substance abuse issues, and domestic violence. To better help with the homeless, the government and non-governmental organizations are trying to not just create shelters but also provide sufficient medical and health supports.

**Exhibit 37 - Impact of Unsheltered Living**

	Unsheltered	Sheltered		Unsheltered	Sheltered
<b>Adults</b>	2,936	2,060	<b>Mental Health Issues</b>	29.5%	28.1%
<b>Chronic Homelessness</b>	55.1%	38.4%	<b>Developmental Disability</b>	14.3%	01.9%
<b>Substance Abuse</b>	41.5%	20.2%	<b>Domestic Violence</b>	09.8%	11.0%
<b>Physical Disability</b>	32.2%	24.9%	<b>HIV/AIDS</b>	01.8%	03.7%

Source: The Point in Time 2022 Survey

## Family Financial Stability

According to the Federal Reserve Bank of St. Louis, broadly speaking, families would be considered financially stable if their financial situation is stable, sustainable, and resilient to temporary shocks and setbacks. In May 2022, the United Way published the Family Financial Stability Index – Summary Report and 2020 Neighborhood Level Index Results for Orange County, California. The indicators of family financial stability included:

- Income - The percentage of families (with children under 18 years of age) with incomes less than 185 percent of the federal poverty level.
- Employment - The percentage of families (with children under 18 years of age) with one or more unemployed adults seeking employment.
- Housing - The percentage of families (with children under 18 years of age) that are paying 50 percent or more of income on rent.

**Exhibit 38 - Percentage of Select FFSI Orange County Neighborhoods Over Time**

	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>1 and 2 (Least Stable)</b>	11.9%	13.1%	14.4%	8.7%	6.6%	4.3%	2.7%	3.1%	3.5%
<b>3 and 4 (Unstable)</b>	26.7%	27.6%	23.1%	24.9%	23.3%	22.1%	20.5%	14.8%	15.6%
<b>5 and 6 (Moderately Stable)</b>	25.7%	24.3%	27.6%	27.5%	28.4%	29.5%	28.6%	32.1%	32.2%
<b>7 and 8 (Stable)</b>	20.8%	21.6%	19.9%	22.1%	23.9%	23.4%	27.7%	29.4%	27.8%
<b>9 and 10 (Most Stable)</b>	14.9%	13.4%	15.1%	16.9%	17.8%	20.7%	20.4%	20.6%	20.9%

Note: Data for this figure are derived from the U.S. Census Bureau, 2008-2012, 2009-2013, 2010-2014, 2011-2015, 2012-2016, 2013-2017, 2014-2018, 2015-2019, and 2016-2020 American Community Survey 5-Year Estimates. All vintages use 2010 census tract boundaries, including 2016-2020, to facilitate year-over-year comparison.

Source: Family Financial Stability Index, 2020 Orange County Findings – Orange County United Way

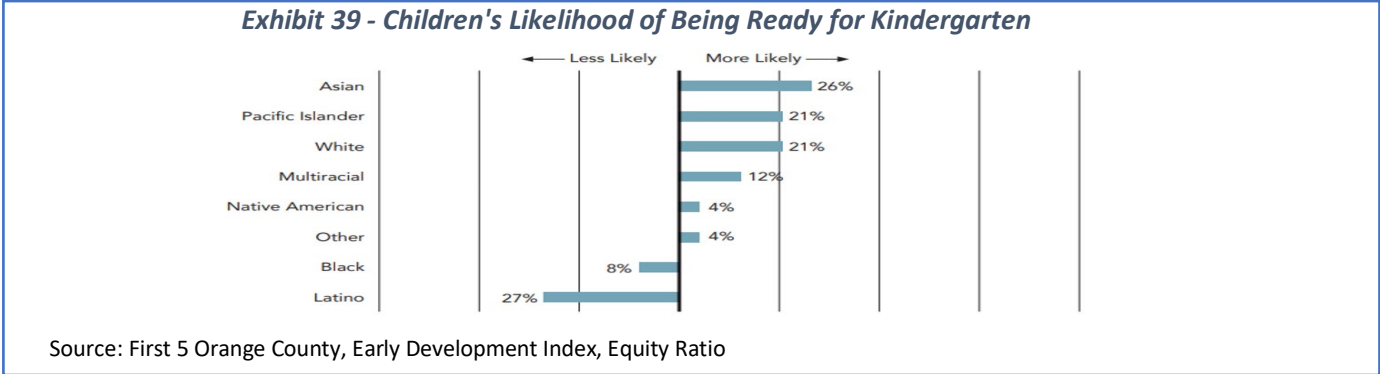
## Education

Education is a lynchpin for the stability of a community. It provides the basis for further positive individual financial benefit, socialization, negotiation, structure and has been proven for individuals to be less likely to find themselves in confrontational situations. Orange County has a significant education infrastructure from pre-K through high school and offers multiple options for higher learning.

