Advancing Health Equity in Nueces County
Amid and Beyond the COVID-19 Pandemic
Final Report

TEXAS HEALTH INSTITUTE

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Acknowledgements

NUECES COUNTY LEADERSHIP

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Introduction

BACKGROUND

Located on the coastal bend of the South Texas region, Nueces County is the 16th largest county in Texas, and home to Corpus Christi, the 8th largest city in the state. In addition to tourism, the region boasts major industries such as oil and gas, health care, construction, retail, agriculture, and fishing. The county has a population of approximately 362,000, with a majority of Hispanic residents (64%), followed by non-Hispanic White (29%), Black (4%), Asian (2%), and Other (1%) residents.

According to the *2020 County Health Rankings*, Nueces County ranks 123rd on health outcomes compared to 244 other counties across Texas.[1] A deeper dive into these rankings shows that while Nueces County ranks above most Texas counties on clinical care measures (24th), it ranks toward the bottom on measures of health and quality of life (176th), social and economic factors (187th), and physical environment (210th). Approximately one in three Nueces County adults is obese, and nearly 13% have diabetes—rates higher than the state average. Mental and behavioral health and substance abuse have also been growing concerns in the community. In 2017, a Nueces County resident, for example, was three times more likely to have a death resulting from opioid use per capita than any other major county or city in Texas—and its rate of 10 deaths for every 100,000 people was also more than two times the national average of 4 per 100,000.[2]

Further troubling are trends that indicate notable differences in health by race, place, and socioeconomic status. For example, two neighborhoods roughly 10 miles apart in Nueces County can vary in life expectancy by 15 years, where a resident in a predominantly low-income community of color can expect to live to just 70 years, compared to a resident in a predominantly high-income neighborhood who can live to 85 years.[3] Rates of infant mortality, child mortality, and premature mortality are all higher among Black residents than all other county residents, and barriers to access, prevention and care are highest for Hispanic residents.[4] Both Black and Hispanic residents also face some of the highest chronic disease rates.[5]

> **Two neighborhoods 10 miles apart in Nueces County** can vary in average life expectancy by 15 years.

The COVID-19 pandemic has further exposed and exacerbated these health inequities. While all communities have been impacted, the pandemic has left low-income and communities of color facing a disproportionate burden of disease, death, and loss.[6] And amid the efforts to vaccinate county residents, early data show that all across the state of Texas, historically underserved populations including people of color, rural residents, and others are less likely to receive the vaccine than higher-income, White and urban residents.[7,8] Why do these health and health care inequities play out time and again? What are the underlying root causes? And how do we shift

the paradigm so that all Nueces County residents have the opportunity to be healthy and thrive? The purpose of this report is to provide answers to some of these questions.

PURPOSE

Commissioned by the Nueces County Office of Emergency Management and the Nueces County Hospital District, Texas Health Institute and Accenture LLP led a first-of-its-kind initiative for the county to develop a ***Nueces County Health Equity and COVID-19 Dashboard and Summary Report***. **The purpose of this initiative is to produce timely, community-centered COVID-19 data and insights to guide an equitable response and recovery for all people in Nueces County.** By pairing COVID-19 and other health outcomes data together with data on the social determinants of health, the dashboard and report illuminate how broader social and economic circumstances across Nueces County drive health outcomes—whether they be for COVID-19, chronic disease, mental

The purpose is to provide timely, community-centered COVID-19 data and insights to guide an equitable response and recovery for all people in Nueces County.

health, or other health measures. The report's data are supported by input from community leaders and stakeholders who shared insights into the realities facing communities, and their guidance on the path forward to ensuring an equitable response and recovery.

This summary report integrates findings from the data dashboard and stakeholder engagement in order to inform and provide guidance to county leaders, community stakeholders, and other partners on:

- the depth and breadth of COVID-19 and broader health inequities across the county;
- the underlying social, economic, environmental, and other root causes of these inequities;
- why advancing health equity now, amid the pandemic, is critical to the well-being and economic prosperity of the county; and
- recommendations for an equitable response and recovery.

The report is unique as it focuses explicitly on the mission and vision of advancing and achieving health equity in Nueces County. Both the report and dashboard offer important insights and steps for reframing the conversation and investments around creating opportunities for all to thrive in Nueces County. Most notably, findings and recommendations for leaders and stakeholders recognize that health happens not just within the four walls of clinics and hospital systems, but in the places where residents live, learn, and work. Improving the physical and mental health of Nueces County residents—especially for those historically underserved—will require investing in communities and the conditions that create health in the first place.

Health Equity & Why it Matters

WHAT IS "HEALTH"?

Advancing health equity requires a clear understanding of health and how it is produced. According to the World Health Organization, **health** is "a state of complete physical, mental and social-well-being and not merely the absence of disease." The conditions in which people are born, grow, live, work and age—also referred to the **social determinants of health**—are the factors that shape health.[9] In fact, a growing body of research shows that a person's ZIP code is a greater predictor of health than his or her genetic code.[10]

Nearly 50% of health is shaped by social, economic, and environmental opportunities people have to lead a healthy and prosperous life (Figure 1).[11] This includes access to quality education, good paying jobs, safe neighborhoods, affordable and quality housing, healthy foods, green spaces and clean air and water. Approximately 30% of health can be linked to behaviors, but even behaviors and the choices people make are too often dependent on the choices they have based on the conditions in which they live. For example, for many, the choice to eat healthy is dependent on their neighborhood's food environment. Yet, all across Texas, food deserts (areas with limited access to affordable and nutritious foods) and food swamps (areas with high density of fast food and junk food establishments) are rampant, contributing to high rates of obesity for Hispanic and other people of color.[12] [13]

Research documents that only up to 20% of health is shaped by medical care, yet nearly 95% of our nation's health-related spending is spent on medical care.[14] While medical care is necessary, health outcomes across Nueces County and our state and nation demonstrate that alone, it cannot solve the complex conditions across our communities that profoundly shape people's opportunity for health.

Figure 1. 80% of Health is Shaped by Factors Outside of Health Care
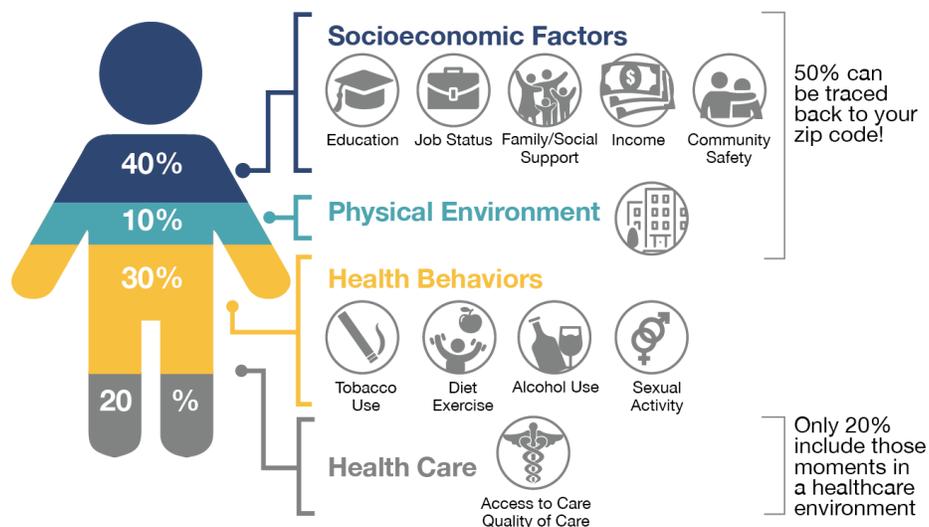
Source: Institute for Clinical Systems Improvement, Going Beyond Clinical Walls: Solving Complex Problems (October 2014)

WHAT IS "HEALTH EQUITY"?

Health equity means "everyone has a fair and just opportunity to be as healthy possible. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care."[15] Yet across the nation, state and communities—including Nueces County—there are significant differences in the opportunities people have to lead a good and healthy life.[16] As mentioned earlier, there is a 15-year gap in overall life expectancy across nearby neighborhoods in Nueces County. This is not just a *health disparity* (a mere difference in health), but a *health inequity* (because it is preventable, and as such unfair and unjust). Health equity is all about working to directly address these preventable and unfair differences.

> **Health Equity means everyone has a fair and just opportunity to be as healthy as possible.**

WHY DOES HEALTH EQUITY MATTER?

Working to achieve health equity not only improves population health and saves lives, but also has economic benefits. A recent report commissioned by the Episcopal Health Foundation (EHF) found that in 2020 alone, racial and health inequities cost Texas $7.7 billion in excess medical spending and lost productivity. Furthermore, if Black and Hispanic Texans had the same mortality rates as White Texans, 5,000 fewer COVID-19 deaths would have occurred, reducing the state's mortality rate by 30%. Moreover, the report documented a 60-70% increase in economic costs to Texas from racial and health inequities since 2016, and concluded that if these trends continue, the economic burden to the state will increase 22%.[17]

In addition, numerous national studies document that preventable and avoidable gaps in health contribute to the poor ranking of the United States on health internationally, despite being the nation that spends the most on health worldwide.[18] As health equity scholars say, racial inequities sap the strength and potential of all of society through the waste of human resources.[19] Inequities also contribute to intergenerational transfers of disadvantage, limiting the economic mobility, opportunity, and health for future generations.[20] **Breaking the cycle of inequities and working to advance health equity is critical to the well-being and prosperity of all people and communities—including Nueces County.**

Nueces County Area Profile

As a vibrant coastal community in South Texas, Nueces County is rich in culture, history and diversity. Almost two-thirds of Nueces County is comprised of Hispanic residents and one-third is comprised of Non-Hispanic White residents. More than one-third (36%) of Nueces County residents speak a language other than English at home, and roughly 5% have limited English proficiency. Among Spanish speakers, the rate of limited English proficiency is even higher (9%).

The most populous areas in Nueces County include the South of Central City area (78415), the South Side area including the Bay Area around Texas A&M University Corpus Christi (78412, 78413, and 78414) and the Padre Island area (78418).

In recent years, the Coastal Bend region has declined in population as residents migrated out of the region due to a combination of factors including the impact of Hurricane Harvey, low oil production, and an aging workforce.[21] Despite these regional dynamics, Nueces County and the Corpus Christi area as a whole has fared better than its surrounding counties. However, not all people in the county and city have benefited from equitable opportunities. In particular, underserved communities and communities of color have endured a complex web of social, economic, and health inequities, that have further worsened by the ongoing COVID-19 pandemic.

Table 1: Demographic Characteristics of Nueces County

Race and Ethnicity	
Hispanic	63.8%
Non-Hispanic White	29.4%
Non-Hispanic Black	3.6%
Non-Hispanic Asian	2.0%
Other	1.2%
Age	
0-14	20.5%
15-19	7.5%
20-34	21.5%
35-54	24.5%
55-64	12.1%
Over 65	14.1%
Sex	
Male	49.4%
Female	50.6%
Language	
Limited English Proficiency	5.2%

Source: ACS, 2015-2019

Figure 2: Population Concentration by ZIP Code in Nueces County
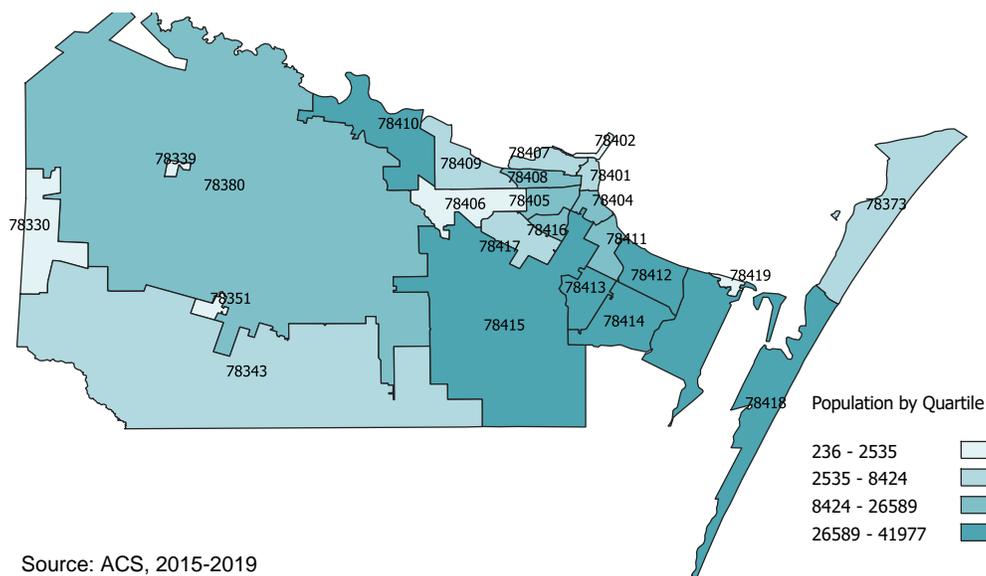
Source: ACS, 2015-2019

COVID-19 CASES AND DEATHS

As of March 29, 2021, Nueces County has over 38,000 confirmed COVID-19 cases and 700 deaths according to *John Hopkins University COVID-19 Tracker*. The county has higher COVID-19 cases per 100,000 (10,695) than both Texas (9,457) and the Coastal Bend Region (9,717) and higher COVID-19 deaths per 100,000 than Texas (Table 2). In comparison to other major metro counties in Texas, Nueces County has a higher case per 100,000 than Travis (6,164), Harris (7,954), and Bexar (10,237) counties, but a lower rate than Dallas County (11,046).[22] Nueces County has a higher COVID-19 death rate per 100,000 than all four of the aforementioned major metro counties.

Table 2: Comparison of COVID-19 Cases and Deaths Per 100,000 for Nueces County, Coastal Bend Region, and Texas

	Cases Per 100,000	Deaths Per 100,000
Nueces County	10,695	204
Coastal Bend Region	9,717	211
Texas	9,457	161

Source: John Hopkins COVID-19 Tracker March 29, 2021

Among the Coastal Bend Counties, Nueces County has similar COVID-19 cases per 100,000 as Bee and Duval counties, but lower deaths per 100,000 than Kenedy, Duval and Kleberg (Figure 3).

Figure 3: COVID-19 Cases and Deaths Per 100,000 in Coastal Bend Region
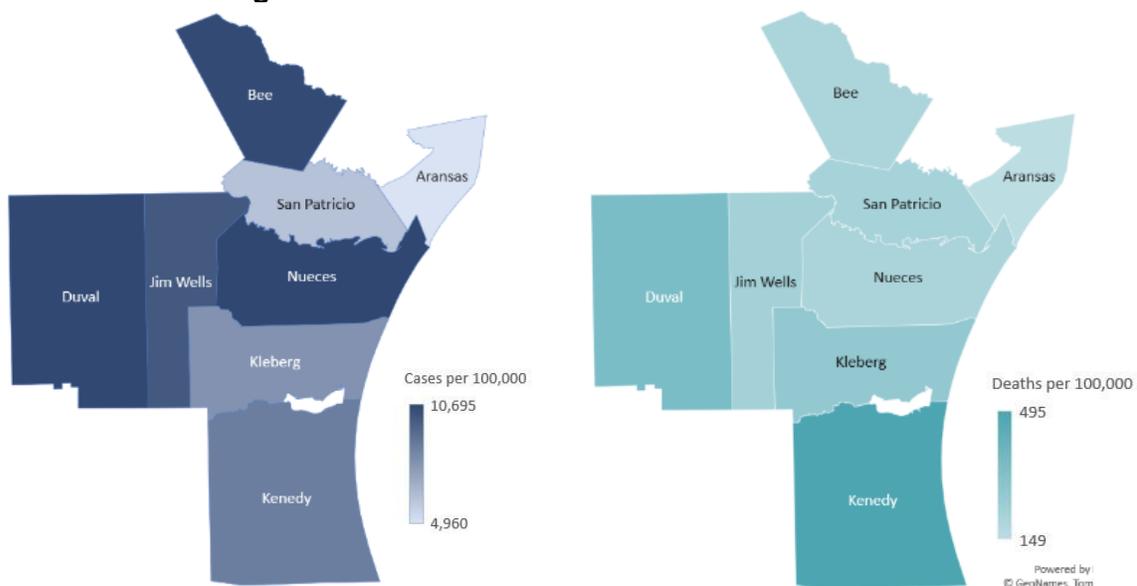
Source: COVID-19 case per ZIP code through City of Corpus Christi- Nueces County Public Health District

COVID-19 INEQUITIES BY RACE AND PLACE

The disproportionate impact of COVID-19 on low-income and communities of color seen throughout Texas is also reflected across Nueces County, with Hispanic residents facing higher rates of COVID-19 related disease and deaths. While Hispanic residents comprise 64% of Nueces County's population, they account for 68% of COVID-19 related cases and 72% of deaths (Figure 4). In comparison, whereas non-Hispanic White residents account for 29% of the county's population, they make up a slightly smaller share of the county's cases (27%) and deaths (26%). Black residents comprise 3% of the county's population, and a slightly higher share of cases (4%), but lower share of deaths (2%).

