COLLIER COUNTY

HEALTH EQUITY PLAN

June 2022 - June 2027

Updated 09-06-2022

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I. VISION

In January 2022, the executive committee of the Healthy Collier Coalition unanimously voted to integrate health equity into the coalition's vision and branding. The Healthy Collier Coalition is comprised of a diverse group of over 60 members representing more than 40 local public health partner organizations. In 2020, the Healthy Collier Executive Committee members participated in an exercise to create a vision for a healthy community. This vision continues to serve as the guiding sentiment for community-wide efforts to achieve optimal health for all people.

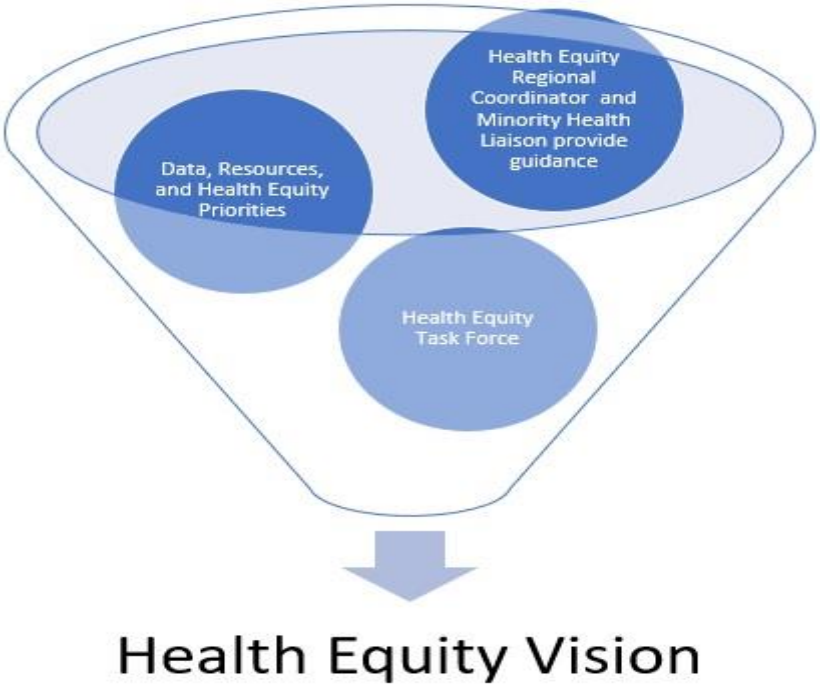
Healthy Collier Vision

Collier County is the healthiest county in the nation to live, learn, work, and play.

As of January 2022, after approval from the Healthy Collier Executive Committee, the coalition will now be known as "Healthy Collier: A Health Equity and Health Improvement Coalition". The health equity liaisons presented this revision to the executive committee as efforts towards a health equity focus were already being made in this coalition, therefore the rebranding would not require duplicated efforts from these individuals. The newly adopted Healthy Collier Coalition branding incorporates health equity into its tag line:

Healthy Collier: A Health Equity and Health Improvement Coalition

HEALTHY Collier


Health Equity Regional Coordinator and Minority Health Liaison provide guidance
Data, Resources, and Health Equity Priorities
Health Equity Task Force
Health Equity Vision

II. PURPOSE OF THE HEALTH EQUITY PLAN

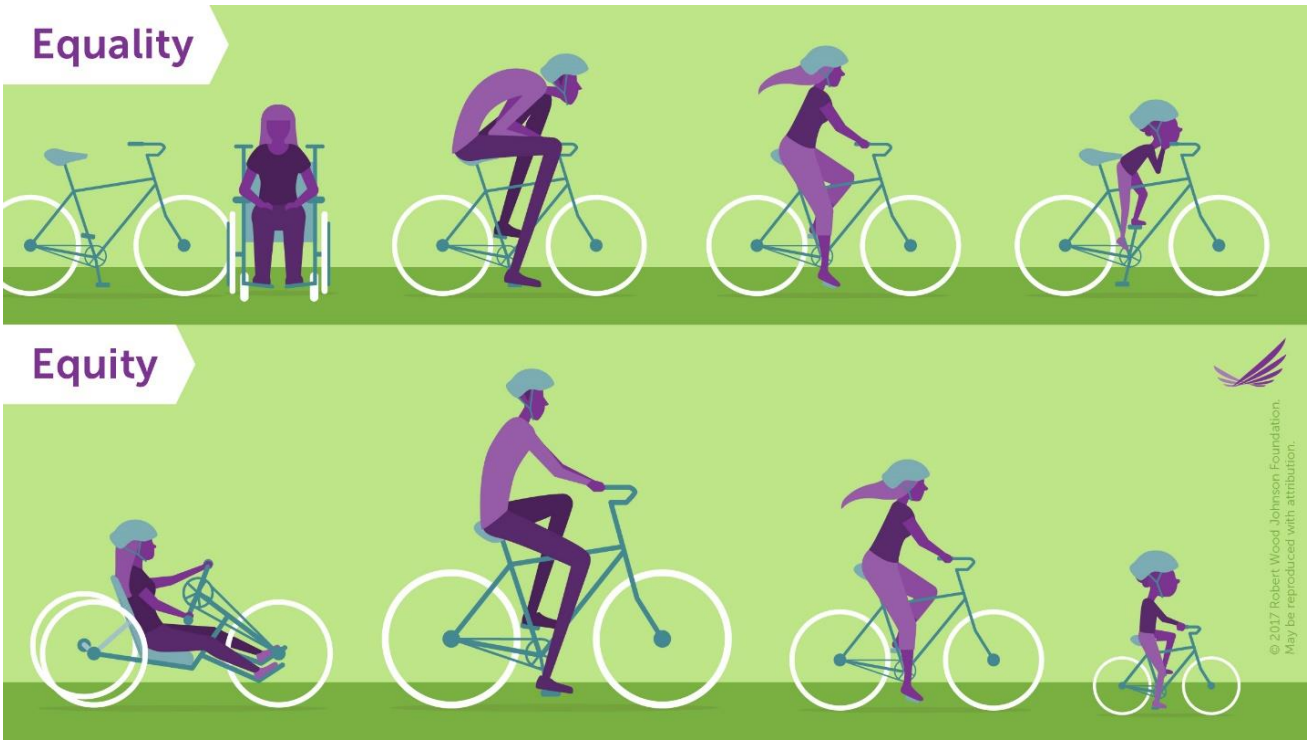
Health Equity is achieved when everyone can attain optimal health.

The Florida Department of Health's Office of Minority Health and Health Equity (OMHHE) works with government agencies and community organizations to address the barriers inhibiting populations from reaching optimal health. A focus on health equity means recognizing and eliminating the systemic barriers that have produced disparities in achieving wellness. In response to Chapter 2021-117 of the Florida Statute, effective July 1, 2021, each county health department (CHD) has been provided resources to create a Health Equity Plan to address health disparities in their communities.

The Health Equity Plan should guide counties in their efforts to create and improve systems and opportunities to achieve optimal health for all residents, especially vulnerable populations. County organizations have a critical role in addressing the social determinants of health (SDOHs) by fostering multi-sector and multi-level partnerships, conducting surveillance, and integrating data from multiple sources, and leading approaches to develop upstream policies and solutions. This plan acknowledges that collaborative initiatives to address the SDOHs are the most effective at reducing health disparities.

The purpose of the Health Equity Plan is to increase health equity within Collier County. To develop this plan, the Department of Health in Collier followed the Florida Department of Health's approach of multi-sector engagement to analyze data and resources, coordinate existing efforts, and establish collaborative initiatives. This plan addresses key SDOH indicators affecting health disparities within Collier County. This Health Equity Plan is not a county health department plan; it is a county-wide Health Equity Plan through which the Healthy Collier Coalition, including a variety of government, non-profit, and other community organizations, align to address the SDOHs impact on health and well-being in the county.

III. DEFINITIONS



Health equity is achieved when everyone can attain optimal health.

Health inequities are systematic differences in the opportunities that groups have to achieve optimal health, leading to avoidable differences in health outcomes.

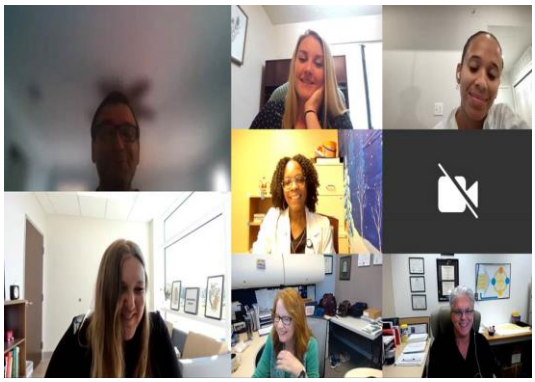
Health disparities are the quantifiable differences, when comparing two groups, on a particular measure of health. Health disparities are typically reported as rate, proportion, mean, or some other measure.

Equality each individual or group of people is given the same resources or opportunities.

Social determinants of health are the conditions in which people are born, grow, learn, work, live, worship, and age that influence the health of people and communities.

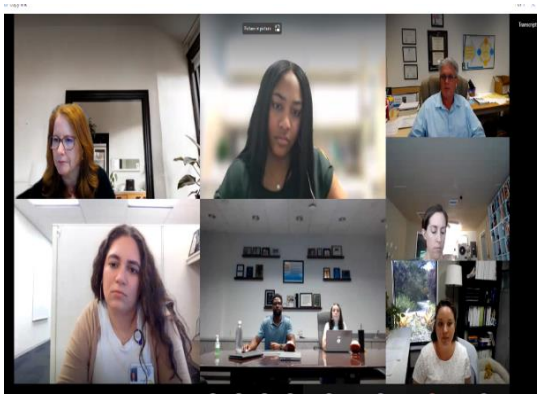
IV. PARTICIPATION

The Healthy Collier Coalition is broken down into Priority Health Workgroups: Mental Health and Substance Abuse (MHSA), Chronic Disease, Access to Care and Health of Older Adults.



To the left is an image of the MHSA workgroup. This workgroup consists of various organizations with the common goal to improve identification and treatment of mental health and substance abuse disorders.

The Access to Care workgroup's goal is to increase access to blood pressure screening services for uninsured residents.



The Chronic Disease Workgroup's goal is to increase the impact of evidence-based programs that promote healthy choices and increase food access. In addition, a new sub-committee has been established with a focus on reducing pediatric obesity rates.

The Health of Older Adults workgroup's goal is to increase capacity for older adults to age safely and comfortably in place with appropriate resources in a livable community.

A. Minority Health Liaison

The Minority Health Liaison supports the Office of Minority Health and Health Equity in advancing health equity and improving health outcomes of racial and ethnic minorities and other vulnerable populations through partnership engagement, health equity planning, and implementation of health equity projects to improve social determinants of health. The Minority Health Liaison facilitates health equity discussions, initiatives, and collaborations related to elevating the shared efforts of the county.

Minority Health Liaison: Julissa Moreland
Minority Health Liaison Backup: Taylor Jaskulski

B. Health Equity Team

The Health Equity Team includes individuals that each represent a different program within the CHD. The Health Equity Team explores opportunities to improve health equity efforts within the county health department. Members of the Health Equity Team assess the current understanding of health equity within their program and strategize ways to improve it. The Health Equity Team also relays information and data concerning key health disparities and SDOHs in Collier County to the Healthy Collier Coalition. The Minority Health Liaison guides these discussions and the implementation of initiatives. The membership of the Health Equity Team is listed below.

Name	Title	Program
Erika Barraza	Environmental Manager	Environmental Health/Migrant Housing
Mai Diaz	Outreach Coordinator	Women, Infant & Children (WIC)
John Drew	Organizational Planning & Development Program Consultant	Community Health Promotion (CHP)
Isidra Gomes	Health Services Supervisor	HIV
Jennifer Gomez	Director of Community Health Prom.	CHP
Taylor Jaskulski	Community Health Educator	CHP
Julissa Moreland	Health Improvement Planner	CHP
Nilda Proenza	Human Services Program Manager	HIV
Laarni West	Nursing Program Specialist	Healthy Start
Reggie Wilson	Healthy Communities Coordinator	Built Environment

Jah-naika Lopez	Senior Health Educator	Tobacco Prevention Program

The Health Equity Team met on the below dates during the health equity planning process. The Health Equity Team meets monthly after the Performance Management Council meetings to track progress.

Meeting Date	Topic/Purpose
12/10/2021	Introduction to health equity initiative/complete Health Equity (HE) work plan.
1/26/2022	Discussed and filled out the work plan.
2/17/2022	Discussed the adoption of the HE coalition into the Healthy Collier Coalition, reviewed workplan.
3/23/2022	Discussed the details and planning of the April event.
4/27/2022	Reviewed and updated the workplan
6/6/2022	Discussed project objectives & goals

C. Pediatric Obesity Subcommittee (Health Equity Taskforce)

The Pediatrics (PEDS) Obesity Subcommittee falls under the Healthy Collier Coalition, which is explained in more details on pages 22 through 24. Members of this subcommittee provided input and feedback in the development of the Collier County Health Equity Plan and oversaw the design and implementation of the pediatrics obesity project. The PEDS Obesity Subcommittee reviewed the Health Equity Plan for feasibility. The project members are listed below.

Name	Title	Organization	Social Determinant of Health
John Drew	Organizational Planning & Development Program Consultant	DOH-Collier	All
Jennifer Gomez	Director of Community Health Promotion	DOH-Collier	All
Julissa Moreland	Health Improvement Planner	DOH-Collier	All
Taylor Jaskulski	Community Health Educator	DOH-Collier	All

Reggie Wilson	Healthy Communities Coordinator	DOH-Collier	All
Coral Vargas	Safe & Healthy Children's Coordinator	NCH Healthcare System	Health Care Access & Quality
Paula DiGrigoli	Executive Director	NCH Healthcare System	Health Care Access & Quality
Kathleen Morales Perez	Public Health Specialist	University of Florida (UF) - Institute of Food & Agricultural Sciences (IFAS)	Education Access & Quality
Dr. Courtney Whitt	Psychologist	Healthcare Network	Health Care Access & Quality
Dr. Salvatore Anzalone	Pediatrician	Healthcare Network	Health Care Access & Quality
Joe Balavage	Community Liaison	Help a Diabetic Child	Health Care Access & Quality
Tracey Bowen	K-12 Health and Physical Education and Driver Education Coordinator	Collier County Public Schools (CCPS)	Education Access & Quality
Dr. Krista Casazza	Dietician, Registered Physician	Florida Gulf Coast University (FGCU)	Education Access & Quality
Megan Greer	Food Policy Coordinator	Blue Zones Project of SWFL	Neighborhood & Built Environment
Samantha Watson	Extension Program Manager	UF - IFAS	Neighborhood & Built Environment, Social & Community
Sydney Fahrenbruch	Collier Cares	NCH Healthcare System	Education, Access & Quality, Social & Community
Rafael Campo	Outreach	Blue Zones Project of SWFL	Neighborhood & Built Environment

The PEDS Obesity Subcommittee met on the below dates during the health equity planning process. Since the Health Equity Plan was completed, the Healthy Collier Coalition will continue to meet at least quarterly to track progress.

Meeting Date	Organizations	Topic/Purpose
2/23/2022	DOH-Collier, NCH Healthcare System, Healthcare Network, Help a Diabetic, CC Public Schools, FGCU, Blue Zones Project, and UF-IFAS	Introductions, discussed purpose, health equity data gathering to determine scope.
3/03/2022	DOH-Collier, NCH Healthcare System, Healthcare Network, Help a Diabetic, CC Public Schools, FGCU, Blue Zones Project, and UF-IFAS	Approved subcommittee Charter/purpose, started review of data and evidence-based strategies to reduce obesity.
4/07/2022	DOH-Collier, NCH Healthcare System, Healthcare Network, Help a Diabetic, CC Public Schools, FGCU, Blue Zones Project, and UF-IFAS	Presented health disparity findings to the group through use of HEDA.
5/5/2022	DOH-Collier, NCH Healthcare System, Healthcare Network, Help a Diabetic, CC Public Schools, FGCU, Blue Zones Project, and UF-IFAS	Made final decisions on SDOHs to address, goals/objectives, barriers & feasibility.
6/6/2022	DOH-Collier, NCH Healthcare System, Healthcare Network, Help a Diabetic, CC Public Schools, FGCU, Blue Zones Project, and UF-IFAS	Reviewed and approved objectives and plan.

D. Healthy Collier Coalition

The Healthy Collier Coalition is comprised of four CHIP Workgroups and three subcommittees and includes CHD staff and representatives from various organizations that provide services to address various SDOHs. The CHIP Workgroups meet quarterly, and the Subcommittees meet monthly or at least quarterly. Members of this coalition brought their knowledge about community needs and SDOHs. Collaboration within this group addresses upstream factors to achieve health equity. The Healthy Collier Coalition discussed strategies to improve the health of the community. The strategies focused on the social determinants of health: education access and quality, health care access and quality, economic stability, social and community context, and neighborhood and built environment. Membership includes community leaders working to address each SDOHs, as well as any relevant sub-SDOHs.

Meeting Date	Workgroup	Organizations	Topic/Purpose
3/11/2022, 4/14/22, 6/10/22	Mental Health and Substance Abuse	See XIII Addendum for Coalition membership.	Implement the collaboration integration care model in primary care provider offices and urgent care facilities. Create a county-wide cadre of Mental Health First Aid instructors and a centralized, coordinated scheduling and registration system for class offerings.
1/19/22, 3/3/22, 3/15/22, 4/7/22, 5/5/22, 6/6/22	Chronic Disease & PEDS Obesity	See XIII Addendum for Coalition membership.	Increase the impact of evidence-based programs that promote healthy choices and increase food access. Nutrition Education Curriculum for Youth (schools and after-school sites)
6/22/22	Access to Care	See XIII Addendum for Coalition membership.	Increase access to blood pressure screening services for uninsured Collier County residents.
2/24/22, 2/28/22, 3/15/22, 4/22/22, 6/28/22	Health of Older Adults & Age-Friendly & Dementia Care and Cure	See XIII Addendum for Coalition membership.	Increase capacity for older adults to comfortably and safely age in place with appropriate resources in a livable community. Maintain compliance with the AARP Age-Friendly Community program standards. Leverage the Dementia Care and Cure Task Force of Collier County to promote dementia awareness and provide education about dementia.

E. Regional Health Equity Coordinators

There are eight Regional Health Equity Coordinators. These coordinators provide the Minority Health Liaison, Health Equity Team, and Healthy Collier Coalition with technical assistance, training, and project coordination.

Name	Region	Expertise
Carrie Rickman	Emerald Coast	Technical assistance, training, and project coordination

Quincy Wimberly	Capitol	Technical assistance, training, and project coordination
Diane Padilla	North Central	Technical assistance, training, and project coordination
Ida Wright	Northeast	Technical assistance, training, and project coordination
Rafik Brooks	West	Technical assistance, training, and project coordination
Lesli Ahonkhai	Central	Technical assistance, training, and project coordination, faith-based engagement
Frank Diaz-Gines	Southwest	Technical assistance, training, and project coordination
Kimberly Watts	Southeast	Technical assistance, training, and project coordination

V. HEALTH EQUITY ASSESSMENT, TRAINING, AND PROMOTION

A. Health Equity Assessments

To improve health outcomes in Florida, it is critical to assess the knowledge, skills, organizational practices, and infrastructure necessary to health inequities. Health equity assessments are needed to achieve the following:

- Establish a baseline measure of capacity, skills, and areas for improvement to support health equity-focused activities
- Meet Public Health Administration Board (PHAB) Standards and Measures 11.1.4A which states, "The health department must provide an assessment of cultural and linguistic competence."
- Provide ongoing measures to assess progress towards identified goals developed to address health inequities
- Guide CHD strategic, health improvement, and workforce development planning
- Support training to advance health equity as a workforce and organizational practice

Collier County conducted health equity assessments to examine the capacity and knowledge of DOH-Collier staff, county partners, and the public to address social determinants of health. The Community Themes and Strengths Assessment gathered community thoughts, opinions, concerns, and solutions that provides insight into the issues the community feels are important through the completion of community health surveys and focus groups. Open discussions were facilitated by DOH-Collier staff during the focus groups, with the primary focus of identifying health equity concerns and health disparities that exist in the county. Below are the dates the assessments were distributed county wide through survey's and focus groups.

Date	Assessment Name	Organizations Assessed
1/2021 - 5/2022	Community Themes and Strengths Assessment	The assessment was distributed county-wide to all community partners.

2/2022 - 6/2022	Health Equity Data Analysis (HEDA)	An assessment on pediatric obesity was completed to assist the PEDS Obesity Subcommittee.
8/2021 – 6/2022	Collier County Community Health Status Assessment	Assessment identifies the community's health status, priority health needs and asset and gaps.

B. County Health Equity Training

Assessing the capacity and knowledge of health equity, through the various assessments, helped the Minority Health Liaison identify knowledge gaps and create training plans for the Healthy Collier/Health Equity Coalition, and other county partners.

Below are the dates, SDOHs training topics, and organizations who attended training.

Date	Topics	Organization(s) receiving trainings
1/27/2022	SPENT game – affordable housing, economic status, food access	Coalition (see addendum)
3/14/2022	Received COVID-19 Health Equity TA Bulletin	Coalition (see addendum)
4/5/2022	"In Sickness and in Wealth" – Unnatural Causes	Coalition (see addendum) Community Partners

C. County Health Department Health Equity Training

The Florida Department of Health in Collier recognizes that ongoing training in health equity and cultural competency are critical for creating a sustainable health equity focus. At a minimum, all DOH-Collier staff receive the *Cultural Awareness: Introduction to Cultural Competency* and *Addressing Health Equity: A Public Health Essential* training. In addition, the Health Equity Team provides regular training to staff on health equity and cultural competency. The training is recorded below.

Date	Topics	Number of Staff in Attendance
1/14/2022	COVID-19 Latinx Disparities – How can we address these disparities in our areas of practice?	Shared to all staff via internal communications, 3 staff members were in attendance in-person
2/21/2022	Communicating with and About People with Disabilities	Shared to all staff via internal communications, 5 staff members were in attendance in-person
2/23/2022	*Unnatural Causes Part 5: "Place Matters"* Explores how the neighborhood and built environment have an impact on one's health	25
2/23/2022	APHA's "That's Public Health" Web Series – What is health equity and SDOHs	25
3/24/2022	The high cost of racism: Inequality, the economy, and public health Webinar	Shared to all staff via internal communications, 3 staff members were in attendance in-person
4/20/22	CHR & Roadmaps, "In Solidarity Podcast	Shared to all staff via internal communications
5/31/22	Closing the Racial Wealth Gap with Innovative Solutions	Shared to all staff via internal communications

D. Minority Health Liaison Training

The Office of Minority Health and Health Equity and the Health Equity Regional Coordinator provide training and technical support to the Minority Health Liaison on topics such as: the health equity planning process and goals, facilitation, and prioritization techniques, reporting requirements, and taking a systems approach to address health disparities. The Minority Health Liaison training is recorded below.

Date	Topics
1/25/2022	Cultural Competency and Health Equity – Presented by Venise White
2/22/2022-2/24/2022	ToP's Training - Attended by Julissa Moreland
3/22/2022	ClearPoint Training
4/27/2022-4/28/2022	ToP's Training - Attended by Taylor Jaskulski
5/9/2022	FLHealthCharts Training

E. National Minority Health Month Promotion

In a collaborative effort between DOH-Collier and NCH, Collier County's National Minority Health Month promotional event took place at the Telford Auditorium on April 5, 2022, from 4:30pm-7:00pm. NCH graciously provided a venue and light refreshments for this event. Both community partners and community members were welcomed to attend. About 75 people registered for the event, and around 50 people were in attendance that day.

The first hour of the event consisted of a health fair, which was used as an opportunity for community members to learn about resources offered by local community organizations. DOH-Collier invited several local organizations to participate in the health fair portion of the event. The following organizations reserved a booth and were in attendance for the event: NCH Healthcare System, Florida Southwestern State College (FSW), PANIRA Healthcare Clinic, Avow Hospice, Hazelden Betty Ford, The Healthy Earth Organization, Blue Zones Project, and Healthcare Network. While a few of these organizations had a pre-existing partnership with DOH-Collier, several new partnerships were formed. The second hour consisted of a documentary showing of “Unnatural Causes – In Sickness and In Wealth”. The documentary explores the lives of a CEO, lab supervisor, janitor, and an unemployed mother. The documentary illustrates how social class shapes access to power, resources, and opportunities. Solutions pursued focus not on medication, but on more equitable social policies. The purpose of this event was to open the conversation of health equity and address how the social determinants of health affect each person in a unique way. With the help of the Q&A panel, which included community leaders with years of experience and various areas of expertise in the community, that message came across successfully.

This event was first promoted to our community partners via email with a “Save the Date” flyer (figure 1). It was then posted to Eventbrite, open for both community members and community partners to register for the event. DOH-Collier’s Public Information Officers promoted the event through press releases, social media platforms, and on various local news channels.

Figure 1.

Along with the event, DOH-Collier ran a digital ad campaign throughout the month of April to promote National Minority Health Month. These digital ads (figures 2 and 3) similarly followed the FDA’s 2022 theme, “Give Your Community a Boost!”, in which DOH-Collier’s ads promoted COVID-19 vaccination. These ads were displayed on devices such as phones, computers, and tablets. This campaign reached all areas of Collier County, but specifically targeted more vulnerable communities such as Immokalee, East Naples, and Golden Gate.