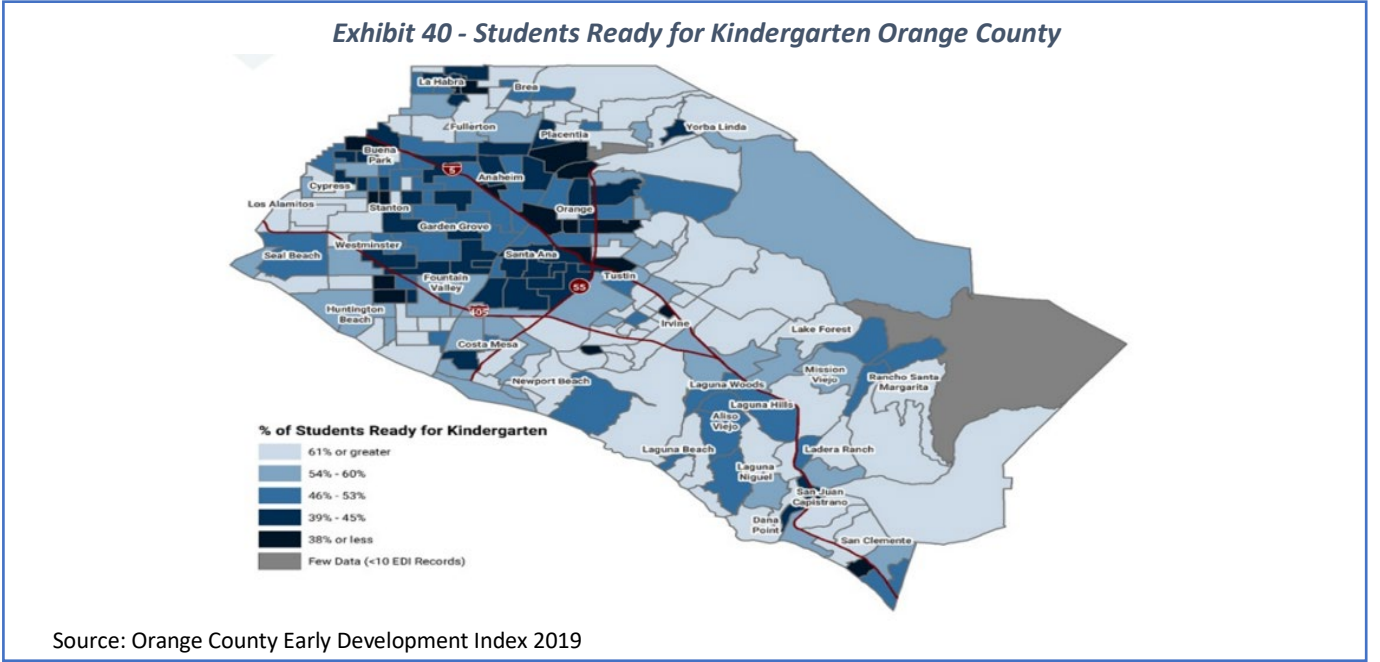
### Kindergarten Readiness

Orange County’s Early Development Index (EDI) measures the percentage of children who are ready for kindergarten, defined as on track in all five EDI domains: physical health and well-being, communication skills and general knowledge, social competence, emotional maturity, and language and cognitive development. Kindergarten readiness serves as a predictor of future performance, provides the foundation for academic and career growth.

There is a disparity in developmental readiness among Orange County’s kindergarten-age children. Latino children are 27% less likely to be ready for kindergarten than non-Latino children, while Asian children are 26% more likely to be kindergarten ready than non-Asian children.



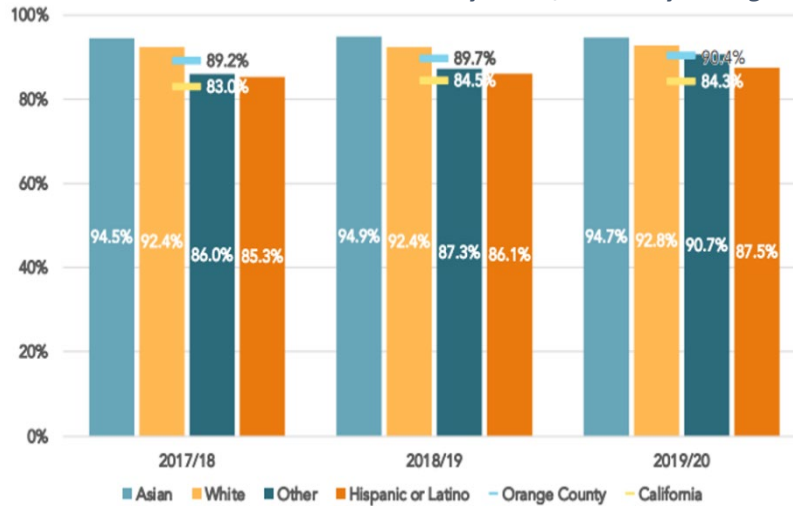
In addition, there is a noticeable difference in kindergarten readiness between North and South Orange County. The following chart is based on where children live, rather than where they go to school.



**High School Graduation Rate**

In the 2019-2020 school year, 90.4% of Orange County students who entered the 9<sup>th</sup> grade in 2016 graduated on time four years later. Compared to the statewide average, Orange County outperformed the state’s graduation rate by more than 6%. Laguna Beach Unified had the highest graduation rate at 98.4%, while Fullerton Joint Union High had the lowest rate at 88%. The highest graduation rates were Asian students at 94.7%, followed by White students at 92.8%. The group identified as “Other” students showed the largest improvement from the prior year, increasing graduation rates from 87.3% to 90.7%.

**Exhibit 41 - HS Graduation Rate by Race / Ethnicity Orange**

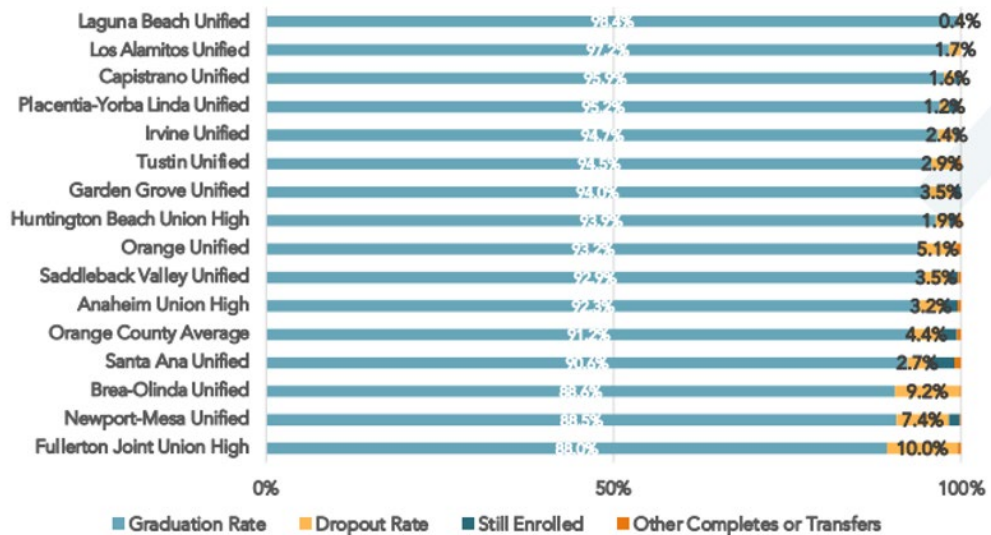


Note: "Asian" includes Asian, Pacific Islander and Filipino. "Other" includes Native American/Alaskan Native, African American, two or more races, or not reported.