Figure 4: Percent of Population, COVID-19 Cases and Deaths by Race and Ethnicity
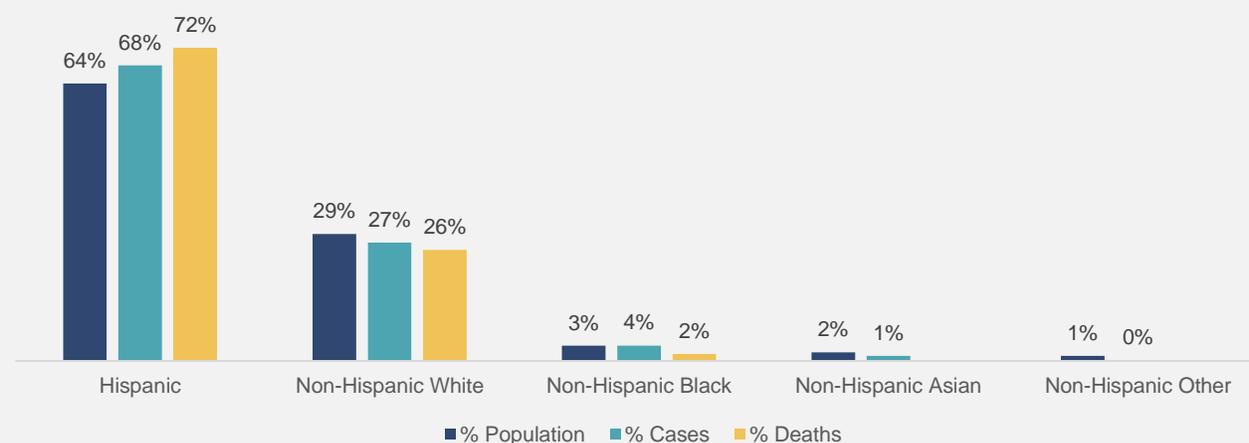
Source: Population Data from U.S. Census Bureau, 2016-2019; Case data from City of Corpus Christi- Nueces County Public Health District; Death data from CDC Provisional COVID-19 Death Counts by Race and Ethnicity Provisional COVID-19 Death Counts by County and Race | Data | Centers for Disease Control and Prevention (cdc.gov). Percent unknown data excluded from denominator for cases. Race/ethnic data unknown for 29% of cases.

Notable inequities are also found by geographic location. ZIP codes with higher COVID-19 case rates are also home to larger percentages of Hispanic residents (Figure 5). The top 25% of ZIP Codes with the highest cases per 100,000 population have an average of 78% Hispanic residents compared to an average of 20% White residents. Conversely, ZIP codes with the lowest cases per 100,000 population have on average 30% Hispanic residents and 54% White residents.

> **ZIP Codes with the highest rate of COVID-19 cases are home to an average of 78% Hispanic residents compared to 20% White residents.**

Figure 5: COVID-19 Cases in Nueces County are Higher in Zip Codes with Higher Percentage of Hispanic Residents (Cases per 100,000)
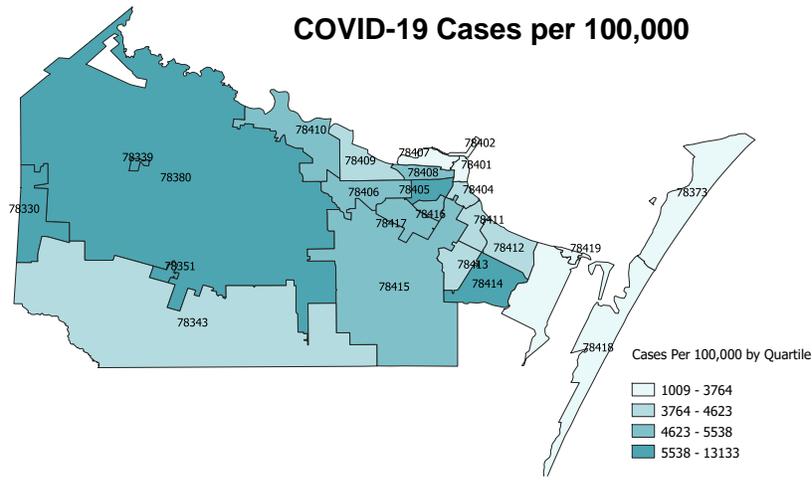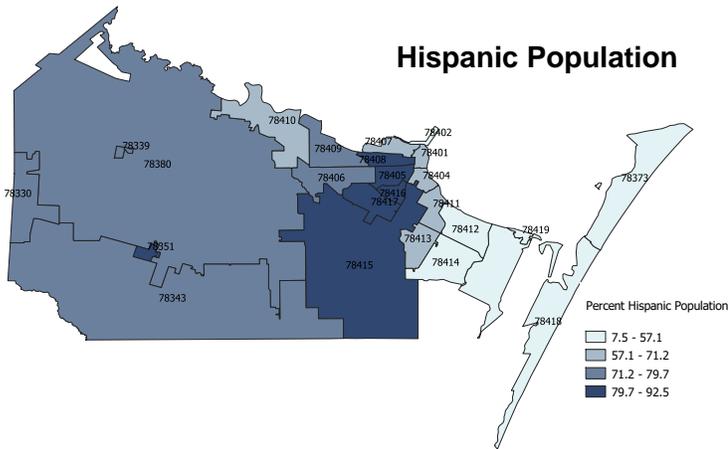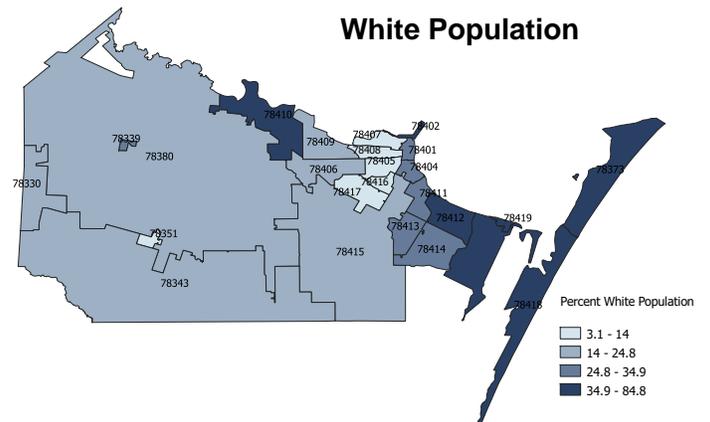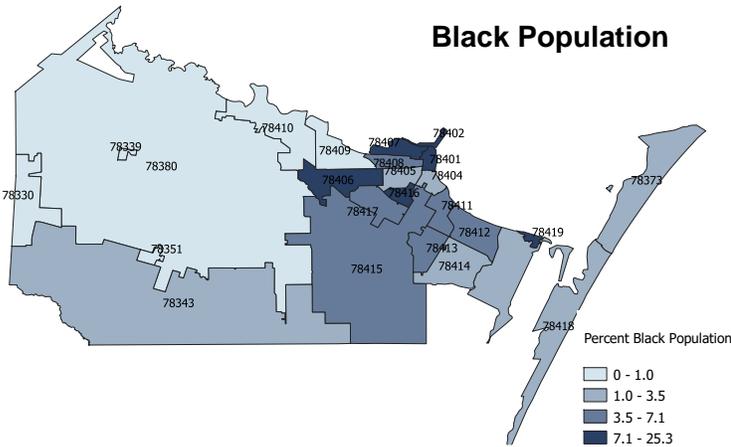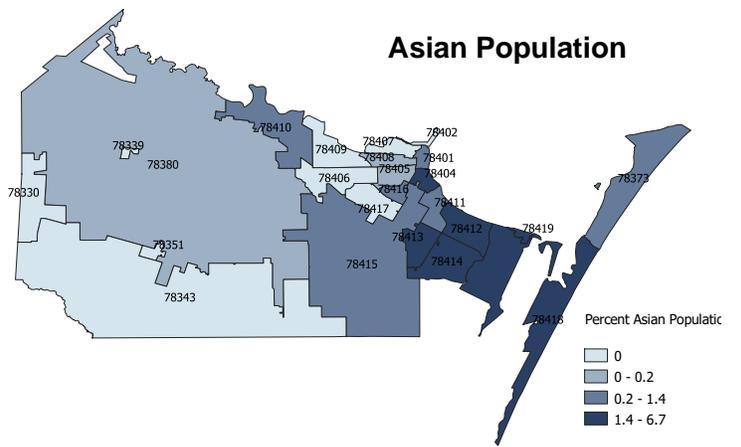
Source: Population data from ACS, 2015-2019 and COVID-19 cases per ZIP code data from Nueces County Public Health District

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[1] Percent population and COVID-19 cases per 100,000 analyzed by quartiles

Deeper analysis into geographic data reveals that, beyond occurring in predominantly Hispanic neighborhoods, **the highest rates of COVID-19 cases are experienced in ZIP codes with higher rates of chronic disease and socioeconomic vulnerability** (Figure 6). The top 25% of ZIP codes with the highest rates of COVID-19 have on average higher percentages of people living in poverty (21% vs. 15%), working frontline jobs (26% vs. 18%), and having no health insurance (19% vs. 15%) compared to those living in the bottom 25% of ZIP codes with the lowest COVID-19 rates. Similarly, ZIP codes with the highest COVID-19 rates have on average higher rates of diabetes and obesity.

Figure 6: ZIP Codes with the Highest COVID-19 Rates per 100,000 Have Higher Percentages of Residents Who are Hispanic, Frontline Worker, Uninsured, in Poverty and with Chronic Disease
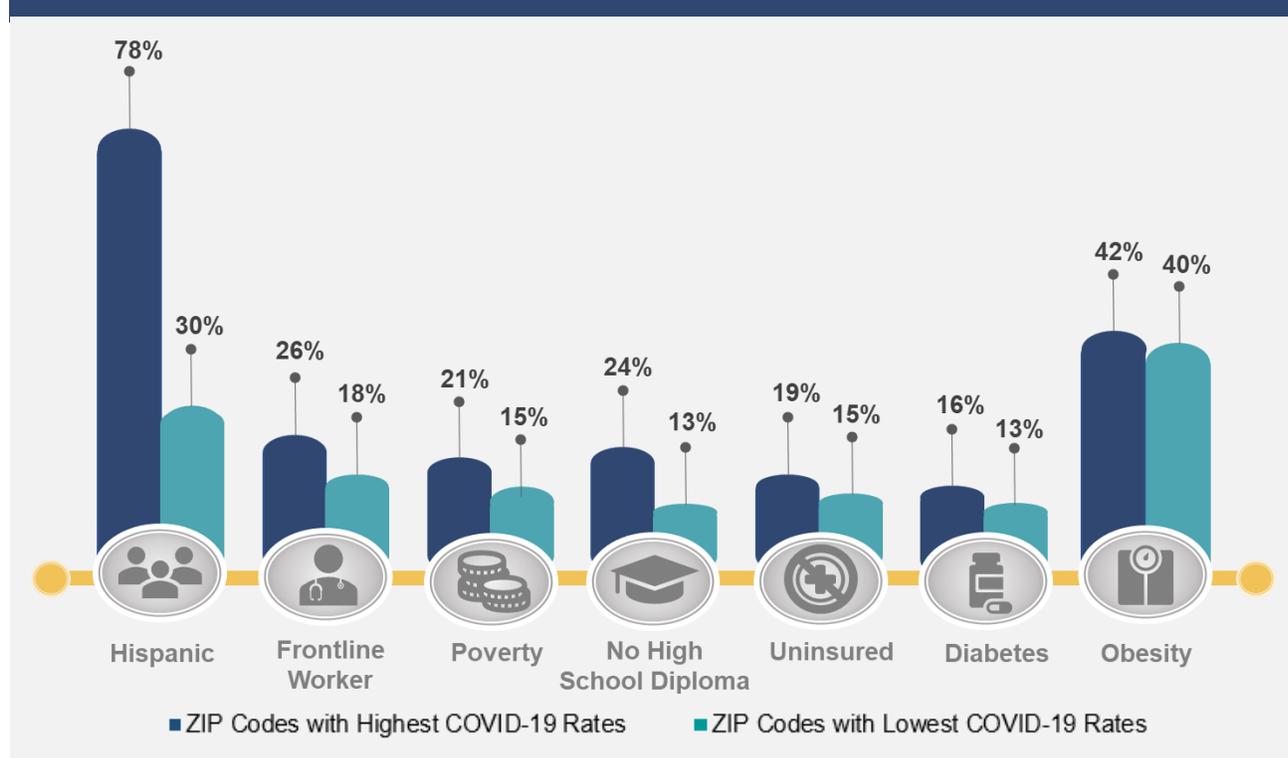
Source: Analysis were conducted with population and socioeconomic data from ACS, 2015-2019, focusing on top and bottom quartiles; COVID-19 cases per ZIP code data from Nueces County Public Health District, 2021; and chronic disease data from BRFSS, 2018.

Additional geographic analyses show that ZIP codes with higher percentages of Hispanic residents are particularly susceptible to COVID-19, and broader social, economic, and health challenges compared to White residents (Figure 7). For example, the top 25% of ZIP Codes with the highest rates of obesity have on average a five times higher share of Hispanic residents (74%) than White residents (16%). When comparing socioeconomic measures, the top 25% of ZIP codes with the highest rate of poverty have on average four times higher percentage of Hispanic residents (77%) than White residents (18%).

Figure 7: The Highest Rates of COVID-19, Chronic Disease and Socioeconomic Vulnerability are in ZIP Codes with Higher Percentages of Hispanic Residents Compared to White
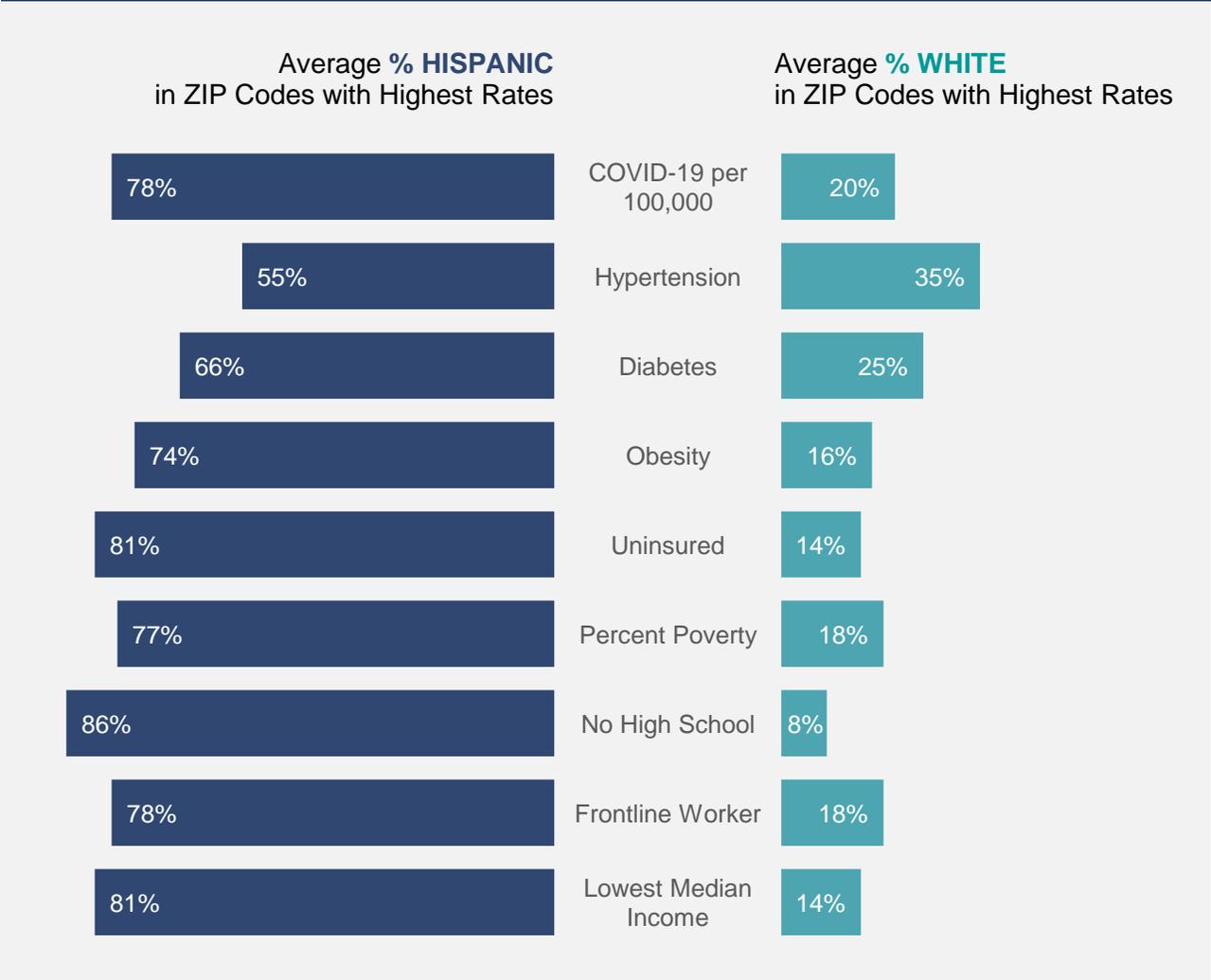
Average **% HISPANIC** in ZIP Codes with Highest Rates		Average **% WHITE** in ZIP Codes with Highest Rates
78%	COVID-19 per 100,000	20%
55%	Hypertension	35%
66%	Diabetes	25%
74%	Obesity	16%
81%	Uninsured	14%
77%	Percent Poverty	18%
86%	No High School	8%
78%	Frontline Worker	18%
81%	Lowest Median Income	14%

Source: Analysis were conducted with population and socioeconomic data from ACS, 2015-2019, focusing on top and bottom quartiles; COVID-19 cases per ZIP code data from Nueces County Public Health District, 2021; and chronic disease data from BRFSS, 2018.