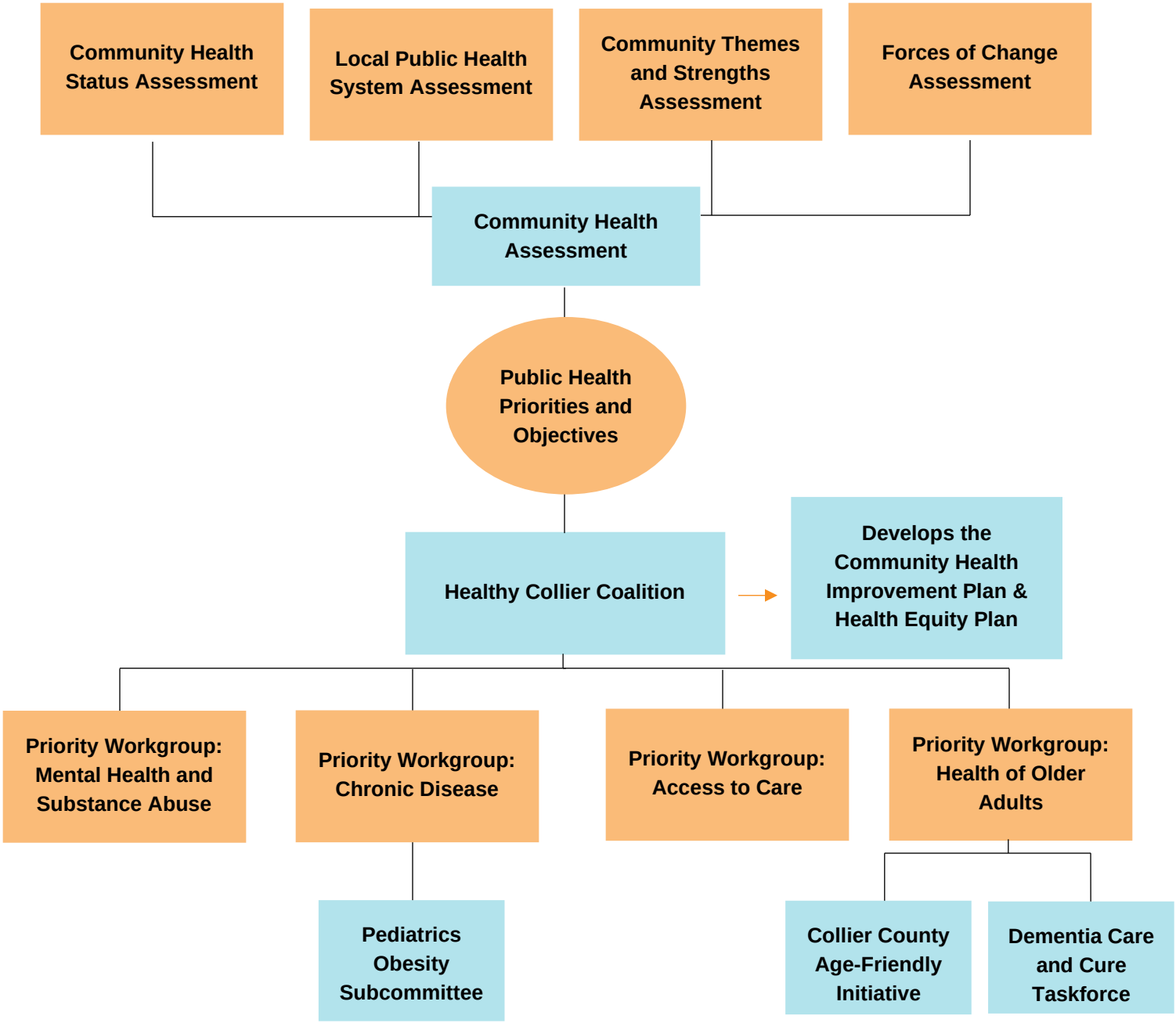
Figure 2.

Figure 3.

VI. PRIORITIZING A HEALTH DISPARITY

To better understand how the Health Equity Team prioritized a health disparity for Collier County, the Community Health Improvement Planning process must first be understood.

Community Health Improvement Planning Process



The Collier County Community Health Improvement Planning process (CHIP) is a collaborative effort by the members of the Healthy Collier Coalition. It is a plan to improve the health of all residents and visitors of Collier County by addressing five health priorities that were identified by over 1,261 participants who completed the Collier County Community Health Survey in 2022. While the CHIP is a community-driven and collectively owned health improvement plan, The Florida Department of Health in Collier County (DOH-Collier) is charged with providing administrative support, tracking, and collecting data, and reporting results.

DOH-Collier facilitated the CHIP process by using the National Association of City and County Health Officials Mobilizing for Action through Planning and Partnership (MAPP) strategic planning model. A diverse group of partner organizations along with other community members participated in the four assessments specified in the MAPP process. The four assessment findings provide a comprehensive view of health and quality of life in Collier County. These findings were presented in the Community Health Assessment (CHA).

DOH-Collier presented the CHA findings to the Healthy Collier Executive Committee comprised of a diverse group of community leaders. The Executive Committee set priorities through a facilitated consensus process by verifying the strategic issues that emerged from the four assessments with significant weight given to the community health priority rankings in the Community Themes and Strengths Assessment. The Committee agreed that the results strongly corroborated the results of other recent community assessments and accurately reflects the needs of Collier County. The 2020-2023 CHIP was then shaped using the five highest ranked health priority areas from the CHA results. They include Mental Health, Chronic Diseases, Access to Care, Alcohol and Drug use, and Health of Older Adults.

The CHIP strategies and objectives chosen by the Healthy Collier Executive Committee then established health priority workgroups to develop those strategies and implement the objectives. Two of the health priority areas, Mental Health and Alcohol & Drug Use, were combined into the Mental Health and Substance Abuse workgroup.

In January 2022, the Chronic Disease Workgroup established a Subcommittee, known as the PEDS Obesity Subcommittee. This Subcommittee was developed because pediatricians noticed an increased number of children scaling overweight or obese. After the PEDS Obesity

Workgroup goals and objectives were presented to the Health Equity Team, the team decided to prioritize childhood obesity as their health disparity. Specifically, the team's efforts would be focused on Hispanic children who are overweight or obese living in households with incomes that fall below the poverty level. This priority population and area was chosen due to local data found in the Childhood Obesity Health Equity Data Analysis (HEDA) developed by the Florida Department of Health and the PEDS Obesity Subcommittee, reflecting what is true to be seen by healthcare professionals and stakeholders in the community.

There are many data sources used to assess health disparities and social determinants of health as seen with the referenced sources at the bottom of each data figure. Here is a brief list of some of the data sources used: FDOH Bureau of Vital Statistics, FL CHARTS, Florida Environmental Public Health Tracking, Florida department of Highway Safety, Florida Behavioral Risk Factor Surveillance, RWJ Foundation County Health Rankings, FDOH Vital Statistics, U.S. Department of Transportation, and U.S. Bureau of Census.

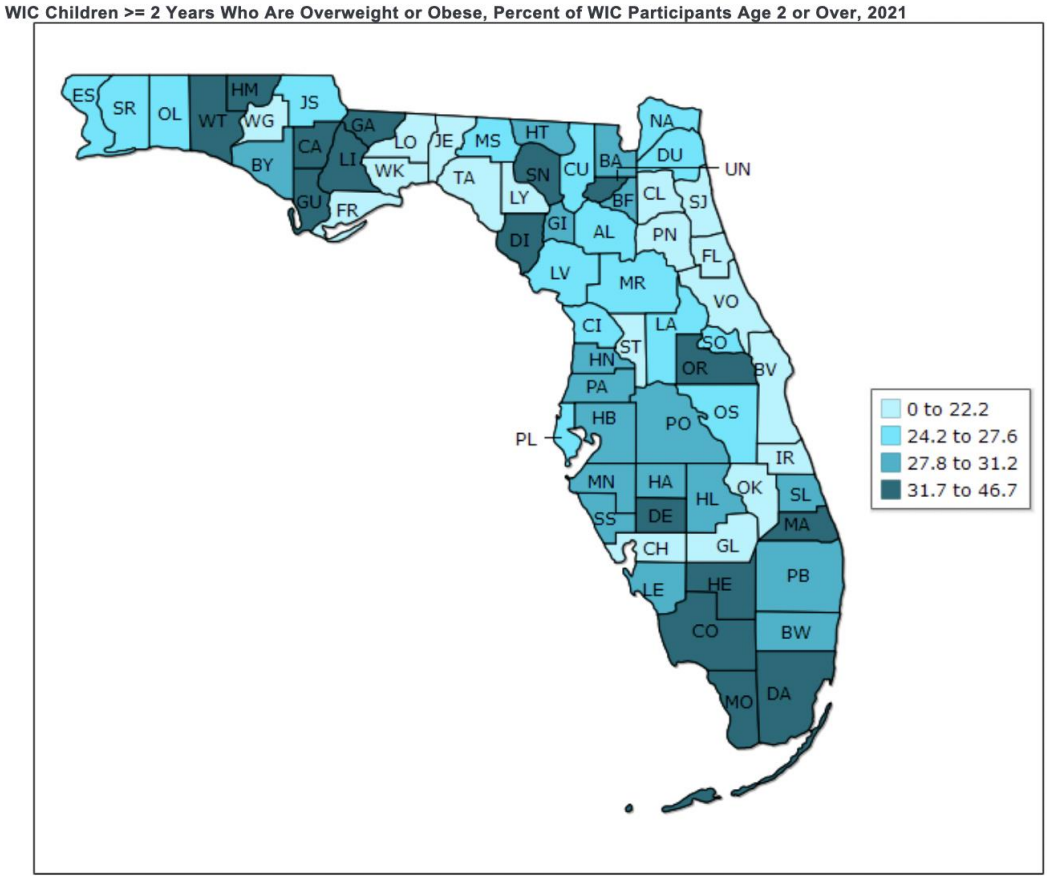
Identifying health disparities in the target population is the second step in the HEDA process. For this HEDA, the target population is children, ages 2-17 living in Collier County and the health outcomes are obesity and overweight. Local data for these outcomes in children are difficult to find in public data sources. Two sources with county-level data were reviewed, but the data was limited.

One study by Lemas et al. (2019), objectively measured pediatric obesity prevalence using the OneFlorida Clinical Research Consortium and determined the rate of childhood obesity in Collier County is somewhere between 15 and 19.9 percent, and that poorer areas tend to have higher rates in comparison with the rest of the county. According to this study, the areas of the county experiencing an inordinate amount of childhood obesity are Immokalee and East Naples. Overall, this study found that poorer communities tended to have higher rates of obesity and that boys throughout the state have a significantly higher prevalence of obesity than girls.

The DOH-Collier Women, Infants, and Children (WIC) program had local data available for their clients aged 2-5 years old. Families qualify for the WIC program when their income is below 185% of the federal poverty guidelines or if they receive Medicaid, Temporary Cash

Assistance (TCA), or Food Assistance. Over the past 20 years, WIC eligible children in Collier County have had consistently higher rates of overweightness and obesity than the Florida average. Collier County falls within the fourth quartile in this specific category, meaning that relative to all counties throughout the state, Collier County has a higher rate of WIC children who are overweight or obese than at least 75% of the other counties. These points are illustrated in figure 4. In 2021, the rate of WIC children who are overweight or obese in Collier County was 35.9%, which is 6.2% greater than the state average.

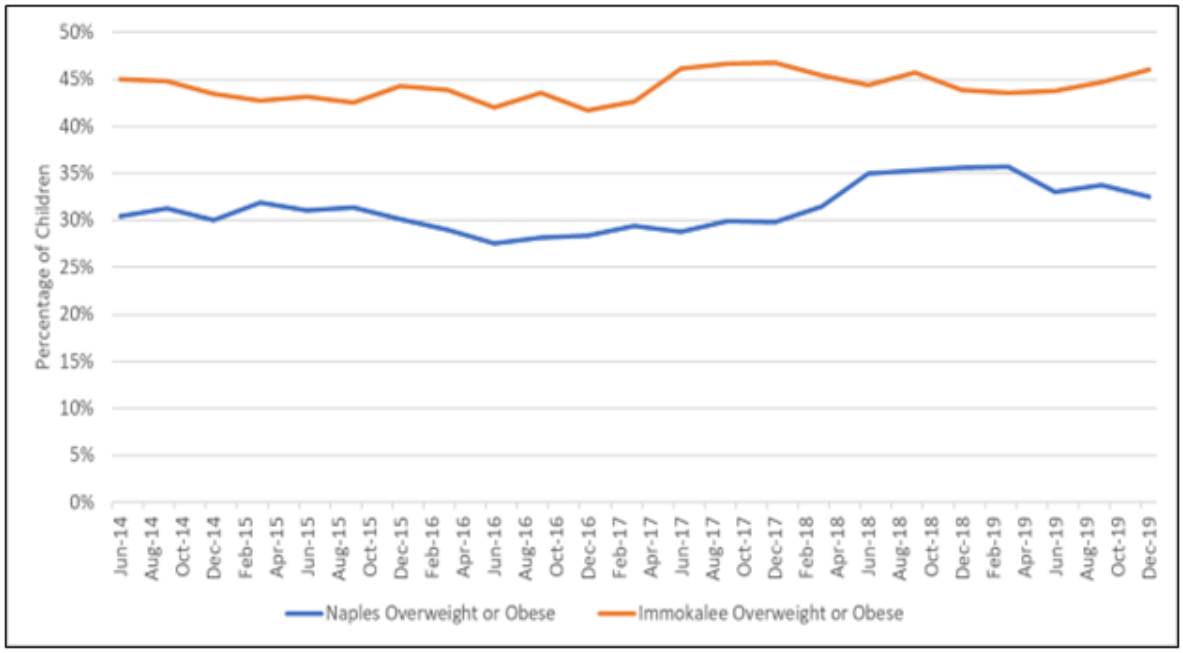
Figure 4: WIC Children Ages 2 Years or Older Who are Overweight or Obese in Florida



Source: Florida Department of Health in Collier County, Women, Infants, and Children Program.

The data set below was segmented by WIC sites to compare Naples and Immokalee. For WIC children ages 2-5 years old receiving services from the Naples site, the prevalence of overweightness and obesity was notably less than the Immokalee site (figure 5).

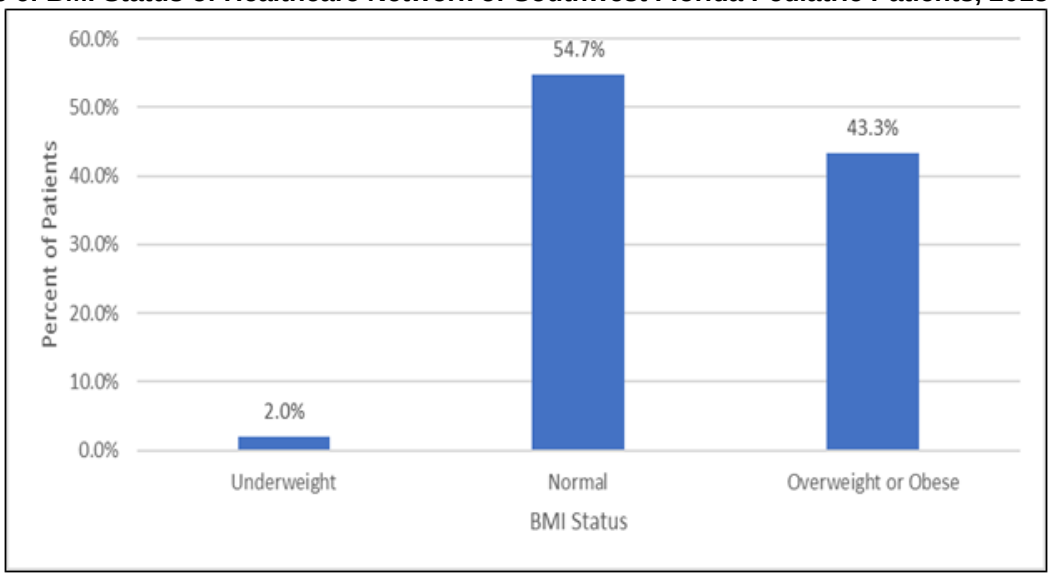
Figure 5: Percentage of Children Ages 2-5 from the Collier County WIC Program Certified as Overweight or Obese



Source: Florida Department of Health in Collier County, Women, Infants, and Children Program.

With no other local data readily available, one of the sub-committee member organizations agreed to provide their patient data for analysis. The primary source of county-level data was provided by Healthcare Network of Southwest Florida. A sample of 43,394 child and adolescent anonymous patient data from 2018 to 2021 was analyzed by the Florida Department of Health in Collier County. Overall, 15.7% of these patients were classified as overweight (having a BMI between 85% and 95% higher than the average BMI by age) while 27.6% were classified as obese (having a BMI greater than 95% than the average BMI by age), for a combined total of 43.3% being overweight or obese. Figure 6 shows the comparison of three BMI status classifications in this patient population sample.

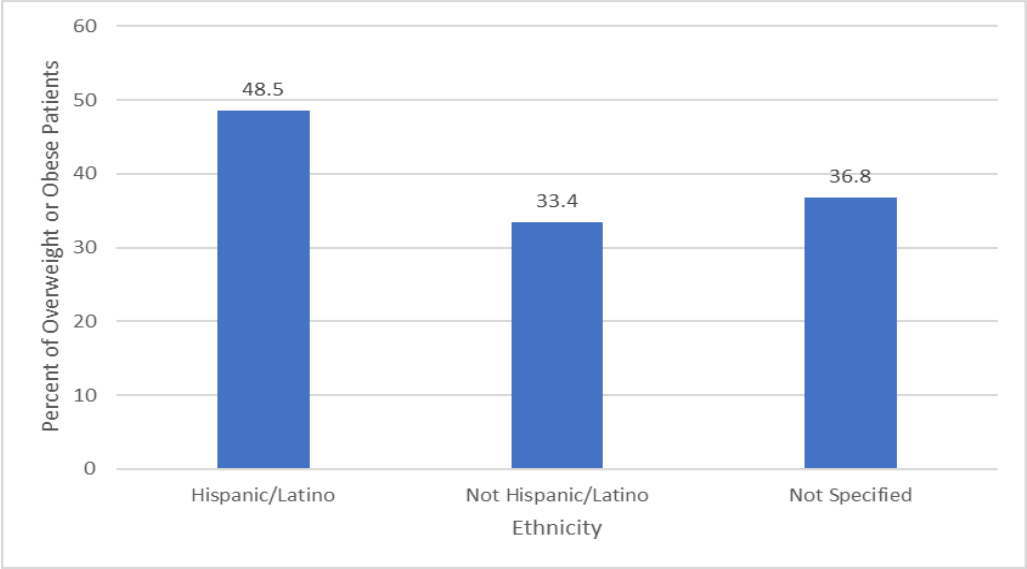
Figure 6: BMI Status of Healthcare Network of Southwest Florida Pediatric Patients, 2018-2021



Source: Healthcare Network of Southwest Florida. Analysis by Florida Department of Health in Collier County.

Analysis of the data from Healthcare Network by several different socio-economic variables demonstrated a consistent pattern with the other two data sources and identified a disparity in Hispanic children, who are significantly more likely to be classified as overweight or obese (48.5%) in comparison to other ethnic groups (~35%). Figure 7 shows the comparison of overweight or obese Healthcare Network of Southwest Florida pediatric patients.

Figure 7: Percent of Overweight or Obese Healthcare Network of Southwest Florida Pediatric Patients, 2018-2021, by Ethnicity

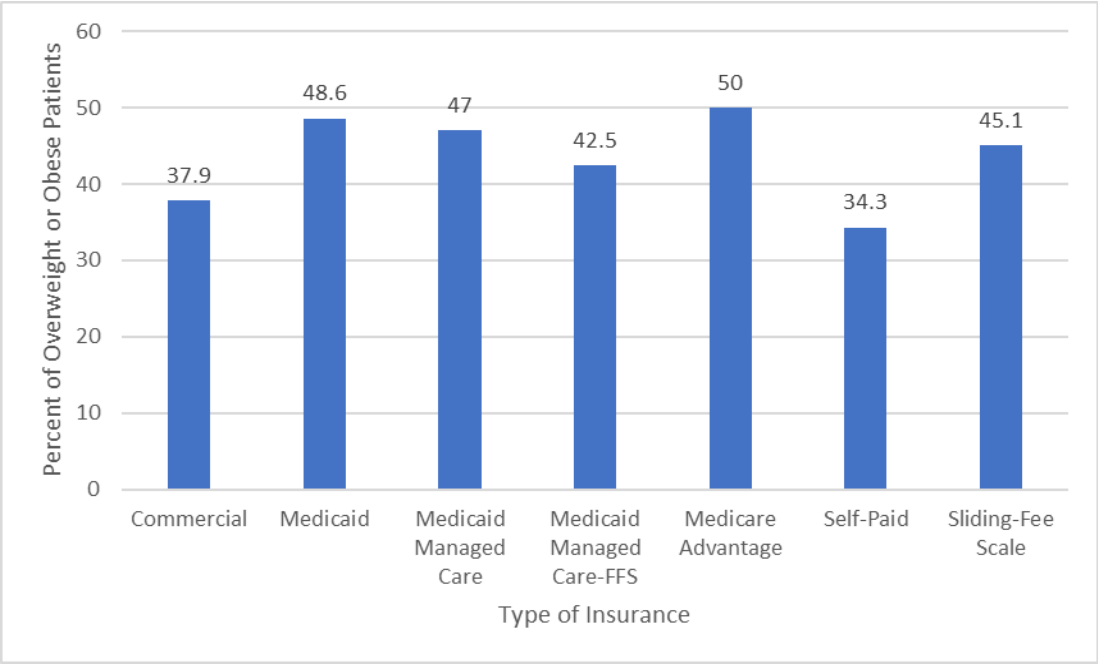


Source: Healthcare Network of Southwest Florida. Analysis by Florida Department of Health in Collier County.

Analysis by race did not show any obvious disparities with white and black children both at about 42% overweight or obese. Three other racial groups in the sample showed a significantly higher percentage of overweight or obesity prevalence (~50%). They included Native American or Alaska Native (0.65% of the sample), Other and Not Specified (17% of the sample combined). It is presumed that the ethnic breakdown of the Other and Not Specified groups resembles the breakdown of the entire sample. Analysis by age and sex did not reveal any notable disparities, although children older than 10 were more likely to be classified as overweight or obese than the younger age groups.

Finally, figure 8 displays an analysis by insurance type that revealed a disparity in children whose families use a government insurance plan. They were more likely to be overweight or obese (~48%) than those who used commercial plans (38%) or self-paying patients (34%).

Figure 8: Percent of Overweight or Obese Healthcare Network of Southwest Florida Pediatric Patients, 2018-2021, by Type of Insurance



Source: Healthcare Network of Southwest Florida. Analysis by Florida Department of Health in Collier County

In summary, the stakeholder focus group agreed with the conclusion reached from the data analysis. The most important disparities to address regarding pediatric obesity in Collier

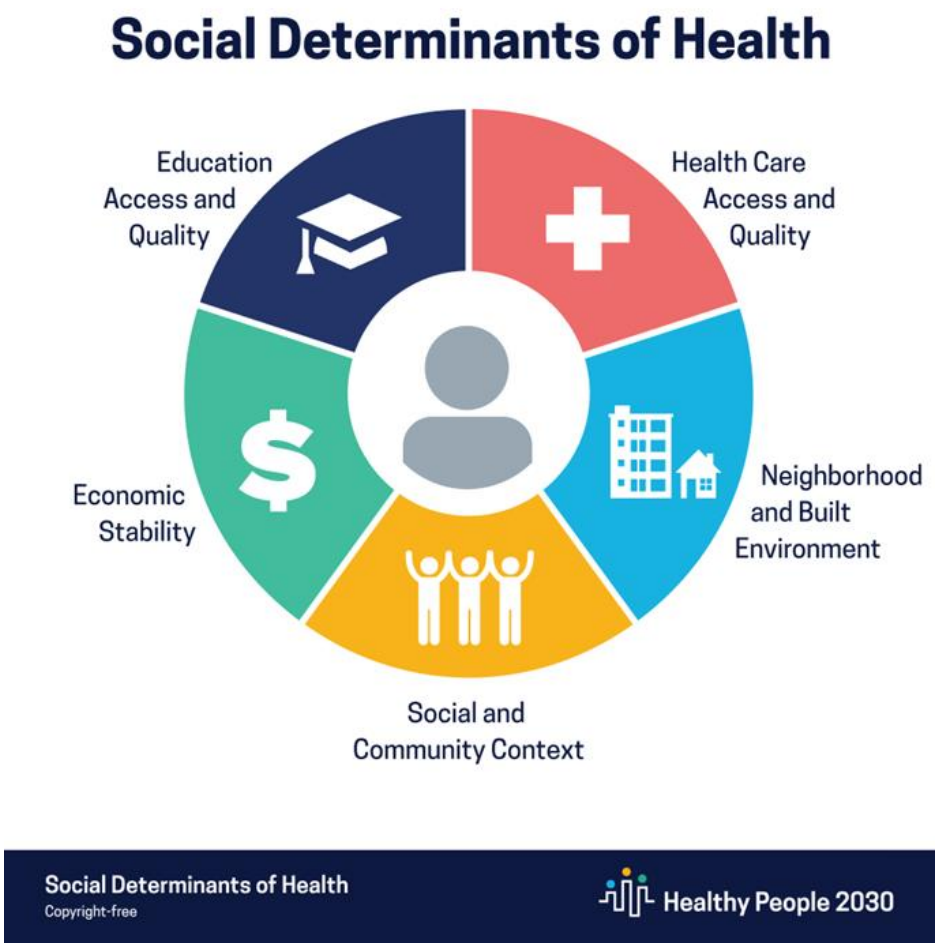
County are associated with ethnicity and income. Hispanic children in households with income below the federal poverty level are most at risk for obesity in Collier County.