Source: California Department of Education, DataQuest

Another measure of educational effectiveness is the high school dropout rate. Laguna Beach Unified, Placentia-Yorba Linda Unified and Capistrano Unified registered dropout rates of 0.4%, 1.2% and 1.6%, respectively. County-wide, the overall dropout rate declined from 4.6% in 2018-2019 to 4.4% for the 2019-2020 school year. Orange Unified School District, one source of primary data collection, had a dropout rate of 5.1%

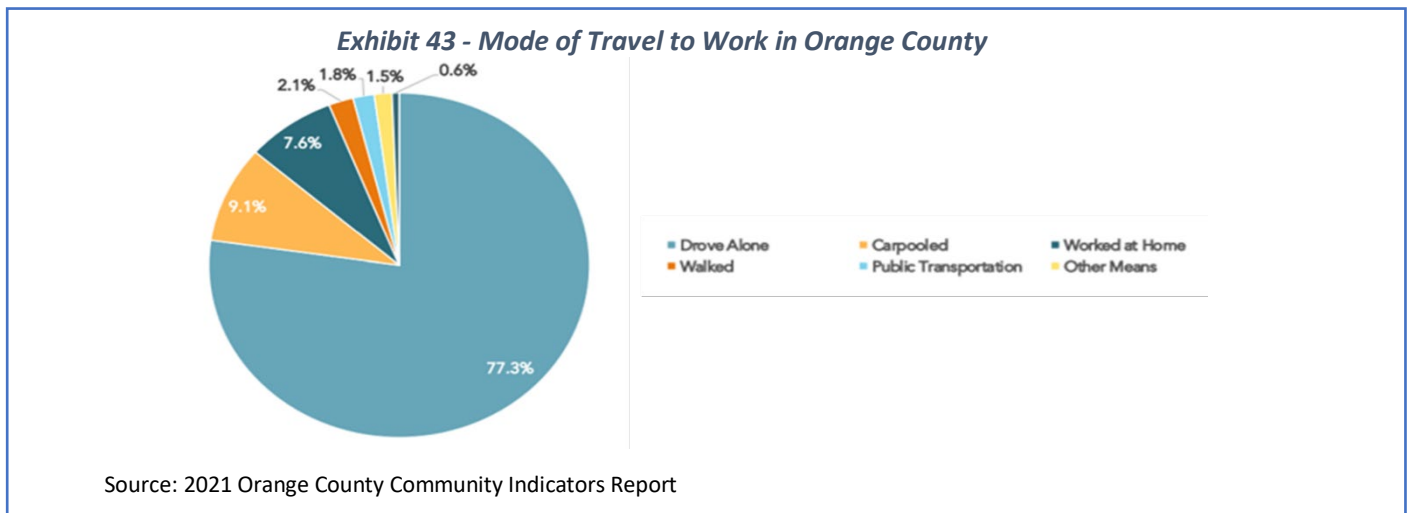
**Exhibit 42 - High School Student Outcomes by School District, 2019/2020**



Source: California Department of Education, DataQuest

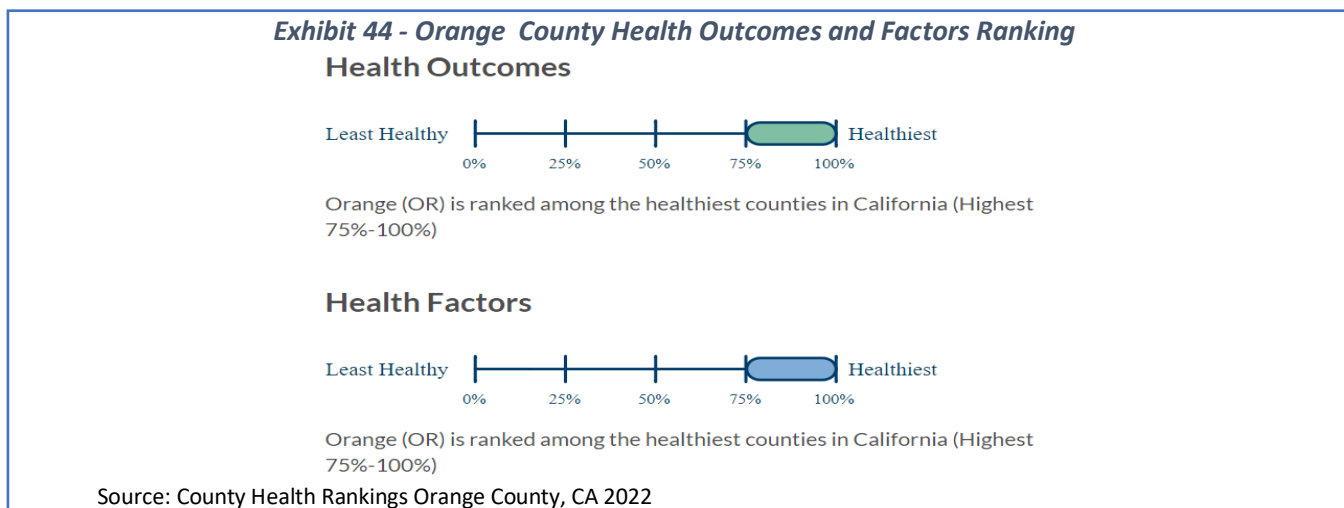
## Transportation

Public transportation is a key indicator of community mobility with a direct link to employment options. According to the 2021 Orange County Community Indicators Report, as of 2019, 77.3% of residents in Orange County, ages 16 and older, drive to work and only 1.5% of the residents would choose to go to work by taking public transportation. This indirectly shows that public transportation in Orange County may be more limited and not utilized more consistently due to numerous reasons including inconvenience or apprehension. In addition, Orange County Needs and Gaps Analysis – Final Report 2019 indicates that transportation has been one of the significant barriers that limited residents with special needs from receiving proper care.



## IX. Health Outcomes

Health outcomes represent how healthy Orange County is currently. They reflect the mental, physical, social, and faith-based well-being of residents through measures representing the breadth and depth of a person’s quality of life typically experienced in the community. As shown, Orange County is ranked the healthiest counties in California.



### Mortality

A tool for measuring overall health of a community is the average life expectancy at birth. This can also be used to differentiate disparities between different groups. To calculate life expectancy, life tables include the population count at each age and the number of deaths per year for each age.

Orange County life expectancy is highly correlated with socioeconomic factors. The higher a city’s median household income, the longer the life expectancy. Higher income families are more likely to have health insurance and better access to healthcare, as well as the resources necessary for a healthier lifestyle. Higher education attainment is also highly correlated with a longer life expectancy. Conversely, cities with higher poverty rates tend to have a lower life expectancy.

In Orange County, disparities in life expectancy exist between different racial/ethnic groups. Asian/Pacific Islanders have the highest life expectancy at 87.2 years, while African Americans, which represent a small portion of the overall population, have a life expectancy of 80.4 years. According to the Robert Wood Johnson Foundation, Orange County’s overall life expectancy is 83.1 years with California at 80.8 years. Both rates are higher than the national average life expectancy of 77.3 years.