COVID-19 VACCINE INEQUITIES

As of March 23, 2021, 83,000 residents in Nueces County have received their first dose and nearly 48,000 have received the full dose of the COVID-19 vaccination.[2] A total of 142,000 vaccines were allocated to Nueces County, with 35% of vaccines given to local public health and government, and 16% given to hospitals.[23] Like most other parts of the state and nation, Hispanic and Black residents comprise a lower share of those vaccinated, compared to their share of COVID-19 cases (Figure 8). On the other hand, White residents comprise a higher share of those who are vaccinated compared to their share of cases and deaths.

At a geographic level, preliminary data for vaccinations from the public health district (as of March 23, 2021) show more than half (59%) of the first dose recipients live in ZIP

Figure 8: Hispanic and Black Residents in Nueces County Comprise a Lower Share of Residents Vaccinated, Despite Higher Rates of COVID-19 Cases and Deaths

Source: Vaccination data from DSHS Texas Vaccine Data Dashboard as of 3/23/2021. Percent unknown data excluded from denominator for cases. Race/ethnic data unknown for 32% of fully vaccinated.

Codes with majority White and Hispanic residents (78380, 78414, 78413, 78410, and 78415) (Figure 9). These exclude vaccinations given through other sources such as retail pharmacies. ZIP codes with higher concentrations of Black residents (78402, 78407, and 78406) are among the locations with lower vaccination rates.

Figure 9: The Number First Dose COVID-19 Vaccines Administered is Lower in ZIP Codes with Higher Concentrations of Black Residents
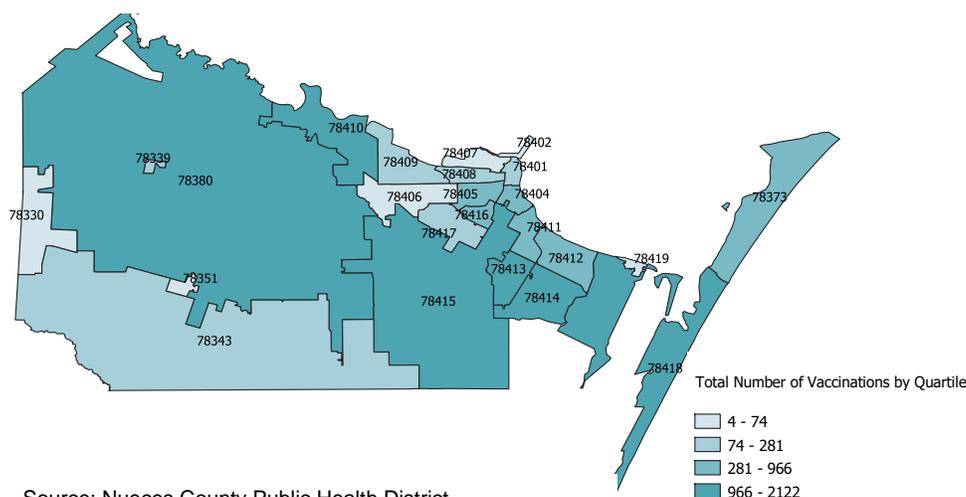
Source: Nueces County Public Health District

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[2] Vaccination data from Texas Department of Health and Human Services as of March 23, 2021.

Health Inequities in Nueces County

COVID-19 has exposed the health inequities that exist across Nueces County. These inequities are not new. Rather, they mirror a history of inequities that have persisted across a range of health measures—chronic disease, mental health, life expectancy, and mortality—that have disproportionately affected low-income communities and communities of color for far too long. Inequities that already existed prior to the COVID-19 pandemic—such as higher rates of obesity, diabetes, and other chronic conditions in the Hispanic, Black and low-income communities (all leading risk factors of COVID-19)—have only further exacerbated the disproportionate impact of the pandemic on these communities.

HEALTH OUTCOMES

According to the *2020 County Health Rankings & Roadmaps*, a higher percentage of Nueces County residents (23%) report being in fair or poor health compared to Texas residents (21%). While Nueces County performs better than the surrounding Coastal Bend Counties on measures including health status, premature deaths, and life expectancy, racial and ethnic inequities are wide (Appendix A, Figure C).

Black infants, children and adults consistently experience poorer health outcomes than all other groups in the county (Table 3). When born, Black infants in Nueces County have almost twice the rate of having low birthweight than all other infants. Black children have a mortality rate (130 per 100,000 population) that is three times the rate of Hispanic children (40 per 100,000) and two times the rate of White children (60 per 100,000). As adults, Black residents also face higher premature mortality rates than all other groups— a rate that is nearly four times higher than Asian adults who have the lowest rate.[24]

When it comes to number of deaths due to injury, including intentional (suicide and homicide) and unintentional (poisoning and motor vehicle deaths), White residents in Nueces County have twice the rate of injury deaths as the state of Texas (106 per 100,000 for Nueces County vs. 57 per 100,000 for Texas), twice the rate of Hispanic residents in the county (51 per 100,000) and four times the rate of Asian residents (26 per 100,000).

Table 3: Racial and Ethnic Disparities in Health Outcome Measures in Nueces County

	Texas	Nueces County				
		Total	Hispanic	White	Black	Asian
Percent Low Birthweight Infants	8%	9%	9%	8%	14%	8%
Infant Mortality (per 100,000)	6	5	4	6	N/A	N/A
Premature Mortality (per 100,000)	6,700	7,800	7,300	8,800	12,200	N/A
Age-Adjusted Premature Mortality (per 100,000)	340	400	380	430	600	160
Child Mortality (per 100,000)	50	50	40	60	130	N/A
Injury Deaths (per 100,000)	68	57	51	106	83	26

Source: County Health Rankings and Roadmaps. Nueces County Data.

CHRONIC CONDITIONS

Nueces County faces a higher burden of chronic disease than the state of Texas, a concern reaffirmed by community stakeholders. More than one-third of Nueces County residents experience obesity (41.6%) and high blood pressure (35.3%). In addition, Nueces County residents experience higher rates of obesity, diabetes, high blood pressure, and coronary heart disease than overall Texans (Figure 10). Obesity rates in Nueces County are also higher than the Coastal Bend Region.

Figure 10: Nueces County Residents Experience High Rates of Chronic Conditions than Texans on Average
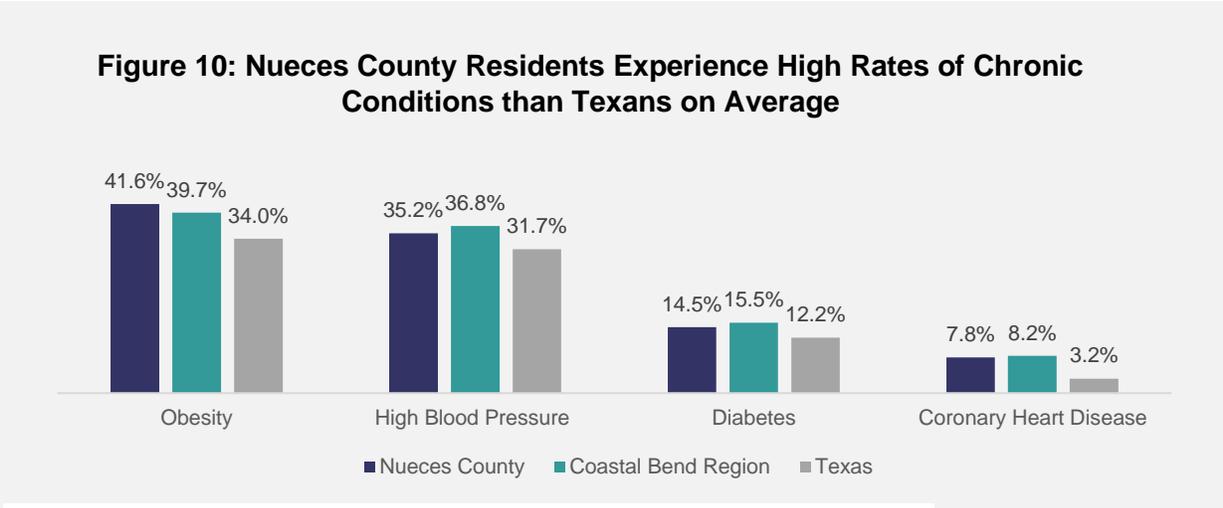
Source: Behavioral Risk Factor Surveillance System, 2018

In addition, the ZIP codes with the highest prevalence of diabetes, high blood pressure, coronary heart disease and obesity are predominantly Hispanic and Black communities (Figure 11), impacted by a legacy of discriminatory policies of the past, and at risk for continued disadvantage in the present. These include Northside neighborhoods, such as Hillcrest and Washington-Coles, which have endured the effects of historic redlining and segregation, and have been the focus of litigation alleging exposures to industrial toxins and more recent civil rights violation. A 2007 conclusion by a federal jury in Corpus Christi found that CITGO violated the Clean Air Act for "failing to install and operate proper emissions control equipment," exposing nearby Northside residents to carcinogenic chemicals for nearly 10 years.[25,26] More recently, these neighborhoods have also been a focus of an environmental justice complaint pursuant to Title VI of the Civil Rights Act of 1964.[27,28] These realities seek redress through administration of cooperative programs (e.g.,the recent voluntary relocation of at risk neighborhoods of Hillcrest and Washington-Coles).

Additional regions with exceptionally high chronic disease rates include ZIP codes 78380 (Robstown) and 78343 (Bishop) with higher concentrations of Hispanic populations (Figure 11). In fact, ZIP codes with higher rates of chronic disease also have higher concentrations of Hispanic residents than White residents. Hispanic residents comprised 66%, 55%, and 74% of the population of ZIP codes with the highest rates of diabetes, hypertension, and obesity, respectively. Conversely, White residents comprised 25%, 35%, and 16% of the population of ZIP codes with the highest rates of diabetes, hypertension, and obesity, respectively. Moreover, these data show that many ZIP codes with higher rates of chronic disease also coincide with higher rates of COVID-19 (Appendix A, Figure D).

Figure 11: Percent of Chronic Conditions are Higher in Zip Codes with Higher Percentage of Hispanic and Black Residents

Source: Chronic conditions acquired through BRFSS, 2018 and population data through ACS, 2015-2019

MENTAL HEALTH AND SUBSTANCE USE

Mental and behavioral health was most commonly identified by community stakeholders as the number one health-related priority in Nueces County at the current time. Stakeholders highlighted the impact of COVID-19 on mental health, the co-occurrence of mental health and substance abuse, pervasive mental health concerns among people facing homelessness, and the heightened need for services to adequately address behavioral health needs. Stakeholders also emphasized the need for greater integrated behavioral health services with primary care.

Poor mental health days is a key indicator for mental health, measuring the percentage of the population reporting that their mental health was "not good" for 14 or more of the last 30 days. Rates of poor mental health vary considerably by ZIP code, ranging from approximately 12% to 17% across Nueces County. The highest rates of poor mental health coincide in large part with ZIP codes facing some of the highest chronic disease rates, as well as high concentrations of Black and Hispanic residents. These include neighborhoods in Northside, the Central City Area, and the West (Figure 12).

"Speaking through the lens of COVID-19, just the financial and social impacts of this pandemic, are going to be generational. The loss of jobs, the isolation, the increase in suicide rates and crisis episodes that we've seen in our community since March of last year has been significant to say the least."

- Community Stakeholder

Figure 12: The Highest Rates of Poor Mental Health Coincide with Areas of High Chronic Disease and Minority Populations in ZIP Codes in Northside, Central City and West Areas

Source: Mental health data at ZIP code acquired through BRFSS model-based estimates, 2018

In addition, county-level data from *County Health Rankings & Roadmaps* reveals that Nueces has almost twice the rate of drug overdose deaths than the state of Texas (18 per 100,000 for Nueces County vs. 10 per 100,000 for Texas). Overdose death rates for White (28 per 100,000) and Black (27 per 100,000) county residents are higher than the overall county rate and almost three times the state rate. Data also show that White county residents had higher completed suicides than Hispanic individuals (22 vs. 9 per 100,000).

Beyond these data, publicly available data on mental health and substance use for Nueces County is limited. Many key indicators are only available for the broader Public Health Region 11, which includes Nueces County and 18 other counties in South Texas and the Rio Grande Valley area. These data show that overall, Region 11 has higher rates of suicide consideration and depressive disorder, and lower rates of receiving mental health services than Texas (Figure 13).

> *"We need more providers that serve this population [with mental and behavioral health concerns]. Providers we can refer patients to. We don't have enough places to send patients that are severely depressed…we need more resources for these people."*
>
> *- Community Stakeholder*

In September 2020, The Meadows Mental Health Policy Institute released a *Behavioral Health Community Needs Assessment*, providing one of the most comprehensive portraits of behavioral and mental health needs and recommendations for the county. The report found that although Nueces County has critical gaps in treatment capacity, including siloed approaches to mental health care, it also has a number of assets that can be leveraged to move towards a unified transformation process. These assets include strong political leadership, large hospital systems such as CHRISTUS Spohn Health System and Driscoll Health System, and funding through the 1115 DSRIP Waiver Program. One of the key recommendations provided by the Institute includes moving towards an integrated approach to behavioral care.[29]

Figure 13: Rates of Depressive Disorder and Suicide Attempts Are Higher & Rates of Receiving Mental Health Services Are Lower in Public Health Region 11 (including Nueces County) than Texas
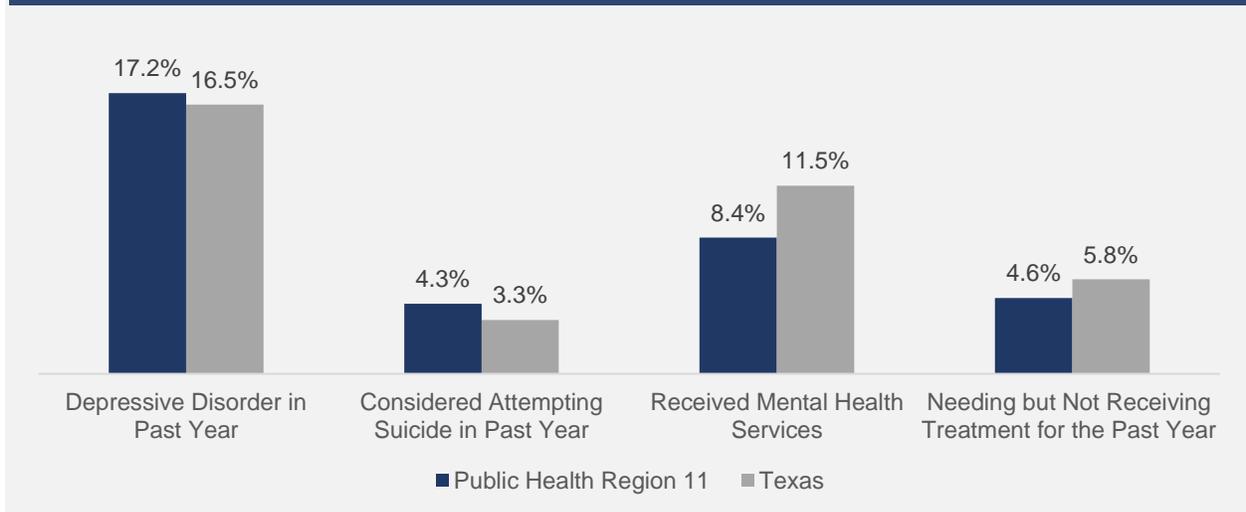
Source: Mental health and substance use data acquired through NSDUH, 2016-2018

Recent inequities evidenced in COVID-19 outcomes are a reflection of historical inequities faced by low-income communities and communities of color in the places where they live, learn, work, and play—also referred to as the social determinants of health.[30] Like Nueces County, many communities across the country are finding low-income Hispanic and Black residents at greater risk for a host of acute and chronic health challenges—including COVID-19 and its effects. Such findings often stem from our nation's deep history of discriminatory policies, such as residential segregation and redlining, which have left a lasting impact where low-income and communities of color have endured the effects of concentrated poverty, environmental hazards, and limited access to good schools, jobs, and health care.[31] As the pandemic has exposed, the consequences of these inequities extend far beyond historically disenfranchised populations to the physical and economic health and well-being of all people.