A. Plan Review and Approval Process

During its development, the Health Equity Plan was reviewed throughout the PEDS Obesity Subcommittee monthly meetings from February 2022 to June 2022. The plan was sent to the members of the workgroup through email on June 6th, 2022 and was approved on June 9th, 2022. The subcommittee will meet at least quarterly for regular monitoring of the plan. The Health Equity Plan will be reviewed, and revisions will be posted on an annual basis.

VII. SDOH DATA

Social Determinants of Health (SDOHs) are conditions in the places where people live, learn, work, and play that affect a wide range of health and quality of life risks and outcomes. The SDOHs can be broken into the following categories: education access and quality, health care access and quality, neighborhood and built environment, social and community context, and economic stability. The PEDS Obesity Subcommittee identified multiple SDOHs that impact Childhood Obesity. They are listed below.



A. Collier County Education Access and Quality

- **Education Access and Quality Data for Collier County**

Findings from Collier County's Community Health Status Assessment (CHSA) show that educational level is linked to access to healthcare as health insurance is usually linked to jobs requiring a specific level of educational attainment.

Figure 9 shows the educational attainment of the population 25 years and over, comparing Collier County to Florida. There has been a slow increase of individuals 25 years and over obtaining either an Associates, Bachelor's, or a Graduate or professional degree in both Collier County and Florida.

Figure 9: Educational Attainment of the Population 25 Years and Over, Collier County and Florida, 2010, 2014, and 2019

	Collier County			Florida		
	2010	2014	2019	2010	2014	2019
Less than 9th grade	6.5%	8.1%	5.7%	5.7%	5.2%	4.6%
9th to 12th, no diploma	7.8%	7.1%	5.3%	8.8%	7.6%	7.0%
High school graduate and/or GED	27.4%	25.3%	27.1%	29.9%	29.6%	28.4%
Some college, no degree	20.7%	18.2%	17.3%	21.2%	20.7%	19.4%
Associate degree	6.6%	6.5%	8.7%	8.6%	9.7%	9.9%
Bachelor's degree	19.1%	21.2%	20.8%	16.6%	17.4%	19.3%
Graduate or professional degree	12.0%	13.6%	14.9%	9.2%	9.8%	11.4%

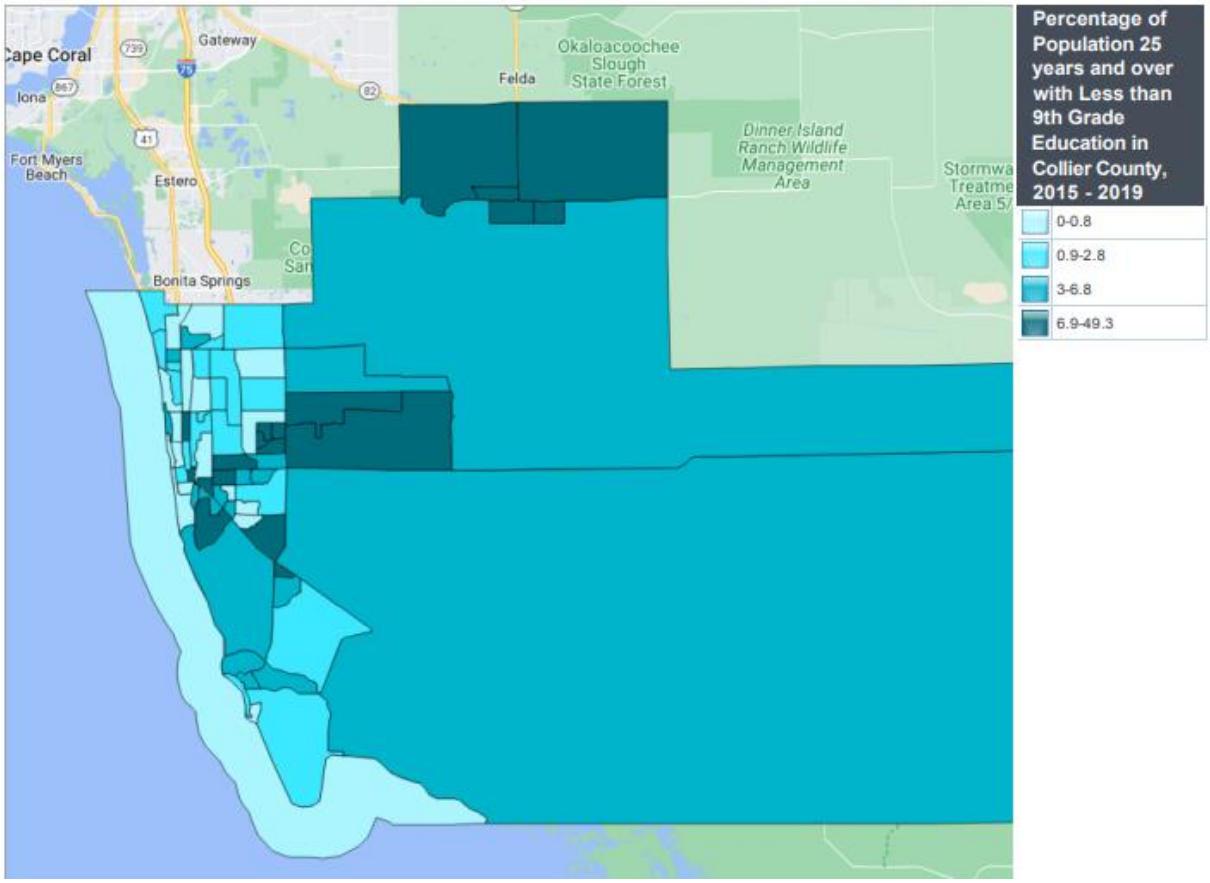
Source: US Bureau of the Census, American Community Survey, Table DP02

The population of veterans 25 years and over with some form of educational attainment was 27,304 in 2019. Of this total number, 5.3% had less than a high school education, 18.6% had a high school diploma (or an equivalent certificate), 27.9% had some college or an associate's degree, and 48.2% had a Bachelor's degree or higher.

Although only 5.7% of Collier's population has a less than 9th grade education, the community map below (figure 10), provides a clear image of the education attainment disparity within

Collier County. Areas covered in the darkest blue, including Immokalee, Golden Gate, and East Naples represent those with the highest percent of individuals 25 years or over with less than a 9th grade education.

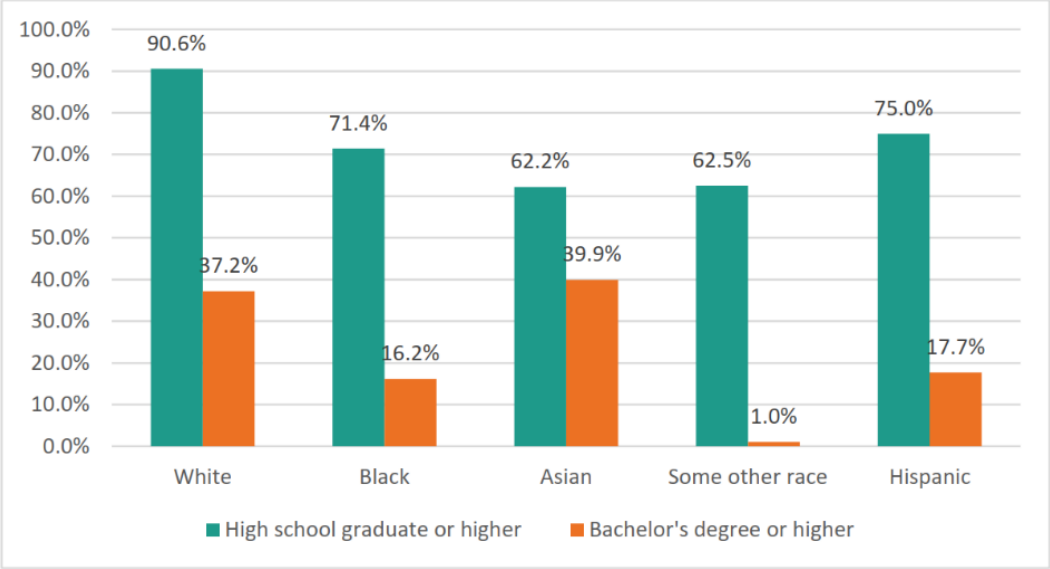
Figure 10: Percentage of Population 25 years and over with Less than 9th Grade Education in Collier County, 2015-2019



Source: Florida Department of Health Bureau of Vital Statistics and the 2015 American Community Survey 5-year estimates (tables B02001, B03002, S0101, S1501, S1701, S1903, S2301, S2506, S2701)

Figure 11 compares educational attainment by race/ethnicity. Those who identified as Asian have a higher percentage of those with a bachelor's degree or higher when compared to other races/ethnicities. Individuals that identified as white had a higher percentage of being a high school graduate or higher.

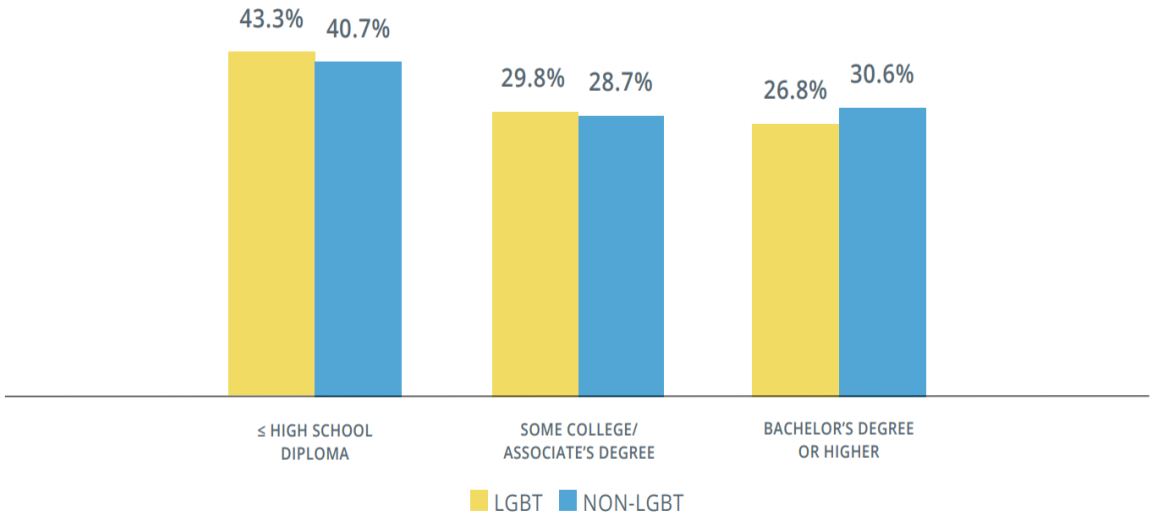
Figure 11: Educational Attainment by Race and Ethnicity, Collier County and Florida, 2019



Source: US Bureau of the Census, American Community Survey, Table S1501

Two out of five (43.3%) LGBT adults have a high school degree or less and one in four (26.8%) graduated from college. Those who identify as LGBTQ+ are less likely to continue their education, due to discrimination and bullying they face from their peers.

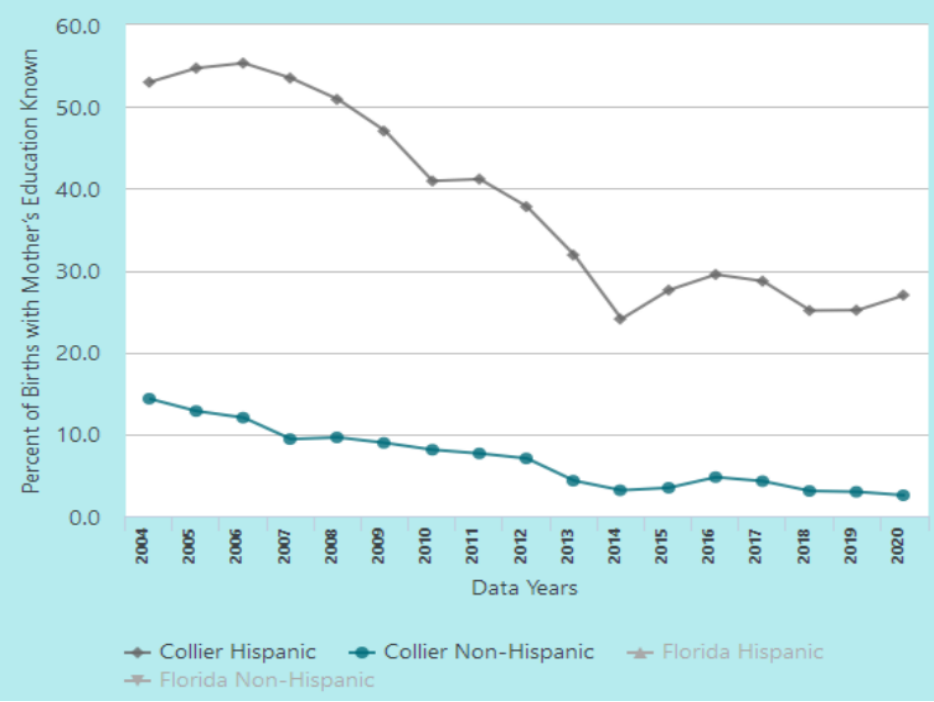
Figure 12: Educational Attainment of Southwest Florida Adults by LGBT Identity



Source: A Portrait of LGBT Adults in Southwest Florida

As shown in figure 13, the Hispanic rate of births to mothers 19 and over without high school education in Collier is significantly higher than the non-Hispanic rate. In 2020, the Hispanic rate was nearing 30%, while the non-Hispanic rate was 2.5%.

Figure 13: Births to mothers 19 and over without high school education, Single Year



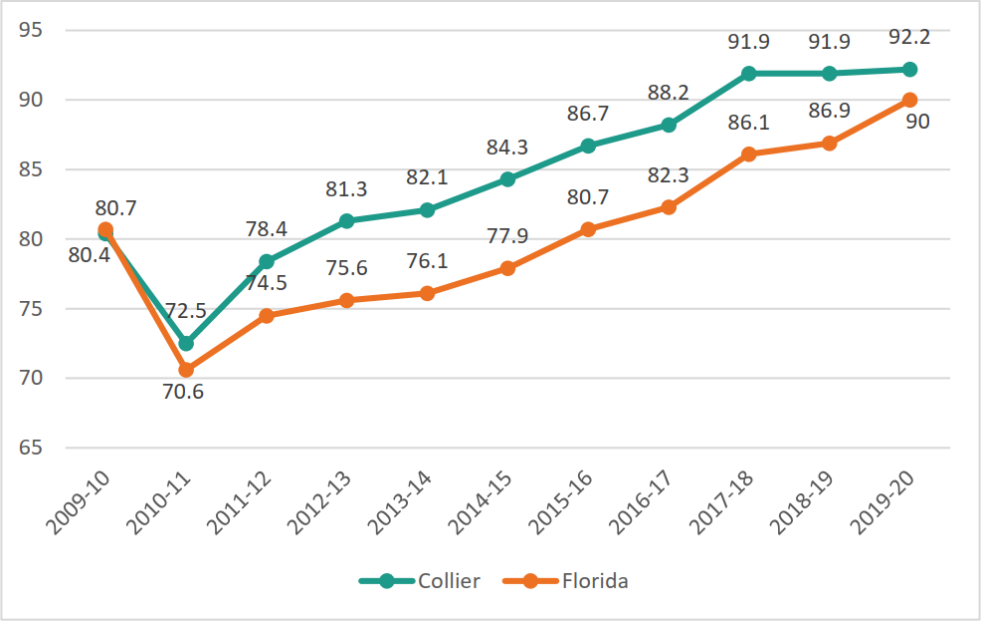
Source: Florida Department of Health, Bureau of Vital Statistics

According to the Florida Department of Education, 49.6% of school-aged children prove to be school ready at kindergarten entry, and 60% of students have third grade language art proficiency in Collier. These two data points fall in the 3rd county quartile, meaning there is an opportunity for improvement here.

In 2020, the Star Early Literacy assessment was administered throughout Collier County elementary schools. This assessment is administered to kindergarten students during the first 30 days of the school year to indicate whether a child is “kindergarten ready”. 81% of children were deemed ready at the highest scoring elementary school, while only 18% passed in the lowest scoring school. However, this assessment does not take into account students where English is not their first language.

In 2020, Collier County's high school graduation rate was 96.4%, which is slightly higher than Florida's rate of 93.5%. Figure 14 displays that the rate has been steadily increasing in both Collier County and throughout Florida since 2011.

Figure 14: High School Graduation Rate, Percent of Student Cohort Since 9th Grade, Collier County and Florida, 2009 – 2020 School Years



Source: Florida Department of Education, Education Information and Accountability Services (EIAS)

- **The Impact of Education Access and Quality on Childhood Obesity**

The relationship between education access and quality and childhood obesity is more dependent on what variables of education are being measured (Martin et al., 2017; Nga et al., 2019). Health education is one of the most direct ways of promoting health behaviors and improving health literacy. According to a 2017 CDC report, 53.75% of schools nationwide required students to take at least two health education courses, and it is apparent that when students are more aware of health, they are more likely to make better lifestyle and dietary choices, thus lowering BMI (Nga et al., 2019). Additionally, a systemic review by Ward et al. (2017) investigated early care and education, and the strength of this kind of intervention was positive associated with outcomes like increased physical activity and better diet. Many

schools also require that students participate in physical education, give designated exercise breaks, and provide activities after school hours, all of which have shown some improvement in children's BMI, especially in younger children (Nga et al., 2019). In Collier County, there is a before/after school program known as Kids on the GO. Sponsored by the Safe and Healthy Children's Coalition of Collier County, the Kids on the Go Program promotes physical activity by offering a six-to-twelve-week program, where kids will run a total of 26.2 miles. Over 20 elementary schools in Collier participate in this program. Another study by Drake et al. (2012) looked at the efficacy of physical education, sports, and active commuting to school in high schoolers, finding that if they played 2 sports throughout the year, the prevalence of overweightness/obesity and obesity alone decreased by 11 and 26 percent, respectively. Additionally, if the adolescent actively commuted to school, obesity prevalence would decrease by 22% (Drake et al., 2012). The stresses of school for children are also worth consideration; several studies have provided evidence that exposure to chronic stress and the pressures of homework and workload are positively correlated with higher risk for overweightness or obesity (Nga et al., 2019). Awareness of obesity by teachers is important for the implementation of any education-based intervention for improving health behaviors in students (Nga et al., 2019).

The quality of a parent's education and childhood obesity is much more understood and accepted. The odds of being classified as obese in children ages 7-12 years are highly dependent on the health literacy of their parents or caregivers, and that health literacy is significantly correlated with their own BMI (Nga et al., 2019). Also, youths living in households headed by college graduates are significantly less likely to be classified as obese than those in less educated homes (Ogden et al., 2016).

B. Collier County Economic Stability

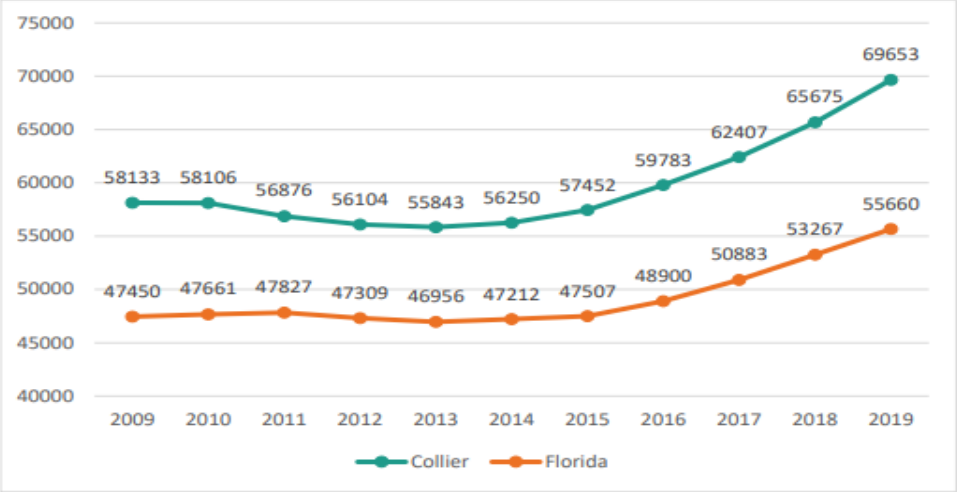
- **Economic Stability Data for Collier County**

Income

An increased socio-economic status allows individuals to obtain health insurance coverage, pay for medical services, and afford safe housing and nutritious foods. A decline in levels of income has detrimental health effects and consequences for the entire population, especially children. Children living in poverty are subject to greater health and developmental risks than adults.

Figure 15 shows a continuous increase in median household incomes in both Collier County and Florida since 2013. While Collier County's median household income proves to be significantly higher when compared to Florida's, it fails to represent the large income disparity faced in Collier.

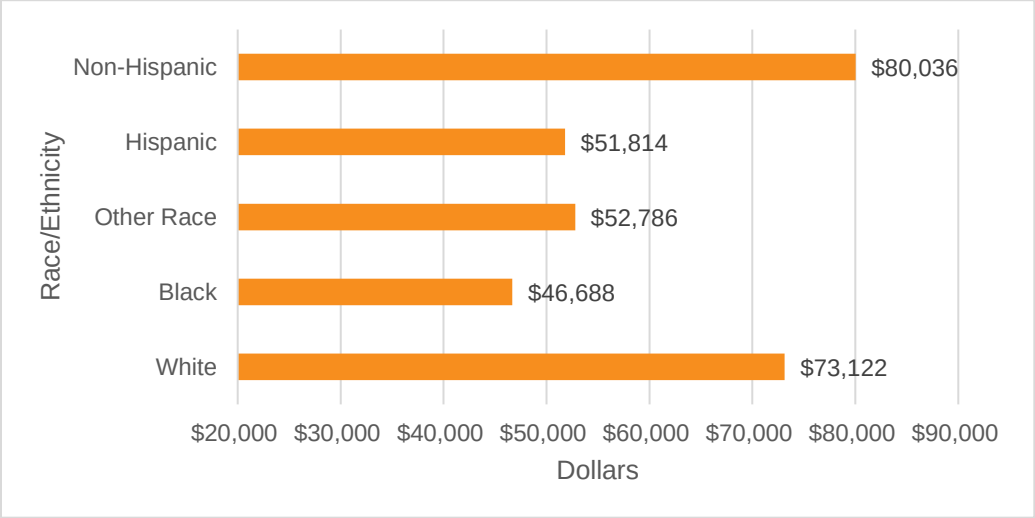
Figure 15: Median Household Income, Collier County and Florida, 2009-2019



Source: US Bureau of the Census, American Community Survey, Table B1901

Figure 16 shows that between 2016 and 2020, the median household income was $70,217 in Collier County. The median income for White households was $73,122, while the median income for Black households was $46,668. That is a $26,454 difference of incomes.

Figure 16: Median Household Income in Collier County by Race/Ethnicity, 2016-2020



Source: FLHealthCHARTS

Figure 17 breaks down income status by providing the income distribution in Collier from the years 2010, 2015, and 2019.

While the biggest percentile of Collier residents were making between $35,000-$49,000 in 2019, when combined, Collier residents making $24,999 or less in 2019 make up 18.6% of the population. In 2019, the federal poverty level (at 100%) for a family size of 4 was $25,100, meaning that many households in need had too high of an income to receive government benefits.

Based on figures 16 and 17, it can be inferred that a big percentage of the Black and Hispanic community make up the lower income distribution levels, whereas the white and non-Hispanic populations make up the higher income levels.