**Exhibit 45 - Life Expectancy by County and Race / Ethnicity**

	AIAN	Asian	Black	Hispanic	White
Orange	82.5	87.2	80.4	83.2	81.6
El Dorado	85.1	86.3	79.5	85.5	81.4
Imperial		92.8	77.5	79.8	74.9
Los Angeles	82.0	86.6	74.8	82.4	80.6
San Francisco	77.8	87.8	71.9	84.1	83.3

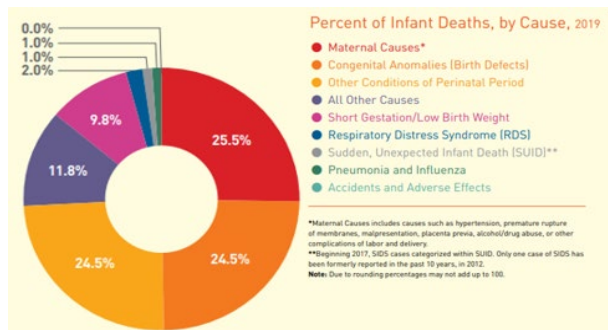
Source: County Health Rankings and Roadmaps, 2022

### Infant Mortality

Infant mortality is a widely used indicator of societal health because it is associated with maternal health, prenatal care, and socioeconomic factors. According to the 27<sup>th</sup> Annual Report on the Conditions of Children in Orange County, the number and rate of infant mortality is calculated per 1,000 live births per year. In 2019, the infant mortality rate was 2.9, a 27.5% decrease since 2010.

**Exhibit 46 - Infant Mortality Rates Orange County 2019**

1. Maternal causes 25.5%
2. Congenital anomalies (birth defects) 24.5%
3. Other conditions of the perinatal period 24.5%
4. Short gestation/low birth weight 9.8%
5. All other causes 15.7%



Source: Orange County Health Care Agency, Coroner Division

Short gestation, or preterm births, is an important public health issue. Economic, personal, medical, and behavioral factors may increase the probability of a woman entering preterm labor and delivery. Preterm infants are more likely to develop lifelong neurologic, cognitive, and behavioral problems. Preterm births in Orange County accounted for 8.1% of all births in 2019. This is an 11% decrease from 2010, and lower than both the California (9.0%) and U.S. (10.2%) rates. Black infants had the highest preterm births at 12.1%. Followed by White infants at 7.5% and Asian/Pacific Islander infants at 6.6%. Mothers under the age of 15 and over the age of 40 had the highest rate of preterm births at 14.3% and 13.2%, respectively, while mothers ages 25-29 had the lowest rate at 6.5%.

Low birthweight infants also have an increased risk of developmental delays and issues. They have a higher risk for severe illness, disability, and lifelong health issues, and are more likely to die prior to their first birthday. Risk factors for low birth weight include smoking, alcohol/drug use during pregnancy, poor nutrition, maternal age, infection, multiple births, and other socioeconomic factors. Preterm births and low birth weight are often, but not always, associated.

There are also disparities among race/ethnicity. Infant mortality per 1,000 births was significantly higher among Hispanic infants at 4.4, followed by White at 1.9 and Asian/Pacific Islander at 1.5 in 2019.

**Exhibit 47 - Infant Mortality Rate per 1,000 Live Births by Race and Ethnicity**



Source: 27<sup>th</sup> Annual Report on the Conditions of Children in Orange County

### Preventable Child Deaths

A child’s death is always a tragedy. Aside from the direct impact, a child’s death is an important indicator for public health advocates and policymakers. Unintentional childhood mortality due to injury is inversely related to median income and is therefore a strong indicator of poverty. A higher rate may be an indication of violent neighborhoods, inadequate child supervision, or gaps in health care or social inequalities. There were 77 deaths for children ages one to 19 years old in Orange County in 2019. Overall child mortality per 100,000 children was 10.4 deaths. White, Hispanic and Asian/Pacific Islanders all had lower mortality rates in 2019 as compared to 2018. Over half (58.4%) of all deaths were among older teens ages 15 to 19. The injury death rate per 100,000 for Orange County children decreased 44.4% from 8.1 in 2010 to 4.5 in 2019. This is lower than the State rate of 10.4.

**Exhibit 48 - Leading Causes of Death for Children One to 19 Years**

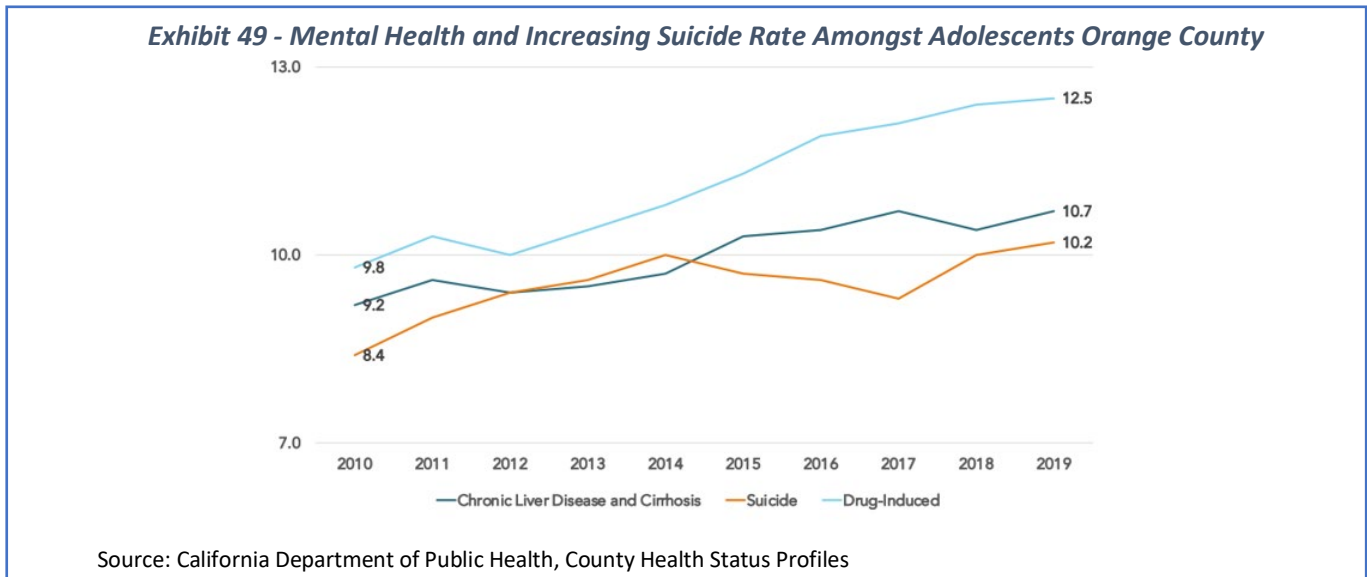
	1-4 Years	5-9 Years	10-14 Years	15-19 Years	1-19 Years
<b>FIRST LEADING CAUSE</b>	Unintentional Injuries (19)	Cancer (13)	Cancer (8)	Unintentional Injuries (57)	Unintentional Injuries (92)
<b>SECOND LEADING CAUSE</b>	Congenital Anomalies (8)	Unintentional Injuries (10)	Suicide (8)	Suicide (34)	Cancer (45)
<b>THIRD LEADING CAUSE</b>	Cancer (4)	Congenital Anomalies (1)	Unintentional Injuries (6)	Cancer (20)	Suicide (42)