This section details the social, economic, and structural drivers of health in Nueces County, interweaving public data from multiple sources with feedback received from community stakeholders regarding priority issues that must be addressed to improve the health of all county residents.

OVERALL SOCIAL VULNERABILITY

The Centers for Disease Control and Prevention (CDC) developed a *Social Vulnerability Index* to measure the potential negative effect on communities caused by external stresses, such as disease outbreaks or human-caused disasters. A number of factors, such as poverty, lack of access to transportation, and crowded housing may weaken a community's ability to prevent human suffering and financial loss during a disaster. These factors are broadly known as measures of *social vulnerability*. CDC uses 15 U.S. census variables to help local leaders identify communities that may need support before, during, and after a natural or human-caused disaster or disease outbreak. These 15 variables are grouped into four separate vulnerability indices across: (1) housing and transportation measures, (2) minority status and language measures, (3) household composition measures, and (4) socioeconomic measures. The four indices are also combined to create an overall index. The index ranges from 0 to 1, with 0 representing the lowest vulnerability and 1 representing the highest vulnerability.

Compared to the other Coastal Bend Counties, Nueces County's vulnerability index of 0.67 indicates a moderate to high level of vulnerability. Kenedy and Aransas counties fall in the same range of vulnerability as Nueces, but Duval, Jim Wells, Kleberg, San Patricio, and Bee are higher. COVID-19 cases per 100,000 range from 4,960 to over 10,000 in these

Figure 14: Social Vulnerability Index and COVID-19 Cases per 100,000 by Coastal Bend Counties

Cases Per 100,000
- 4960 - 7484
- 7484 - 9344
- 9344 - 10580
- 10580 - 10695

Overall Social Vulnerability Index
- 0.00 - 0.25
- 0.25 - 0.50
- 0.50 - 0.75
- 0.75 - 1.00
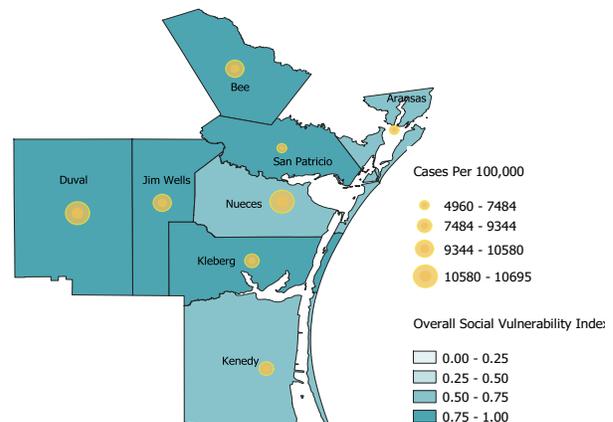
Source: CDC Social Vulnerability Index and John Hopkins COVID-19 Tracker

counties. In comparison to Nueces County, Aransas County's vulnerability index and COVID-19 cases per 100,000 are lower.

The CDC Social Vulnerability Index provides further details of Nueces County's vulnerability at the census tract level. Assessing across all four indices as well as the overall index, a few key areas emerge as most vulnerable within the region. These include the area consisting of Robstown and North San Pedro, west side of the Refinery Row area, parts of Corpus Christi from the Nueces Bay Area to Annaville, and the Bishop area (Figure 14; see map at the top).

In tandem with census tract level vulnerability, a separate analysis identified the most vulnerable areas at the ZIP code level for socioeconomic, health outcome, and demographic measures in Nueces County (Appendix A, Figure A for Heat Map of Vulnerability). The ZIP code analysis reaffirms CDC's census tract level social vulnerability data, **pinpointing the Corpus Christi area surrounding Nueces Bay to the west side of the Industrial Refinery Row (consisting of Hillcrest, Washington-Coles, and the Central City Area) as some of most vulnerable areas facing a confluence of social, economic, and environmental challenges in Nueces County** (Figure 15; see map at the bottom). As previously discussed, this area is also home to higher concentrations of Black and Hispanic populations in the county. The other area of high vulnerability at the ZIP code level is Driscoll. The sections that follow discuss in greater detail vulnerability by place for specific social determinants of health.
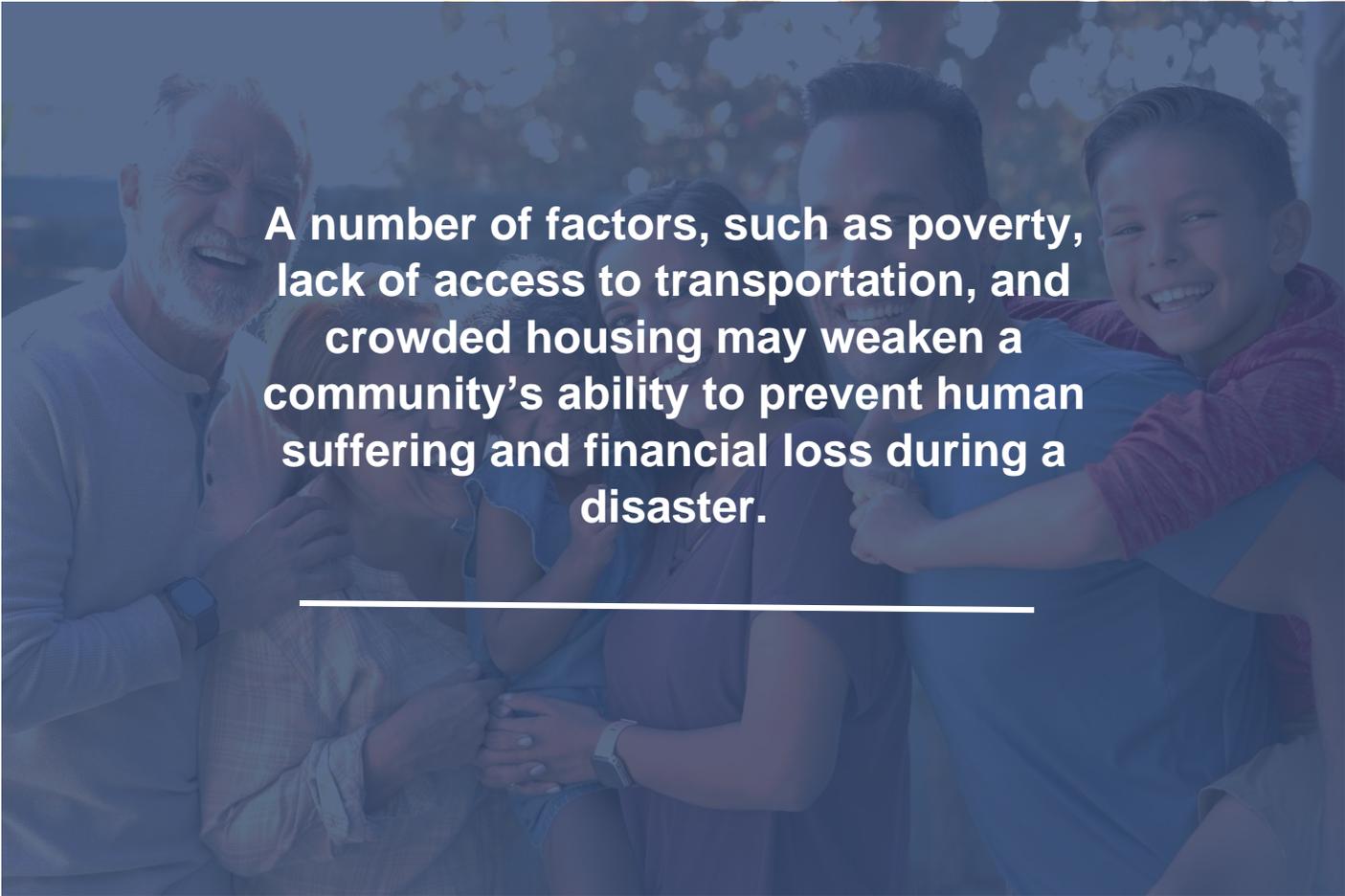
A number of factors, such as poverty, lack of access to transportation, and crowded housing may weaken a community's ability to prevent human suffering and financial loss during a disaster.

Figure 15: Most Vulnerable Areas in Nueces County by ZIP Code and Census Tract

MOLINA
ZIP Code: 78416
Census Tracts: 16.02, 17.01 & 18.01
Higher rates of:
- Chronic conditions
- Poor mental health
- Uninured
- Low socioeconomic status
- Hispanic and Black residents

BISHOP
ZIP Code: 78351
Higher rates of:
- COVID-19 cases per 100,000
- Low socioeconomic status
- Frontline workers
- Hispanic residents

NORTHSIDE
Zip Codes: 78407 & 78401
Census Tracts: 7, 10, 11, 12, & 63
Lower life expectancy
Higher rates of:
- Chronic conditions
- Poor mental health
- Housing & transportation vulnerability
- Uninsured (78401 only)
- Low socioeconomic status (78401 only)
- Black residents

Vulnerability by ZIP Code
Based on THI's Analysis of Social, Economic & Health Measures

Legend
- ⬛ Less Vulnerable Areas
- 🟨 Most Vulnerable Areas

Vulnerability by Census Tract
Based on CDC's Social Vulnerability Index
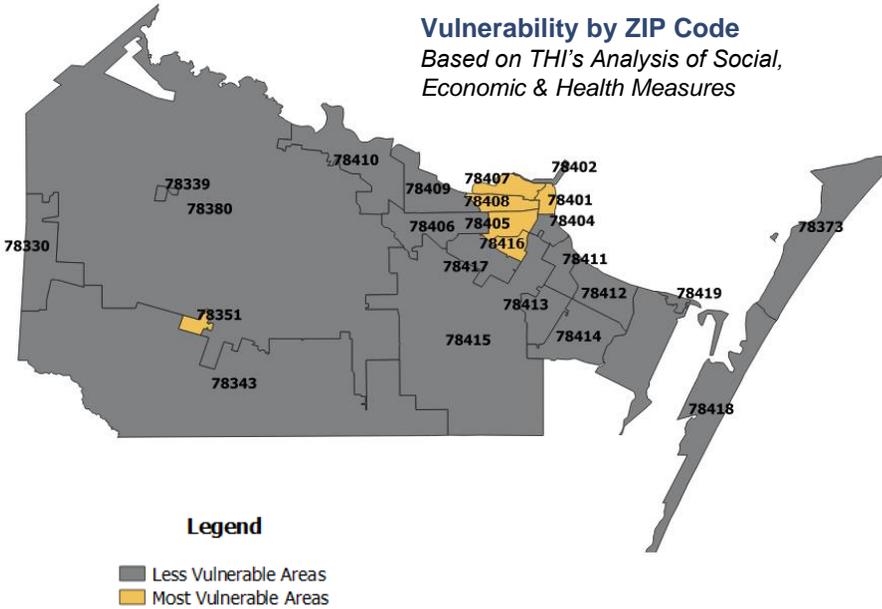
ROBSTOWN & NORTH SAN PEDRO
Census Tracts: 56.01 & 56.02
Lower life expectancy
High rates of:
- Low socioeconomic status
- Housing & transportation vulnerability
- Low access to super markets (56.01 only)
- Hispanic residents

DRISCOLL
Census Tract: 64

Higher rates of:
- Socioeconomic vulnerability
- Household vulnerability
- Low access to supermarkets
- Hispanic residents
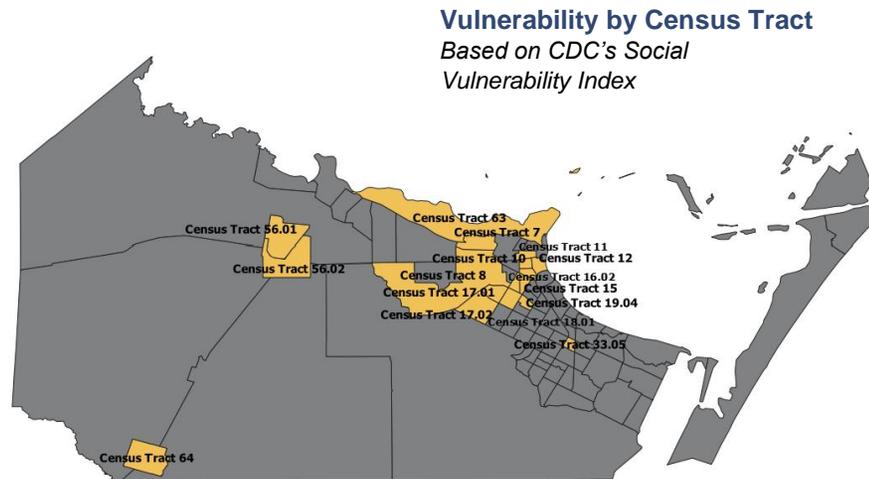
CENTRAL CITY
Zip Codes: 78405 & 78408
Census Tracts: 7, 8, 10, 11, 13, 15, 16.02
Lower life expectancy
Higher rates of:
- Low socioeconomic status
- Housing & transportation vulnerability
- COVID-19 cases per 100,000 (78405 only)
- Chronic conditions (78405 only)
- Uninsured (78405 only)
- Poor mental health (78405 only)
- Frontline workers (78405 only)
- Hispanic residents

---

[3] Source: Analysis for Zip code were conducted with population and socioeconomic data from ACS, 2015-2019 and chronic disease data from BRFSS, 2018 focusing on top quartile. Vulnerability by census tract was based on CDC's Social Vulnerability Index, 2018. The highest vulnerable areas include census tracts ranging in vulnerability from 0.75 to 1.

HEALTHCARE ACCESS

Stakeholders commonly identified access to healthcare as the top social determinant of health priority in Nueces County. The majority of stakeholders viewed access to health care, access to specialty care, and the large uninsured population as significant concerns for Nueces County residents. While these issues were identified as complex health system level challenges, they were also discussed in the context of broader challenges with accessing care due to transportation, housing/homelessness, and socioeconomic factors. Health care access barriers due to the COVID-19 pandemic were also discussed, particularly the wide use of telemedicine and other technology that limit the ability of those facing a digital divide to access care.

Health Insurance Coverage

Health insurance coverage is an important determinant of health. Data show that people with adequate health insurance coverage have an easier time accessing health care and experience better health outcomes than those without any coverage.

Community stakeholders acknowledged that a large portion of Nueces County residents remain uninsured. The Nueces County Hospital District's Nueces Aid Program provides health care assistance to Nueces County residents who are indigent and not qualify for any other federal or state medical assistance programs. Applicants are given access to the Nueces Aid based on income, residency, and available resources.

Data for the Nueces Aid Program indicate Hispanic residents comprise the majority of enrollees. The top two diagnoses among patients in the Program were type 2 diabetes and hypertension. Obesity was the most common co-morbid diagnosis with diabetes, hypertension, and smoking (Table 4). Patients with the most diagnosed conditions and utilizing this program reside mostly in Zip Codes 78380 and 78415.

While the Nueces Aid Program helps to bridge major gaps in health care access and utilization, there is still significant need.

