A Message from our Executive Director and Chairman of the Board

We are thrilled to share with you the 2020 Health and Wellness Community Assessment, a living document intended to communicate important health related information to Oklahoma City and County residents about the health status of the ZIP code in which they reside. We are hopeful you will take this information and find opportunities for improvement in your community as well as seek out ways in which you can be a part of expanding the conversation and identifying needed resources to address our health issues. The Oklahoma City-County Health Department (OCCHD) staff and Board of Health and the Wellness Now Coalition have been busy the last few years adapting the ways in which we deliver our services to meet the needs of the communities we serve.

Understanding the landscape of healthcare and our role as public health professionals is continually evolving. We are dedicated to seeking opportunities to deliver health in a forward-thinking way. This has included integrating our public health services with primary care and behavioral health providers, the faith community, business leaders, education partners and many others. Thus, we have seen the conversation about health elevate within our community. Through partnerships with the City of Oklahoma City, school districts across the city, hospital systems, and higher education, we are creating access to much needed resources for living health and productive lives. OCCHD is committed to continue working with our partners, both traditional and non-traditional, to leverage resources and develop strategies for improving health. The Wellness Score provides an illustration of the impact social, physical, and environmental determinants have on both community and individual health outcomes. It is utilized in planning resource allocation and next steps for the investment of community programs and amenities to create access to things that make us healthy. Healthier citizens create a cost savings to our taxpayers, and the increased quality of life gives Oklahoma City a competitive edge in business development.

Although we are encouraged by many of the improved areas of health and the priority being placed on health and wellness, there is still much work to be done. While we are excited to celebrate our successes in this updated report, we are also aware that our state continues to be outperformed nationally in health improvement, and as the largest metropolitan health department in Oklahoma, we take seriously our role in reversing those trends. We look forward to expanding the robust partnership being supported and maintained through the Wellness Now Coalition and continue to celebrate our successes.

Sincerely,

Patrick McGough, DPN, MS, RN, Executive Director

Gary Raskob, PhD, Chairman, Board of Health

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OVERVIEW

To create the Wellness Score 2020, the OKC-County Health Department (OCCHD) utilizes the Mobilizing for Action through Planning and Partnership (MAPP) tool to conduct community-wide health needs assessments. The MAPP process engages individuals, programs, and organizations across the city and county to collect qualitative and quantitative data using four distinct assessments that include:

· Wellness Score (Community Health Profile)

· Strengths & Themes

· Forces of Change

· Local Public Health System Assessment.

Each tool utilizes a distinct methodology, representing a wide cross-section of quantitative and qualitative data.

Wellness Score

The Wellness Score provides an overall summary of community health status. This information demonstrates the foundation of planning and program development for improving health outcomes for our community.

The OKC-County Health Department (OCCHD) consulted with representatives from numerous agencies throughout Oklahoma County to generate a representative list of determinants and outcomes of health and wellness for our community residents. For inclusion in the Wellness Score, data had to be collected at a ZIP code level and had to be available for the 2016-2018 time frame.

Strengths & Themes

Strengths & Themes is a survey used to measure community perception of health status and quality of life of Oklahoma City and County residents. Available in both English and Spanish, this survey is administered in both paper and electronic formats in order to reach the broadest number of community members. The survey asks community members about their perceptions regarding aspects of life that enhance health and well-being and the challenges that face Oklahoma City and County residents related to achieving optimum health-related quality of life. From the results of the survey, community strengths and themes can be assessed.

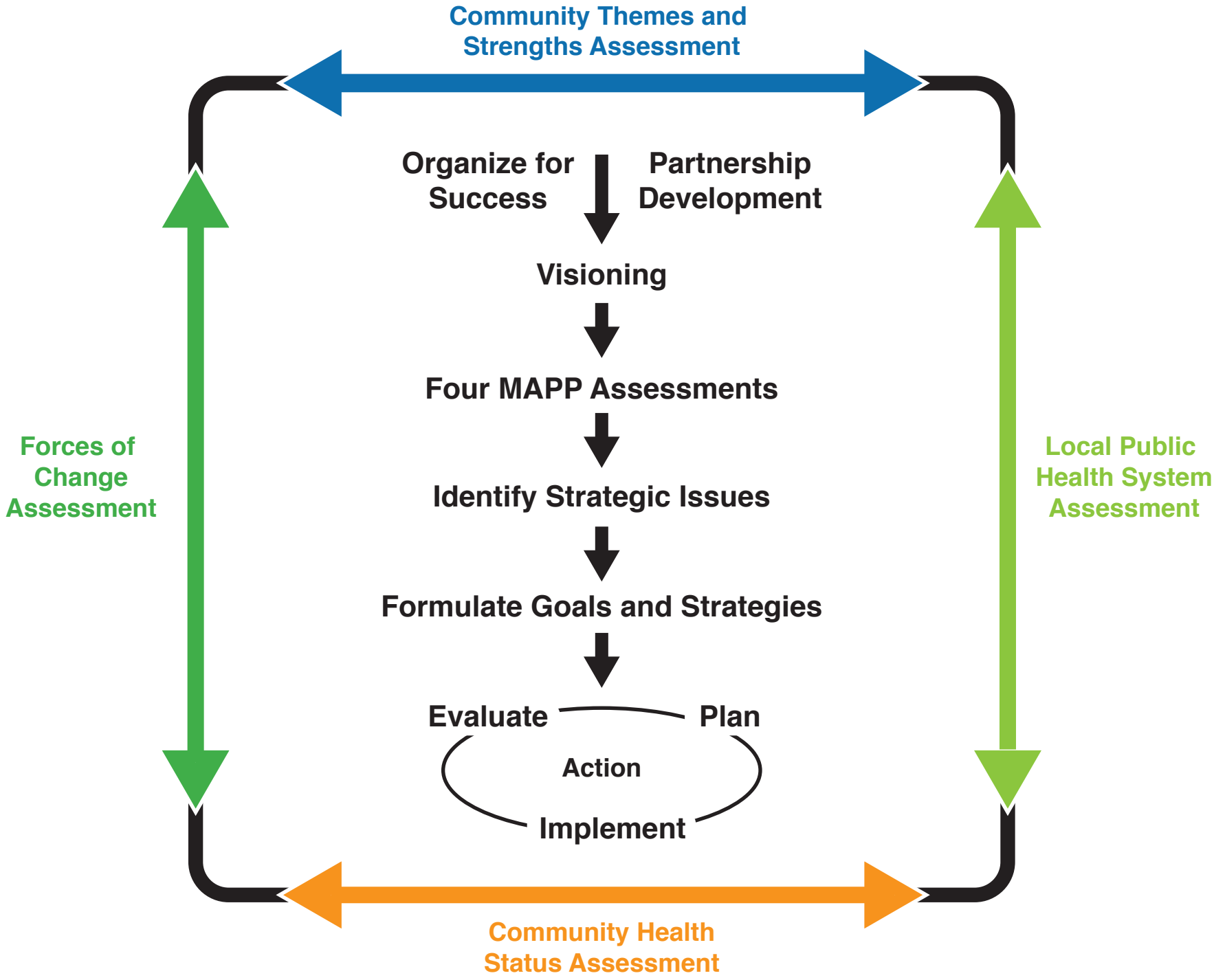
Forces of Change

The Forces of Change assessment gathers information from community members about the various supports and barriers that exist for improving community health. Feedback was collected through a series of town hall meetings held in each quadrant of the OCCHD jurisdiction in November 2019.

Local Public Health System Assessment (LPHSA)

The Local Public Health System Assessment is a systematic review of our community's capacity to meet the health needs of our residents. Traditional and non-traditional providers of services that impact health outcomes are brought together for a one-day, intensive program where they complete the National Public Health Performance Standards Program (NPHPSP).

OCCHD facilitated the NPHPSP in November 2019 with more than 50 individuals present representing more than 30 individual agencies and communities. The Centers for Disease Control and Prevention (CDC) calculates the asessment results and generates a profile report enabling the local public health system to identify gaps in capacity and strengths


Community Themes and Strengths Assessment
Organize for Success
Partnership Development
Visioning
Four MAPP Assessments
Identify Strategic Issues
Formulate Goals and Strategies
Evaluate
Plan
Action
Implement
Forces of Change Assessment
Local Public Health System Assessment
Community Health Status Assessment

METHODOLOGY

Data Overview
In order to gather data for the Wellness Score 2020 report, the Oklahoma City-County Health Department (OCCHD) consulted with representatives across multiple agencies in Oklahoma County to obtain data variables. Data analysis was divided into 10 different categories as outlined in this report, including both determinants and outcomes to assess the health and wellness of our communities.

ZIP Code Level
Many health indicators in this assessment are defined at the ZIP code level and are presented for the 63 ZIP codes located in Oklahoma County. However, maps and tables in the profile show only 56 ZIP codes since data for two sparsely populated ZIP codes have been combined with adjacent ZIP codes, and five other ZIP codes had less than 25% of their population living within Oklahoma City-County jurisdiction (see the below section for more information on this topic). Combining ZIP codes in this manner creates a map where identifying health concerns within the county is easier and helps OCCHD target programs, resources, and necessary interventions where they are most needed.

ZIP Code Visualization
The maps represent the ZIP codes of Oklahoma City-County Health Department's jurisdiction, which includes all of Oklahoma City and all of Oklahoma County. The ZIP code boundaries were obtained using the 2018 Environmental Systems Research Institute (ESRI) USA ZIP code level feature layer. To accurately represent the Wellness Score data, some ZIP codes were graphically combined into one. Minor stretching or skewing of the original maps may have occurred. Some ZIP code boundaries were smoothed or clipped to aid in printing and to make the maps more visually appealing and easier to read. Because of these minor adjustments, the maps are meant for a general visual representation of data only and are not meant for cartographical (map-making) purposes. These maps are meant to be viewed and displayed as printed.

Border/Combined ZIP Codes
Oklahoma County has 9 ZIP codes that are shared with neighboring counties but are primarily in Oklahoma County. These ZIP codes are: 73007, 73025, 73034, 73045, 73054, 73099, 73165, 73170 and 74857. There are two ZIP codes that lie entirely within Oklahoma County, but because each has such a small population, these two ZIP codes have been combined with adjacent ZIP codes to help improve the accuracy of data calculations. These ZIP codes are 73066 and 73097, and when viewed on the maps throughout the profile they will be combined with and represented as 73020 and 73169, respectively.

Oklahoma County also includes small proportions (less than 25% population) of five ZIP codes that are shared but lie primarily in adjacent counties. The data for these partial ZIP codes (73026, 73064, 73071, 73078 and 73160) are not included in this study because of the relatively low number of events from the partial ZIP codes.

Rates
The data presented throughout most of this report is in the form of rates. Rates make comparisons of events or groups of individuals to other populations and geographic areas much simpler. Rates are developed by taking the total number of events and dividing it by the total population (or population at risk of the event) in the same specific area. Rates in this profile are computed per 1,000 or 100,000 population. This report also contains both crude and age-adjusted death rates (see glossary for definitions).

In general, the larger the population, the more reliable rate calculations are likely to be. Throughout the data reported in this Wellness Score, there are some ZIP codes with populations of fewer than 5,000 residents. These ZIP codes are 73007, 73054, 73102, 73103, 73104, 73121, 73128, 73131, 73141, 73145, 73150, 73151, 73169, and 73173. Interpreting data for these less populated areas needs to be done with caution since comparing low-population ZIP codes with high-population ZIP codes may result in misleading results. In addition, the calculation of rates is not recommended when there are fewer than five indicator events (e.g., births or deaths) because confidentiality and reliability could be compromised.

Data Breaks

All tables and maps have data grouped for presentation using natural breaks in the data set. 'Natural breaks' is a process that groups data into subsets using a software system that examines where natural groupings occur based on ESRI geographic information system software or ArcGIS. All maps in this report were created using this system—a system designed by cartographer George Jenks. This approach to creating maps of the data is preferred because it creates a user-friendly geographic distribution of risk factors and outcomes in Oklahoma City-County. With the exception of the "Life Expectancy" indicator, data groups are represented by shading with the lightest color indicating the best outcome for each health determinant and the darkest indicating the worst from available data. All data is compared from best to worst within the Oklahoma City-County jurisdiction and is not compared against any standard.

Data availability

ZIP codes are shown without shading when there is data missing or unavailable for the specific ZIP code or when the number of events in the ZIP code is less than five. Each table provides an explanation of the data that are displayed.

Descriptive Statistics

The Wellness profile uses tables, graphs, charts, maps, and narrative to describe the factors that affect the health of the Oklahoma City-County community. The information presented includes both risk factors and health outcomes of our communities. The ZIP code level data help provide information about geographic and demographic areas of public health concerns across the city-county community to best help target concerns, make improvements where necessary, and allocate resources.

Time Period

Data throughout the profile are generally included for the years 2016-2018, depending on the availability of data for the specific topic. Therefore, most data are average annual rates over a three-year period.

All ZIP code-level population data is based on 2016-2018 estimates.

Health Index Calculation

As the two largest metropolitan areas in Oklahoma, Tulsa Health Department and the Oklahoma City-County Health Department partnered to develop a health index formula to allow for comparisons within and between both City-County jurisdictions. This formula was adapted from both the County Health Rankings and Urban Hardship Index and finalized in collaboration with the City of Oklahoma City and Tulsa. See Health Index Profile on pages 158-159.

The health index formula standardizes each of the component variables so they are all given equal weight in the composite index. The index represents the average of the standardized ratios of all 9 component variables. The index ranges from 0 to 100 with a higher number indicating greater hardships.

Formula:

- X= ((Y-Ymin)/(Ymax-Ymin))*100
- X= Standardized value of component variable (for each ZIP to be computed)
- Y= Unstandardized value of component variable for each ZIP
- Ymin= Minimum value for Y across all ZIPs
- Ymax= Maximum value for Y across all ZIPs

Scale:

0 to 100 with a higher number indicating greater health burden.

The 9 factors that contribute to the health index are:

1. **Education**
   Percent of population with less than a high school education
2. **Income**
   Percent of population below poverty
3. **Maternal & Child Health**
   Infant mortality rate (Infant deaths/1,000 live births)
4. **Mental Health**
   Age-adjusted suicide deaths/100,000 population
5. **Mortality**
   Life expectancy at age 0-4
6. **Healthcare Access**
   ER visits/hospital utilization
7. **Crime**
   Gun related deaths/100,000 population
8. **Infectious Disease**
   Respiratory, flu related hospitalizations, enteric, bloodborne, mosquito borne and sexually transmitted infections
9. **Built Environment**
   Positive land use, negative land use, transportation security, housing security

METHODOLOGY CONTINUED

Mortality Rates - Measure	ICD-10 Codes
Age-adjusted Cardiovascular Disease Mortality Rate	I00-I78
Age-adjusted Heart Disease Mortality Rate	I00-I09, I11, I13, I20-I51
Age-adjusted Stroke Mortality Rate	I60-I69
Age-adjusted Hypertension Mortality Rate	I10, I11.0, I11.9, I12.0, I12.9, I13.0, I13.1, I13.11, I13.2
Age-adjusted Heart Attack Mortality Rate	I214, I219, I22
Age-adjusted Diabetes Mortality Rate	E10-E14
Age-adjusted Chronic Lower Respiratory Disease Mortality Rate	J40-J47
Age-adjusted Chronic Liver Disease Mortality Rate	K70, K73-K74
Age-adjusted Cancer Mortality Rate	C00-C97
Age-adjusted Breast Cancer Mortality Rate	C50
Age-adjusted Lung Cancer Mortality Rate	C34
Age-adjusted Prostate Cancer Mortality Rate	C61
Age-adjusted Alzheimer Mortality Rate	G30
Age-adjusted Influenza and Pneumonia Mortality Rate	J09-J18
Age-adjusted Unintentional Injury Mortality Rate	V01-X59, Y85-Y86
Age-adjusted Suicide Mortality Rate	X60-X84, Y87.0
Age-adjusted Homicide Mortality Rate	X85-Y09, Y87.1
Age-adjusted Firearm-related Mortality Rate	W32-W34, X72-X74, X93-X95, Y22-Y24, Y35

Changes from 2017

There were 2 major changes/replacements to the 2020 Wellness Score compared to previous health profiles:

1. Food Safety and Environmental Health: Percent of inspections with a foodborne illness risk factor violation at the ZIP code level is presented in this publication. The previous Wellness Score presented average number of food establishment violations.
2. A chapter is dedicated to the ongoing Coronavirus disease (COVID-19) pandemic in this publication. As at the time of the publication, incidence and prevalence rates continue to change, and thus, the indicator is not used in the overall health index calculation.

Outcome	All Races	Caucasian	Black/ African American	American Indian/ Alaska Native	Asian/ Pacific Islander	Hispanic
		Change from 2017 WS	Change from 2017 WS	Change from 2017 WS	Change from 2017 WS	Change from 2017 WS
All Cause Mortality	2.2% ↓	3.7% ↓	1.5% ↓	5.4% ↓	8.6% ↑	3.2% ↑
Cardiovascular Disease (CVD) Moratlity	3.0% ↓	2.8% ↓	9.7% ↓	0.9% ↑	1.1% ↓	8.8% ↑
Stroke Mortality	1.7% ↓	0.0% →	11.5% ↓	12.1% ↑	39.7% ↓	8.5% ↓
Heart Disease Mortality	4.0% ↓	3.9% ↓	12.1% ↓	3.4% ↓	11.9% ↑	18.5% ↑
Diabetes Mortality	8.5% ↑	5.1% ↑	12.0% ↑	36.3% ↑	6.7% ↑	1.0% ↑
All Cancer Mortality	3.4% ↓	4.4% ↓	2.5% ↓	9.5% ↓	23.2% ↑	2.6% ↑
Lung Cancer Mortality	14.3% ↓	13.0% ↓	20.8% ↓	46.3% ↓	47.5% ↑	36.7% ↓
Breast Cancer Mortality	3.4% ↓	2.9% ↓	9.5% ↓	3.0% ↑	2.3% ↑	33.6% ↓
Prostate Cancer Mortality	8.8% ↑	6.3% ↑	35.1% ↑	9.0% ↓	Insufficient Data	69.0% ↓
Chronic Lower Respiratory Disease Mortality	8.9% ↓	10.1% ↓	12.9% ↑	21.9% ↓	85.3% ↑	4.3% ↓
Unintentional Injury Mortality	5.1% ↑	0.3% ↓	35.6% ↑	0.5% ↓	88.0% ↑	8.9% ↓
Suicide Mortality	4.0% ↑	3.4% ↓	29.9% ↑	25.1% ↑	24.7% ↑	78.7% ↑
Homicide Mortality	8.2% ↑	6.5% ↓	1.6% ↑	70.7% ↑	Insufficient Data	45.1% ↑
Alzheimer Mortality	18.8% ↑	18.2% ↑	9.9% ↑	69.0% ↑	12.2% ↓	91.5% ↑
Infant Mortality	4.3% ↑	20.7% ↓	3.9% ↑	104.5% ↑	Insufficient Data	20.3% ↑

OKLAHOMA CITY-COUNTY STRENGTHS AND THEMES ASSESSMENT

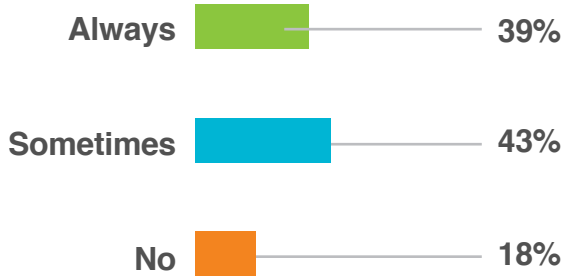
This assessment seeks community feedback to identify strengths and themes that influence our local population's health and well-being. The survey collected opinions about the health status and quality of life in Oklahoma City and Oklahoma County. The survey was administered in English and Spanish, and responses were collected through paper and electronic surveys. The kick-off for the Strengths and Themes Assessment occurred at the Wellness Now Coalition meeting in September 2019. The survey was posted on the Wellness Now OKC webpage and was available from September 2019 through December 2019. Information on the survey was distributed among various groups and coalitions to distribute to their members. A total of 389 responses were received and included individuals who lived in 49 out of 56 of the ZIP codes included in the Wellness Score.

How would you rate Oklahoma City-County as a Healthy Community?

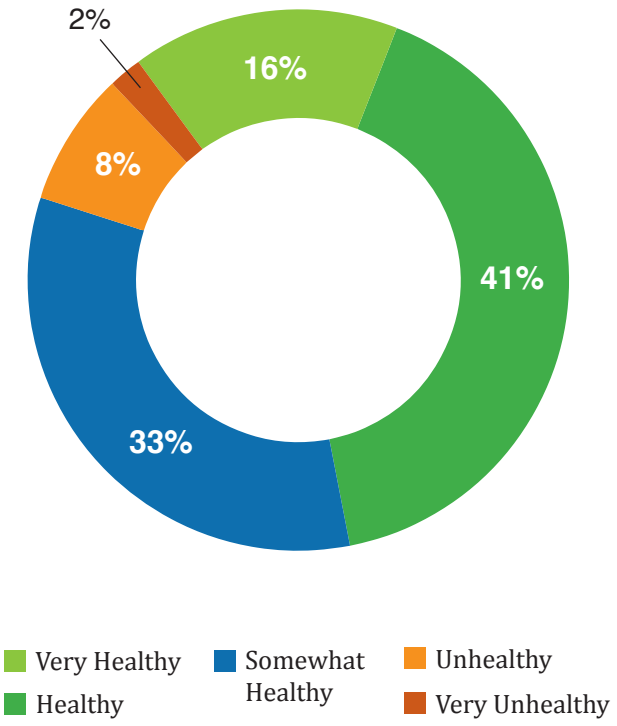
5%	11%	26%	34%	24%
Excellent	Very Good	Good	Fair	Poor

Do you feel a responsibility to improve the health status of Oklahoma City-County as a community?

Do you have a sense of community pride in Oklahoma City-County?



How would you rate your own personal health?

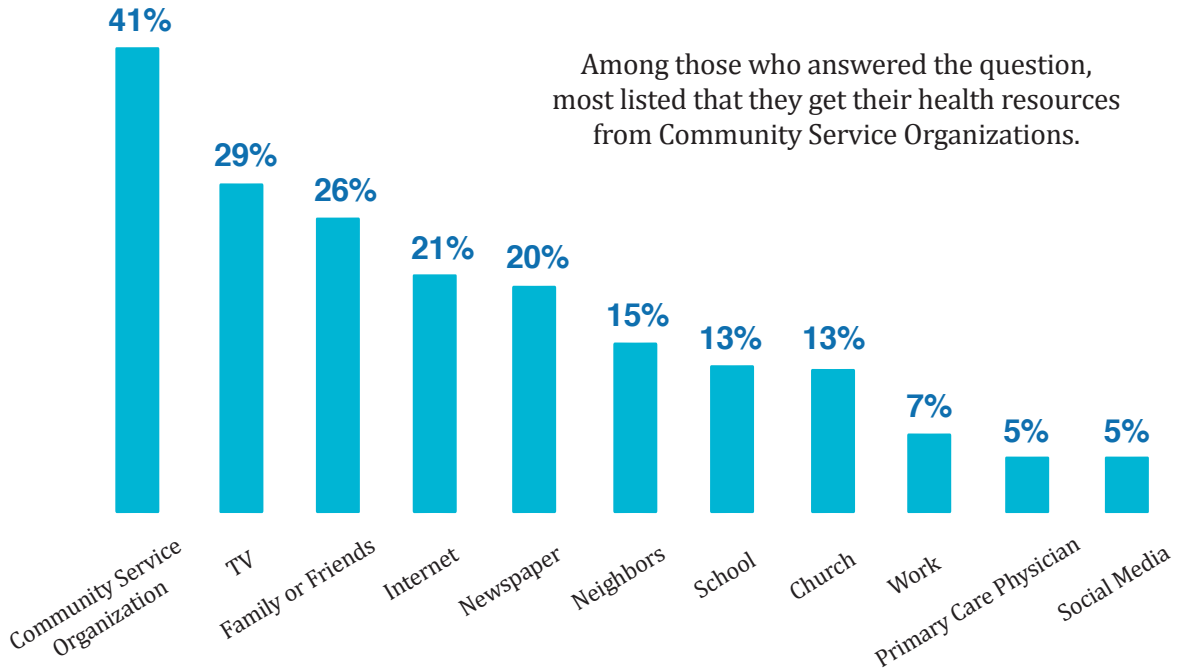


What do you feel are barriers to getting health care in your community?

- **69%** General cost, prescription or medicine cost
- **10%.** Fear or distrust of health care system
- **9%** Location of healthcare/transportation
- **5%** Too much paperwork
- **7%** Other

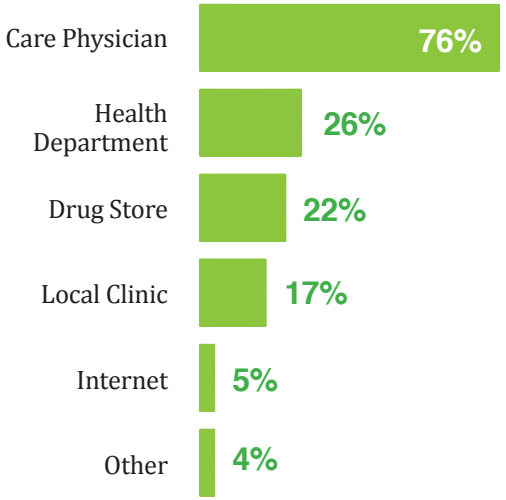
Where do you get information about health resources available in your community?

Among those who answered the question, most listed that they get their health resources from Community Service Organizations.



85% of respondents stated that they choose to vaccinate themselves and their children.

Among respondents who said "Yes", most access their information on vaccinations from a primary care physician.



58% said they were able to get needed health services when they needed them in the past year while 14% said they were not.

63% of respondents stated that they always have enough money to pay for essentials.

20% said they do not.
Among those that responded "No", most noted that Housing and Medicine were the most urgent for their family.

Date Source: Oklahoma City-County Health Department's Strengths and Themes Assessment Survey, 2019

FORCES OF CHANGE

The Forces of Change assessment uses community feedback and participation to determine what supports and barriers exist for improving community health.

Oklahoma City-County Health Department (OCCHD) held Town Hall events in two regions of the Oklahoma City-County jurisdiction in November 2019. Discussion at the town halls focused on the following four questions.

1. What does a healthy Oklahoma City mean to you?

2. What do you see are the top health related needs for Oklahoma City-County?

3. What are the barriers to this area of OKC becoming the healthiest community in the state?

4. What types of programs or services should we explore launching or improving?

During the discussion, forces, threats and opportunities were identified. Forces include trends, factors and events discussed at the town halls. A trend is a pattern over time that the community identified, a factor is a discrete element, such as community setting or population, and an event is a one-time occurrence. Discussion topics and suggestions were noted on individual cards and categorized according to major themes. This report contains data collected at all Town Hall events.

Forces (Trends, Events, Factors)

Maternity Leave

Opportunities

- Paid maternity leave
- Better quality daycares
- Cheaper daycares

Threats

- Overpriced daycare
- Low quality daycare
- Unpaid maternity leave

Obesity

Opportunities

- Million pound challenge would help with interaction motivation
- More education on obesity
- More physical activity opportunities for low- income families

Threats

- Living an unhealthy lifestyle
- On medication for the rest of their lives

Mental Health

Opportunities

- Better access to treatment and counseling
- More behavioral health support

Threats

- No beds in mental health facilities
- Long wait times to get mental health help
- Some health insurance will not cover mental health
- Urgent cares refuse to treat mental health patients

Cost of Living

Opportunities

- Lowering the cost of living
- Raising wages

Threats

- Cost of living is too high
- Cost of living increasing each year
- Couponing and shopping cheap not going far enough
- People on disability have a difficult time paying for medication and food

Incarcerations

Threats

- Oklahoma has more incarcerated parents per population index than other states
- Children and elders are left without stable caregivers

Environment

Opportunities

- More biking trails to reduce car use and pollution

Threats

- Sick, inedible fish in our lakes and rivers
- Homes next to junkyards cause rodent infestations
- Trash in cities
- Dirty water

Access to Health Insurance

Opportunities

- Medicaid expansion (as of July 1, 2021)
- Universal healthcare

Threats

- Some people with disabilities have jobs and can't get on Medicaid
- People begin to self-medicate when they do not have access
- Unaffordable

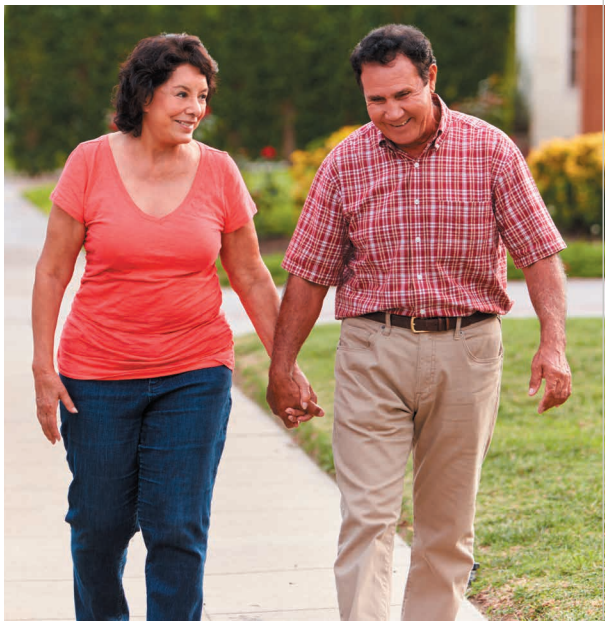
Parks & Neighbors

Opportunities

- More fountains, plants, and art in parks to promote walking
- Parks without restrictions on bikes, skating, skateboarding, running, etc.
- More parks such as Scissortail to bring communities together and promote physical activity
- More sidewalks, bike trails, buses to improve navigation
- More calisthenics parks
- More community events
- More public transport to improve quality

Threats

- Not enough walking and biking trails
- Lack of walkways threaten pedestrian safety
- Many parks have restrictions on bikes, skating, skateboarding, running, etc.



Safety

Opportunities

- Add more sidewalks in neighborhoods to prevent people getting hit by cars
- Improved animal control for stray and violent dogs

Threats

- Numerous shootings
- People being hit by cars
- Permitless carry could lead to additional self-harm or harm to others
- People being beat up

Homeless

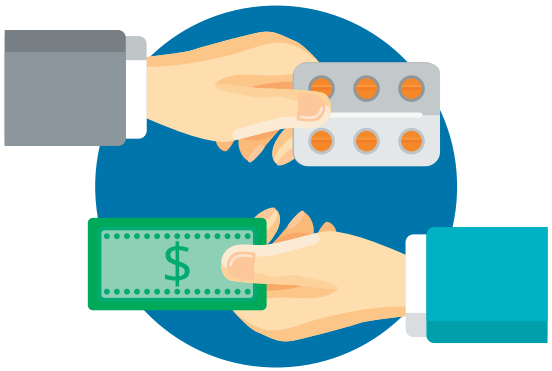
Opportunities

- Welfare reform
- More social service agencies to help combat poverty
- Making sure people maintain skills to not regress back into homelessness

Threats

- Limited access to groceries
- People living on the streets
- Inability to find job that pays for food, housing, and insurance
- Too much money spent on cosmetic improvements

Medications Costs



Opportunities

- Regulating pharmaceutical companies

Threats

- Too expensive for certain minorities
- Too expensive for people on disability
- Prescription costs too high for people needing medical equipment

Healthy Lifestyle

Opportunities

- Promoting fruits and vegetables instead of cannabis
- Reduce smoking and vaping by kids and teens
- More places to exercise for free for all ages and open late
- Increase walkability in the county
- More healthy food options
- If parents cannot afford extra-curricular classes (club sports, etc.), children stay home and play video games

Threats

- Prevalence of fast food establishments
- Enabling drug problem through cannabis shops
- People discouraged from walking due to lack of sidewalks

Access to Healthcare

Threats

- Must book months in advance to see a physician
- Physicians leaving for other states
- Cannot afford visits to get a doctor's note for work

Senior Population

Opportunities

- More affordable housing options for seniors such as Section 9 approved assisted living

Education

Opportunities

- Invest more in education
- Better sex education to prevent teen pregnancies
- Improper sex education puts disabled students at a higher risk for sexual abuse
- More hands-on programs for children
- Better fitness programs in schools
- Emphasize the importance of working

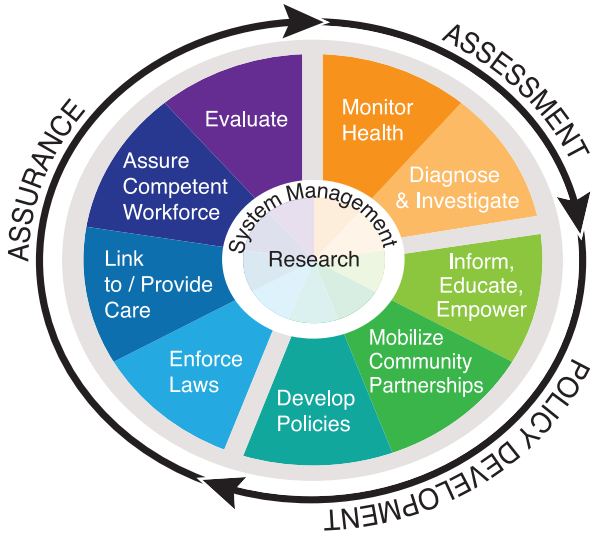
Threats

- Children made to sit for long periods of time without talking
- Minimal education on growing your own food, doing taxes, repairing cars, etc.

OKLAHOMA CITY-COUNTY LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Purpose: The purpose of the Local Public Health System Assessment is to bring together traditional and non-traditional providers of services that impact our health outcomes to assess our local public health system's capacity to meet the health needs of our community. The self-assessment is organized around the Model Standards for each of the ten Essential Public Health Services. The 10 Essential Services Diagram shows the framework that the LPHSA was structured around.

Optimal Activity (76-100%)	The public health system is doing absolutely everything possible for this activity, and there is no room for improvement.
Significant Activity (51-75%)	The public health system participates a great deal in this activity, but there remain opportunities for minor improvement.
Moderate Activity (26-50%)	The public health system somewhat participates in this activity, and there is opportunity for greater improvement.
Minimal Activity (1-25%)	The public health system provides only limited activity, and there is opportunity for substantial improvement.
No Activity (0%)	The public health system does not participate in this activity at all.



Overview: The assessment was completed utilizing the National Public Health Performance Standards Program (NPHPSP) on October 3rd, 2019, at the Northeast Regional Health and Wellness Campus. More than 50 individuals were present representing more than 30 agencies and communities. The attendees were assigned to groups according to their local public health system role and agency; each group scored 3-4 essential public health services based on the categories listed to the left. The Centers for Disease Control and Prevention (CDC) calculates the assessment results and generates a profile report, enabling the local public health system to identify gaps in capacity and strengths of the system.

Results: Overall, the Local Public Health System(LPHS) generated an average overall Essential Public Health Service Performance Score of 64.5, a score demonstrating significant activity of our local public health system. Compared to 2016, OCCHD's LPHS score improved by 4 points. The Summary of average essential service performance scores is presented on the next page. The full report is available by e-mailing wellnessscore@occhd.org.

Comparison to the 2016 LPHSA:

A qualitative comparison is described in this section. Compared to 2016, OCCHD's LPHS score improved by 4 points (60.7 in 2016 to 64.5 in 2019).

OCCHD's LPHS score improved by **4 points**

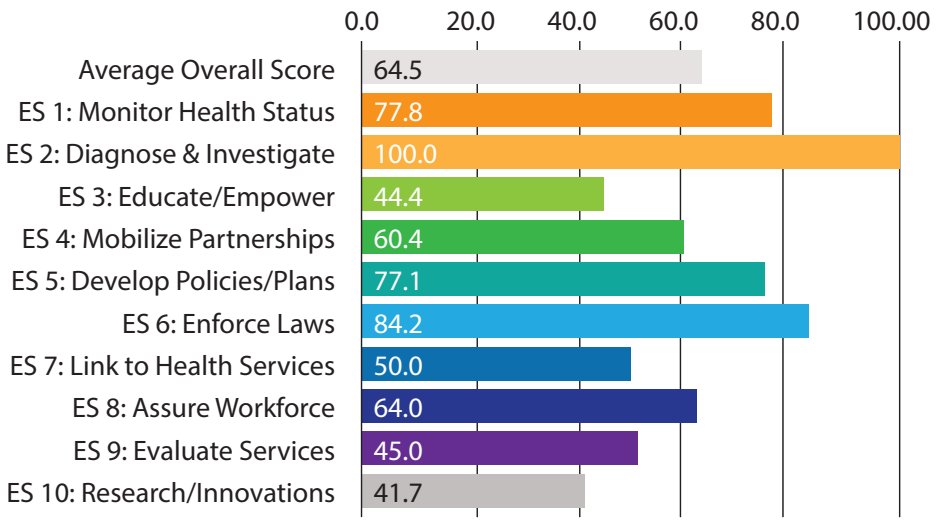
Like previous LPSHAs in 2013 and 2016, the assessment required extensive discussion toward educating the participants about the roles and activities of the local public health system in Oklahoma City and Oklahoma County. Only after this discussion did the participants feel somewhat comfortable with moving forward into the assessment. This created a limited amount of time for detailed discussion during the scoring consensus process. At the same time, this assessment allowed for participants to learn about initiatives and projects that are outside the scope of their respective services.

In 2016, the highest scores were ES 5: develop policies/plans (93.8%), ES 6: Enforce laws (88.3%), and ES 2: Diagnose and Investigate (80.6%) and the lowest scores were ES 10: Research/innovations (34.7%), ES 8: Assure workforce (38.8%) and ES 3: Educate/empower (44.4%).

In 2019, the highest scores were ES 2: Diagnose and Investigate (100.0%), ES 6: Enforce laws (84.2%) and ES 1: Monitor Health Status (77.8%). The lowest scores were ES 10: Research/innovations (41.7%), ES 3: Educate and Empower (44.4%) and ES 9: Evaluate Services (45.0%).

Limitations: There are multiple data limitations with the LPHSA, including self-report, variations in participant knowledge and experience, variation within the 3 group settings and differences in assessment question interpretations. The scores produced for each of these essential services reflects the understanding of the system as it relates to the knowledge of the participants that attended the event in October 2019.

Summary of Average Essential Public Health Service Performance Scores



Chapter 1 Population

VARIABLES

Analysis	Data Source
1. Total population of Oklahoma City and Oklahoma County, stratified by ZIP code	U.S. Census ACS 2018 5-year population estimates
2. Population change, stratified by ZIP code, ethnicity, and age	U.S. Census ACS 2014 and 2018 5-year population estimates
3. Oklahoma County population stratification by age	U.S. Census ACS 2018 5-year population estimates
4. Oklahoma County population stratified by gender	U.S. Census ACS 2018 5-year population estimates
4. Oklahoma County population stratified by race	U.S. Census 2018 5-year population estimates

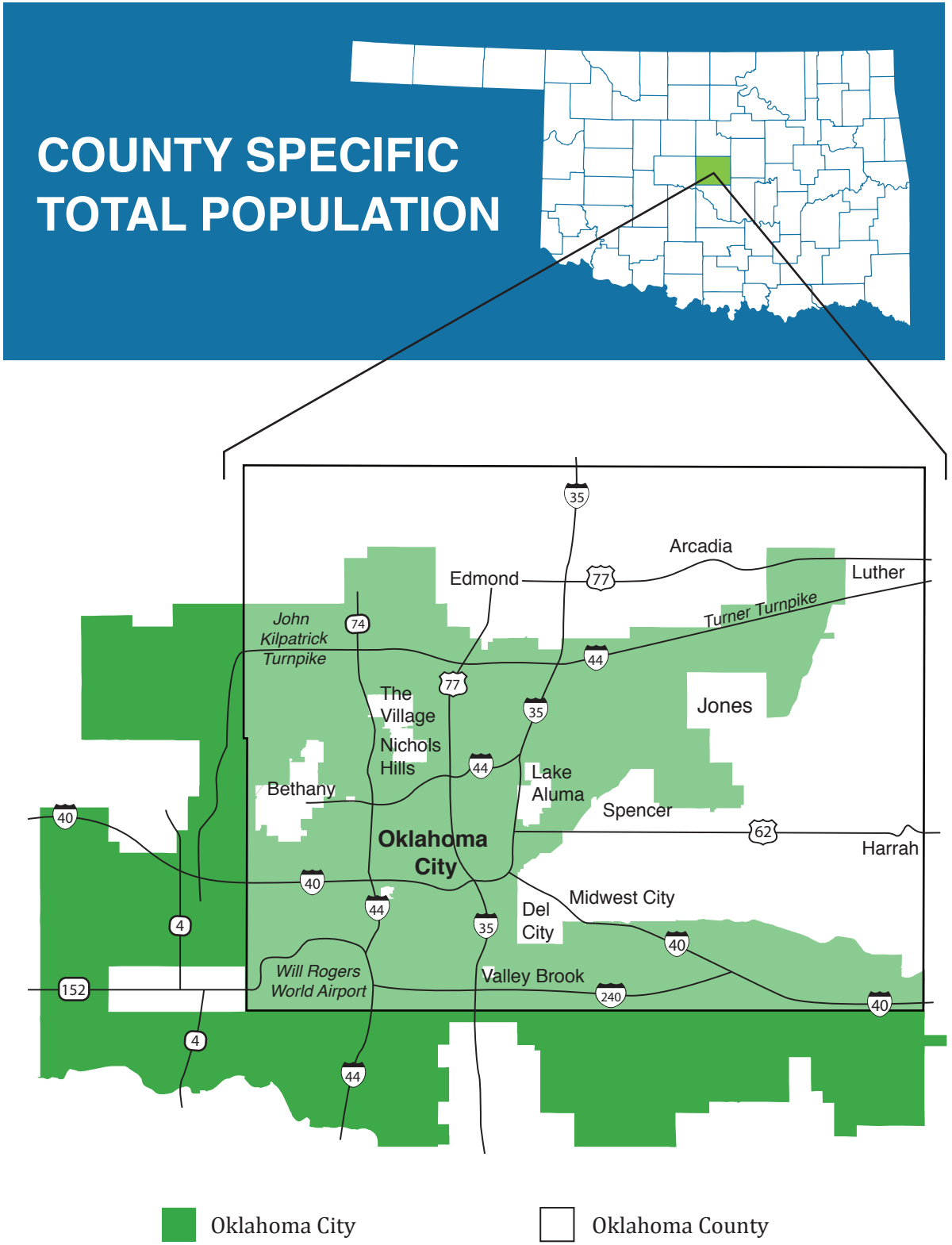
Summary
The county specific total population determines how many residents live in Oklahoma City and Oklahoma County. The total population for Oklahoma City-County jurisdiction in 2018 was 947,852 individuals.

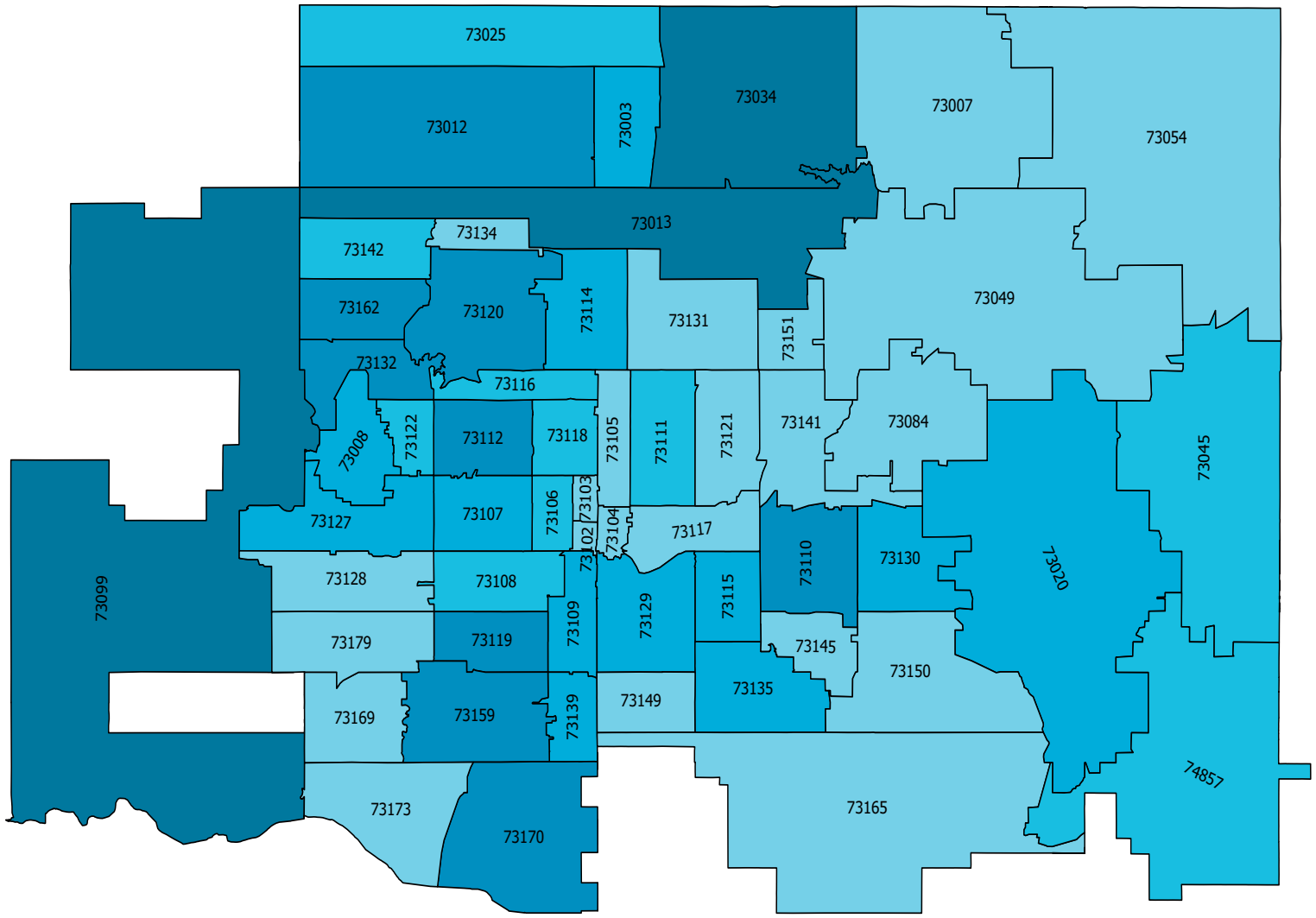
Why is it important?
Knowing the size of the population provides insight into the potential number of individuals who can contribute to a healthy and well community. Residents interested in impacting change within their community will be better prepared to address policy concerns when understanding the total number of individuals who will be affected by such changes. Understanding the total population and its make-up will increase residents' understanding of the types of resources and policies that would be beneficial. This information is also fundamental for planning effective programs or policy campaigns.

How are we doing?
Oklahoma City-County had an estimated population of 947,852 individuals in 2018. Oklahoma had an estimated population total of 3,918,137 individuals in 2018. The Oklahoma City-County Health department covers approximately 24% of the entire state's population. The ZIP codes with the highest population counts were 73099, 73013, and 73034.

Data Source: U.S. Census ACS 2018 5-year population estimates

COUNTY SPECIFIC TOTAL POPULATION





73003	24,147
73007	2,349
73008	20,240
73012	37,639
73013	52,254
73020	24,296
73025	13,019
73034	44,647
73045	11,293
73049	5,858
73054	4,271
73084	6,878
73099	68,676
73102	4,996
73103	4,924
73104	2,287
73105	5,409
73106	12,683
73107	25,328
73108	15,156
73109	23,144
73110	33,383
73111	11,368
73112	33,335
73114	18,312
73115	2,1032
73116	9,205
73117	5,680
73118	14,087
73119	32,119
73120	35,771
73121	3,558
73122	12,789
73127	25,134
73128	4,757
73129	19,764
73130	20,604
73131	3,823
73132	28,199
73134	5,573
73135	22,790
73139	17,563
73141	2,600
73142	14,302
73145	3,277
73149	5,082
73150	4,770
73151	1,861
73159	33,816
73162	29,747
73165	6,720
73169	2,414
73170	37,699
73173	3,014
73179	5,299
74857	8,911

Total Population of Oklahoma City-County, 2018

Data Source: U.S. Census ACS 2018 5-year population estimates

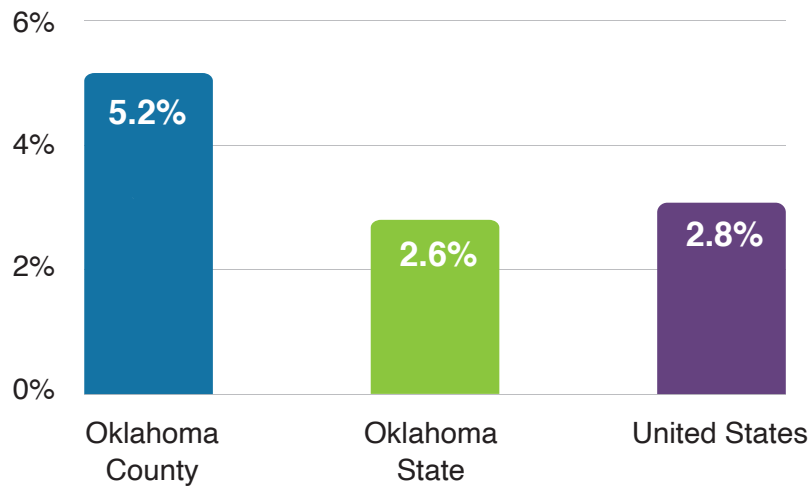
COUNTY SPECIFIC POPULATION CHANGE

Summary
Population is a key to identifying movement within the county and determining if the overall population is growing or decreasing.