**Notes:** Three-year total number of deaths.

Source: Orange County Health Care Agency

## Childhood and Teenage Suicide

Mental Health support is one of the primary needs identified by input from primary data collection sources and is supported by research. While Orange County mental health hospitalizations for adults decreased between 2010 and 2019, the mental health hospitalization rate for children and youths ages 0-17 increased a dramatic 99% during the same period.



The youth suicide rate in Orange County increased by 11% between 2010 and 2018, the highest increase among the 20 most populous states in the United States. Suicide is the second-leading cause of death among adolescents in Orange County, reflecting a national trend.

## X. Community Input

To identify the community's significant health needs, HealthBridge engaged with various public health professionals and community stakeholders in a formal process through interviews and survey groups. HealthBridge reached out to well over 100 people seeking community input on the perceived health needs of the service area. That information was used to complement the analysis of publicly available data. The CHNA process effectively engaged the Orange County service area in a broad, systematic, and inclusive way.

The interview questions and survey were not intended to be a scientific or statistically valid sampling of the population. Rather, they were designed to gather both qualitative and quantitative data from experts and stakeholders from within the Orange County community who represent residents, including low-income, medically underserved, and minority populations, with an emphasis on gaining an understanding of the perceived health needs impacting children.

The survey and interview questions (found in Appendix I and II respectively) centered around five themes:

- What are the most important/pressing health needs in the community / relate to children?
- What drivers or barriers are impacting the top health needs of children?
- To what extent is health care access a need in the community?
- To what extent is mental health a need in the community?
- What policies or resources are needed to impact health needs?

The Assessment identified numerous challenges facing both adults and children living in Orange County. Using the published data and statistics from primary data and various sources, several themes emerged regarding needs and/or gaps in service for those living in Orange County including:

- 1. Mental Health**
- 2. Education Challenges**
- 3. Housing**
- 4. Nutrition**
- 5. Access to Care**
- 6. Child Safety**

## XI. Summary of Findings

The overarching goals in conducting a CHNA are to identify significant health needs of the community, prioritize those health needs, and identify potential resources available to address those health needs. A variety of data sources were utilized to gather demographic and health indicators for the community served. Commonly used data sources include ESRI, the U.S. Census Bureau, and the Centers for Disease Control and Prevention (“CDC”).

A CHNA is a report based on epidemiological, qualitative, and comparative methods that assess the healthcare and public health issues in a hospital organization’s community and that community’s access to services related to those issues. For the purposes of identifying community health needs through the application of an analytical methodology, the scientific process of classification was chosen due to its usability and simplicity. Classification of data is the process of arranging data into homogeneous (similar) groups according to their common characteristics. Arrangement of data into similar groupings allows for the information to be compared and analyzed based on the common features. This analysis technique was especially useful for consolidating the volume of available public data and in grouping the information acquired from the various interviews and collected survey responses.

The HealthBridge CHNA Team collaborated on community targets to solicit input for this CHNA. The HealthBridge CHNA Team (collectively the Team) consists of:

- Roberta Consolver, RN – HealthBridge Children’s Hospital – Orange; CEO and CCO
- Maxine Colvin, RN – HealthBridge Children’s Hospital – Orange; Nurse Liaison
- Sherri Medina – HealthBridge Specialty Care LLC; CEO
- Armanino Healthcare Team – HealthBridge contracted with Armanino LLP to assist

Based upon identified targets, HealthBridge solicited input from numbers of health professionals, community professionals and other community members. They include members representing the underserved, low-income, and minority populations as required. In total, HealthBridge had over 20 participating key informants. See Appendix IV to see the full list of key informants. The information was gathered through focus group, in person 1:1 interviews, 1:1 interviews via phone or zoom, and mailed surveys sent in May and June 2022.

Although numerous people and/or groups were identified, the responses provided valuable insight, but the response rate was less than anticipated during the data collection time frame. Opinions gathered from community representatives could differ from those of the general Orange County population. Significant effort was made to identify a realistic representative of HealthBridge’s entire pediatric population, the diverse group of participants representing different portions of Orange County could not be guaranteed. As this is HealthBridge’s first CHNA, the Team will continue to seek input from a greater range of participants in the community and adjust the implementation strategy and Implementation Plan as appropriate.

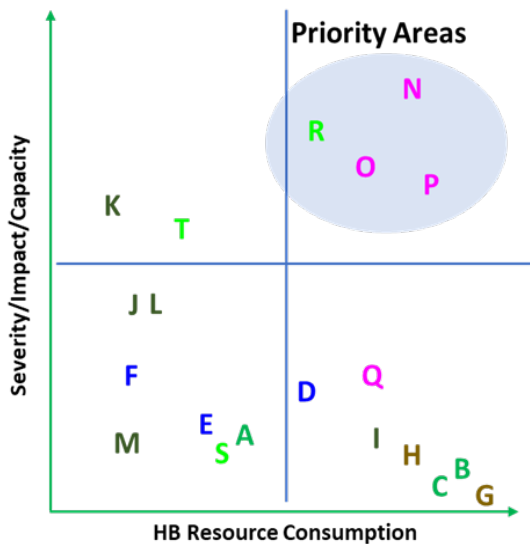
The Assessment identified numerous challenges facing both adults and children living in Orange County. Using the published data and statistics from various sources, several themes emerged regarding needs and/or gaps in service for those living in Orange County including:

1. Mental Health
2. Education Challenges
3. Housing
4. Nutrition
5. Access to Care
6. Child Safety

The above list incorporates 20 health challenges (as shown below) which are also identified and discussed in this Assessment. Some or all of the 20 health challenges were discussed as part of the interviews with community representatives. In those discussions, people were asked to share their perception of which challenges were the greatest priority.