Almost 18% of Nueces County residents under the age of 65 lack some form of

Figure 16: A Higher Percentage of Black and Hispanic Residents in Nueces County are Uninsured

Black: 23.5%
Hispanic: 20.5%
Asian: 12.6%
White: 11.2%
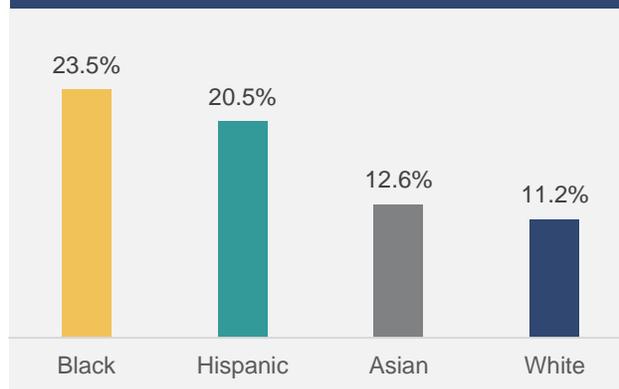
Source: ACS, 2015-2019 estimates via PolicyMaps

Table 4: Diabetes and Hypertension are the Most Diagnosed Conditions among Nueces County Indigent Program Residents

Conditions	Total
Diabetes Type 2	9,141
Hypertension	8,103
COPD	745
Asthma	605
Heart Disease	463
Comorbid Conditions	
Obesity and Diabetes Type 2	2,007
Obesity and Hypertension	1,873
Obesity and Smoking	1,459

Source: City of Corpus Christi-Nueces County Public Health District Data, 2021

public, private, or employer-sponsored health insurance. This rate is similar to Texas and the Coastal Bend Region. However, there are substantial inequities in insurance coverage between race and ethnic groups within Nueces County. Almost a quarter of Black (24%) and one-fifth of Hispanic (21%) residents lack insurance coverage within the county (Figure 16), a rate that is almost twice that of White (11%) and Asian (13%) residents.

Insurance coverage also varies by ZIP code (Figure 17). Areas with the highest percentage of uninsured residents (ranging from 21% to 30%) include the Corpus Christi North Beach area (78409), the Washington-Coles neighborhood (78401), the Central City area (78405, 78414, and 78417), and the area encompassed by Corpus Christi to Tierra Grande (78415). The Central City and the Washington-Coles areas also have a high prevalence of chronic conditions and poor mental health. In addition, ZIP codes with the highest rates of uninsured are also home to a larger share of Hispanic residents, and higher COVID-19 rates.

Figure 17: Six ZIP Codes Have the Highest Percentages of Uninsured Residents in Nueces County
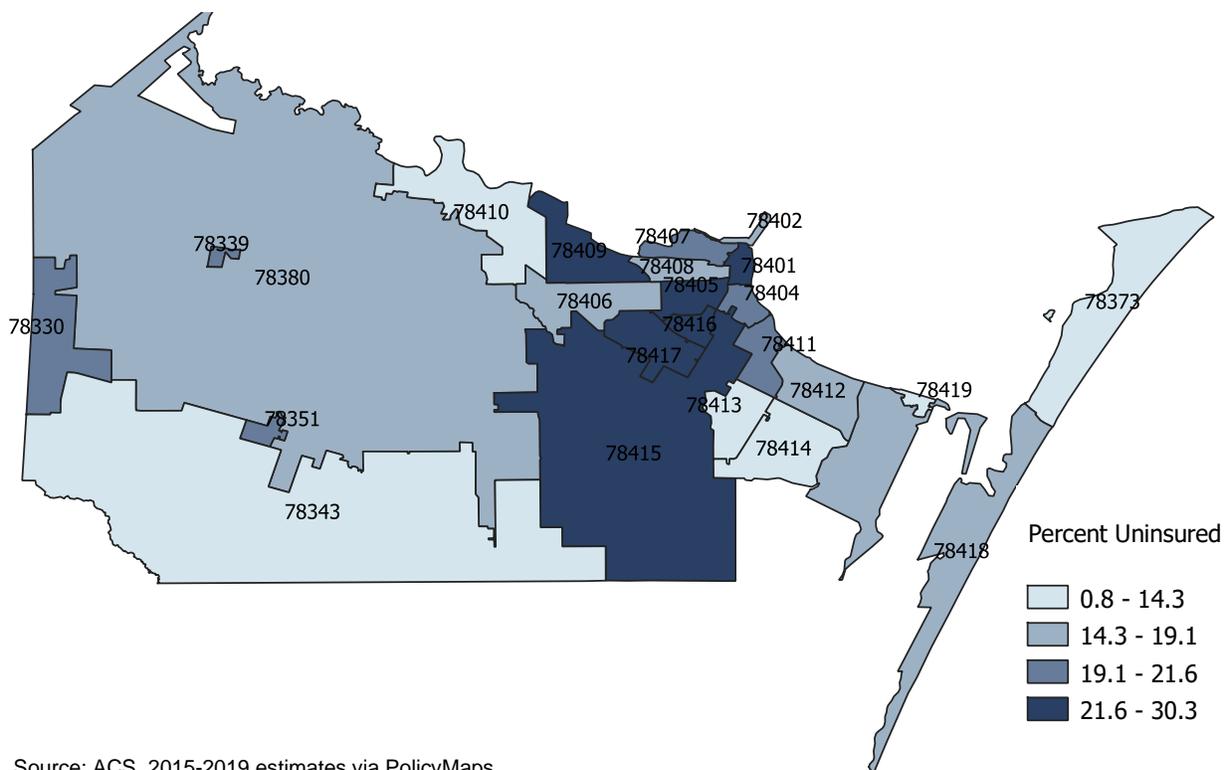
Source: ACS, 2015-2019 estimates via PolicyMaps

Preventive, Primary and Specialty Care Access

Adequate access to quality preventive, primary and specialty care is critical to preventing and managing severe illness, as well as limiting costly preventable hospitalizations. However, the data and community stakeholders point to major gaps in access.

On average, residents of Nueces County (72%), the Coastal Bend region (73%), and Texas (74%) have similar rates of having a routine **primary care** check-up. However, stakeholders noted that Nueces County has a significant challenge with access to **specialty care**. They identified multiple reasons for this challenge including not only high uninsured rates and transportation barriers, but also the lack of sufficient specialists in Nueces County. They expressed concern around challenges in attracting specialty care practitioners to the area. Often times, they shared that many patients seek specialty services in neighboring cities such as San Antonio and Victoria. Community stakeholders point to the need for a more robust "health care structure" that can "attract specialty care practitioners."

In addition to specialty care, several stakeholders voiced the need to expand access to preventive services, particularly in underserved areas with high chronic disease rates. Data show for **preventive care**, Medicare enrollees in Nueces County have a lower rate of receiving the flu vaccination (40%) than Medicare enrollees in Texas more broadly (44%). Black Medicare enrollees in particular are the least likely to receive flu vaccinations (30%) compared to the Nueces County average (40%) and White enrollee average (43%) (Figure 18).

Furthermore, while Medicare enrollees in Nueces county have lower preventable hospitalizations (4,561 per 100,000) than the Coastal Bend area (5,624 per 100,000), racial and ethnic inequities are wide. In Nueces county, Black Medicare enrollees have higher rates of preventable hospitalizations (6,775 per 100,000) than all other groups.

"Access to specialty care is horrendous, depending on what type of insurance you have or even if you have insurance."

- Community Stakeholder

"I've got probably 300 [managed care] patients. Well, there isn't a specialist that will take them in Corpus Christi, the closest we can get is McAllen or San Antonio, which is unreasonable. Only because the reimbursement is so low in this area that a specialist won't see these patients."

- Community Stakeholder

Figure 18: Black Medicare Enrollees Have the Lowest Rate of Flu Vaccination in Nueces County
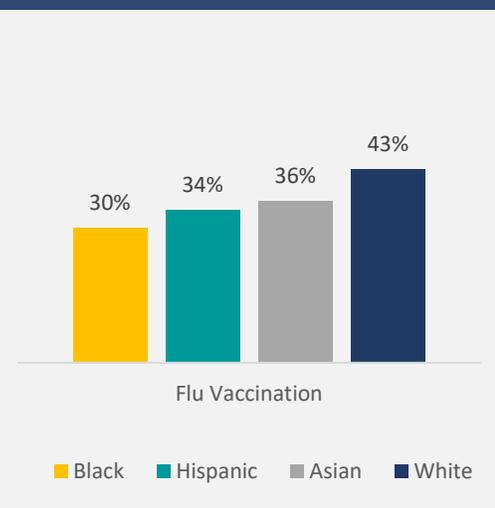
Source: County Health Rankings and Roadmaps, 2020. Nueces County Data.

SOCIOECONOMIC FACTORS

Socioeconomic factors, such as education, employment, and income, are important determinants of health because they shape an individual or community's ability to make healthy choices, take preventive measures, and access health care. Higher socioeconomic status is strongly associated with better health outcomes. Stakeholders identified a number of barriers and gaps to economic opportunity in Nueces County, highlighting notable challenges related to employment, education, and the digital divide.

Income, Education and Employment

Many stakeholders described the negative impact of COVID-19 on employment, while also sharing an overall challenge of a lack of opportunity for higher-paying jobs and related education in Nueces County. A few stakeholders identified higher education institutions as important assets in the community, but also reflected on the difficulty of retaining good talent within the city and county due to lack of diversified opportunities for employment, lack of benefits, and limited pathway for growth and success.

These observations mirror the wide inequities faced by minority communities on measures of poverty, education, and income. Black and Hispanic residents in Nueces County have higher rates of households and children living below poverty, lower median incomes, and lower numbers of individuals completing high school. One-fourth of Black households in the county live below poverty levels compared to the overall Nueces County (16%), Coastal Bend region (20%), and Texas (14%) rates. More than a quarter of Hispanic children in Nueces County are likely to live in poverty, a rate that is almost twice that of White children (14%) and higher than the rate of overall Nueces County (23%) and Texas (21%) (Figure 19).

Nueces County residents generally fare better economically with higher per capita income ($55,000) and lower rates of unfinished high school (18%) than the surrounding, more rural Coastal Bend region with a median income of $22,000 and a 28% no high school graduation rate. Yet, deeper inequities among Nueces County residents still exist. Hispanic ($49,000) and Black households ($41,800) make far less the median income than White ($66,400) and Asian ($72,200) households (Figure 20). Hispanic residents in Nueces County are the least likely to complete high school (24.1%)—an outcome likely tied to higher rates of poverty experienced by Hispanic children that limit their access to quality schools and related opportunities.

Figure 19: Percent Living Below Poverty, Children in Poverty, and No High School Diploma Vary by Race and Ethnicity in Nueces County
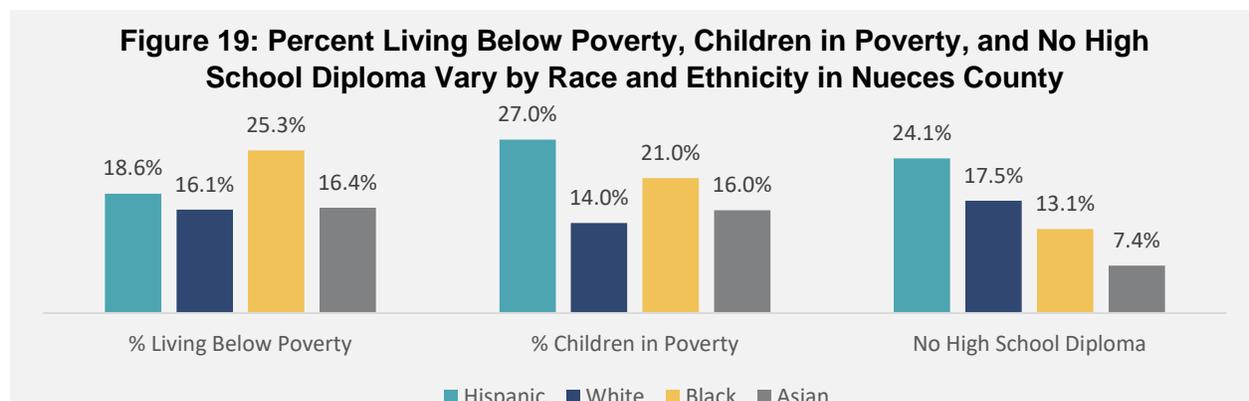
Source: Percent living below poverty levels and no high school diploma data through ACS, 2015-2019. Percent children in poverty through County Health Rankings and Roadmaps, 2020.

Socioeconomic inequities not only exist between race and ethnic groups but also persist across various neighborhoods such as the Central City Area, Northside, Driscoll, and Robstown. The majority of these areas have higher populations of Hispanic and Black residents (Appendix, Figure E).

These areas and ZIP codes also coincide with higher concentrations of **frontline workers—a likely explanation also for the high rates of COVID-19 case per 100,000 in these same ZIP codes**. Amid the pandemic, minority frontline workers carried the burden of the disease unevenly, not only across the nation but also in Texas and Nueces County. Frontline industries consist of healthcare, production, and service jobs. Most frontline workers are people of color and often live below the poverty line, frequently working jobs without benefits or paid sick time.

Notably, as depicted previously in Figure 8, ZIP codes with the highest COVID-19 cases in Nueces County also have higher shares of Hispanic residents, frontline workers, people living in poverty, and lower educational attainment. For many in these communities, economic circumstances only worsened by the pandemic.

According to the *U.S. Bureau of Labor Statistics*, Nueces County unemployment rates were more than two times higher in 2020 (9.1%) than 2019 (4.1%). Amid the pandemic, unemployment rates surged to a record 15.6% (higher than Texas's highest of 13%) in April with over 20,000 job losses. Individuals in the low income bracket (earning less than $27,000) were hit especially hard with employment rates plunging by close to 20% in April 2020 compared to January 2020. With new cases surging throughout summer of 2020, employment dropped again by 11% for all income groups and 13% for low-income groups in mid-September in comparison to January 2020 (Figure 21). As a prominent metro area, Corpus Christi experienced higher rates of job losses both in the tourism and energy sector. Between March and April 2020, hotel and restaurant industry jobs accounted for two-thirds of all jobs loss in Corpus Christi.[32]

Figure 20: Black and Hispanic Residents Have Lower Median Incomes in Nueces County
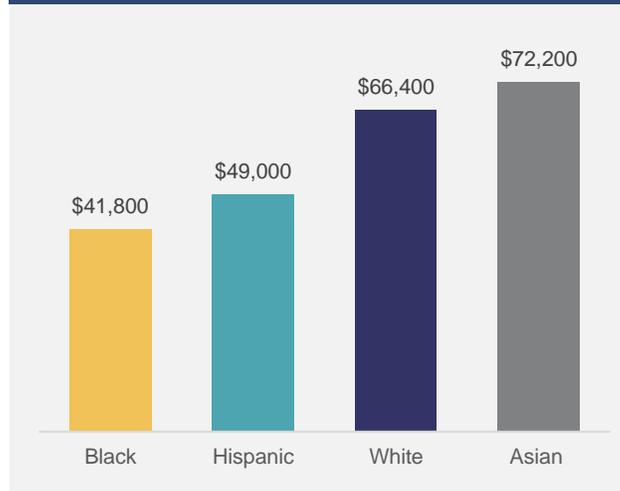
Source: ACS, 2015-2019 via PolicyMaps

"We have a lot of people, especially in the community that we service that work in the service industry. They work at restaurants, or they work in construction, and for a decent period of 2020, they were without work, or were making substantially less income than they were used to."

-Community Stakeholder

Figure 21: The Surge of COVID-19 Cases Resulted in Significant Loss of Employment in Nueces County, with Higher Losses at Lower Incomes

Legend: New Cases · Total Income · Low Income (<27K)
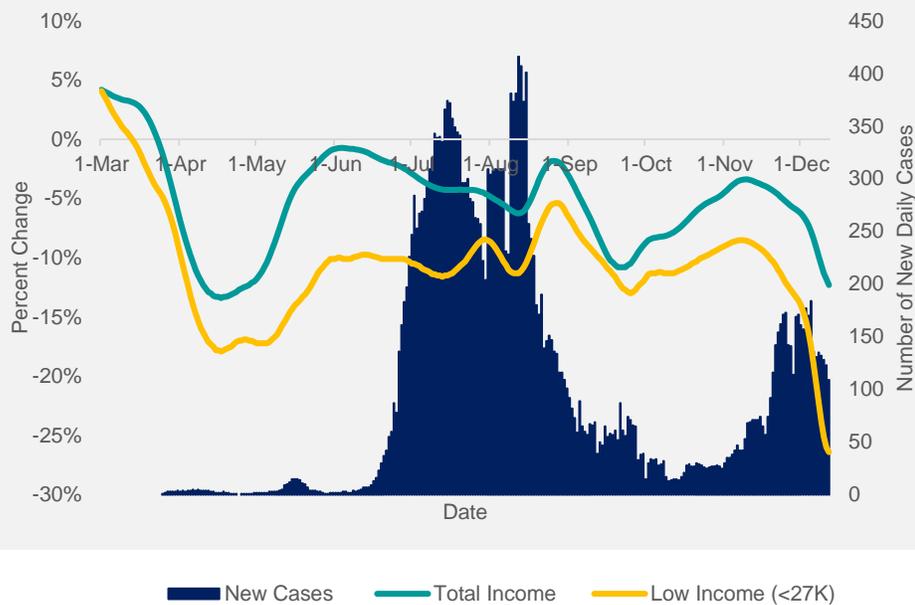
Source: Data acquired through Opportunity Insights Economic Tracker from March 1, 2020 to December 12, 2020

Digital Divide

Beyond education and employment, community stakeholders discussed the **digital divide** as a major barrier to opportunity and health in the county—a phenomenon closely tied to socioeconomic status, but also affecting rural and elderly populations.