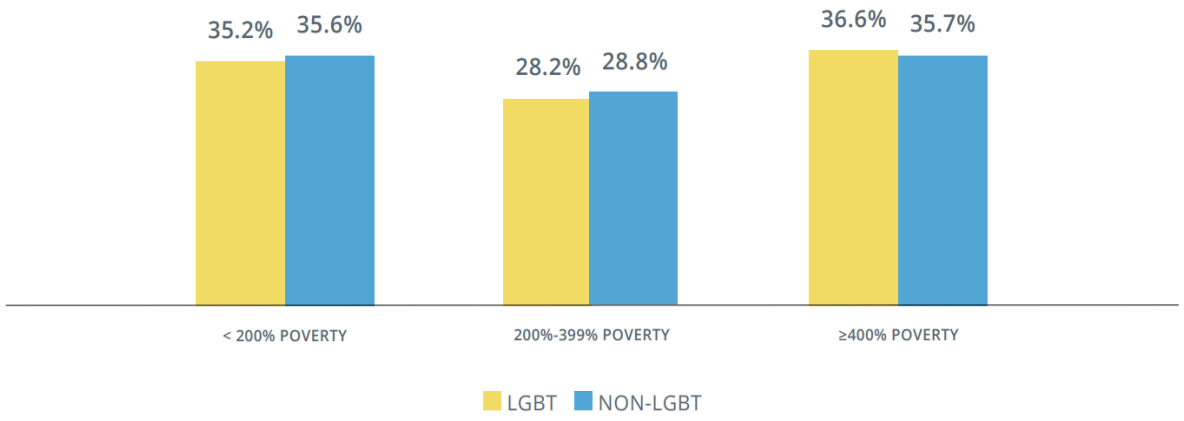
Figure 17: Earnings in the Past 12 Months Collier County, Florida, and United States

	2010			2015			2019		
Income Distribution	Collier	Florida	US	Collier	Florida	US	Collier	Florida	US
$1 to $9,999 or less	2.4%	2.5%	2.2%	2.9%	1.8%	1.8%	1.4%	1.7%	1.7%
$10,000 to $14,999	8.4%	5.5%	4.5%	5.7%	4.5%	3.7%	2.7%	3.6%	2.7%
$15,000 to $24,999	23.3%	19.0%	15.5%	18.1%	18.2%	14.2%	14.5%	15.1%	10.8%
$25,000 to $34,999	20.1%	19.4%	17.1%	17.5%	19.3%	16.1%	20.4%	19.0%	15.2%
$35,000 to $49,999	17.0%	21.0%	20.8%	18.4%	21.1%	20.0%	23.9%	20.8%	19.7%
$50,000 to $64,999	8.9%	13.1%	14.7%	12.7%	13.2%	14.9%	11.8%	13.8%	15.5%
$65,000 to $74,999	3.9%	4.7%	5.9%	4.5%	5.0%	6.3%	5.5%	5.7%	6.9%
$75,000 to $99,999	6.4%	6.8%	8.8%	7.7%	7.2%	9.8%	6.5%	8.4%	11.0%
$100,000 or more	9.6%	8.0%	10.5%	12.5%	9.8%	13.3%	13.4%	11.9%	16.5%

Source: US Bureau of the Census, American Community Survey, Table S2001

One in three (35.2%) LGBT adults are living at or below the poverty level. Another third (36.6%) of LGBT adults are fairly well off—living at 400% or more of the federal poverty level. As shown in the figure below, LGBT and non-LGBT adults have similar economic statuses.

Figure 18: Economic Status of Southwest Florida by LGBT Identity



Source: A Portrait of LGBT Adults in Southwest Florida

In 2019, the median income for veterans in Collier County was $50,896. The average income for men was about 51,000, while the average income for women was $44,500.

The United Way has developed a methodology known as ALICE (Asset Limited, Income Constrained, Employed), which is used to measure financial hardship at a local level and to enhance existing local, state, and national poverty measures. There are two methods of measurements: the Household Survival Budget (figure 19), and the ALICE Threshold.

The Household Survival Budget is an estimate of the total cost of household essentials: – housing, childcare, food, transportation, technology, and health care, plus taxes and a 10% miscellaneous contingency fund. This budget does not include a savings account.

According to United Way, For the average family of four, two adults and two children, the annual household survival budget in Collier County is $65,568. For an adult to make this much a year the hourly wage would need to be $32.78. A single adult's household survival budget's annual total is $26,496 with an hourly wage of $13.25.

Figure 19: ALICE Household Survival Budget, Collier County, 2018

	Single Adult	One Adult, One Child	One Adult, One in Childcare	Two Adults	Two Adult, Two Children	Two Adults, Two in Childcare	Single Senior	Two Seniors
Housing	$778	$996	$996	$996	$1,220	$1,220	$778	$996
Child Care	$0	$211	$578	$0	$422	$1,141	$0	$0
Food	$316	$545	$456	$656	$1,095	$956	$269	$559
Transportation	$375	$532	$532	$546	$843	$843	$329	$455
Health Care	$200	$507	$507	$507	$803	$803	$459	$919
Technology	$55	$55	$55	$75	$75	$75	$55	$75
Miscellaneous	$201	$318	$353	$323	$497	$570	$217	$345
Taxes	$283	$334	$406	$448	$509	$659	$283	$448
Monthly Total	$2,208	$3,498	$3,883	$3,551	$5,464	$6,267	$2,390	$3,797
Annual Total	$26,496	$41,976	$46,596	$42,612	$65,568	$75,204	$28,680	$45,564
Hourly Wage	$13.25	$20.99	$23.30	$21.31	$32.78	$37.60	$14.34	$22.78

Source: United Way ALICE, 2018

The ALICE Threshold represents the minimum income level necessary based on the Household Survival Budget. ALICE households have incomes above the federal poverty line but struggle to afford basic necessities.

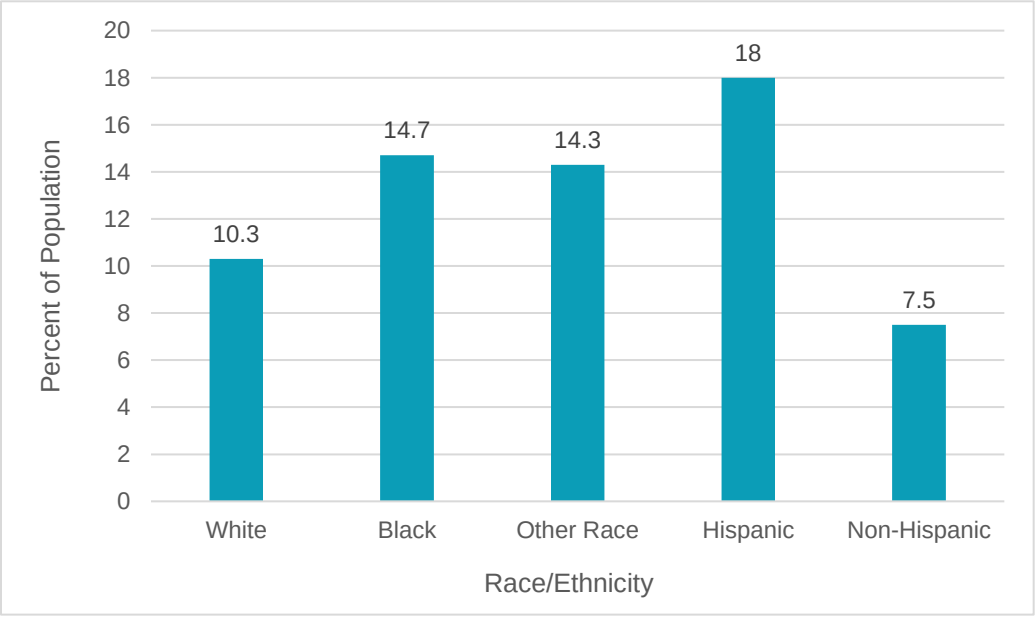
Quick facts from Collier County's 2018 ALICE Threshold data:

- About 59% of single male-headed households fall within the ALICE threshold, whereas 87% of single female-headed households live below the threshold.
- About 61% of those under 25 years fall into the ALICE threshold.
- Native American/Alaskan Native and Black households had the highest percentage of households calculated to fall within the ALICE threshold (72.4% and 54.8%).

Poverty

In 2020, the total population of individuals living below the poverty level in Collier County was 11%. Of this population, 14.7% is made up of Black individuals and 14.3% are made up of individuals classified as "other race", as shown in figure 20. These groups of individuals are more affected by the impacts of poverty than white individuals. The rate of Hispanics living below the poverty level is 2.4 times the rate of non-Hispanics.

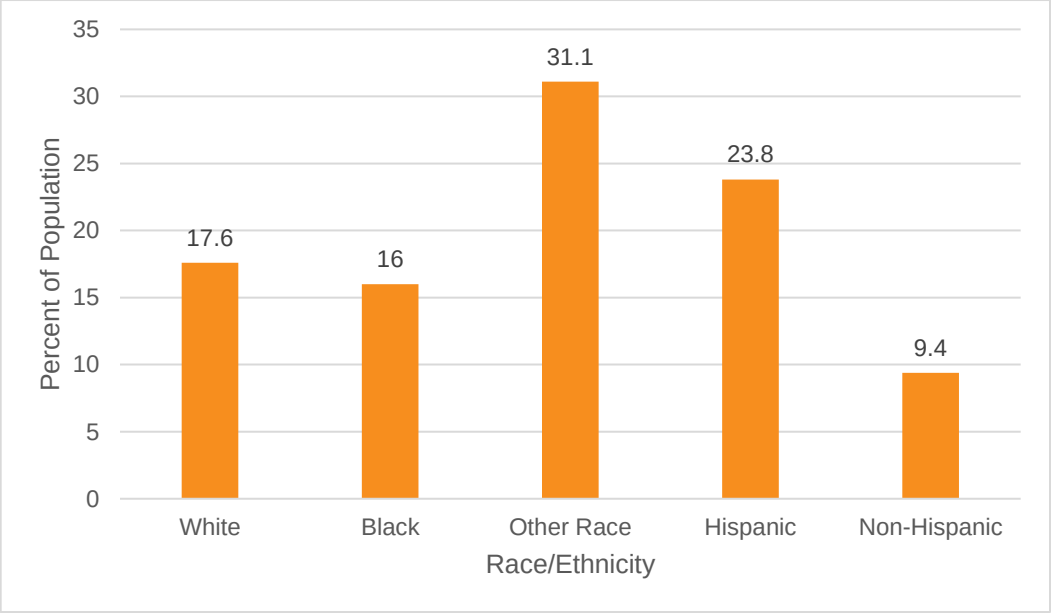
Figure 20: Individuals below poverty level in Collier County by race/ethnicity, 2020



Source: FLHealthCHARTS

Figure 21 shows the percentage of children below poverty level by race and ethnicity. The total population of children 18 and under living below the poverty level in Collier is 16.8**%**. Children identified as “other race” and children of Hispanic background are most affected by poverty.

Figure 21: Children Under 18 Below Poverty Level in Collier by Race/Ethnicity, 2020



Source: FLHealthCHARTS

In 2019, it was determined that 1,347 veterans were living at or below the poverty level.

Workforce/Unemployment

Unemployment is associated with a decline in health status and quality of life. It is linked to higher rates of morbidity, mortality, and suicide. Unemployment causes numerous unhealthy behaviors including tobacco and alcohol consumption, poor diet, and lack of exercise.

In 2020, the unemployment rate in Collier was 6.9%, which was double of Florida’s rate (3.3%). Prior to COVID-19, the rate of unemployment was steadily declining since 2010. 8.1% of workers 16+ were working outside county of residence. This rate is unusually low because Collier has a high percentage of workers who commute from Lee and Hendry County.

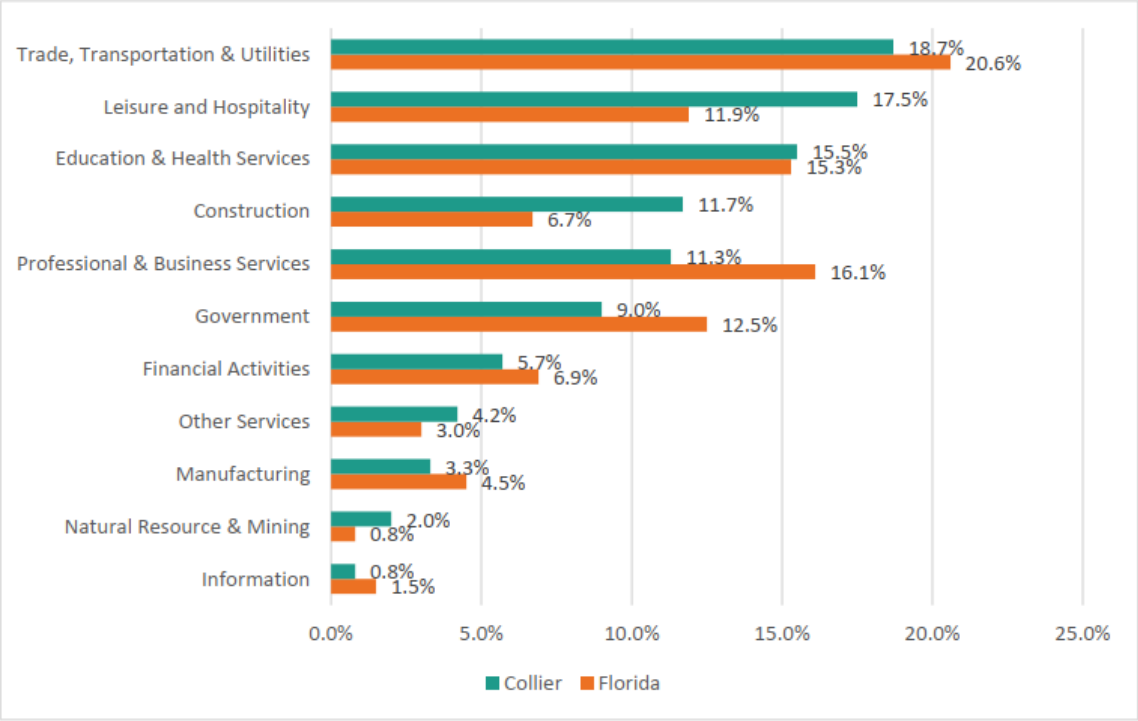
Figure 22: Workforce Data, Collier County and Florida, 2020

	Collier County	Florida
Labor force as a % of population age 18+	56.4%	58.8%
Unemployment rate (%)	6.9%	3.3%
Average annual wage, all industries	$54,829	$55,845
Per capita personal income*	$99,382	$52,426
Workers 16+ working outside county of residence	8.1%	18.2%

Source: The Florida Legislature, Office of Economic and Demographic Research

In 2020, the top three categories in Collier County were Trade, Transportation & Utilities, Leisure & Hospitality, and Education & Health Services, as shown in figure 23. The average annual wage for these categories are as follows: education - $62,558, trade - $48,629, and leisure - $33,379. Leisure and Hospitality are generally low paying jobs that do not include insurance and other benefits.

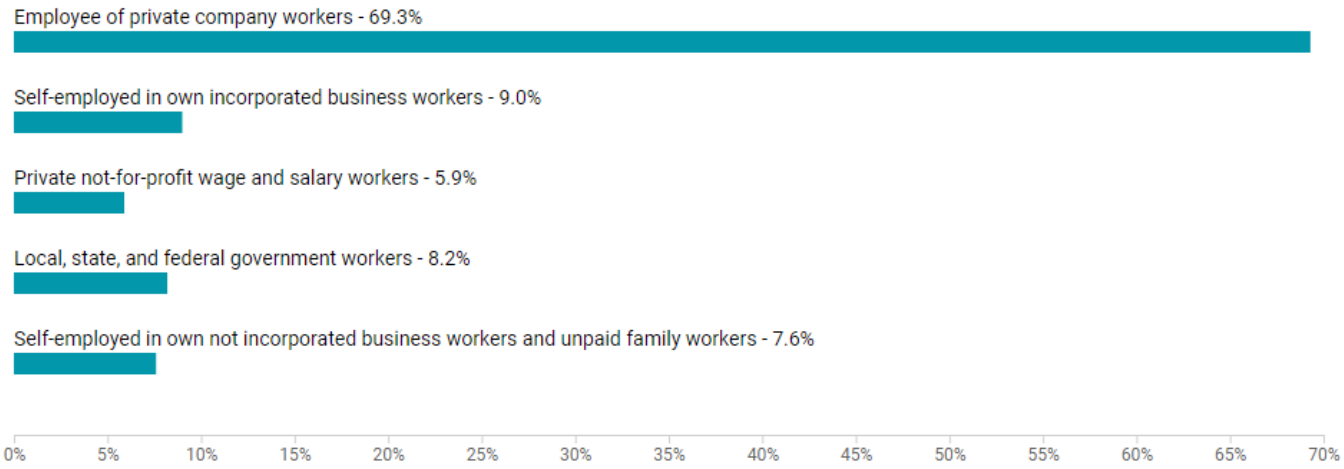
Figure 23: Average Annual Employment by Category, Collier and Florida, Preliminary 2020



Source: US Department of Labor, Bureau of Labor Statistics

The largest class of workers in Collier County are employees of private companies, making up 69.3% of the population. The other 4 classes of work put together make up the remaining 30.7%.

Figure 24: Class of Worker in Collier County, Florida, 2020



Source: Census; 2020 ACS 5-Year Estimates Subject Tables

- **The Impact of Economic Stability on Childhood Obesity**

There is substantial evidence to suggest that socioeconomic status (SES) and stability are highly associated with the prevalence of childhood obesity. According to Vazquez and Cubbin (2020), for high-income countries like the U.S., SES is negatively associated with overweightness, meaning that as the SES of an individual increases their likelihood of being classified as overweight or obese decreases and vice versa.

Several cross-sectional and longitudinal data analyses have investigated the relationship between low SES and pediatric obesity. A secondary data analysis of the Early Childhood Longitudinal Birth Cohort was conducted by Williams et al. (2017), revealing that SES was associated with kindergarten-aged children being overweight or obese. Another meta-analysis by Weaver et al. (2019) looked at a nationally represented sample of children and adolescents from the U.S. drawn from three different datasets: The National Health and Nutrition Examination Survey, the National Longitudinal Survey of Youth, and the Early Childhood Longitudinal Program. From this study, the researchers found that children and adolescents from middle-income backgrounds were 22% less likely to be overweight or obese than low-

income youths (Weaver et al., 2019). Similarly, children and adolescents from a high-income background were 13% less likely to be overweight or obese compared to middle-income young people and 32% less likely to be overweight or obese compared to low-income youths (Weaver et al., 2019).

C. Collier County Neighborhood and Built Environment

- **Neighborhood and Built Environment Data for Collier County**

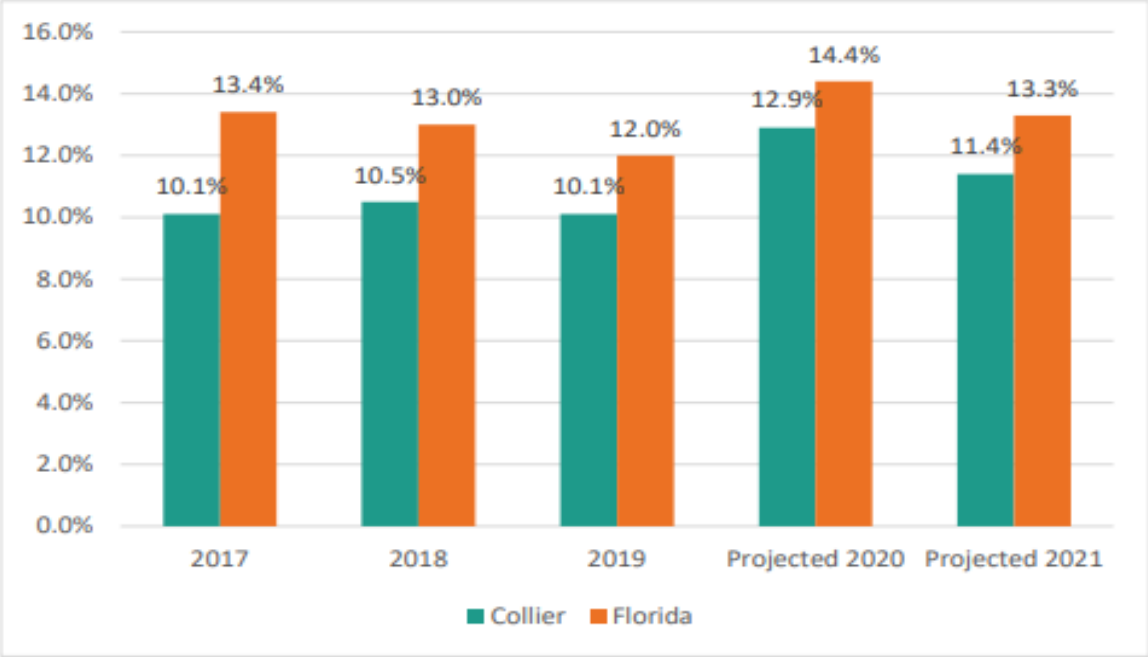
The built environment, the physical design of where people live, learn, work, and play, has a key role in the health of a community. Pathways, sidewalks, parks, trails, and recreational facilities make it safe and convenient for people to get active.

Food Access

In 2019, 37,520 people in Collier County were food insecure. It was estimated that 31 percent of food insecure people were above SNAP and other nutritional programs thresholds, while 69% were below the 200% threshold.

Figure 25 shows the overall food insecurity rate in Collier and Florida. According to Feeding America, it was projected that 12.9% of people in Collier County would be food insecure in 2020, meaning they would not have access to affordable, nutritional food. It was then projected in 2021 that 11.4% of the Collier population would be food insecure. Prior to the COVID-19 pandemic, the United States saw its lowest rates of food insecurity in over 20 years. Overall, Collier County has seen lower rates of food insecurity than Florida.

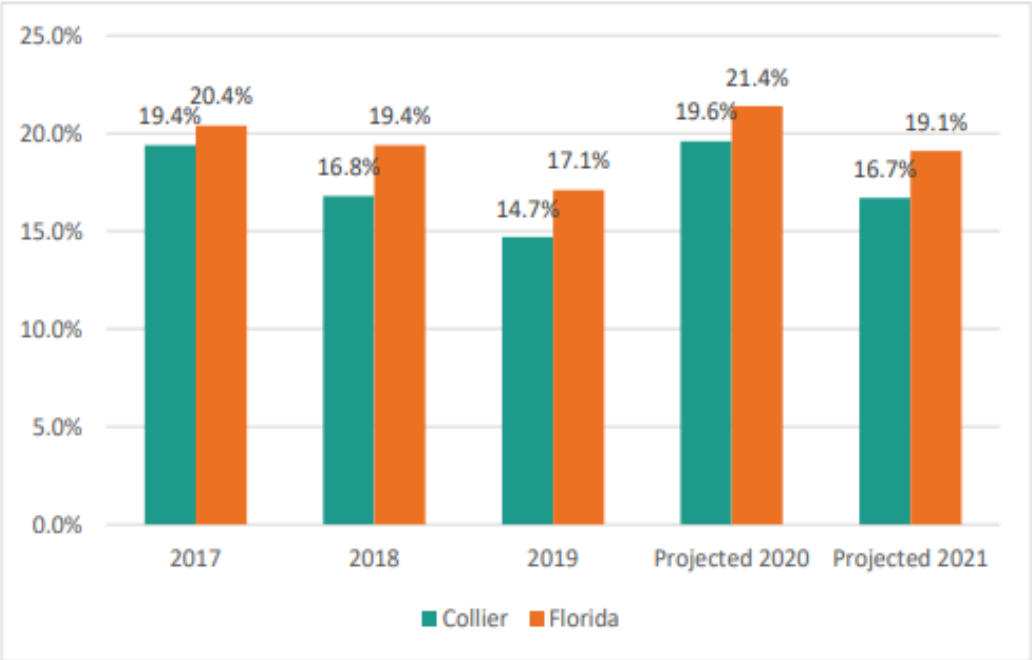
Figure 25: Food Insecurity Rate in Collier County and Florida, 2017-2019



Source: Feeding America, Map the Meal Gap

Figure 26 focuses strictly on child food insecurity. Much like the food insecurity rate, Collier's child food insecurity rate is lower than Florida's. However, these rates are higher across the board. Feeding America projected the child food insecurity rate to be 19.6% in 2020, and then 16.7% in 2021. Prior to the pandemic, the rate had been decreasing in both Collier and Florida since 2017. When combining the projected rate of both food insecurity rate and child food insecurity rate, that is a 27% increase in overall food insecurity rate.

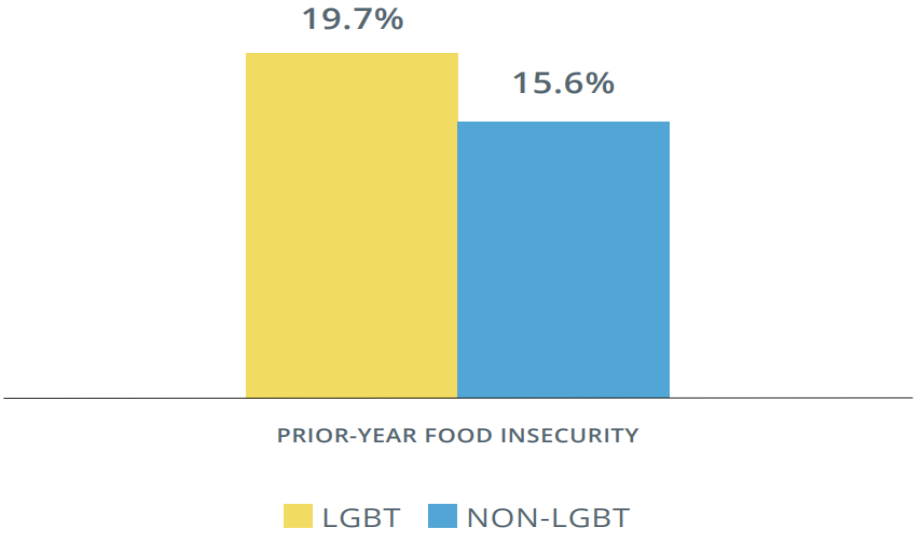
Figure 26: Child Food Insecurity Rate in Collier County and Florida, 2017-2019



Source: Feeding America, Map the Meal Gap

19.7% LGBT adults did not have enough money to buy food that they or their family needed in the prior year. That is nearly one in five LGBT adults.