Percent Change in Population by Race/Ethnicity
Oklahoma County, 2014 to 2018

Hispanic	14.5 % ncrease
Other	271% Increase
Multiracial	15.9% Increase
Asian/Pacific Islander	10.8% Increase
American Indian	2.9% Decrease
African American	5.7% Increase
Caucasian	1.5% Increase

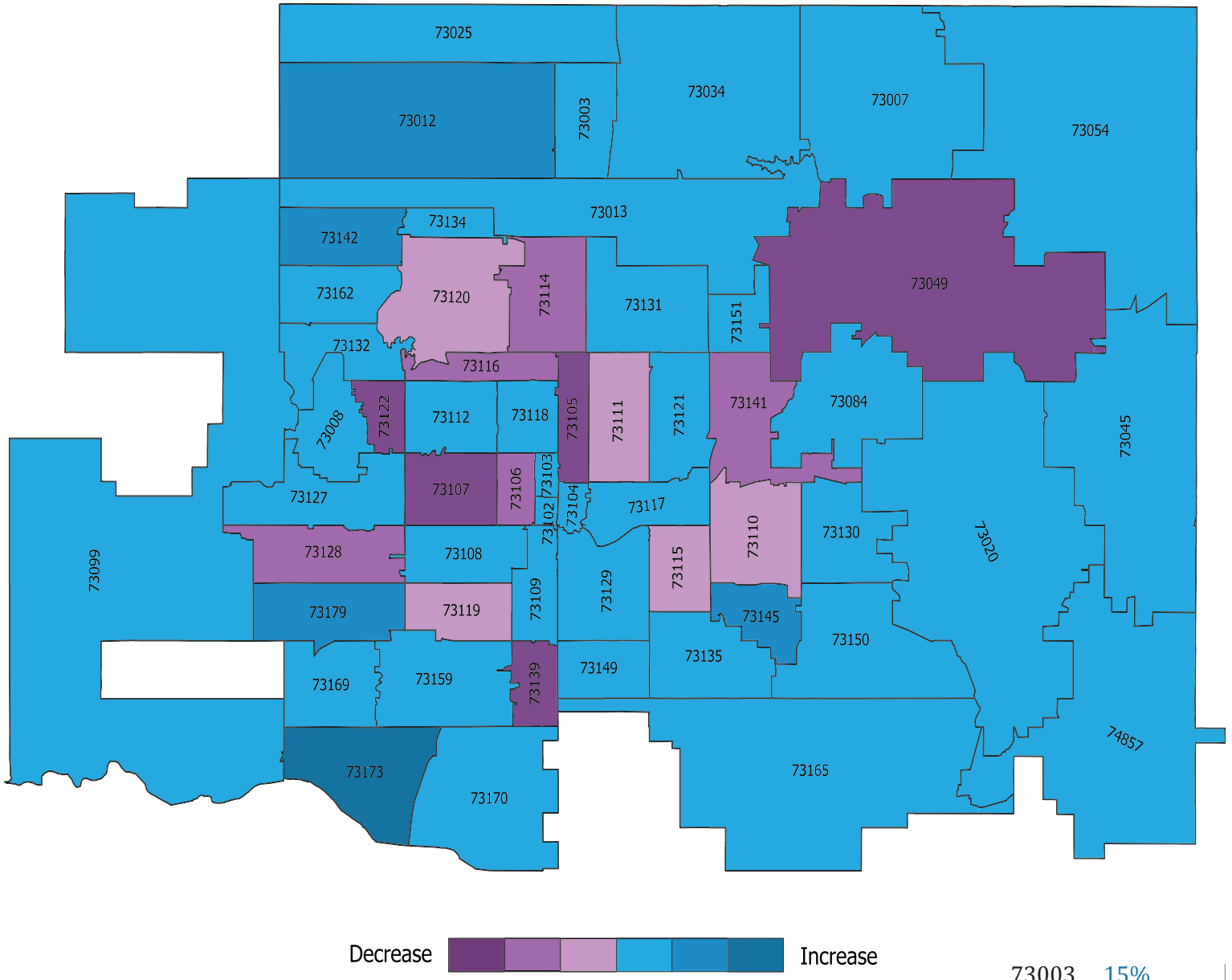
Percent Increase in Total Population Comparison, 2014 to 2018



Why is it important?
Population change can indicate certain societal impacts that may cause individuals to relocate. For example, lack of affordable housing may cause people to leave a particular area and migrate to another. Greater employment opportunities might attract people to an area where there previously were fewer individuals. Understanding these overall changes in total population can assist community members in identifying community issues and addressing them through program development strategies and policy advocating efforts. Population migration is important in understanding the impact and reach of community led efforts and the barriers to obtaining change within the community.

How are we doing?
In Oklahoma County, there was a 5.2% increase in the total population from 2014 to 2018 with an addition of 38,906 residents. The ZIP codes with the highest population increase were 73173 (89.1%), 73179 (48.1%) and 73145 (31.4%). The ZIP codes 73105 (-8.7%), 73122 (-8.4%) and 73049 (-7.9%) experienced the greatest population decreases.

Data Source: U.S. Census ACS 2014 and 2018 5-year population estimates



Oklahoma City-County Population Change, 2014 to 2018

Data Source: U.S. Census ACS 2014 and 2018 5-year population estimates

73003	15%
73007	14.3%
73008	0.2%
73012	27.9%
73013	10.8%
73020	7.6%
73025	5.8%
73034	3.6%
73045	10.9%
73049	-7.9%
73054	16.4%

73084	1.1%
73099	12.3%
73102	17.9%
73103	8.2%
73104	15.9%
73105	-8.7%
73106	-4.4%
73107	-5.5%
73108	0.2%
73109	15.4%
73110	-0.8%
73111	-0.4%
73112	8.2%
73114	-3.6%
73115	-0.4%
73116	-4.1%
73117	7.3%
73118	2.5%
73119	-0.6%
73120	-0.6%
73121	8%
73122	-8.4%
73127	0.8%
73128	-1.3%
73129	3.4%
73130	5.5%
73131	17.4%
73132	3.6%
73134	11.7%
73135	8.4%
73139	-5.4%
73141	-2.3%
73142	28.4%
73145	31.4%
73149	4.4%
73150	11.4%
73151	22.3%
73159	11.2%
73162	0.8%
73165	3.6%
73169	16.2%
73170	2.5%
73173	89.1%
73179	48.1%
74857	12.4%

COUNTY SPECIFIC AGE AND GENDER

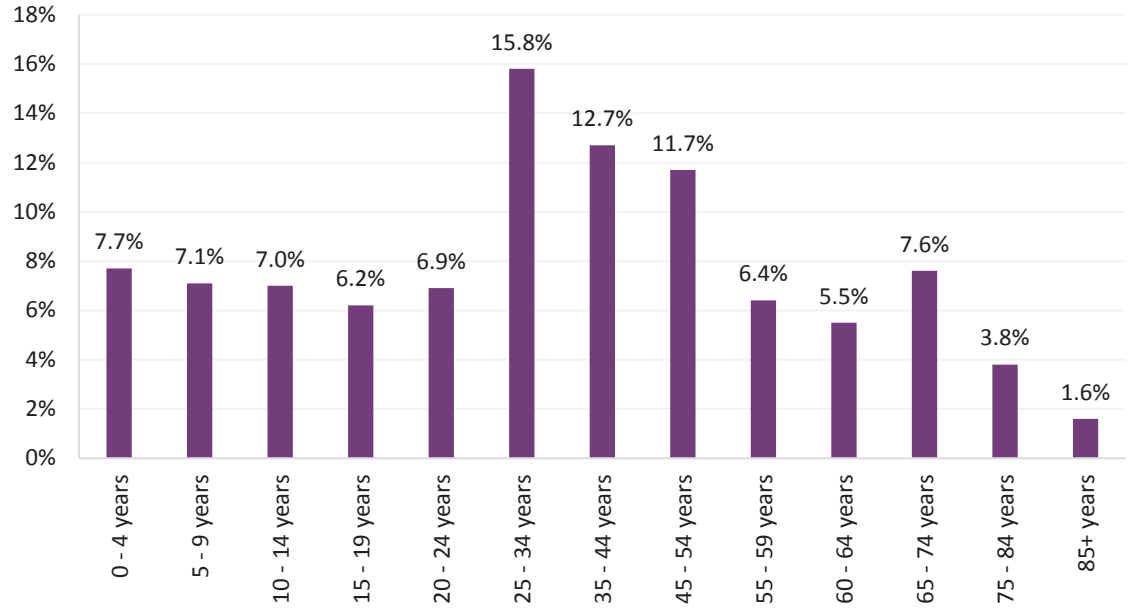
Summary
Gender and age differences may play a role in health needs and priorities.

Why is it important?
The concentrations of certain age groups and gender differences can play a significant role in community health outcomes and priorities for improvement. Community agencies can use age and gender to target more specific policy and program development strategies. Understanding the population makeup by age and gender aids in the development of resources needed to address the mission of the local public health system. For example, communities with many children may need additional affordable child-care options. Older communities may need additional transportation options for seniors. Understanding the age and gender distribution of the population allows for more targeted programs and services in the community.

How are we doing?
In 2018, Oklahoma County's median age (34.5 years) is approximately two years younger than the State median (36.4 years) and more than 3 years younger than the national median (37.9 years). In Oklahoma County, males account for 49 percent of the population while females account for 51 percent. On the other hand, males and females make up approximately the same percentage of the overall population in Oklahoma State at 49.6% and 50.4%, respectively.

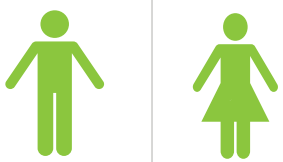
Data Source: U.S. Census ACS 2018 5-year population estimates

Population Distribution by Age: Oklahoma County, 2018



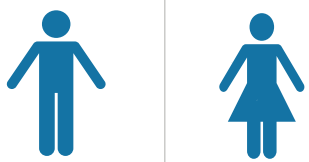
Percentage of Population by Gender, 2018

Oklahoma County



49% | 51%

Oklahoma State

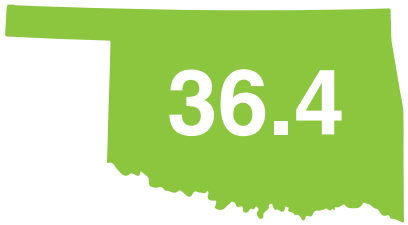


49.6% | 50.4%

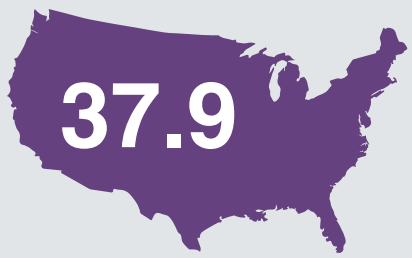
Median Age Comparison, 2018

34.5

Oklahoma County



Oklahoma State

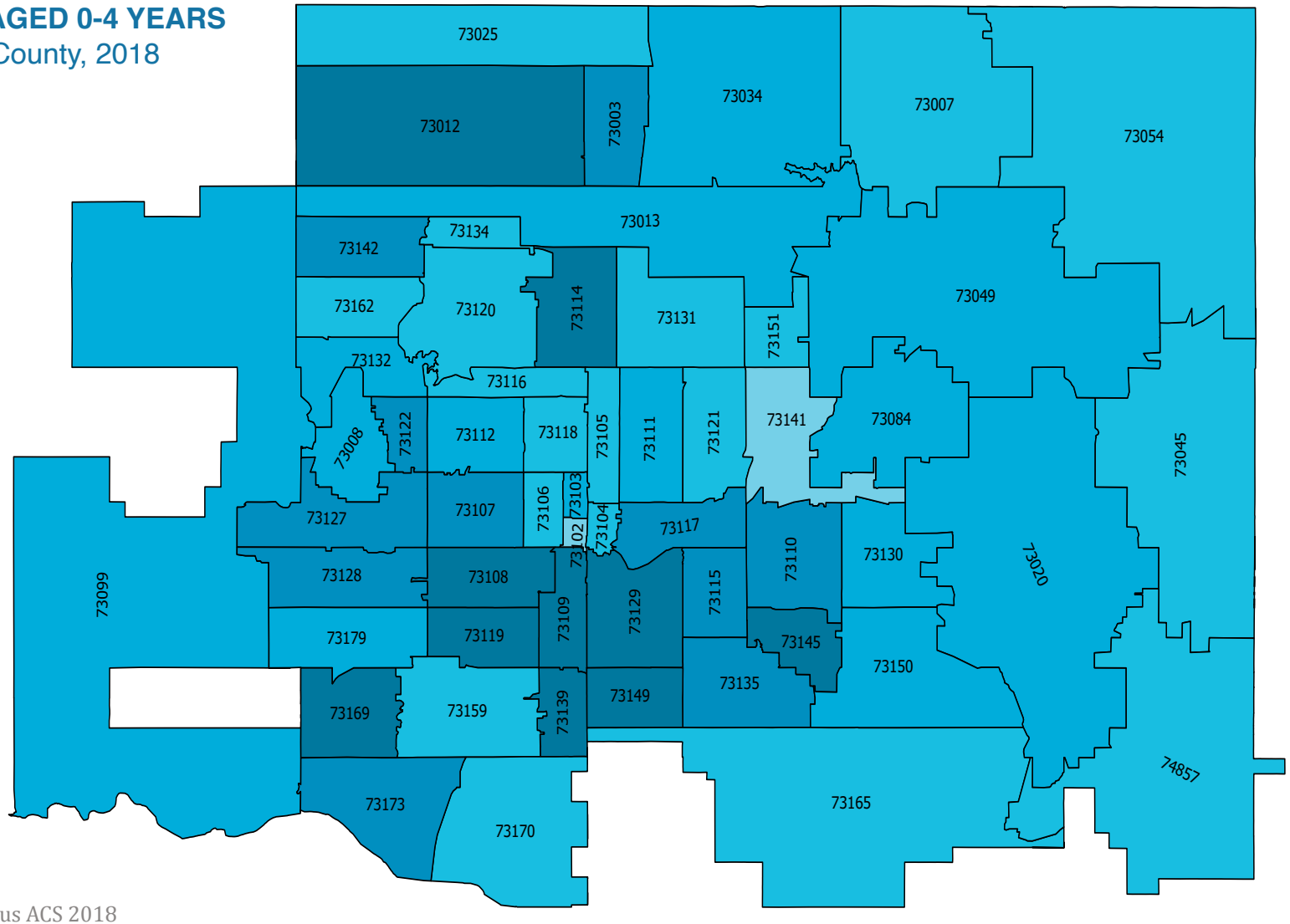


United States

Data Source: U.S. Census ACS 2018 5-year population estimates

POPULATION AGED 0-4 YEARS

Oklahoma City-County, 2018

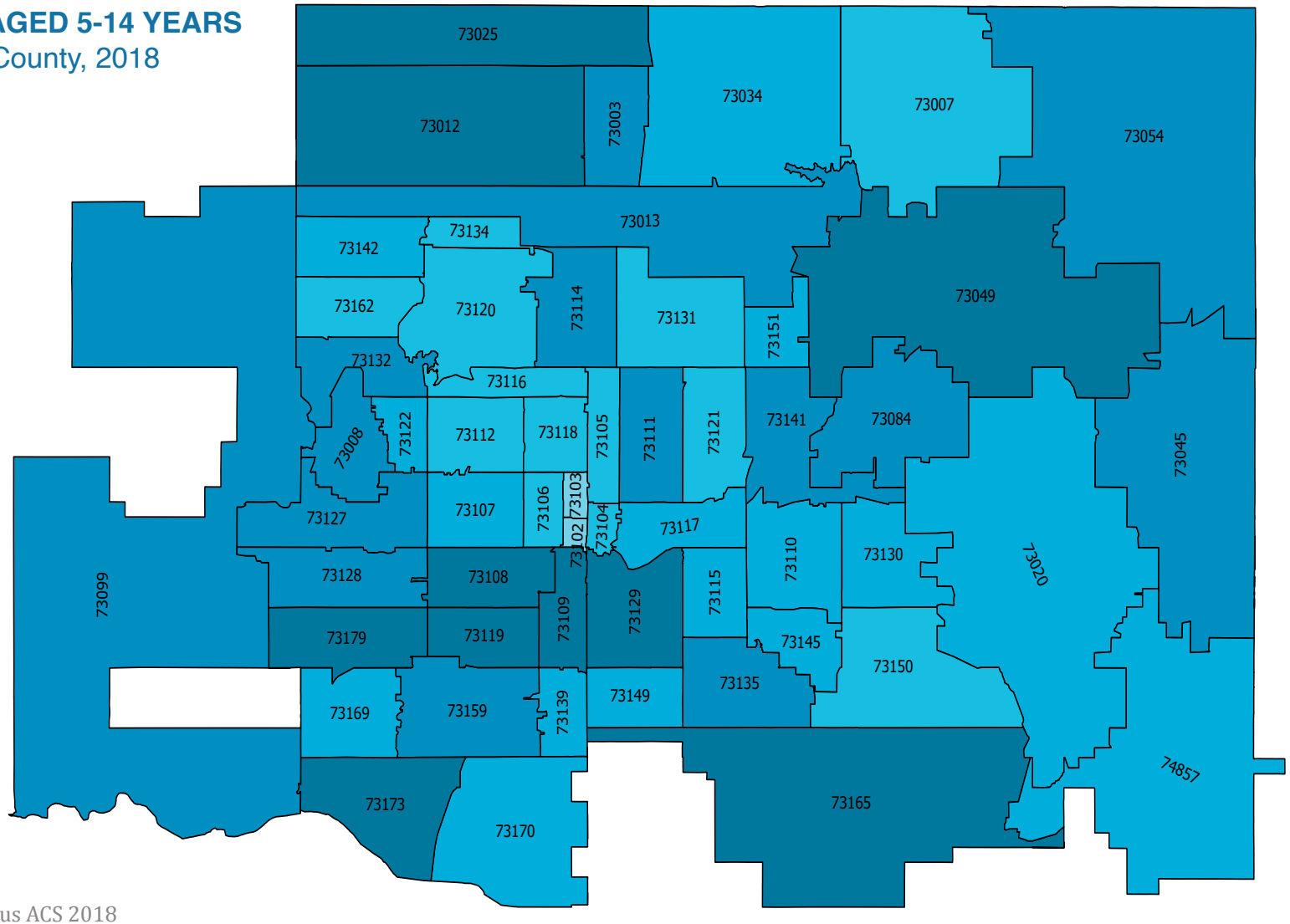


Data Source: U.S. Census ACS 2018
5-year population estimates

Lowest — Highest

73003	7.8%	73054	5.5%	73109	10.3%	73119	10.4%	73132	7.5%	73151	5.9%
73007	4.9%	73084	6.6%	73110	8.5%	73120	5.8%	73134	5.8%	73159	6%
73008	7.3%	73099	7.4%	73111	6.9%	73121	3.8%	73135	8.3%	73162	6%
73012	10%	73102	0.7%	73112	6.8%	73122	8.9%	73139	10.7%	73165	4.3%
73013	7.4%	73103	6.2%	73114	10.7%	73127	8.4%	73141	2.8%	73169	9.8%
73020	6.3%	73104	5.9%	73115	7.9%	73128	8.9%	73142	7.8%	73170	4.9%
73025	5.3%	73105	5.2%	73116	5.7%	73129	10.3%	73145	13.7%	73173	8.9%
73034	7.3%	73106	5.5%	73117	8%	73130	6.3%	73149	10.9%	73179	7.1%
73045	4.6%	73107	8.9%	73118	4.7%	73131	4%	73150	7.2%	74857	5.5%
73049	6.5%	73108	10.1%								

POPULATION AGED 5-14 YEARS
Oklahoma City-County, 2018

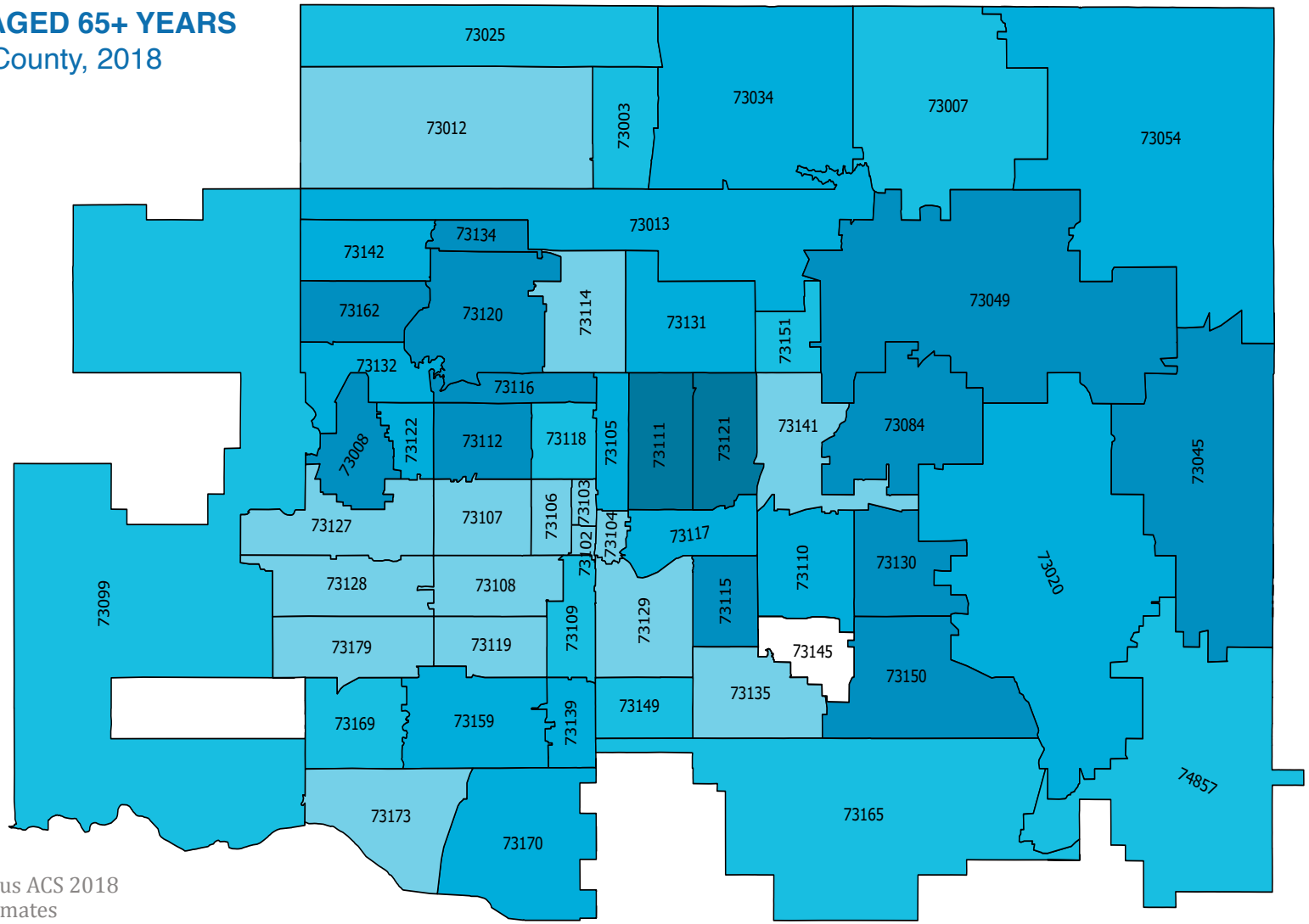


Data Source: U.S. Census ACS 2018
5-year population estimates

Lowest — Highest

73003	14.8%	73054	14.2%	73109	19.9%	73119	21.4%	73132	14.2%	73151	13.9%
73007	9.8%	73084	14.2%	73110	13.4%	73120	10.1%	73134	8.7%	73159	16.6%
73008	14.8%	73099	14.8%	73111	15%	73121	9.1%	73135	14.8%	73162	10.7%
73012	18.1%	73102	1.4%	73112	10.9%	73122	12.2%	73139	11.4%	73165	17.3%
73013	15.2%	73103	6%	73114	16.9%	73127	15.9%	73141	15.4%	73169	12.5%
73020	13.6%	73104	7.7%	73115	13.6%	73128	15.2%	73142	12.5%	73170	13.9%
73025	19.7%	73105	7%	73116	8.6%	73129	20.2%	73145	12.8%	73173	17.2%
73034	12.9%	73106	10.7%	73117	12.4%	73130	12.6%	73149	12.9%	73179	18.8%
73045	15.2%	73107	12.3%	73118	9%	73131	8.8%	73150	10.9%	74857	13.1%
73049	17.3%	73108	18.2%								

POPULATION AGED 65+ YEARS
Oklahoma City-County, 2018



Data Source: U.S. Census ACS 2018
5-year population estimates

*Data too low to count/compare

Lowest — Highest — N/A

73003	11.8%	73054	13.5%	73109	9.9%	73119	8.3%	73132	13.4%	73151	10.6%
73007	10.3%	73084	15%	73110	13.6%	73120	17%	73134	14.9%	73159	12.8%
73008	16.4%	73099	11.7%	73111	21.3%	73121	23.4%	73135	9.1%	73162	16.5%
73012	7.6%	73102	3.4%	73112	15.4%	73122	13.5%	73139	13.7%	73165	11.4%
73013	13.4%	73103	6%	73114	8.1%	73127	9.6%	73141	9.6%	73169	12.2%
73020	14.6%	73104	6.8%	73115	14.9%	73128	9.4%	73142	13.2%	73170	13%
73025	11.1%	73105	14%	73116	16.9%	73129	6.7%	73145	*	73173	5.1%
73034	12.8%	73106	6.9%	73117	13.3%	73130	15.4%	73149	10.1%	73179	6%
73045	15.6%	73107	8.3%	73118	10.4%	73131	14.1%	73150	17.6%	74857	11.7%
73049	15.5%	73108	6.5%								

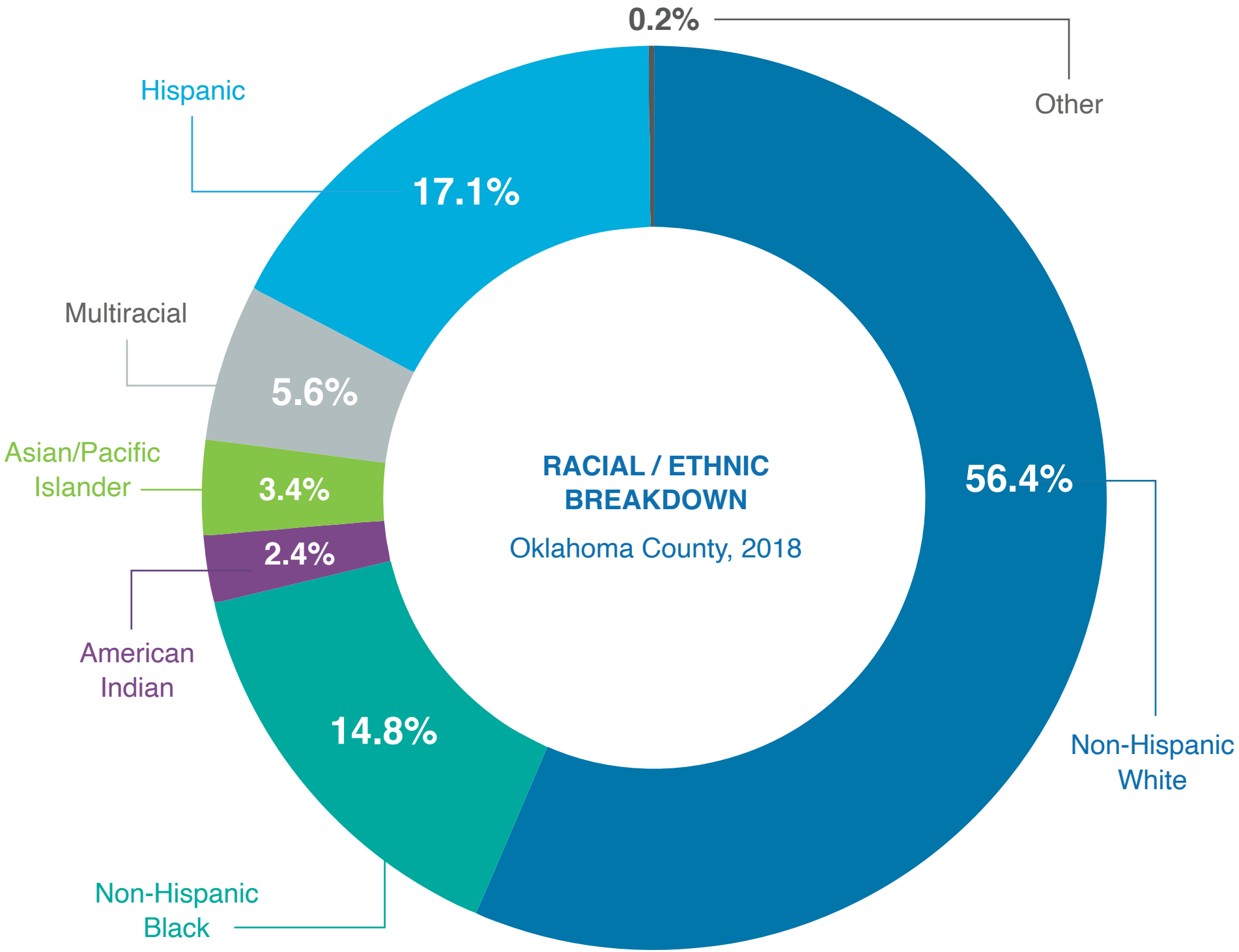
COUNTY SPECIFIC RACE

Understanding the racial makeup of Oklahoma County population can aid in the development of strategies geared at different health outcomes and social determinants of health.

Why is it important?
Successful community-led and community-driven initiatives rely on familiarity with the diverse community of Oklahoma City and County. The local public health system works together to support the development of services tailored to meet the needs of the community. The system is focused on strengthening a network of health and social services to maximize equitable opportunities and positive health impacts.

How are we doing?
Oklahoma City and County are diverse communities, with nearly 44 percent of the population representing a minority group. Compared to the State, Oklahoma County has a lower percentage of Caucasian but a higher percentage of Black/African American and Asian/Pacific Islander residents. In 2018, an estimated 17.1% of the Oklahoma County residents were of Hispanic origin compared to an estimated 10.4% in the State.

Data Source: U.S. Census ACS 2018 5-year population estimates



Data Source: U.S. Census ACS 2018 5-year population estimates

Chapter 2 Socioeconomic

VARIABLES

Analysis	Data Source
1. Median Household Income	U.S. Census ACS 2018 5-year population estimates
2. Median Household Income Stratified by Gender	U.S. Census ACS 2018 5-year population estimates
3. Population Receiving Supplemental Security Income (SSI) or Supplemental Nutrition Assistance Program (SNAP in Oklahoma County, Oklahoma and United States)	U.S. Census ACS 2018 5-year population estimates
4. Population Living Below Poverty Level in Oklahoma County, Oklahoma and United States	U.S. Census ACS 2018 5-year population estimates
5. Population Unemployed in Oklahoma County, Oklahoma and United States	U.S. Census ACS 2018 5-year population estimates
6. Population with Less than a High School Education in Oklahoma County, Oklahoma and United States	U.S. Census ACS 2018 5-year population estimates
7. Students Eligible for Free or Reduced-price Lunch in Oklahoma City Public Schools	Oklahoma City Public Schools Free or Reduced Lunch Data School Year 2018-2019

MEDIAN HOUSEHOLD INCOME

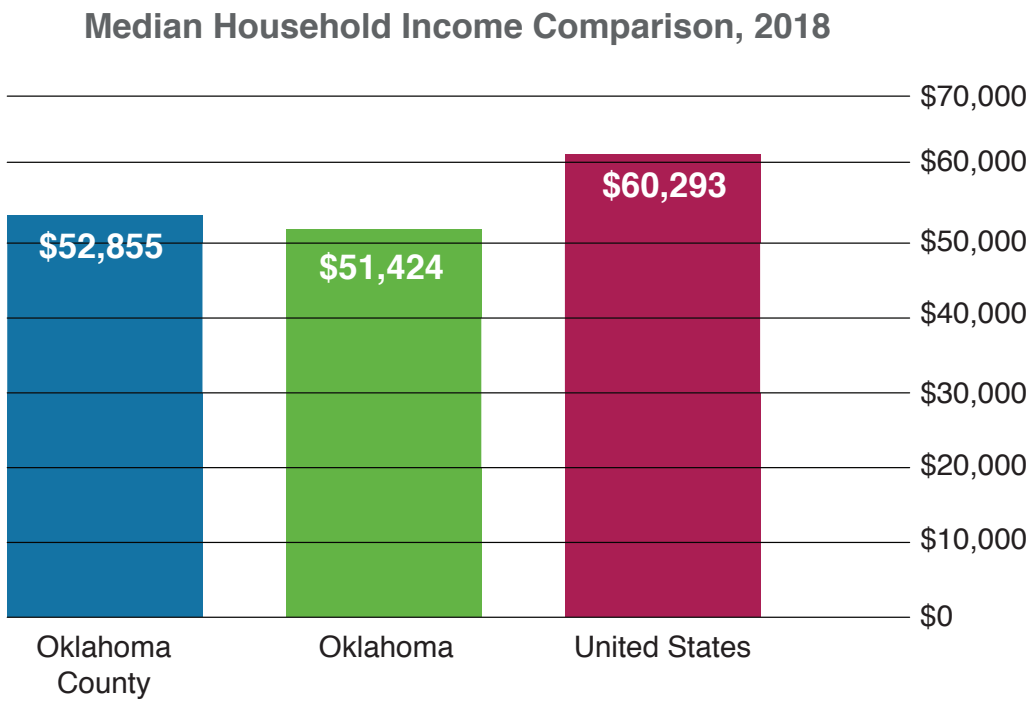
Household income includes the income of the householder and all other individuals 15 years and older in the household, whether they are related to the householder or not, in the past 12 months (U.S Census Bureau, 2018). Median household income (MHI) is based on the income distribution of all households in Oklahoma County. MHI helps to identify socioeconomic barriers in the community.

Why is it important?

Household income is an indicator of financial stability. Household income is a measure of employment status, educational attainment, and economic opportunities. Households with lower income levels tend to experience adverse social and health outcomes such as less access to safe housing and fewer healthy food options, shorter life expectancy, lack of access to health care, and increased incidence of illness.

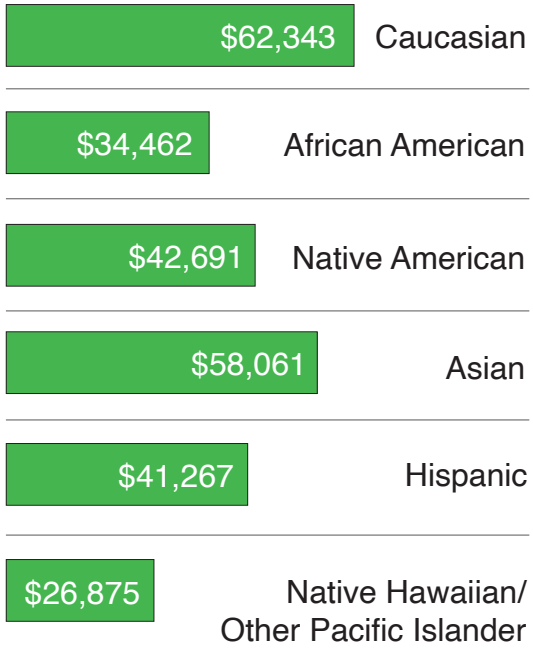
How are we doing?

The estimated median household income for Oklahoma County in 2018 was $52,855. This was higher than the median household income for Oklahoma but lower than that of the United States. When analyzed at the ZIP code level, the estimated MHI in Oklahoma County ranged from $22,860 in 73117 to $166,563 in 73151.



Median Household Income by Race/Ethnicity

Oklahoma County, 2018



Median Household Income by Gender, 2018

Data Source: U.S. Census ACS 2018 5-year population estimates

Reference: U.S. Census Bureau. (2018). Household Income: 2018. Retrieved from https://www.census.gov/content/dam/Census/library/publications/2019/acs/acsbr18-01.pdf

HOUSEHOLDS WITH SSI AND SNAP

Supplemental Security Income (SSI) is a federal income program that provides monthly financial assistance to low-income individuals, persons who are blind, or those aged 65 and older, as well as children and adults with disabilities. Supplemental Nutrition Assistance Program (SNAP) is a federal program that provides monthly food and nutrition benefits to low-income households to supplement their food budget.

Why is it important?
The SSI and SNAP programs help improve the overall health and wellness of a community by helping low-income individuals and families meet nutritional needs. These data help measure the socioeconomic and health status of a community.

How are we doing?
In 2018, 5% and 13.3% of households in Oklahoma County utilized SSI and SNAP, respectively. The SNAP rate for Oklahoma County was higher than the rates for Oklahoma and United States.

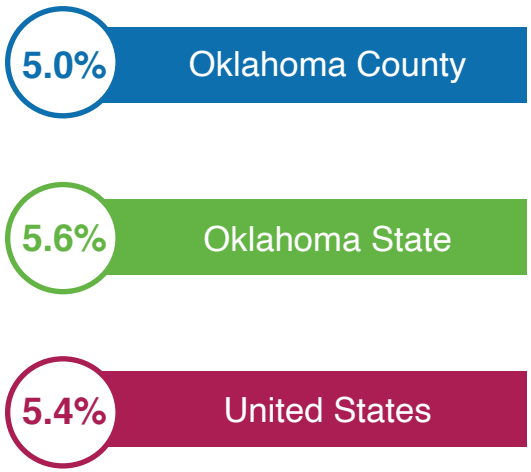
Percent of Population that received SNAP Benefits in 2018:

13.3%
Oklahoma County

13.1%
Oklahoma

12.2%
United States

Percent of Population that received SSI Benefits in 2018:



Data Source: U.S. Census ACS 2018 5-year population estimates

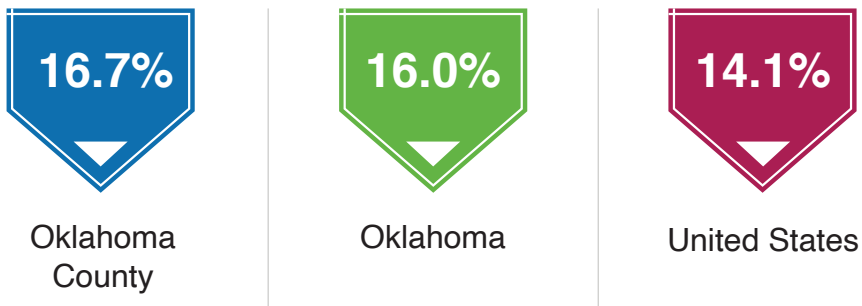
POVERTY

Income and poverty are inextricably intertwined. Individuals enduring poverty are often those in the bottom half of the income distribution. Factors that influence the risk of an individual living in poverty include education, marital status, social class, social status, income level, and geographical location (Proctor et. al, 2015).

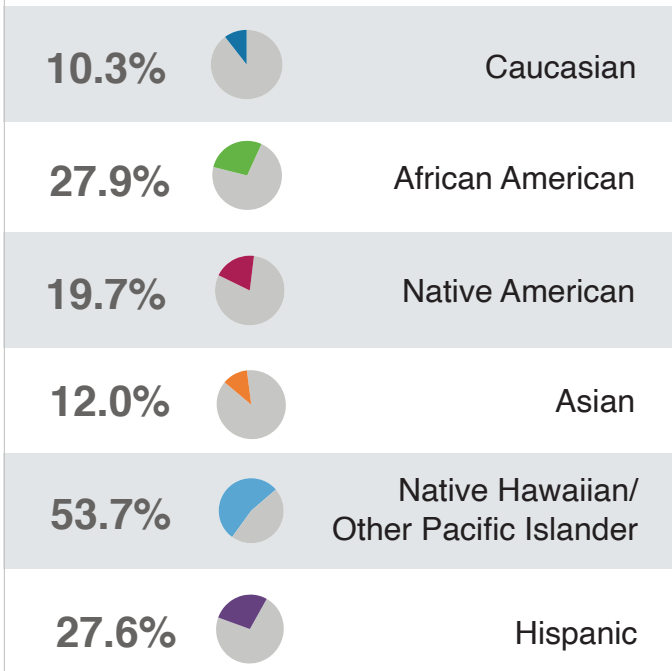
Why is it important?
The relationship between poverty and health outcomes is well established. Descriptive data often show communities with higher poverty rates experience increased risk of disease and premature death. Impoverished neighborhoods also have lower levels of educational attainment and increased barriers toward accessing health care and social services. A comprehensive approach to improving health outcomes must include focusing on those individuals who live in high poverty areas. Public health partners can use this data to help plan programs, services and policies that target service delivery in these higher poverty communities.

How are we doing?
Nearly 17 percent of Oklahoma County residents lived below the poverty level in 2018. This figure was higher than both the state and national rates at 16% and 14.1%, respectively.

Percent of Population Below Poverty Level, 2018



Percent of Population Living Below Poverty Level by Race/Ethnicity
Oklahoma County, 2018

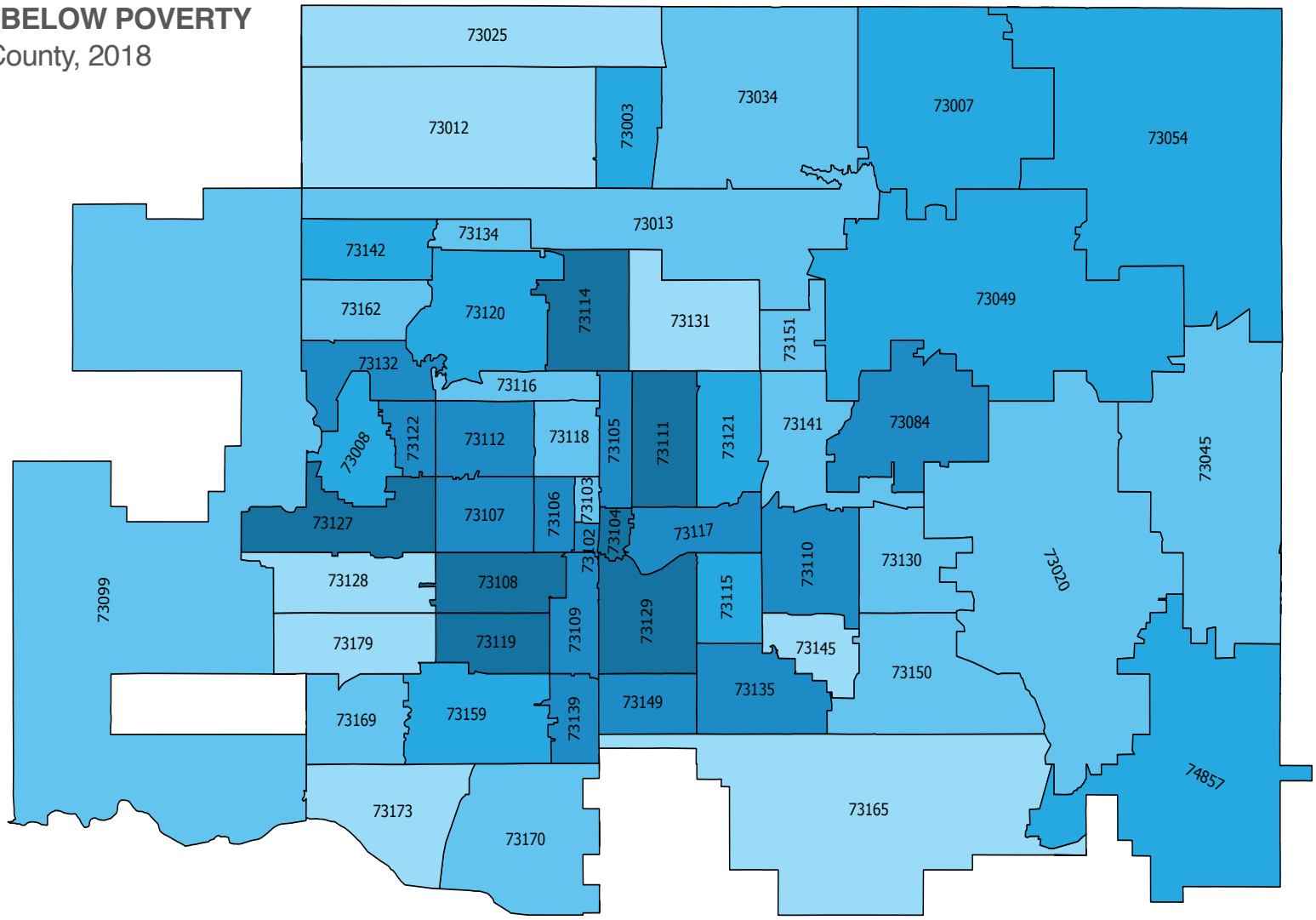


Data Source: U.S. Census ACS 2018 5-year population estimates

Reference: Proctor, B. D., Semega, J. L., & Kollar, M. A. (2015). Income and poverty in the United States: 2015. U.S. Census Bureau, Current Population Reports. Washington, DC: U.S. Government Printing Office; 2016. P60-256(RV). https://www.census.gov/content/dam/Census/library/publications/2016/demo/p60-256.pdf

HOUSEHOLDS BELOW POVERTY

Oklahoma City-County, 2018



Data Source: U.S. Census ACS 2018
5-year population estimates

Lowest — Highest

73003	9.5	73054	7.2								
73007	9	73084	16.6	73109	21.4	73119	30.4	73132	14.3	73151	3.9
73008	10.5	73099	4.9	73110	16.9	73120	7.9	73134	6.3	73159	10.5
73012	1.9	73102	15.7	73111	25.5	73121	8.3	73135	15.7	73162	3.9
73013	4.8	73103	3.8	73112	13.5	73122	13.8	73139	18.2	73165	3.2
73020	4.7	73104	25.1	73114	28.7	73127	27.1	73141	5.6	73169	5
73025	1.1	73105	14.9	73115	12.1	73128	3	73142	7.9	73170	3.6
73034	5	73106	16.7	73116	5.9	73129	34.5	73145	1.2	73173	3.4
73045	5.2	73107	18.2	73117	21.9	73130	6.6	73149	21.3	73179	0.4
73049	7.5	73108	38.6	73118	5.2	73131	2.6	73150	4.8	74857	8.3

UNEMPLOYMENT

Unemployment rate is one of the indicators that can be used to determine the overall economic stability of a community. Unemployment rate is related to strengths and weaknesses of the economy. Unemployed individuals often rely on safety net programs such as SNAP and Medicaid to take care of themselves and their families.

Why is it important?
Unemployment is among the factors that contribute to poverty and negative health outcomes. Some of the effects of unemployment include depression, anxiety, chronic diseases, low quality of life, and even premature death. Community-based programs intended to improve quality of life advocate for policies and services that keep unemployment low. Programs such as increased access to job training and business recruitment and retention are important services related to health and quality of life.

How are we doing?
The unemployment rate for Oklahoma County in 2018 was 4.9%. This was slightly lower than the unemployment rate for Oklahoma state (5.3%) and 1% lower than the national unemployment rate of 5.9%.

Data Source: U.S. Census ACS 2018 5-year population estimates

Percent of Unemployed Population Comparison, 2018

4.9%	5.3%	5.9%
Oklahoma County	Oklahoma State	United States

EDUCATION ATTAINMENT

Education attainment is one of several critical factors that influence social outcomes, overall health, and the general well-being of an individual and the community.

Why is it important?
Health data consistently link education with overall health and wellbeing of the community (CDC, 2019). Higher levels of education are associated with delayed childbirth in females and higher-wage jobs for families in general. The Robert Wood Johnson Foundation explains, "people with more education are likely to live longer and experience better health outcomes." Community organizations can use this data to advocate for policies, programs, and services that increase education and training opportunities in communities at risk for not graduating from high school or less likely to pursue additional education and training opportunities.

How are we doing?
In 2018, 13.2 percent of the Oklahoma County population 18 years and older did not have a high school diploma. This was higher than Oklahoma, 12.6 percent, and the United States, 12.4 percent.

Percent of Population With Less Than High School Education Comparison, 2018

13.2%
Oklahoma County

12.6%
Oklahoma State

12.4%
United States

References:
Centers for Disease Control and Prevention. (August 2019). Health & Academics. Retrieved from https://www.cdc.gov/healthyyouth/health_and_academics/index.htm

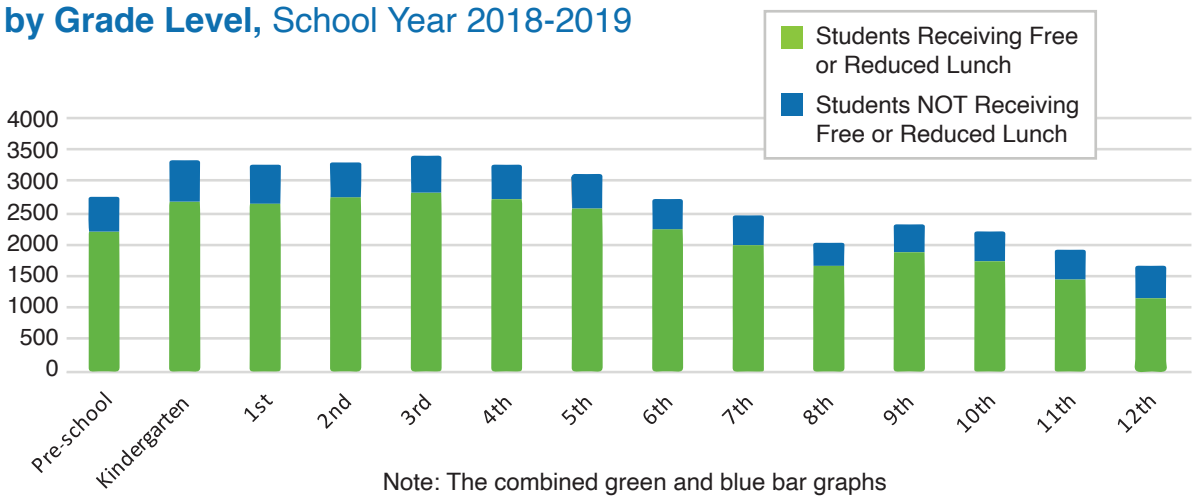
FREE OR REDUCED LUNCH

Free or reduced lunch (FRL) is provided to children in Oklahoma City-County as a nutritional supplement and is made available to families based on total household size and income. These data were received from the Oklahoma City Public School District and represents the percentage of children receiving free or reduced lunch during the 2018-2019 school year.

Why is it important?
Information about free or reduced lunches can be used in conjunction with socioeconomic data to identify areas of the community to target for social and health services. Local public health and community partnerships can identify resources to impact social inequalities, and assure policies and programs are in place to address childhood nutrition in high-poverty areas. Free or reduced lunch is not used as a direct measure of poverty because some students who qualify for FRL are above the poverty threshold (Snyder & Musu-Gillette, 2015).

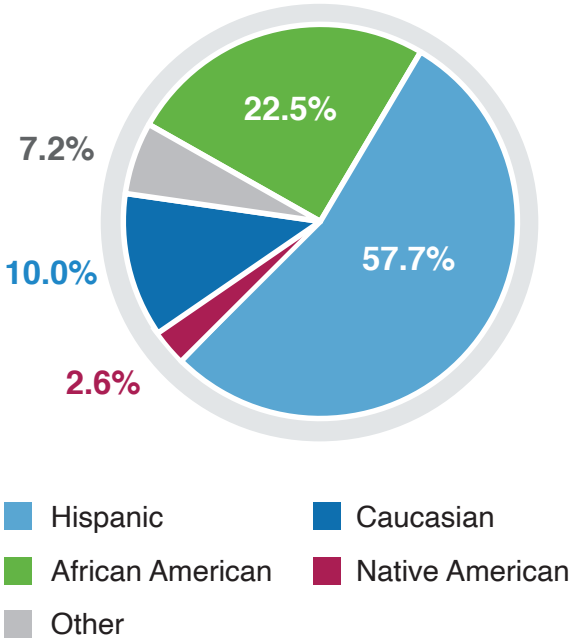
References: Snyder, T. and Musu-Gillette, L. 2015. Free or reduced price lunch: A proxy for poverty? Retrieved from https://nces.ed.gov/blogs/nces/post/free-or-reduced-price-lunch-a-proxy-for-poverty

OKCPS Students Receiving FRL by Grade Level, School Year 2018-2019



Note: The combined green and blue bar graphs represent the total number of students in each grade.