Community stakeholders discussed at length the challenges of the digital divide. Multiple individuals shared that many county residents do not have internet access in their homes or sufficient cell phone data, limiting their access to virtual health care, ordering groceries, and more recently, registering for the COVID-19 vaccine. With the expansion of eligibility requirements for the COVID-19 vaccine as of March 29, the digital divide will be a barrier for the elderly, low income, and ethnic minorities without access. Even when internet access is available in homes, it is often limited due to multiple virtual needs at the same time (e.g., virtual health-related visit versus children doing school from home).

"Being virtual has its pros and cons. One of the pros is that we're able to reach a broader audience. But the negative part of that is the fact that a lot of the individuals we serve come from a lower socioeconomic level so many of them do not have access to internet capabilities that you need to be able to use Zoom."

- Community Stakeholder

In Nueces County, 22% of those aged 65 and over do not own a computer, compared to 6% of 18 to 64 year olds. The elderly population are less likely to have broadband internet subscription (70%) than those aged 18 to 64 (87%). Households with a less than high school degree also have less access to broadband internet (61%) than those with a Bachelor's degree or higher (94%). White households are more likely to have broadband internet access (90%) than both Hispanic (83%) and Black (76%) households.[33]

COMMUNITY AND ENVIRONMENTAL FACTORS

Community and environmental factors such as housing, food security, transportation, and neighborhood conditions are also important determinants that shape people's opportunity to lead healthy lives and achieve good health outcomes. Stakeholders identified a number of barriers to housing, food security and transportation, sharing experiences of how the ongoing pandemic has further exacerbated challenges that predate COVID-19.

Housing

The majority of stakeholders noted the further worsening of the homeless and housing situation in Nueces County due to the pandemic. Homelessness is not defined by only those without any housing but also includes individuals having to move in with other friends and families due to their inability to pay for housing. With the onset of the pandemic, many individuals are needing assistance with rent, mortgage, and utilities.

Many factors including income, employment, and the rise of housing costs impact housing affordability. Almost half of renters (47%) in Nueces County are cost-burdened (spending 30% or more of their income on rent) compared to 42% of renters in the Coastal Bend Region.[34]

The cost of housing differs throughout neighborhoods in Nueces County. Renters in the Robstown area and the North Beach area of Corpus Christi (including the Hillcrest and Washington-Coles) are more likely to spend more than 30% of their income on rent. Homeowners with a mortgage along the Corpus Christi Bay area, North San Pedro, Bishop, and Driscoll areas are more likely to spend more than 30% of their income on mortgage costs (Appendix A, Figure F).

> *"It seems like it's [homelessness] gotten worse. And when I talk about homelessness, it's not just everybody being out on the street. It's more than that. It's about families having to move in with other families, just to be able to make it."*
> *- Community Stakeholder*

Figure 22: Black and Asian Residents Have Lower Rates of Home Ownership in Nueces County

Black	Asian	Hispanic	White
30.9%	48.2%	58.6%	59.5%
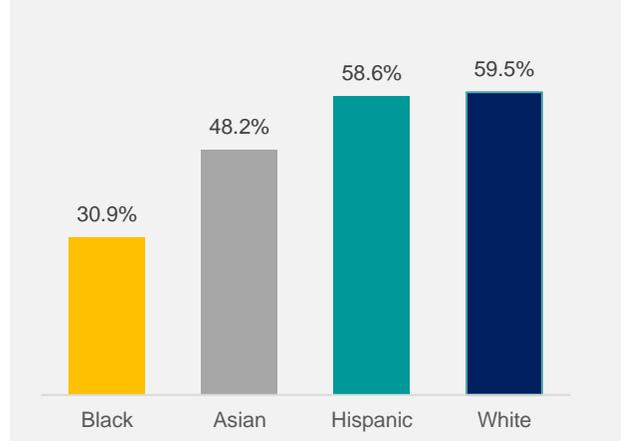
Source: ACS, 2015-2019 via PolicyMaps

Nearly 58% of residents in Nueces County own homes. Hispanic (59%) and White (60%) residents are almost twice as likely to own homes in Nueces County as Black (31%) residents (Figure 22). Home ownership provides a critical pathway for building wealth, and is strongly associated with better health outcomes.

Food Insecurity

Food insecurity is defined as the percentage of households unable to provide adequate food due to lack of financial resources. It is associated with many health outcomes such as obesity, anxiety, depression, negative pregnancy and infant outcomes, among others. More than half of stakeholders mentioned concerns related to food insecurity. This included references to the lack of healthy and fresh foods and meats in certain areas of Nueces County, concentrations of unhealthy foods, and the overall negative impact of COVID-19.

About 15% of Nueces County residents are food insecure. Figure 23 shows census tracts designated as having low access to supermarkets and fresh foods at a one-mile radius for urban areas and ten-mile radius for rural areas. Low access areas include Robstown, North San Pedro, Driscoll, Banquete, Annaville, and the east side of Corpus Christi as well as several census tracts west of Refinery Row.

Figure 23: Census Tracts with Low Access to Supermarkets

Low Access to Supermarkets

■ Not Low Access
■ Low Access Census Tracts (1 Mile for Urban and 10 Miles for Rural)
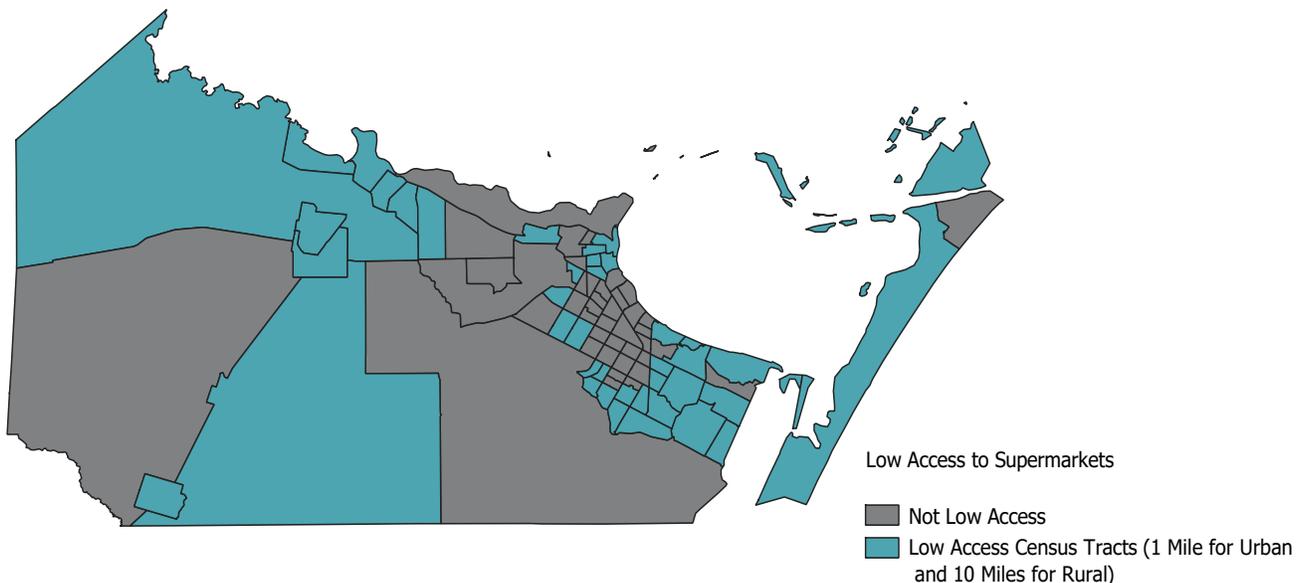
Source: USDA Food Access Research Atlas Data, 2015

Transportation

Access to transportation is also an important determinant of health. Lack of transportation has a direct impact on people's ability to access food, basic necessities, and health care.

Stakeholders stated that the COVID-19 pandemic has exacerbated transportation-related barriers, including the fear of utilizing public transportation, the cost of transportation, and the impact that social distancing has had on reducing transportation previously provided by friends and family. These barriers to transportation have created barriers to accessing food and healthcare. They are also posing challenges with access to COVID-19-related health visits, testing and vaccination.

Almost 8% of households in Nueces County do not have a vehicle for transportation. The Robstown area and select tracts of Refinery Row are among the areas least likely to have a vehicle for transportation.

Figure 24: Percent of Nueces County Residents without a Vehicle by Census Tract

Percent of Households Without a Vehicle

- No Data Available
- 0 - 2.3
- 2.3 - 5.6
- 5.6 - 9.3
- 9.3 - 40.9
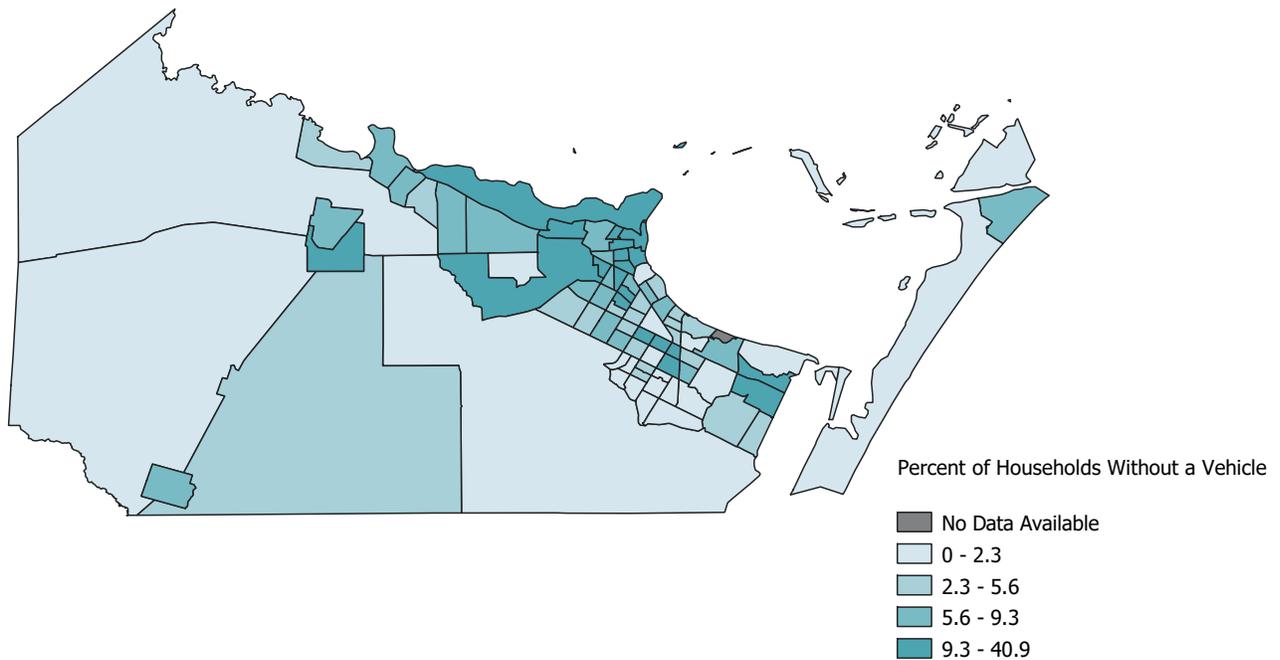
Source: ACS, 2015-2019

Community, Assets, Resources, and Programs

Although Nueces County faces a myriad of complex socioeconomic, environmental, and health challenges, community stakeholders believe assets within the community provide a strong foundation for the county to work towards equitable solutions. When asked about the strengths and assets of the community they serve as it relates to creating a more equitable environment, stakeholders frequently identified **County Leadership** as a strength, followed by **Community Organizations** and **Hospital, Health, and Academic Institutions.**

Regarding leadership, stakeholders generally felt that leaders of Nueces County and large institutions were key strengths of the community and were making important strides in addressing community issues. Stakeholders also acknowledged the strength that various community-based organizations bring to the table, and the valuable role of Nueces County's and other institutions such as CHRISTUS Spohn Health System, Driscoll Health System, Doctors Regional Medical Center, Texas A & M University-Corpus Christi, and Texas A & M University - Kingsville. These large and small organizations serve the County's most vulnerable populations, and can play an important and ongoing role in bridging gaps in opportunity and health. It is notable to mention that overall, a few of the stakeholders struggled to identify strengths and assets of Nueces County, commenting that they did not see many strengths, were not able to provide examples during the interview, or asked to skip the question.

In addition to key informant interviews, a comprehensive environmental scan highlights the promising programs, resources, and strategies that can be further leveraged to fill gaps and guide equitable actions to address the social determinants of health across Nueces County. These resources range from local organizations and resources to state and federal grants and programs, as summarized in this section by topic. For a more comprehensive listing of resources, see accompanying document, ***Promising Programs and Strategies to Address the Social Determinants of Health in Nueces County.***

"I think our leaders are really in tune to these issues and have been working really hard on it. And, you know, it's been amazing to see over the last couple of years"
 - Community Stakeholder

HOUSING & HOMELESSNESS

The pandemic has brought the issue of housing and homelessness in Nueces County to the forefront. A number of resources and programs in the community have emerged to address various needs. One such example includes the $2.4 million dollars CARES Act Fund allocated to Nueces County to assist homeonwers and renters with housing costs.[35] In addition, the Homeless Prevention and Rapid Re-Housing program exists to prevent families and inviduals from becoming homeless or help those who are experiencing homelessness to rehouse.[36]

Other broader housing initatives in Nueces County include cross-sector leadership and partnerships such as the Homeless Issues Partnership Coalition and various grants targeted towards creating equitable housing. The Homeless Issues Partnership Coalition provides a promising approach to collaboratively tackle homelessness in the community through a shared agenda, resources, and programming.[37] Grants such as the Community Development Block Grants provide funds to state and localities to develop decent housing and suitable living environment to low-income individuals.[38] Some communities have utilized these grants to establish public-private partnerships with developers to help create economically integrated communities, in high opportunity and minority communities.

FOOD SECURITY

Community stakeholders identified the need to address food insecurity and limited access to healthy food within Nueces County. The Coastal Bend Food Bank has stepped up to be at the forefront of the food crisis during the COVID-19 pandemic. The Coastal Bend Food Bank provides a network of food pantries within the region working with various community-based organizations. The network also includes mobile food pantries to reach rural and vulnerable areas.[39]

In addition, the county can take steps to raise awareness of programs such as SNAP, TANF, WIC, and other food assistance programs by partnering with shelters, hospital systems, and community-based organizations. Organizational leaders can also work with partners to point residents to programs such as the Expanded Food and Nutrition Program by Texas A&M University AgriLife Extension, a program designed to help individuals gain knowledge on food budget management, basic nutrition, and improving eating habits.[40]

INCOME, EMPLOYEMENT AND EDUCATION

Higher education institutions including Texas A&M University- Corpus Christi and Del Mar College are strong assets to the community, and were recognized as such by various community stakeholders.[41, 42] These institutions provide residents of Nueces County opportunities for post-secondary education. Various grants, scholarships, and programs through the United Corpus Christi Chamber of Commerce provide residents of Nueces County the opportunity to pursue higher education.[43] In addition, vocational training schools such as the Craft Training Center for the Coastal Bend offers alternative training to help students gain skills and become members of the Nueces County workforce.[44] Organizations such as the Workforce Solutions of the Coastal Bend is dedicated to providing individuals access to jobs, job training programs, childcare, youth programs, and employer services.[45]

HEALTH CARE

Stakeholders expressed that health organizations such as CHRISTUS Spohn Health System, Amistad Community Health Center and Coastal Bend Wellness Foundation provide key access points to health care services for residents.[46,47] The Nueces County Hospital District operates the county's indigent health care program, providing care and services to the indigent populations that do not qualify for any other federal or state medical assistance programs. In addition to quality health care institutions, the City of Corpus Christi- Nueces County Public

Health District has allocated large funds ($9.3 million dollars) from DSRIP Waiver programs for care coordination, prevention, and diabetes management working with community-based organizations.[48] Care coordination programs are essential for meeting the broader social and health needs of patients.