To formally prioritize the narrowed field of identified challenges even further, the HealthBridge CHNA Team was asked to keep in mind the six overall identified health challenges and then prioritize the list of 20 health challenges based upon HealthBridge’s scope of service, personnel and other identified criteria as shown:

- **Impact:** Those challenges that HealthBridge might impact
- **Capacity:** Size of the population that would be affected
- **Severity:** Acuity of healthcare needs
- **Resource Consumption:** Appropriate allocation of time, talent and treasury



1. Mental Health
  - A. Teenage suicide
  - B. Depression
  - C. Substance abuse
2. Education Challenges
  - D. Drop out rate
  - E. Violence / bullying
  - F. Language barrier
3. Housing
  - G. Affordability
  - H. Shelters
4. Nutrition
  - I. Access to healthy food
  - J. Obesity
  - K. Family education
  - L. Diabetes
  - M. Oral Health
5. Access to Care
  - N. More sub-acute beds
  - O. More sub-acute services
  - P. More pediatric therapy svcs
  - Q. Clinical childcare
6. Child Safety
  - R. Avoidable injury
  - S. Home violence
  - T. Immunizations

The final prioritized list was developed in part using a modified four-square decision methodology. The result of that prioritization exercise is shown here. From the identified list of 20 community needs, a total of four Strategic Priorities were identified whereby HealthBridge could make a positive impact in the community.

The four identified Strategic Priorities will be formalized into an Implementation Plan that will require approval by HealthBridge leadership and governing body. This written plan is intended to satisfy the requirements set forth in Internal Revenue Code Section 501(r)(3) regarding community health needs assessments and Implementation Plan. The overall purpose of the Implementation Plan is to align

HealthBridge’s focused resources, program services, and activities with the findings of the CHNA. A brief statement of the categories of need are identified with explanation as to why some subsets were not chosen as a Strategic Priority. Note: the identified Health Challenges are recognized as a community need, but HealthBridge may already offer some level of identified service to its patient population but is limited to provide services to community, or it is out of the scope of services.

In addition to its very strong relationship with clinical providers including CHOC and UCI, HealthBridge has several community partnerships and/or provides needed services to provide better care and support for the community mitigating some of the identified needs including:

- Special Access Dental<sup>2</sup> – mobile dental hygiene service for the disabled/elderly
- Regional Center of Orange County – provides services for the developmentally disabled
- Access TL – assists families with filing HCBA waivers for admission to congregate homes at age 21
- OC Access<sup>1</sup> – transportation service through OCTA for the disabled/physically challenged
- Triumph Foundation – provides services/activities for people with spinal cord injuries
- HB<sup>3</sup> – parent education and home programs are an integral part of our approach
- HB<sup>4</sup> – focus in achieving optimal therapeutic outcomes and transfer of skills
- HB<sup>5</sup> – provides acute and sub-acute care to medically complex technology dependent children

Identified Health Challenge Category	Identified Health Challenge Subset	HealthBridge New Priority?	Why/Why Not?
Mental Health	Teenage Suicide <sup>3</sup>	No	Inpatient counseling services available now
Mental Health	Depression <sup>3</sup>	No	Inpatient counseling services available now
Mental Health	Substance Abuse	No	Beyond the scope of services
Education	Drop Out Rate	No	Has School in the Hospital program for inpatients
Education	Violence/Bullying <sup>3</sup>	No	Inpatient counseling services available now
Education	Language Barrier	No	Interpreters currently in place
Housing	Affordability	No	Beyond the scope of services
Housing	Shelters	No	Beyond the scope of services
Nutrition	Access to Healthy Food	No	Nutrition counseling part of care plan if needed
Nutrition	Obesity	No	Nutrition counseling part of care plan if needed
Nutrition	Family Education <sup>3</sup>	No	Nutrition counseling part of care plan if needed
Nutrition	Diabetes	No	Nutrition counseling part of care plan if needed
Nutrition	Oral Health <sup>1</sup>	No	Nutrition counseling part of care plan if needed
Access to Care	Sub-Acute Beds <sup>5</sup>	Yes	Part of strategic plan to expand number of beds
Access to Care	Acute/Sub-Acute Services <sup>5</sup>	Yes	Telemetry services in process for acute care patients
Access to Care	Pediatric PT/OT/ST <sup>4</sup>	Yes	Recognized as need and expanding outpatient services
Access to Care	Clinical Child Day Care	No	Part of planned strategy – FY 2024
Child Safety	Avoidable Injury	Yes	Continue providing injury prevention education and bike helmets to community
Child Safety	Home Violence	No	Coordinate with public services if needed
Child Safety	Immunizations	No	Orange Cnty has one of highest levels of immunization

## XII. Limitations and Data Gaps

This assessment was designed to provide a broad overview of health and well-being and identify critical issues related to community health in Orange County. However, it is not inclusive of every health-related issue that residents face and does not represent all possible populations of interest.

### Covid-19 Limitations

Data in this report represent the most current at the time of publication. However, it's important to note the source of data in relation to the COVID-19 timeline. Many indicators reflect the state of health prior to the pandemic; however, gathering community input data on long-term health needs during the pandemic may have increased the likelihood of bias and/or measurement error. In consideration of some of these limitations, the process of prioritizing health needs was based on both quantitative data collected prior to the pandemic, and qualitative data collected amidst the pandemic.

### Community Survey

Another limitation is the convenience sampling methodology used to conduct the community survey (dissemination online and via community organizations). Because the sample of survey respondents was not randomly selected, generalizability of the findings to the broader population is limited. Compared to the population of Orange County, people of color, men, and younger adults (age 25 and younger) were underrepresented among survey respondents, and those with a bachelor's degree or higher were overrepresented. Due to the pandemic restrictions and cancelation of community events, in-person surveying techniques could not be used purposively to sample underrepresented populations. Additionally, dissemination was primarily conducted through identification of key community leaders and partner networks which may have further limited the scope of potential respondents and increased the likelihood for selection bias.

### Gaps in Data

For secondary data, the most recent year of data available differs depending on the source and health topic. Additionally, some data in this report cannot be stratified by race, ethnicity, income, education level, zip code, etc., limiting the ability to explore differences or disparities among some sub-populations. Not all comparisons between groups could be tested for statistical significance (e.g., some secondary data); however, significance is noted when applicable and all significant differences are based on the 95% confidence interval. In effort to consolidate findings, data have been disaggregated to highlight disparities between groups and not every demographic group for which data is available is presented in the report.