Figure 27: Food Insecurity of Southwest Florida Adults by LGBT Identity

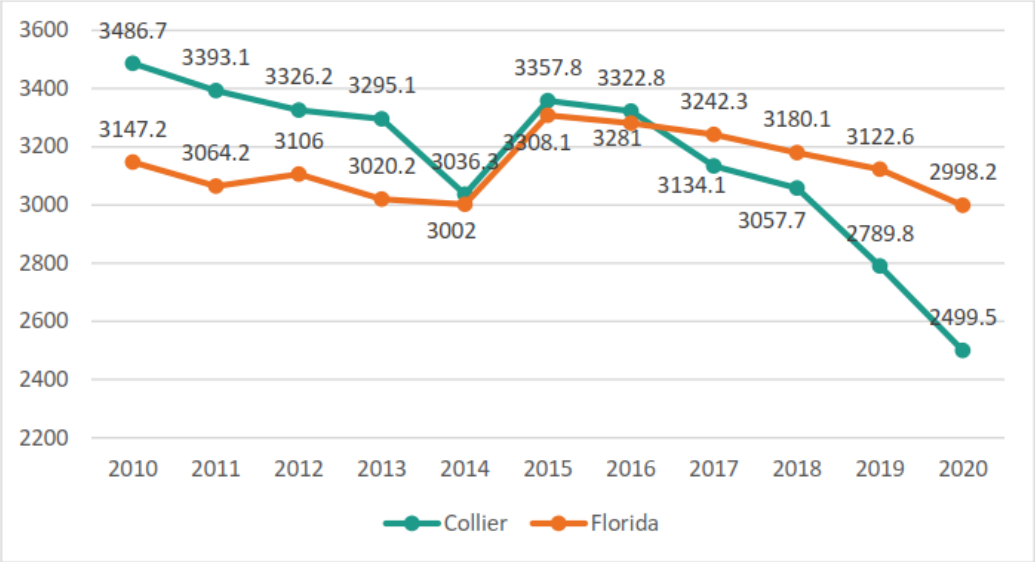


Source: A Portrait of LGBT Adults in Southwest Florida

The Supplemental Nutrition Assistance program (SNAP) provides benefits to purchase food at grocery stores, convenience stores, and some farmer's markets. In 2019, 7.9% of households in Collier received cash public assistance or Food Stamps.

The Women, Infants and Children Program (WIC) provides food and nutritional assistance to pregnant and new mothers with children less than 5 years of age. As shown in figure 28, the number of those eligible for WIC in Collier County has continued to decrease since 2015. In 2020, the total number of those eligible for WIC was 2,499.5.

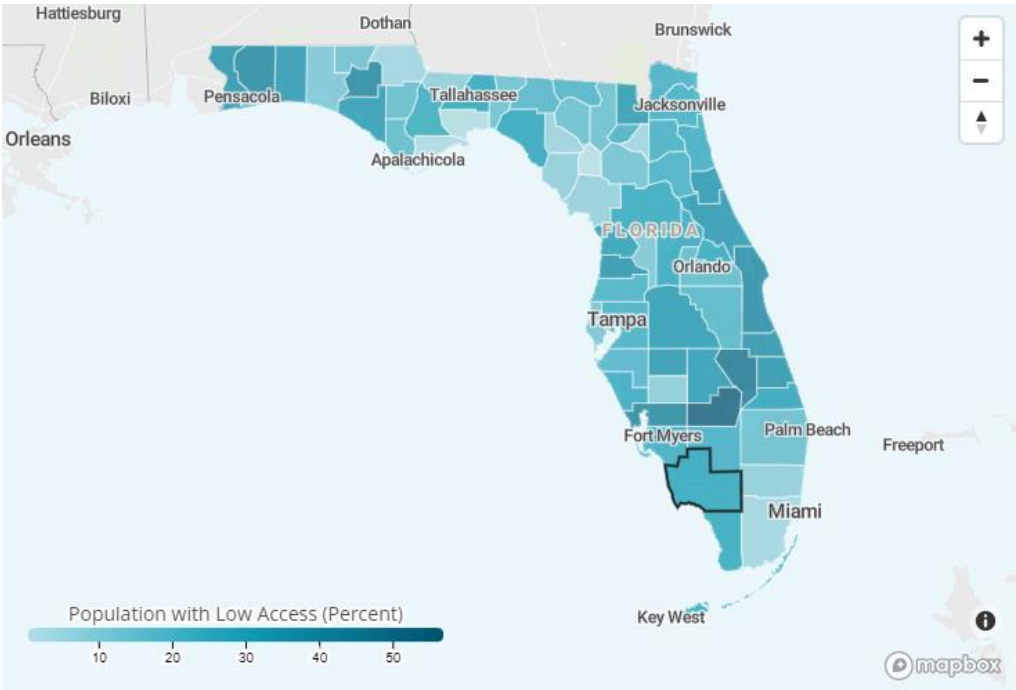
Figure 28: WIC Eligibles, Rate per 100,000 Population, Collier County, Florida, 2010-2020



Source: Florida Department of Health, WIC & Nutrition Services, FLWiSE

In 2015, it was calculated that about 28% of Collier's population had low access to a grocery store (figure 29). This means they were farther than one mile (in urban areas) or 10 miles (in rural areas) away from a supermarket. Neighboring counties such as Miami-Dade and Broward had rates of less than 10%.

Figure 29: Low Access to Grocery Store, 2015



Source: United States Department of Agriculture's Economic Research Service

The 2021 community well-being results (figure 30) depict that the percentage of individuals that do not have access to a grocery store have only increased over the years. In many categories shown below, Collier County's rates are lagging compared to both National and State values.

Figure 30: Food Access Results, 2021

Food Access	National Values	State Values		East Naples	Golden Gate	Marco Island	Naples
Percent of black population with low grocery access at 1 mile	31.98	30.32		52.13	65.27	40.59	31.21
Percent of population ages 0-17 with low grocery access at 1 mile	40.48	36.76		57.16	62.13	37.42	35.08
Percent of seniors with low grocery access at 1 mile	39.27	34.37		49.81	54.67	52.98	37.52
Percent of Hispanic population with low grocery access at 1 mile	32.31	32.48		57.80	63.15	40.21	30.76
Percent of Native Hawaiian/Pacific Islander population with low grocery access at 1 mile	35.41	33.23		60.56	65.83	39.43	32.30

Percent of households receiving SNAP with low grocery access at 1 mile	32.71	31.27		55.45	62.23	39.22	36.07
Percent of households with no vehicle access at low grocery access at 1 mile	27.48	25.85		57.85	67.87	52.85	37.13
Percent of low-income population with low grocery access at 1 mile	34.86	31.71		54.43	56.89	46.38	35.63
Percent of population with low grocery access at 1 mile	39.75	35.58		54.38	60.38	47.92	35.56
Proportion of tracts flagged for low supermarket access (0.5 mile urban, 10 mile rural)	0.69	0.81		0.84	0.50	1.00	0.99
Density of healthy to all food retailers (includes grocery and restaurants)	11.42	11.18		13.95	17.19	13.56	13.26

Source: Blue Zones Project, 2021 Community Well-Being Results

Housing

The total percentage of occupied housing units in Collier is 66.7%, while Florida sits at 81.9%. However, the percentage of vacant housing that occurs in Collier could be impacting the above percent. Due to the seasonal population in Collier, there is a much higher percentage of vacant housing seen compared to Florida (33.3% vs. 18.1%). Collier County has more owner-occupied housing and less renter-occupied housing compared to Florida. Since 2014, the median owner-occupied housing unit value has increased from $258,400 in 2014 to $366,600 in 2020.

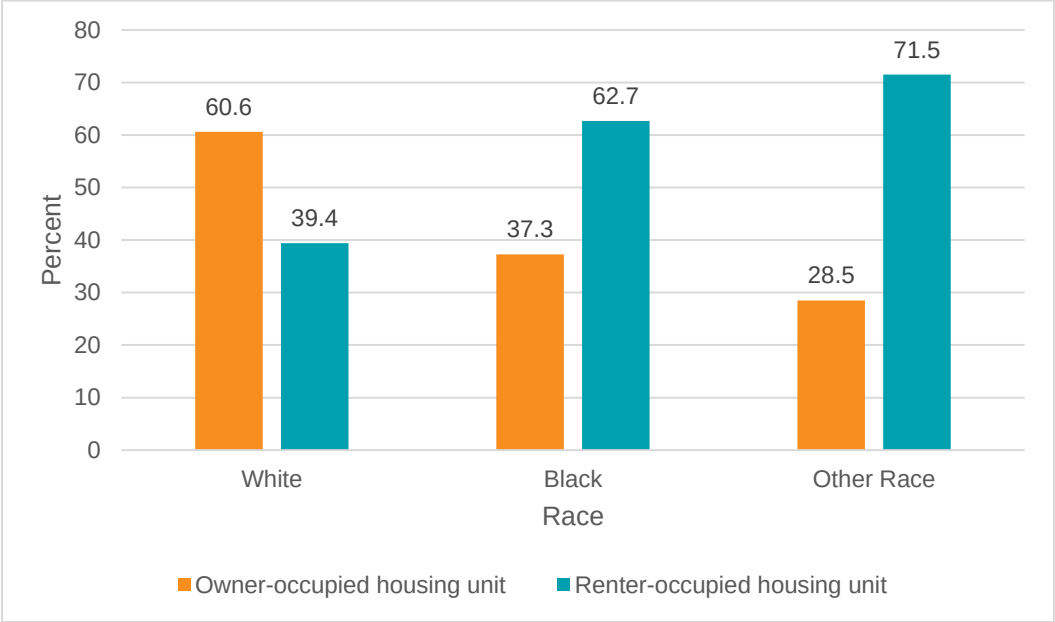
Figure 31: Housing Occupancy, Collier County, Florida, 2015-2019

	Collier County	Florida
Occupied Housing Units (%)	66.7%	81.9%
Owner-occupied (%)	73.3%	65.4%
Renter-occupied (%)	26.7%	34.6%
Household Size Owner-Occupied Unit (people)	2.45	2.63
Household Size Renter-Occupied Unit (people)	2.91	2.67
Vacant Housing (%)	33.3%	18.1%
Homeowner vacancy (%)	3.3%	2.3%
Rental vacancy (%)	8.8%	8.4%
Occupying Mobile Home (%)	5.2%	8.9%
Occupying Boat, RV, Van, etc. (%)	0.1%	0.1%
Median Value of Owner-Occupied Units (dollars)	$360,800	$215,300

Source: US Bureau of the Census, DP04 Selected Housing Characteristics

Figures 32 and 33 display the owner-occupied housing units vs. the renter-occupied housing units based on race and ethnicity. Notice how the trends of one category are opposite to the other category for the next two figures. The white population own the most amount of housing units and rent the least number of units, while the largest percent of the population classified as “other race” rent their homes and own the least number of homes.

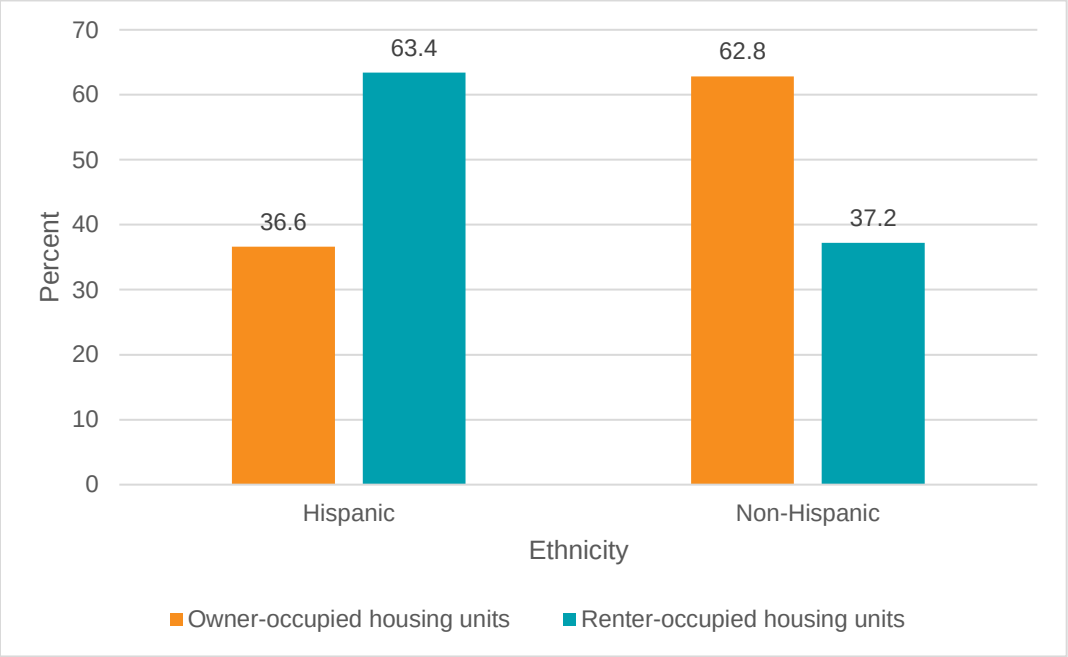
Figure 32: Housing Occupancy by Race, 2020



Source: FLHealthCHARTS

As shown below, the data values are practically mirroring each other. 62.8% of owner-occupied homes are made up of non-Hispanics, while only 36.6% of those from a Hispanic background own a housing unit.

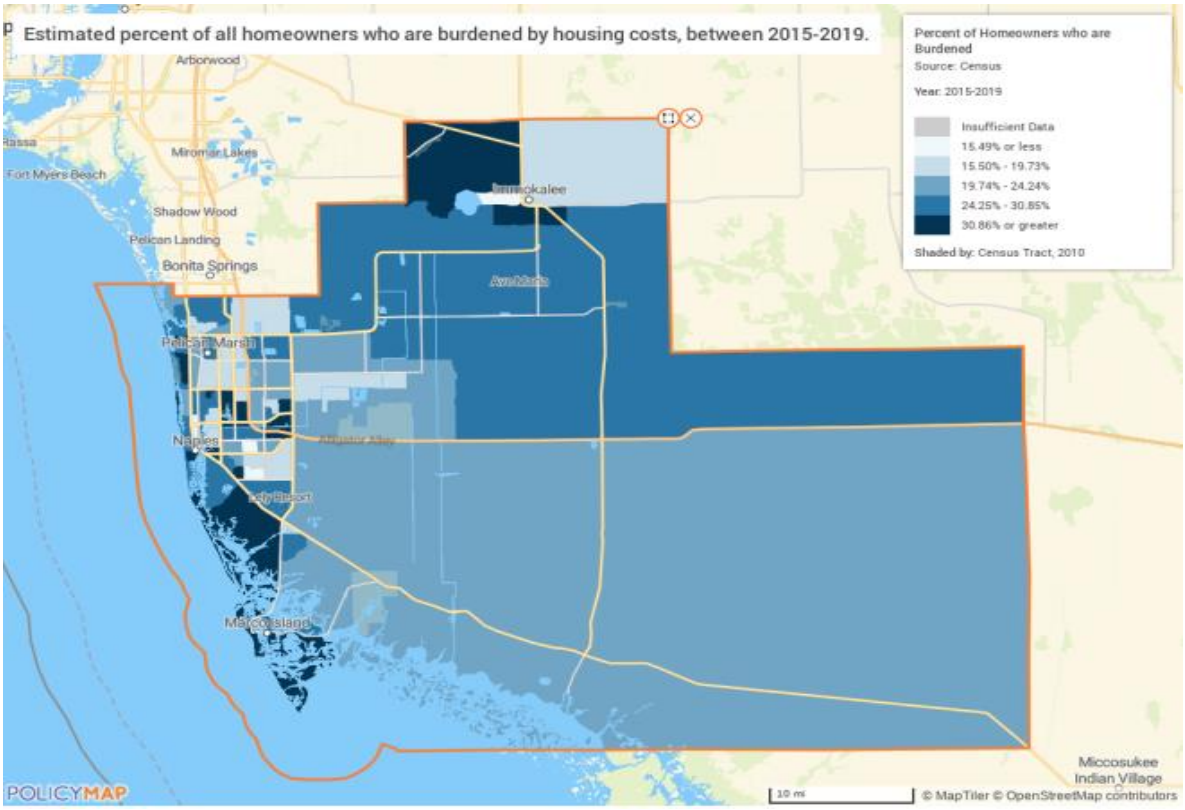
Figure 33: Housing Occupancy by Ethnicity



Source: FLHealthCHARTS

Housing cost burdened households, as defined by the U.S. Department of Housing and Urban Development, “are those who pay more than 30% of their income for housing”. Housing includes mortgage/rent, utilities, and basic necessities to live. In 2019, 25.3% of owner-occupied households were considered housing burdened. Figure 34 below, is a Census Tract map of Collier County showing the percent of homeowners who are housing burdened. The areas in darkest blue represent a percentage of 30.86 or greater.

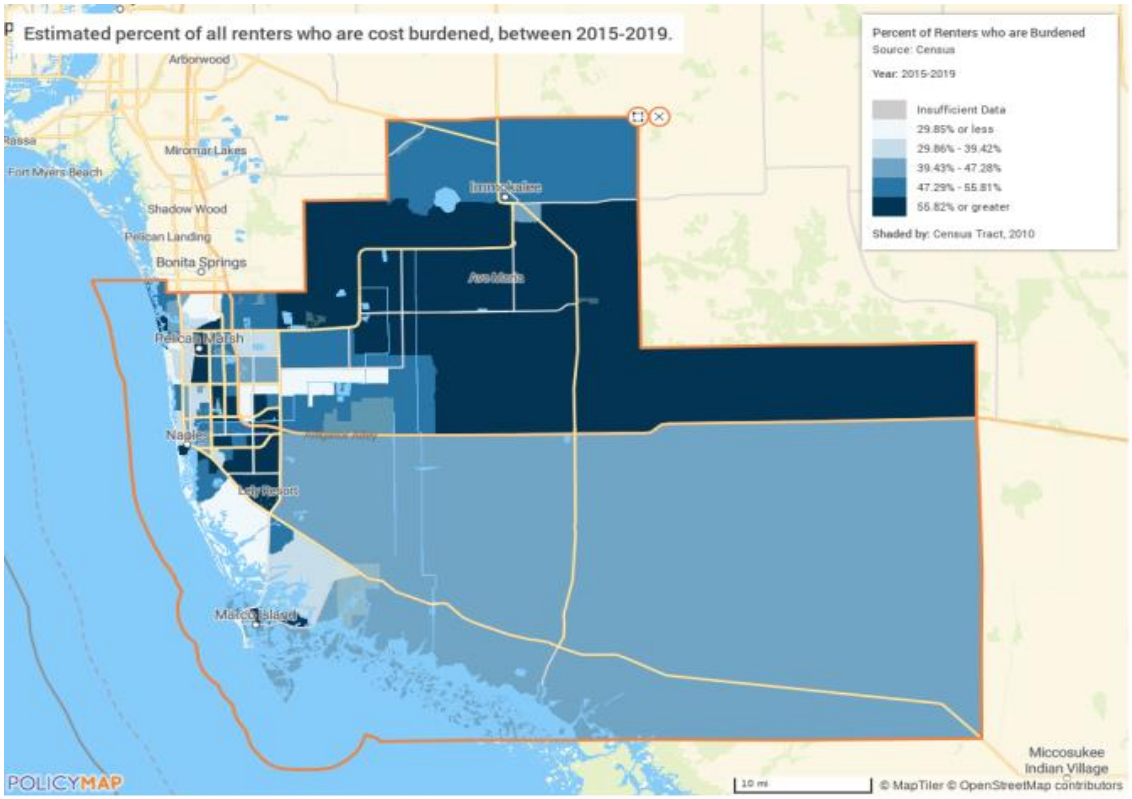
Figure 34: Estimated Percent of All Homeowners who are Burdened by Housing Costs, Between 2015-2019, Collier County



Source: US Census of the Bureau, 5 -year American Community Survey via PolicyMap

In 2019, 56% of renter-occupied households were considered housing burdened. Consistently, there has been a lower percentage of renters in Collier County that are housing burdened compared to Florida. However, in Collier County renters have a considerable higher percentage of being considered housing cost burdened than owners (56% vs. 25.3%). Below is a Census Tract map of Collier County showing the percentage of renters who are housing burden. The areas in darkest blue represent a percentage of 56 or greater.

Figure 35: Estimated Percent of all Renters who are Cost Burdened, Between 2015-2019, Collier County



Source: US Census of the Bureau, 5 -year American Community Survey via PolicyMap

According to the Hunger and Homeless Coalition of Collier County, the results of the 2022 Homeless Point in Time Count show 462 persons in Collier County were sleeping in emergency shelters, living in transitional housing, or in a place not meant for human habitation.

Collier County faces significant challenges in efforts to end homelessness. Several of these key challenges are high rent rates, lack of low-income housing, extremely low wages, and a higher concentration of less-educated workforce.

The Collier County Public School District Homeless Liaison's office reported 1290 homeless students registered in the school district. This count includes homeless students doubled up with other family or friends, those couch-surfing, unaccompanied youth, and children awaiting foster care placements.

Of the 168 children & youth reported as homeless, 76 were in emergency shelters, 51 were residing in transitional housing, 44 were unsheltered.

Figure 36: Homeless Snapshot, Collier County, 2022

	Totals
Special Populations	
Seniors	44
Veterans	22
Chronically Homeless	146
Homeless Students	1290
Children & Youth	168
Mental Health	149
Substance Use Disorder	151
Domestic Violence	161
HIV/AIDS	7
Sheltered	
Emergency Shelter	158
Transitional Housing	147
Unsheltered	
Street/Camps	157
Total Homeless	**462**

Source: CHSA: Hunger & Homeless Coalition of Collier County, Homeless Point-in-Time County, 2022

Transportation

Displayed in figure 37, the majority of Collier's population commute to work alone by car, truck, or van. Although, a higher percentage of Collier County workers carpool to work compared to Florida's average (12.4% vs. 9.2%). Collier County workers have on average a lower travel time than Florida.

Figure 37: Commuting to Work, Workers 16 years and over, Collier County and Florida, 2015-2019

	Collier	Florida
Car, truck, or van – drove alone (%)	75.1%	79.1%
Car, truck, or van – carpooled (%)	12.4%	9.2%
Public transportation, excluding taxicab (%)	1.6%	1.8%
Walked (%)	1.3%	1.4%
Other means (%)	2.3%	2.3%
Worked at home (%)	7.3%	6.2%
Mean travel to work (minutes)	24.7 minutes	27.8 minutes

Source: U.S. Census Bureau DP03 Selected Economic Characteristics

As figure 38 explains, more than 95% of households in Collier County have at least one vehicle available. About 14% of households have three or more vehicles, and 4.8% of households have no vehicles available.

Figure 38: Cars per Household, Collier County and Florida, 2015-2019

	Collier	Florida
Households with no vehicles available (%)	4.8%	6.3%
Households with 1 vehicle available (%)	40.3%	39.7%
Households with 2 vehicles available (%)	40.6%	38.4%
Households with 3 or more vehicles available (%)	14.3%	15.6%

Source: U.S. Census Bureau DP04 Selected Housing Characteristics

Parks & Conservation Lands

Collier County has a wide array of parks, beaches, and trails. There are 42 different type of parks that are available to Collier County residents and visitors; the various parks include: regional parks, community parks, neighborhood parks, aquatic parks, boat parks, and skate & BMX parks. Collier County has eight different beaches that attract visitors from across the globe.

Despite all these resources, when compared to the Florida average, Collier County has a smaller percentage of the population that live near a park or off-street trail system (figure 39). Florida's percent of population living within a ten-minute walk of a park is almost double the rate of Collier's (40.05% vs 20.34%).

Figure 39: Proximity to Parks and Trails, Collier County and Florida, 2019

	Collier	Florida
Percent of the population living within a ten-minute walk (1/2 mile) of a park	20.34%	40.05%
Percent of the population living within a ten-minute walk (1/2 mile) of an off-street trail system	11.30%	18.23%

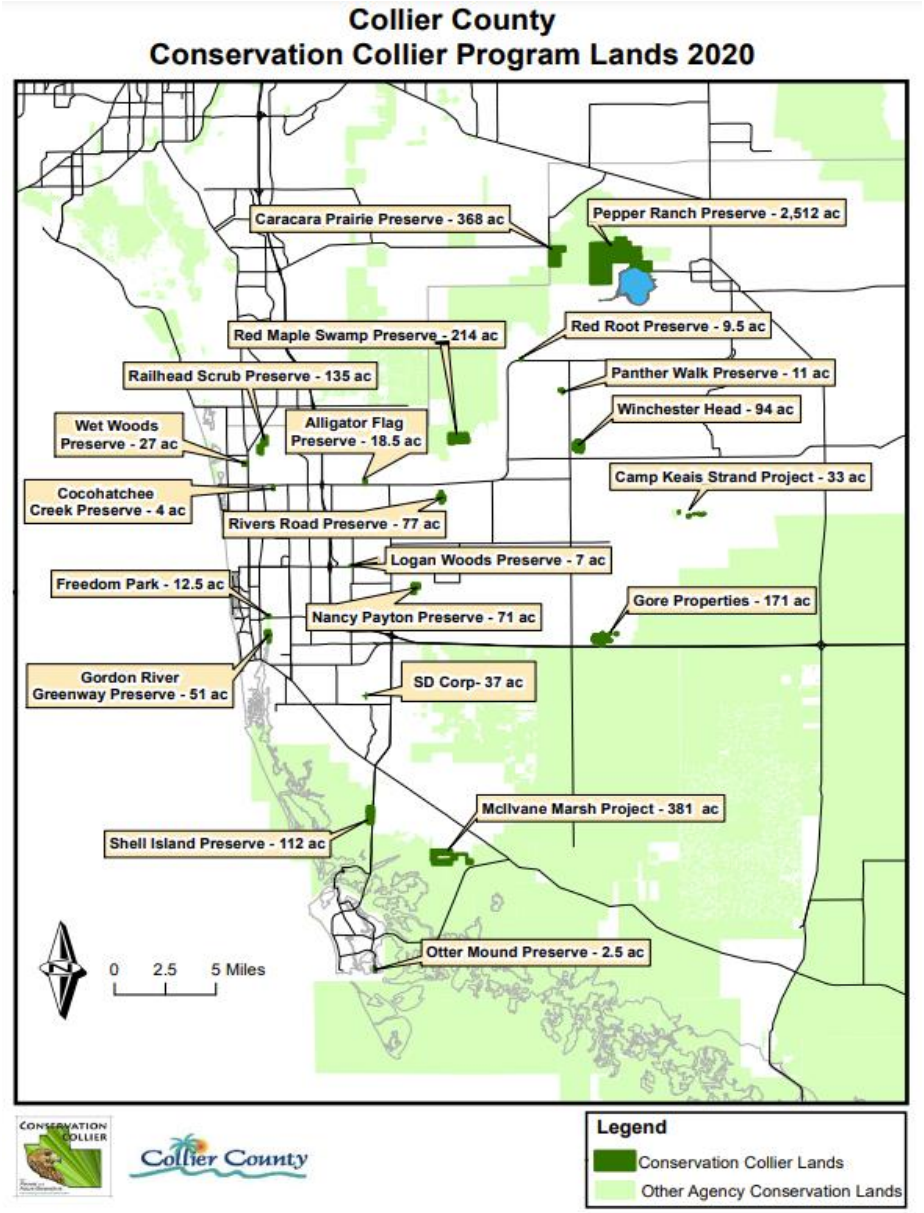
Source: Florida Environmental Public Health Tracking

About 77% of Collier County's land area is made up of conservation lands. By having a larger land area that is in conservation, improvements in water and air quality can be seen, which affects health outcomes. Conservation lands also provide access to recreation and environmental education opportunities for residents. With conservations lands in place, it

makes locating health care facilities and public health services easier because of the limitations on urban/sub-urban development.