MENTAL AND BEHAVIORAL HEALTH

In tandem with physical health, the majority of stakeholders expressed concerns around the rising needs related to mental and behavioral health, which has been exacerbated by the pandemic. Several key organizations and strategies are already in place to address these challenges. For example, the Nueces County Opioid Task Force, composed of community organizations and large hospital systems within the area, works collectively to bring awareness, prevention, and resources, as well as monitor progress to reduce drug abuse and sustain mental health.[49] Organizations such as the Nueces Center for Mental Health and Intellectual Disabilities is dedicated to helping residents of Nueces County who are living with mental illness and/or intellectual and developmental disabilities.[50]

In addition, the rise in mental and behavioral health needs in Nueces County attracted the attention of the Meadows Mental Health Policy Institute. The Institute is committed to helping Texas become a national leader in treatment for people with mental health needs through advocacy and policy work. The Institute, recently released a Comprehensive Behavioral Health Community Needs Assessment commissioned by the Nueces County Hospital District, documenting the breadth of behavioral and mental health needs of Nueces County, and offering detailed recommendations and roadmap for action.[51]

TRANSPORTATION

Finally, transportation is key to accessing health care and other services. Key resources within the region include the Corpus Christi Regional Transportation Authority and the Medicaid transportation programs that collaborate with organizations in the area to facilitate transportation for patients.[52,53] Other promising programs in the county have involved creating partnerships with paramedic and firefighter services to expand access for non-emergency services for vulnerable areas and populations. An example of this is the *Save Our Senior Homebound Program,* which works with the City of Corpus Christi Fire Department to bring COVID-19 vaccines to their doorsteps.[54]

Moving Forward

Analysis of publicly available data and stakeholder interviews reveals staggering inequities in opportunity and health in Nueces County. Findings confirm that communities facing a disproportionate burden of COVID-19 disease, death and loss in the county are in most cases the same communities that prior to the pandemic were already facing a "perfect storm" of social, economic, environmental, and health-related challenges. In particular, low-income communities and communities of color in the Northside including Hillcrest and Washington-Coles, Central City and Molina areas, and Robstown and Driscoll in West Side have been disproportionately impacted. At the same time, the review of resources and stakeholder interviews identified a number of rich community resources—including community health equity champions, a strong network of health care providers, and many actively engaged community organizations—working to meet the needs of the community.

Health inequities that have emerged amid COVID-19 are not new, nor by accident. They are a direct reflection and result of deep social, economic, and structural inequities rooted in our nation's history of policies that have unfairly disadvantaged low-income and communities of color—a phenomenon affecting not just Nueces County, but cities and communities across the United States.

Emerging from this pandemic a stronger, healthier and more prosperous Nueces County will require addressing the legacies of the past and inequities of the present, and building opportunities centered in health equity for the future.

-Texas Health Institute

Emerging from this pandemic a stronger, healthier, and more prosperous Nueces County will require addressing the legacies of the past and inequities in the present, and building opportunities centered in health equity for the future. As the County continues to respond to, recover from, and rebuild after the pandemic, there is perhaps no more an opportune time than now to invest in building opportunities for all Nueces County residents—regardless of where they live, their race, gender, orientation, education, class, and beliefs—to thrive and reach their full potential in health and well-being. Doing so will require a systems-approach centered in health equity.

Seven specific health-equity centered recommendations are provided below for Nueces County leaders and cross-sector partners to consider. These recommendations are focused on responding to the immediate needs of the pandemic, as well as looking to the future to create a healthier, more prosperous community that is prepared and ready to withstand future crises. The recommendations are divided into two categories: *short-term*, referring to immediate actions critical to an equitable response and recovery over the next several months; and *long-term*, referring to broader, systemic solutions that will help set the county on a path to achieving health equity over time. The recommendations build on the data analysis, stakeholder interviews and a review of promising approaches from across the county, state and nation for advancing health equity.

SHORT-TERM RECOMMENDATIONS

Recommendation 1: Establish a community-centered and equitable COVID-19 response and vaccine strategy.

Nueces County leaders should consider developing a **Community-Centered and Equitable COVID-19 Response and Vaccine Strategy**, working in partnership with not only public health and health system leaders, but also with community leaders, organizations, and members (Figure 25). With the COVID-19 vaccine available to all adults across Texas as of March 29, 2021, the need for an equitable strategy takes on greater urgency to ensure individuals and communities facing the greatest risk of contracting the virus and severe illness are reached with credible information and access to life-saving vaccines.

Community stakeholders reaffirmed the strong need for a community-centered equity strategy for the COVID-19 vaccine. They recommended that the County's efforts:

- Incorporate methods to reach vulnerable populations that have limited or no access to the internet, poor access to transportation, and are not engaged in social media.
- Complement COVID-19 vaccination mega-sites with targeted vaccine clinics in areas facing the greatest access barriers such as Northside, Southside, and rural areas.
- Increase awareness of free vaccination and testing.

Many counties across the state and nation have created explicit written plans for guiding an equitable strategy for vaccine outreach and distribution. For example, in February 2021, Harris County launched the **Harris County COVID-19 Vaccine Equity Strategy**, embedding equity strategies in vaccine registration, community outreach, prioritization framework, and distribution.[55] Six weeks following the launch, data show the equity plan has helped the county public health department reach greater percentages of Hispanic and Black community members than other providers in Greater Houston.[56] The plan specifically:

- Determines 10 priority ZIP codes to target monthly based on a weighted score of the CDC Social Vulnerability Index (50%), number of days with 25+ new cases per 100,000 in the last month (15%), and number of days with 10+ new cases per 100,000 since February (35%).
- Launches a media and education campaign to guide informed decisions, with targeted, multilingual messaging addressing vaccine safety and efficacy to overcome hesitancy in communities.
- Establishes a three-pronged distribution strategy with 70% of weekly allocation of vaccines to large sites, 15-20% to community-based health centers and partners, and 10-15% to mobile Vaccine Deployment Units targeting congregate settings and specific high-need ZIP codes.
- Expands registration options for residents including a "smart waitlist" and call center access in multiple languages for those without internet.
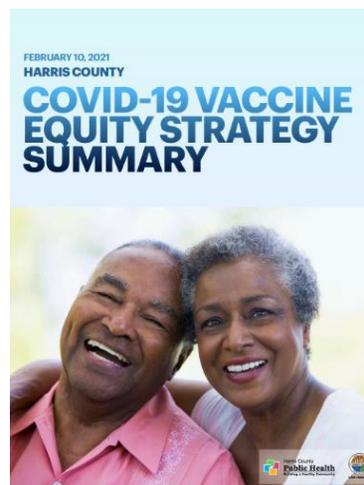
FIGURE 25: RECOMMENDATIONS FOR ADVANCING A COMMUNITY-CENTERED AND EQUITABLE VACCINE STRATEGY

Engaging community leaders, stakeholders, and organizations is foundational to the equitable distribution and widespread uptake of the COVID-19 vaccine. Following are recommended strategies for advancing a community-centered and equitable vaccine strategy that are built on national guidance and promising practices.

OUTREACH AND EDUCATION ON THE COVID-19 VACCINE

- Work with trusted community partners and messengers to develop, test, and provide clear and culturally and linguistically appropriate information.
- Identify trusted and preferred sources of medical information, such as community leaders, community health centers, faith-based organizations, ethnic media, recognizing communities will vary on sources they trust and prefer to receive information.
- Provide an opportunity for community members to interact with experts to share and have their concerns and questions answered through webinars and town halls.
- Help residents make informed decisions.
- Increase awareness of free vaccination and COVID-19 testing.

EQUITABLE DISTRIBUTION AND ACCESS TO THE COVID-19 VACCINE

- Prioritize vaccine distribution to ZIP codes that have been most severely affected by COVID-19 and also face greater social vulnerabilities as measured by indexes such as the CDC Social Vulnerability Index.
- Complement vaccination mega sites with targeted vaccination clinics and fairs in trusted community settings, such as community health centers, community clinics, mobile clinics, houses of worship, schools, social service sites and neighborhood centers.
- Expand distribution to individuals facing mobility or other transportation barriers (e.g., delivery of vaccine to homebound persons or locating vaccine sites near public transportation stops).
- Provide accessible hours of operation (e.g., after hours, late-night hours, 24 hours).
- Expand access points for registering beyond online, such as providing hotlines, call centers, and in-person registration through community and social service partners.
- Simplify registration forms, ensuring they do not ask for nonessential documentation such as proof of citizenship.
- Provide translated information and language support for registration and at vaccine sites for those with limited English proficiency.

Sources: CommuniVax. (2021). Equity in Vaccination: A Plan to Work with Communities of Color Toward COVID-19 Recovery and Beyond. Johns Hopkins Bloomberg School of Public Health; Kaiser Family Foundation. (2021). How are States Addressing Racial Equity in COVID-19 Vaccine Efforts?; Harris County Public Health. (2021). Harris County COVID-19 Vaccine Equity Strategy.

Recommendation 2: Collect, analyze and report disaggregated data on COVID-19 in the context of broader social vulnerability to guide and inform tailored community solutions.

Nueces County leaders and providers should prioritize standard and quality collection and reporting of COVID-19 data by measures including age, sex, race and ethnicity, and ZIP code. Amid the pandemic, at a minimum, disaggregated data should be collected and reported in a standardized way in accordance with federal and state guidelines for cases, hospitalizations, testing, vaccinations, and deaths.

From a vaccine perspective, ongoing monitoring of disaggregated data can help to identify where vaccine uptake is not matching the burden of COVID-19 disease and deaths by ZIP code and population group. In turn, this information can help identify specific neighborhoods and population groups requiring more targeted outreach, education, and distribution. It can also point to ways in which community leaders and stakeholders may need to be engaged to improve vaccine education and uptake. These data can also help allocate resources for other COVID-19 mitigation efforts, testing, and contact tracing as well as to direct support for hospitals and clinics as new waves of cases emerge or surge in certain areas.

Over time, the collection, reporting, and sharing of disaggregated data on other health outcomes and social determinants of health can help inform and guide more systemic changes. Some communities have leveraged their Community Health Needs Assessment and Improvement processes led by hospital systems, public health departments, and other organizations to produce collaborative and more comprehensive, community-wide assessments from a health equity perspective to guide more meaningful change across communities. By moving beyond the "check in the box" approach to a focus on building a robust community-centered, equity-driven approach to assessment and planning, some communities have successfully paved the way for greater collective opportunity and impact toward population health and health equity (as discussed in the long-term recommendations below).

Recommendation 3: Leverage and invest federal support from the American Rescue Plan Act to bridge gaps in social, economic and health opportunities across Nueces County.

Texas Health Institute recommends that Nueces County leaders leverage and invest funding from the $1.9 trillion federal stimulus package to bridge longstanding gaps in social, economic, and health opportunities across the county. Signed into law on March 11, 2021, the American Rescue Plan Act (ARPA) makes historic investments in local government, and also provides direct support to individuals and families for immediate relief.

> *The American Rescue Plan Act can dramatically reduce hardship and begin to set the stage for a stronger and more equitable recovery.*
>
> *- Center on Budget and Policy Priorities*

In taking full advantage of these resources to address immediate COVID-19 response, including relief for housing, food insecurity, income, and other determinants of health, Nueces County leaders may consider the following steps:

- **Develop a campaign to raise awareness and provide assistance to Nueces County individuals and families to access ARPA's resources to address immediate social determinants of health needs, such as:**
  - **Food insecurity:** ARPA authorizes $12 billion nationally to extend the 15% increase in SNAP maximum benefit through September. It also provides food support for low-income women, infants, and children through the WIC program.
  - **Housing and Homelessness:** ARPA allocates $50 billion dollars nationally in rent, mortgage, and utility assistance, along with vouchers and supportive housing development for people at-risk of or recovering from homelessness.
  - **Unemployment:** ARPA expands and extends unemployment benefits until September 2021.
  - **Tax Credits:** ARPA makes Child Tax Credit and Earned Income Tax Credits available to eligible low-income individuals and families, potentially lifting more than 5 million children out of poverty nationally.
  - **Health Insurance Coverage:** ARPA eliminates or vastly reduces premiums for many low- and moderate- income people enrolled in marketplace coverage.

  Recognizing a large percentage of those who will be eligible for these benefits in Nueces County will be from low-income and communities of color, information and support will need to be provided in accessible and culturally and linguistically appropriate ways.

- **Strategize the use of Coronavirus Local Fiscal Recovery Funds as "investments" to advance health, well-being and equity in Nueces County, recognizing funds can be spent through 2024**.[57] ARPA includes $65.1 billion in recovery funds to counties, allocated based on each county's share of the national population. Nueces County is expected to receive approximately $72 million in the form two payments: 50% within 60 days of the law's enactment and 50% within 12 months of the first payment, with spending available through December 31, 2024. Funds can be used to respond to the COVID-19 emergency and address its economic effects, with assistance to households, small businesses, nonprofits, and impacted industries. Funds can also be used to provide premium pay to essential employees at public or private entities as well as support for other infrastructure investments including water, sewer and broadband.

  The availability of these funds provides an unprecedented opportunity to invest in and improve broader social, economic and health circumstances across Nueces County, particularly for those disproportionately impacted by COVID-19. In doing so, County leaders should work to ensure the equitable distribution of funds and opportunities across communities and organizations, to assure those of all sizes—small, medium, and large— have the same opportunity to benefit. The need for more equitable distribution of county funds was a recurring theme voiced by several stakeholders.

- **Work with local partners to pursue and secure public health, mental health, and health equity-focused funding available to the county**. Over the months, as programs from ARPA continue to roll out, County leaders and stakeholders may consider pursuing

funding opportunities available to local governments from the U.S. Department of Health and Human Services (HHS) and other federal agencies. This may include leveraging funds to expand access to and acceptance of the COVID-19 vaccine in vulnerable communities; expand health professional education such as creating new graduate medical residency training programs to address specialty care shortfalls as identified by stakeholders; and improving public health workforce, infrastructure, surveillance, and other capacities. ARPA also provides funding for state and local mental health grants and services, including $1.5 billion each nationally for Substance Abuse Prevention and Treatment and Community Mental Health Services. Finding opportunities to leverage this support locally can help in part address the county's mental health, behavioral health and substance use challenges.

Recommendation 4: Explore a second phase study to produce actionable data and guidance to address growing mental health and substance abuse challenges from a health equity lens in Nueces County.

Nueces County leaders should explore a second phase of this study focused explicitly on understanding the scope of mental health and substance abuse challenges from a health equity lens to inform targeted actions and solutions. The majority of community stakeholders identified mental health and substance abuse as the number one health-related priority facing Nueces County, and one that has further worsened by the COVID-19 pandemic. However, publicly available data at a sub-county granular level remain limited. A second phase study could leverage other sources of restricted use mental health and substance abuse data, while also working with community partners to collaboratively conduct a real-time community-based survey in culturally and linguistically appropriate ways to capture community voices, experiences, and realities related to the underlying root causes of mental health and substance abuse challenges, and the impacts of COVID-19. Similar work conducted in Southwest Houston through a survey conducted in partnership with the community produced important data to drive action and decision-making by various community and health system leaders to address specific social determinants of health.[58,59,60]

> *"The increase of substance abuse associated with the isolation and the impact of the pandemic, and just the decisions that the people we serve have to make every single day."*
> *- Community Stakeholder*

A second phase study could also build on the *Comprehensive Community Behavioral Health Community Needs Assessment* conducted by the Meadows Mental Health Policy Institute and provide an equity lens to highlight the gaps existent in mental and behavioral health by specific population groups and neighborhood. Furthermore, as the Meadows' needs assessment was conducted before the pandemic, there may be value in providing an updated portrait of mental and behavioral health in Nueces County amid the pandemic. Finally, this study could expand on the list of community-based stakeholders engaged in the interview process to ensure the inclusion of diverse voices from across communities most impacted by mental health and substance abuse.

An equity-focused behavioral and mental health study could also help provide direction to the important work that is already underway in the County, such as the Nueces County Opioid Task Force. It could also help guide decisions, draw in federal and state funding opportunities, inform

the equitable distribution of resources to community providers, and other programs to advance mental and behavioral health for all Nueces County residents—especially those most impacted.

LONG-TERM RECOMMENDATIONS

Recommendation 5: Engage diverse community leaders and members as active collaborators on an ongoing basis to co-create solutions that are equitable and culturally and linguistically tailored.

Recognizing the breadth of social, economic, and health challenges facing Nueces County, Texas Health Institute recommends that Nueces County leaders and stakeholders invest additional time and resources to engage and build authentic relationships with community leaders and members. Engaging community leaders and members as active collaborators and partners on an ongoing basis is critical to informing and guiding community-centered, culturally, and linguistically appropriate, and in turn sustainable response and recovery efforts over time.