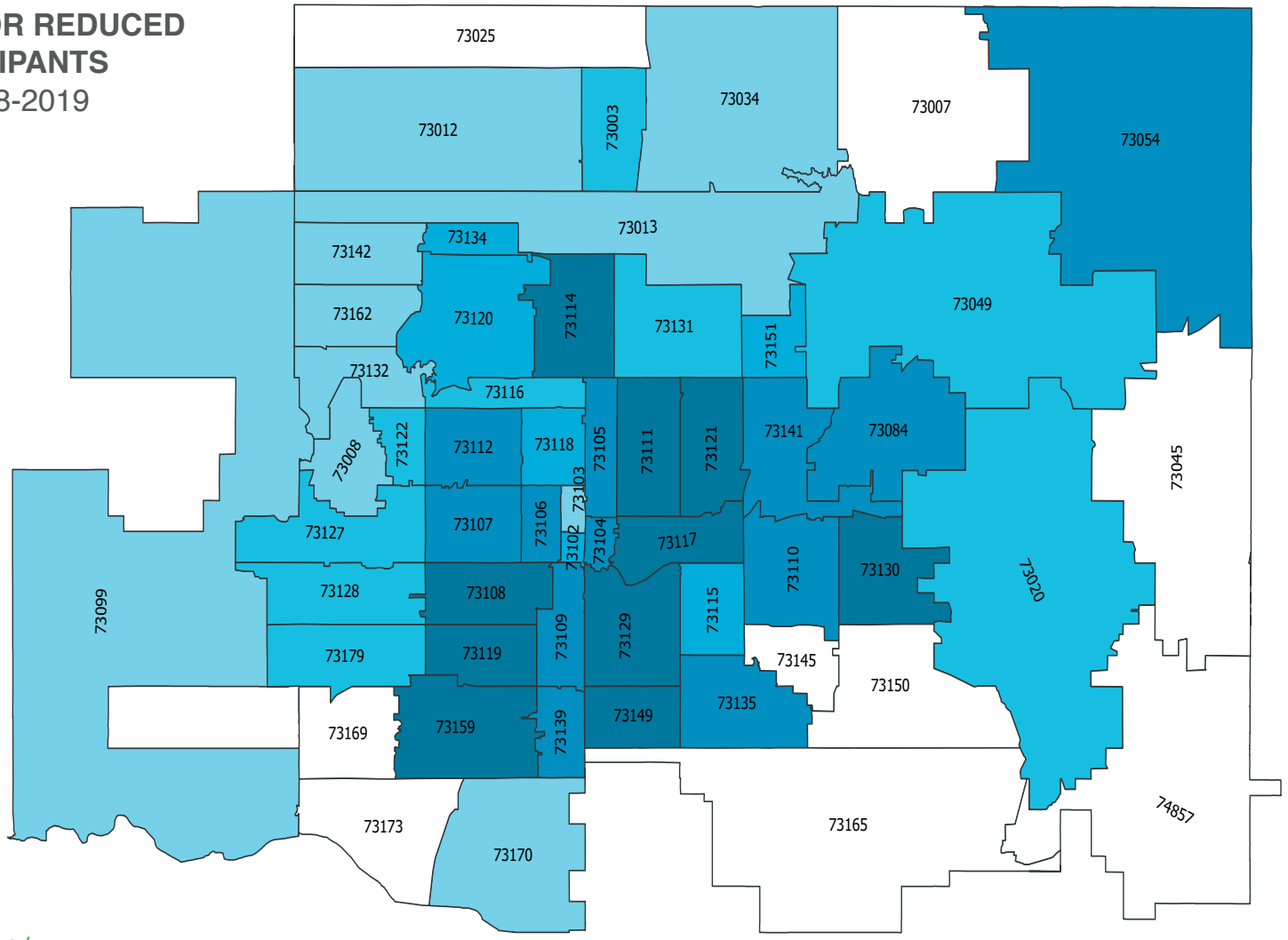
OKCPS Students Receiving FRL by Race/Ethnicity
School Year 2015-2016



How are we doing?
More than 80 percent of students enrolled in Oklahoma City Public Schools (OKCPS) received free or reduced lunch. Of those enrolled in the program, approximately 58 percent were Hispanic, 23 percent Black/African American and 10 percent were Caucasian. The grades with the highest proportion receiving FRL is third grade (83.5 percent), second grade and fourth grade (83.4 percent). The grades with the lowest proportion receiving FRL are 12th grade (69.1 percent), 11th grade (76.3 percent) and 10th grade (79.0 percent). The ZIP codes with the highest rate of free or reduced lunch participants were 73111, 73117 and 73129.

OKCPS FREE OR REDUCED LUNCH PARTICIPANTS

School Year 2018-2019



*Data too low to count/compare
** Not free or reduced

Lowest Highest N/A

73003	46.2	73054	80								
73007	*	73084	77.7	73109	80.8	73119	87.5	73132	34.4	73151	60
73008	25	73099	19.2	73110	80.6	73120	61.5	73134	57.1	73159	87.9
73012	8.7	73102	66.7	73111	93.1	73121	84.6	73135	79.5	73162	36.4
73013	33.3	73103	25	73112	74.4	73122	45.2	73139	83.2	73165	*
73020	52.4	73104	74.8	73114	87.9	73127	47.4	73141	80.4	73169	*
73025	**	73105	80.3	73115	61.8	73128	40	73142	23.1	73170	37.5
73034	15	73106	78.4	73116	44.8	73129	89.3	73145	*	73173	*
73045	*	73107	78.7	73117	92.5	73130	84.8	73149	88.3	73179	50
73049	50	73108	88	73118	70.1	73131	52.6	73150	*	74857	*

Data Source: Oklahoma City Public Schools Free or Reduced Lunch Data School Year 2018-2019

Chapter 3 Maternal and Child Health

VARIABLES

Analysis	Data Source
1. Crude Birth Rate 2. Fertility Rate 3. Teen Birth Rate 4. Low Birth Weight 5. Premature Births	• Oklahoma State Department of Health 2016-2018 vital records. • Martin, J.A., Hamilton, B. E., Osterman, M. J. K., & Driscoll, A.K. (2019). BirthsL Final data for 2018. National Vital Statistics Reports, 68(13). National Center for Health Statistics..
6. Late or No Prenatal Care 7. Maternal Smoking during Pregnancy 8. Maternal Education less than High School Diploma	• Oklahoma State Department of Health 2016-2018 vital records. • United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics, Natality public-use data 2016-2018, on CDC WONDER Online Database, September 2019. Accessed at http://wonder.cdc.gov/natality-expanded-current.html on Jan 13, 2020.
9. Infant Mortality Rate	• Oklahoma State Department of Health 2016-2018 vital records. • Xu, J. Q, Murphy, S. L., Kochanek, K. D., & Arias, E. (2020). Mortality in the United States. NCHS Data Brief No. 355. National Center for Health Statistics.
10. Single-mother Family Household	• U.S. Census ACS 2018, 1 & 5-year population estimates

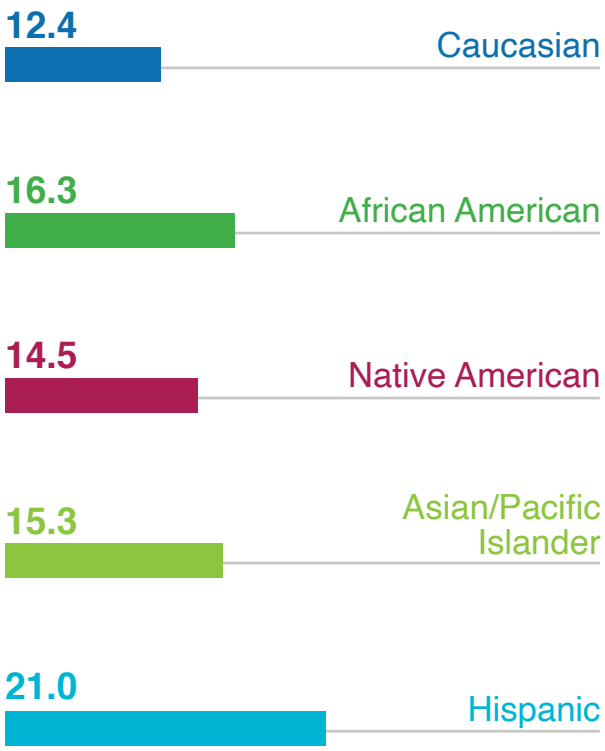
CRUDE BIRTH RATE

Crude birth rate is one measure used to estimate fertility in a population. It is the number of live births to Oklahoma County residents per 1,000 persons over 2016-2018. This measure includes the total population regardless of age or gender.

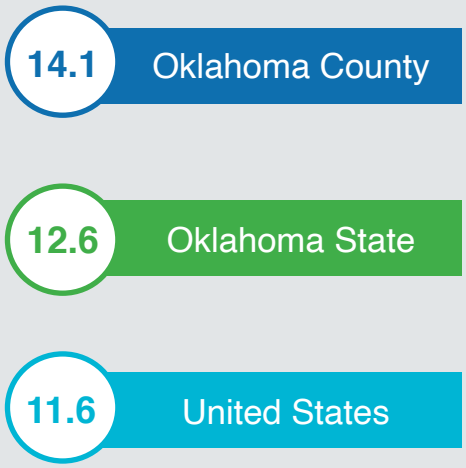
Why Is It Important?
Along with other population measures, crude birth rate can be used to measure population growth. Changes in population growth can impact public policy and economic development.

How Are We Doing?
The crude birth rate for Oklahoma County was 14.7 live births per 1,000 persons during 2016-2018—a 9.3 percent decline from 2013-2015. The county rate was higher than both the state and national rates in 2018. A total of 34,823 births were registered to Oklahoma County residents between 2016 and 2018. Fifty-one percent of total births were males and 49 percent were females. Hispanics recorded the highest birth rates, and Caucasians experienced the lowest birth rates compared to all other racial groups.

Crude Birth Rate by Maternal Race/Ethnicity
Oklahoma County, 2016-2018



Crude Birth Rate Comparison, 2018

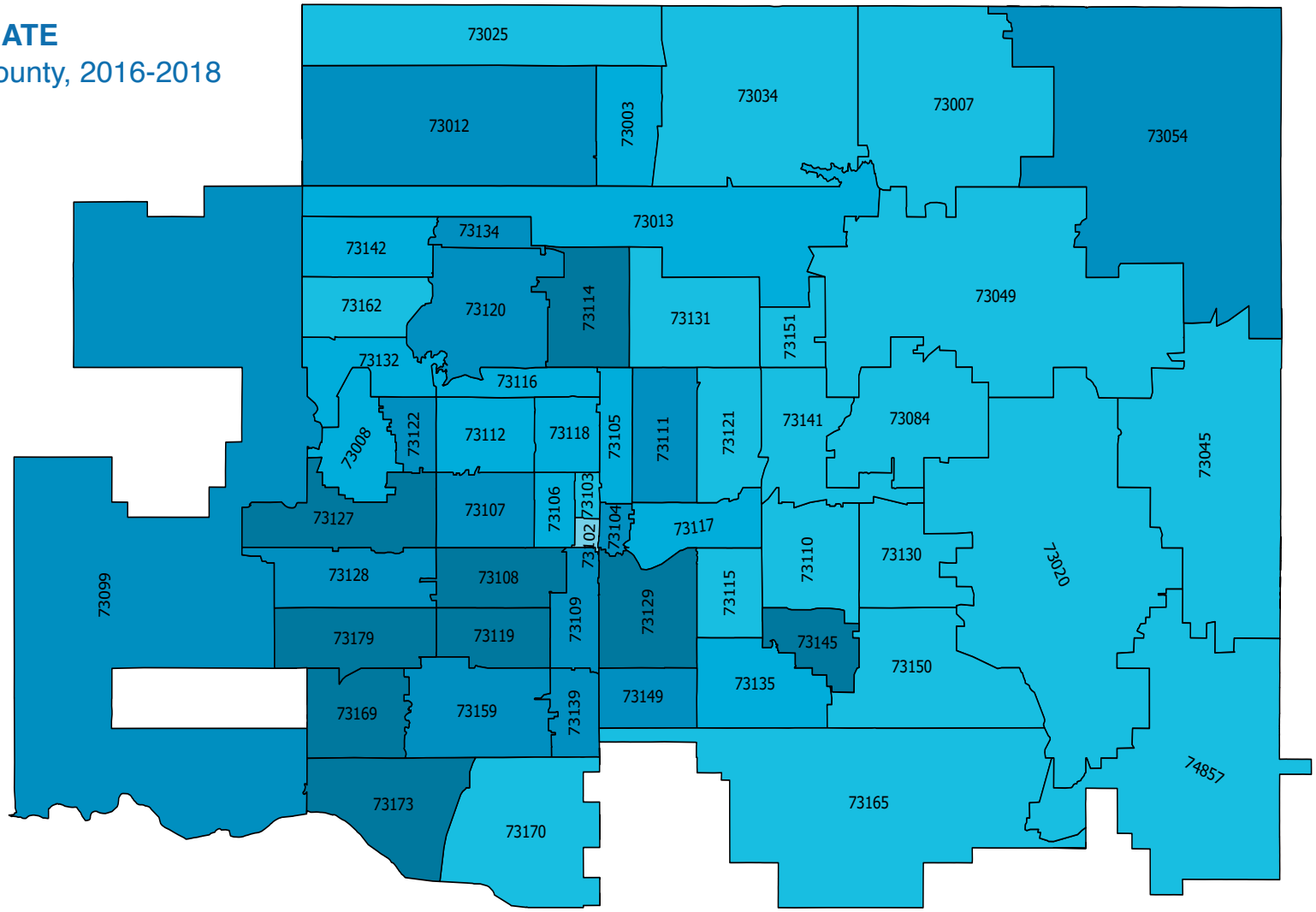


Data Source:

- Martin JA, Hamilton BE, Osterman MJK, Driscoll AK. Births: Final data for 2018. National Vital Statistics Reports; vol 68, no 13. Hyattsville, MD: National Center for Health Statistics. 2019.
- Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information, Vital Statistics 2016 to 2018, on Oklahoma Statistics on Health Available for Everyone (OK2SHARE). Accessed at http://www.health.ok.gov/ok2share.

CRUDE BIRTH RATE

Oklahoma City-County, 2016-2018



Lowest — Highest

73003	11.8	73054	15.3								
73007	9.9	73084	10.7	73109	16.5	73119	18.5	73132	14.1	73151	10.4
73008	14.4	73099	16	73110	10	73120	15.1	73134	15.6	73159	14.8
73012	15.6	73102	2.8	73111	15.7	73121	8.2	73135	13.8	73162	9.3
73013	12.9	73103	10.1	73112	14.1	73122	15.1	73139	16.7	73165	10.1
73020	7.7	73104	17.4	73114	18.1	73127	18.7	73141	9	73169	18.7
73025	11.2	73105	12.7	73115	11.3	73128	15.8	73142	14.1	73170	10.8
73034	10.5	73106	12.6	73116	12.3	73129	19.3	73145	20.9	73173	22.4
73045	8.8	73107	17.1	73117	14.3	73130	8.6	73149	16.2	73179	18.4
73049	9.4	73108	20.6	73118	13.7	73131	9.1	73150	6.9	74857	9.9

Rate per 1,000 population. Data Source: Oklahoma State Department of Health 2016-2018 vital records

GENERAL FERTILITY RATE

The general fertility rate is presented as the number of live births per 1,000 women aged 15-44 years from 2016-2018. This measure is often considered a more accurate measure of fertility than crude birth rate because it takes age and gender into account.

Why Is It Important?
Since general fertility rate incorporates the differences in age and gender distributions it can be used to compare fertility across different geographic boundaries and racial/ethnic populations.

How Are We Doing?
The Oklahoma County fertility rate was 70.8 births per 1,000 women aged 15-44 during 2016-2018—an 8.6% decrease from 2013-2015. The Oklahoma County rate was higher than both the state and the United States 2018 average. During 2016-2018, Oklahoma County Hispanics recorded a fertility rate of 95.1 births per 1,000 women aged 15-44. This was 32 percent and 49 percent higher than the rates for Black/African American and Caucasian women, respectively. Asian/Pacific Islander women in Oklahoma County reported the lowest fertility rates.

Data Source:
- Martin JA, Hamilton BE, Osterman MJK, Driscoll AK. Births: Final data for 2018. National Vital Statistics Reports; vol 68, no 13. Hyattsville, MD: National Center for Health Statistics. 2019.
- Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information, Vital Statistics 2016 to 2018, on Oklahoma Statistics on Health Available for Everyone (OK2SHARE). Accessed at http://www.health.ok.gov/ok2share.

Fertility Rate by Race/Ethnicity
Oklahoma County, 2016-2018

63.9
Caucasian

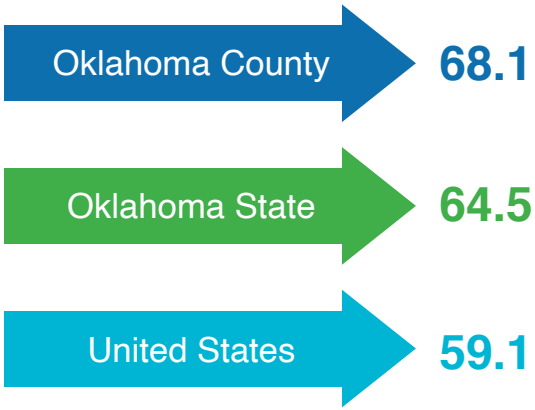
72.3
African American

62.1
Native American

57.4
Asian/Pacific Islander

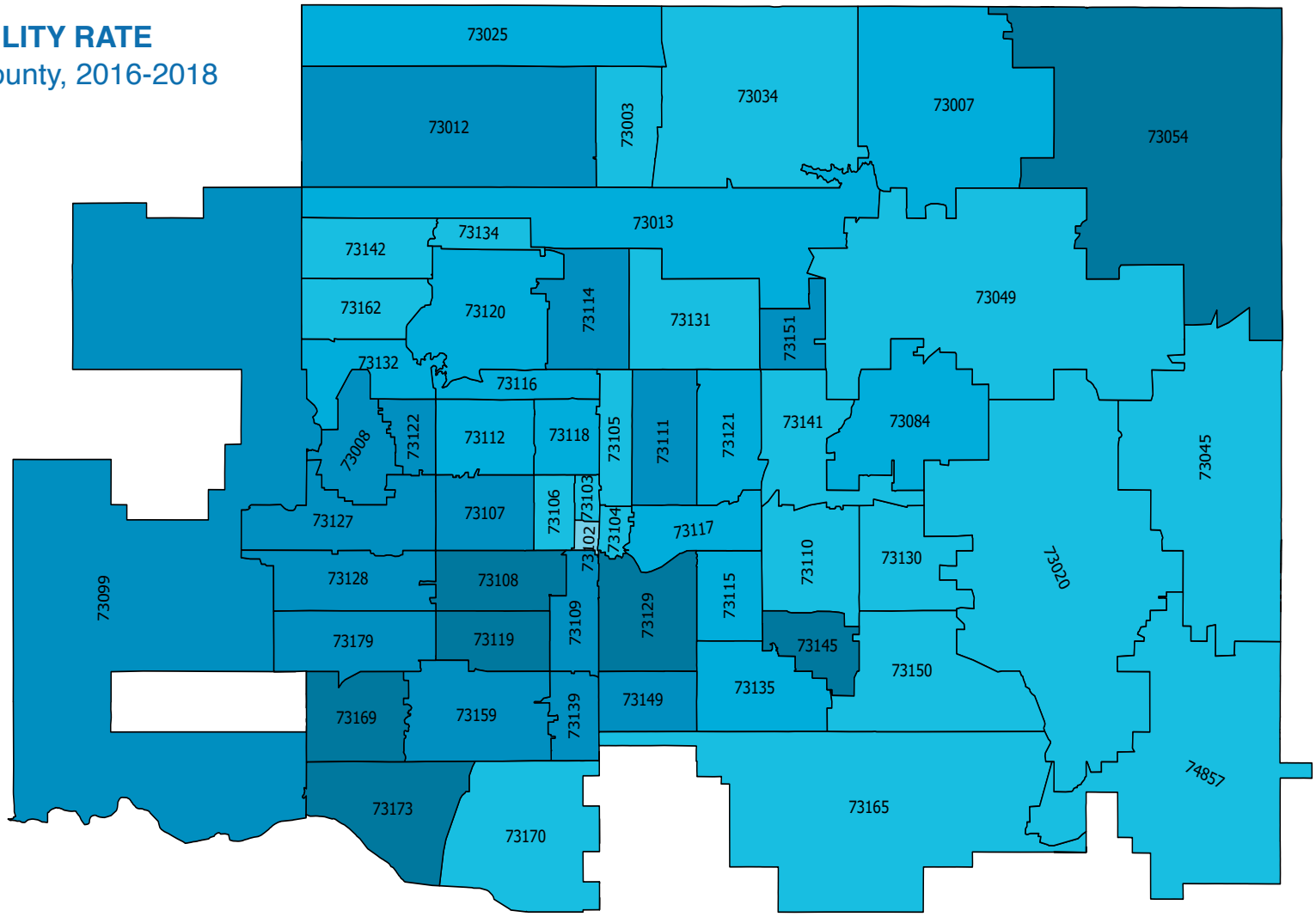
95.1
Hispanic

Fertility Rate Comparison, 2018



GENERAL FERTILITY RATE

Oklahoma City-County, 2016-2018



Lowest — Highest

73003	53.4	73054	94.6	73109	81.4	73119	88.7	73132	64.6	73151	76
73007	60.4	73084	68.3	73110	47.3	73120	63.6	73134	54	73159	73.3
73008	75.8	73099	76	73111	81.7	73121	65.3	73135	66.3	73162	50.4
73012	74.8	73102	15.7	73112	65.3	73122	73.6	73139	87.3	73165	57.3
73013	61.4	73103	36.8	73114	76.2	73127	81.5	73141	51.1	73169	92.3
73020	43.2	73104	57.1	73115	58.3	73128	80.4	73142	55.7	73170	54.8
73025	66.2	73105	51.2	73116	63.7	73129	99.4	73145	92.4	73173	114.4
73034	51.1	73106	46.8	73117	62.4	73130	47.5	73149	79.3	73179	81.1
73045	55.7	73107	78.9	73118	58.5	73131	55.1	73150	45.9	74857	55.1
73049	57	73108	99.2								

Rate per 1,000 population. Data Source: Oklahoma State Department of Health 2016-2018 vital records

BIRTHS TO TEENS

Teen birth rate represents the number of live births to females ages 15-19 per 1,000 female population in this age group during 2016-2018.

Why Is It Important?
Teenage birth rate is a key indicator of population change and helps describe patterns of early family formation (CDC, 2017). Compared to older females, teenagers are less likely to seek timely prenatal care and have a greater risk for giving birth prematurely or having a baby with low birth weight. As a result, children of teenage mothers have a higher risk of adverse health outcomes. Teen pregnancy also contributes to school dropout which can result in long-term negative social and economic impacts (Perper et al., 2010). Community-level Programs, policies and services focusing on comprehensive education about the medical and social risks associated with teen pregnancy are critical to reducing teen births to females 19 and younger.

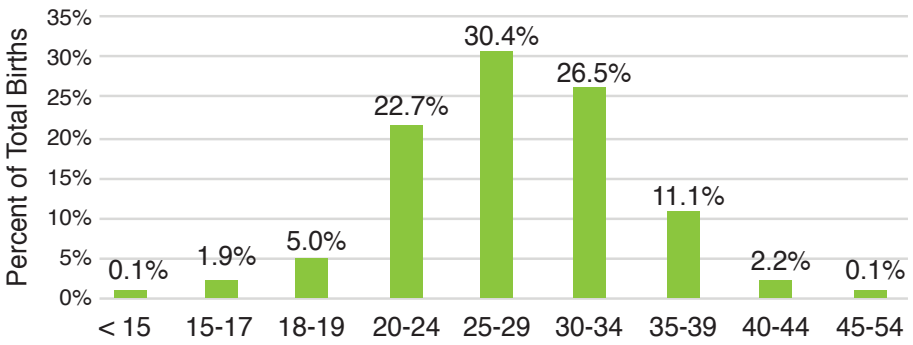
Teen Birth Rate by Race/Ethnicity

Oklahoma County, 2016-2018

22.5	41.2	4.0	33.1	51.0
Caucasian	African American	Asian/ Pacific Islander	Native American	Hispanic

Birth Stratification by Maternal Age

Oklahoma County, 2016-2018



Teen Birth Rate Comparison, 2018

29.8	27.1	17.4
Oklahoma County	Oklahoma State	United States

How Are We Doing: Teen Birth Rate (15-19 year-olds)
The average teen birth rate in Oklahoma County declined 25 percent from 44.2 in 2013-2015 to 33.0 in 2016-2018. However, the Oklahoma County teen birth rate was 71 percent higher than the national average, and 10 percent higher than the state rate in 2018. Between 2016 and 2018, 2,401 Oklahoma County teenage moms, ages 15-19 years, gave birth. Hispanics experienced the highest teen birth rate in Oklahoma County, and Asian/Pacific Islanders recorded the lowest teen birth rate compared to other racial or ethnic groups.

How Are We Doing: Births to Mothers Under Age 20
Mothers 19 years and younger represented 7 out of every 100 births in Oklahoma County between 2016 and 2018. Hispanics had the highest percent of births to mothers 19 and younger with 11 percent of live births.

Data source

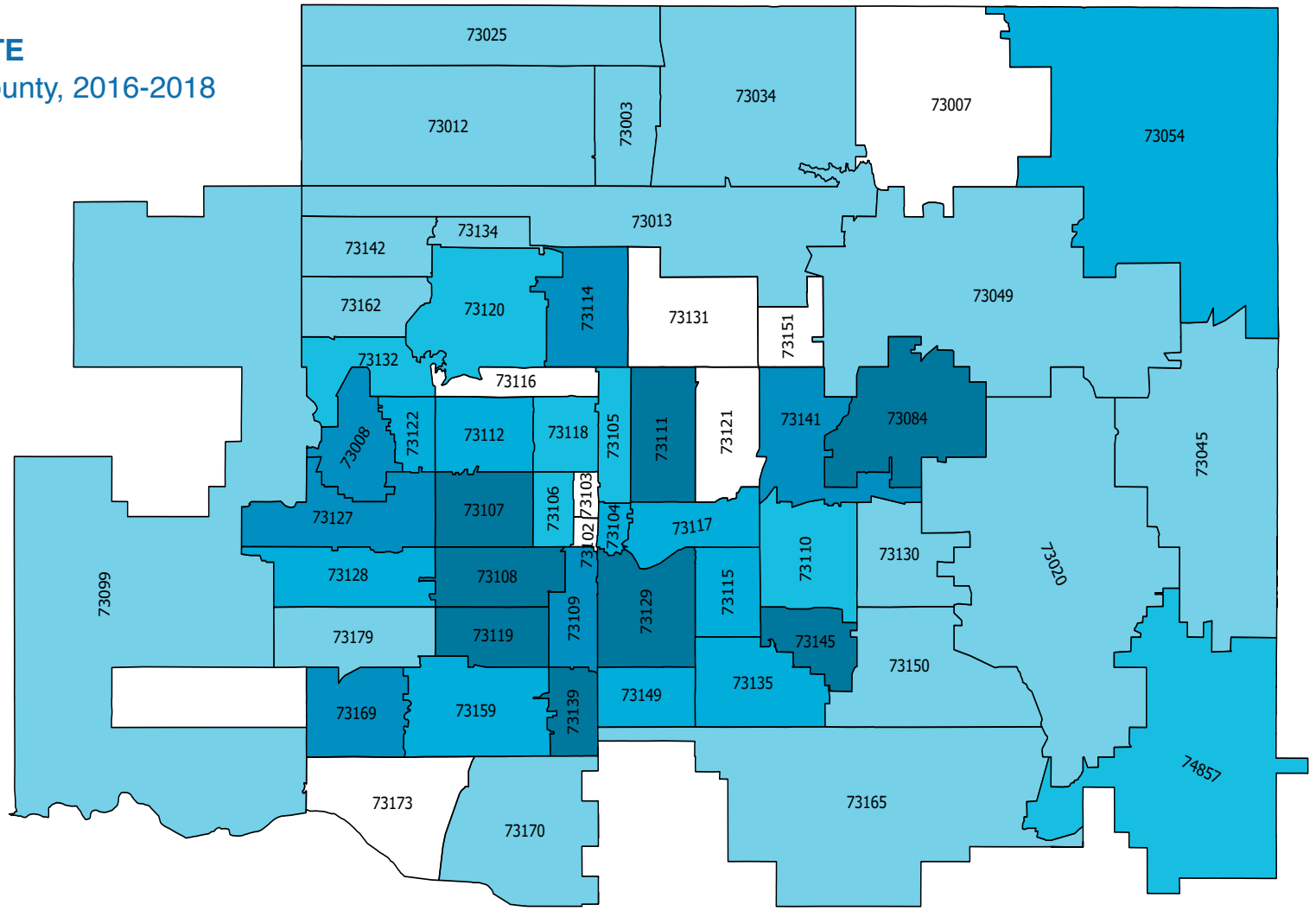
- Martin JA, Hamilton BE, Osterman MJK, Driscoll AK. Births: Final data for 2018. National Vital Statistics Reports; vol 68, no 13. Hyattsville, MD: National Center for Health Statistics. 2019.
- Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information, Vital Statistics 2016 to 2018, on Oklahoma Statistics on Health Available for Everyone (OK2SHARE). http://www.health.ok.gov/ok2share.

Reference

- Centers for Disease Control and Prevention. (2017). National vital statistics system; NCHS fact sheet. https://www.cdc.gov/nchs/data/factsheets/nvss_fact_sheet.pdf.
- Perper, K., Peterson, K. & Manlove, J. (2010). Diploma attainment among teen mothers. Child Trends, Fact Sheet Publication #2010-01: Washington, DC: Child Trends.

TEEN BIRTH RATE

Oklahoma City-County, 2016-2018



**Data too low to count/compare

73003	8.3	73054	41.5								
73007	**	73084	71	73109	46.4	73119	64.7	73132	29.3	73151	**
73008	46.7	73099	17.5	73110	22	73120	26.7	73134	13.1	73159	35.3
73012	5	73102	**	73111	69	73121	**	73135	32.8	73162	10.1
73013	8.5	73103	**	73112	34.2	73122	39	73139	65.1	73165	9.3
73020	10.6	73104	35	73114	56.1	73127	51.7	73141	54.5	73169	45.5
73025	3.4	73105	31.5	73115	39.4	73128	35.7	73142	14.6	73170	11.6
73034	8.1	73106	23	73116	**	73129	62.9	73145	63.3	73173	**
73045	14	73107	78.4	73117	38.2	73130	15.4	73149	38.7	73179	14
73049	18.5	73108	86.8	73118	28	73131	**	73150	16.2	74857	28.9

Rate per 1,000 female population ages 15-19 years. Data Source: Oklahoma State Department of Health 2016-2018 vital records

LOW BIRTH WEIGHT

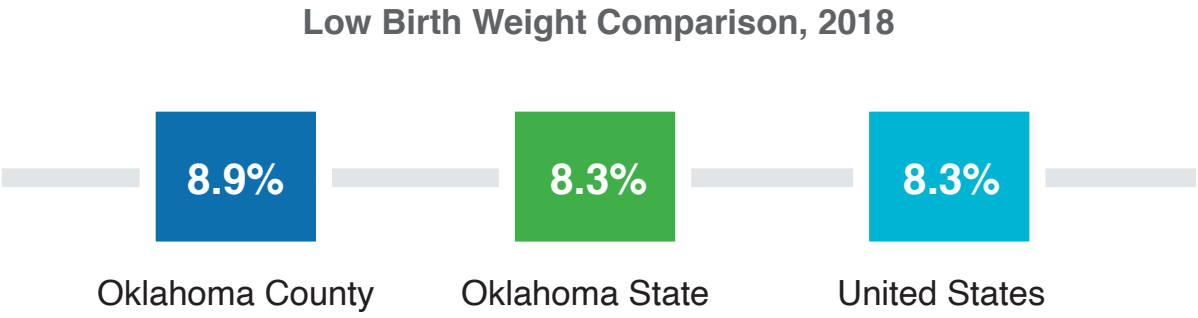
Low birth weight is defined as babies who are born weighing less than 2,500 grams or five pounds, eight ounces, regardless of gestational age. The indicator is expressed as the percent of all live births to Oklahoma County mothers over 2016-2018 who are born below 2,500 grams.

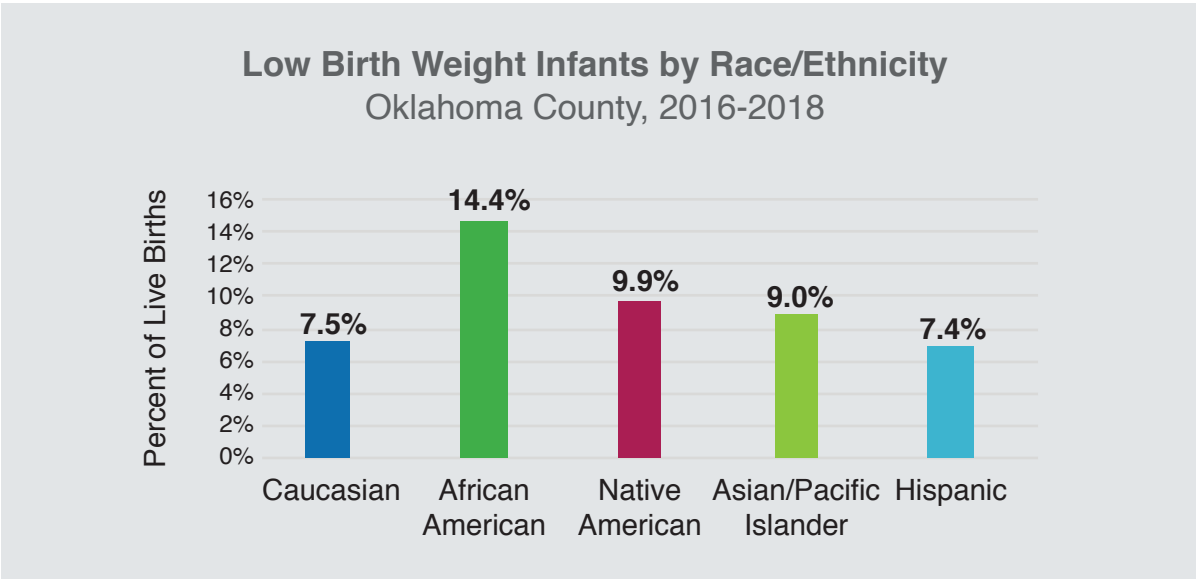
Why Is It Important?

Infants of low birth weight are at a greater risk of developing many health problems. These issues could include infections in the first few days of life or long-term developmental issues. Low birthweight could be a result of several environmental, social, and economic factors (CDC, 2016). Early and regular prenatal care helps identify conditions and behaviors that can result in low-birth weight infants (CDC, 2016).

How Are We Doing?

Nearly nine (8.9%) in every 100 births in the county were low birth weight during 2016-2018. This represents a five percent increase from 2013-2015. The county rate was 0.6 percent higher than the state and the national average in 2018. More than 14 percent of births to Black/African American women between 2016 and 2018 were low birth weight, almost twice the rate of Caucasians. The rate of low birth weight among Hispanic infants was 7.4 percent. Native American and Asian/Pacific Islander rates were 9.9 and 9 percent, respectively.





Data source

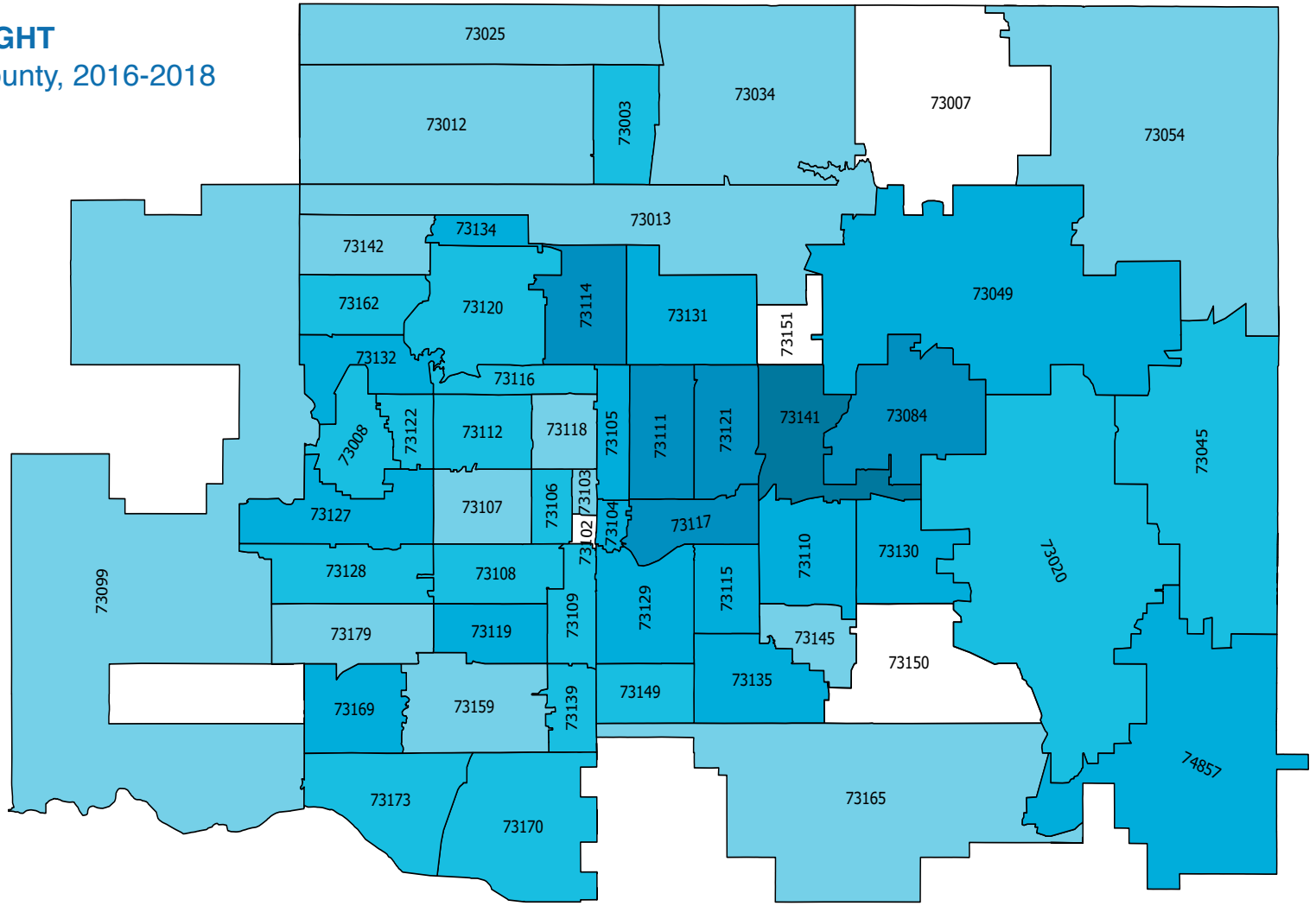
- Martin JA, Hamilton BE, Osterman MJK, Driscoll AK. Births: Final data for 2018. National Vital Statistics Reports; vol 68, no 13. Hyattsville, MD: National Center for Health Statistics. 2019.
- Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information, Vital Statistics 2016 to 2018, on Oklahoma Statistics on Health Available for Everyone (OK2SHARE). Accessed at http://www.health.ok.gov/ok2share.

Reference

- Centers for Disease Control and Prevention. (2016). Reproductive and Birth Outcomes. Retrieved from https://ephtracking.cdc.gov/showRbLBWGrowthRetardationEnv

LOW BIRTH WEIGHT

Oklahoma City-County, 2016-2018



**Data too low to count/compare

73003	8.1%	73054	5.9%								
73007	**	73084	14.2%	73109	9.2%	73119	9.7%	73132	9.7%	73151	**
73008	8.3%	73099	6.7%	73110	11.8%	73120	8.8%	73134	11.2%	73159	7.1%
73012	7.3%	73102	**	73111	13.3%	73121	14.3%	73135	10.8%	73162	8.0%
73013	6.7%	73103	6.8%	73112	8.1%	73122	8.1%	73139	9.4%	73165	6.5%
73020	9.4%	73104	11.8%	73114	12.3%	73127	10.9%	73141	22.9%	73169	10.5%
73025	6.5%	73105	10.4%	73115	11.5%	73128	9.6%	73142	5.7%	73170	9.3%
73034	6.8%	73106	8.6%	73116	8.7%	73129	10.7%	73145	5.1%	73173	8.3%
73045	9.2%	73107	6.9%	73117	15.3%	73130	10.4%	73149	8.5%	73179	7.0%
73049	9.7%	73108	8.3%	73118	6.6%	73131	11.2%	73150	**	74857	9.7%

Data Source: Oklahoma State Department of Health 2016-2018 vital records

PREMATURE BIRTHS

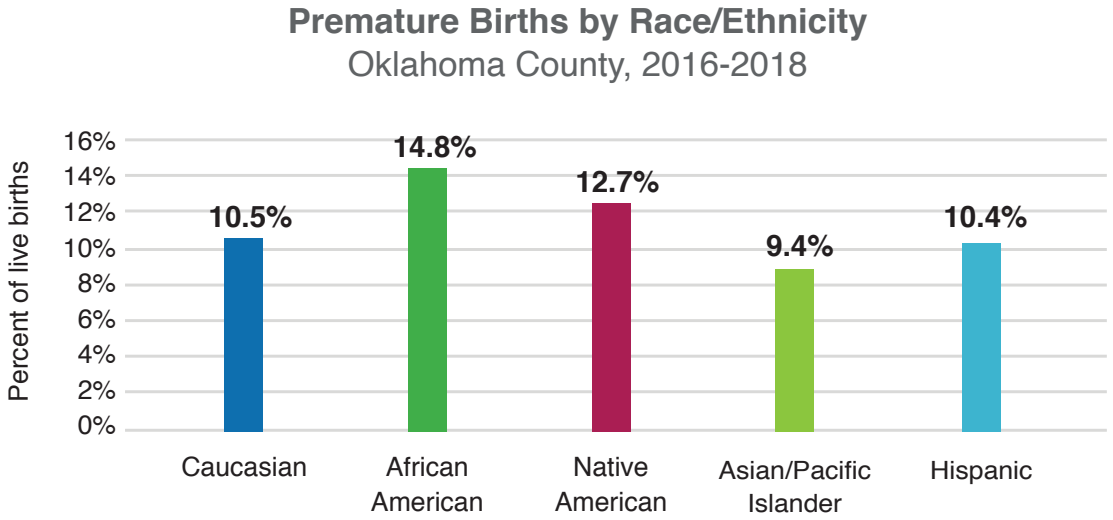
Preterm birth is defined as births that occur before the 37th gestational week of pregnancy. These data are presented as a percent of total births to Oklahoma County mothers, over the years 2016-2018.

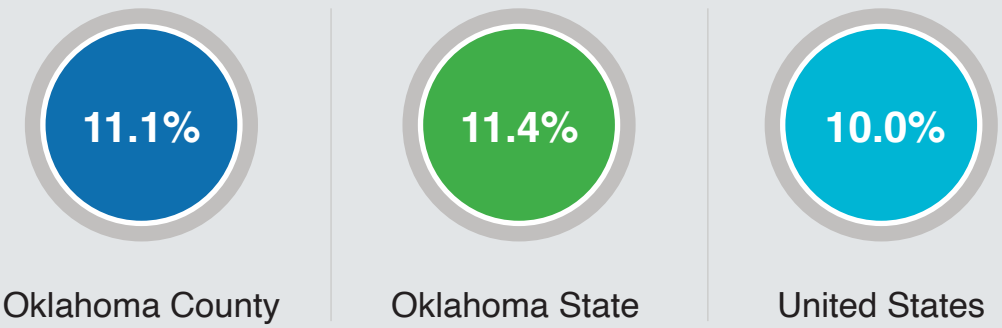
Why Is It Important?

In the final weeks of pregnancy, a baby goes through important developmental processes for the brain, lungs, and liver (CDC, 2019). Preterm babies experience an increased risk of cerebral palsy, developmental delay, vision problems or hearing impairment (CDC, 2019). Factors that can increase the risk of premature birth include smoking cigarettes or using illicit drugs while pregnant, poor nutrition, having a previous premature birth, multiple gestations and inadequate birth spacing (CDC, 2019).

How Are We Doing?

More than eleven percent (11.3%) of babies born to Oklahoma County women during 2016-2018 were premature. Oklahoma County saw an 11 percent increase in the premature birth rate between 2013-2015 and 2016-2018. The rate of preterm birth among Black/African American women, 14.8 percent, was 4.3 percent higher than the rate of preterm birth among Caucasian women, 10.5 percent. The rate among Asian/Pacific Islanders births was lower than all other groups.





Data source

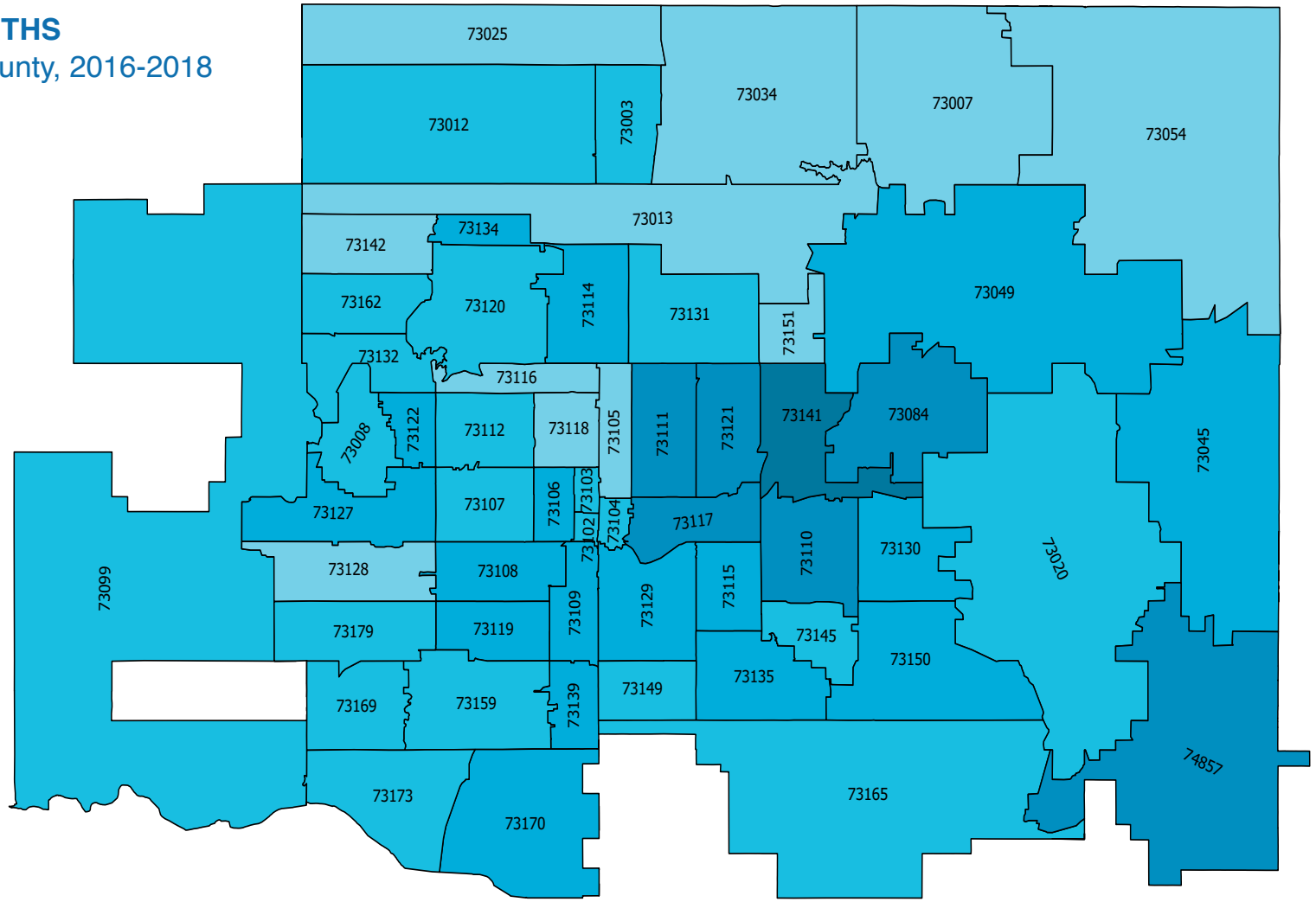
- Martin JA, Hamilton BE, Osterman MJK, Driscoll AK. Births: Final data for 2018. National Vital Statistics Reports; vol 68, no 13. Hyattsville, MD: National Center for Health Statistics. 2019.
- Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information, Vital Statistics 2016 to 2018, on Oklahoma Statistics on Health Available for Everyone (OK2SHARE). Accessed at http://www.health.ok.gov/ok2share.

Reference

- Centers for Disease Control and Prevention. (2019). Preterm Birth. Retrieved from https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pretermbirth.htm

PREMATURE BIRTHS

Oklahoma City-County, 2016-2018



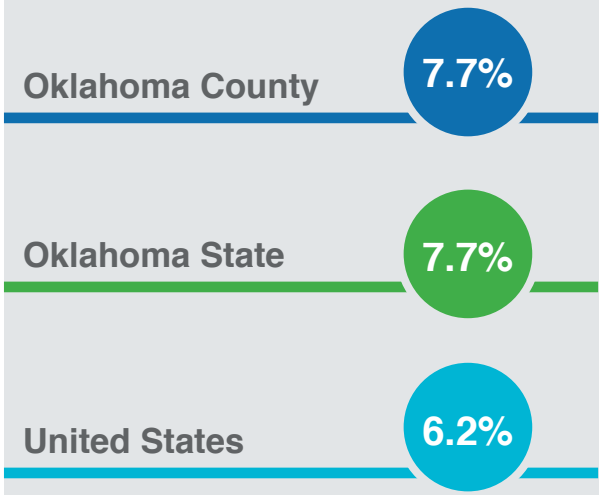
73003	10.9%	73054	9.2%								
73007	9.0%	73084	16.4%	73109	11.8%	73119	14.0%	73132	11.5%	73151	9.4%
73008	11.0%	73099	9.8%	73110	15.7%	73120	10.3%	73134	11.6%	73159	11.4%
73012	9.7%	73102	11.4%	73111	14.8%	73121	17.9%	73135	13.0%	73162	10.3%
73013	7.9%	73103	10.8%	73112	10.5%	73122	11.8%	73139	13.1%	73165	10.0%
73020	10.7%	73104	10.9%	73114	12.7%	73127	13.6%	73141	23.2%	73169	10.5%
73025	8.6%	73105	8.5%	73115	13.0%	73128	9.2%	73142	7.9%	73170	11.7%
73034	9.3%	73106	12.3%	73116	9.0%	73129	12.5%	73145	11.2%	73173	10.1%
73045	12.0%	73107	9.9%	73117	14.5%	73130	12.7%	73149	11.3%	73179	9.9%
73049	13.1%	73108	12.2%	73118	7.1%	73131	11.2%	73150	12.5%	74857	15.1%

Data Source: Oklahoma State Department of Health 2016-2018 vital records

LATE OR NO PRENATAL CARE

Late or no prenatal care describes the proportion of births from 2016-2018 to mothers who received prenatal care only in the third trimester of their pregnancy or mothers who received no prenatal care.