According to Conservation Collier, funding that was attained from property taxes was used to acquire and manage 4,345 acres of preserve land in 21 different locations throughout Collier County. Figure 40 is a map of all Conservation Collier Preserves.

Figure 40: Conservation Collier Preserves Location Map, Collier County, 2020

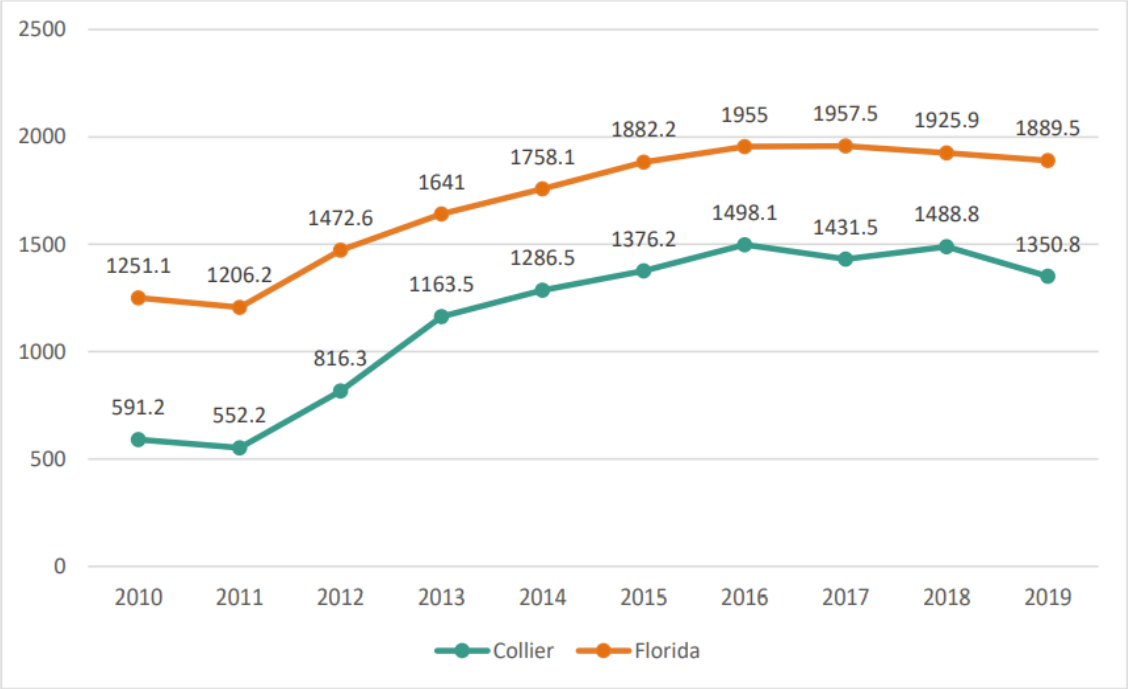


Source: Collier County Government, Conservation Collier 2020

Motor Vehicle Crashes

Collier County consistently has had a lower rate of motor vehicles crashes when compared to Florida's average. However, the data from figure 41 shows a steady increase in the average motor vehicles crashes in both Collier and Florida since 2011. It wasn't until 2018 that Collier saw a decrease.

Figure 41: Total Motor Vehicle Traffic Crashes, Rate per 100,000, Collier County and Florida, 2010- 2019



Source: Florida Department of Highway Safety and Motor Vehicles

Figure 42 shows that between 2017 and 2019, Collier had a slightly higher rate of alcohol confirmed motor vehicle traffic crashes, injuries, and fatalities.

Figure 42: Alcohol Confirmed Motor Vehicle Traffic, 3-year Rate per 100,000, 2017-2019

	Collier	Florida	Quartile
Motor Vehicle Traffic Crashes	25.2	24.2	2
Motor Vehicle Traffic Injuries	16.4	14.5	2
Motor Vehicle Traffic Crash Fatalities	2.2	1.8	2

Source: Florida Department of Highway Safety and Motor Vehicles

Complete Streets

According to the U.S. Department of Transportation, Complete Streets are designed and operated to enable safe use and support mobility for all users. Some of the aspects of complete streets include:

- Sidewalks
- Bicycle Lanes
- Bus Lanes
- Public Transportation Stops
- Crossing Opportunities
- Median Islands
- Accessible Pedestrian Signals
- Curb Extensions
- Modified Vehicle Travel Lanes
- Streetscape
- Landscape treatments

As a part of a review of Complete Streets, the U.S. Department of Transportation scored metropolitan statistical areas on a number of data categories. Figure 43 below shows scores for each data category. These scores are on a scale of 0 to 100, where a higher value is better.

The state of Florida currently has a complete streets policy in place, but at the time of review, the Collier County area did not. The Naples-Immokalee-Marco Island metropolitan statistical area (msa) scored better than the state of Florida in all categories, except for road traffic fatalities, in which Collier and Florida share the same score. Based on the results, there are opportunities for improvement in Collier regarding road traffic fatalities by bicycle and commute mode share – walk.

Figure 43: Scores, Naples-Immokalee-Marco Island Metropolitan Statistical Area and Florida, 2015

	Naples-Immokalee-Marco Island msa	Florida
Commute Mode Share – Auto	80	40
Commute Mode Share – Transit	68	48
Commute Mode Share – Bicycle	74	64
Commute Mode Share – Walk	15	10
Proximity to Major Roadways	100	48

Source: U.S. Department of Transportation, Transportation and Health Indicators

Streets that lack qualities of a "Complete Street" would be found in Immokalee. However, a development plan is in place to improve Immokalee's streets. The Immokalee Complete Streets (ICS) Design/Build Project will create a network of Complete Streets and improve transit by filling in sidewalk gaps, creating bicycle boulevards, and improving bus stops. These improvements will increase safety and accessibility for all residents of Immokalee. Better facility continuity will not only improve safety but also connectivity, thus promoting greater walking, transit, and bicycling activity.

More than $13 million of the estimated $23 million needed for this project is being funded from a Transportation Investment Generating Economic Recovery ("TIGER") Grant. This grant was designed to increase the existing pedestrian network by providing new facilities to accommodate bicyclists and pedestrians where none currently exist. The project is scheduled to start on later 2022.

The Immokalee Complete Streets project includes:

- 20 miles of concrete sidewalks
- 1 mile of multi-use pathway
- 20 miles of upgraded drainage/ditch and swales
- 9 enhanced bus stop amenities/shelters which include bus shelters, benches, and bike racks
- Construction of a Bus Transfer Station next to the Collier County Health Department on Immokalee Drive

- Comprehensive streetlighting improvements within the project area
- 5-mile bicycle boulevard network with traffic calming and signage

- **The Impact of Neighborhood and Built Environment on Childhood Obesity**

The relationship between childhood obesity and the neighborhoods and built environments they occupy is well substantiated, with several aspects of the neighborhood affecting weight. Young people who experienced an increase in the density of walkable intersections had a lower BMI and risk of being classified as obese, especially in girls and suburban children (Jia et al., 2019). Additionally, boys and girls who lived in higher (but not the highest) residential density neighborhoods showed less overweight and obesity risks (Jia et al., 2019). One study found that boys' risk of overweightness and obesity was positively correlated with the distance between their residence and a local park (Yang et al., 2018). When it comes to adolescents, moderate to vigorous physical activity (MVPA) was positively associated with accessibility to shops and stores and high numbers of neighborhood physical activity resources. Neighborhood environment characteristics can also interact with psychosocial attitudes and behaviors related to obesity, namely that a high number of physical activity resources positively interacts with friendship norms and support (D'Angelo et al., 2017).

Some aspects of the built environment that have been considered as both a measurement and mean for obesity intervention is the accessibility of sidewalks, parks and beaches, and streets. One study by Wei et al. (2020) investigated the accessibility of sidewalks in association with various factors related to childhood obesity. The researchers found that there was a positive association between sidewalk accessibility and higher physical activity and lower BMI. Another study by Christian et al. (2017) looked at the association between accessibility of parks, beaches, and street connectivity with recreational walking, showing that positive perceptions of accessibility to these resources were independent determinants of recreational walking. Additionally, local recreational walking increased by nine minutes per week (a 12% increase in frequency) for the presence of each of these neighborhood attributes.

D. Collier County Social and Community Context

- **Social and Community Context Data for Collier County**

Healthy People 2030 defines social and community context as the relationships and interactions people have with their family, friends, co-workers, and community members, and how those relationships impact one's health and well-being.

Many people face challenges and dangers they can't control — like unsafe neighborhoods, discrimination, or trouble affording the things they need. This can have a negative impact on health and safety throughout life.

Positive relationships at home, at work, and in the community can help reduce these negative impacts. But some people — like children whose parents are in jail and adolescents who are bullied — often don't get support from loved ones or others. Interventions to help people get the social and community support they need are critical for improving health and well-being.

Safety

Figure 44 shows that Collier County's rates for all crimes and domestic violence are lower than the Florida average. The three most common crimes that occur in Collier are larceny, domestic violence, and aggravated assault.

Figure 44: Crime in Collier County, 3-Year Rate per 100,000, 2017-2019

	Collier	Florida	Quartile
Aggravated Assault	182.9	268.9	1
Burglary	155.5	356.4	1
Total Domestic Violence Offenses	451.3	505.2	2
Forcible Sex Offenses	49.0	54.4	2
Homicide	2.6	6.6	1
Larceny	944.7	1,792.4	2
Motor Vehicle Theft	71.2	195.9	1
Murder	2.3	5.2	1
Robbery	40.1	82.3	3

Source: Florida Department of Law Enforcement; Florida Department of Health, Bureau of Vital Statistics

Alcohol Consumption

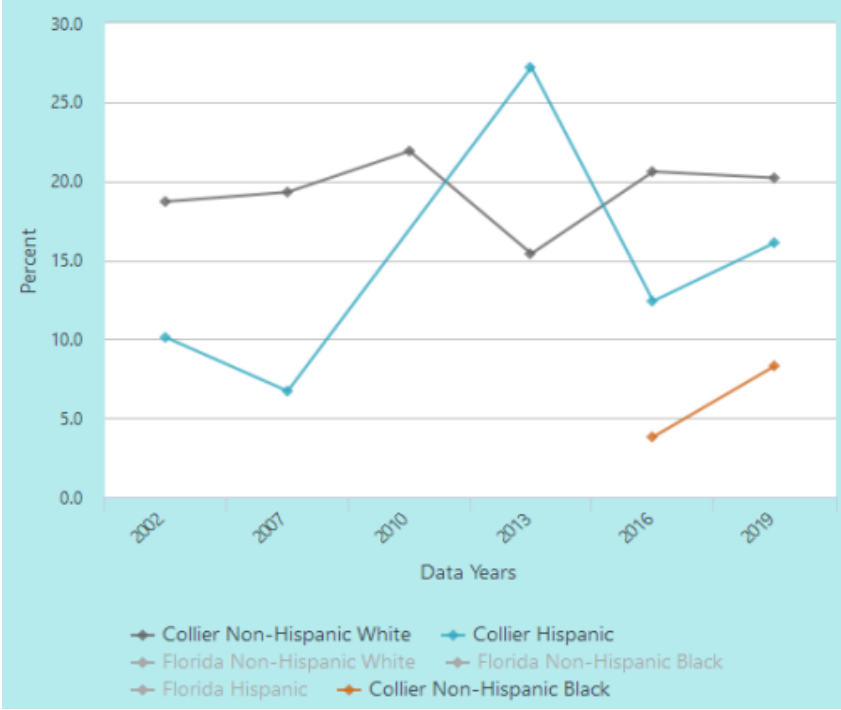
Many social and economic factors play into one's decision to consume alcohol. In 2019, the overall binge drinking rate in Collier County was 18.4%. This was exactly a 2% increase since 2016 (16.4%). As Florida's rate decreased to 15% in 2010, Collier's rose to over 19%.

Figure 45: Adults who engage in heavy or binge drinking, overall, 2002-2019

Source: Florida Behavioral Risk Factor Surveillance System telephone survey conducted by the Centers for Disease Control and Prevention (CDC) and Florida Department of Health Division of Community Health Promotion.

Figure 46 shows the percentage of adults who engaged in heavy or binge drinking by race/ethnicity. In 2019, the highest percent of heavy or binge drinking documented belonged to non-Hispanic White people, at about 20%. It is interesting to note that in 2013 the rate of Hispanic heavy/binge drinking was at its highest at 27.2%, when the rate was just only at around 7% in 2007. In that same year that the Hispanic population experienced its highest percentage, the rate decreased to 15.4% in the non-Hispanic White community.

Figure 46: Adults who engage in heavy or binge drinking in Collier County by race/ethnicity, 2002-2019

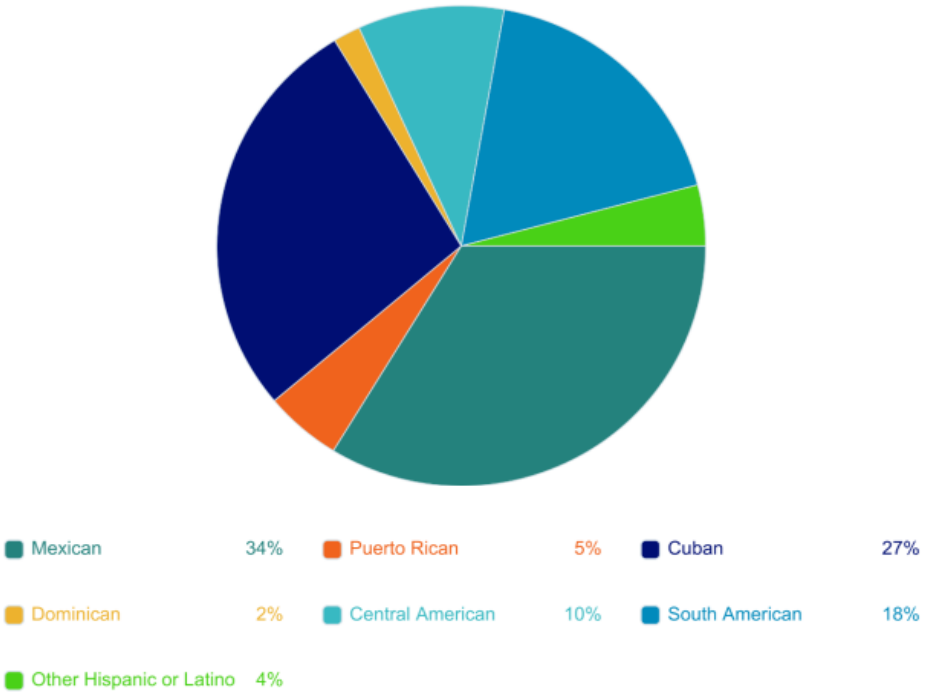


Source: Florida Behavioral Risk Factor Surveillance System telephone survey conducted by the Centers for Disease Control and Prevention (CDC) and Florida Department of Health Division of Community Health Promotion.

Culture and Language

As of 2020, 28.6% of Collier County's population were Hispanic (figure 47). It is projected that this population will continue to increase over the next few years. Below is a pie chart depicting Hispanic or Latino origins in Collier. This gives a better idea of all the cultural influences seen in Collier. The largest group who identifies as Hispanic or Latino are of Mexican origin (34%). The next most common origins are Cuba (27%), South America (18%), and Central America (10%).

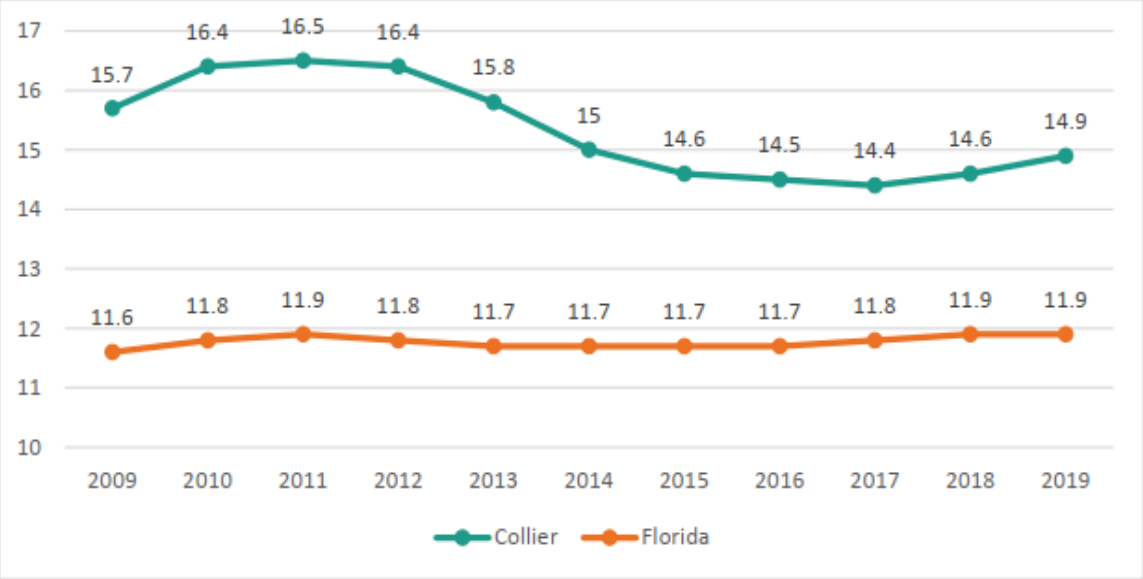
Figure 47: Hispanic or Latino Origin, Collier County, 2019



Source: US Bureau of the Census, American Community Survey, Table B03001

Figure 48 shows that in 2019, it was reported that 14.9% of the population 5 years and up speak English less than very well in Collier County. There has consistently been a higher percentage of this population in Collier compared to Florida. This may be due to Collier having a larger Hispanic/Latino population than most other counties.

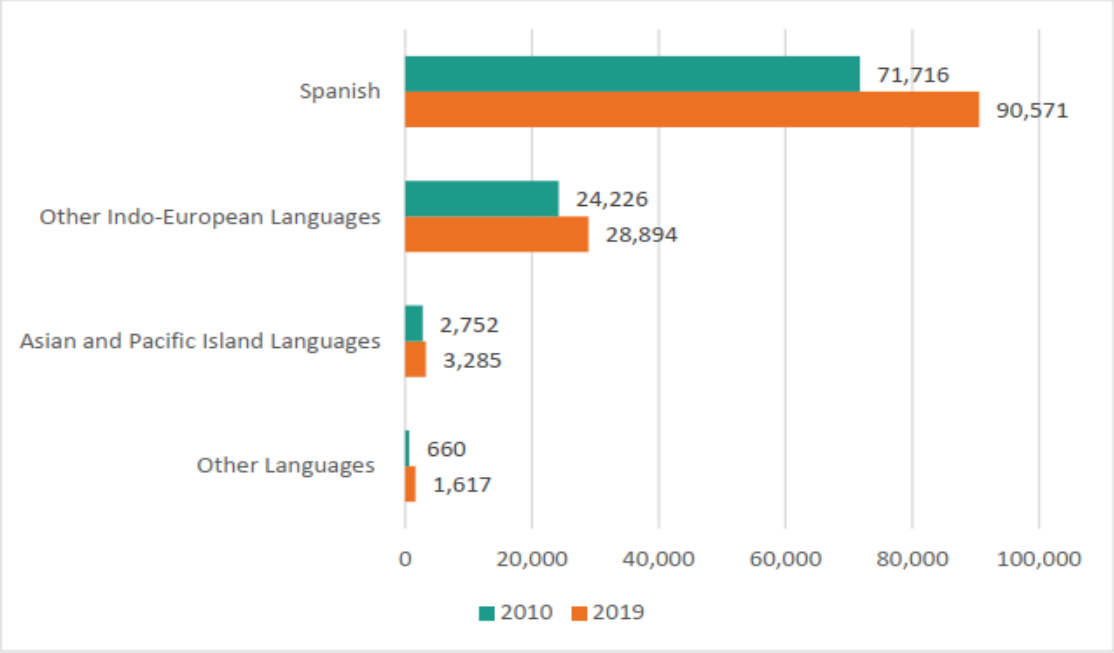
Figure 48: Population 5+ that Speak English Less Than Very Well, Collier County and Florida, 2009-2019



Source: US Bureau of the Census, American Community Survey, Table B06007

As depicted in the figure below, there is a huge portion of Collier's population that speak a language at home that is not English, and it has only been increasing since 2010. In 2019, of households that speak languages other than English, 73% spoke Spanish.

Figure 49: Collier County Population by Language Spoken at Home (Other than English), 2010, 2019



Source: US Census of the Bureau, American Community Survey, Table S1601. *Population 5 years and over.

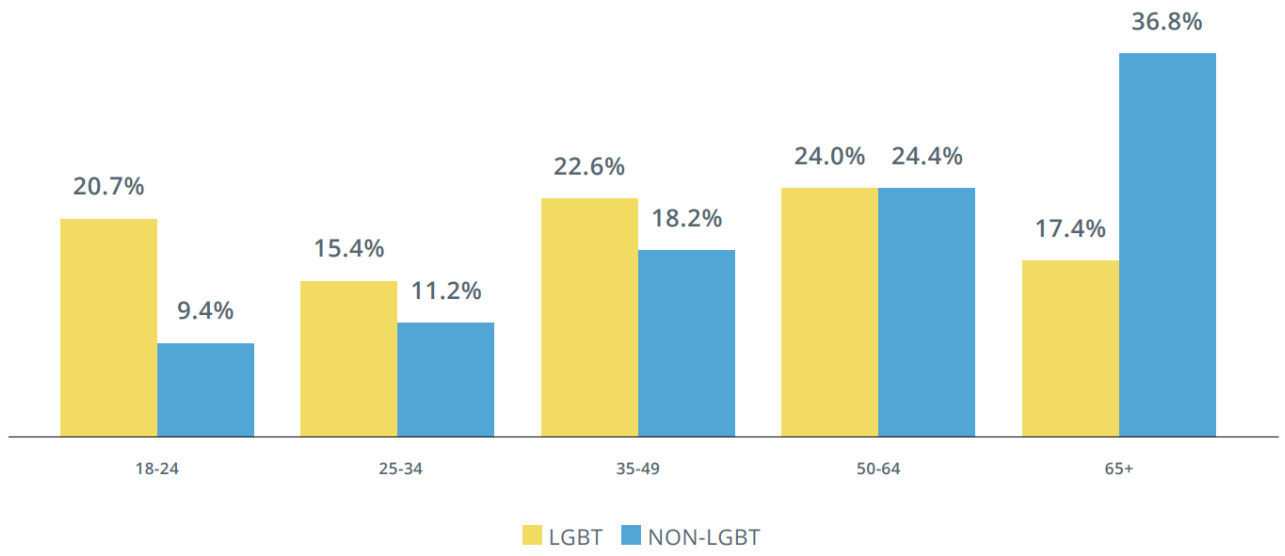
There is also a big population of households in Collier where Creole is their first language. This number falls under the “Other Indo-European Languages”.

LBGT Community

There are approximately 9,955 LGBT adults in Collier County and 36,000 LGBT adults in Southwest Florida (Charlotte, Collier, Glades, Hendry, and Lee Counties). 66.1% of LGBT adults are in the labor force.

The age distribution of LGBT adults is shown in figure 50 below. 20.7% LGBT adults are 18-24 years of age, 15.4% are 25-34, 22.6% are 35-49, 24.0% are 50-64, and 17.4% are age 65 and up. LGBT adults are younger than non-LGBT adults by an average of 10 years. 47% of LGBT adults are female and 53% are male.