## XIII. Appendices

### Appendix I - Survey Questions

This survey is part of HealthBridge’s Community Health Needs Assessment (CHNA). We are working to identify the health and healthcare needs for **Orange County, CA** residents as well as possible options to mitigate those needs. Your valuable insight allows us to incorporate your views and opinions of both needs and solutions. The survey is confidential in nature and only summary results will be included in the final report.

**1. What gender do you identify as?**

- Male       Female       Other

**2. In what year range were you born?**

- 1928 - 1945       1965 - 1980  
 1946 - 1954       1981 – 1996  
 1955 – 1964       1997 – 2012

**3. What is your household income?**

- \$0 - \$50,000                       >\$200,000 – \$250,000  
 >\$50,000 – \$100,000           >\$250,000  
 >\$100,000 – \$150,000         Prefer not to say  
 >\$150,000 – \$200,000

**4. What is the highest level of formal education your achieved?**

- High School                               PhD  
 Some College                             Medical Degree  
 College Undergraduate Degree       Other Professional Education Degree  
 Master’s Degree                          None of the above

**5. What race and/or ethnicity do you most identify as?**

- Asian  
 American Indian or Alaska Native  
 Black  
 Latino or Hispanic  
 Pacific Islander or Hawaiian  
 White or Caucasian  
 Other  
 Prefer not to say

**6. What keeps you from getting/receiving health and/or healthcare services?**

- Availability of services  
 Not enough free time  
 No desire to improve my health  
 Communication and/or language barriers  
 Difficulty completing forms and/or intake process  
 Medical debt (current or future)  
 High deductible and/or co-pay  
 No health insurance or under insured  
 Lack of transportation  
 Not sure how to access care  
 Lack of primary or specialty services in community

- Other
- None of the above

**7. What do you believe are the biggest challenges and/or Social Determinants of Health (SDOH) Orange County adults (over age 21) face in receiving appropriate care? Mark all that apply**

- Lack of knowledge and/or access to primary care and other healthcare services
- Lack of quality formal education and/or job training
- Financial resources
- Challenging housing options
- Public safety
- Discrimination
- Racism
- Community violence / unrest
- Concentrated poverty
- Cultural differences
- Traumatic injury
- Access to technology (cell phones / internet / etc)
- Lack of insurance or underinsured
- Insecure/embarrassed/afraid to reach out for help
- Do not know how to reach out for help
- Lack of transportation
- Illegal drug use
- Smoking
- Language barriers
- Literacy
- Other
- None of the above

**8. What do you believe are the biggest challenges and/or Social Determinants of Health (SDOH) Orange County children under age 21 face in receiving appropriate care? Mark all that apply**

- Lack of knowledge and/or access to primary care and other healthcare services
- Lack of quality formal education and/or job training
- Financial resources
- Challenging housing options
- Public safety
- Discrimination
- Racism
- Community violence / unrest
- Concentrated poverty
- Cultural differences
- Traumatic injury
- Access to technology (cell phones / internet / etc)
- Lack of insurance or underinsured
- Insecure/embarrassed/afraid to reach out for help
- Do not know how to reach out for help
- Lack of transportation
- Illegal drug use
- Smoking
- Language barriers
- Literacy
- Other
- None of the above

**9. What do you believe are the biggest healthcare diagnoses of residents in Orange County? Please mark all that apply**

- Cancer
  - Heart disease
  - Diabetes
  - COPD / Lung disease
  - Mental health issues / Alzheimer's / Suicide
  - Stroke / High blood pressure
  - Infectious disease / AIDS
  - Obesity
  - Sexually transmitted diseases
  - Kidney disease
  - Traumatic injury
  - Other (Please specify)
- 
- 

**10. What do you believe are the best and/or most realistic options the community can implement and/or improve to positively impact health and/or healthcare issues for residents in Orange County? Please mark all that apply**

- Improve access to healthy food
  - Adjust pricing for affordable healthy foods
  - Better education on how to prepare/cook healthy food
  - More education on healthy eating habits
  - Better and/or more low-income housing options
  - Improved access to public transportation
  - Improve connectivity and communication (internet access for example)
  - More retail-based / convenient healthcare services (services in grocery stores for example)
  - More and better access to community support groups
  - Greater police presence
  - Alternative immigration policies
  - More job opportunities with "learning on the job" support
  - Access to technical and/or healthcare training
  - Broader job opportunities
  - Use of Artificial Intelligence and Predictive Modeling to drive community-based services
  - Other (Please specify)
- 
- 

Thank you for your time in helping improve the lives of residents in Orange County.

## Appendix II – Interview Questionnaire

### Interview questions for the Community Health Needs Assessment (CHNA)

**To be shared with person being interviewed: We are having this discussion to create a foundation for HB’s CHNA. This is in response to a regulatory requirement as part of the ACA. The information obtained in this discussion is confidential but will be disclosed in summary form unless directed by you. The results of our assessment must be made public per regulation.**

Interviewer: \_\_\_\_\_

Date: \_\_\_\_\_

1. Are you familiar with a CHNA? (If no, explain to person being interviewed)
2. Name:
3. Title and organization?
4. Relationship to HB?
5. How many years have you been involved with HB and/or the community?
6. How often are you in touch with the organization? In what ways?
7. How do you describe the services offered by HB? What services are HB most well-known?
8. How familiar are you with Orange County (in what way do you have this knowledge – resident, work in area, political connection, social service agency, etc).
9. What do you believe are the top five health challenges in Orange County? Why?
10. What factors contribute to the health challenges you shared?
11. Do you have documentation to support your answers? Is that documentation something you can share with me? (If yes, coordinate getting that documentation)
12. Are there specific groups or characteristics of people that you believe are more at risk than others? (including by regulation medically underserved, low-income, Medicaid eligible patients/families, minorities, and other socio-economic characteristics)
13. What barriers do you perceive are exacerbating the health and social issues?
14. How could HB address the community health needs? List any programs or known community outreach.
15. What resources are in the community that serves the health issues/concerns of these people? (include names of organizations, names of services and the programs provided)
16. What resources are needed that address the community needs that are not available?
17. With your understanding of HB and a CHNA, what other information can you share that would be important to include/know?

## Appendix III – Data Sources and Citations

This list of data sources provides the dates for the data referenced in this report, and to the extent possible, includes the most recent data available.