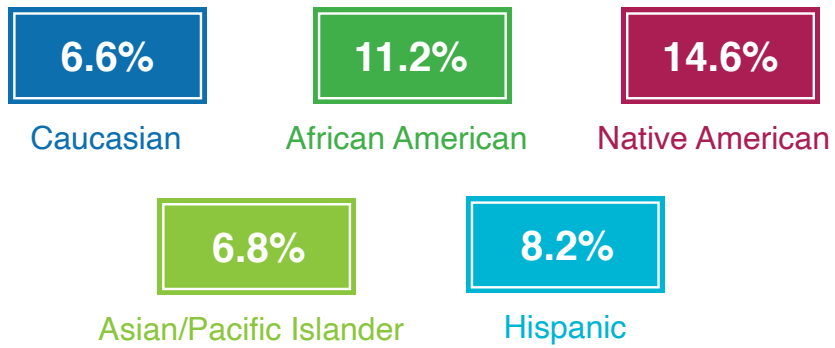
Comparison, 2018



Why Is It Important?
Quality prenatal care is a strong predictor of healthy birth outcomes. Early and adequate prenatal care can prevent complications and helps women learn important information required to protect their infant (NIH, 2017). Mothers who receive late or no prenatal care during pregnancy are more likely to give birth to babies with health problems that include low birth weight and increased risk of infant death (HHS, 2009).

How Are We Doing?
Women who received late or no prenatal care accounted for 8.1 percent of total Oklahoma County births between 2016 and 2018, which is down 9 percent from 2013-2015 rate. The county rate was the same as the state's rate but was still higher than the national average in 2018. Those most likely to receive late or have no prenatal care were 14.6 percent of Native American women, followed by 11.2 percent of Black/African American women, 8.2 percent of Hispanic women, 7 percent of Asian/Pacific Islander women, and 6.6 percent of births among Caucasian women.

Late/No Prenatal Care by Race/Ethnicity
Oklahoma County, 2016-2018



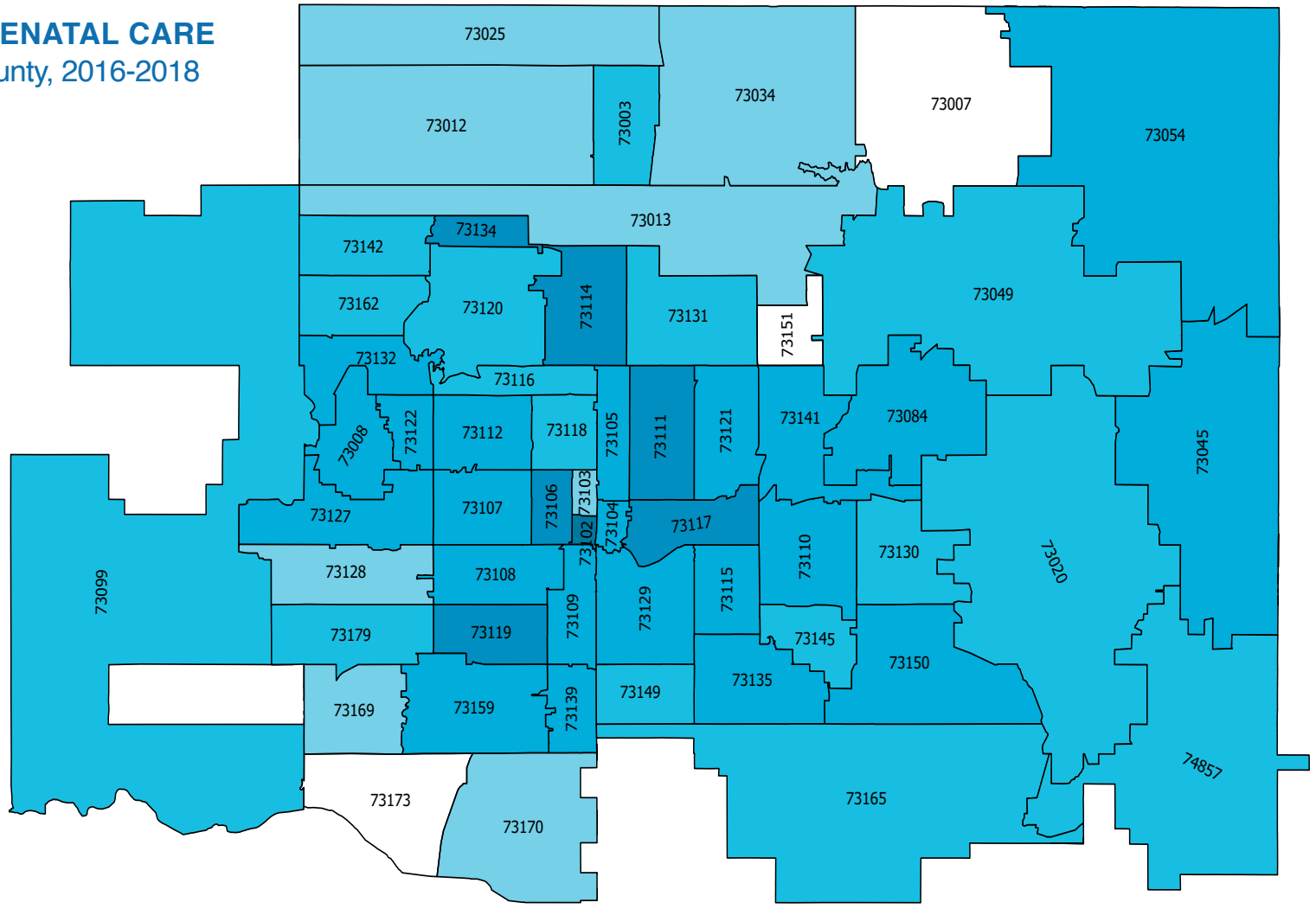
Data Source
- United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics, Natality public-use data 2016-2018, on CDC WONDER Online Database, September 2019. http://wonder.cdc.gov/natality-expanded-current.html
- Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information, Vital Statistics 2016 to 2018, on Oklahoma Statistics on Health Available for Everyone (OK2SHARE). Accessed at http://www.health.ok.gov/ok2share.

Reference

- Eunice Kennedy Shriver National Institute of Child Health and Human Development. (2017). What is prenatal care and why is it important? https://www.nichd.nih.gov/health/topics/pregnancy/conditioninfo/prenatal-care
- Womenshealth.gov. (2009). Publications: Prenatal care fact sheet. http://www.womenshealth.gov/publications/our-publications/fact-sheet/prenatal-care.html

LATE OR NO PRENATAL CARE

Oklahoma City-County, 2016-2018



**Data too low to count/compare

Lowest — Highest — N/A

73003	4.5%	73054	7.1%								
73007	**	73084	6.4%	73109	6.2%	73119	8.5%	73132	7.2%	73151	**
73008	6.6%	73099	4.1%	73110	6.2%	73120	4.1%	73134	9.2%	73159	5.9%
73012	2.3%	73102	14.3%	73111	8.8%	73121	7.3%	73135	6.6%	73162	5.4%
73013	3.3%	73103	3.4%	73112	6.0%	73122	7.6%	73139	7.2%	73165	4.5%
73020	4.5%	73104	7.6%	73114	8.6%	73127	7.9%	73141	7.2%	73169	3.9%
73025	2.9%	73105	6.3%	73115	6.9%	73128	3.2%	73142	4.3%	73170	3.7%
73034	3.7%	73106	10.1%	73116	4.1%	73129	6.5%	73145	4.6%	73173	**
73045	6.7%	73107	6.2%	73117	10.4%	73130	5.6%	73149	4.9%	73179	4.1%
73049	4.6%	73108	6.4%	73118	4.1%	73131	5.3%	73150	7.4%	74857	4.7%

Data Source: Oklahoma State Department of Health 2016-2018 vital records

MATERNAL SMOKING DURING PREGNANCY

Maternal smoking is defined as a pregnant woman who smokes cigarettes during pregnancy. It is expressed as the percent of total births to Oklahoma County women who smoked while pregnant during 2016-2018.

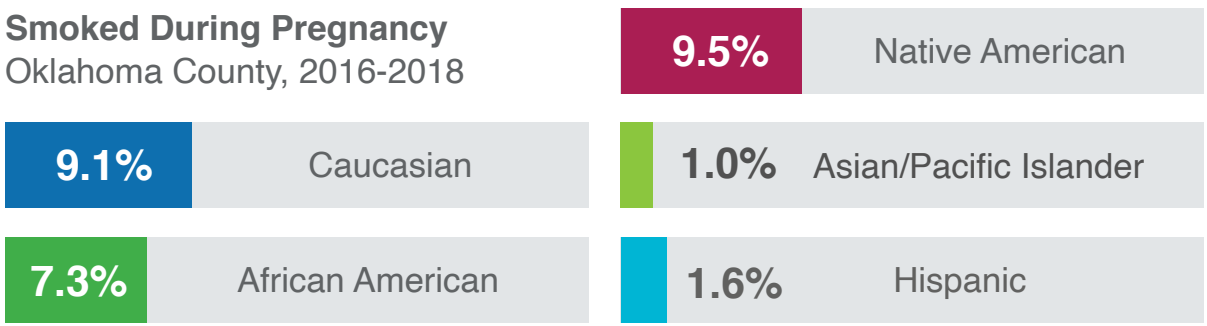
Why Is It Important?

Babies born to mothers who smoke have a greater risk of low birth rate, sudden infant death syndrome (SIDS) and premature birth (CDC, 2018). Mothers who are exposed to secondhand smoke also are at risk of delivering babies with medical concerns (CDC, 2018). Prenatal visits are an excellent opportunity to provide one-on-one counseling and technical assistance to mothers who smoke during pregnancy. Additionally, programs, policies and services that target smoking cessation opportunities toward maternal-tobacco use should be identified in the high-risk areas by the community and local public health system.

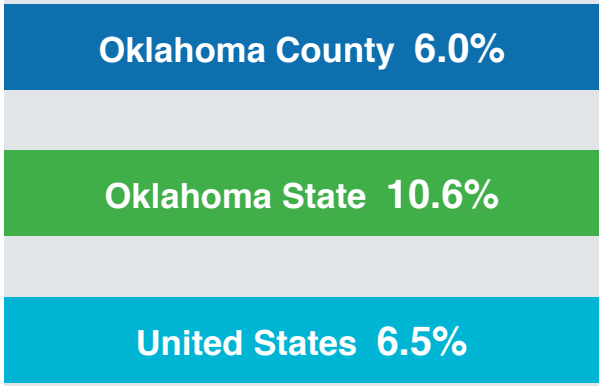
How Are We Doing?

Approximately seven percent of births in Oklahoma County during 2016-2018 were to mothers who smoked while pregnant, a reduction of 21 percent from 2013-2015. In 2018, the Oklahoma County maternal smoking rate was 4.6 percent lower than the state rate and 0.5 percent lower than the national average. In Oklahoma County, 9.5 percent of Native American women smoked while pregnant during 2016-2018. In contrast, 1 percent of Asian/Pacific Islander and 1.6 percent of Hispanic women smoked while pregnant. Smoking rates for Caucasian and Black/African American women were 9.1 percent and 7.3 percent, respectively.

Births to Mothers Who Smoked During Pregnancy
Oklahoma County, 2016-2018



Maternal Smoking During Pregnancy Comparison, 2018



Data Source

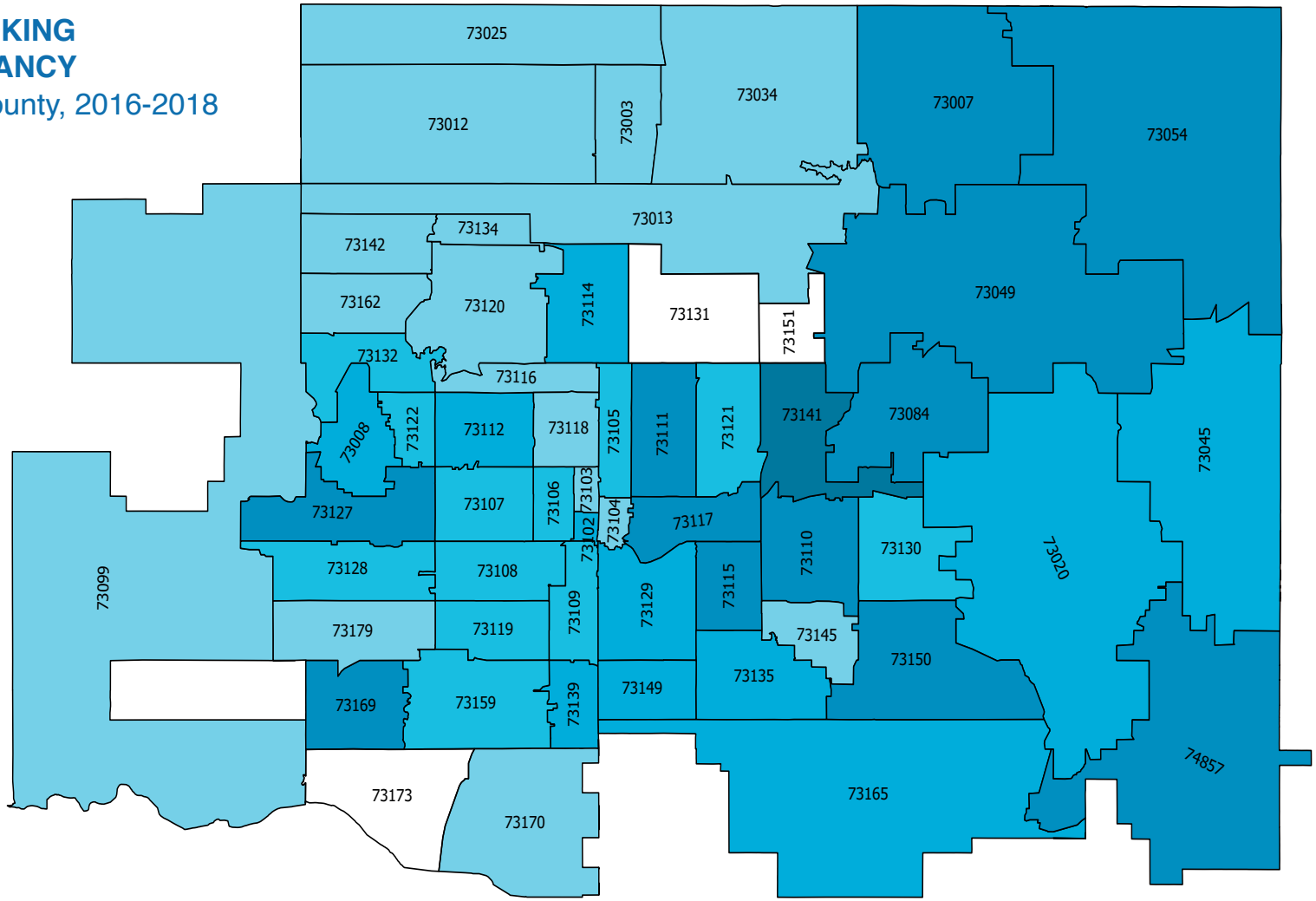
- United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics, Natality public-use data 2016-2018, on CDC WONDER Online Database, September 2019. Accessed at http://wonder.cdc.gov/natality-expanded-current.html
- Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information, Vital Statistics 2016 to 2018, on Oklahoma Statistics on Health Available for Everyone (OK2SHARE). Accessed at http://www.health.ok.gov/ok2share.

Reference

- Centers for Disease Control and Prevention. (2018). Smoking during pregnancy. https://www.cdc.gov/tobacco/basic_information/health_effects/pregnancy/

MATERNAL SMOKING DURING PREGNANCY

Oklahoma City-County, 2016-2018



**Data too low to count/compare

Lowest — Highest — N/A

73003	6.5%	73054	13.1%								
73007	13.4%	73084	14.3%	73109	7.4%	73119	8.1%	73132	8.6%	73151	**
73008	10.8%	73099	6.4%	73110	13.3%	73120	6.6%	73134	2.6%	73159	8.7%
73012	1.8%	73102	11.9%	73111	14.3%	73121	8.3%	73135	11.0%	73162	5.5%
73013	3.0%	73103	6.8%	73112	9.8%	73122	8.2%	73139	9.9%	73165	9.5%
73020	9.8%	73104	5.9%	73114	10.2%	73127	12.2%	73141	21.7%	73169	12.9%
73025	3.1%	73105	8.2%	73115	14.5%	73128	7.6%	73142	4.3%	73170	5.6%
73034	5.9%	73106	8.1%	73116	4.6%	73129	9.7%	73145	5.1%	73173	**
73045	10.6%	73107	7.9%	73117	14.6%	73130	8.8%	73149	10.2%	73179	5.5%
73049	12.5%	73108	9.0%	73118	6.7%	73131	**	73150	15.8%	74857	14.1%

Data Source: Oklahoma State Department of Health 2016-2018 vital records

MATERNAL EDUCATION

Maternal education refers to the percentage of Oklahoma County births to women with an education level less than a high school diploma, over the years 2016-2018.

Why Is It Important?
Education plays a central role in achieving positive birth outcomes. The measure of maternal education can be an indicator of economic insecurity, family structure, and a child's cognitive development (Jackson et al., 2017). Improving maternal education levels tends to improve economic productivity, reduces poverty, lowers infant and maternal mortality, and helps improve nutritional status and health (Veneman, 2007).

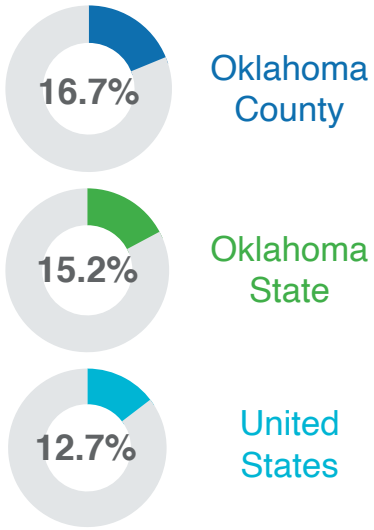
How Are We Doing?
The rate of Oklahoma County women who gave birth and had less than a high school diploma was 17.8 percent during 2016-2018. The Oklahoma County rate is higher than the state and national averages in 2018. Thirty-eight percent of Hispanic birth mothers did not have a high school diploma in Oklahoma County during 2016-2018. Native American mothers recorded the second highest rate at 18.4 percent, compared with 14.1 percent of Black/African American and 12.8 percent of Asian/Pacific Islander mothers. Nearly one in ten Caucasian mothers did not have a high school diploma.

Data Source
- United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics, Natality public-use data 2016-2018, on CDC WONDER Online Database, September 2019. http://wonder.cdc.gov/natality-expanded-current.html
- Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information, Vital Statistics 2016 to 2018, on Oklahoma Statistics on Health Available for Everyone (OK2SHARE). http://www.health.ok.gov/ok2share.

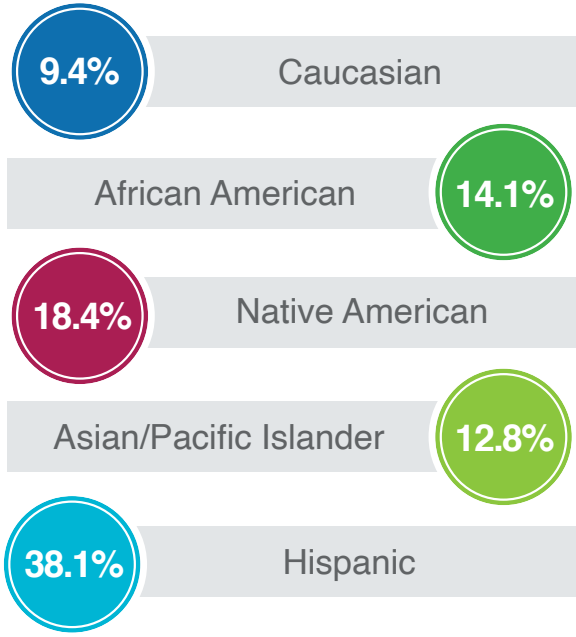
Reference

- Jackson, M., Kiernan, K., & McLanahan, S. (2017). Maternal education, changing family circumstances, and children's skill development in the United States and UK. Annals of American Academy of Political Social Science, 674(1), 59–84. doi:10.1177/0002716217729471
- Veneman, M. A. (2007). Education is key to reducing child mortality: The link between maternal health and education. UN Chronicle. https://unchronicle.un.org/article/education-key-reducing-child-mortality-link-between-maternal-health-and-education

Maternal Education Less Than High School Diploma Comparison, 2018

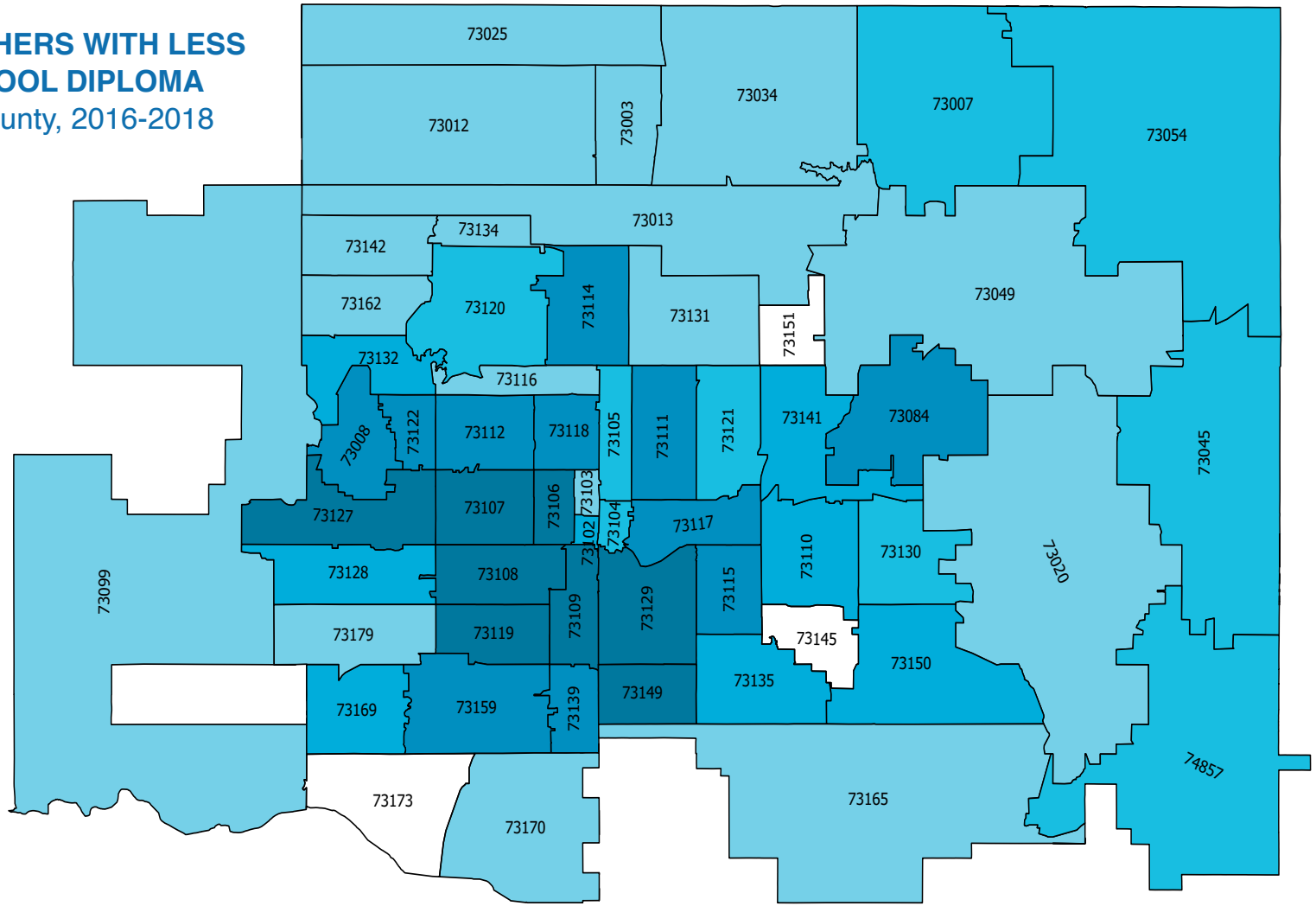


Maternal Education Less Than High School Diploma
Oklahoma County, 2016-2018



BIRTHS TO MOTHERS WITH LESS THAN HIGH SCHOOL DIPLOMA

Oklahoma City-County, 2016-2018



*No data available

**Data too low to count/compare

73003	4.0%	73054	8.6%								
73007	7.5%	73084	18.3%	73109	37.7%	73119	39.1%	73132	12.7%	73151	*
73008	23.8%	73099	4.4%	73110	12.5%	73120	7.0%	73134	6.0%	73159	21.0%
73012	1.3%	73102	11.4%	73111	24.5%	73121	10.7%	73135	14.7%	73162	4.7%
73013	2.5%	73103	4.1%	73112	17.8%	73122	24.5%	73139	24.1%	73165	5.5%
73020	5.7%	73104	7.6%	73114	21.3%	73127	34.5%	73141	17.1%	73169	12.1%
73025	2.4%	73105	9.0%	73115	18.2%	73128	15.5%	73142	4.5%	73170	4.1%
73034	4.1%	73106	29.2%	73116	4.3%	73129	41.3%	73145	**	73173	*
73045	8.8%	73107	31.0%	73117	22.0%	73130	8.7%	73149	30.7%	73179	4.8%
73049	2.9%	73108	42.7%	73118	18.4%	73131	5.1%	73150	11.5%	74857	7.4%

Data Source: Oklahoma State Department of Health 2016-2018 vital records

INFANT MORTALITY

Infant mortality means the death of an infant before their first birthday. Infant mortality rate (IMR) is presented as the number of infant deaths per 1,000 live births, averaged over 2016-2018.

Why Is It Important?

Infant mortality is used as a marker of the overall health of a society (CDC, 2019). Infant mortality rate is not only seen as a measure of infant death risk, but also as a crude indicator of community health status, socioeconomic status, and availability of quality health services and medical technology (SIMC, 2013). This measure is also commonly compared across regions and populations to assess public health programs.

How Are We Doing?

Oklahoma County infant mortality rate during 2016-2018 was 7.3 per 1,000 live births, representing a four percent increase from 7.0 in 2013-2015. By comparison, in 2018, the county rate was lower than the state rate but still ranked higher than the national average. During 2016-2018, the infant mortality rate for Black/African American women was 13.2 infant deaths per 1,000 live births—3 times the rate for Caucasian women of 4.6 per 1,000 live births.

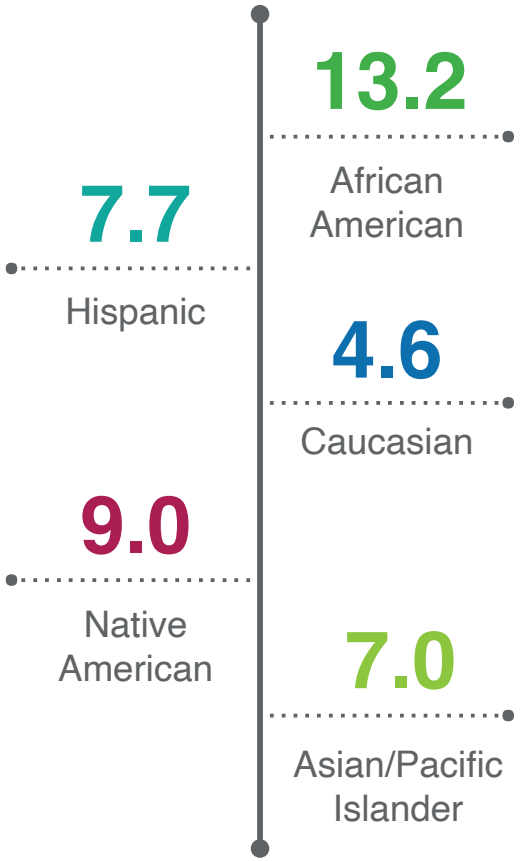
Data Source

- Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information, Vital Statistics 2016 to 2018, on Oklahoma Statistics on Health Available for Everyone (OK2SHARE). http://www.health.ok.gov/ok2share.
- Xu, J. Q., Murphy, S. L., Kochanek, K. D., & Arias E. (2020). Mortality in the United States, 2018. NCHS Data Brief no 355. Hyattsville, MD: National Center for Health Statistics.

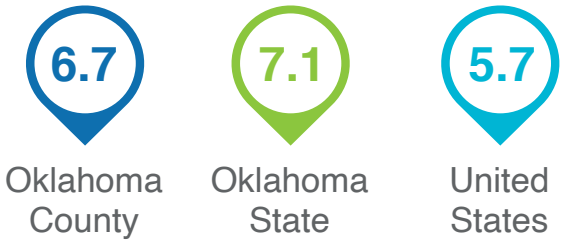
Reference

- Centers for Disease Control and Prevention. (2019). Infant mortality. https:/www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm
- Association of Maternal and Child Health Programs (2013). Infant mortality collaborative: Infant mortality toolkit. State Infant Mortality (SIM) Toolkit: A Standardized Approach for Examining Infant Mortality. http://www.amchp.org/programsandtopics/data-assessment/InfantMortalityToolkit/Pages/default.aspx

Infant Mortality Rate by Race/Ethnicity
Oklahoma County, 2016-2018

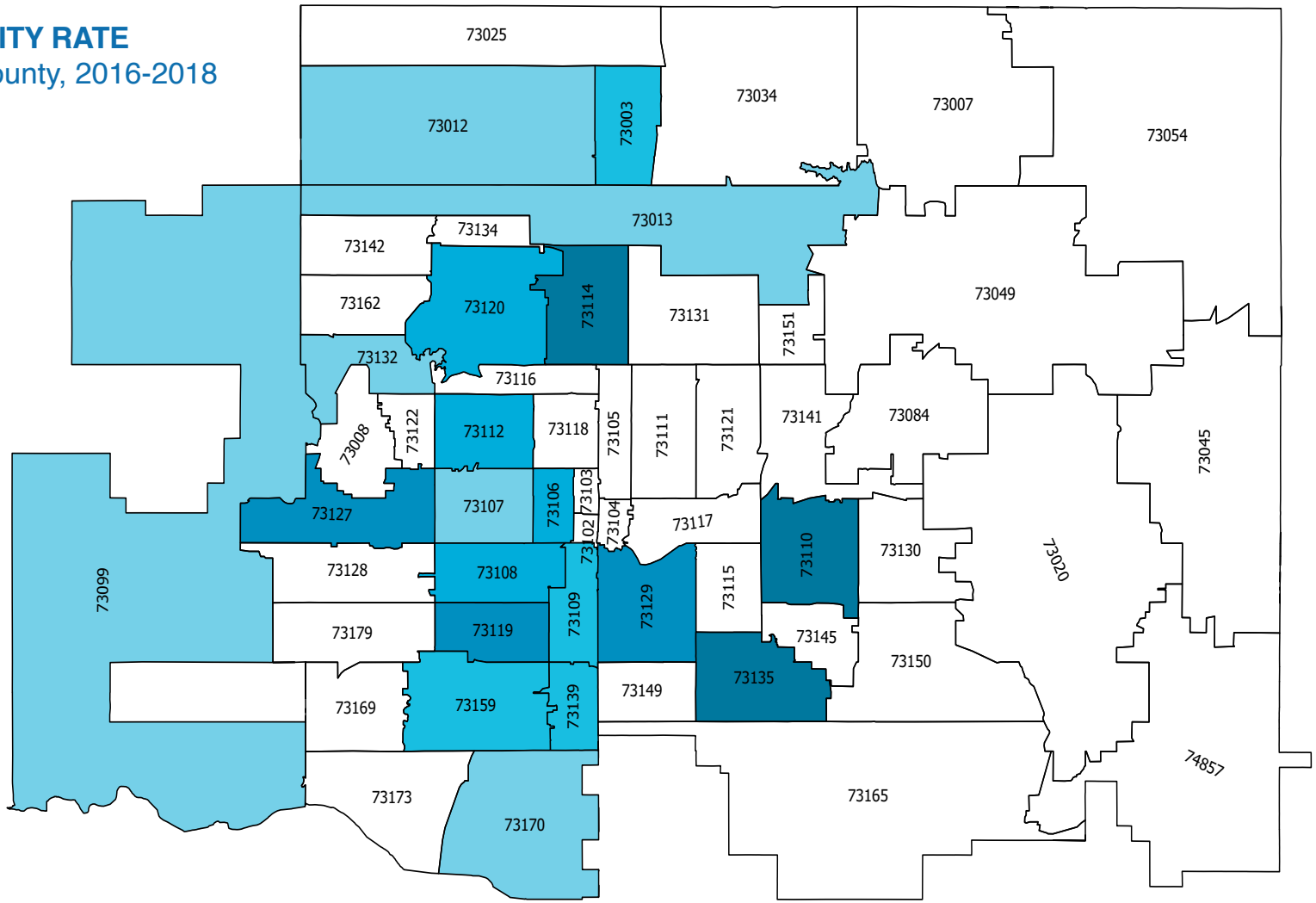


Infant Mortality Rate Comparison, 2018



INFANT MORTALITY RATE

Oklahoma City-County, 2016-2018



*No data available

**Data too low to count/compare

Lowest — Highest — N/A

73003	8.2	73054	**								
73007	*	73084	**	73109	8.1	73119	11.5	73132	6.8	73151	*
73008	**	73099	5.0	73110	12.8	73120	9.8	73134	**	73159	8.8
73012	5.4	73102	*	73111	**	73121	**	73135	12.9	73162	**
73013	5.1	73103	*	73112	9.5	73122	**	73139	7.8	73165	**
73020	**	73104	**	73114	16.0	73127	10.5	73141	**	73169	*
73025	**	73105	**	73115	**	73128	**	73142	**	73170	5.7
73034	**	73106	10.2	73116	**	73129	10.8	73145	**	73173	**
73045	**	73107	6.0	73117	**	73130	**	73149	*	73179	*
73049	*	73108	9.9	73118	**	73131	*	73150	*	74857	**

Rate per 1,000 live births. Data Source: Oklahoma State Department of Health 2016-2018 vital records

SINGLE-MOTHER FAMILY HOUSEHOLD

Female-headed families include widows, divorced and separated women, and never-married mothers. The indicator represents the average percent of households from 2016-2018 headed by a female without a husband, living with her own children under the age of 18 years.

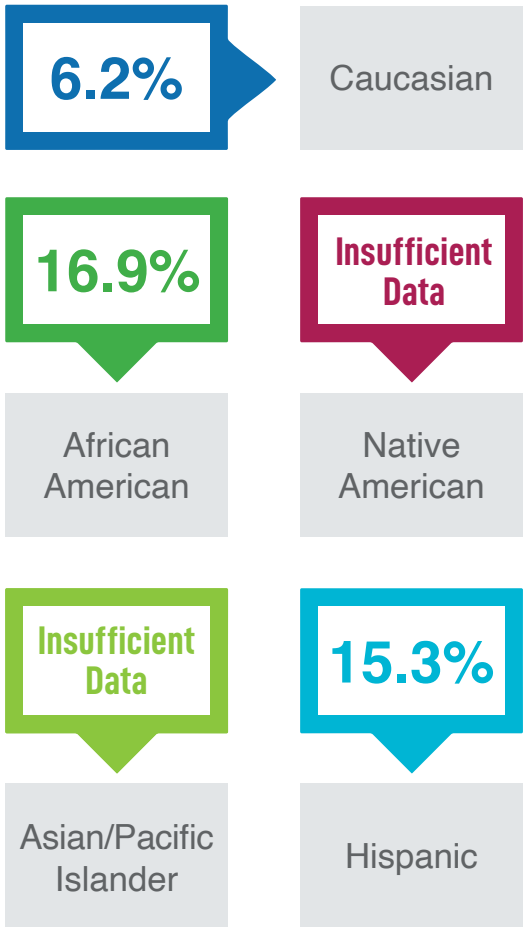
Why Is It Important?
The poverty and food insecurity rates are higher among single-mother households compared to other household types (Bread for the World, 2019). Single-mother households also face other stressors such as availability and quality of childcare and education programs (WESC, 2010). Increasing access, coordination and streamlining of resources available to single-mother households can improve health outcomes for this population.

How Are We Doing?
In 2018, nearly seventeen percent of Black/African American households were headed by a female with no husband present and living with own children under the age of 18 years. In comparison, over six percent of Caucasian households were headed by a female. And over fifteen percent of Hispanic households were headed by a female living with her own children, with no husband present.

Single-mother Family Households Comparison, 2018

8.1%	Oklahoma County
7.0%	Oklahoma State
6.7%	United States

Percent by Race/Ethnicity
Oklahoma County, 2018

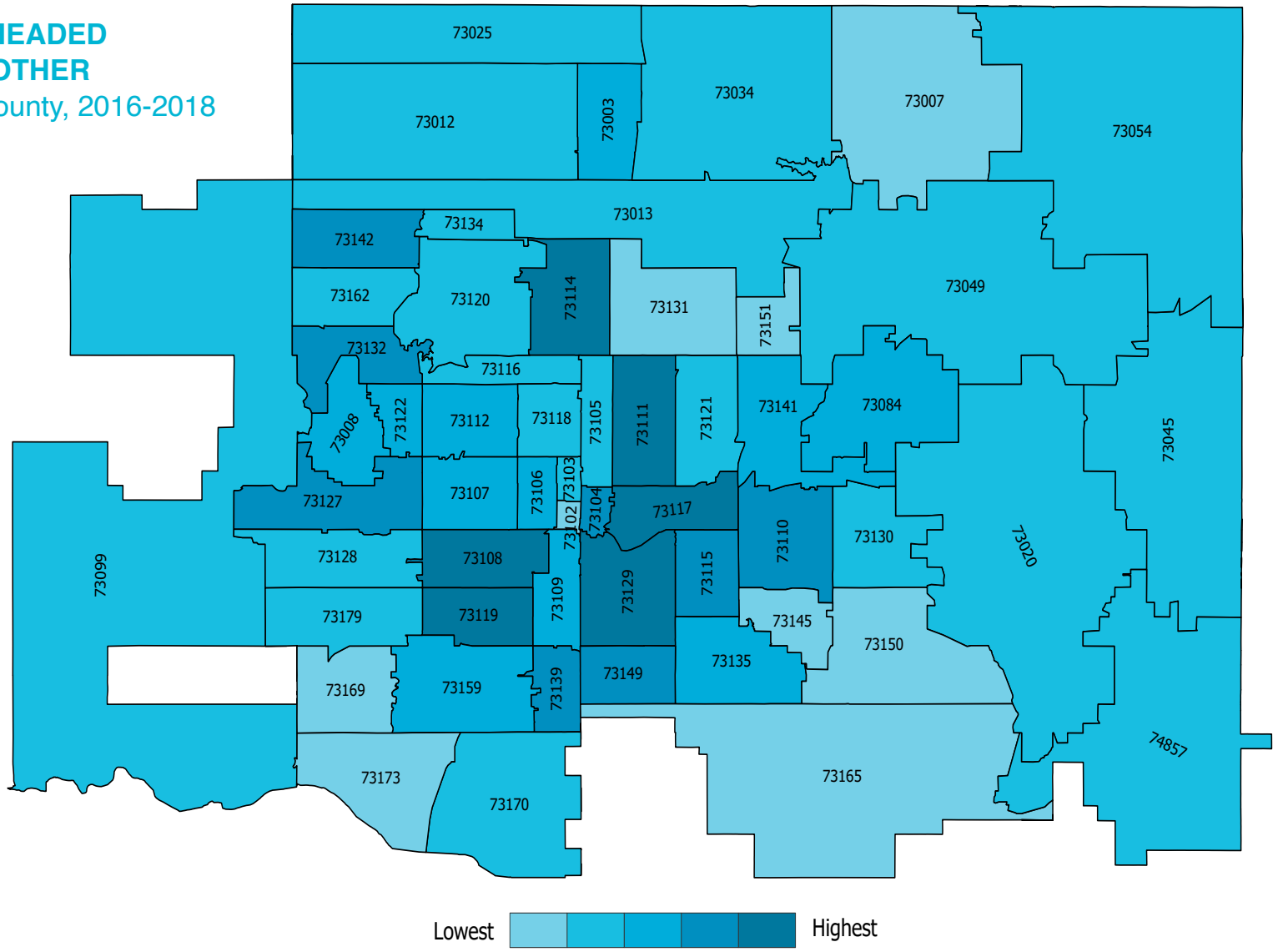


Data Source
- U.S. Census ACS 2018 1-year and 5-year population estimates.

Reference
- Bread for the World. (May 2019). Hunger and poverty in female-headed households. https://www.bread.org/sites/default/files/downloads/hunger-poverty-female-headed-households-may-2019.pdf.
- Women's Economic Security Campaign. (2010). Child care matters: Building economic security for low-income women. http://www.cofionline.org/COFI/wp-content/uploads/2015/05/wesc_childcarematters.pdf

HOUSEHOLDS HEADED BY A SINGLE-MOTHER

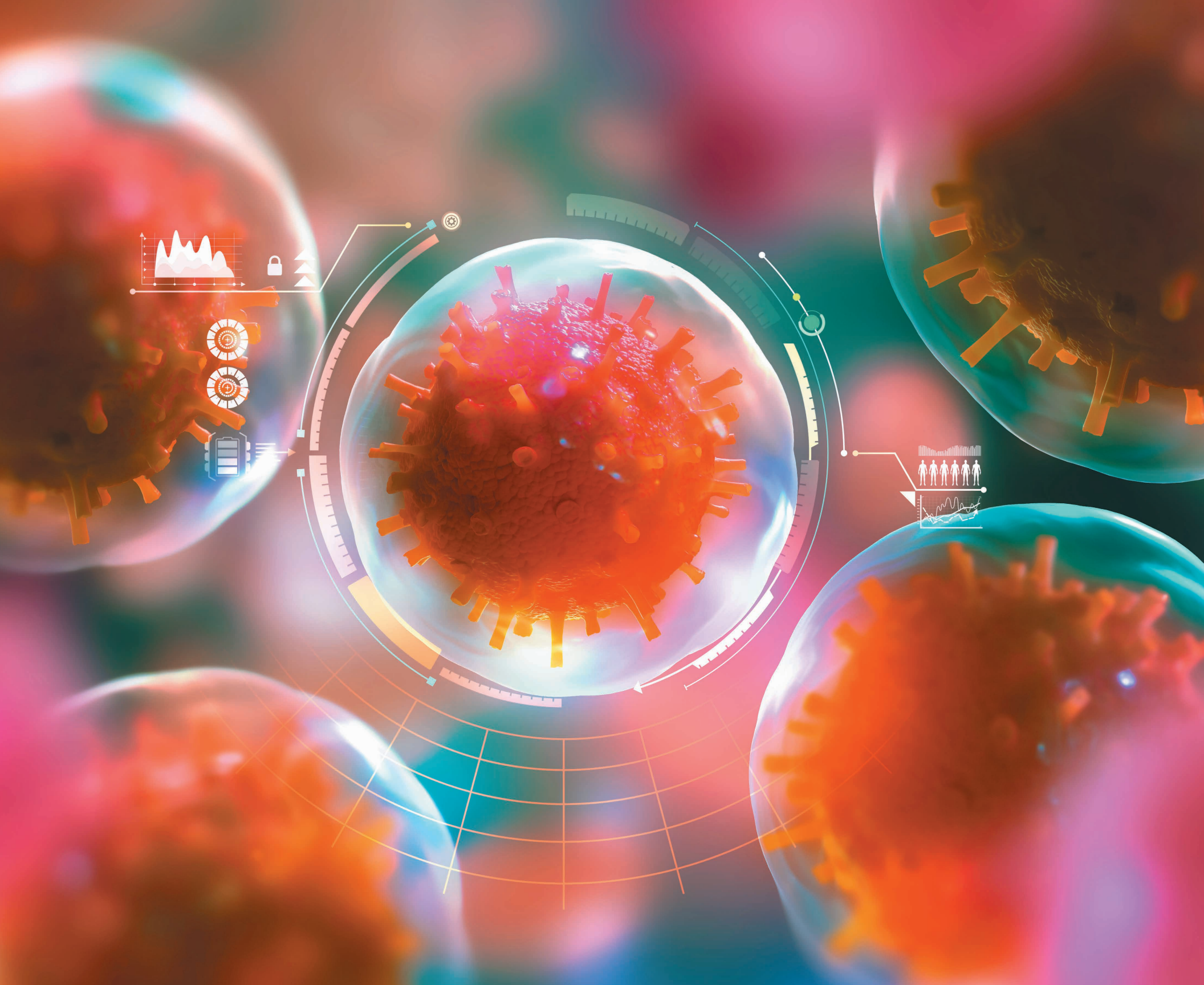
Oklahoma City-County, 2016-2018



Lowest — Highest

73003	8.2%	73054	4.2%								
73007	2.7%	73084	7.8%	73109	8.5%	73119	14.3%	73132	12.0%	73151	1.8%
73008	8.1%	73099	6.1%	73110	11.6%	73120	5.2%	73134	6.0%	73159	7.4%
73012	5.5%	73102	0.9%	73111	16.4%	73121	4.8%	73135	8.4%	73162	4.6%
73013	5.5%	73103	4.3%	73112	8.2%	73122	8.1%	73139	9.3%	73165	2.8%
73020	4.9%	73104	9.5%	73114	17.1%	73127	12.3%	73141	8.3%	73169	2.8%
73025	3.5%	73105	4.6%	73115	9.5%	73128	4.4%	73142	9.3%	73170	3.6%
73034	4.7%	73106	7.4%	73116	4.7%	73129	13.8%	73145	1.5%	73173	2.4%
73045	4.6%	73107	7.3%	73117	13.9%	73130	5.6%	73149	11.2%	73179	4.3%
73049	3.9%	73108	18.9%	73118	4.5%	73131	2.2%	73150	1.2%	74857	4.3%

Data Source: U.S. Census ACS 2016, 2017, 2018 5-year population estimates



Chapter 4 Infectious Disease

VARIABLES

Analysis	Data Source
1. Rate of Reported Enteric Disease Cases by Zip Code per 100,000 Population. Enteric Disease includes Campylobacteriosis, Cryptosporidiosis, Enterohemorrhagic E. coli 0157:H7, Enterohemorrhagic E.coli shiga toxin positive, Serogroup non-O157, Hepatitis A (anti-HAV IGM+), Listeriosis, Salmonellosis and Shigellosis.	• Public Health Investigation and Disease Detection of Oklahoma (PHIDDO) Oklahoma City-County 2016-2018 Disease Surveillance Data • Nationally Notifiable Infectious Diseases and Conditions, United State: Weekly Tables, 2018. Retrieved from: https://wonder.cdc.gov/nndss/nndss_weekly_tables_menu.asp?mmwr_year=2018&mmwr_week=52&comingfrom=&savedmode=&Bad_parameters=W
2. Rate of Reported Respiratory Disease Cases by Zip Code, per 100,000 population. Respiratory Disease includes Brucellosis, Influenza associated hospitalizations, Haemophilus Influenza, Invasive Disease, Legionellosis, Pertussis, Meningococcal Invasive Disease, Streptococcus Pneumoniae, Invasive in children younger than 5 years, and Streptococcus, Group A, Invasive Disease.	Public Health Investigation and Disease Detection of Oklahoma (PHIDDO) Oklahoma City-County 2016-2018 Disease Surveillance Data
3. Vectorborne Disease Cases. Vectorborne Disease includes West Nile Virus Fever, West Nile Virus Neuroinvasive and Zika virus.	• Public Health Investigation and Disease Detection of Oklahoma (PHIDDO) Oklahoma City-County 2016-2018 Disease Surveillance Data • Epidemiological Investigation Records and Centers for Disease Control and Prevention, ArboNET 2016-2018
4. Average Rate of New Acute Hepatitis B Infections in Oklahoma City-County by Zip Code	Public Health Investigation and Disease Detection of Oklahoma (PHIDDO) Oklahoma City-County 2016-2018 Hepatitis Disease Surveillance Data
5. Average Rate of New Acute Hepatitis C Infections in Oklahoma City-County by Zip Code	Public Health Investigation and Disease Detection of Oklahoma (PHIDDO) Oklahoma City-County 2016-2018 Hepatitis Disease Surveillance Data
6. Rate of New Cases of HIV or AIDS by Zip Code, Ethnicity and Age per 100,000 Population	Oklahoma State Department of Health STD Surveillance Department, 2016-2018
7. Rate of New Cases of Chlamydia by Zip Code, Ethnicity and Age per 100,000 Population	Oklahoma State Department of Health STD Surveillance Department, 2016-2018
8. Rate of New Cases of Gonorrhea by Zip Code, Ethnicity and Age per 100,000 Population	Oklahoma State Department of Health STD Surveillance Department, 2016-2018
9. Rate of New Cases of Syphilis (all phases) by Zip Code, Ethnicity and Age per 100,000 Population	Oklahoma State Department of Health STD Surveillance Department, 2016-2018

ENTERIC DISEASE

Enteric diseases are intestinal diseases such as Listeria, Hepatitis A, Salmonella, Shigella, and E. coli infections. Data are presented as the rate of reported enteric disease cases per 100,000 population, over the years 2016-2018.

Why is it important?
Enteric diseases cause symptoms such as upset stomach, diarrhea, vomiting, fever, and nausea. Using data from foodborne illness rates in our community helps direct food safety policy and interventions. The local public health system in Oklahoma City-County investigates cases of enteric disease and provides consumer protection services like food safety inspections to the community to prevent outbreak situations or stop any spread of disease. OCCHD offers education services to help establishments improve systems of practice for hand hygiene and food handling practices, and works with public health officials to create programs, policies, and services to keep our communities safe and healthy.

How are we doing?
Of the 1,346 enteric illnesses confirmed in Oklahoma County in 2016-2018, 13.4% were Shigellosis, 32.8% were Salmonellosis, and 42.5% were Campylobacteriosis, for a combined total of 88.7% of enteric cases. It is estimated that every year the United States faces about 500,000 cases of Shigella (CDC).