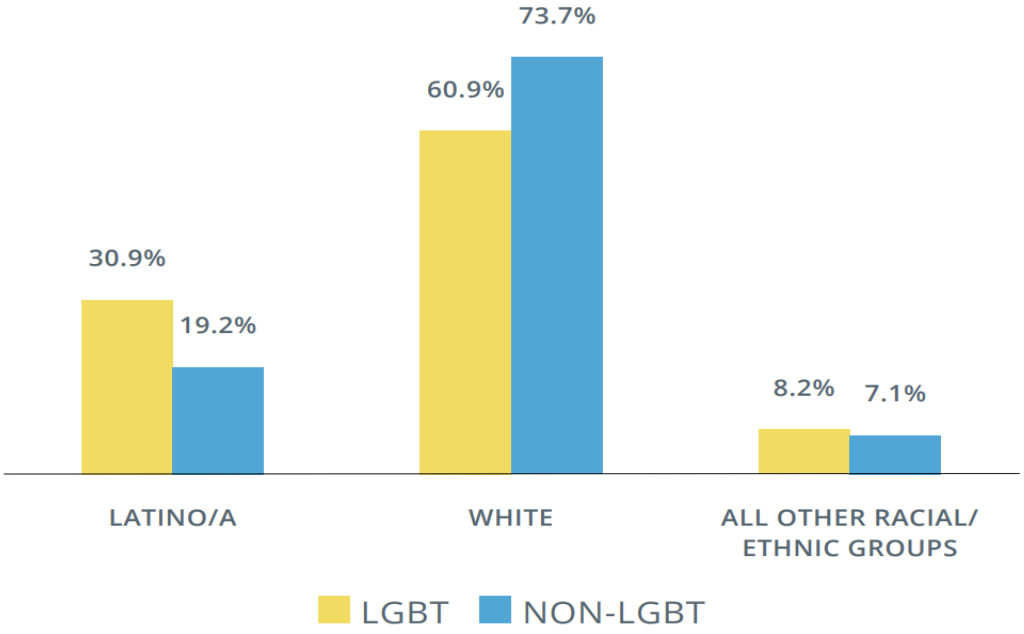
Figure 50: Age of Southwest Florida Adults by LGBT Identity



Source: A Portrait of LGBT Adults in Southwest Florida

Almost a third of LGBTQ+ adults in Southwest Florida are Hispanic (31%), the majority are White (61%). The remaining 8.2% is comprised of Black or African American, Asian, Native American or Alaska Native, Native Hawaiian or other Pacific Islander, or more than one race.

Figure 51: Race-ethnicity of Southwest Florida Adults by LGBT Identity



Source: A Portrait of LGBT Adults in Southwest Florida

Veterans

In 2019, it was estimated that the total number of veterans in Collier County was 27,416. 26,218 were men and 1,198 were female. About 96% of veterans were White, and 2.4% were Black or African American. About 5% were Hispanic or Latino (of any race), and around 91% were White alone, not Hispanic or Latino.

Disabilities

Adults living in the U.S. with disabilities are more likely to be obese, smoke, have heart disease and diabetes. 24% of people 65 years and older have a disability in Collier County. 29.8% of veterans reported to have a disability, and only about 13% of the general population in Collier County reported to have a disability. The figures below include people of all ages living with a disability.

Figure 52: Population Living with Disabilities, 2020

Collier County	Florida	United States
11.8%	13.6%	12.7%

Source: U.S Census Bureau, 2020

Figure 53: Types of Disabilities in Collier, 2020

Types of Disabilities	Disability (Collier)	No Disability (Collier)
Obese	38%	26%
Smoke	28%	13%
Heart Disease	12%	4%
Diabetes	16%	7%

Source: U.S. Census Bureau, 2020

In figure 54 the percentage of people living with disabilities is shown, specifically the difference between people of all ages and those 65 years and older.

Figure 54: Disabilities in Collier County

Disabilities	All Ages	65 years and older
Hearing Difficulty	4%	10%
Vision Difficulty	2%	4%
Cognitive Difficulty	3%	5%
Ambulatory Difficulty	7%	14%
Independent Living Difficulty	5%	8%
Self-Care Difficulty	2%	5%

Source: U.S Census Bureau, 2020

Unfortunately, the data remains limited for certain priority populations like the LGBTQ+ community, people with disabilities, and veterans. However, DOH-Collier plans to continually review the Health Equity Plan and expand on these priority populations as new data becomes available. DOH-Collier also plans to collaborate and build new partnerships with community organizations that address specific priority populations.

- **The Impact of Social and Community Context on Childhood Obesity**

The stigmatization of children and adolescents with obesity and around weight in general is widespread and causes much harm. This stigma is often propagated and tolerated in society because of beliefs that the shame from stigmatization will motivate people to lose weight (Pont et al., 2017). However, rather than motivating positive change, stigma contributes to behaviors such as binge eating, social isolation, avoidance of health care services, decreased physical activity, increased weight gain, and impaired quality of life. The media plays a significant role in a society's understanding of its values and norms, especially when it comes to children and adolescents. Myths and misinformation about obesity, nutrition, and physical activity in media reinforces weight stigmatization.

There are several clinical and advocacy recommendations that have been suggested to address weight stigmatization, including improving clinical settings to fit best practices, using empathetic and empowering counseling techniques, advocating for the inclusion of training and education on weight stigma in medical school and residency programs, and empowering families to be advocates against weight stigma in the home and school (Pont et al., 2017). When it comes to training and educating medical students and residents, there is a high variation between different schools' curricula regarding implicit and explicit bias, changes in attitude towards obesity, weight change, obesity knowledge, counseling confidence, intent to counsel, and counseling quality (Mastrocola et al., 2019). Other studies have demonstrated that using the counseling technique of motivational interviewing found greater improvement of BMI than usual care, at least for specific populations (Brown & Perrin, 2018; Davoli et al., 2013; van Grieken et al., 2013; Wong & Cheng, 2013).

Findings from the PEDS Obesity HEDA show that families of Hispanic descent struggled with weight issues more frequently than other patients, and many of the practitioners reasoned that this was because of cultural beliefs. Exactly what cultural beliefs lead Hispanic families to uniquely toil with BMI differed among the participants, however, two of the focus group members discussed how they believe there has been a cultural shift in the U.S. where overweightness is seen as acceptable, perhaps because it is becoming so prevalent, "...many parents and peers believe that it is normal." One other stakeholder talked about the differences between U.S. culture and others, believing that other cultures do not see weight as much of a serious health indicator. This was especially true for immigrant families and first-generation children; being overweight in other cultures can be seen as desirable, because it is an indicator of being well-fed and having wealth.

E. Collier County Health Care Access and Quality

- **Health Care Access and Quality Data for Collier County**

Access to health care and health services implies the timely availability and use of personal health services to achieve the best health status outcomes. In order for the population of a community to gain access to health services the following are requisites:
a) Obtaining entry into the healthcare system.
b) Locating and accessing a location where the needed healthcare services are provided.
c) Accessing a health care provider with whom the patient can communicate with confidence.

Lack of access to health care or failure to access health care and health care services has a direct impact and effect on the health status of a community, county, and state.

Health insurance coverage assists patients in gaining access to the healthcare system. Lack of health insurance is highly correlated with failure to receive medical care, with early and premature death and with overall poor health status.

As the United States does not have a universal healthcare model, private health insurance coverage is an integral mainstay for access to healthcare for the core working population 18–

64 years of age and vital to the personal well-being and health of individuals in Collier County and Florida.

Health Coverage

Figure 55 below shows select payor sources for hospital emergency department visits for all Collier County residents discharged from any Florida hospital by age groups.

61 percent of visits from ages 0 through 17 were covered by Medicaid. For those 18 to 39 years of age the leading payer source was private insurance. This age group had the highest percentage of "Self-Pay" compared to the other age groups. This aligns with the fact ages 18 to 39 tend to have a higher proportion of people without health insurance. Those 45 to 64 years of age had the highest percentage of visits paid using private health insurance as the payor source. The highest user of Medicare were those 65 years and over.

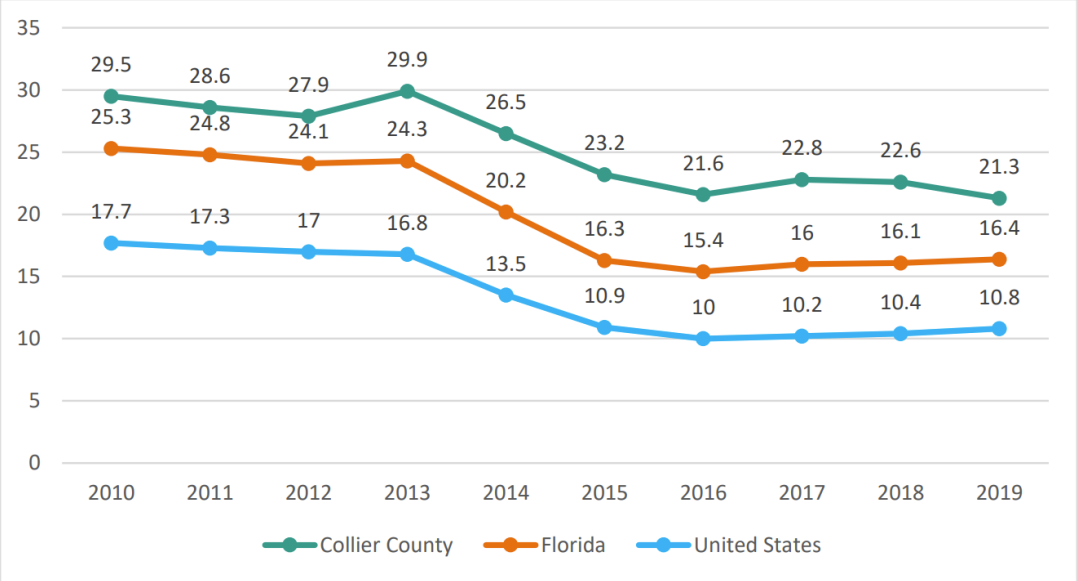
Figure 55: Payor Source for Hospital Emergency Department Visits by Age Groups, Collier County Residents Discharged from any Florida Hospital, 2019

	Medicaid		Medicare		No Charge/Charity		Other		Private, Includes HMO		Self-Pay	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0-17 Years	11,802	61%	1	0%	154	1%	2,771	14%	3,090	16%	1,403	7%
18-39 Years	4,374	22%	376	2%	1,207	6%	2,354	12%	6,785	33%	5,232	26%
40-64 Years	3,065	14%	2,287	11%	1,058	5%	2,317	11%	9,801	45%	3,180	15%
65+ Years	1,991	8%	21,310	82%	35	0%	1,199	5%	1,087	4%	294	1%

Source: Broward Regional Health Planning Council, Hospital Inpatient & Emergency Department Analytical System

In 2019, it was estimated that 21.3% of Collier County residents under the age of 65 were without insurance. The following figures (56-61) break out the population who are uninsured by age, sex, race and ethnicity, educational attainment, and income.

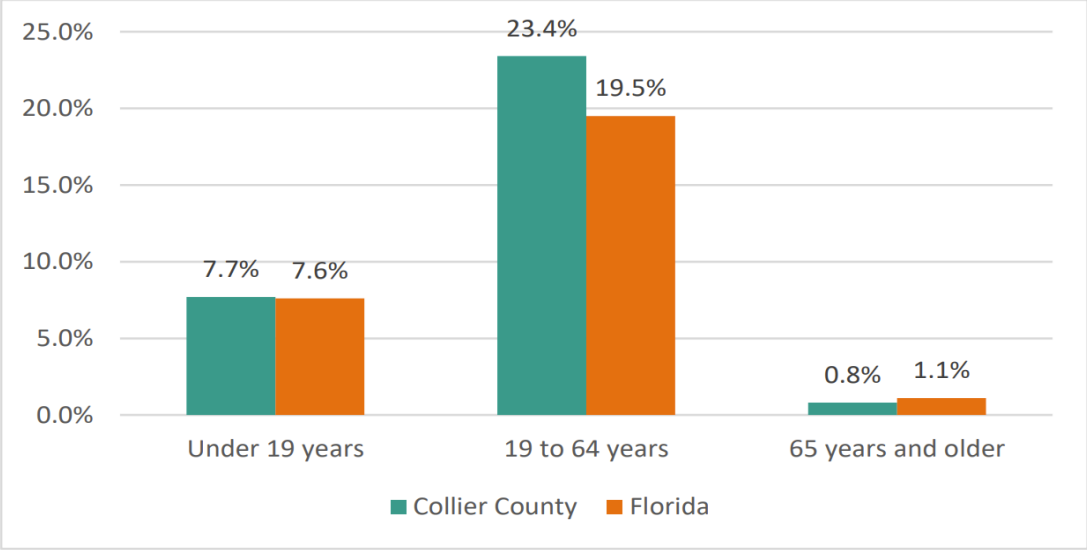
Figure 56: Percentage of the Population Under 65 Years of Age who are Uninsured, 2010-2019, Collier County, Florida, and United States



Source: U.S. Census Bureau, Small Area Health Insurance Estimates

In 2019, 23.4% of Collier County's core working population (19-64 years of age) were uninsured. This was about 4% above the Florida average. Populations under 19 years and 65 years and older had much lower rates of uninsured between both Collier County and Florida. The reason these rates could be a lot lower than the percentage seen in the 19 to 64 age group is because of Medicaid and Medicare coverage.

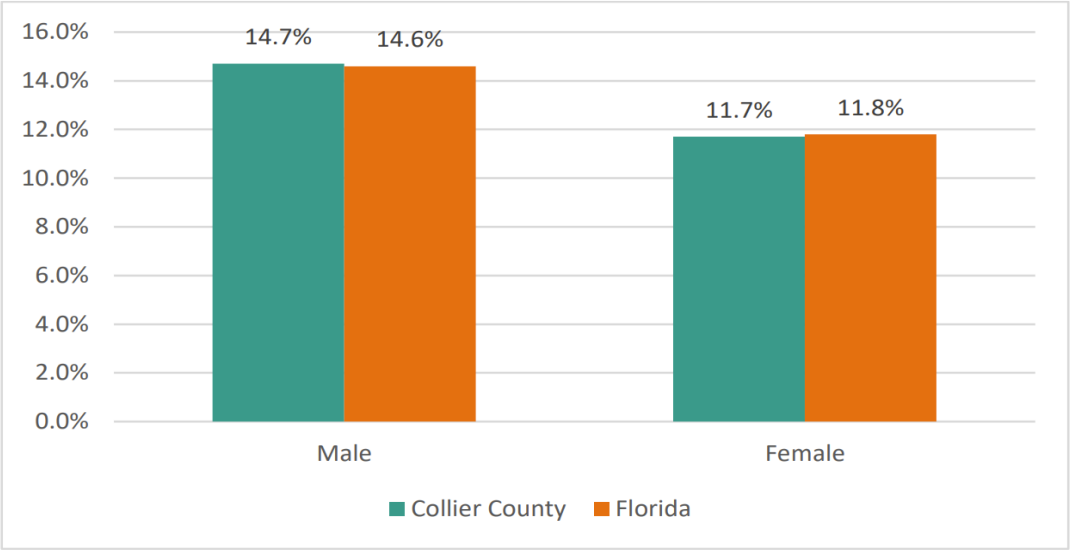
Figure 57: Percentage Uninsured by Age, 2019, Collier County and Florida



Source: US Bureau of the Census, American Community Survey, Table S2701

As shown in the figure below, Both Collier and Florida saw slightly higher percentages of males over females who were uninsured in 2019. This data includes people who are both over and under the age of 65.

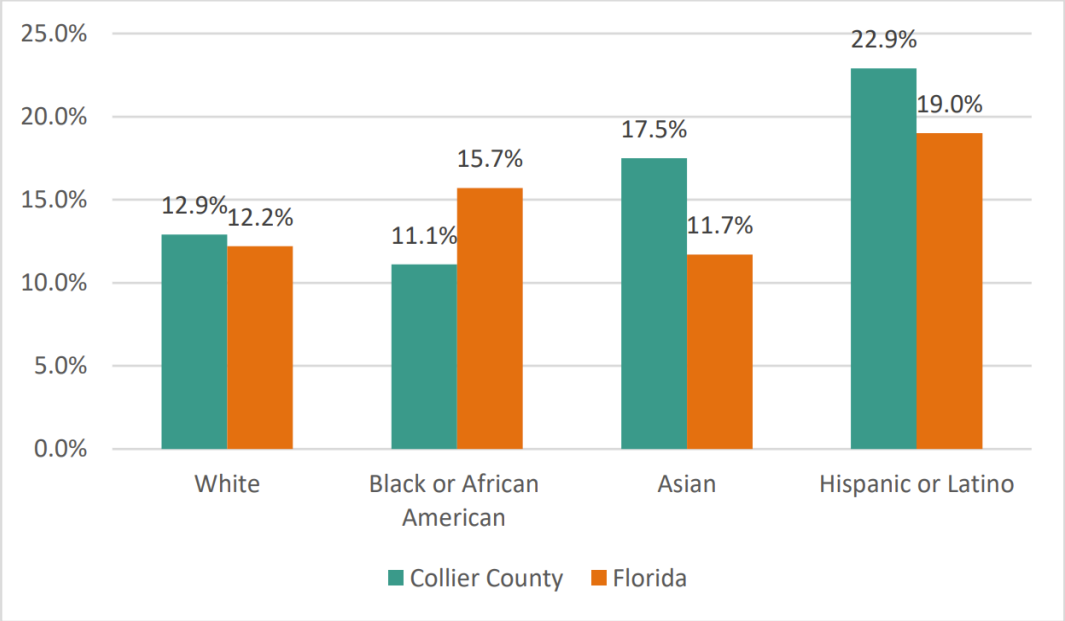
Figure 58: Percentage Uninsured by Sex, 2019



Source: US Bureau of the Census, American Community Survey, Table S2701

For Whites, Asians, and Hispanic/Latinos, the percentage of uninsured in Collier County is greater than the average for the state of Florida. However, the rates of those identified as Asian or Hispanic/Latino who are uninsured are at a disproportionate rate to their white counterparts. As for the Black/African American population, the percentage of uninsured in Collier County was lower than Florida's average.

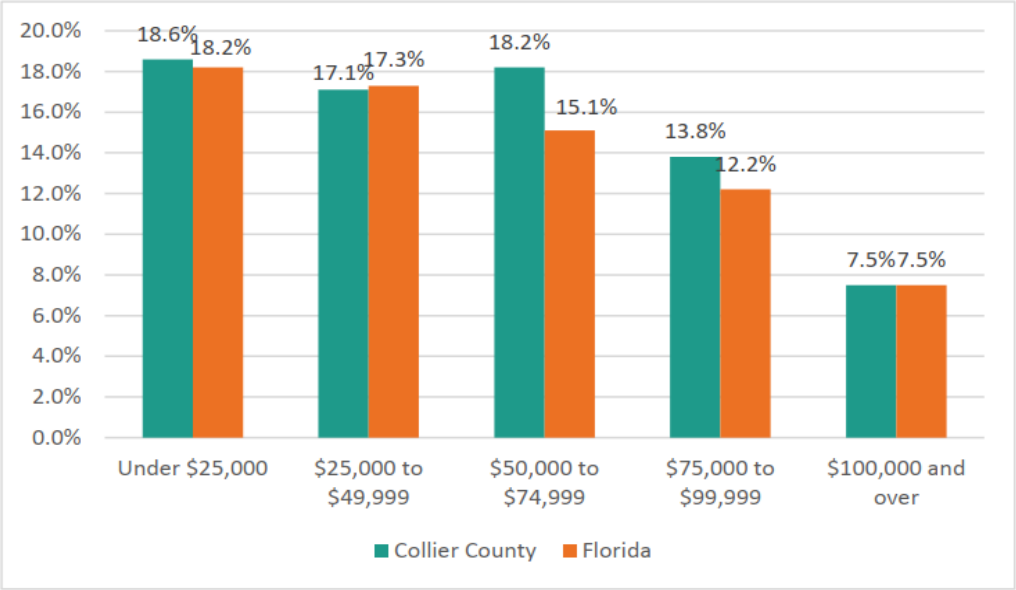
Figure 59: Percentage Uninsured by Race or Ethnicity, 2019



Source: US Bureau of the Census, American Community Survey, Table S2701

The relationship between educational attainment and health care is much like the relationship between educational attainment and income. As educational attainment increases, so do the number of people who are insured. This happens because the higher the education expands one's job opportunities, where insurance is offered through the company. The figure below proves this relationship to be true. In Collier County, 30.1% of those with less than a high school diploma were uninsured compared to only 4.3% of those who have a bachelor's degree or higher. Collier County has higher percentages of uninsured individuals compared to Florida in almost all categories of educational attainment

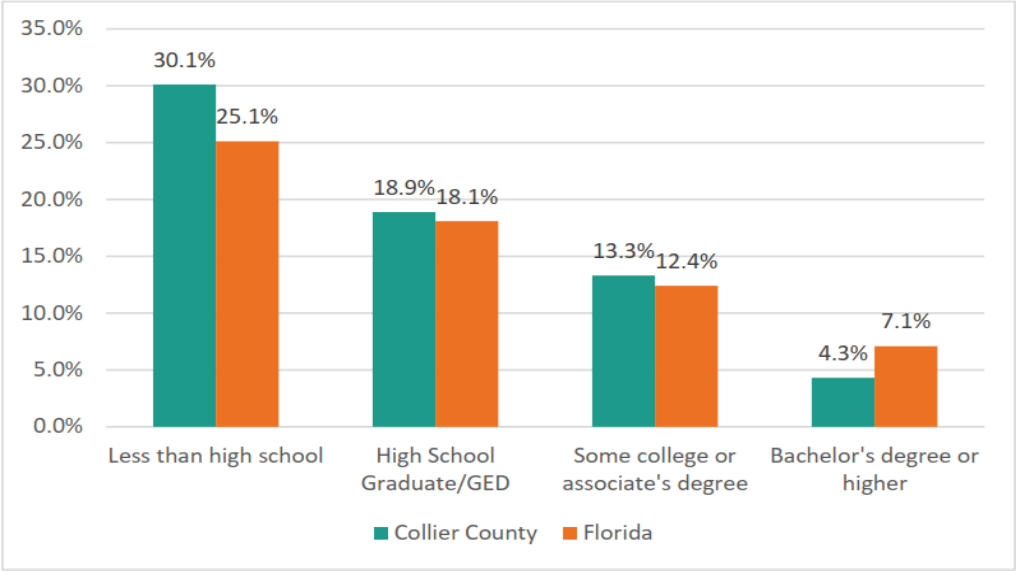
Figure 60: Percentage of Population 26 Years and Older Uninsured by Educational Attainment, 2019



Source: US Bureau of the Census, American Community Survey, Table S2701

In figure 61, The relationship between health insurance and income is depicted. As the household income, the percentage of uninsured increases in both Collier County and Florida. About 36% of the uninsured population in Collier County make less than $50,000. With the exception of individuals making between $50,000 and $70,000, the percentages of the uninsured are very similar in both Collier and Florida.

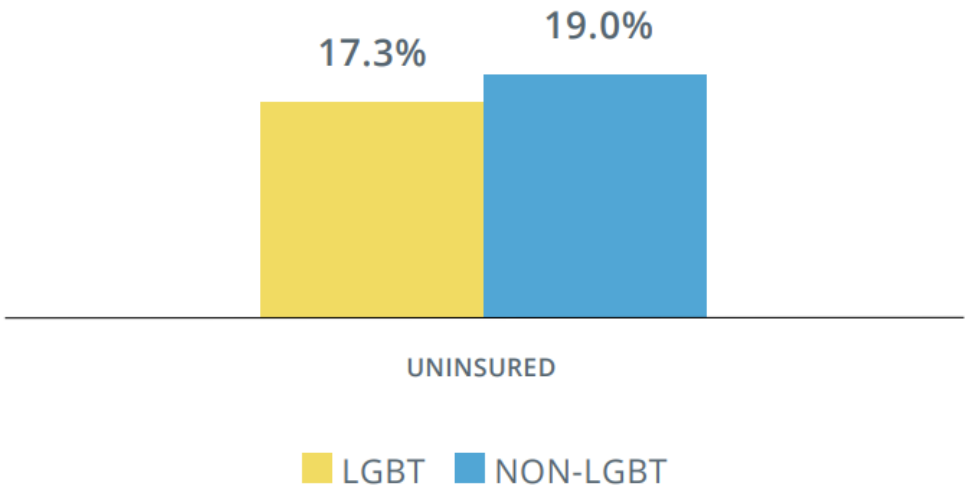
Figure 61: Percentage Uninsured by Income, 2019



Source: US Bureau of the Census, American Community Survey, Table S2701

Almost one in five (17.3%) LGBT adults lacks health insurance. LGBT adults have comparable levels of insurance coverage to non-LGBT adults.

Figure 62: Health Insurance Status of Southwest Florida Adults by LGBT Identity



Source: A Portrait of LGBT Adults in Southwest Florida

Provider Availability

In many categories, Collier County has above the Florida average of health care providers. However, Collier County does lack in the number of licensed pediatricians. Other areas that Collier County falls below the state average include CHD full-time employees and its expenditures.