[www.kidsdata.org](http://www.kidsdata.org) (03.19.21)

<https://doc.arcgis.com/en/esri-demographics/data/tapestry-segmentation.htm#GUID-11C20E82-0ABF-40D3-933F-A375201BA599>

<https://first5oc.org/about-us/reports/>

<https://sbc.family/leadership>

<https://uaii.org/contact-us/>

<https://caloptima.org/en/About/PressAndMedia-PressReleases/PressRelease-MHNA.aspx>

<https://data.hrsa.gov/tools/shortage-area/mua-find>

Orange County, CA | Data USA

California Healthy Kids Survey - Alcohol, Tobacco & Other Drug Prevention (CA Dept of Education)

Orange County, California - Food Environment Statistics (city-data.com)

How Healthy Is Orange County, California? | US News Healthiest Communities

<https://www.bewelloc.org/>

<https://www.dentalhealth.org/blog/the-importance-of-regular-dental-visits#:~:text=Dentists%20not%20only%20solve%20problems,before%20they%20become%20a%20problem.>

Orange County, CA Violent Crime Rates and Maps | CrimeGrade.org

The Safest and Most Dangerous Places in Orange County, CA: Crime Maps and Statistics | CrimeGrade.org

Racism and Health | Health Equity | CDC

Community Violence Prevention | Violence Prevention | Injury Center | CDC

[Orange County Community Indicators 2021-2022 Report](#)

[Orange County Health Improvement Plan 2020-2022](#)

OC Health Care Agency, Orange County Needs and Gaps Analysis Report October 2019:  
(<https://ochealthinfo.com/sites/hca/files/import/data/files/107926.pdf>)

[Children’s Hospital of Orange County Community Health Needs Assessment 2019](#)

Life Expectancy in Orange County, 2015

The 27<sup>th</sup> Annual Report on the Conditions of Children in Orange County

Hate Crime Report 2020 (occommunityservices.org)

Impact of Racism on our Nation’s Health | Health Equity | CDC

Life Expectancy Gap Between Black and White Americans Closes Nearly 50% in 30 Years | Princeton School of Public and International Affairs

What Percentage of Annual Income Should Go to Rent (apartmentguide.com)

FFSI-Summary-and-2020-FFSI-OC-Results\_FINAL.pdf (unitedwayoc.org)

## Appendix IV – List of Key Interviews, Communications, Surveyed Groups

Name	Title	Organization	Area Supported/Served
Roberta Consolver, RN	CEO, CCO	HealthBridge - Orange	Low-income, underserved, minorities
Lynn Barut	Nurse Manager	HealthBridge - Orange	Low-income, underserved, minorities
Gina Martinek	Infection Control	HealthBridge - Orange	Low-income, underserved, minorities
Sam Kang	Rehab Director	HealthBridge - Orange	Low-income, underserved, minorities
Melissa Delaney	Activity Leader	HealthBridge - Orange	Low-income, underserved, minorities
Adrienne Velasquez	Dietician	HealthBridge - Orange	Low-income, underserved, minorities
Thuy Nguyen	Business Office Director	HealthBridge - Orange	Low-income, underserved, minorities
Lisa Lopez	HR Director	HealthBridge - Orange	Low-income, underserved, minorities
Ronesha Hamilton	Dir. of Staff Develop.	HealthBridge - Orange	Low-income, underserved, minorities
Al Horta	Respiratory Therapy Dir	HealthBridge - Orange	Low-income, underserved, minorities
Valorie Horta	RN/Case Manager	HealthBridge - Orange	Low-income, underserved, minorities
Maxine Colvin	Nurse Liaison	HealthBridge - Orange	Low-income, underserved, minorities
Sherri Medina	CEO	HealthBridge Spec. Care	Business Community
Prashi Mohan	Strategist	CHOC	Pediatric Community
Mary Zimmer	VP of Operations	CHOC	Pediatric Community
Heather MacEwan	Director of Rehab	CHOC	Pediatric Community
Dr. Patricia Liao	HB Medical Director	CHOC	Pediatric Community
Tiffany Alva	Dir of Partnerships	First 5 Orange	Pediatric Community
Sue Parks	CEO	OC United Way	Low-income, underserved, minorities
Joe Erven	Director	OC Unified Sch. Dist.	Education
Dr. Nguyen-Tang	Pediatric Hospitalist	CHOC	Low-income, underserved, minorities
Julia Bidwell	Director	Housing & Comm. Dev.	Low-income, underserved, minorities
Clayton Chau, MD	Agency Director	OC Health Care Agency	Low-income, underserved, minorities

### Electronic surveys were sent to representatives of

- Orange County United Way,
- Orange Unified School District,
- Orange County Business Leaders Forum

## Appendix V – CHNA Checklist

### 26 CFR §1.501(r)-3 Community Health Needs Assessment for Charitable Hospital Organizations

#### GENERAL REQUIREMENTS CHECKLIST

REQUIREMENT	CITATION	REPORT SECTION	APPROVAL DATE
Define the community it serves	(b)(1)(i)	VI. HealthBridge Service Area VII. Demographics VIII. Orange County Health Assessment	
Assess the health needs of that community	(b)(1)(ii)	VIII. Orange County Health Assessment	
Solicit and take into account input received from persons who represent the broad interests of that community, including those with special knowledge of or expertise in public health	(b)(1)(iii)	VIII. Orange County Health Assessment X. Community Input	
Document the CHNA in a written report (CHNA report) that is adopted for the hospital facility by an authorized body of the hospital facility	(b)(1)(iv)	I. Acknowledgements and Access XI. Summary of Findings	June 27, 2022
Make the CHNA report widely available to the public	(b)(1)(v)	I. Acknowledgements and Access	June 30, 2022

#### DOCUMENTATION CHECKLIST

REQUIREMENT	CITATION	REPORT SECTION
Definition of the community served by the hospital facility and a description of how the community was determined	(b)(6)(i)(A)	VI. HealthBridge Service Area
Description of the process and methods used to conduct the CHNA	(b)(6)(i)(B)	V. Methodology
Description of how the hospital facility solicited and took into account input received from persons who represent the broad interests of the community it serves	(b)(6)(i)(C)	X. Community Input, Appendix IV
A prioritized description of the significant health needs of the community identified through the CHNA, along with a description of the process and criteria used in identifying certain health needs as significant and prioritizing those significant health needs	(b)(6)(i)(D)	XI. Summary of Findings
Description of the resources potentially available to address the significant health needs identified through the CHNA	(b)(6)(i)(E)	VI. HealthBridge Service Area, VIII. Orange County Health Assessment
An evaluation of the impact of any actions that were taken, since the hospital facility finished conducting its immediately preceding CHNA, to address the significant health needs identified in the hospital facility's prior CHNA(s)	(b)(6)(i)(F)	N/A V. Methodology

SOURCE: [Charitable Hospitals - General Requirements for Tax-Exemption Under Section 501\(c\)\(3\) | Internal Revenue Service \(irs.gov\)](#)