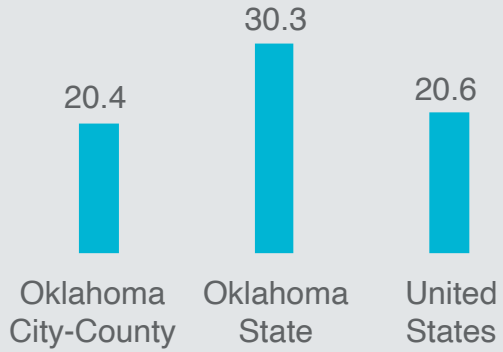
When comparing rates, Oklahoma State has higher rates for Salmonella, Shigella, and Campylobacter than the Oklahoma City-County and national rates. Oklahoma City-County has lower rates for Campylobacter and Salmonella when compared to the rates for the nation.

The ZIP codes with the highest rate of enteric disease in Oklahoma City-County during 2016-2018 were 73141, 73045, and 73169.

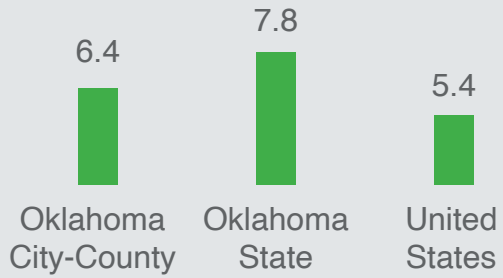
Data Source:

- Public Health Investigation and Disease Detection of Oklahoma 2016-2018 Epidemiological Investigation Records
- Centers for Disease Control and Prevention

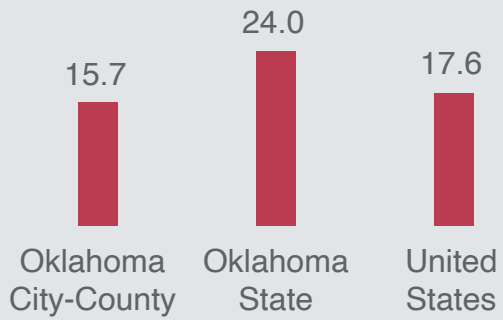
Campylobacteriosis Rate, 2016-2018



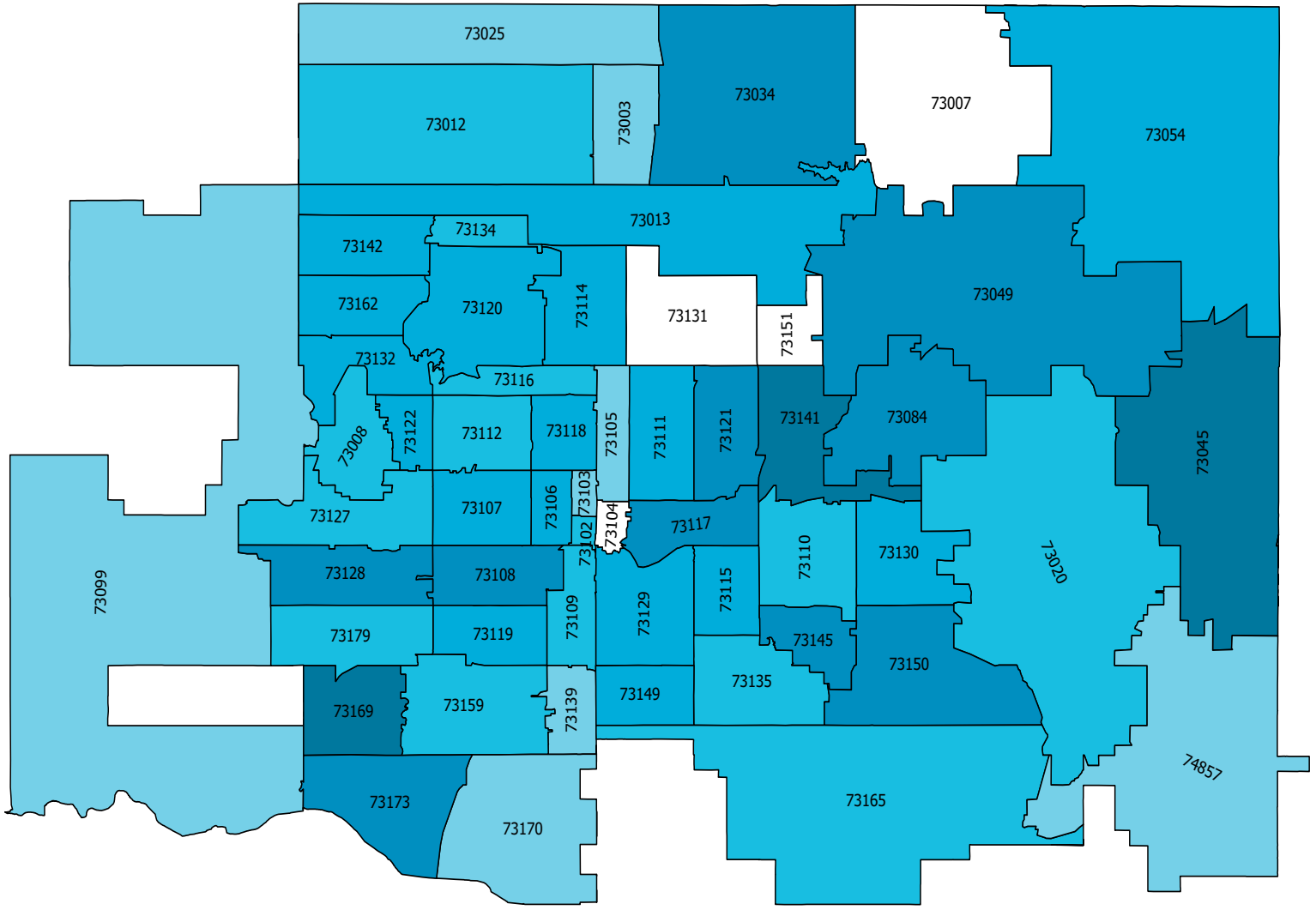
Shigellosis Rate, 2016-2018



Salmonellosis Rate, 2016-2018



Note: Rate per 100,000 population.



**Data too low to count/compare

ENTERIC DISEASE RATES
Oklahoma City-County, 2016-2018

Rate per 100,000 population. Data Source: Public Health Investigation and Disease Detection of Oklahoma 2016-2018 Epidemiological Investigation Records

73003	31.8
73007	**
73008	44.2
73012	49.1
73013	51.7
73020	45.6
73025	36.8
73034	99
73045	133.6
73049	74.2
73054	63.5
73084	71.1
73099	2.5
73102	44.8
73103	34.3
73104	**
73105	36.2
73106	62
73107	51.8
73108	74.4
73109	38.6
73110	42.4
73111	62.5
73112	40
73114	52.4
73115	51.6
73116	39.1
73117	71
73118	54.6
73119	62.9
73120	53.7
73121	78.4
73122	52.7
73127	40.4
73128	82.9
73129	57.5
73130	58.7
73131	**
73132	58.4
73134	46.8
73135	47.6
73139	35.6
73141	154
73142	55.8
73145	74.2
73149	52.4
73150	86.3
73151	**
73159	42.2
73162	53.3
73165	45.6
73169	126.7
73170	32.6
73173	79.8
73179	47.1
74857	19.2

RESPIRATORY DISEASE

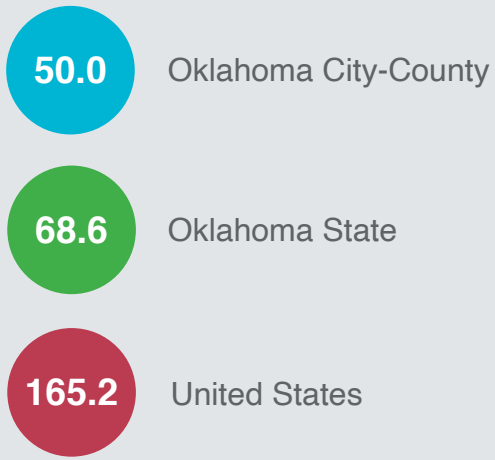
Respiratory disease includes Legionellosis, Influenza associated hospitalizations, Pertussis (whooping cough), Meningococcal Invasive Disease, Streptococcus pneumoniae invasive in children younger than five years and Streptococcus. These illnesses can be spread from person to person through direct contact with respiratory droplets. Data are presented as the rate of reported Respiratory Disease cases per 100,000 population during 2016-2018.

Why is it important?
Many respiratory diseases are contagious and easily passed from one to another. Public health efforts, such as epidemiological investigation, immunization, and environmental protection services assist with identifying gaps in testing standards and prevention policies to inform decision making around infectious diseases. These public health efforts work to prevent spread and protect the community from these diseases. Communities can become better informed about how to prevent the spread of disease and can help educate members of their communities about how to stay healthy.

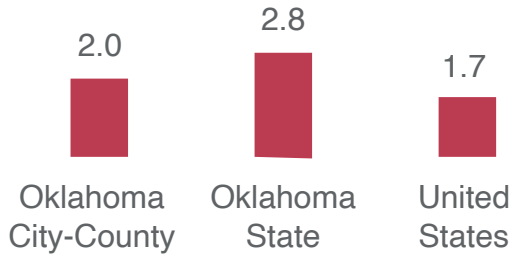
Data Source:
- Public Health Investigation and Disease Detection of Oklahoma 2016-2018 Epidemiological Investigation Records
- Centers for Disease Control and Prevention

How are we doing?
Oklahoma City-County reported 1,640 cases of respiratory disease during 2016-2018. Oklahoma City-County had a lower rate of influenza related hospitalizations compared to state and national rates. Oklahoma City-County rates of pertussis and streptococcus pneumoniae invasive disease were lower than the state and the United States rates. The Oklahoma City-County haemophilus influenza invasive disease rate was lower than the state rate and higher than the national rate. In Oklahoma City-County, the ZIP codes with the highest rate of respiratory disease were 73111, 73141 and 73121.

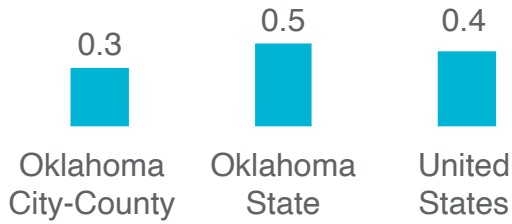
Influenza Associated Hospitalization Rate, 2016-2018



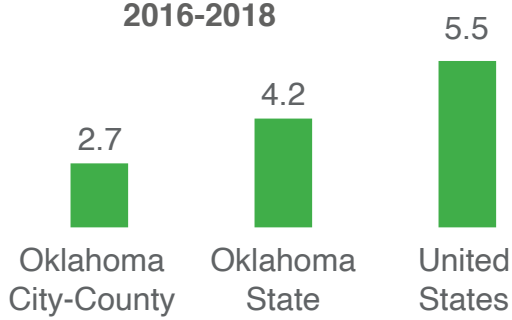
Haemophilus Influenzae, Invasive Disease Rate, 2016-2018



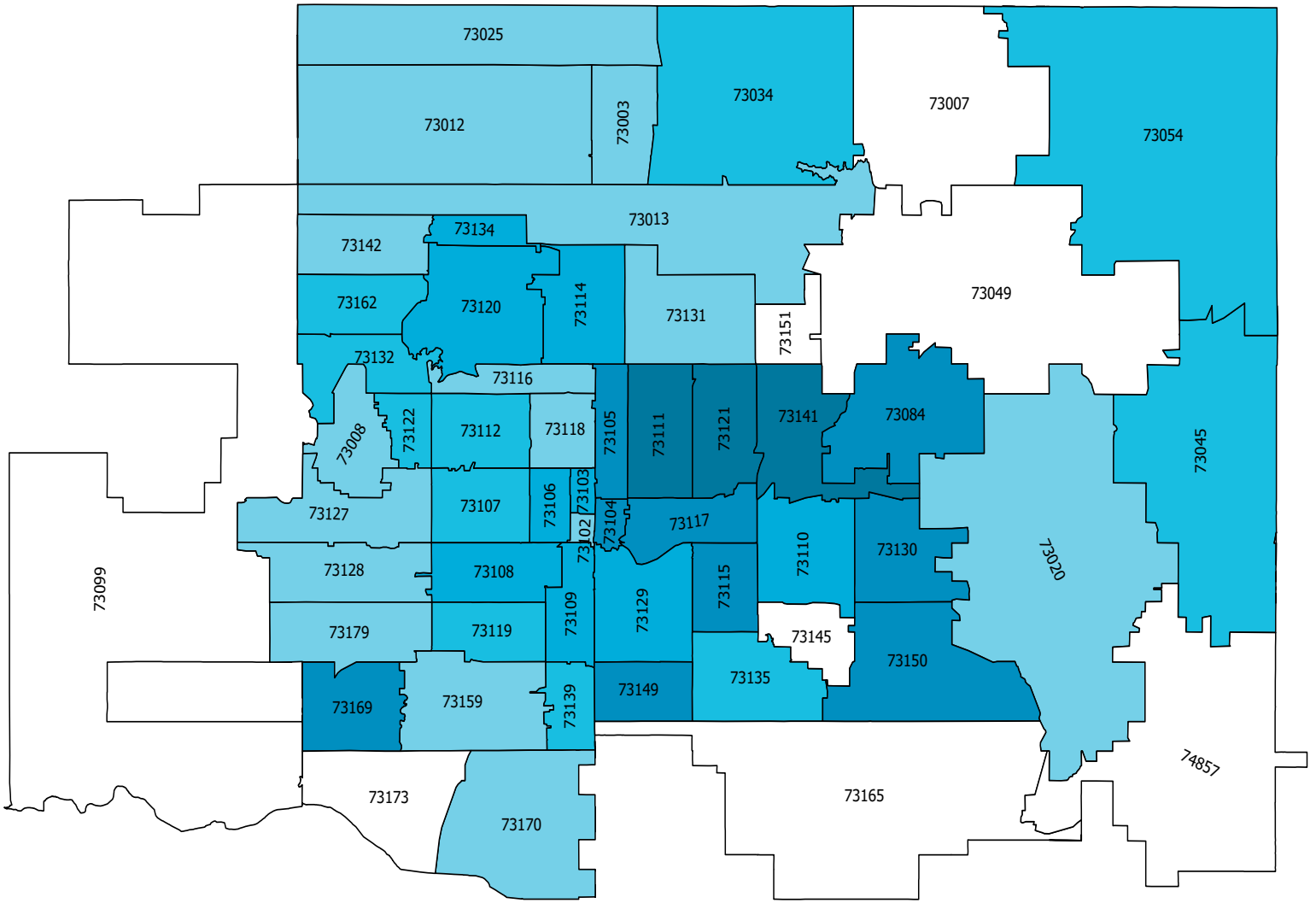
Streptococcus Pneumoniae Rate, Invasive in Children Less Than 5 years, 2016-2018



Pertussis Rate, 2016-2018



Note: Rate per 100,000 population.



Lowest — Highest — N/A

*No data available **Data too low to count/compare

RESPIRATORY DISEASE RATES
Oklahoma City-County, 2016-2018

Rate per 100,000 population. Data Source: Public Health Investigation and Disease Detection of Oklahoma (PHIDDO) Oklahoma City-County 2016-2018 Disease Surveillance Data

73003	52.6
73007	**
73008	54
73012	25.5
73013	53
73020	18.8
73025	34.5
73034	71.2
73045	69.5
73049	**
73054	71.9
73084	99.5
73099	*
73102	44.8
73103	82.3
73104	117.2
73105	108.6
73106	85.2
73107	62.1
73108	85.7
73109	80.2
73110	87.8
73111	187.5
73112	63.7
73114	79.5
73115	117.4
73116	53.4
73117	124.3
73118	54.6
73119	67
73120	77.7
73121	137.2
73122	67.8
73127	48.2
73128	41.5
73129	81.9
73130	107.7
73131	46.7
73132	56
73134	86.9
73135	68.5
73139	63.6
73141	141.2
73142	46.1
73145	**
73149	111.4
73150	107.9
73151	*
73159	40.2
73162	57.8
73165	**
73169	126.7
73170	8.8
73173	*
73179	40.4
74857	**

VECTOR BORNE DISEASE

Number of Cases Reported, 2016-2018

	Oklahoma City-County	Oklahoma State	United States
WNV Fever	2	29	2,501
WNV Neuro	14	67	4,392

Travel & Locally Associated Zika Virus

Number of Cases Reported, 2016-2018

Oklahoma City-County	Oklahoma State	United States
7	31	5,168

Vector borne diseases are illnesses that are spread to humans by other organisms, such as parasites or insects. Two vector borne diseases that have occurred in Oklahoma City-County are Lyme Disease and West Nile Virus. The Oklahoma City-County Health Department, in coordination with municipal partnerships, implements a multilevel approach to prevention, surveillance and disease reduction of Vector borne Diseases, including West Nile Virus (WNV).

Why is it important?

Vector borne diseases include illnesses caused by parasites, viruses and bacteria that are transmitted to humans by insects such as mosquitoes. Two mosquito borne diseases that impacted Oklahoma City-County from 2016-2018 were West Nile Virus and travel-related Zika Virus. West Nile Virus is a potentially serious vector borne disease with the possibility of permanent neurological effects.

Zika Virus has impacted Oklahoma City-County due to community members traveling to countries with active transmission of the virus and returning to Oklahoma City-County. During 2016-2018, there were identified mosquitoes infected with West Nile Virus in Oklahoma City-County. The heightened mosquito activity in the Oklahoma City-County area occurs May through October, and West Nile Virus human cases typically occur in the warm summer months. Since West Nile Virus was introduced in 2002, Oklahoma has experienced three outbreak seasons: 2003, 2007 and 2012.

How are we doing?
There were 16 reported West Nile Virus disease cases in Oklahoma City-County during 2016-2018 — this included 2 West Nile Virus Fever and 14 West Nile Virus Neuro-invasive. During 2016-2018, there were a total of 96 West Nile Virus disease cases reported in Oklahoma (29 WNV Fever and 67 WNV Neuro-invasive), and 6,893 in the United States (2,501 WNV Fever and 4,392 WNV Neuro-invasive). There were 7 travel-associated Zika cases reported in Oklahoma City-County during 2016-2018 and 31 reported in the state of Oklahoma.

Vectorborne Disease Monitoring and Prevention Program:
The Vector borne Disease Monitoring and Prevention Program serves a proactive role by counting and testing vector mosquitoes prior to notifying the public and municipalities of the presence of WNV or ZIKV vectors in the mosquito population. The program also focuses on mosquito control with larvicide applications (spraying for mosquitoes), habitat remediations, and community education.

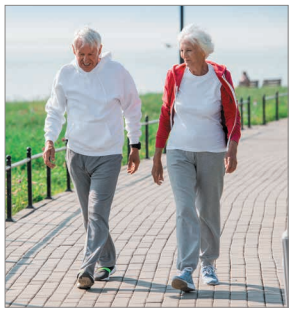
Data Source:

- Public Health Investigation and Disease Detection of Oklahoma (PHIDDO) Oklahoma City-County 2016-2018 Disease Surveillance Data
- Epidemiological Investigation Records and Centers for Disease Control and Prevention, ArboNET 2016-2018

DRAIN

Drain standing water

DRESS



Wear long sleeves and pants

DEET

Wear a DEET-based insect repellant

PREVENT

Close windows and doors

OCCHD's mascot Tito the Mosquito has attended numerous events to share the message with children and families.

BLOODBORNE DISEASE

Bloodborne infections refer to the number of acute cases of Hepatitis B or Hepatitis C per 100,000 population. Hepatitis is a viral infection which most commonly affects the liver, and which can be acute (up to six months) or chronic (lifetime).

Why is it important?
The bloodborne pathogens of primary concern include human immunodeficiency virus (HIV), hepatitis B virus (HBV) and hepatitis C virus (HCV). HIV infection data for Oklahoma City-County is presented on pages 76 and 77.

Hepatitis B:
Up to 2.2 million people are estimated to be living in the United States with Chronic Hepatitis B and over 19,000 are newly infected each year (CDC). Hepatitis B enters the bloodstream and infects the liver. Long-term infection (someone who is a "carrier") may result in chronic liver disease or liver cancer. Anyone can get Hepatitis B. However, the risk increases for injection drug users, babies of infected mothers, sexual partners of infected persons, medical and dental workers and people living in a household with a "carrier." There is a vaccine to protect against hepatitis B, and it is generally recommended for persons who are at high risk for infection and for all newborn babies.

Hepatitis C:
There are approximately 4 million cases of chronic Hepatitis C in the United States and nearly 30,000 new cases of Hepatitis C each year (CDC). Hepatitis C is spread primarily by contact with the blood of an infected person. There is no vaccine for Hepatitis C and no treatment after an exposure that will prevent an infection. Most people infected with hepatitis C do not have symptoms for years, even decades, following infection.

HBV Infection Rates Comparison, 2016-2018

HCV Infection Rates Comparison, 2016-2018

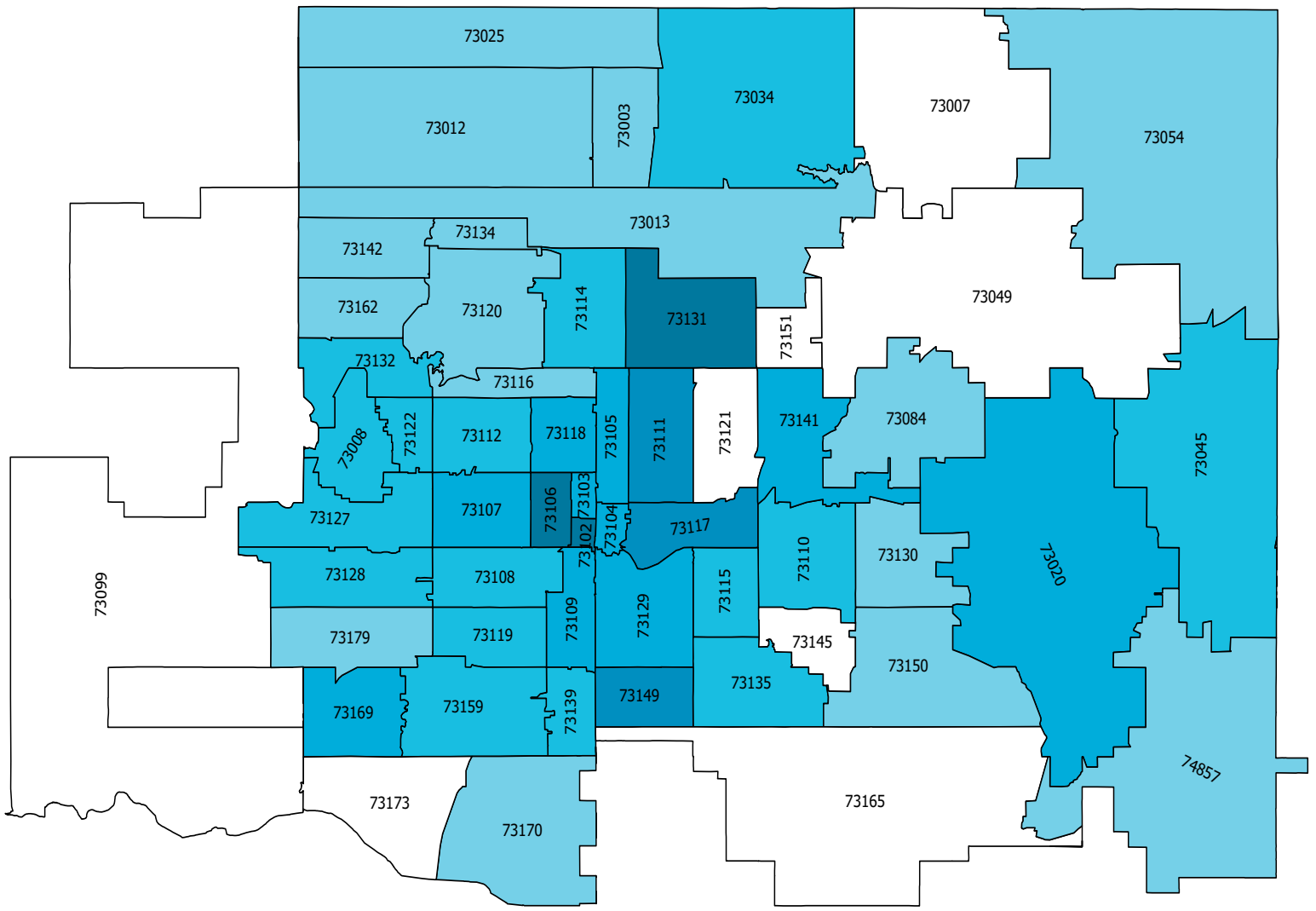
Oklahoma City-County **0.5**

Oklahoma State **1.4**

United States **1.2**

How are we doing?
The average rate of new acute hepatitis infections during 2016-2018 in Oklahoma City-County was 0.9 (per 100,000) for Hepatitis B and 0.5 (per 100,000) for Hepatitis C, compared to the State rates of 0.7 and 1.4 for Hepatitis B and C, respectively. The United States rate of new infections was higher than the City-County at 1.0 new case of Hepatitis B and 1.2 cases of Hepatitis C, per 100,000 population.

Data Source:
- Public Health Investigation and Disease Detection of Oklahoma, Oklahoma City-County 2016-2018 Hepatitis Disease Surveillance Data
- Centers for Disease Control and Prevention MMWR tables (NNDSS), retrieved from https://wonder.cdc.gov/mmwr/mmwrmorb.asp



*No data available

**Data too low to count/compare

BLOODBORNE DISEASE RATES
Oklahoma City-County, 2016-2018

Rate per 100,000 population. Data Source: Public Health Investigation and Disease Detection of Oklahoma (PHIDDO) Oklahoma City-County 2016-2018 Hepatitis Disease Surveillance Data

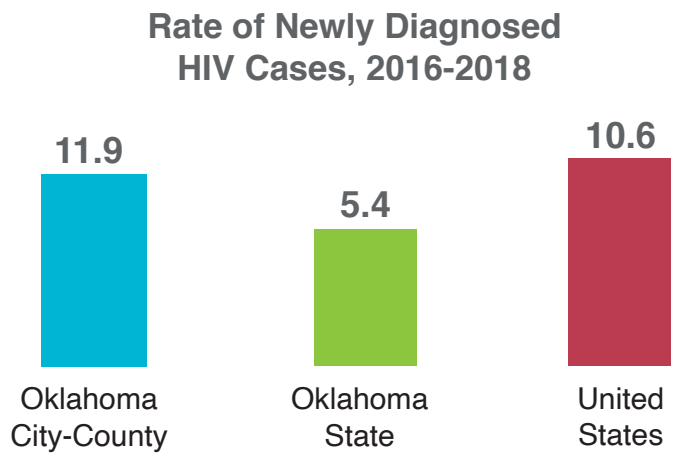
73003	33.2
73007	**
73008	67.1
73012	22.6
73013	29.4
73020	101.9
73025	5.3
73034	92.8
73045	80.1
73049	**
73054	9.9
73084	56.9
73099	**
73102	281.8
73103	123.4
73104	102.5
73105	144.7
73106	294.3
73107	112.6
73108	85.7
73109	104.0
73110	82.9
73111	193.5
73112	83.2
73114	74.1
73115	90.8
73116	53.4
73117	189.4
73118	133.0
73119	93.4
73120	50.9
73121	**
73122	72.8
73127	88.6
73128	69.1
73129	123.7
73130	40.8
73131	326.6
73132	64.4
73134	40.1
73135	64.0
73139	88.0
73141	141.2
73142	38.8
73145	**
73149	183.4
73150	43.2
73151	*
73159	73.3
73162	23.8
73165	**
73169	112.6
73170	10.6
73173	**
73179	40.4
74857	46.1

HIV/AIDS

The indicator for HIV/AIDS is presented as the number of newly reported cases of Human Immunodeficiency Virus (HIV) infections or AIDS per 100,000 population.

Why is it important?

HIV weakens a person's immune system by destroying cells that fight disease and infection. Although no effective cure currently exists, proper medical care can control HIV and prevent it from developing into another stage and can reduce the risk of transmission to someone else. In the United States, approximately 1.2 million persons were living with HIV at the end of 2018 and 14% did not know they were infected (CDC, 2020). Social and behavioral factors, including men who have sex with men (MSM) and injection drug use (IDU) increase risk of being infected with HIV/AIDS.



Data Source:

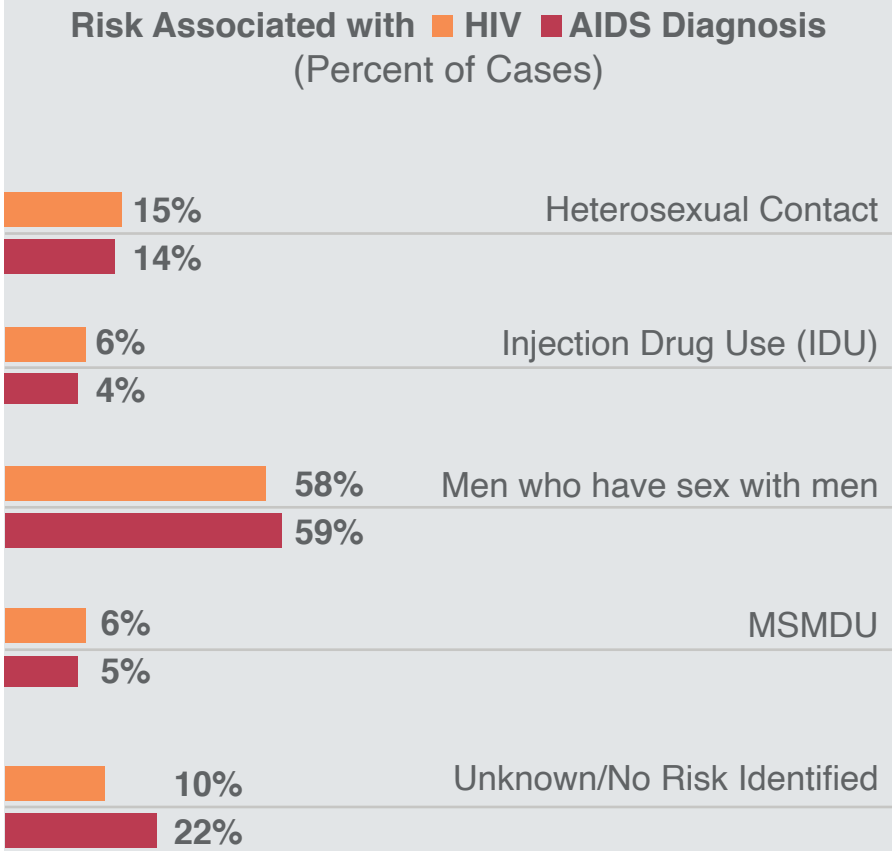
- Oklahoma State Department of Health, HIV/STD Service Surveillance and Analysis.
- Public Health Investigation and Disease Detection of Oklahoma 2016-2018 Epidemiological Investigation Records.
- Centers for Disease Control and Prevention 2016-2018 Sexually Transmitted Diseases Surveillance

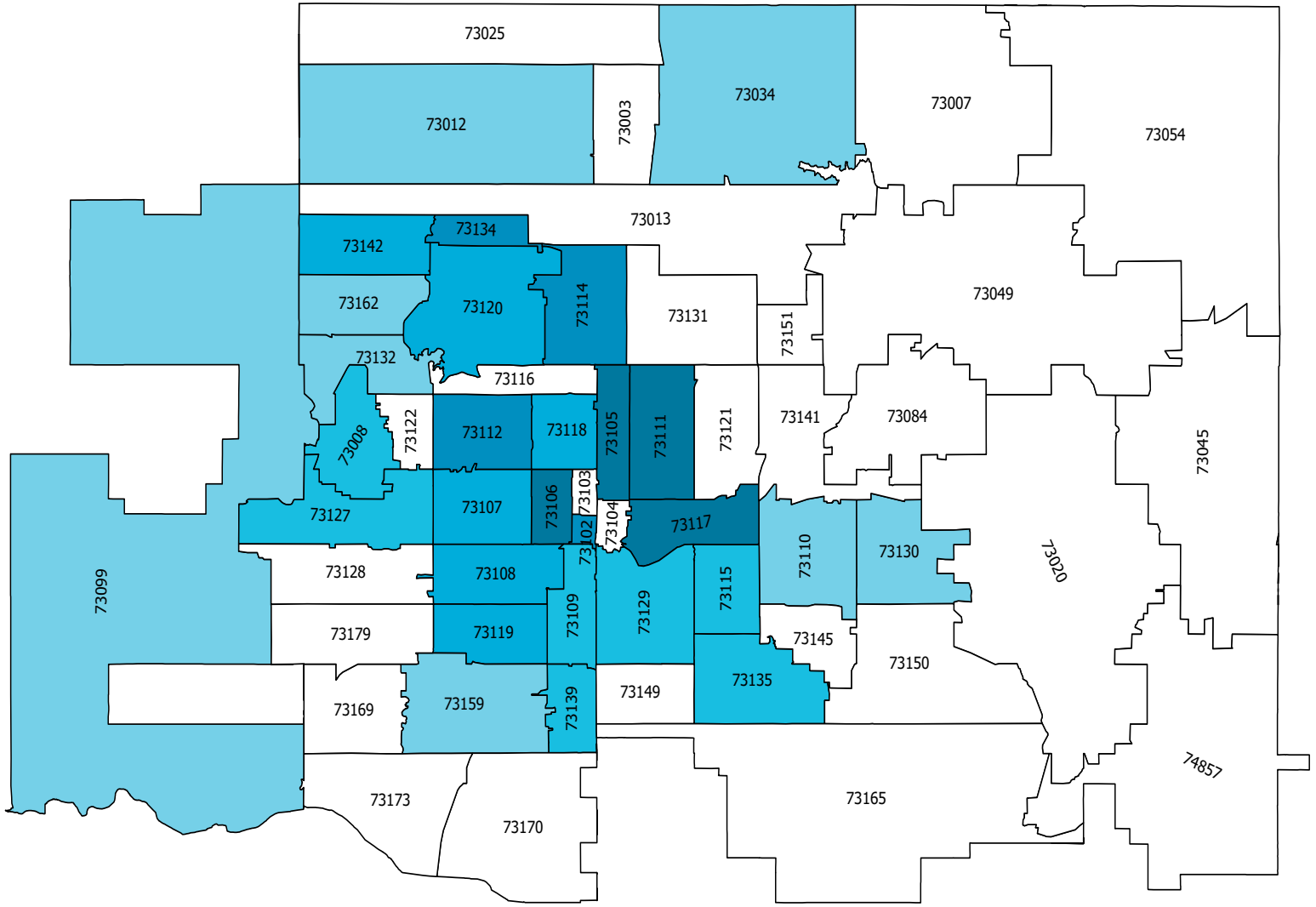
Reference:

- Centers for Disease Control and Prevention. (2020). Basic Statistics. https://www.cdc.gov/hiv/basics/statistics.html

How are we doing?

There were 334 new reports of HIV and 81 cases of AIDS during 2016-2018 in Oklahoma City-County. The rate was 11.9 cases per 100,000 population during these three years. In Oklahoma City-County, 58% of HIV diagnoses and 59% of AIDS diagnoses during 2016-2018 were men who have sex with men and Whites had the highest rate of new HIV cases in the Oklahoma City-County metropolitan statistical area (MSA). During 2016-2018, the rate of newly diagnosed HIV cases in Oklahoma City-County was higher than the state and the national rates.





*No data available

**Data too low to count/compare

HIV RATES
Oklahoma City-County,
2016-2018

Rate per 100,000 population. Data Source: Oklahoma State Department of Health STD Surveillance Department, 2016-2018

73003	**
73007	*
73008	13.1
73012	5.7
73013	**
73020	**
73025	**
73034	5.3
73045	*
73049	*
73054	*
73084	**
73099	2.5
73102	32
73103	*
73104	*
73105	42.2
73106	38.7
73107	22
73108	22.5
73109	11.9
73110	5.9
73111	41.7
73112	28.7
73114	30.7
73115	12.5
73116	**
73117	41.4
73118	21.4
73119	22.3
73120	18.5
73121	**
73122	**
73127	16.9
73128	**
73129	15.7
73130	8.2
73131	*
73132	9.5
73134	33.4
73135	16.4
73139	15
73141	**
73142	21.8
73145	*
73149	**
73150	*
73151	*
73159	6
73162	10.2
73165	**
73169	**
73170	**
73173	*
73179	**
74857	**

CHLAMYDIA

Chlamydia is a sexually transmitted disease. This indicator is presented as the number of newly reported cases of chlamydia per 100,000 population over the years 2016-2018.

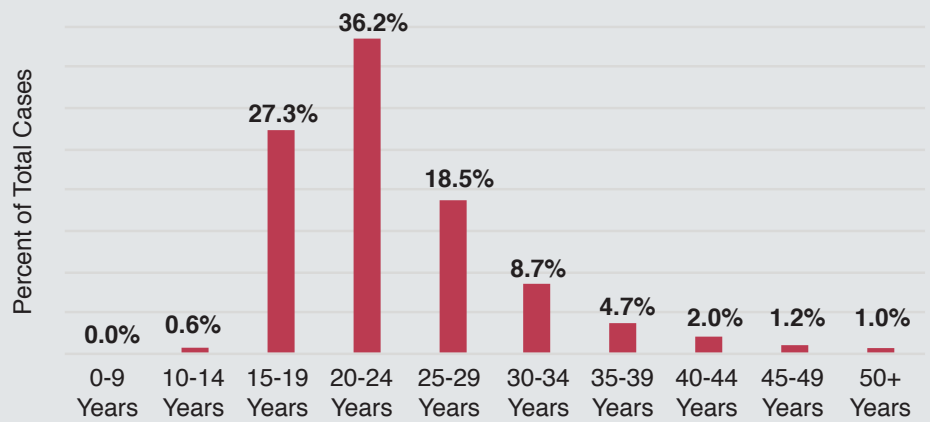
Why is it important?

Chlamydia is the most commonly investigated sexually transmitted disease (STD) in Oklahoma City-County and it is also the most frequently reported in the United States. Chlamydia is caused by the bacterium Chlamydia trachomatis. It can affect both men and women and can cause an inflammation of the urethra in men and serious health consequences in women, including pelvic inflammatory disease, ectopic pregnancy, and tubal factor infertility (CDC, 2016).

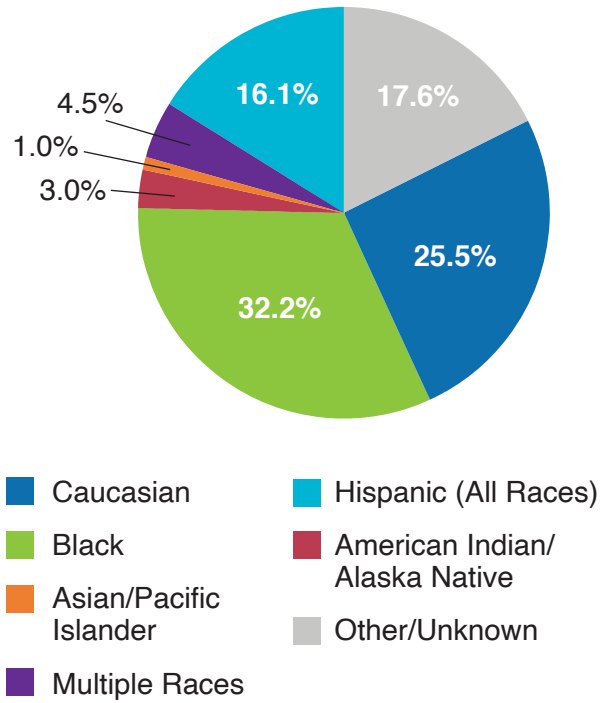
How are we doing?

There were 17,457 new reports of chlamydia during 2016-2018 in Oklahoma City-County. The average annual rate was 621.2 cases per 100,000 population. The City-County rate was higher than both the state and national rates. The Oklahoma State chlamydia rate was 554.7 per 100,000.There were over 5 million reported chlamydial infections in the United States from 2016-2018, representing a rate of 526.3 cases per 100,000 population (CDC). The ZIP codes with the highest chlamydia rates were 73104, 73111, and 73145.

OCCHD Chlamydia Cases by Age, 2016-2018



OCCHD Chlamydia Cases by Race/Ethnicity, 2016-2018



Chlamydia Comparison, 2016-2018

(Cases per 100,000 population)

621.2
Oklahoma City-County

554.7
Oklahoma State

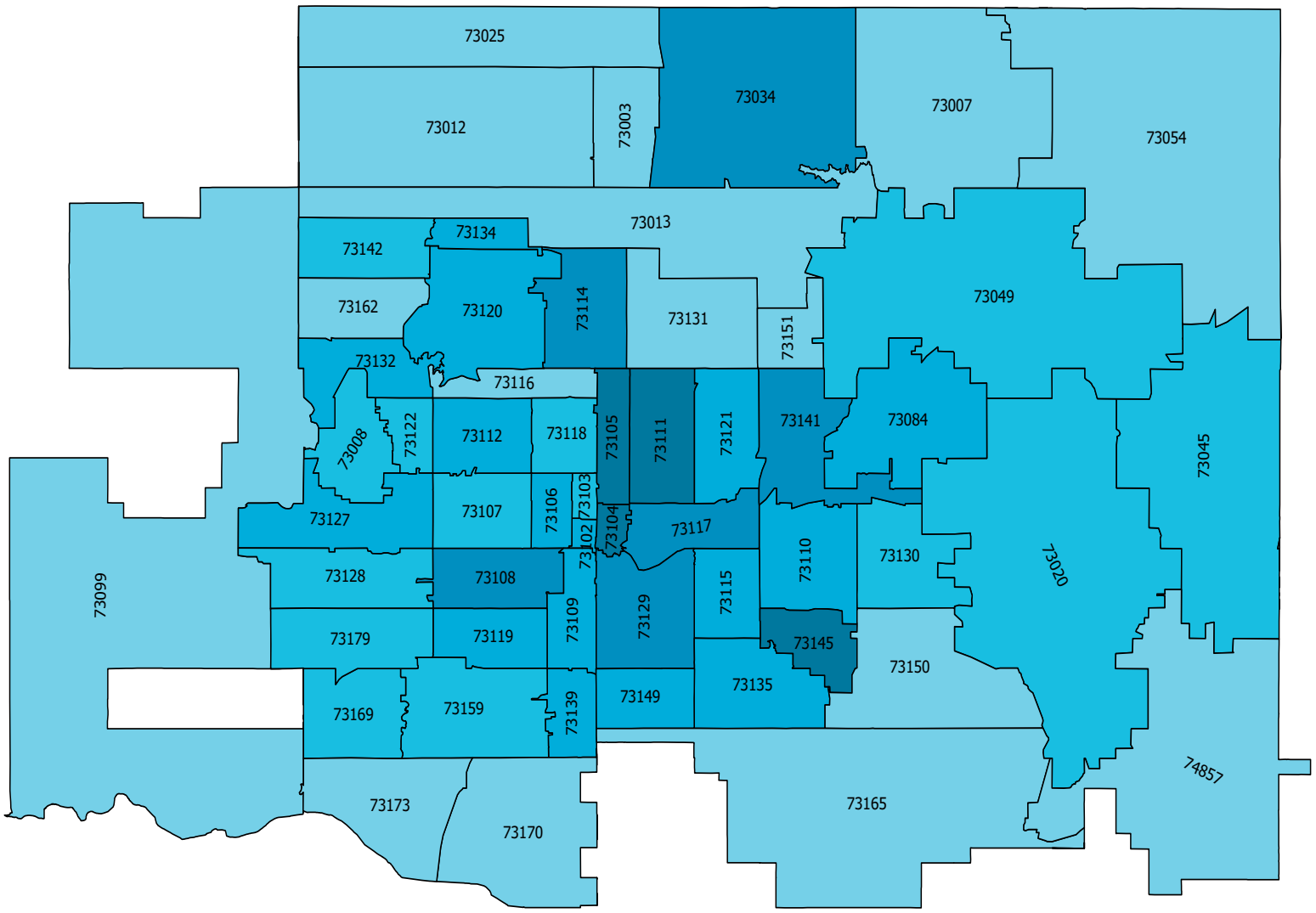
526.3
United States

Data Source:

- Oklahoma State Department of Health, HIV/STD Service Surveillance and Analysis.
- Public Health Investigation and Disease Detection of Oklahoma 2016-2018 Epidemiological Investigation Records.
- Centers for Disease Control and Prevention 2016-2018 Sexually Transmitted Diseases Surveillance

Reference:

- Centers for Disease Control and Prevention. (2016). Chlamydia - CDC Fact Sheet (Detailed). https://www.cdc.gov/std/chlamydia/stdfact-chlamydia-detailed.htm



Lowest — Highest

*No data available

**Data too low to count/compare

CHLAMYDIA RATES
Oklahoma City-County,
2016-2018

Rate per 100,000 population. Data Source: Oklahoma State Department of Health STD Surveillance Department, 2016-2018

73003	322.5
73007	294.9
73008	528.9
73012	223.6
73013	302.2
73020	418.3
73025	27.8
73034	1417
73045	422.1
73049	560.8
73054	60.6
73084	985.9
73099	277.3
73102	902.9
73103	610.2
73104	2285
73105	1712.8
73106	852
73107	678.1
73108	1224
73109	962.5
73110	830.1
73111	1753
73112	753.6
73114	1258
73115	791.8
73116	231.3
73117	1361.4
73118	534.4
73119	934.1
73120	1024.6
73121	823.3
73122	635.2
73127	904.6
73128	504.5
73129	1085.8
73130	548.1
73131	233.3
73132	735.8
73134	829.3
73135	890.2
73139	1012.5
73141	1283.2
73142	470.7
73145	1737.3
73149	753.4
73150	287.7
73151	137.5
73159	618.6
73162	325.4
73165	294.1
73169	492.5
73170	196.5
73173	186.3
73179	477.6
74857	249.9

GONORRHEA

Gonorrhea is a sexually transmitted disease. This indicator is presented as the number of newly reported cases of Gonorrhea per 100,000 population over the years 2016-2018.

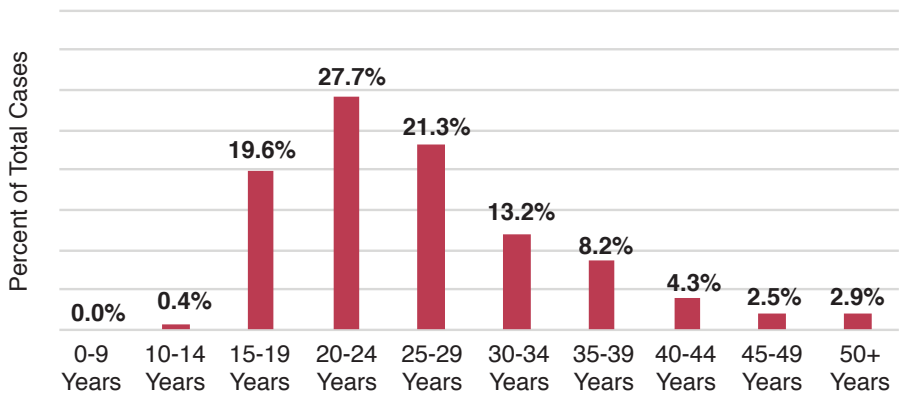
Why is it important?

Gonorrhea is the second most commonly reported notifiable disease in the United States (CDC, 2018). Gonorrhea is caused by the bacterium Neisseria gonorrhoeae. There has been an increase in the incidence rate of gonorrhea throughout the United States. Resistance to antibiotics used to treat gonorrhea has been observed, most recently with cefixime. The CDC has issued updated treatment guidelines resulting in dual therapy with ceftriaxone and azithromycin. Increased surveillance of gonorrhea infections is ongoing to monitor resistance and collect additional information to understand the epidemiology of the disease. Community members need to understand the prevalence of this disease because sexual behaviors and community prevalence can increase the risk of becoming infected with gonorrhea (CDC, 2018).

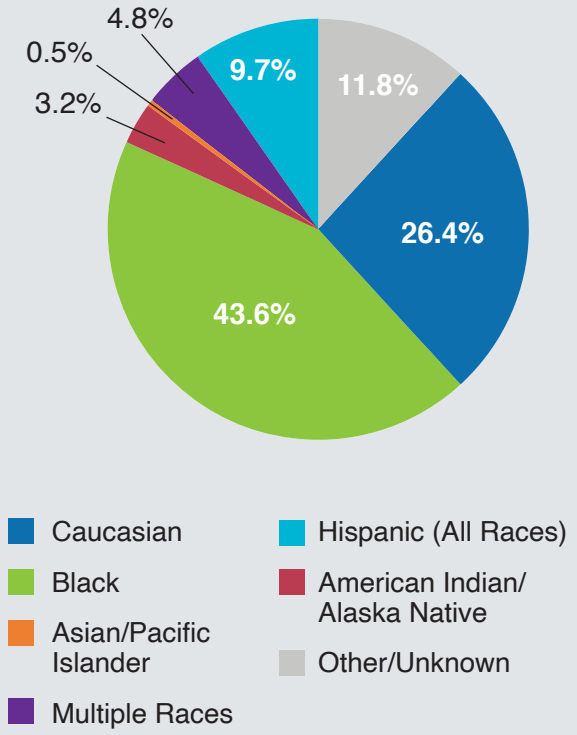
How are we doing?

There were 7,711 new reports of gonorrhea during 2016-2018 in Oklahoma City-County. The average annual rate was 274.4 cases per 100,000 population. The incidence rate in Oklahoma City-County was higher than the rate in Oklahoma (218.3 cases per 100,000) and the United States (167.0 cases per 100,000). The ZIP codes with the highest rates of gonorrhea were 73111, 73105, and 73117.