Figure 63: Health Resource Availability, Collier County and Florida, Fiscal Year 2020-2021

	Collier County			Florida
Providers*	**Number**	**Rate per 100,000**	**Quartile****	**Rate per 100,000**
Total Licensed Dentists	287	74.3	4	56.7
Total Licensed Physicians	1,322	342.1	4	314.0
Total Licensed Family Practice Physicians	75	19.4	3	19.2
Total Licensed Internists	215	55.6	4	47.3
Total Licensed OB/GYN	46	11.9	n/a	9.2
Total Licensed Pediatricians	61	15.8	n/a	21.9
Facilities				
Total Hospital Beds***	1,059	274.0	3	307.6
Total Acute Care Beds***	826	213.7	3	248.9
Total Specialty Beds***	233	60.3	n/a	58.6
Total Nursing Home Beds***	892	230.8	1	386.5
County Health Department***				
County Health Department Full-Time Employees	150	6.2	1	40.9
County Health Department Expenditures	11,199,875	$29.00	1	$33.40

Source: Florida Department of Health, Division of Medical Quality Assurance; Florida Agency for Health Care (AHCA); Florida Department of Health, Division of Public Health Statistics and Performance Management *Number of licensed providers does not necessarily equal the number of practicing providers. These numbers may include providers who work in another county, only work part-time, or retired. **County Compared to other Florida counties. The lowest quartile equals the lowest number. For resource availability the lowest number is generally considered the worst ranking. Quartile information is provided when at least 51 counties rates greater than zero. ***Data is from year 2020.

Figure 64 displays information taken from the 2021 County Health Rankings. The County Health Rankings and Roadmaps was created by the University of Wisconsin Population Health Institute, to provide data, evidence, guidance, and stories to diverse leaders and residents so people and communities can be healthier. A similar percentage of 65 years and under without health insurance was found. For every 1,310 residents in Collier County there is one primary care physician. For every 1,520 individuals there is one dentist, and for every 980 people there is one mental health provider.

Figure 64: County Health Rankings, Collier County, 2015-2021

	2021	2020	2019	2018	2017	2016	2015
Health Factors							
Health Outcomes Overall Rank	6	6	3	3	5	5	6
Clinical Care							
Uninsured *Percentage of population under 65 without health insurance*	23%	23%	22%	23%	26%	30%	28%
Primary Care Physicians *Ratio of population to primary care physicians*	1,310:1	1,340:1	1,380:1	1,410:1	1,460:1	1,430:1	1,439:1
Dentists *Ratio of population to dentists*	1,520:1	1,560:1	1,520:1	1,530:1	1,530:1	1,510:1	1,572:1
Mental Health Providers *Ratio of population to mental health providers*	980:1	1,000:1	1,050:1	1,080:1	1,140:1	980:1	1,026:1
Preventable Hospital Stays *Rate of hospital stays for ambulatory-care sensitive conditions per 100,000 Medicare enrollees*	3,172	3,493	3,159	32	34	38	42

Source: County Health Rankings & Roadmaps, University of Wisconsin Population Health Institute, Robert Wood Johnson Foundation

- **The Impact of Health Care Access and Quality on Childhood Obesity**

The potential association between obesity in childhood and adolescence and their quality of and access to healthcare has limited research and documentation. However, two studies were reviewed that looked at physician referral programs and revealed common barriers to accessing care for weight management.

One study looked at access to primary care child and adolescent weight management according to the perspective of urban parents (Kulik et al., 2017). The participants indicated that there were several potential barriers to accessing these kinds of services: varied referral processes, costs, logistics, and child motivation. For the various referral procedures, many parents expressed difficulties in discussing the program referral with their children in a way that would not upset them and preferred if the physician or referring party recommended the program rather than leaving the parents to find weight management services themselves. For cost of the program, the most valuable resource for families where both parents worked was time; they did not perceive that they had the time to bring their children to the service and then pick them up later. Poorer and single parent households on the other hand were more

concerned with money; many parents said that lack of insurance coverage prevented them from affording the program, specifically, the enrollment fees. When it comes to logistics, participants cited that location of the service center and the time of day when the services are scheduled were the most prominent potential barriers. Finally, some parents expressed exasperation at being unable to convince their children to participate, with them being embarrassed about their weight and having preferences in weight management services, either not wanting to be in a group setting or wanting to be with children only their age.

Another study by Wittmeier et al. (2019) investigated barriers and identified potential solutions related to access to care based on the perceptions of healthcare teams from the U.S. and Canada. According to this qualitative study, participants pinpointed barriers to accessing services spanning four categories: referral and eligibility, wait lists and program capacity, logistics and costs, and stigma and weight bias. For referral and eligibility, two of the participants cited that a physician's referral is required for the child to be able to receive weight management services, which excludes families that do not have access to a primary care physician. Additional potential barriers regarding referral and eligibility include age, level of comorbidities, and language being used by healthcare workers. Participants from eight of the programs (5 from Canada and 3 from the U.S.) also considered wait lists and program capacity as potential barriers to services; the healthcare workers discussed difficulties with providing patients care in a timely manner, the lack of available resources and personnel to provide services and limiting less serious patient visits. The most consensus around a particular area of barriers to services dealt with logistics and costs of the program, with participants from all 16 sites discussing challenges. Finally, all study participants acknowledged the impact of weight stigma, with over half of the healthcare workers providing responses linking stigma and weight bias to access to weight management services, both in terms of referral and prior negative experiences with healthcare providers.

Both studies provided recommendations for potential solutions to the barriers identified. They included providing incentives or free services for weight management, making the referral process more consistent and providing that information upfront, and changing how being overweight or obese is perceived by children, parents, and healthcare workers.

VIII. SDOH PROJECTS

The Minority Health Liaison recruited and engaged members across the county, including government agencies, nonprofits, private businesses, and community organizations, to join the Healthy Collier Coalition. The Minority Health Liaison took into consideration the prioritized health disparity and the impactful SDOHs identified by the Health Equity Team during recruitment.

A. Data Review

The Healthy Collier Coalition members reviewed data, including health disparities and SDOHs, provided by the PEDS Obesity subcommittee. The Healthy Collier Coalition also researched evidence-based and promising approaches to improve the identified SDOHs. The subcommittee's review of data and strategies continued from February to June 2022. The subcommittee's strategy is to utilize, expand and improve an existing referral program to build a workflow that can be used build a network for a UF Health Pediatric Obesity Prevention Outreach program. Currently the program is funded by Naples Children & Education Foundation (NCEF).

B. Barrier Identification

Members of the Healthy Collier Coalition worked collaboratively to identify their organizations' barriers to fully addressing the SDOHs relevant to their organization's mission. Common themes were explored as well as collaborative strategies to overcome barriers.

The Social Determinant(s) of Health discussed above are shaped by various barriers created by national/state/local policies, systems, laws, cultural values, and social norms. These barriers are the root causes of pediatric obesity disparities experienced by Hispanic youth living in poverty in Collier County and often overlap in their effect on the SDOHs.

During the development of the PEDS Obesity Health Equity Data Analysis, two focus groups took place in order to collect qualitative data. First, is the stakeholder focus group, which

included members of healthcare professionals. The second focus group, known as the "parent focus group", consisted of parents of children who attend the Redlands Christian Migrant Association (RCMA) Preschool in Immokalee. According to the two focus groups, there are several barriers that are preventing the community to fully address the social determinants of health. These barriers are described below, from the point of view of the stakeholders and the parents.

- **Cultural Beliefs and Attitudes Around Weight**: Both focus groups confirmed that there are significant differences between the cultural beliefs of Hispanic families and families from other ethnicities. While the healthcare provider would inform the parent(s) about concerns with the child's BMI and educate them on pediatric obesity, the parent(s) believed that their child appeared healthy. Parents can also influence their children psychologically and socially with beliefs on food intake and practices around eating.
- **Economic Stability:** Socioeconomic status (SES) has a direct effect on where families live, their access to health services, healthy foods, and education. There was a consensus in the stakeholder focus group that SES plays a major role in patients being able to choose healthier meals. Many economically unstable families are unable to go grocery shopping and find time for preparing and cooking healthy meals. Members of the parent focus group confirmed this by commenting that they must travel longer distances to find healthy, affordable foods and that healthy, local food is expensive.
- **Access to Care:** It was mentioned in the stakeholder focus group that Collier County is designated as both a medically underserved area (MUA) and a Health Professional Shortage Area (HPSA) by the US Health Resources and Services Administration (HRSA, 2021). Several of the pediatricians in the stakeholder focus group commented about difficulties being able to put patients into treatment for overweightness and obesity due to constraints with insurance policies and their own lack of knowledge about what programs are available in the community.
- **Education:** One stakeholder stated that much of the educational material available is difficult to understand and that education must be shared in a very basic way so that anyone can understand it. Stakeholders also stated that education for the children is

important, but “parental education takes precedence”. Members of the parent focus group, however, expressed with exasperation that they get enough education, especially the kids, “Doctors tell them what to eat, educators tell them what to eat, and we parents tell them what to eat”.

- **Physical Activity:** Members of the stakeholder focus group believe that the balance between sedentary and active behaviors is tipping to the sedentary side, stating that children often ask for gifts that promote a sedentary lifestyle. Stakeholders expressed that besides nutrition education, creating physical activity habits is also important. There was frustration that schools do not require physical education classes anymore.

Each of these barriers connects to several social determinants of health and will be further defined as the project progresses.

C. Community Project

The Healthy Collier Coalition researched evidence-based strategies to overcome the identified barriers and improve SDOHs that impact the prioritized health disparity. The Coalition used this information to collaboratively design community projects to address the SDOHs. Projects included short, medium, and long-term goals with measurable objectives. These projects were reviewed, edited, and approved by the Coalition to ensure feasibility.

The CHIP is a collaborative effort by the members of the Healthy Collier Coalition to improve the health of the residents and visitors of Collier County by addressing the top four health priority areas for 2020-2023. These four health priorities, identified in the 2019 CHA, are MHSA, Chronic Diseases, Access to Care, and Health of Older Adults.

Each priority area was assigned to a workgroup to collaboratively work towards achieving the CHIP goals, strategies, and objectives. One of the priorities for addressing chronic diseases is to, “Increase the impact of evidence-based programs that promote healthy choices and increase food access” (figure 65). In pursuing this goal, the chronic diseases workgroup was influenced by local pediatricians, who were concerned about the number of overweight and obese children they were seeing in their medical practices. The workgroup formed a PEDS Obesity Subcommittee and decided to apply a health equity lens to this health issue to inform

the current work of Collier County pediatricians and youth serving agencies, and to provide insight for planning future interventions.

Figure 65: 2020-2023 Collier County Health Priority 2: Chronic Diseases

Source: Florida Department of Health-Collier County, Community Health Improvement Plan

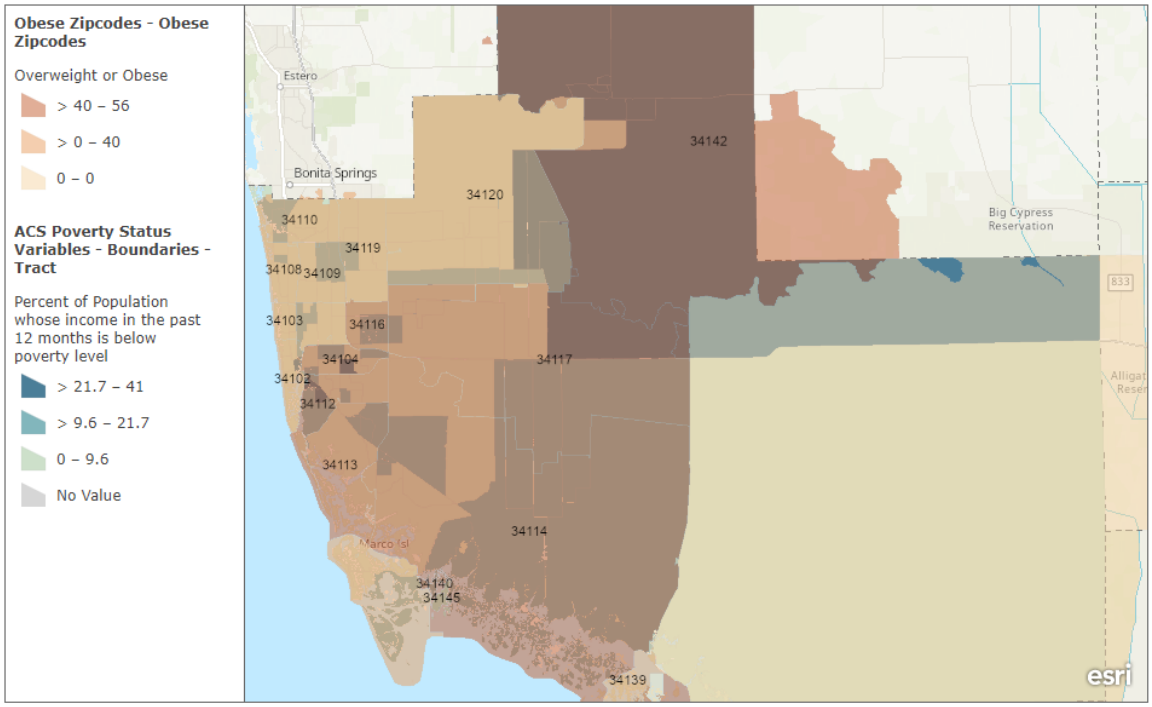
To incorporate a health equity lens into its efforts, the PEDS Obesity Subcommittee conducted a Health Equity Data Analysis (HEDA), which is a step-by-step health assessment that identifies and analyzes health inequities in the local population. Applying a HEDA framework ensures that all available data is collected, and that the community voice (the experiences and first-hand knowledge of those suffering from the health inequities) is captured in the analysis. Once finalized, the HEDA provides a guide for improving health equity in future programming and policymaking. The objective of this report is to use the HEDA framework to identify inequities related to pediatric obesity that exist within Collier County and formulate an understanding of the root causes of those inequities.

Based on the findings from the HEDA, there is a health inequity in Collier County in Hispanic children in households with income below the federal poverty level, revealed by disparities in overweightness and obesity. There are many individual and genetic factors that increase this group's risk for overweightness or obesity, but the underlying SDOHs and contributing root causes are also important risk factors, because they can be addressed by changing policies and systems that cause the health inequity. While this health issue is multifaceted and complex, the evidence suggests that the SDOH domain of social and community context is the largest contributor to the inequity, because of the compounding effect that multiple policies, social norms, and cultural factors have on this domain.

To further explore this conclusion, the Healthcare Network data set was analyzed by zip code and overlaid onto the map of families below poverty level, which is delineated by census tract.

On the map below, the darkest shaded areas are those where the population is experiencing both the highest percentages for overweightness and obesity and the highest percentages of families with incomes below the federal poverty level.

Figure 66: Percentage of Obese or Overweight Children, aged 3 to 17, Who Reside in Collier County and Visited a Healthcare Network of Southwest Florida Clinic from 2018 to 2021, Overlaid with Percentage of Population with Income Below Poverty Level



Obese and Overweight Children in Collier County by Zip Code

Esri, CGIAR, USGS | University of South Florida, County of Collier, FDEP, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

Source: Healthcare Network of Southwest Florida. Analysis by Florida Department of Health in Collier County.

IX. HEALTH EQUITY PLAN OBJECTIVES

Project Overview

Background: Pediatricians observed an increase of childhood obesity prevalence in their medical practices as children came back to the doctor's office after COVID restriction eased.
Scope: Areas of the county with high percentages of households that have incomes below the poverty level, which are Immokalee, Golden Gate, and East Naples.
Social Determinant(s) of Health addressed: All social determinants of health will be addressed.
Priority Populations: Hispanic children ages 2-17 who are living in households that have incomes below the poverty level.
Why: Given the context of the children and families in Collier County who are experiencing this health inequity, a community network approach is likely to have the most success. One that involves organizations that play key roles in access to healthy foods and weight management and recreation programs and removal of barriers caused by economic instability.
How: Utilize a funded existing referral program to build a workflow that can be used build a network.

A. Health Disparity: PEDS Obesity

- **Health Disparity Objective:** By December 2027, decrease the percentage of WIC clients aged 2 years or older, who are overweight or obese from 35.9% (2021) to 32.9%. Source: Fl Charts, WIC Clients Who Are Overweight or Obese (Aged 2 Years and Older).
- **Health Disparity Objective:** By December 2027, the percent of Middle and High students who are Overweight or Obese, will decrease from 28.7% (2020) to 28%. Source: Fl Charts, Percent of Students Who Are Overweight or Obese, All Middle and High School Students

Name of Project: PEDS Obesity

Goal	Objective	Base Line	Target	Plan Alignment
Short-Term Goal: Establish a workflow for referrals and reporting of data that increases frequency of contacts between the target population, and programs and services that address multiple SDOHs.	Objective: Increase the number of referrals to the Childhood Obesity Program from the 34142, 34116, and 34112 zip codes from 45 in 2021 to 160 by the end of 2022. **Lead Agency:** UF/Core Health Partners **Lead:** Tara Tallaksen and Dr. Bernier **Data Source:** Childhood Obesity Program Referral Data & Outcomes Report	45 (2021)	160	
Medium-Term Goal: Increase capacity of the referral network through inbound and outbound referrals.	Objective: Increase the number of programs and services in the referral network from 1 (2022) to 5 by the end of 2024. **Lead Agency:** Health Care Network (HCN) **Lead:** Dr. Anzalone **Data Source:** Program & Services Data	1 (2022)	5	
Long-Term Goal: The community-based referral network includes multiple categories of programs and services, that address all SDOHs.	Objective: Increase the number of program and service **categories*** represented in the network from 1 in 2022 to 3 by 2027. **Lead Agency**: DOH-Collier **Lead:** Reggie Wilson **Data Source:** Program Data ***Categories: Weight management programs, Recreational programs, Community programs (faith-based, HOA), School-based programs, Food Access programs and Health care programs**	1 (2022)	3	

X. PERFORMANCE TRACKING, REPORTING, AND MONITORING

Ongoing communication is critical to the achievement of health equity goals and the institutionalization of a health equity focus. The successes of Health Equity Plan projects are shared with OMHHE, partners, other CHDs, CHD staff, and the Central Office through systematic information-sharing, networking, collecting, and reporting on knowledge gained, so that lessons learned can be replicated in other counties and programs. Regional Health Equity Coordinators facilitate systematic communication within their region.

The Minority Health Liaison serves as the point of contact in their county for sharing progress updates, implementation barriers, and practices associated with the Health Equity Plan. The Minority Health Liaison is responsible for gathering data and monitoring and reporting progress achieved on the goals and objectives of the Health Equity Plan. At least quarterly, the Minority Health Liaison meets with the Healthy Collier Coalition workgroups to discuss progress and barriers. The Minority Health Liaison tracks and submits indicator values to the OMHHE within 15 days of the quarter end. The Collier County Health Equity Plan will be published and distributed to the Healthy Collier Coalition distribution list and the DOH-Collier web site under the Public Health Information tab: https://collier.floridahealth.gov/programs-and-services/community-health-planning-and-statistics/public-health-information/index.html

Annually, the Minority Health Liaison submits a Health Equity Plan Annual Report assessing progress toward reaching goals, objectives, achievements, obstacles, and revisions to the Regional Health Equity Coordinator and Coalition. The Regional Health Equity Coordinator and Coalition leaders provide feedback to the Minority Health Liaison and the Healthy Collier Coalition from these annual reports. The Minority Health Liaison then submits the completed report to OMHHE by July 15th annually.

XI. REVISIONS

Annually, the Healthy Collier Coalition reviews the Health Equity Plan to identify strengths, opportunities for improvement, and lessons learned. This information is then used to revise the plan as needed.

Revision	Revised By	Revision Date	Rationale for Revision

XII. APPENDIX: TEAM CHARTER

Healthy Collier Community Health Improvement Plan

Pediatrics Obesity Subcommittee Charter

Purpose: Address health inequities to improve food access and facilitate healthy choices for children in Collier County.

Primary Functions:

- Build partnerships with community agencies and volunteers with interests in pediatric health
- Develop programs (e.g. referrals system) addressing child obesity health inequities in our community
- Establish public awareness of environments and behaviors affecting health outcomes
- Advocate for a supportive food environment

Scope of Work: Nominate lead agencies. Collaborate in monthly meetings chaired by the DOH Healthy Communities Coordinator. Identify connections with schools. Advocate for affordable food access. Document meetings with agenda and minutes. Establish a strategy and objective- launch a pilot program. Develop an action plan to achieve objectives. Monitor and report progress and data. Publish and communicate results.

Membership/Roles:

- DOH-Collier Healthy Communities Coordinator- Facilitator
- Lead agency representative
- Secretary
- Support agency representatives
- Food pantries and provisions agencies

Leads: Takes the lead on initiating the implementation of their appointed domain. Takes responsibility for ensuring that the action steps agreed upon by the group are completed. Follows through with other members to complete action items.

Support Agency Reps: Contributes time, ideas, resources to workgroup. Willingness to take responsibility for completing action items and tasks and reports back to Lead in a timely fashion. If relevant for tracking progress or making decisions, provides local, primary data, and resources as needed. Willingness to implement new ideas that further the objectives of the workgroup. Act as a health equity advocate, engage community stakeholders, works to build key partnerships, and actively participates in action plan development.

Meeting Schedule and Process:

- Meetings are monthly to start, then once per quarter
- Organized and scheduled by the Healthy Communities Coordinator
- Documented with agenda and minutes

Objective Metrics ideas:

- # of contact points with community members
- # of referral prescriptions used
- % of students above 85 percentile BMI

Deliverables:

- Develop an action plan
- Provide progress of action plan

Charter Adopted: March 3rd, 2022

XIII. ADDENDUM: COALITION

Name	Organization	CHIP Workgroup
Ann Campbell	League of Women Voters	MHSA, Access to Care, Health of Older Adults
Anne Cherin	Naples Senior Center	Health of Older Adults, DCCI
Anthony Maro	Emergency Medical Services	Health of Older Adults, Age-Friendly
April Donahue	Collier County Medical Society	MHSA, Access to Care
Beth Wipf	Collier County Public Schools	Access to Care/MHSA
Brian Hemmert	Health Planning Council of SWFL	MHSA
Caroline Brennan	Collier County Public Schools	MHSA
Catherine Sherman	Collier County Health and Human Services	MHSA
Dr. Charlene DeLuca	Private Physician	MHSA
Dr. Corin DeChirico	Healthcare Network	Chronic Diseases, Access to Care, Health of Older Adults, PEDS Obesity
Dr. Courtney Whitt	Healthcare Network	MHSA, PEDS Obesity
Deb Logan	Blue Zones Project of SWFL	Chronic Diseases

Denise McNulty	NCH	MHSA, Age-Friendly
Dr. Don Bradke	PANIRA Healthcare Clinic	Access to Care
Dyan Ruby	American Heart Association	Chronic Diseases, Access to Care
Eileen Wesley	Project Help	MHSA
Elena Ortiz Rosado	Collier Area Transit	Access to Care
Gail Dolan	Neighborhood Health Clinic	Chronic Diseases, Access to Care
Geneve Mongene-Egger	PANIRA Healthcare Clinic	Chronic Diseases, Access to Care
Jaclynn Faffer	Naples Senior Center	Health of Older adults, DCCI
Jeffrey Alexander	AVOW	Age-Friendly
Jessica Liria	David Lawrence Center	MHSA
Jennifer Gomez	DOH-Collier	Chronic Disease, PEDS Obesity, Health of Older Adults, Age-Friendly
John Drew	DOH-Collier	MHSA, PEDS Obesity
Julissa Moreland	DOH-Collier	Health of Older Adults, Age-Friendly, DCCI
Jessica Palumbo	Hodges University	Chronic Diseases
Kathleen Morales Perez	UF/IFAS Extension Family Nutrition Program	Chronic Diseases, PEDS Obesity
Kathy Heldman	Alzheimer’s Association	Health of Older Adults
Kristi Sonntag	Collier County Health and Human Services	MHSA

Laura Simmelink	Community Foundation of Collier County	Health of Older Adults
Leslie Weidenhammer	Collier County Sheriff's Office	MHSA, Access to Care
Linda Flores	Lasting Links, LLC	Health of Older Adults, Age-Friendly
Louise Pelletier	Collier County Senior Services	Health of Older Adults
Mark Beland	Avow	Health of Older Adults, Age-Friendly, DCCI
Matthew Holliday	NCH Healthcare System	MHSA, Access to Care
Megan Greer	Blue Zones Project of SWFL	Chronic Diseases, PEDS Obesity
Melanie Black	Healthy Start Coalition SWFL	MHSA
Michael Overway	Collier Homeless Coalition	MHSA, Age-Friendly
Michelle Arnold	Collier Area Transit	Access to Care, Age-Friendly
Pam Baker	NAMI of Collier	MHSA
Paula DiGrigoli	NCH Safe & Healthy Children's Coalition	MHSA, Access to Care, PEDS Obesity
Rev. Cheree Johnson	VITAS Healthcare	MHSA, Access to Care
Reggie Wilson	DOH-Collier	Chronic Disease, PEDS Obesity
Sheryl Ellis	NCH	MHSA
Dr. Susanna Boker	PANIRA Healthcare Clinic	Chronic Diseases
Tammy DeCaro	Barrington Terrace	Health of Older Adults, DCCI

Tammy Wilkinson	Leadership Coalition on Aging	Health of Older Adults
Tatiana Fortune	Golden Gate Senior Center	Health of Older Adults, Age-Friendly
Taylor Jaskulski	DOH-Collier	PEDS Obesity, Chronic Disease
Tony Camps	Collier County Emergency Medical Services	MHSA
Yusleidy Nunez	Hunger & Homeless Coalition	Access to Care
Zachary Karto	Collier Area Transit	Access to Care

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