County leaders may consider cultivating a network of trusted community partners representing and serving diverse and underserved communities who can co-lead and

> *"There's a number of organizations that have already built trust, and the county and city to engage us. Whether that's faith-based…the Chamber of Commerce…Rotary Club. I'm just naming a few that have strong reputations in the community…because it's hard to build trust. But if you can leverage those with an established relationship and trust, that goes a long way."*
> *- Community Stakeholder*

co-guide community solutions. They may also consider working with underserved and vulnerable communities—such as those identified in this report including Northside, Molina, Robstown, and others—to conduct community-based surveys of needs, challenges, and community assets and resources for health. For example, Texas Health Institute conducted community health survey initiative, training over 40 members, volunteers, and health workers from the community to conduct in-person surveys in over two-dozen languages across seven high need ZIP codes in Southwest Houston. This was done with support from Memorial Hermann Community Benefit Corporation and in partnership with five community-based organizations.[61,62,63] Findings from the survey provided rich portraits and voices regarding social determinants of health needs and potential solutions. These findings have led health system, city, and other leaders to address important community needs—such as solving for unsafe neighborhood conditions with stray animals, investing in parks and green spaces, and collaborating with ethnic media to reach culturally and linguistically diverse populations.

Community partnerships are critical not just in times of crises, but in addressing community priorities at large that can help prevent avoidable illness, death, and loss in the first place. Building authentic and trusted partnerships with the community takes time—a process that cannot be rushed, but must be established in advance, working iteratively and collaboratively to listen, learn, and co-develop solutions.

Recommendation 6. Establish a Nueces County Health Equity Taskforce to guide and create accountability toward achieving health equity.

A Nueces County Health Equity Taskforce, comprised of multidisciplinary, multisector and community leaders, would elevate health equity as a county priority, and provide an oversight body to guide the implementation of equitable programs and policies in responding to COVID-19 as well as in addressing broader inequities that existed prior to and have worsened by the pandemic. Many cities and counties across the state and nation have established highly active and functioning taskforces comprised of key leaders representing county/city leadership, public health, health care, social services, and communities.

> *"Let's get [leaders] from these health systems at the table because they, with a stroke of a pen or phone call, can make a lot of things happen…They can move mountains for health equity."*
>
> *- Community Stakeholder*

For example, in April 2020, the Houston region established the Health Equity Response (H.E.R.) Initiative and Taskforce, a multi-sector, multidisciplinary group addressing health inequities by activating a data-driven, targeted and rapid response approach for residents across its most vulnerable neighborhoods, also known as Houston's 22 Super Neighborhoods.[64] The taskforce and initiative has advanced a series of community-based and culturally appropriate education campaigns, supply drives, and other COVID-19 mitigation and response efforts. Similarly, the Austin Public Health department created a Hispanic/Latinx Strike Team to address COVID-19 Disparities in Hispanic/Latinx community, developing a strategic plan for action.[65]

In the short-term, establishment of a Nueces County Health Equity Taskforce could help to guide a community-centered, equitable recovery process from COVID-19—including ensuring the widespread distribution, access to and uptake of the vaccine. In the long-term, it could help to lay the groundwork for a broader equity agenda for the county, along with the development of a strategic plan for addressing the underlying social determinants of health. These include the determinants of health driving the unequal impact of the pandemic and a range of other mental health, behavioral health, and chronic disease challenges. It could also help guide county leaders in their plans and decisions regarding the equitable distribution of resources and funds—including the new stimulus funding—to the community and health system providers according to need.

Recommendation 7: Advance cross-sector collaboration to address the root causes of health inequities faced by Nueces County residents and advance health and health equity.

Building on this report's data findings and stakeholder feedback, Texas Health Institute recommends Nueces County leaders, funders, stakeholders, and community come together to establish a formal cross-sector collaborative initiative to promote and support shared goals, data and coordinated systems of care for achieving health equity. Stakeholders clearly identified a need for a trusted, neutral, and "central convening force" from within the community that could help bring different players to the table to collectively address: 1) identified data on need and

shared priorities, and 2) align interventions and initiatives for collective community and health equity impact.

More than half of the interviewed stakeholders expressed a need for cross-sector collaboration and its potential to overcome current dynamics of "turfiness" and "competition" that have impeded progress on community health improvement. Many stakeholders also discussed the need to develop a community-wide referral system to facilitate care coordination between health care and social service agencies, and minimize duplication.

All of Texas' major metropolitan regions currently have or are moving toward cross-sector alignment and care coordination initiatives, building on models such as Collective Impact, Accountable Communities of Health, and others. For example, the Health Equity Collective, formerly known as the Greater Houston Coalition on the Social Determinants of Health, is a collective impact initiative of over 100 organizations, working collaboratively to respond to the social determinants of health in Greater Houston, with a priority goal of reducing food insecurity by 5% by 2025, and improving population health outcomes such as diabetes, obesity, and mental health.[66] The Coalition is working to establish a community information exchange to implement a coordinated referral network to support referrals between social service organizations and health care providers to address client social and behavioral health needs and improve health outcomes. The Coalition also intends to advance broader policy change addressing the structural drivers of health over time. Other communities have launched similar initiatives, including Healthy Williamson County in Central Texas, a collective impact initiative that builds on the region's community health assessment and improvement processes to activate cross-sector solutions for health and health equity.[67] The coalition addresses community resilience, behavioral health, substance use, healthy living, and other priorities. Prosper Waco in Waco, Texas is also a collective impact initiative, with cross-sector partners working collectively over the past five years to advance education, health, and financial security.[68] Dozens of other such cross-sector collaborative initiatives exist across the state and nation, and growing evidence demonstrates their success in improving broader community conditions for health, reducing preventable deaths, reducing emergency department use and hospitalizations, and improving population health particularly among low-income and underserved communities.[69,70]

"You have stakeholders that really care and are wanting to come together to address some of the issues."
- Community Stakeholder

"There is a lot of 'turfiness'… We need a convener that makes everybody welcome at the table and that we have a role, and that together we can take care of a lot more people, much more effectively than we are, but it takes a central convening force."
- Community Stakeholder

"There are a lot of really great grassroots organizations that focus on providing access, care and education to our population that are individually so strong…The thing that would take that to the next level is if somehow we could all collaborate on a shared goal."
- Community Stakeholder

Conclusion

The COVID-19 pandemic has exposed the deep and persistent health inequities that exist across Nueces County. Low-income, Hispanic and other people of color, in particular, have been disproportionately impacted, facing higher rates of cases, deaths, and economic loss. Reversing this trend will require immediate actions, as well as a systems-approach that addresses the root causes of health inequities. Fortunately, the county has many resources that can be leveraged to drive collective action toward health equity—including leaders and champions as well as a robust network of health systems, social service providers, and community-based organizations. Moreover, availability of significant federal assistance to address COVID-19 needs that also recognizes the influence of social determinants of health offers a once-in-a-generation opportunity to support transformative action. Moving toward more collaborative and coordinated systems of opportunity can help take advantage of substantial community assets and new resources by bridging the deep social, economic, and health divides that persist across racial, ethnic and geographic lines. Only when the most vulnerable in the County achieve health and well-being will a stronger, healthier and more prosperous Nueces County emerge.
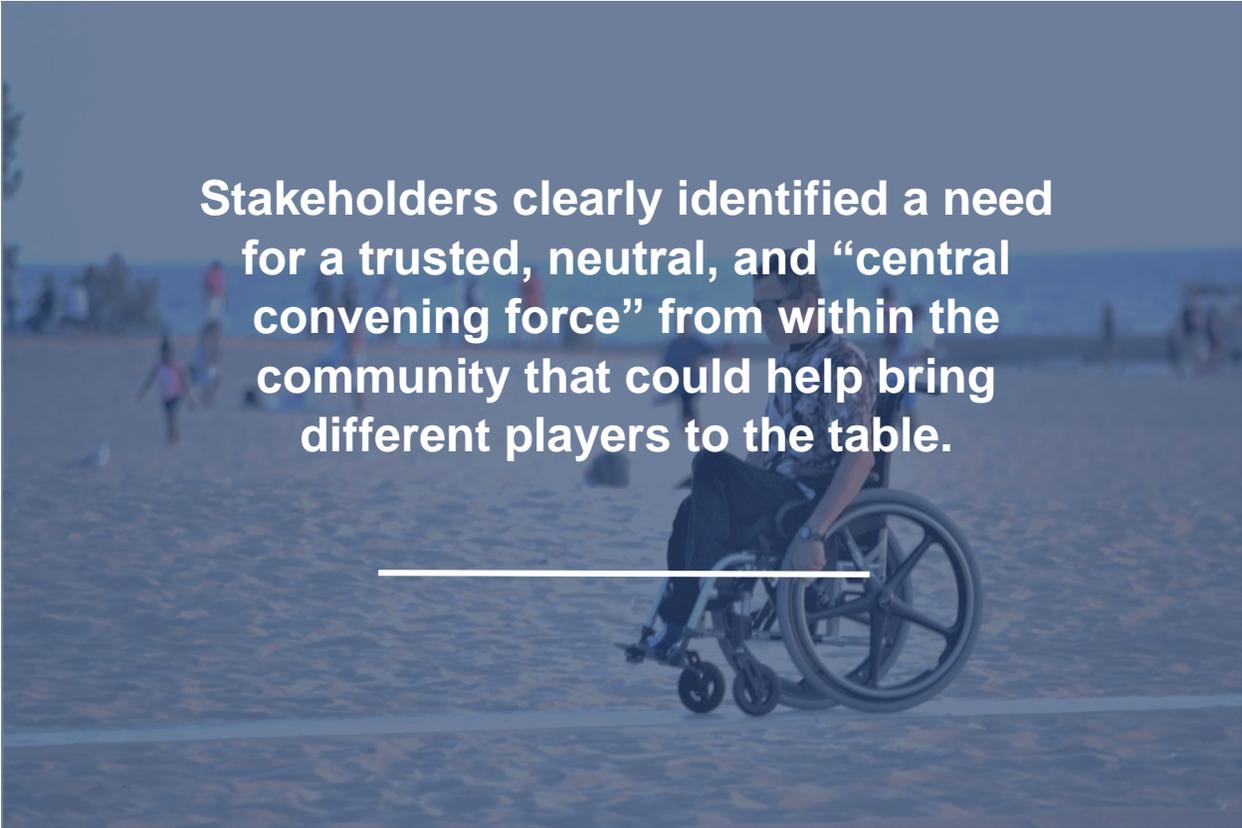
Stakeholders clearly identified a need for a trusted, neutral, and "central convening force" from within the community that could help bring different players to the table.

Design and Methods

Texas Health Institute (THI) took a rapid, mixed-methods approach to providing timely, community-centered COVID-19 data and insights to guide an equitable response and recovery in Nueces County. This included the following: (1) stakeholder interviews; (2) data analytics and dashboard creation; and (3) an environmental scan of community resources and programs.

STAKEHOLDER INTERVIEWS

THI staff conducted key informant interviews with sixteen Nueces County stakeholder groups in January and February 2021. The initial list of stakeholders for interviews was identified by Nueces County Judge Barbara Canales. THI conducted additional outreach to additional community stakeholders in order to complete 16 interviews. The purpose of these interviews were to help prioritize the focus of the Nueces County Health Equity & COVID-19 Dashboard, and to offer insights and perspectives on the leading health, social determinants of health, and health equity related priorities in Nueces County. Stakeholders were also asked to provide their input on recommendations for advancing an equitable response and recovery going forward. Stakeholders interviewed included leaders, community advocates, and other professionals from hospital systems, federally qualified health centers, behavioral health organizations, faith-based organizations, higher education institutions, and other community-based organizations. Interviews followed a semi-structured format and were conducted virtually over Zoom. Interviews were transcribed and qualitative data analysis was conducted in ATLAS.ti using a grounded-theory approach.

DASHBOARD AND DATA ANALYTICS

THI worked closely with Accenture LLP—who led the development and preparation of the Nueces County Health Equity & COVID-19 Dashboard—to guide and inform the selection of measures, data visuals, and analytics from an equity perspective. Measures were selected based on a systematic review of leading health equity resources and dashboards nationally, along with public data sources such as the American Community Survey, CDC's Behavioral Risk Factor Surveillance System, and the National Survey on Drug Use and Health. Public data were complemented by local data from the Nueces County Hospital District, City of Corpus Christi-Nueces County Public Health Department, CHRISTUS Spohn Health System, and Amistad Community Health Center. Finally, data from CDC's Social Vulnerability Index were incorporated into the dashboard to help contextualize COVID-19 impacts and other health outcomes from a social vulnerability and equity perspective.

The final dashboard includes over 40 measures covering the following topics:

- COVID-19 cases, deaths, and vaccinations

- Socioeconomic Factors - including education, income and poverty

- Community and Environment – including housing and food insecurity

- Health Outcomes - including chronic disease and mortality measures

- Behavioral and Mental Health

- Health Care Access

- Hospital Utilization

The dashboard provides an opportunity to explore COVID-19 and other health data in the context of social vulnerability and broader population demographics (race and ethnicity, age, and gender) by ZIP code or census tract. In mapping multiple levels of data, the dashboard provides powerful visuals to identify clusters of neighborhoods and populations facing a confluence of social, economic, health, and COVID-19 related challenges that can help inform and target program and policy interventions. This report highlights key findings and insights gathered from the dashboard. Additional data analyses were conducted to understand common characteristics of the top 25% of ZIP codes facing the highest COVID-19 case rates and other health-related challenges.
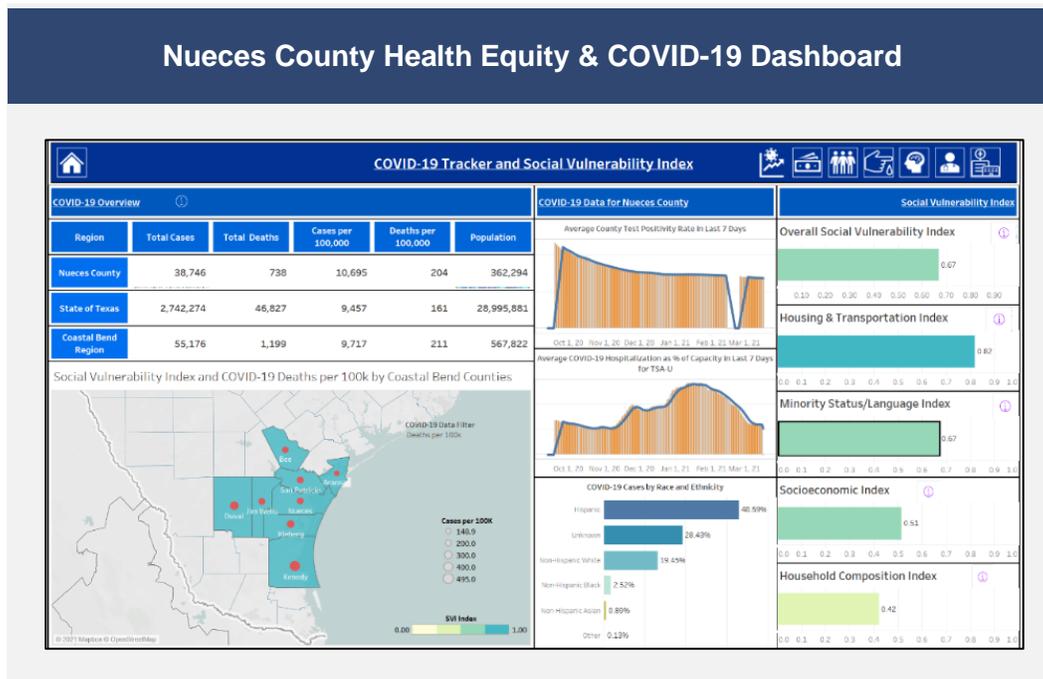
ENVIRONMENTAL SCAN

THI conducted a two-part environmental scan to identify community resources, programs, and policies for addressing leading health concerns and the social determinants of health in Nueces County. The first part involved a comprehensive web-based scan of resources addressing housing and homelessness, food security, transportation, higher education, workforce education, health care access, behavioral and mental health, and COVID-19 resources. Findings from this review can be found in an accompanying inventory of resources. The second part of the review involved gathering insights on community resources and assets through stakeholder interviews, findings from which are discussed later in the report.

LIMITATIONS

Several limitations exist in the analysis of this study. First, given its rapid nature, accessing updated, real-time public and proprietary data at granular geographic and population levels was challenging. For the most part, this report includes data from publicly available data sources, and is complemented by stakeholder interviews. Second, the study does not capture lived experiences directly from community residents to understand the depth and breadth of inequities, an undertaking worth including in future equity-focused assessments of the region. Third, public use mental health and substance use data was very limited at a granular level. This restricted the study's analysis of data by population groups and geography. In addition, a limitation of the stakeholder interviews and the analysis is that it did not appear to reach code or data saturation. This could indicate that additional stakeholder interviews would be helpful in order to be fully representative of all perspectives. Finally, the environmental scan relied on a review of web-based resources. There is a possibility that promising programs in nascent stages or without an apparent web presence may not be captured. Nevertheless, this study represents an important first step and initial study of health inequities in Nueces County, laying the foundation for continued monitoring, deeper analysis, and action toward achieving health equity.

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