OCCHD Gonorrhea Cases by Age, 2016-2018



OCCHD Gonorrhea Cases by Race/Ethnicity, 2016-2018



Gonorrhea Comparison, 2016-2018

(Cases per 100,000)

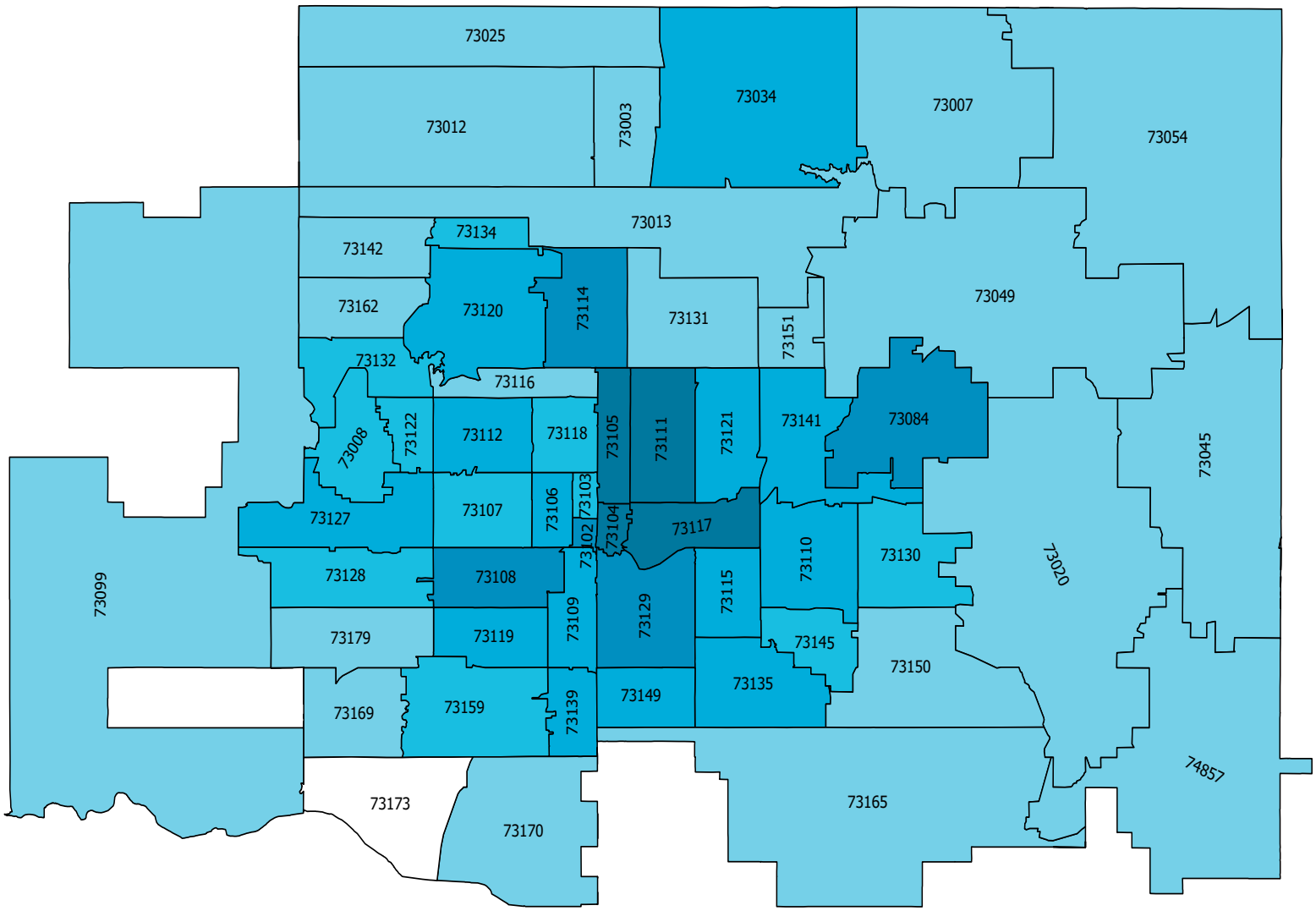
Oklahoma City-County	274.4
Oklahoma State	218.3
United States	167.0

Data Source:

- Oklahoma State Department of Health, HIV/STD Service Surveillance and Analysis.
- Public Health Investigation and Disease Detection of Oklahoma 2016-2018 Epidemiological Investigation Records.
- Centers for Disease Control and Prevention 2016-2018 Sexually Transmitted Diseases Surveillance.

Reference:

- Centers for Disease Control and Prevention. (2018). Sexually Transmitted Disease Surveillance 2018. Gonorrhea. https://www.cdc.gov/std/stats18/gonorrhea.htm#:~:text=Gonorrhea%20is%20the%20second%20most,PID)%20in%20the%20United%20States.



Lowest — Highest — N/A

**Data too low to count/compare

GONORRHEA RATES
Oklahoma City-County,
2016-2018

Rate per 100,000 population. Data Source: Oklahoma State Department of Health STD Surveillance Department, 2016-2018

73003	106.6
73007	132.7
73008	216.2
73012	60.4
73013	88.3
73020	152.8
73025	10.5
73034	442.4
73045	138.9
73049	148.5
73054	14.1
73084	635.1
73099	75.6
73102	685.2
73103	260.5
73104	791
73105	965
73106	482.8
73107	322.2
73108	536.5
73109	436.7
73110	408.6
73111	1169.6
73112	383
73114	750.1
73115	366.2
73116	89
73117	799.1
73118	282.7
73119	355.4
73120	373
73121	470.4
73122	256.1
73127	501.8
73128	200.4
73129	545.5
73130	208.8
73131	93.3
73132	291
73134	294.3
73135	431.7
73139	370.6
73141	423.5
73142	172.3
73145	317.8
73149	366.9
73150	115.1
73151	98.2
73159	278.2
73162	151.9
73165	101.4
73169	126.7
73170	62.6
73173	**
73179	127.8
74857	80.7

SYPHILIS

Syphilis is a sexually transmitted disease. This indicator is presented as the number of newly reported cases of syphilis at all stages, per 100,000 population over the years 2016-2018.

Why is it important?

Syphilis is a sexually transmitted disease (STD) caused by the bacterium Treponema pallidum. Syphilis can lead to significant complications without treatment and can increase risk of transmission of HIV. The rate of primary and secondary (P&S) syphilis has been increasing in the United States since 2001.

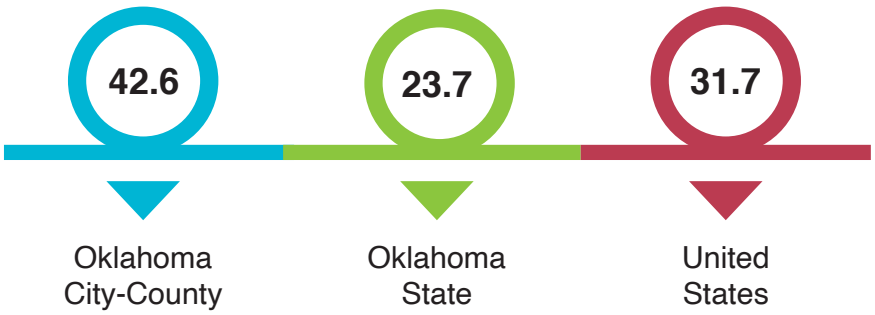
In the primary stage of the disease, sore(s) may be visible but can easily go unnoticed. The sores will last 3 to 6 weeks and will go away with or without treatment. It is important to receive treatment so the disease does not progress to the secondary stage. The secondary stage then progresses with a rash and may be accompanied by a fever, sore throat, swollen lymph glands, hair loss, weight loss and fatigue. Again, without treatment, these symptoms will eventually go away but will progress into the latent and even late stage of syphilis (Centers for Disease Control and Prevention).

How are we doing?

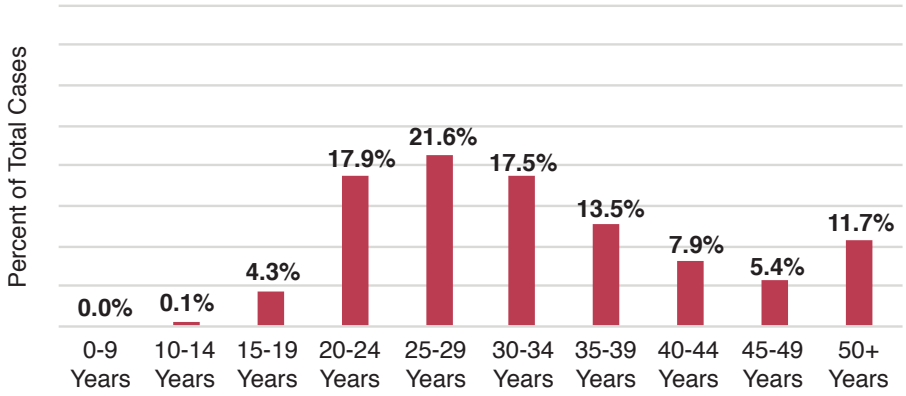
There were 1,197 new reports of syphilis cases during 2016-2018 in Oklahoma City-County. The rate was 42.6 cases per 100,000 population. The state rate was 23.7 cases of syphilis (all stages) per 100,000 population. The United States rate was 31.7 cases of syphilis per 100,000 population. The ZIP codes with the highest syphilis rates were 73111, 73106, and 73104.

Syphilis Rates Comparison, 2016-2018

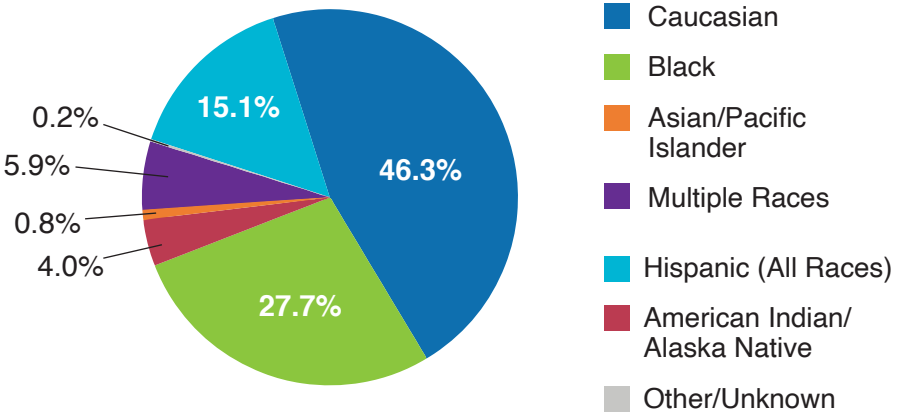
Cases of Syphilis (All Stages) per 100,000 Population



Syphilis Cases by Age Group, 2016-2018

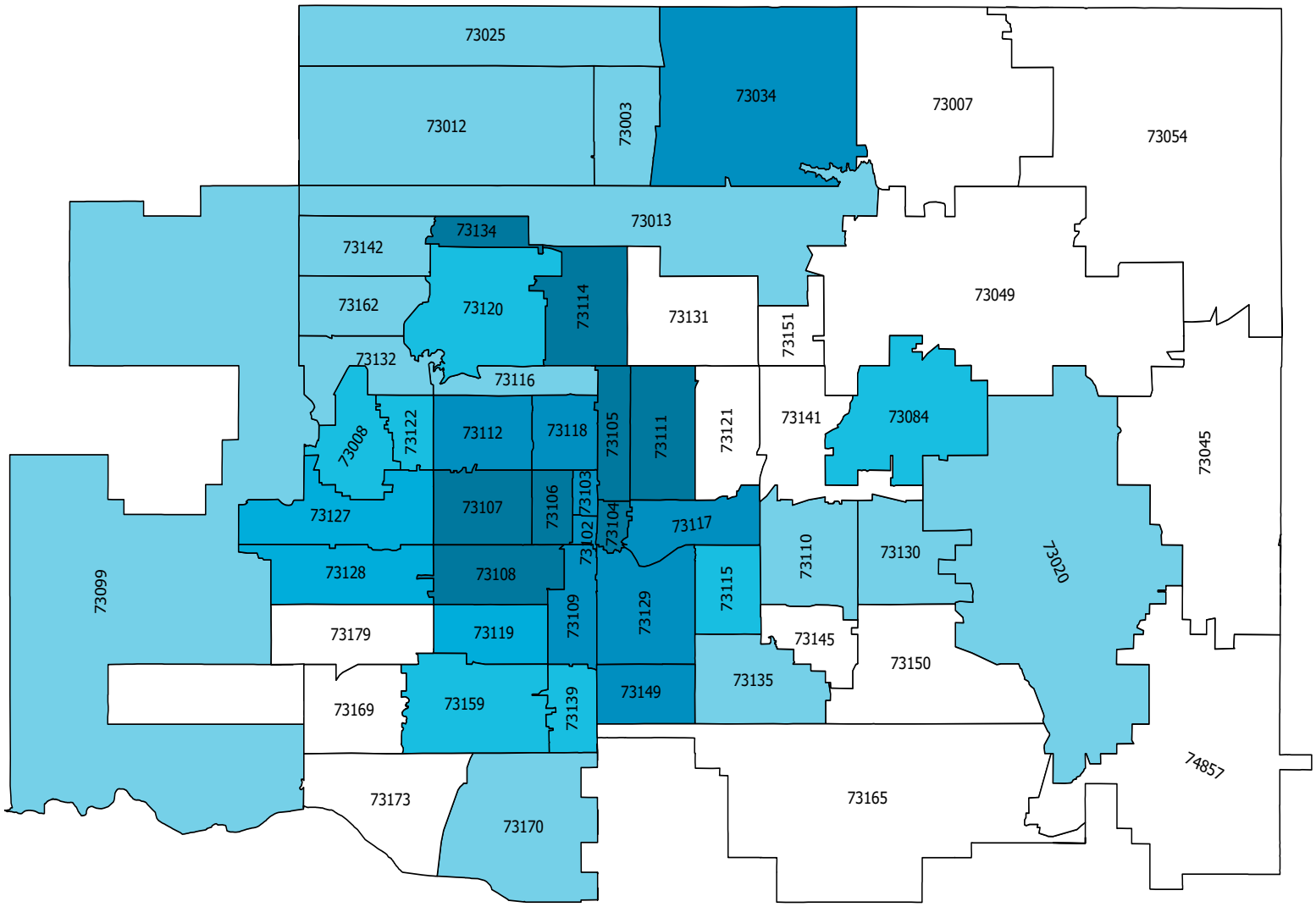


OCCHD Syphilis Cases by Race, 2016-2018



Data Source:

- Oklahoma State Department of Health, HIV/STD Service Surveillance and Analysis.
- Public Health Investigation and Disease Detection of Oklahoma 2016-2018 Epidemiological Investigation Records.
- Centers for Disease Control and Prevention 2016-2018 Sexually Transmitted Diseases Surveillance.



*No data available

**Data too low to count/compare

SYPHILIS RATES
Oklahoma City-County,
2016-2018

Rate per 100,000 population. Data Source: Oklahoma State Department of Health STD Surveillance Department, 2016-2018

73003	8.3
73007	**
73008	55.7
73012	8.5
73013	15
73020	29.5
73025	3.8
73034	74.3
73045	**
73049	**
73054	**
73084	52.1
73099	9
73102	83.2
73103	89.1
73104	117.2
73105	96.5
73106	121.3
73107	103.5
73108	108.2
73109	80.2
73110	36.5
73111	125
73112	80.1
73114	104.8
73115	53.2
73116	32
73117	82.9
73118	76
73119	66
73120	49.1
73121	**
73122	52.7
73127	67.8
73128	62.2
73129	78.4
73130	14.7
73131	**
73132	31
73134	100.3
73135	31.3
73139	41.2
73141	**
73142	29.1
73145	**
73149	78.6
73150	**
73151	**
73159	44.2
73162	27.2
73165	**
73169	**
73170	9.7
73173	*
73179	*
74857	**

Chapter 5 Mortality Rates

VARIABLES

Analysis	Data Sources
Age-adjusted cardiovascular disease mortality rate	• Oklahoma State Department of Health Vital Statistics Death Records, 2016-2018. • Centers for Disease Control and Prevention Vital Statistics Death Records, 2016-2018.
Age-adjusted heart disease mortality rate	
Age-adjusted stroke mortality rate	
Age-adjusted hypertension mortality rate	
Age-adjusted heart attack mortality rate	
Age-adjusted diabetes mortality rate	
Age-adjusted chronic lower respiratory disease mortality rate	
Age-adjusted chronic liver disease mortality rate	
Age-adjusted cancer mortality rate	
Age-adjusted breast cancer mortality rate	
Age-adjusted lung cancer mortality rate	
Age-adjusted prostate cancer mortality rate	
Age-adjusted Alzheimer mortality rate	
Age-adjusted influenza and pneumonia mortality rate	
Age-adjusted unintentional injury mortality rate	

ALL CAUSE MORTALITY

All Cause Mortality is the total number of deaths that occurred in Oklahoma County between 2016-2018. This information highlights the overall burden of disease within the community. Mortality rates were age-adjusted using the 2000 U.S. Census standard population.

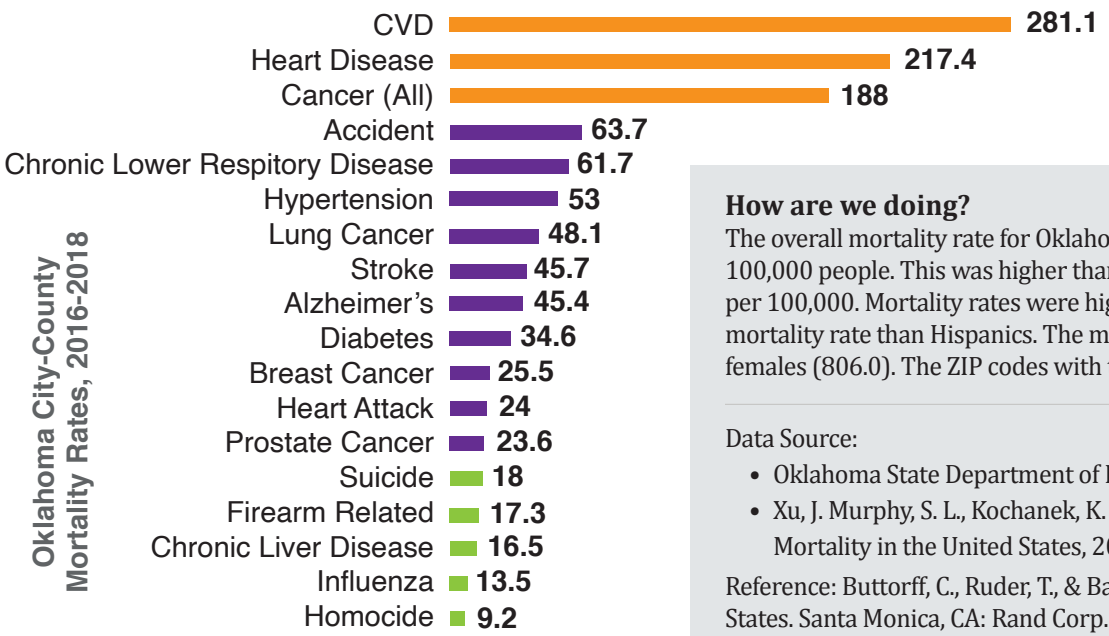
Why is it important?

Chronic Disease Mortality demonstrates the burden of chronic disease within our community. Six out of ten Americans have at least one chronic condition, and those with multiple chronic conditions have poorer health, use more health services, and spend more on health care. This indicator provides a baseline measurement for improving health outcomes and aids providers in making informed decisions for the development of general health and well-being programs, services, and policies. The 10 leading causes of death in 2018 in the United States were heart disease, cancer, unintentional injuries (accidents), chronic lower respiratory diseases, stroke, Alzheimer's disease, diabetes, influenza and pneumonia, kidney disease, and suicide. These 10 causes accounted for more than 73 percent of all deaths in the United States. The measure of overall mortality helps to provide the context for health and well-being of the individual, the family and the community. This statistic can help the local public health system mobilize and advocate for general health improvement policies, programs, and services, and serve as a reminder that there is work still to be done.

Age-Adjusted All Cause Mortality Rates by Ethnicity, 2016-2018

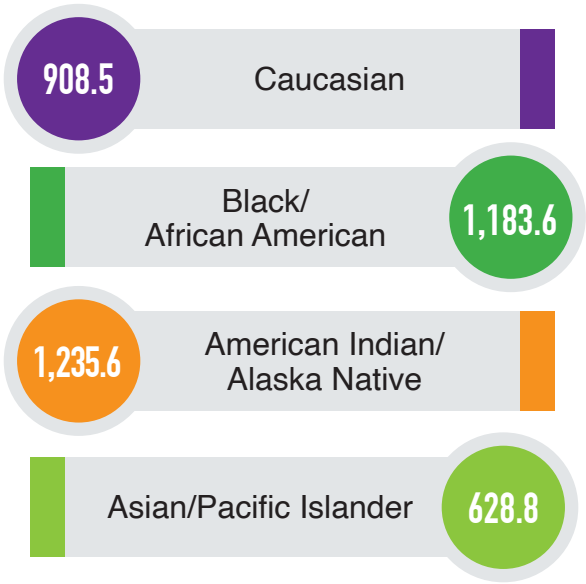
Oklahoma City-County

670.7	947.8
Hispanic	Non-Hispanic

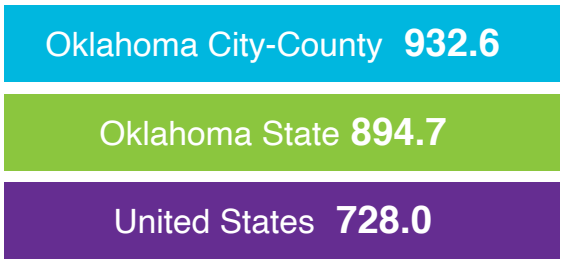


Age-Adjusted All Cause Mortality Rates by Race, 2016-2018

Oklahoma City-County



All Cause Mortality Rate Comparison, 2016-2018



How are we doing?

The overall mortality rate for Oklahoma City-County from 2016-2018 was 932.6 deaths per 100,000 people. This was higher than the national rate of 728.0 and the state rate of 894.7 deaths per 100,000. Mortality rates were highest among Native Americans. Non-Hispanics had a higher mortality rate than Hispanics. The mortality rate for males (1090.1) was higher than the rate for females (806.0). The ZIP codes with the highest rates were 73007, 73141, and 73102.

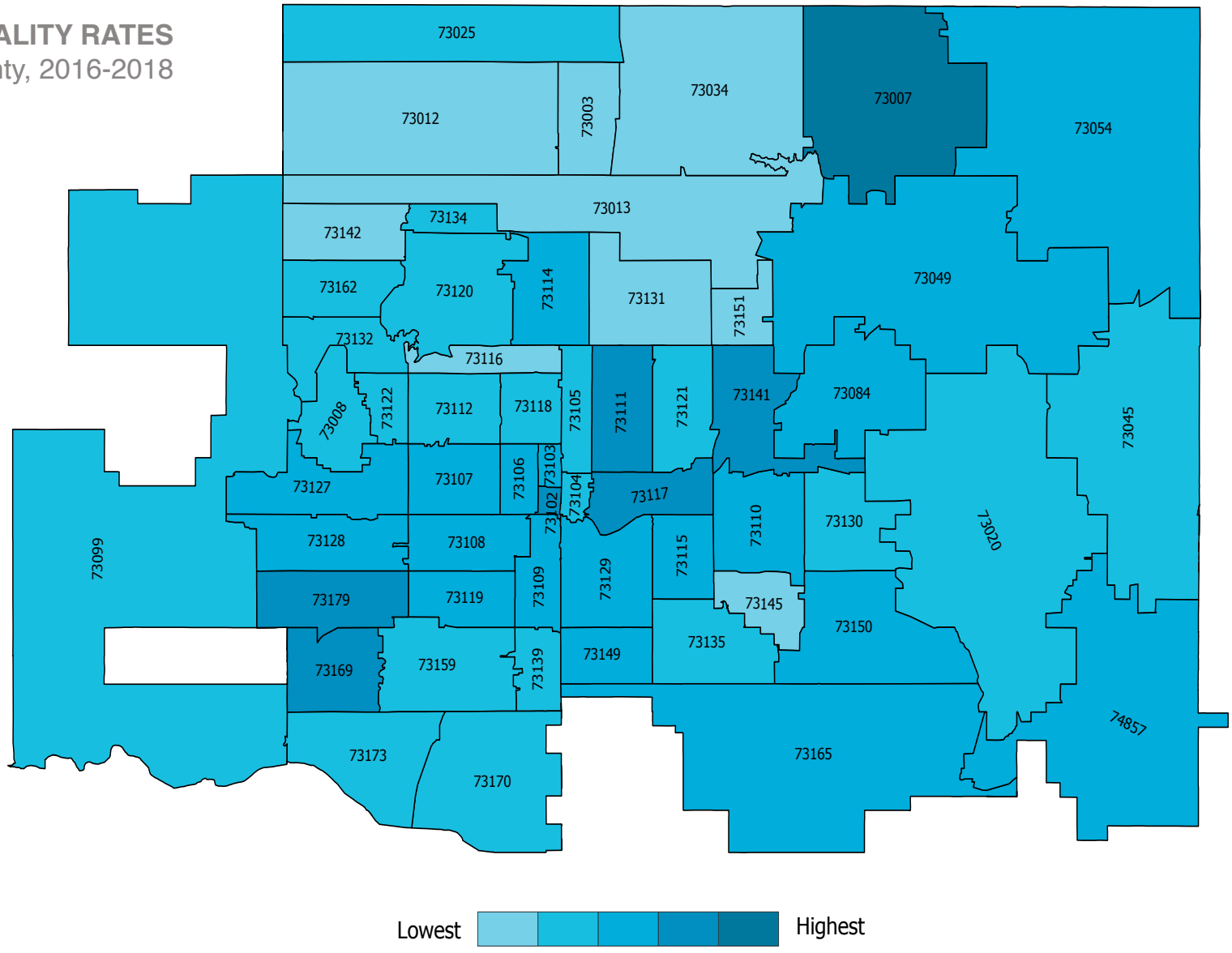
Data Source:

- Oklahoma State Department of Health Vital Statistics Death Records 2016-2018.
- Xu, J. Murphy, S. L., Kochanek, K. D., & Arias, E Elizabeth Arias, Ph.D (2020, January). Mortality in the United States, 2018. NCHS Data Brief No. 355.

Reference: Buttorff, C., Ruder, T., & Bauman, M. (2017). Multiple chronic conditions in the United States. Santa Monica, CA: Rand Corp.

ALL CAUSE MORTALITY RATES

Oklahoma City-County, 2016-2018



Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018

73003	716.5	73054	1208.6								
73007	2476.9	73084	1088.0	73109	1234.8	73119	1241.3	73132	837.3	73151	715.7
73008	1038.2	73099	891.4	73110	1130.5	73120	903.0	73134	1000.6	73159	923.3
73012	687.7	73102	1565.3	73111	1397.5	73121	923.0	73135	916.6	73162	799.8
73013	723.1	73103	1168.3	73112	974.4	73122	941.6	73139	930.2	73165	1097.4
73020	878.1	73104	947.8	73114	1231.7	73127	1130.8	73141	1642.8	73169	1541.7
73025	954.1	73105	1032.8	73115	1122.9	73128	1241.8	73142	747.2	73170	838.0
73034	752.4	73106	1192.2	73116	764.1	73129	1330.6	73145	254.1	73173	955.9
73045	949.1	73107	1170.5	73117	1476.7	73130	883.6	73149	1227.1	73179	1443.2
73049	1160.2	73108	1224.0	73118	864.5	73131	582.8	73150	1092.2	74857	1082.5

CARDIOVASCULAR DISEASE MORTALITY

Cardiovascular disease (CVD) impacts the heart and blood vessels and includes multiple conditions, some directly related to plaque buildup in the arteries. CVD is the leading cause of death in the United States for both men and women and the leading cause of death in Oklahoma City-County. Types of cardiovascular disease include heart attack, hypertension, heart disease, stroke, heart valve problems, abnormal rhythm of the heart (arrhythmia) and diabetes. This indicator is presented as the number of deaths from cardiovascular disease per 100,000 population, over the years 2016-2018. The rates were age adjusted to account for differences in age distributions among our community.

Why is it important?

The risk for developing cardiovascular disease increases with a variety of unhealthy lifestyle and behavioral factors. Major risk factors include smoking, physical inactivity, diabetes, high cholesterol, and hypertension — all of which can be modified. High rates of CVD may indicate a need for interventions related to diet, smoking or physical activity. High rates of CVD may also indicate areas with low access to regular medical care or healthy foods. The local public health system can use this data to focus on developing or advocating for programs, services, and policies that coordinate care and resources to improve community awareness, access, and education.

Age-Adjusted CVD Mortality Rates by Gender, 2016-2018

Oklahoma City-County

337.7	235.9
Male	Female

Age-Adjusted Heart Disease Mortality Rate Comparison, 2016-2018

217.4	231.3	164.7
Oklahoma City-County	Oklahoma State	United States

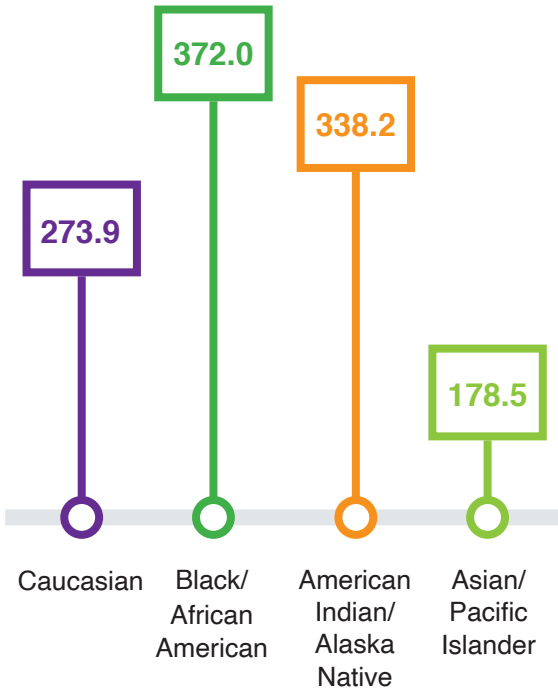
Age-Adjusted CVD Mortality Rates by Ethnicity, 2016-2018

Oklahoma City-County

209.9	284.9
Hispanic	Non-Hispanic

Age-Adjusted CVD Mortality Rates by Race, 2016-2018

Oklahoma City-County



How are we doing?

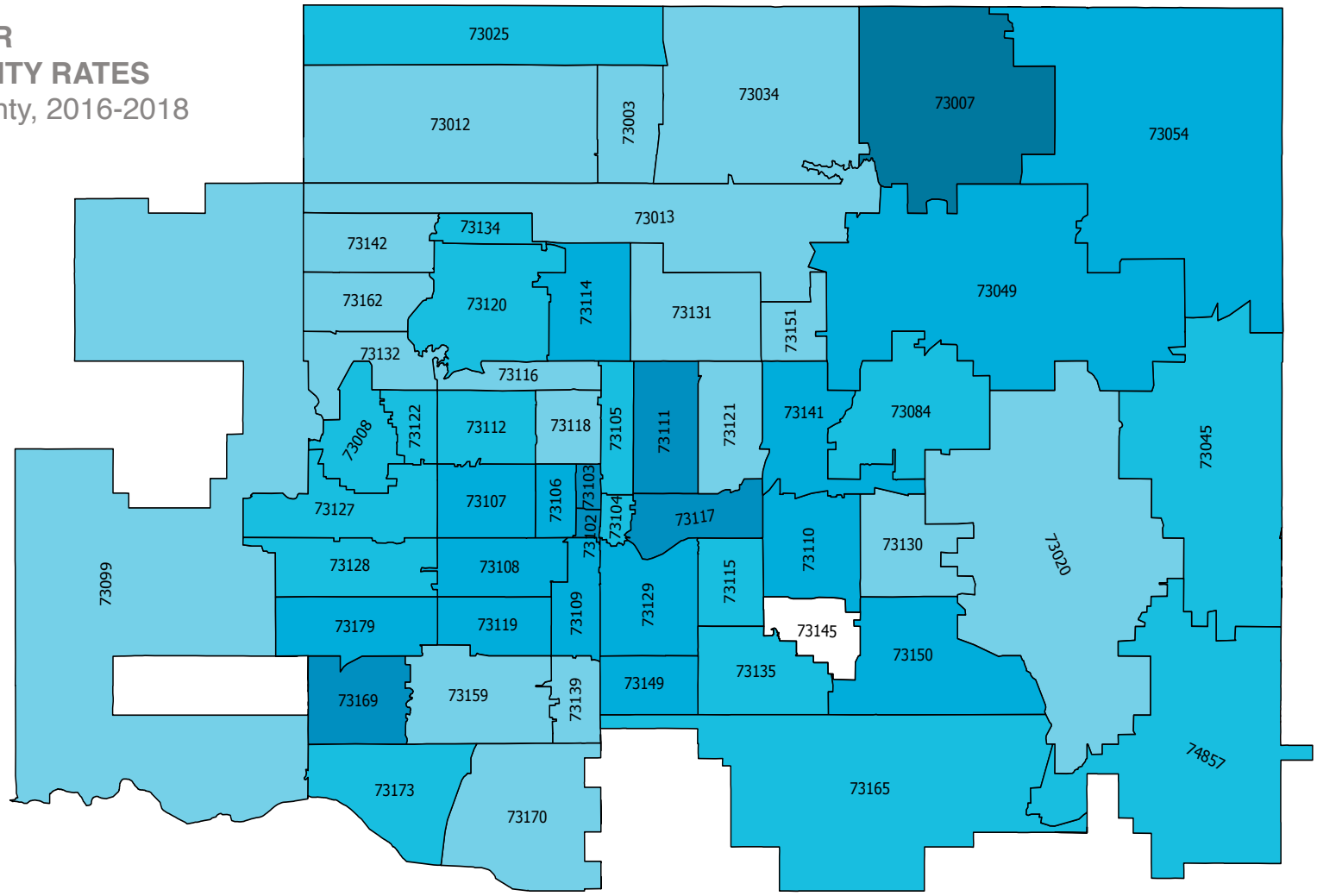
The mortality rate for Oklahoma City-County was 281.1 deaths per 100,000, making cardiovascular disease as a group the leading cause of death in Oklahoma City-County. The heart disease mortality rate in Oklahoma County was 217.4 deaths per 100,000. Both the CVD and heart disease mortality rates were higher than the national rates but lower than state rates. Mortality rates were highest among Black/African Americans. Males had higher rates than females.

Data Source:

- Oklahoma State Department of Health Vital Statistics Death Records 2016-2018.
- National Center for Health Statistics, Centers for Disease Control and Prevention (NVSS), 2016-2018.

CARDIOVASCULAR DISEASE MORTALITY RATES

Oklahoma City-County, 2016-2018



Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018

**Data too low to count/compare

Lowest — Highest — N/A

73003	225.1	73054	359.2								
73007	1313.3	73084	304.6	73109	400.0	73119	376.3	73132	243.4	73151	123.1
73008	293.1	73099	261.9	73110	355.6	73120	277.8	73134	301.1	73159	259.3
73012	208.0	73102	484.7	73111	463.7	73121	267.0	73135	282.6	73162	241.7
73013	210.1	73103	493.4	73112	307.6	73122	294.8	73139	247.3	73165	301.4
73020	252.3	73104	290.6	73114	361.4	73127	331.3	73141	396.9	73169	499.9
73025	282.0	73105	335.7	73115	325.6	73128	286.2	73142	233.9	73170	254.4
73034	214.7	73106	420.3	73116	238.2	73129	370.6	73145	**	73173	331.6
73045	288.5	73107	357.1	73117	552.4	73130	269.0	73149	404.8	73179	419.7
73049	352.0	73108	402.5	73118	257.0	73131	182.6	73150	342.9	74857	332.6

STROKE MORTALITY

Stroke is the fifth leading cause of death in the United States accounting for approximately one of every 20 deaths. This indicator is presented as the number of deaths due to cerebrovascular disease (stroke) per 100,000 population over the years 2016-2018. The rates were age-adjusted to account for differences in age distributions among our community.

Why is it important?

Stroke is a rapid loss of brain function when there is a disruption in blood flow to the brain. Strokes are a leading cause of serious long-term disability. The most powerful modifiable risk factor for stroke is hypertension, or high blood pressure. Smoking, high cholesterol, and obesity are also major risk factors, all of which can be modified through lifestyle changes. The local public health system should align policies and practices to help improve access to care and to help educate community members about the early signs of stroke. Public health education, outreach, and awareness provides the community with tools for recognizing and reducing the burden of stroke.

How are we doing?

The mortality rate for Oklahoma City-County for stroke was 45.7 deaths per 100,000 population, over the years 2016-2018. This rate was higher than the Oklahoma State rate of 41.8 and the United States rate of 37.3 deaths per 100,000 population. Non-Hispanics, Black/African Americans, and males had higher mortality per 100,000. ZIP codes with the highest stroke mortality rates were 73150, 73149, and 73054.

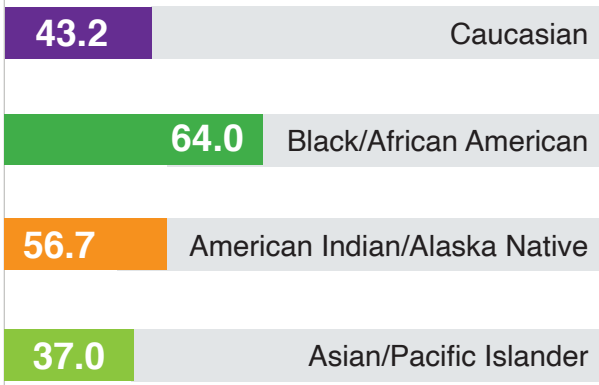
Age-Adjusted Stroke Mortality Rates by Ethnicity, 2016-2018
Oklahoma City-County

40.9	45.7
Hispanic	Non-Hispanic

Data Source:

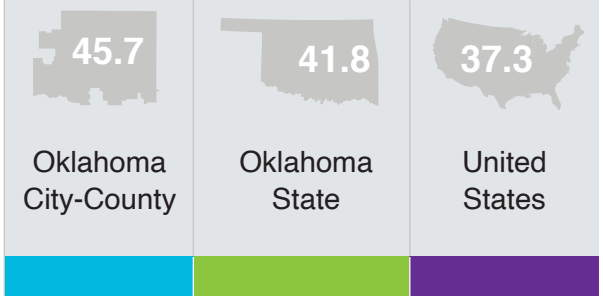
- Oklahoma State Department of Health Vital Statistics Death Records 2016-2018.
- National Center for Health Statistics, Centers for Disease Control and Prevention (NVSS), 2016-2018.

Age-Adjusted Stroke Mortality Rates by Race, 2016-2018
Oklahoma City-County



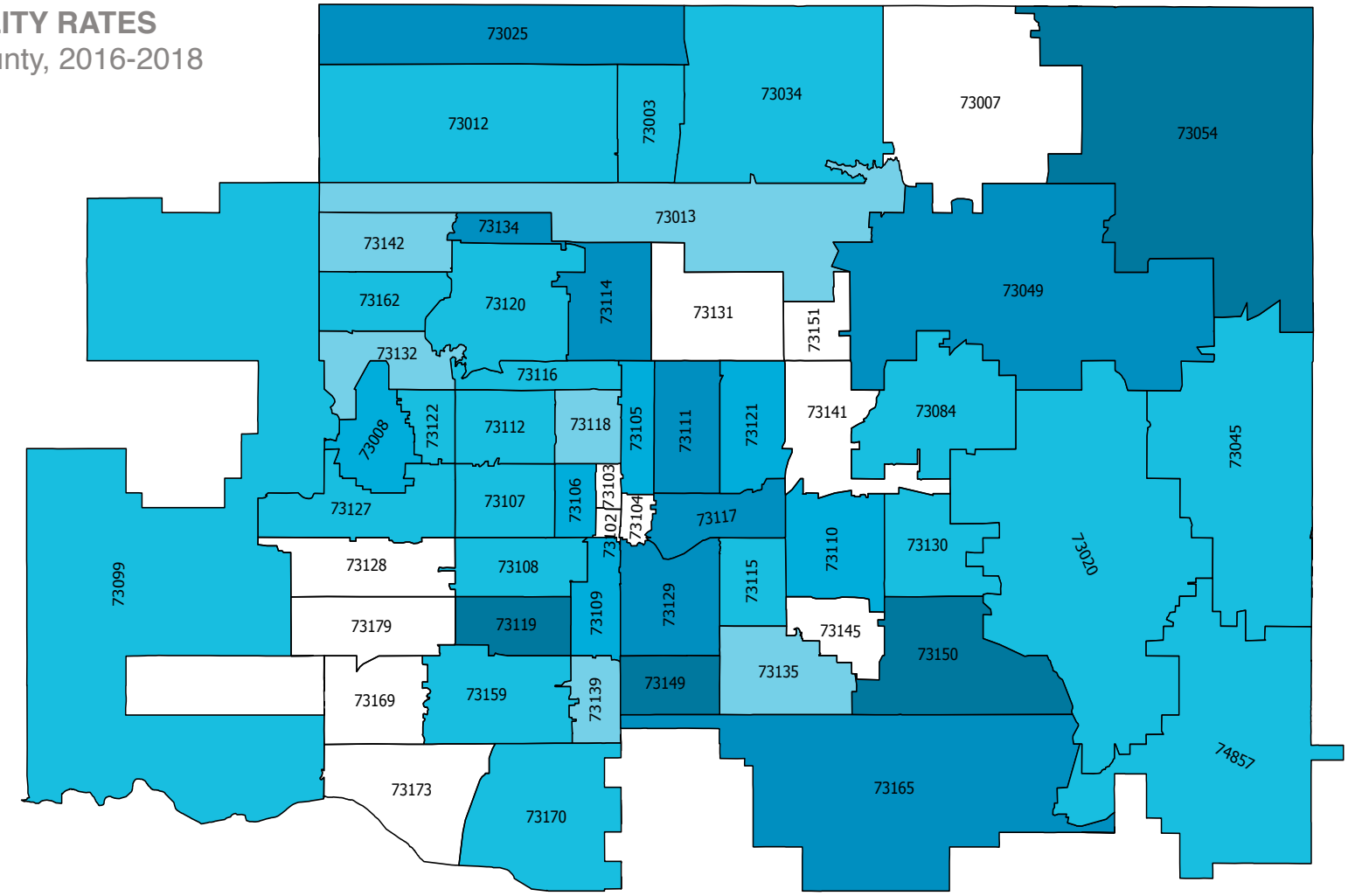
Mortality Rates by Gender, 2016-2018
Oklahoma City-County

Mortality Rate Comparison, 2016-2018



STROKE MORTALITY RATES

Oklahoma City-County, 2016-2018



Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018

*No data available
**Data too low to count/compare

Lowest — Highest — N/A

73003	42.7	73054	90.8								
73007	**	73084	42.9	73109	57.6	73119	89.1	73132	35.5	73151	*
73008	53.4	73099	47.6	73110	58.8	73120	47.7	73134	71.4	73159	40.3
73012	38.3	73102	*	73111	82.2	73121	60.9	73135	34.9	73162	40.6
73013	32.4	73103	**	73112	45.3	73122	44.1	73139	27.8	73165	68.2
73020	38.5	73104	**	73114	74.2	73127	42.3	73141	*	73169	**
73025	78.8	73105	66.6	73115	41.5	73128	**	73142	26.8	73170	45.8
73034	38.8	73106	58.6	73116	50.7	73129	81.6	73145	*	73173	*
73045	43.0	73107	46.2	73117	77.5	73130	39.6	73149	94.7	73179	**
73049	69.3	73108	45.4	73118	30.2	73131	**	73150	102.6	74857	48.7

HEART ATTACK MORTALITY

Heart attack mortality is presented as the number of deaths from heart attack per 100,000 population over the years 2016-2018. The rates were age-adjusted to account for differences in age distributions among our community.

Age-Adjusted Heart Attack Mortality Rates by Race

Oklahoma City-County, 2016-2018

- 23.5 Caucasian
- Black/African American 28.8
- 23.0 American Indian/Alaska Native
- Asian/ Pacific Islander 17.0

Age-Adjusted Heart Disease Mortality Rate Comparison, 2016-2018

Oklahoma City-County	Oklahoma State	United States
24	23.4	28

Mortality Rates by Gender

Oklahoma City-County, 2016-2018

Male	Female
31.7	17.9

Age-Adjusted Heart Attack Mortality Rates by Ethnicity, 2016-2018

Oklahoma City-County

Hispanic	Non-Hispanic
21.2	24.2

Why is it important?

Preventing heart attack occurrence depends on controlling cardiovascular disease and its underlying causes such as hypertension, obesity, and physical inactivity. The health department can work with local organizations and individuals to create policies and practices that focus on health and wellness efforts targeting the root cause of heart attack occurrence. The health department and local communities partnering together to create policies, programs, and services that seek to address environmental, social, and behavioral norms, combined with physical health and wellness, will have the greatest impact for the community members.

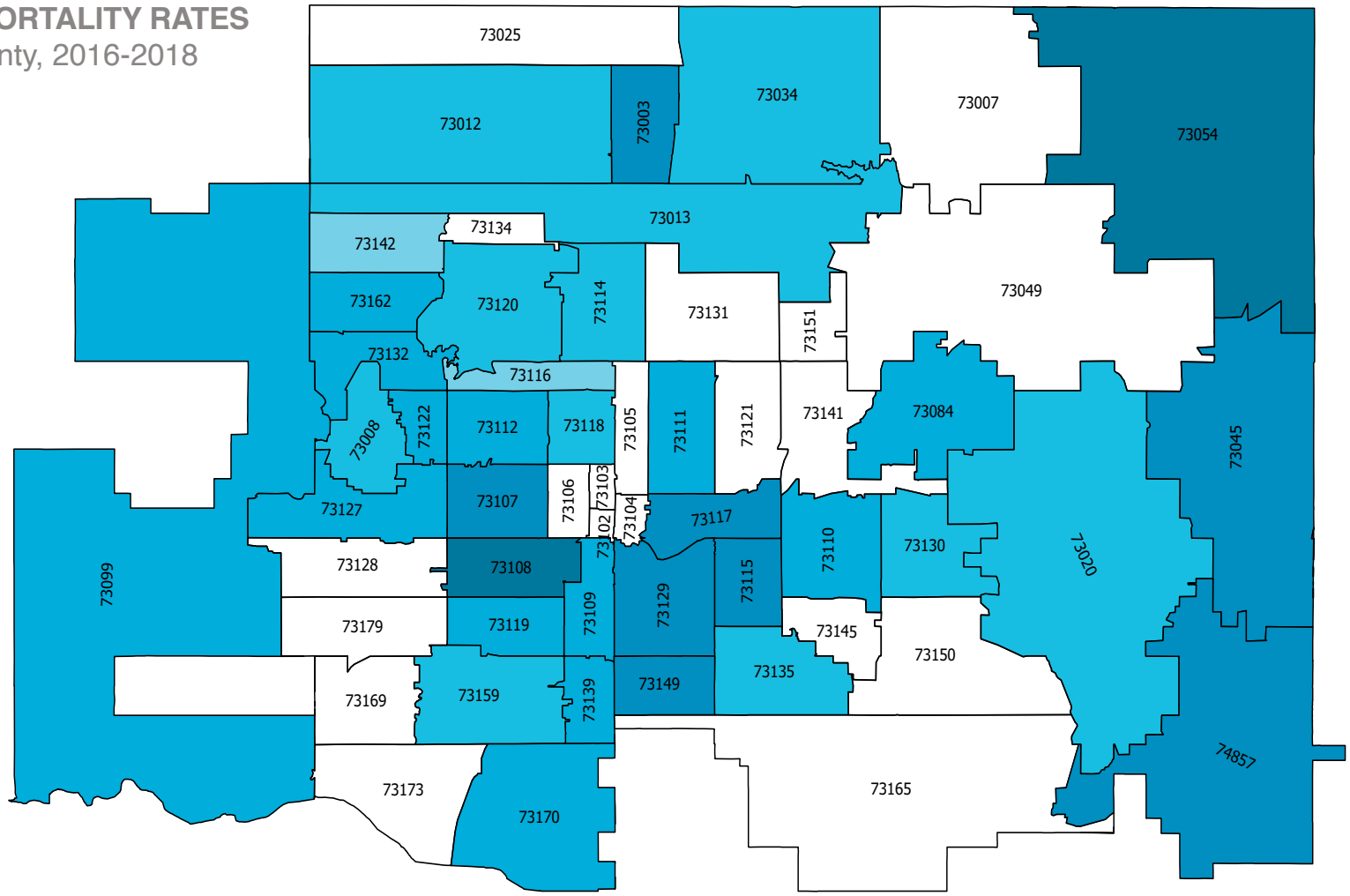
How are we doing?

There were 629 deaths due to heart attack in Oklahoma City-County from 2016-2018 and the age-adjusted mortality rate was 24.0 deaths per 100,000. This rate was lower than the national rate of 28.0 deaths per 100,000 but slightly higher than the state rate of 23.4 deaths per 100,000. Mortality rates were highest among non-Hispanics, Black/African Americans, and males. The ZIP codes with the highest heart attack mortality rates were 73054, 73108, and 73129.

Data Source: Oklahoma State Department of Health Vital Statistics Death Records, 2016-2018.

HEART ATTACK MORTALITY RATES

Oklahoma City-County, 2016-2018



Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018

*No data available
**Data too low to count/compare

73003	31.9	73054	60.4								
73007	**	73084	25.2	73109	28.8	73119	24.2	73132	25.4	73151	*
73008	20.9	73099	26.2	73110	23.8	73120	22.6	73134	**	73159	19.9
73012	22.5	73102	**	73111	24.5	73121	**	73135	22.6	73162	25.1
73013	18.6	73103	**	73112	25.3	73122	25.0	73139	25.5	73165	**
73020	20.2	73104	**	73114	22.1	73127	28.6	73141	**	73169	**
73025	**	73105	**	73115	31.2	73128	**	73142	13.1	73170	27.3
73034	17.6	73106	**	73116	13.4	73129	37.0	73145	**	73173	**
73045	33.6	73107	31.7	73117	30.7	73130	21.0	73149	32.3	73179	*
73049	**	73108	46.0	73118	20.2	73131	**	73150	**	74857	33.3

DIABETES MORTALITY

Diabetes mortality is presented as the number of deaths from diabetes per 100,000 population over the years 2016-2018. The rates were age-adjusted to account for differences in age distributions among our community.

Why is it important?
Diabetes, especially Type-2 diabetes, is an increasing cause of death nationally and in Oklahoma City-County. Risk factors for diabetes include physical inactivity and a bad quality diet. Diabetes itself is a risk factor for other diseases such as cardiovascular disease. The local public health system can use this data to influence outreach and education efforts around the dangers of uncontrolled diabetes and the need for improved access to nutritious foods and adequate community infrastructure for physical activity.

How are we doing?
The age-adjusted mortality rate for Oklahoma City-County was 34.6 deaths per 100,000 during 2016-2018, making diabetes a top 10 cause of death in Oklahoma City-County. This rate was higher than the national rate of 21.3 deaths per 100,000 and the State rate of 30.1 deaths per 100,000. Mortality rates were highest among Hispanics, American Indian/Alaska Natives and males. The ZIP codes with the highest diabetes mortality rate were 73141, 73117, and 73111.

Age-Adjusted Diabetes Mortality Rates by Ethnicity, 2016-2018
Oklahoma City-County

38.6	34.6
Hispanic	Non-Hispanic

Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018.

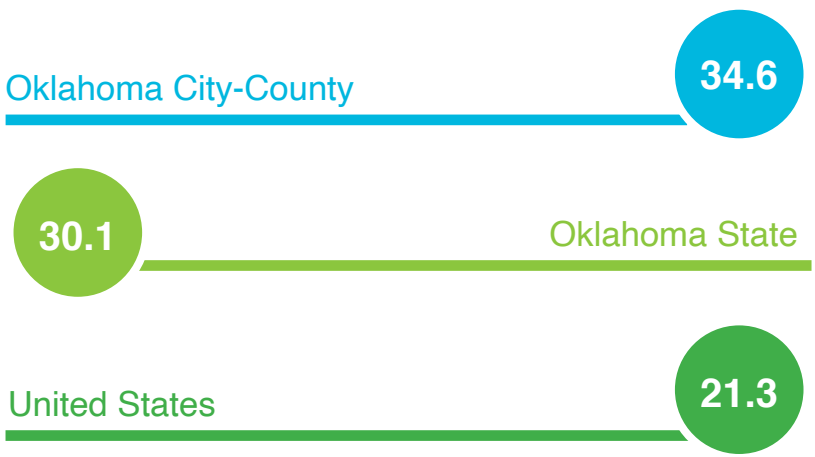
Age-Adjusted Diabetes Mortality Rates by Race
Oklahoma City-County, 2016-2018

29.1	70.7	91.2	38.2
Caucasian	Black/ African American	American Indian/Alaska Native	Asian/ Pacific Islander

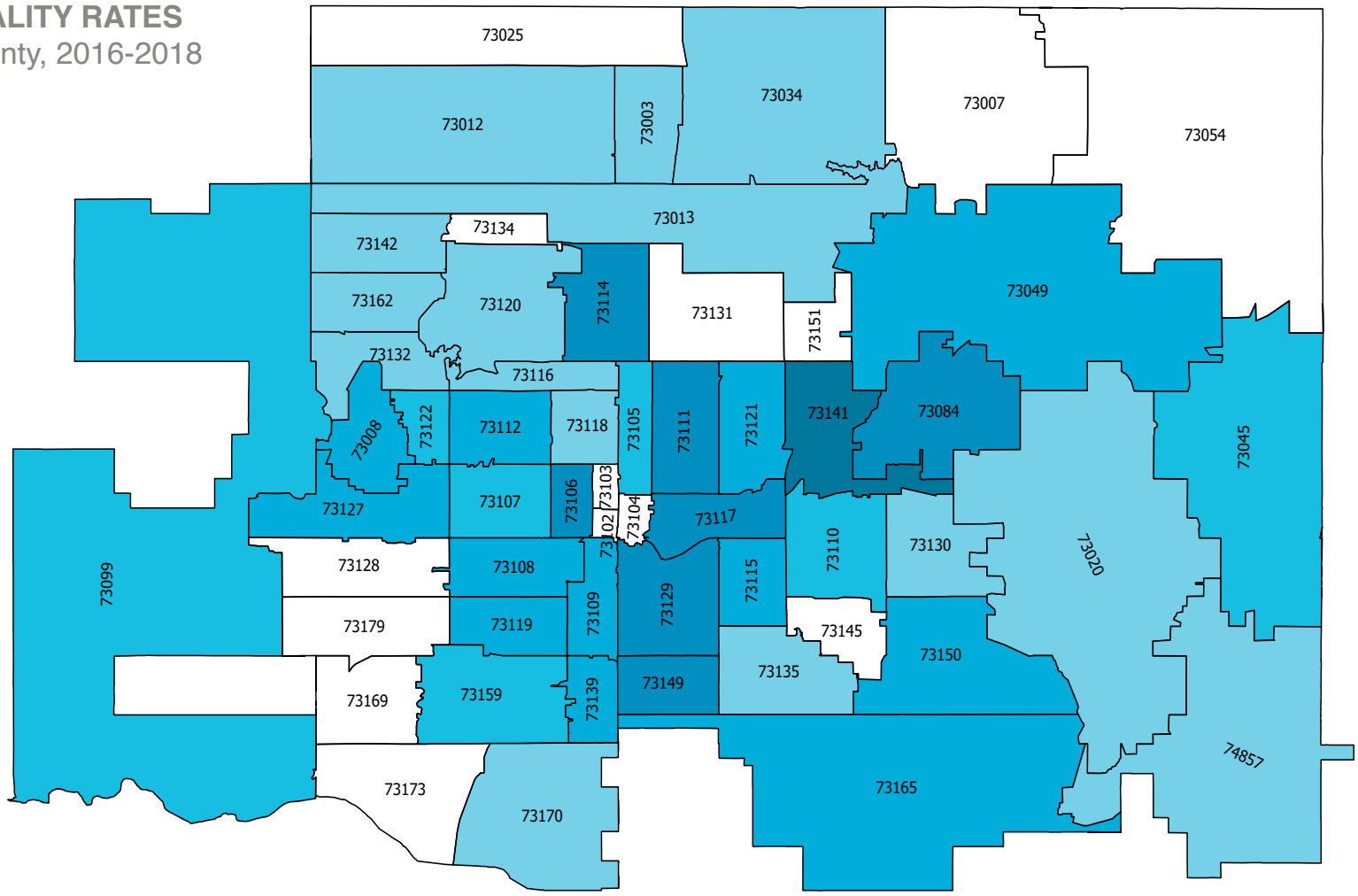
Mortality Rates by Gender
Oklahoma City-County, 2016-2018

♂ 42.0	♀ 29.2
Male	Female

Age-Adjusted Diabetes Mortality Rates Comparison, 2016-2018



DIABETES MORTALITY RATES
Oklahoma City-County, 2016-2018



Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018

Lowest — Highest — N/A

*No data available
**Data too low to count/compare

73003	17.6	73054	**	73109	45.8	73119	55.0	73132	23.6	73151	**
73007	**	73084	74.1	73110	40.6	73120	26.6	73134	**	73159	39.5
73008	59.4	73099	33.9	73111	84.6	73121	44.6	73135	25.1	73162	18.6
73012	10.9	73102	**	73112	47.2	73122	34.5	73139	48.2	73165	50.1
73013	26.3	73103	**	73114	67.1	73127	43.9	73141	187.2	73169	**
73020	26.1	73104	**	73115	54.7	73128	**	73142	14.9	73170	28.5
73025	**	73105	33.2	73116	21.2	73129	65.9	73145	*	73173	**
73034	14.0	73106	68.5	73117	100.5	73130	27.9	73149	77.0	73179	**
73045	34.2	73107	35.8	73118	24.6	73131	**	73150	54.4	74857	24.5
73049	50.4	73108	48.8								

HYPERTENSION MORTALITY

Hypertention mortality is presented as the number of deaths from hypertension per 100,000 population over the years 2016-2018. The rates were age-adjusted to account for differences in age distributions among our community.

Why is it important?

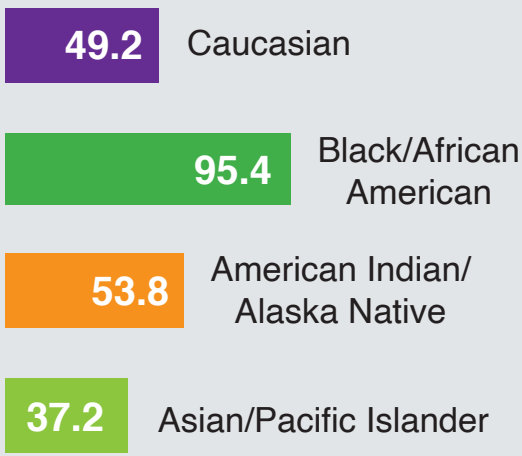
Deaths due to hypertension include death due to hypertensive heart disease, hypertensive heart and renal disease, or essential hypertension and hypertensive renal disease. These conditions are preventable and manageable. Prevention strategies include a well-balanced diet, exercise and lowering salt intake. Hypertension can also be managed by medication. Death due to hypertension may indicate lack of access to nutritious foods or exercise opportunities, lack of education about personal risk, and lack of access to care. The local public health systems should use this data to advocate for programs, policies and services that can influence a variety of social and underlying risks. Community education and access to services, for example, could greatly impact management of hypertension. Continuing to link issues of access to health disparities will be critical in improving health for the community.

Age-Adjusted Hypertension Mortality Rates by Gender

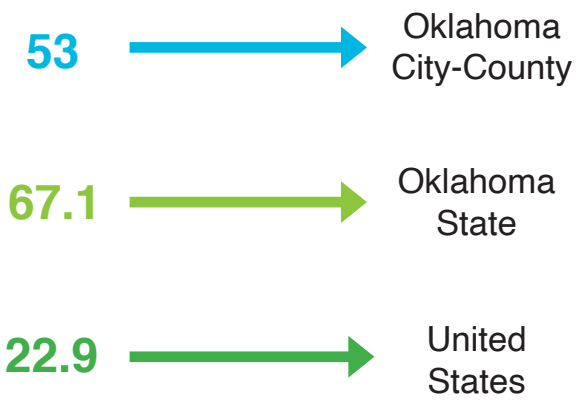
Oklahoma City-County, 2016-2018

Mortality Rates by Race

Oklahoma City-County, 2016-2018



Rate Comparison, 2016-2018 (Rate per 100,000)



How are we doing?

There were 1,388 deaths reported due to hypertension in Oklahoma City-County during 2016-2018. The age-adjusted mortality rate due to hypertension was 53.0 deaths per 100,000 in Oklahoma City-County during 2016-2018. The mortality rate due to hypertension was highest among non-Hispanics, Black/African Americans and males. The ZIP codes with the highest rates were 73103, 73111, and 73117.

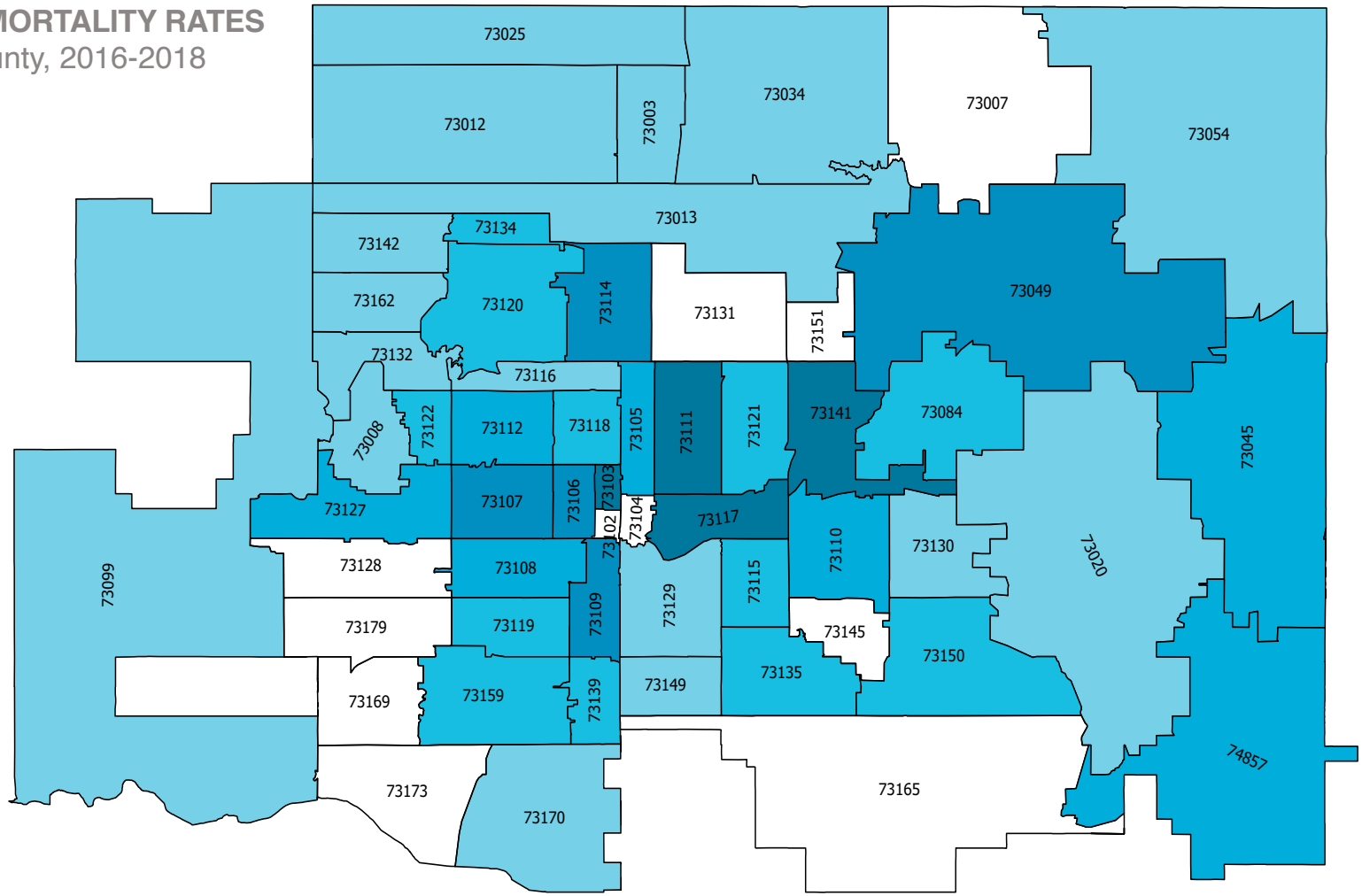
Data Source: Oklahoma State Department of Health Vital Statistics Death Records, 2016-2018.

Age-Adjusted Hypertension Mortality Rates by Ethnicity, 2016-2018

Oklahoma City-County

HYPERTENSION MORTALITY RATES

Oklahoma City-County, 2016-2018



Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018

Lowest — Highest — N/A

*No data available
**Data too low to count/compare

73003	32.0	73054	37.1								
73007	**	73084	56.1	73109	89.1	73119	60.2	73132	46.4	73151	*
73008	42.3	73099	46.5	73110	73.1	73120	53.1	73134	58.5	73159	51.4
73012	41.4	73102	**	73111	126.6	73121	54.5	73135	53.7	73162	45.7
73013	37.7	73103	171.3	73112	65.9	73122	56.7	73139	54.8	73165	**
73020	43.8	73104	**	73114	86.8	73127	66.6	73141	113.8	73169	**
73025	30.9	73105	65.8	73115	54.1	73128	**	73142	31.7	73170	46.3
73034	42.1	73106	94.3	73116	29.2	73129	44.5	73145	*	73173	**
73045	63.5	73107	80.4	73117	124.3	73130	45.3	73149	38.5	73179	**
73049	81.0	73108	68.8	73118	60.7	73131	**	73150	55.9	74857	61.7

CHRONIC LOWER RESPIRATORY DISEASE MORTALITY

This indicator is presented as the number of deaths due to chronic lower respiratory disease per 100,000 population over the years 2016-2018. The rates were age-adjusted to account for differences in age distributions among our community.

Why is it important?
Chronic lower respiratory disease (CLRD) is another leading cause of mortality in Oklahoma City-County and nationally. A variety of conditions, such as primarily chronic bronchitis, asthma, and emphysema all make up CLRD. Some of these conditions can be prevented by behavioral modification, such as not smoking. Others may indicate environmental conditions, such as bad air quality. The local public health system can use this data to inform decisions and policy-making for air quality and environmental protection. This data can also be used to develop strategies for improving awareness, providing patient education and improving standards of care and knowledge around CLRD.

How are we doing?
From 2016-2018, the age-adjusted death rate due to chronic lower respiratory disease in Oklahoma City-County was 61.7 deaths per 100,000 population. This rate is higher than the most recent National rate of 40.4 but lower than the state rate of 63.6. There were a total of 1,627 deaths attributable to chronic lower respiratory disease during this time period. Rates were highest among non-Hispanics, American Indian/Alaska Natives, and males. The ZIP codes with the highest overall chronic lower respiratory disease death rates were 73007, 73169, and 73128.

Rates by Gender, 2016-2018
Oklahoma City-County

66.3 Male | 58.7 Female

Age-Adjusted Chronic Lower Respiratory Disease Mortality Rates by Ethnicity, 2016-2018
Oklahoma City-County

22 Hispanic | 63.5 Non-Hispanic

Age-Adjusted CLRD Mortality Rates by Race
Oklahoma City-County, 2016-2018

64.9 Caucasian

55.9 Black/African American

68.3 American Indian/Alaska Native

31.5 Asian/Pacific Islander

Mortality Rate Comparison, 2016-2018

Oklahoma City-County **61.7**

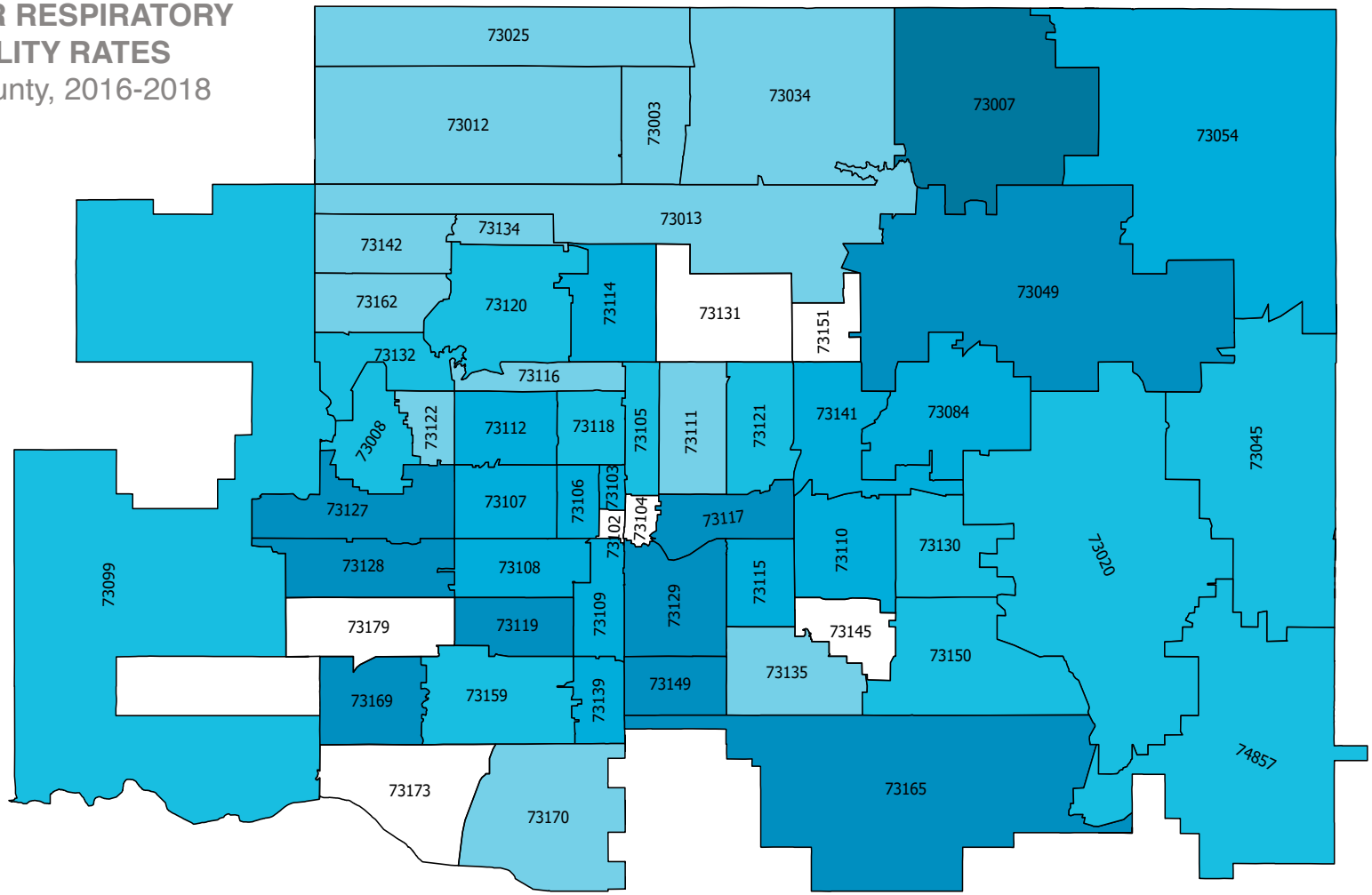
Oklahoma State **63.6**

United States **40.4**

Data Source: Oklahoma State Department of Health Vital Statistics Death Records, 2016-2018.

CHRONIC LOWER RESPIRATORY DISEASE MORTALITY RATES

Oklahoma City-County, 2016-2018



Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018

*No data available
**Data too low to count/compare

73003	44.6	73054	95.9								
73007	513.7	73084	77.3	73109	95.0	73119	115.9	73132	58.0	73151	*
73008	73.4	73099	67.5	73110	81.8	73120	59.9	73134	48.8	73159	57.2
73012	30.7	73102	**	73111	37.3	73121	70.9	73135	44.1	73162	45.6
73013	32.7	73103	79.6	73112	85.1	73122	46.2	73139	82.0	73165	105.6
73020	60.5	73104	**	73114	80.4	73127	104.4	73141	87.7	73169	160.9
73025	29.6	73105	68.0	73115	87.4	73128	131.0	73142	43.2	73170	47.2
73034	30.2	73106	74.7	73116	26.6	73129	107.6	73145	*	73173	**
73045	67.6	73107	80.2	73117	102.9	73130	56.1	73149	103.3	73179	**
73049	121.3	73108	99.5	73118	53.9	73131	**	73150	71.6	74857	51.8

CHRONIC LIVER DISEASE AND CIRRHOSIS MORTALITY

This data indicator is presented as the number of deaths due to either chronic liver disease or cirrhosis per 100,000 population over the years 2016-2018. The rates were age-adjusted to account for differences in age distributions among our community.

Why is it important?

Chronic liver disease is when there is destruction of liver tissues over time and includes cirrhosis. Cirrhosis is a chronic liver disease in which scar tissue replaces the healthy tissue in the liver resulting in abnormal liver function. Behaviors and conditions such as alcohol abuse, obesity, high cholesterol and high blood pressure can contribute to the development of cirrhosis. The local public health system can use data to help develop or advocate for programs, services, and policies that coordinate care and resources to improve community awareness and education about chronic liver disease.

How are we doing?

There were 445 deaths due to chronic liver disease or cirrhosis in Oklahoma City-County during 2016-2018, resulting in an age-adjusted rate of 16.5 deaths per 100,000 population. Rates were highest among non-Hispanics, American Indian/Alaska Natives, and males. The ZIP codes with the highest overall chronic liver disease and cirrhosis death rates were 73129, 73114, and 73106.

Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018.

Age-Adjusted Chronic Liver Disease Mortality Rates by Race
Oklahoma City-County, 2016-2018

16.6	13.6	47.7	8.6
Caucasian	Black/ African American	American Indian/Alaska Native	Asian/ Pacific Islander

Age-Adjusted Mortality Rates by Ethnicity, 2016-2018

13.7	16.9
Hispanic	Non-Hispanic

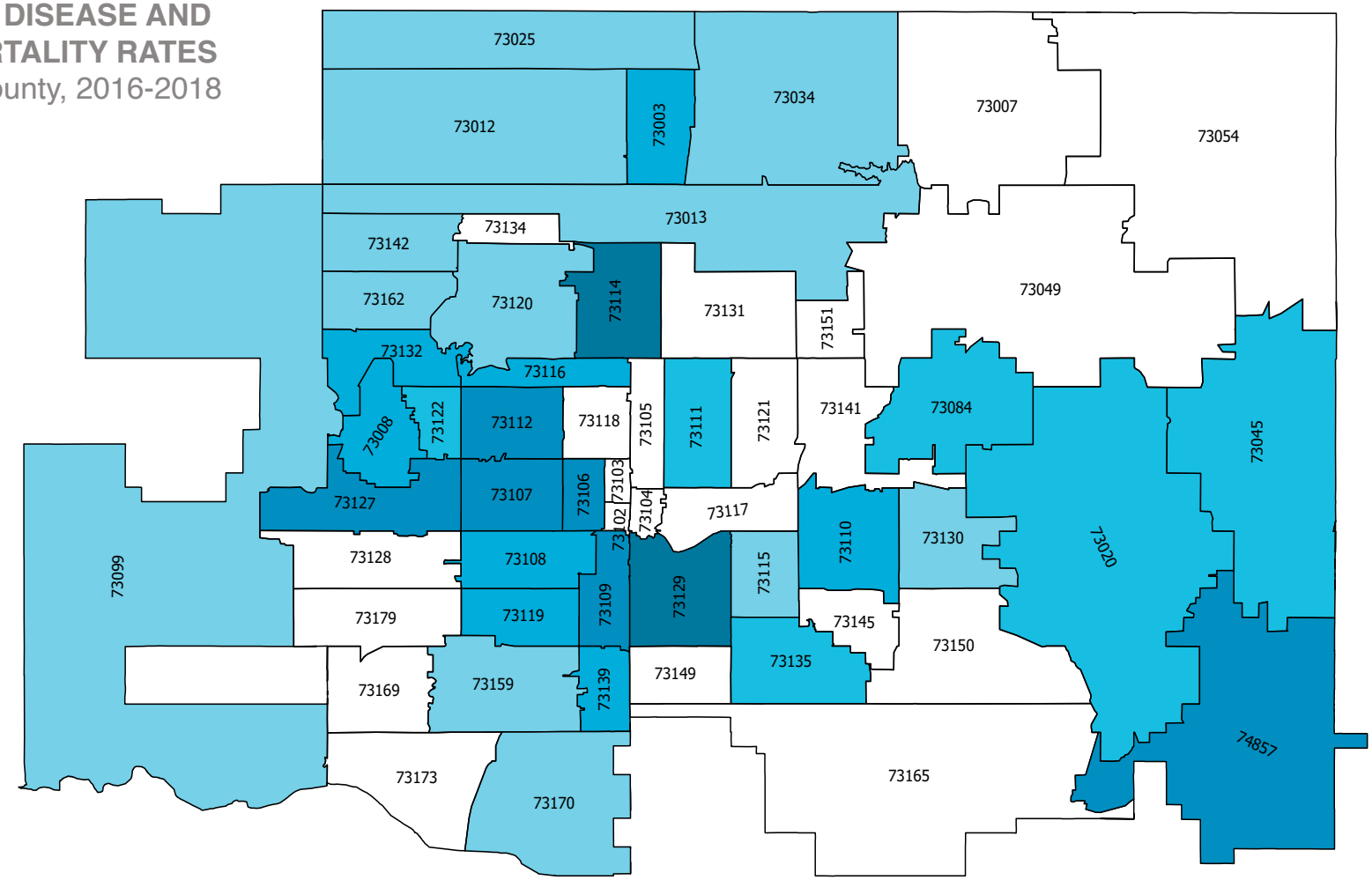
Mortality Rates by Gender
Oklahoma City-County, 2016-2018

♂ 21.2	♀ 12.4
Male	Female

Age-Adjusted Mortality Rate Due to Liver Disease and Cirrhosis, 2016-2018	Oklahoma City-County	Oklahoma State	United States
	16.5	15	10.9

CHRONIC LIVER DISEASE AND CIRRHOSIS MORTALITY RATES

Oklahoma City-County, 2016-2018



Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018

*No data available
**Data too low to count/compare

73003	22.2	73054	**	73109	29.7	73119	24.7	73132	23.1	73151	*
73007	*	73084	18.0	73110	21.4	73120	14.3	73134	**	73159	9.2
73008	22.6	73099	11.6	73111	15.9	73121	**	73135	18.7	73162	13.3
73012	7.7	73102	*	73112	31.1	73122	18.5	73139	22.9	73165	*
73013	10.2	73103	**	73114	40.2	73127	26.9	73141	**	73169	**
73020	18.4	73104	*	73115	12.7	73128	**	73142	12.5	73170	6.3
73025	14.1	73105	**	73116	25.7	73129	48.7	73145	*	73173	*
73034	4.3	73106	31.6	73117	**	73130	12.6	73149	**	73179	*
73045	17.8	73107	27.7	73118	**	73131	**	73150	*	74857	26.9
73049	**	73108	25.5								

CANCER MORTALITY

Cancer is a scary word for many. Cancer describes diseases in which abnormal cells uncontrollably divide and may invade other tissues, resulting in more than 100 different types of diagnoses (CDC, 2021). Cancer morality is presented as the number of deaths from all cancers per 100,000 population over the years 2016-2018. The rates were age-adjusted to account for differences in age distributions among our community.

Why is it important?

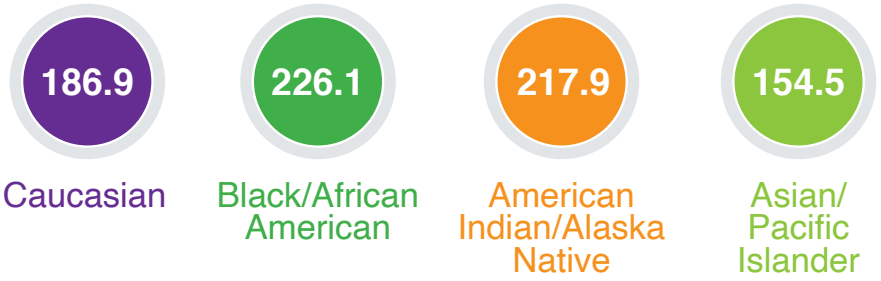
Cancer was the second leading cause of death in Oklahoma City-County during 2016-2018. An individual can lower their risk of getting cancer by engaging in healthy lifestyle choices such as reducing tobacco and alcohol use, protecting skin from the sun, eating a healthy diet and engaging in physical activity (CDC, 2021). Additionally, getting screeings and immunizations improve treatment options if one is diagnosed with cancer. The local public health system should advocate for policies, programs, and services that increase access to screening and improve awareness in the general community about how to prevent cancer and where to get the screenings. Educational opportunities should be tailored to high-risk behaviors and areas in order to improve understanding of early detection methods, prevention tools and resources available for all community members.

How are we doing?

There were 5,035 deaths from cancer in Oklahoma City-County and the mortality rate for all cancers was 188.0 deaths per 100,000 in 2016-2018. This rate was higher than the National and State rates. Rates were highest among non-Hispanics, Black/African Americans, and males. The ZIP codes with the highest rates were 73007, 73179 and 73141.

Age-Adjusted All Cancer Mortality Rates by Race

Oklahoma City-County, 2016-2018



Mortality Rates by Ethnicity

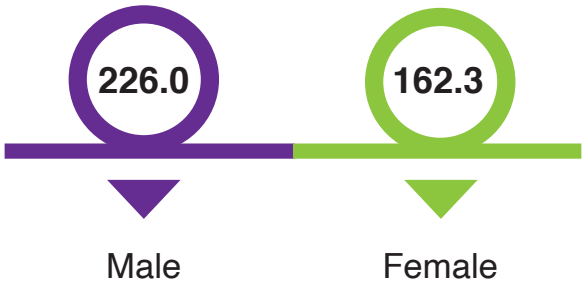
Oklahoma City-County, 2016-2018

119.4 Hispanic

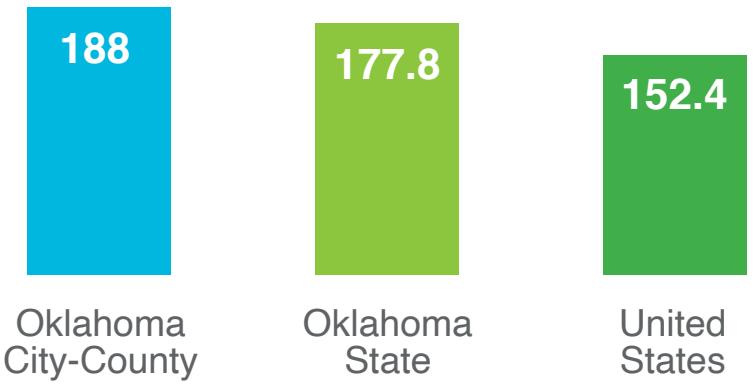
191.2 Non-Hispanic

Age-Adjusted All Cancer Mortality Rates by Gender

Oklahoma City-County, 2016-2018



Mortality Rate Comparison, 2016-2018

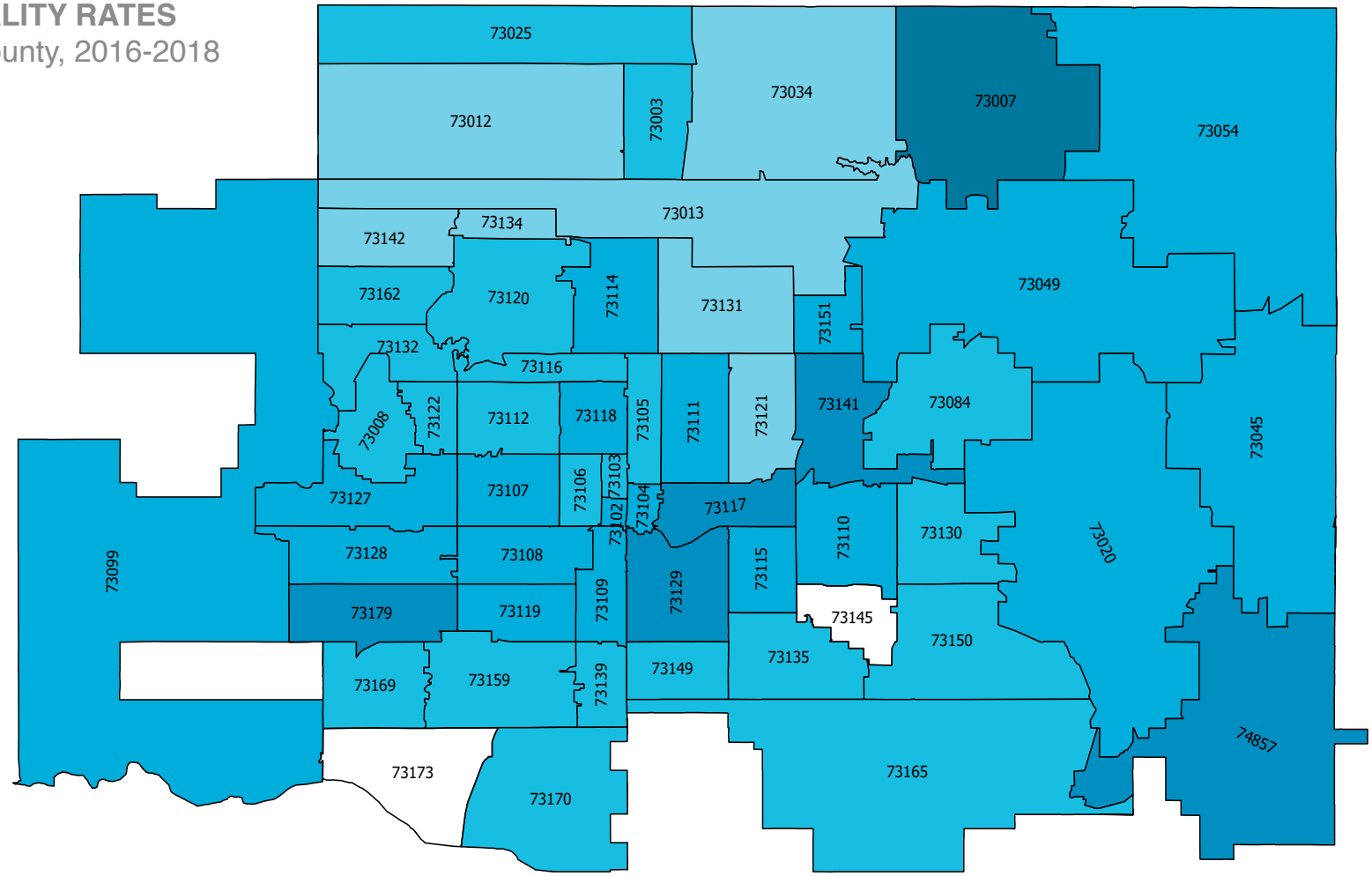


Data Sources:

- Oklahoma State Department of Health Vital Statistics Death Records, 2016-2018.
- National Center for Health Statistics, Centers for Disease Control and Prevention (NVSS), 2016-2018.

Reference: Centers for Disease Control and Prevention (2021). An update on cancer deaths in the United States. https://www.cdc.gov/cancer/dcpc/research/update-on-cancer-deaths/index.htm#:~:text=Is%20cancer%20increasing%20or%20decreasing,deaths%20per%20100%2C00%20population.

CANCER MORTALITY RATES
Oklahoma City-County, 2016-2018



Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018

**Data too low to count/compare

73003	160.4	73054	213.5								
73007	646.7	73084	174.1	73109	220.6	73119	211.0	73132	166.4	73151	207.4
73008	189.9	73099	205.4	73110	227.2	73120	181.6	73134	101.4	73159	197.6
73012	138.1	73102	216.2	73111	222.4	73121	152.2	73135	194.5	73162	172.0
73013	146.5	73103	165.5	73112	177.2	73122	196.9	73139	181.1	73165	184.1
73020	217.3	73104	222.3	73114	234.8	73127	228.6	73141	340.1	73169	167.9
73025	184.1	73105	189.5	73115	237.0	73128	229.8	73142	120.8	73170	163.7
73034	154.4	73106	171.8	73116	164.5	73129	280.8	73145	**	73173	**
73045	224.6	73107	234.3	73117	281.7	73130	180.4	73149	182.1	73179	393.1
73049	200.2	73108	232.6	73118	204.2	73131	125.7	73150	178.3	74857	319.5

BREAST CANCER MORTALITY

Next to skin cancer, breast cancer is the next most common cancer affecting women in the United States and around the globe (CDC, 2021). Breast cancer mortality is presented as the number of deaths from breast cancer per 100,000 women over the years 2016-2018. The rates were age-adjusted to account for differences in age distributions among our community. Early detection is crucial, as it can identify breast cancer in the early stages when it is easier to treat.

Why is it important?

The earlier breast cancer is detected, the greater the chances of treating it. Making sure that communities have opportunities for early detection and control of breast cancer risk factors, such as healthy diet, physical activity, and healthy behaviors, could decrease long term incidence of breast cancer (WHO, 2021). Public health efforts can help identify which clinics, hospitals and doctor's offices community members can go to for breast cancer screening which can improve early detection in our community (CDC, 2021). Through local public health efforts, the local public health system can collaborate with community stakeholders to work on developing policies and practices to address breast cancer within the community. Additionally, improved education efforts in every community can improve breast self-awareness and self-exam rates to aid in early detection. Ensuring the messages for each community meet the community's cultural and demographic needs must be a priority.

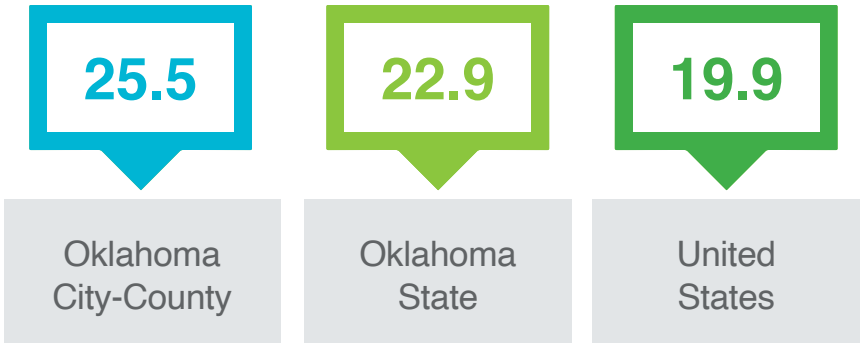
How are we doing?

There were 375 deaths attributable to breast cancer in 2016-2018. The mortality rate for breast cancer in Oklahoma City-County was 25.5 deaths per 100,000 women. Rates were highest among Black/African Americans. The ZIP codes with the highest rates were 73025, 73107, and 73139.

Age-Adjusted Breast Cancer Mortality Rates by Ethnicity

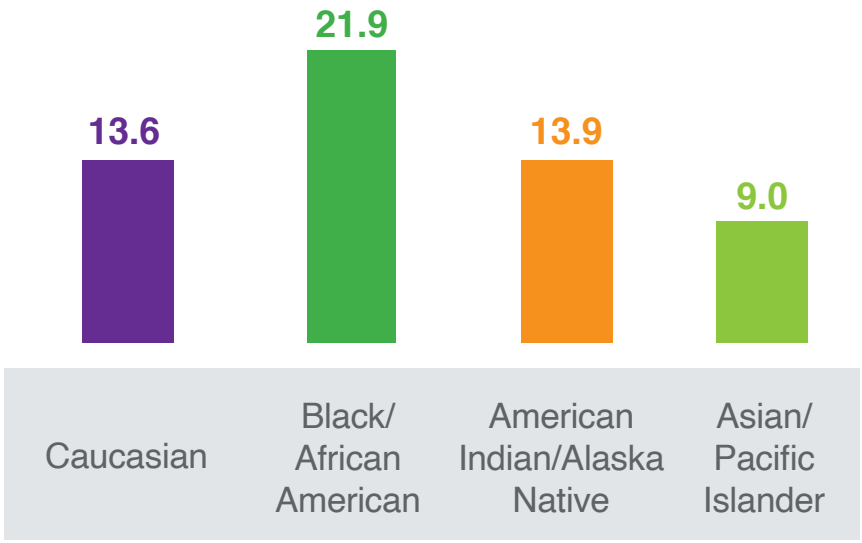
Oklahoma City-County, 2016-2018

Age-Adjusted Breast Cancer Mortality Rates Comparison, 2016-2018



Age-Adjusted Breast Cancer Mortality Rates by Race

Oklahoma City-County, 2016-2018



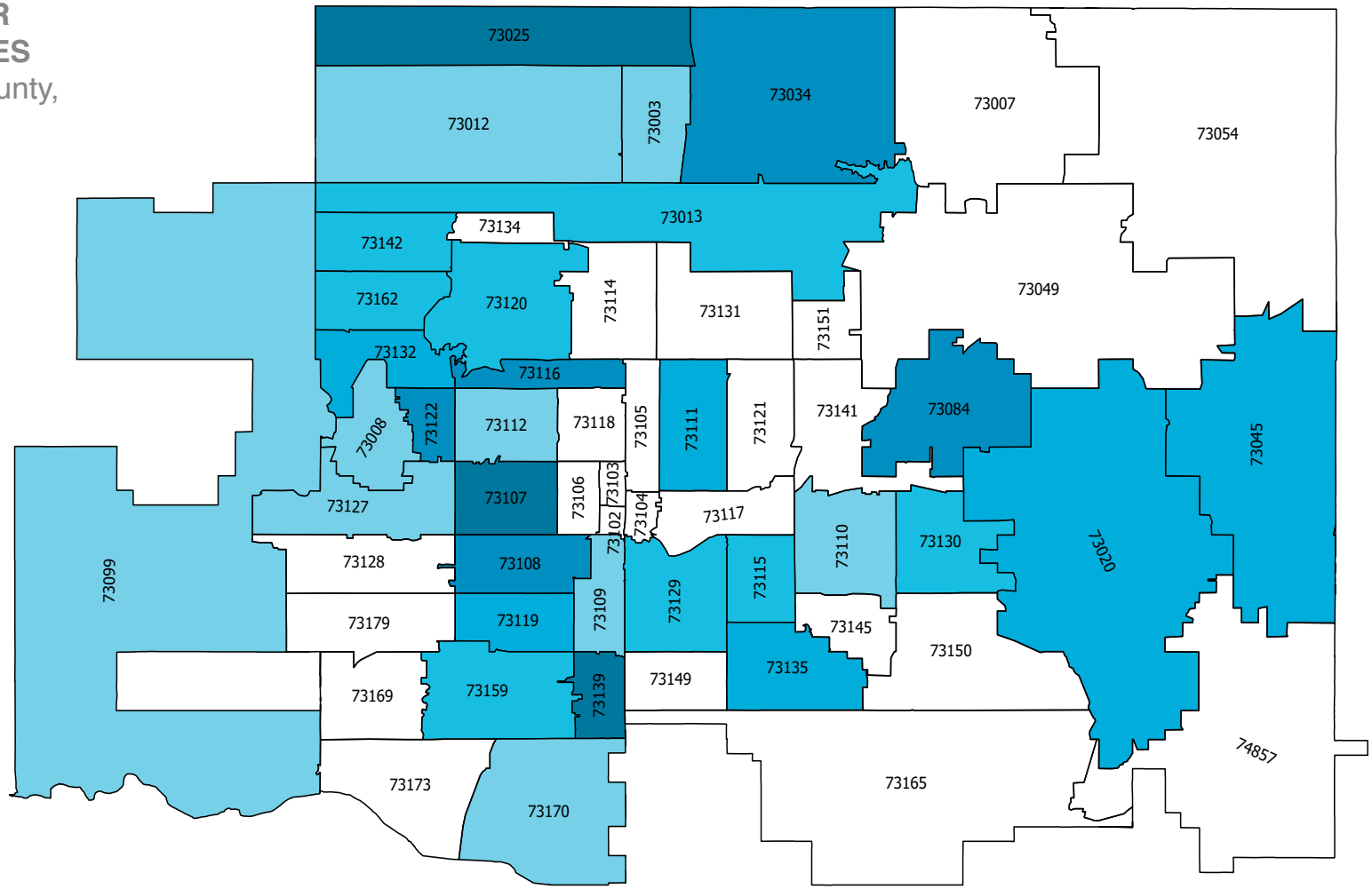
Data Source:

- Oklahoma State Department of Health Vital Statistics Death Records, 2016-2018.
- National Center for Health Statistics, Centers for Disease Control and Prevention (NVSS), 2016-2018.

Reference: World Health Organization (2021). Breast cancer. World Health Organization. https://www.who.int/news-room/fact-sheets/detail/breast-cancer

BREAST CANCER MORTALITY RATES

Oklahoma City-County, 2016-2018



Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018

*No data available
**Data too low to count/compare

73003	11.7	73054	**	73109	11.3	73119	16.6	73132	18.3	73151	**
73007	*	73084	21.4	73110	11.0	73120	14.4	73134	**	73159	13.9
73008	8.3	73099	12.0	73111	18.3	73121	**	73135	16.0	73162	13.6
73012	10.8	73102	*	73112	11.2	73122	20.5	73139	23.9	73165	**
73013	13.9	73103	*	73114	**	73127	9.9	73141	**	73169	**
73020	18.9	73104	**	73115	15.1	73128	**	73142	12.5	73170	11.1
73025	26.6	73105	**	73116	21.8	73129	13.8	73145	*	73173	*
73034	20.1	73106	*	73117	**	73130	13.8	73149	**	73179	**
73045	16.4	73107	25.7	73118	**	73131	**	73150	**	74857	**
73049	**	73108	20.4								

LUNG CANCER MORTALITY

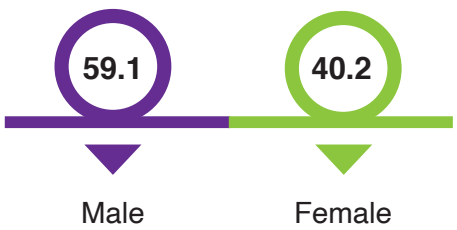
Lung cancer is the leading cause of cancer deaths in Oklahoma County. This indicator is presented as the number of deaths from lung cancer per 100,000 population over the years 2016-2018. The rates were age-adjusted to account for differences in age distributions among our community.

Why is it important?

The majority of lung cancer cases are caused by smoking. Lung cancer is the leading cause of cancer deaths in Oklahoma County and the United States. Unfortunately, current treatments do not cure most lung cancer cases (Lung.org). Through local public health efforts such as the Tobacco Settlement Endowment Trust (TSET) and Wellness Now, the local public health system can collaborate with community stakeholders to work on developing policies and practices to address lung cancer within the community, including aligning policies and practices with Wellness Now and public health efforts. As a community, advocating for programs, policies, and services that reduce tobacco use and exposure to secondhand smoke is critical to reducing lung cancer mortality. Helping community members learn about those programs and support them in their efforts to quit tobacco use will increase the success in reducing tobacco use.

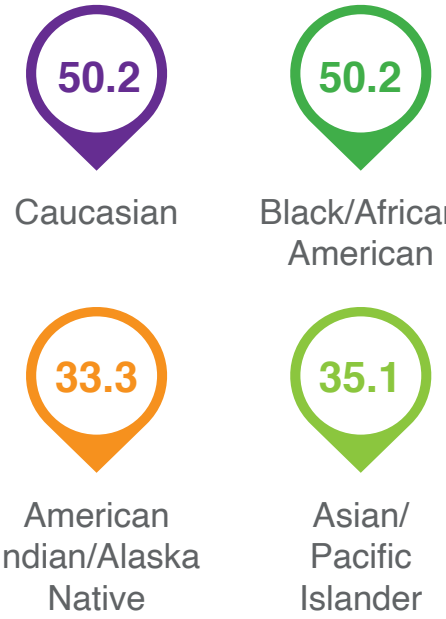
Age-Adjusted Mortality Rates by Gender

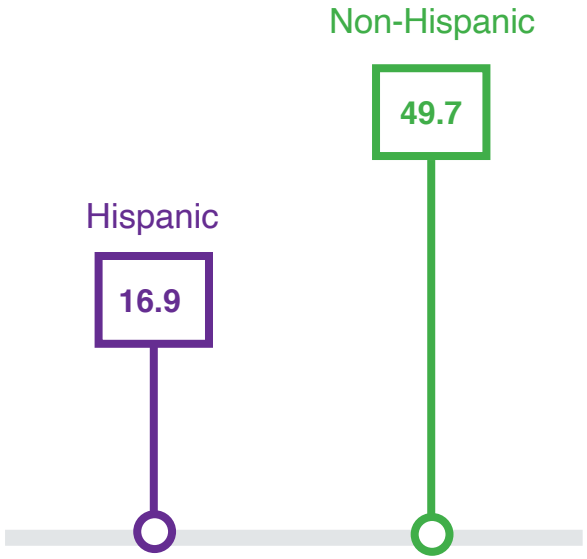
Oklahoma City-County, 2016-2018



Age-Adjusted Lung Cancer Mortality Rates by Race

Oklahoma City-County, 2016-2018





Age-Adjusted Lung Cancer Mortality Rates by Ethnicity

Oklahoma City-County, 2016-2018

Lung Cancer Mortality Rates Comparison 2016-2018	Oklahoma City-County	Oklahoma State	United States
	48.1	47.7	36.5

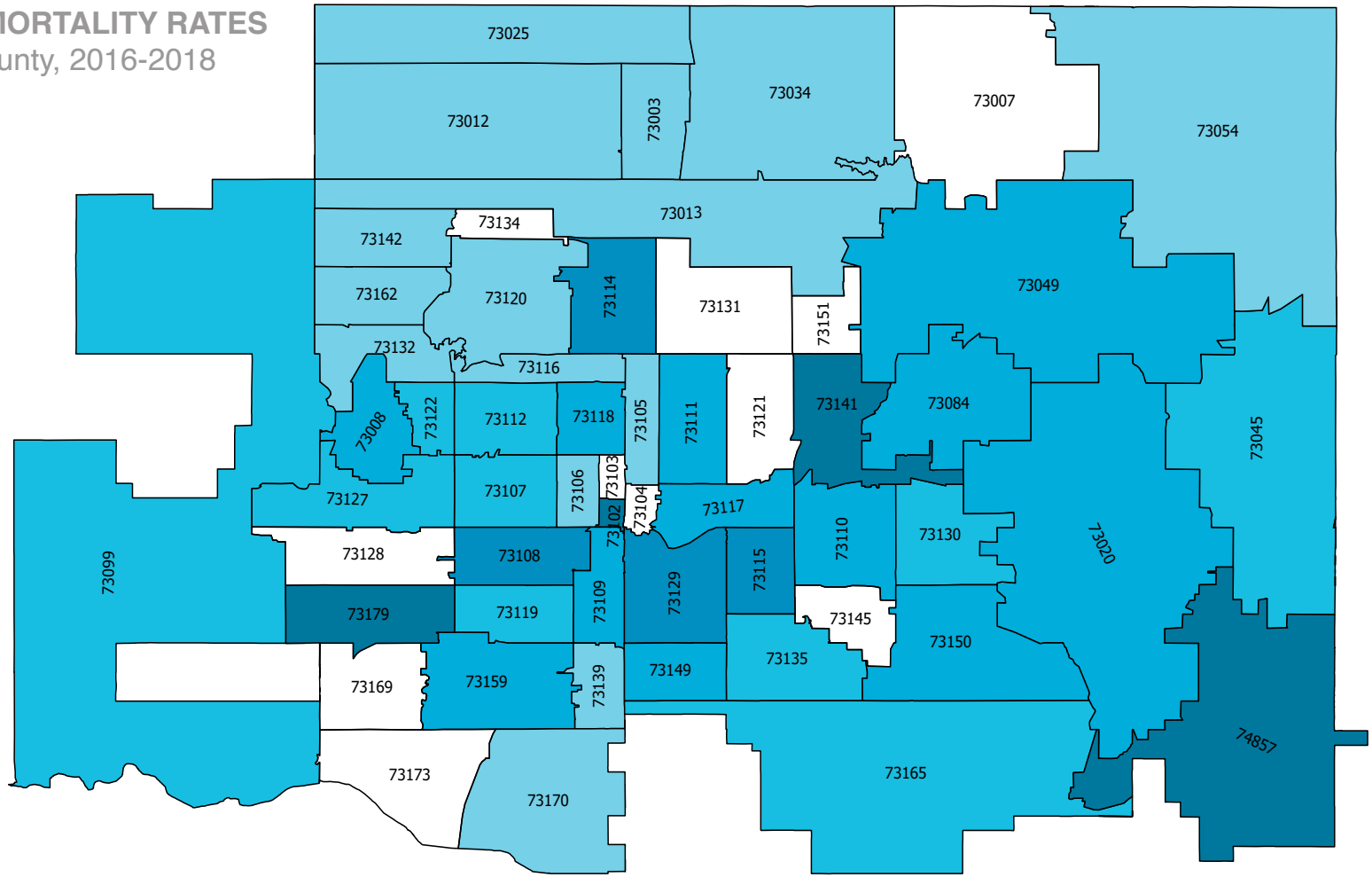
How are we doing?

There were 1,300 deaths due to lung cancer in Oklahoma City-County during 2016-2018, accounting for 26% of all cancer deaths. The mortality rate for lung cancer in Oklahoma City-County was 48.1 deaths per 100,000 population, similar to the State rate of 47.7 but higher than the United States rate of 36.5 deaths per 100,000 population. Rates were highest among non-Hispanics, Whites, Black/African Americans and males. The ZIP codes with the highest rates were 73179, 73102, and 74857.

Data Source:

- Oklahoma State Department of Health Vital Statistics Death Records, 2016-2018.
- National Center for Health Statistics, Centers for Disease Control and Prevention (NVSS), 2016-2018.

LUNG CANCER MORTALITY RATES
Oklahoma City-County, 2016-2018



Lowest — Highest — N/A

Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018

*No data available
**Data too low to count/compare

73003	36.8	73054	32.0								
73007	**	73084	65.4	73109	66.6	73119	50.2	73132	35.8	73151	**
73008	59.6	73099	52.2	73110	65.6	73120	37.7	73134	**	73159	62.5
73012	34.2	73102	122.1	73111	69.9	73121	**	73135	52.3	73162	30.4
73013	31.7	73103	**	73112	47.3	73122	49.8	73139	37.6	73165	49.6
73020	61.0	73104	**	73114	74.0	73127	52.8	73141	99.9	73169	*
73025	36.8	73105	31.3	73115	74.3	73128	**	73142	19.5	73170	39.8
73034	34.4	73106	39.2	73116	40.0	73129	84.6	73145	**	73173	**
73045	49.9	73107	48.2	73117	63.0	73130	50.1	73149	65.8	73179	122.4
73049	70.2	73108	80.9	73118	65.9	73131	**	73150	58.5	74857	103.8

PROSTATE CANCER MORTALITY

Prostate cancer mortality is presented as the number of deaths from prostate cancer per 100,000 men over the years 2016-2018. The rates were age-adjusted to account for differences in age distributions among our community.

Why is it important?
According to the American Cancer Society, prostate cancer is the second leading cause of cancer death in American men behind only lung cancer. However, most men diagnosed with prostate cancer do not die from it; they will likely die from something else first. The highest risk factors include age, a family history of prostate cancer and being Black/African-American men compared to other races.

How are we doing?
There were 246 deaths due to prostate cancer in Oklahoma City-County during 2016-2018. The mortality rate for prostate cancer in Oklahoma City-County was 23.6 deaths per 100,000 men. Rates were highest among non-Hispanic and Black/African American men. The ZIP codes with the highest rates were 73107, 73111, and 73127.

Mortality Rate Comparison
2016-2018

Oklahoma City-County	Oklahoma State	United States
23.6	20.4	18.9

Data Source:
- Oklahoma State Department of Health Vital Statistics Death Records, 2016-2018
- National Center for Health Statistics, Centers for Disease Control and Prevention (NVSS), 2016-2018.

Reference: American Cancer Society (2021). Key statistics for prostate cancer. Cancer A-Z. https://www.cancer.org/cancer/prostate-cancer/about/key-statistics.html

Age-Adjusted Prostate Cancer Mortality Rates by Ethnicity
Oklahoma City-County, 2016-2018

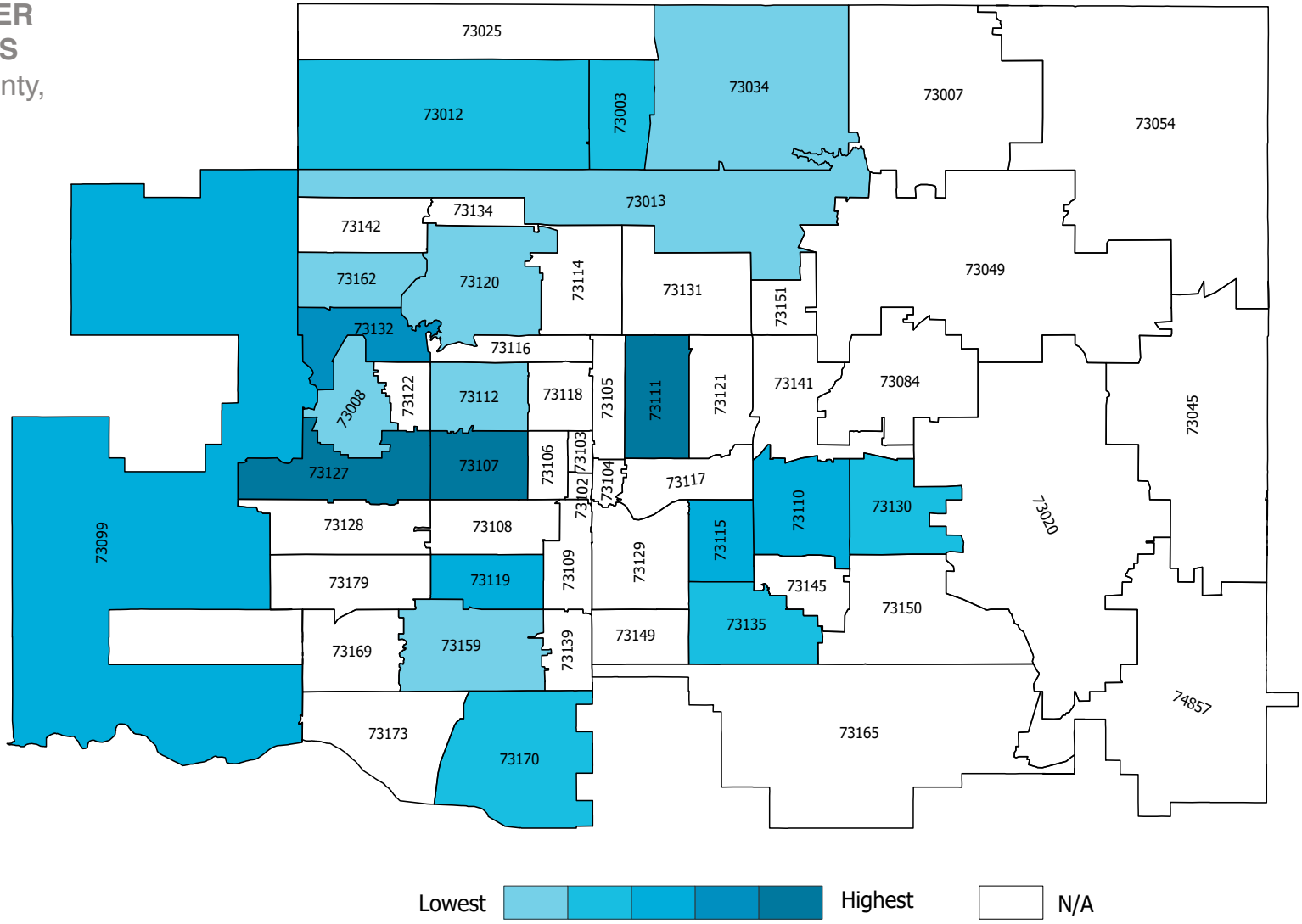
Hispanic	Non-Hispanic
3.6	9.6

Age-Adjusted Prostate Cancer Mortality Rates by Race
2016-2018

Caucasian	Black/African American	American Indian/Alaska Native	Asian/Pacific Islander
8.5	20.0	10.1	10.4

PROSTATE CANCER MORTALITY RATES

Oklahoma City-County, 2016-2018



Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018

*No data available
**Data too low to count/compare

73003	10.0	73054	**	73109	**	73119	10.6	73132	13.4	73151	**
73007	*	73084	**	73110	10.7	73120	8.1	73134	**	73159	6.8
73008	6.3	73099	11.5	73111	18.7	73121	**	73135	9.3	73162	7.6
73012	9.5	73102	*	73112	7.8	73122	**	73139	**	73165	**
73013	8.0	73103	**	73114	**	73127	17.1	73141	**	73169	*
73020	**	73104	**	73115	11.0	73128	**	73142	**	73170	9.1
73025	**	73105	**	73116	**	73129	**	73145	*	73173	*
73034	7.5	73106	**	73117	**	73130	8.9	73149	*	73179	**
73045	**	73107	19.1	73118	**	73131	*	73150	**	74857	**
73049	**	73108	**								

ALZHEIMER'S MORTALITY

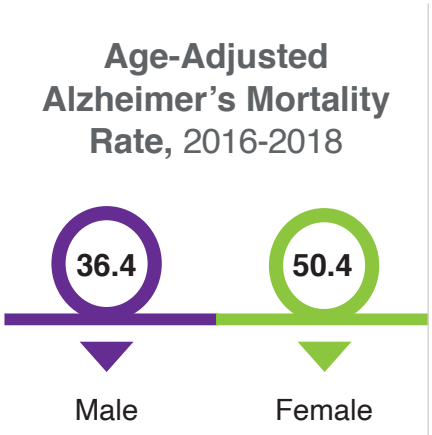
Alzheimer's disease was one of the top 10 leading causes of death in the United States in 2018. This indicator is presented as the number of deaths due to Alzheimer's disease per 100,000 population over the years 2016-2018. The rates were age-adjusted to account for differences in age distributions among our community.

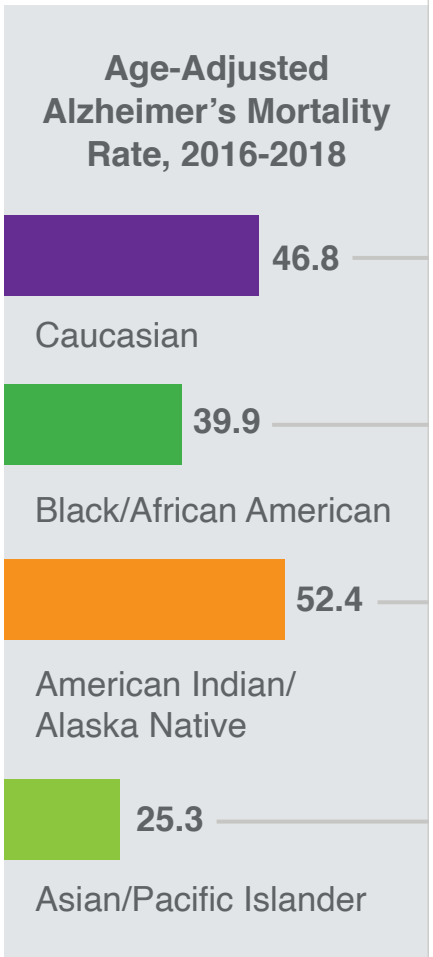
Why is it important?
Approximately 5.7 million Americans were living with Alzheimer's disease in 2018. Alzheimer's is a disease that starts with mild memory loss and eventually can lead to serious life altering impacts by affecting the part of the brain controlling thought, memory and language. Alzheimer's research is on-going, and the disease is projected to increase three-fold by 2050. Currently, most individuals with Alzheimer's are cared for by family members (CDC, 2020). Thus, understanding the prevalence in our community is crucial in developing and sustaining services for those living with, and impacted by, this disease.

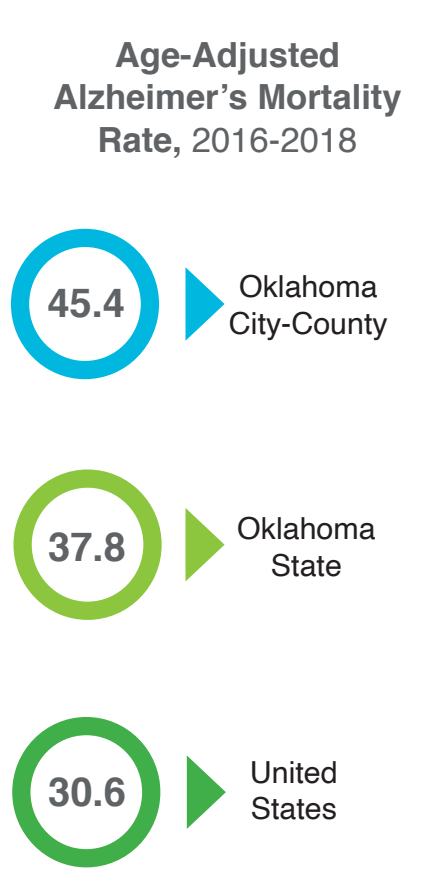
How are we doing?
From 2016-2018, the age-adjusted death rate due to Alzheimer's disease in Oklahoma City-County was 45.4 deaths per 100,000 population, higher than both the State and National age-adjusted Alzheimer's mortality rates. There were a total of 1,142 deaths attributable to Alzheimer's during this time period. Rates were highest among non-Hispanics, American Indian/Alaska Native, and females. The ZIP codes with the highest overall Alzheimer's death rates were 73025, 73049, 73179, 73134, and 73034.

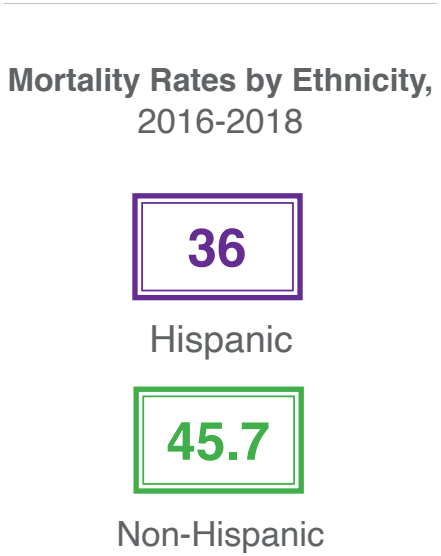
Data Source:
- Oklahoma State Department of Health Vital Statistics Death Records, 2016-2018
- National Center for Health Statistics, Centers for Disease Control and Prevention (NVSS), 2016-2018.

Reference: Centers for Disease Control and Prevention (2020). Alzheimer's disease and related dementias. Alzheimer's Disease and Healthy Aging. https://www.cdc.gov/aging/aginginfo/alzheimers.htm#AlzheimersDisease?



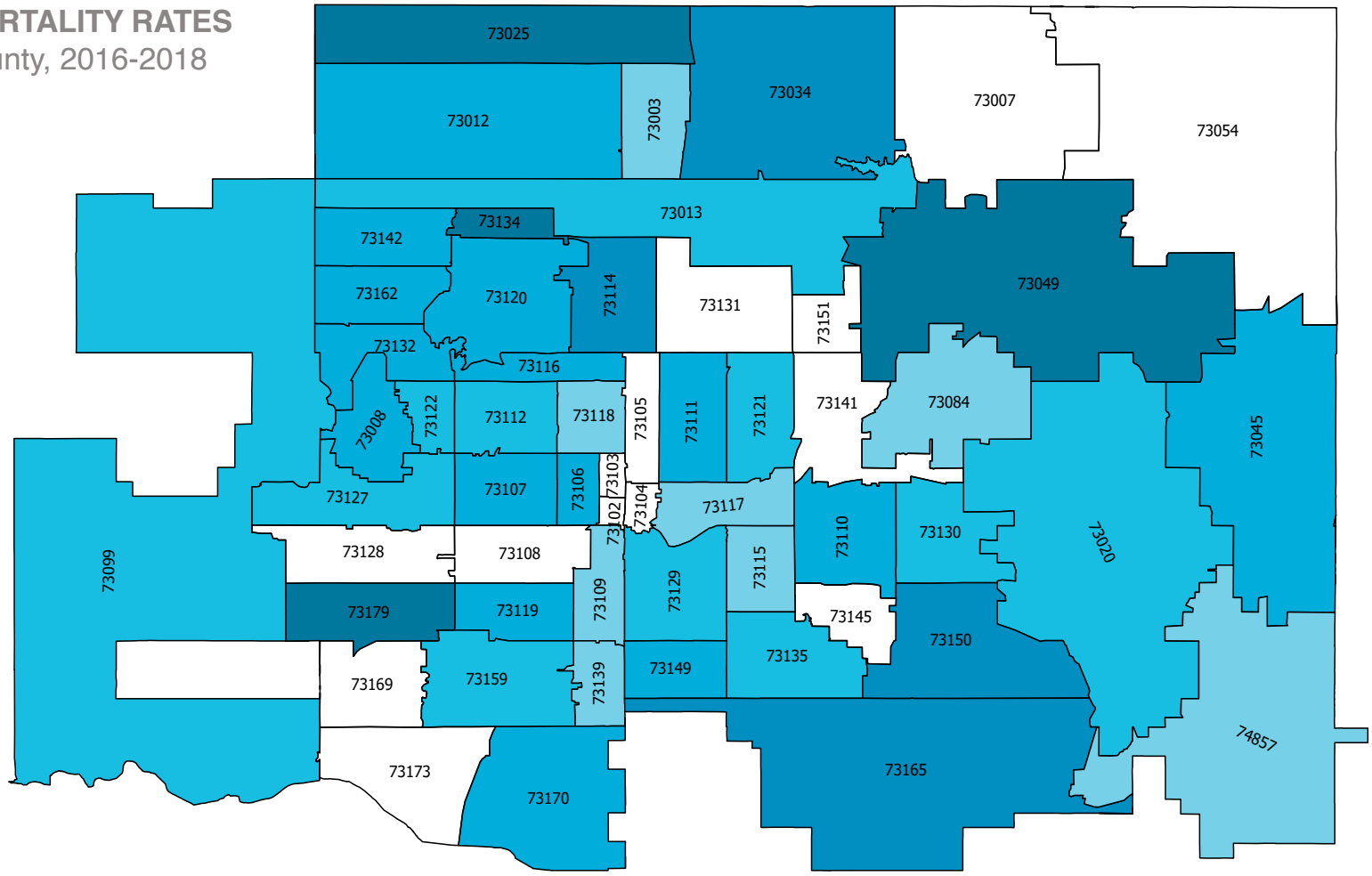






ALZHEIMER'S MORTALITY RATES

Oklahoma City-County, 2016-2018



Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018

*No data available
**Data too low to count/compare

73003	30.1	73054	**								
73007	**	73084	21.7	73109	21.7	73119	47.6	73132	51.6	73151	**
73008	52.1	73099	43.9	73110	49.7	73120	47.4	73134	92.9	73159	43.9
73012	53.5	73102	**	73111	49.8	73121	39.9	73135	35.2	73162	50.3
73013	44.0	73103	**	73112	33.7	73122	40.5	73139	26.7	73165	60.3
73020	37.9	73104	*	73114	65.8	73127	40.3	73141	**	73169	**
73025	133.5	73105	**	73115	27.7	73128	**	73142	51.4	73170	49.6
73034	75.2	73106	51.6	73116	47.3	73129	42.6	73145	*	73173	**
73045	48.4	73107	58.4	73117	27.5	73130	41.7	73149	50.1	73179	107.3
73049	109.1	73108	**	73118	29.9	73131	**	73150	70.3	74857	22.5

INFLUENZA AND PNEUMONIA MORTALITY

Data for this indicator is presented as deaths from influenza and/or pneumonia per 100,000 population over the years 2016-2018. The rates were age-adjusted to account for differences in age distributions among our community.

Why is it important?

Influenza is a typically mild infection characterized by fever and respiratory symptoms, such as cough. Pneumonia is a more severe infection of the lungs and can be a complication of influenza. Persons most at risk for severe infection and death are the very young or the very old. Getting the annual flu vaccine is one way people can protect themselves from developing influenza. These vaccines are widely available throughout the flu season, which is typically early October into the spring and spikes in January and February in Oklahoma County. Frequent hand washing is another way to help prevent contracting the flu. One goal of local public health services is to prevent the spread of infectious disease and protect the community. Local public health efforts such as epidemiological investigation and immunization services can help identify gaps in vaccine standards and prevention policies to improve decision-making around influenza and pneumonia. Providers can also work on developing policies and procedures to impact disease rates in the county through mitigation strategies and vaccine support.

How are we doing?

The age-adjusted mortality rate due to influenza and/or pneumonia was 13.5 deaths per 100,000 in Oklahoma City-County during 2016-2018. This was lower than the State rate of 14.7 and the United States rate of 14.2. Rates were higher in male, Black/African Americans, and Hispanic populations. The ZIP codes with the highest rates were 73149, 73150, and 73108.

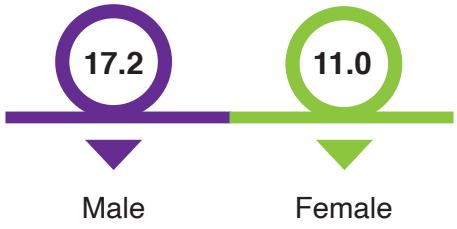
Data Source:

- Oklahoma State Department of Health Vital Statistics Death Records, 2016-2018
- National Center for Health Statistics, Centers for Disease Control and Prevention (NVSS), 2016-2018.

Mortality Rates Comparison 2016-2018	Oklahoma City-County	Oklahoma State	United States
	13.5	14.7	14.2

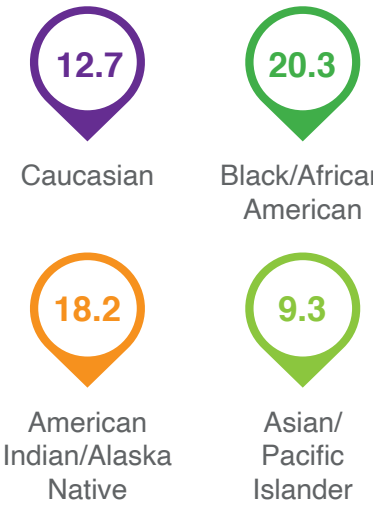
Influenza and Pneumonia Mortality Rates by Gender

Oklahoma City-County, 2016-2018



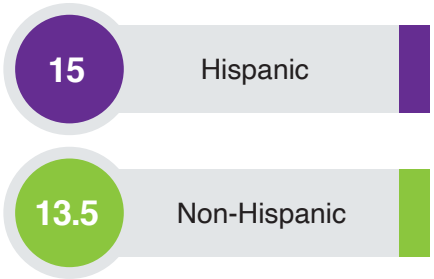
Mortality Rates by Race

Oklahoma City-County, 2016-2018



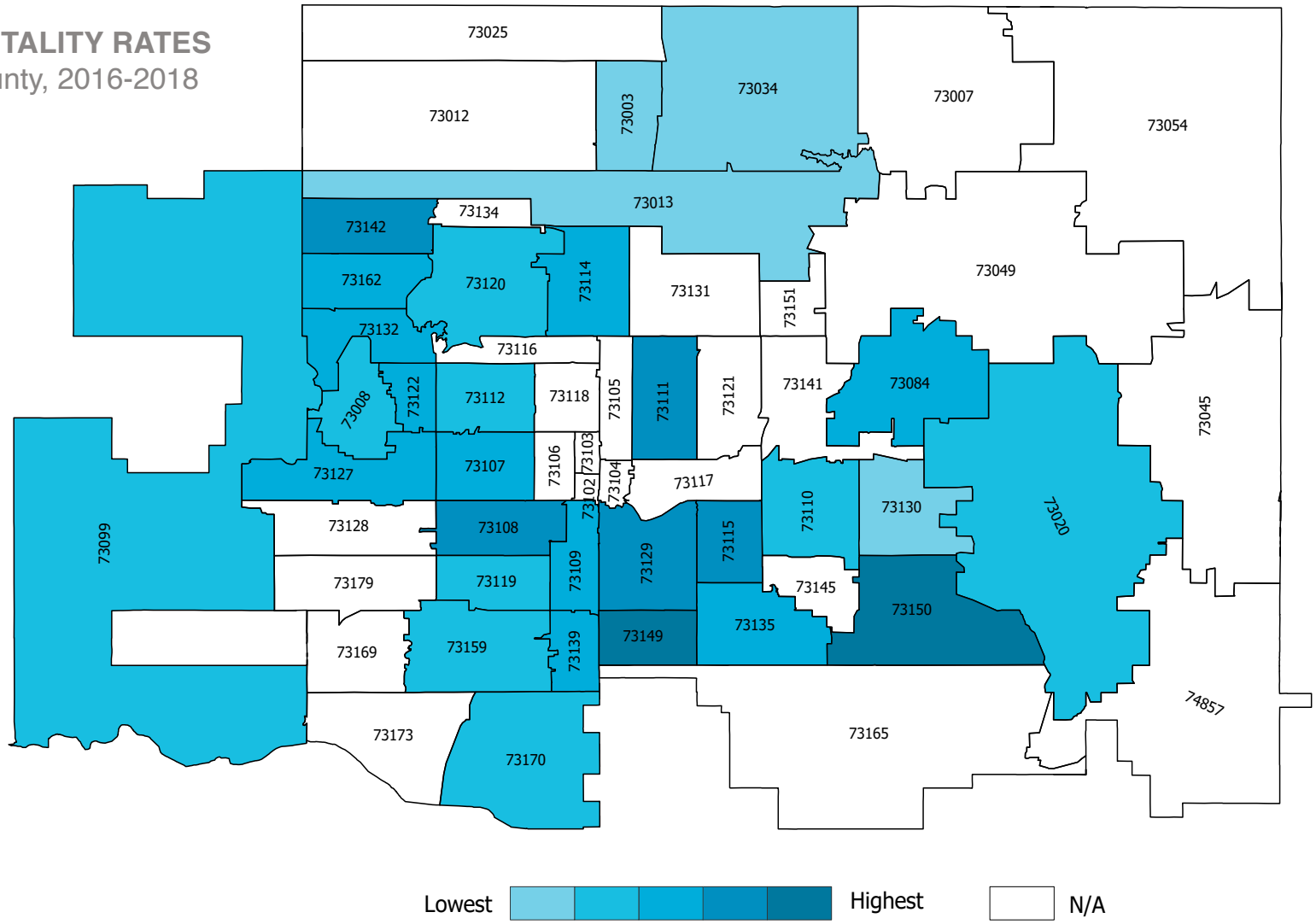
Mortality Rates by Ethnicity

Oklahoma City-County, 2016-2018



INFLUENZA AND PNEUMONIA MORTALITY RATES

Oklahoma City-County, 2016-2018



Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018

*No data available
**Data too low to count/compare

73003	7.0	73054	**	73109	16.4	73119	13.8	73132	18.4	73151	*
73007	**	73084	17.7	73110	14.1	73120	11.8	73134	**	73159	11.7
73008	12.1	73099	14.1	73111	20.9	73121	**	73135	15.9	73162	15.5
73012	**	73102	*	73112	14.0	73122	16.7	73139	18.3	73165	**
73013	8.7	73103	**	73114	16.6	73127	15.5	73141	**	73169	**
73020	12.5	73104	*	73115	21.6	73128	**	73142	22.8	73170	12.0
73025	*	73105	**	73116	**	73129	23.5	73145	*	73173	*
73034	9.9	73106	**	73117	**	73130	10.3	73149	58.9	73179	**
73045	**	73107	15.8	73118	**	73131	*	73150	44.9	74857	**
73049	**	73108	24.6								

MORTALITY FROM UNINTENTIONAL INJURY

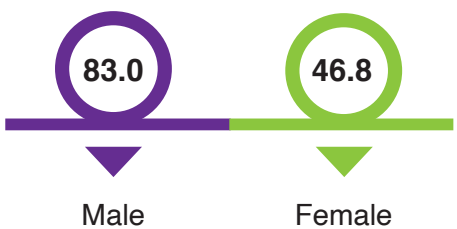
Accidents and injuries contribute to the leading cause of death for people who are 1-44 years of age. Accidents include motor vehicle accidents, accidental falls, drownings, fires and poisonings. This data indicator is presented as the number of deaths from accidents per 100,000 population over the years 2016-2018. The rates were age-adjusted to account for differences in age distributions among our community.

Why is it important?
Over 40,000 people died from motor vehicle crashes in the United States in 2017 and almost 65,00 people died from unintentional poisoning. Accidents were the third leading cause of death in Oklahoma City-County in 2016-2018. Healthy People 2020 compiled Injury and Violence Prevention objectives to adequately address these indicators to improve the health of the United States. The community and local public health system can create education efforts that target particular ZIP codes or communities by better understanding trends in the Oklahoma City-County area in order to reduce health burden of accidents and injuries.

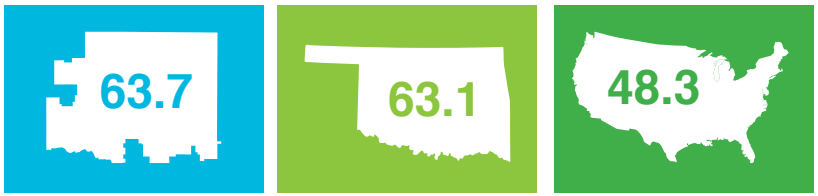
How are we doing?
There were 1,702 deaths due to accidents in Oklahoma City-County from 2016-2018. The average annual mortality rate was 63.7 deaths per 100,000 population. The accident mortality rates were highest among American Indian/ Alaska Natives, non-Hispanics, and males. The ZIP codes with the largest number of deaths due to accidents were 73169, 73128, and 73104.

Data Source:
- Oklahoma State Department of Health Vital Statistics Death Records, 2016-2018
- National Center for Health Statistics, Centers for Disease Control and Prevention (NVSS), 2016-2018.

Unintentional Injury Mortality Rates by Gender
Oklahoma City-County, 2016-2018

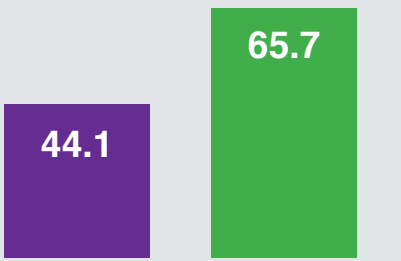


Age-Adjusted Mortality Rates From to Unintentional Injury
2016-2018



Oklahoma City-County | Oklahoma State | United States

Mortality Rates by Ethnicity
Oklahoma City-County, 2016-2018

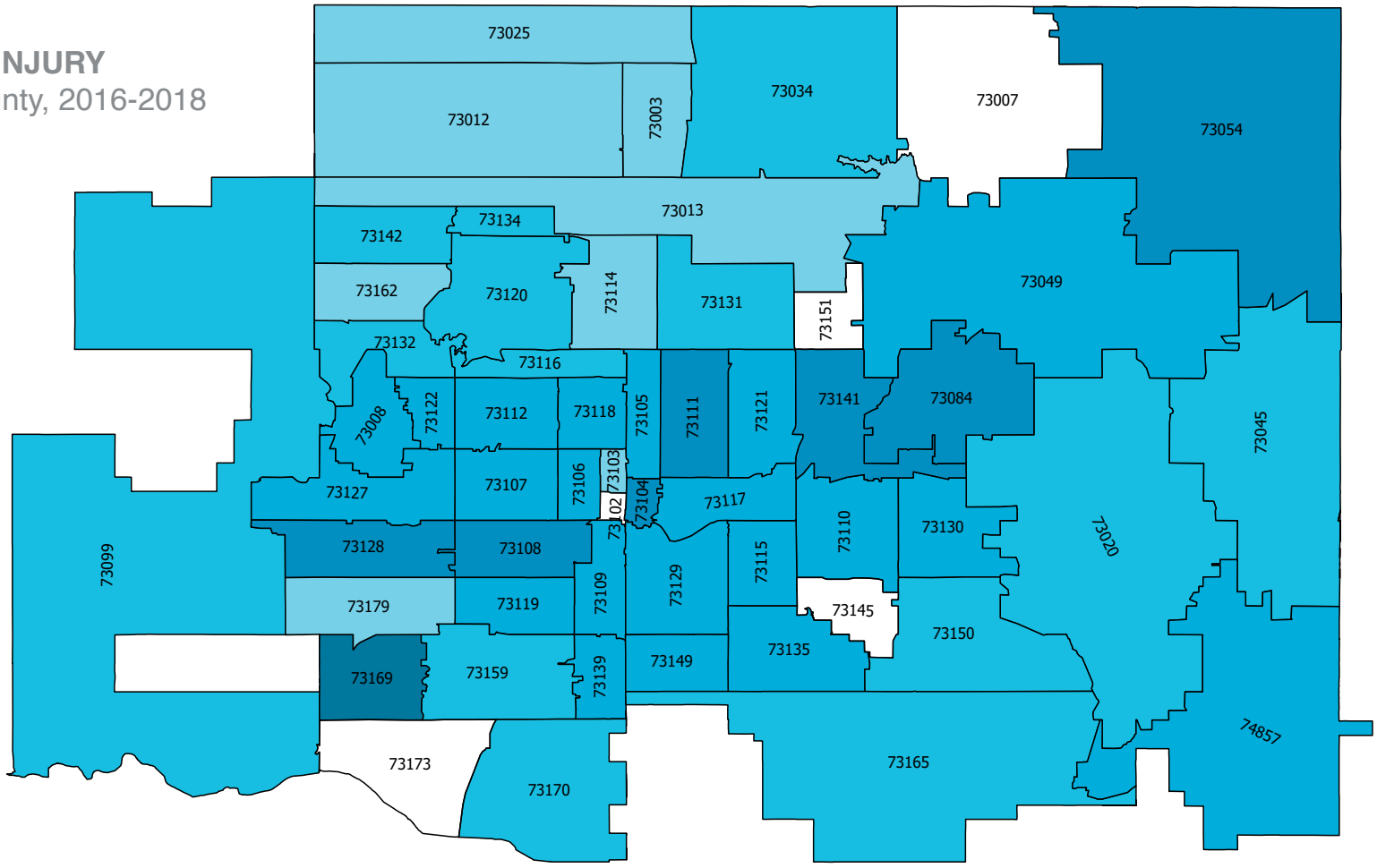


Mortality Rates by Race
Oklahoma City-County, 2016-2018

Caucasian	Black/ African American	American Indian/Alaska Native	Asian/ Pacific Islander
62.6	70.5	103.9	47.2

DEATHS DUE TO UNINTENTIONAL INJURY

Oklahoma City-County, 2016-2018

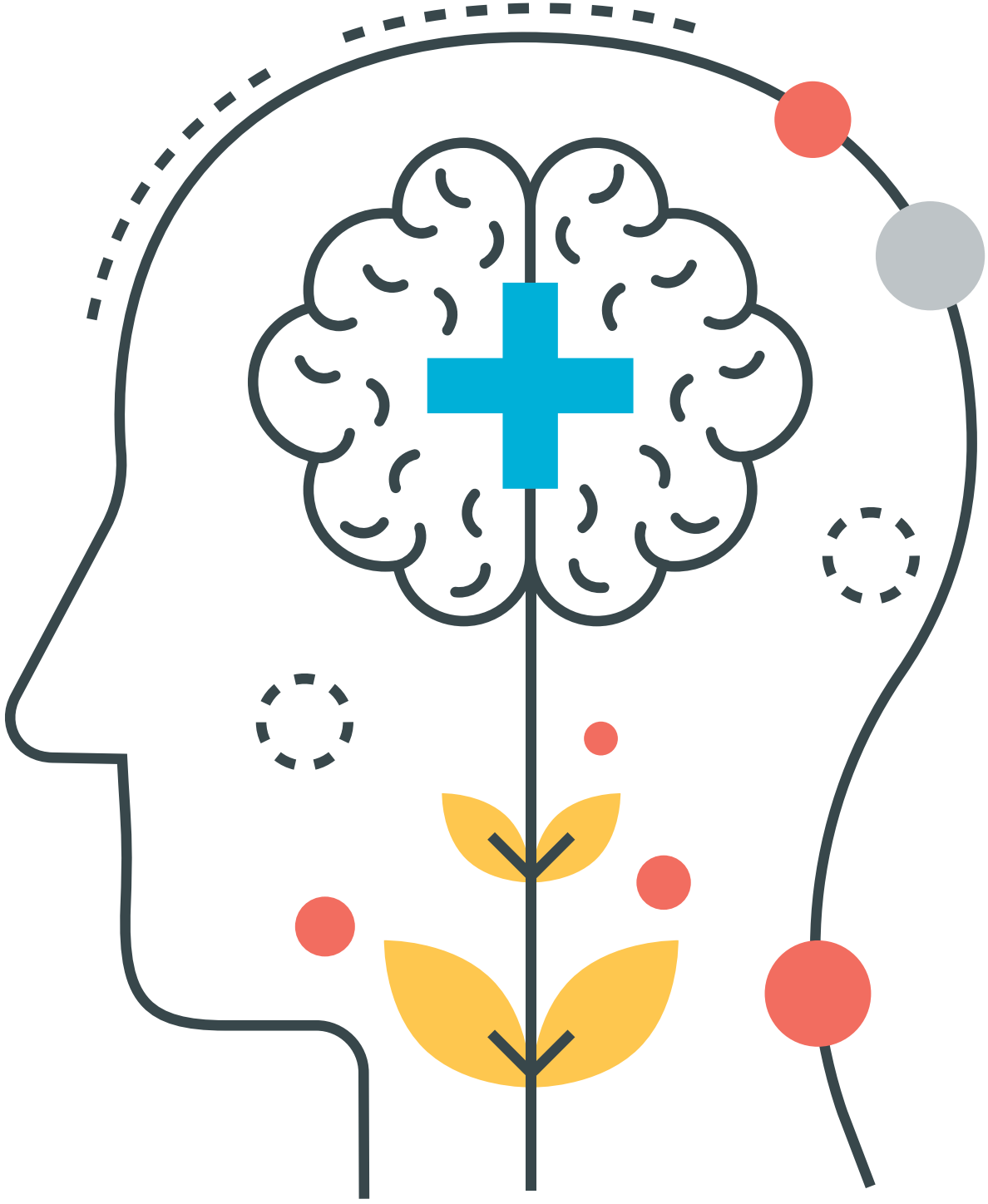


Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018

*No data available
**Data too low to count/compare

Lowest — Highest — N/A

73003	35.7	73054	99.7								
73007	**	73084	109.4	73109	77.3	73119	80.1	73132	54.0	73151	*
73008	74.3	73099	55.4	73110	83.0	73120	59.8	73134	57.0	73159	63.6
73012	46.1	73102	**	73111	101.0	73121	70.2	73135	68.4	73162	43.2
73013	43.3	73103	33.2	73112	70.1	73122	79.4	73139	84.7	73165	63.8
73020	52.4	73104	143.1	73114	44.9	73127	91.2	73141	105.8	73169	242.3
73025	43.1	73105	85.6	73115	82.5	73128	154.5	73142	50.3	73170	63.1
73034	53.4	73106	83.0	73116	63.9	73129	83.8	73145	**	73173	**
73045	53.3	73107	80.2	73117	81.9	73130	68.8	73149	79.0	73179	36.4
73049	71.0	73108	111.6	73118	71.0	73131	49.5	73150	63.9	74857	75.0



Chapter 6 Mental and Social Health

VARIABLES

Analysis	Data Source
1. Rate of Mental Health Visits by Zip Code per Year	Oklahoma Mental Health and Substance Abuse Center, 2016-2018
2. Oklahoma City-County Mental Health Visits by Gender and Race	Oklahoma Mental Health and Substance Abuse Center, 2016-2018
3. Rate of Substance Abuse Visits by Zip Code per Year	Oklahoma Mental Health and Substance Abuse Center, 2016-2018
4. Oklahoma City-County Substance Abuse Visits by Gender and Race	Oklahoma Mental Health and Substance Abuse Center, 2016-2018
5. Rate of Confirmed Child Abuse Cases by Zip Code, Gender and Ethnicity	Oklahoma Department of Human Services, Child Welfare Services, 2016-2018
6. Age-adjusted Suicide Rate by Zip Code, Ethnicity and Gender	Oklahoma State Department of Health Vital Statistics Death Records, 2016-2018

MENTAL HEALTH VISITS

Mental health has become increasingly important across society in recent years. Mental health visits are the rate of mental health visits per 1,000 population by ZIP code during 2016-2018. The Oklahoma Department of Mental Health and Substance Abuse provided data for mental health visits.

Why is it important?
Mental health affects how we think, feel and act. Mental health encompasses our overall well-being, which is why mental health is important at every stage of life, from childhood through adulthood. The state of our mental health also helps determine how we handle stress, relate to others, and make choices (WHO, 2018). Poor mental health can increase the risk of a variety of physical health problems (NIH, 2015). The local public health system, including education, justice, transportation, governmental and nongovernmental sectors, can partner to identify resources that strengthen and promote mental health.

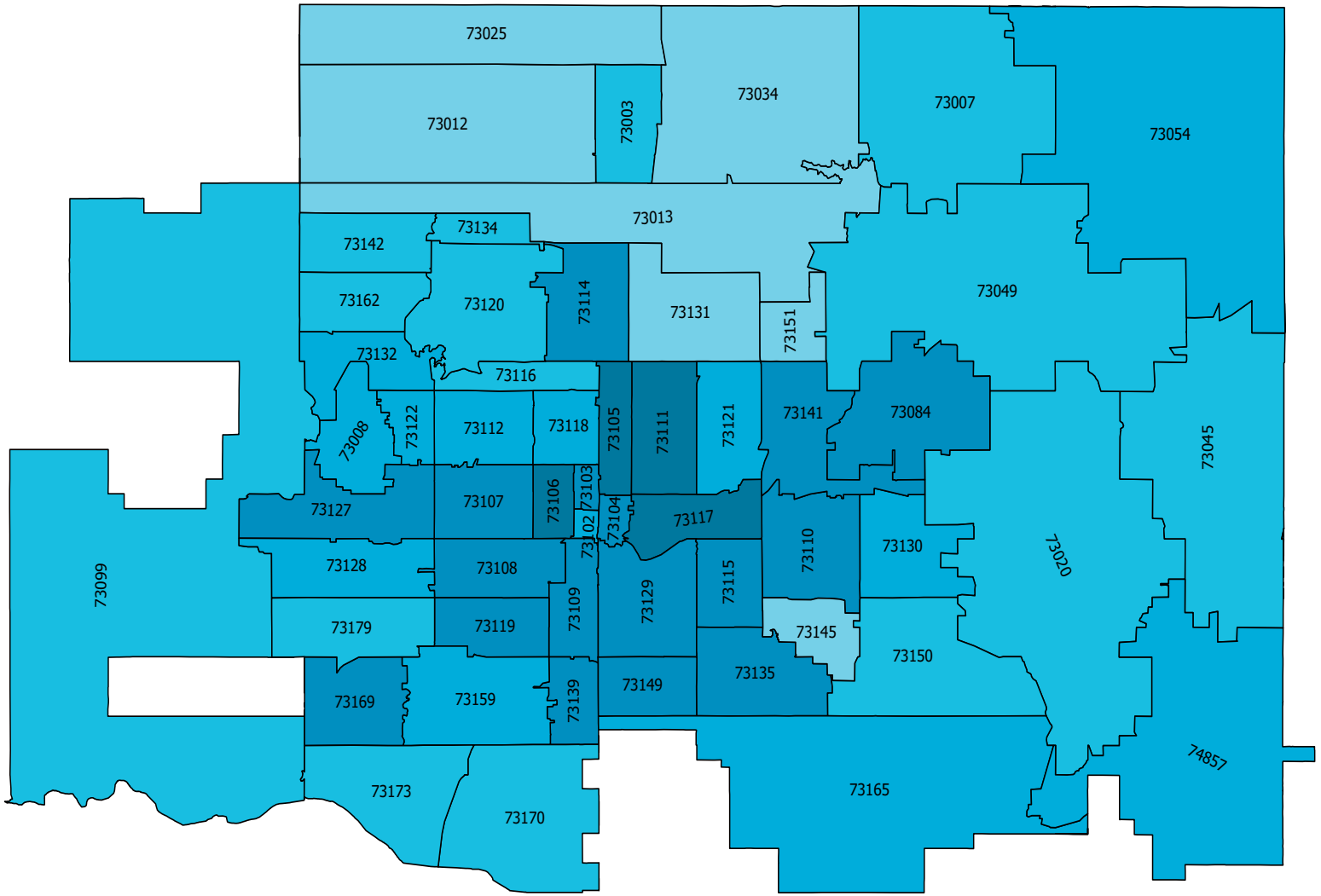
How are we doing?
There were approximately 30.5 mental health visits per 1,000 population on an annual basis from 2016-2018 in Oklahoma City-County. Females comprised 51.1 percent, a slightly larger portion, of the mental health visits. Around 40 percent of mental health visits occurred among individuals 0-15 years of age, while 16 percent of mental health visits occurred among individuals 15-25 years old, and 25.3 percent were among those 25-45 years of age. The ZIP codes with the highest number of mental health visits per 1,000 population were 73111, 73106 and 73117.

References:

- World Health Organization (2018, March 30). Mental health: Strengthening our response. https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response
- National Institutes of Mental Health (2015) Chronic illness & mental health. NIH Publication no. 15-MH-8015. https://www.nimh.nih.gov/health/publications/chronic-illness-mental-health/index.shtml

Annual Mental Health Visits Per 1,000 Population
Oklahoma City-County, 2016-2018

29.6	Caucasian
56.2	Black
47.6	American Indian/ Alaska Native
10.1	Pacific Islander



MENTAL HEALTH VISITS
Oklahoma City-County, 2016-2018

Rate per 1,000 population. Data Source: Oklahoma Mental Health and Substance Abuse Center 2016-2018. Note: Data only represent individuals receiving services through publicly funded behavioral health programs and does not include individuals whose services are funded by other means, such as private insurance or self-pay.

73003	15.11
73007	17.55
73008	26.84
73012	7.22
73013	9.33
73020	14.59
73025	7.16
73034	10.61
73045	17.11
73049	18.27
73054	27.3

73084	31.85
73099	16.56
73102	26.26
73103	35.1
73104	33.54
73105	61.58
73106	75.24
73107	31.84
73108	47.43
73109	41.75
73110	33.7
73111	76.07
73112	24.87
73114	46.06
73115	35.21
73116	12.03
73117	68.01
73118	22.14
73119	37.83
73120	17.84
73121	25.87
73122	26.79
73127	36.39
73128	23.71
73129	52.01
73130	25.55
73131	6.44
73132	22.41
73134	14.58
73135	34.07
73139	37.3
73141	34.13
73142	12.3
73145	2.54
73149	44.03
73150	15.18
73151	5.5
73159	26.87
73162	12.68
73165	20.49
73169	33.92
73170	12.36
73173	13.84
73179	15.67
74857	25.64

SUBSTANCE ABUSE VISITS

Substance abuse visits are defined as the average number of substance abuse visits per 1,000 population by ZIP code during 2016-2018. The Oklahoma Department of Mental Health and Substance Abuse provided data for substance abuse visits.

Why is it important?

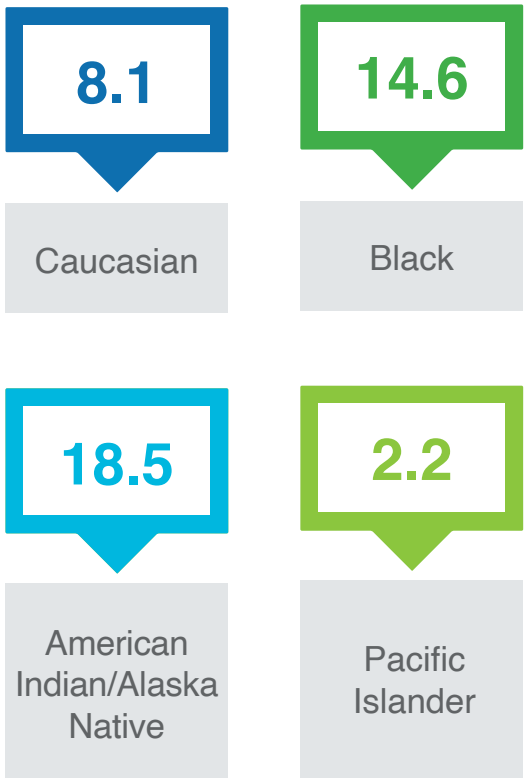
Substance use disorder is defined as the recurrent use of alcohol and/or drugs causing clinically significant impairment, health problems, disability and failure to meet major responsibilities at areas such as work, home or school (SAMHSA, 2020). Common substance use disorders are related to alcohol, tobacco, stimulants, hallucinogens, and opioids. Results from the 2016 National Survey on Drug Use and Health reported that approximately 20.1 million individuals across the country surveyed had a substance use disorder (SAMSHA, 2017). Providers and community members should work collaboratively to advocate for programs, policies, and services that encourage systems of care and coordination for communities at higher risk for substance abuse behaviors.

How are we doing?

There were approximately 8.3 substance health visits per 1,000 population from 2016-2018 in Oklahoma City-County. Males made up a slightly larger portion of the substance use visits at 53.8 percent. Whites made up a larger portion of the substance use visits at 66.7 percent; however, the highest rate by race was among the Native American/Alaska Native population with 18.5 per 1,000. Over half of the visits (55.4 percent) were clients 25-45 years old. The ZIP codes with the highest number of substance health visits per year were 73117, 73106 and 73111.

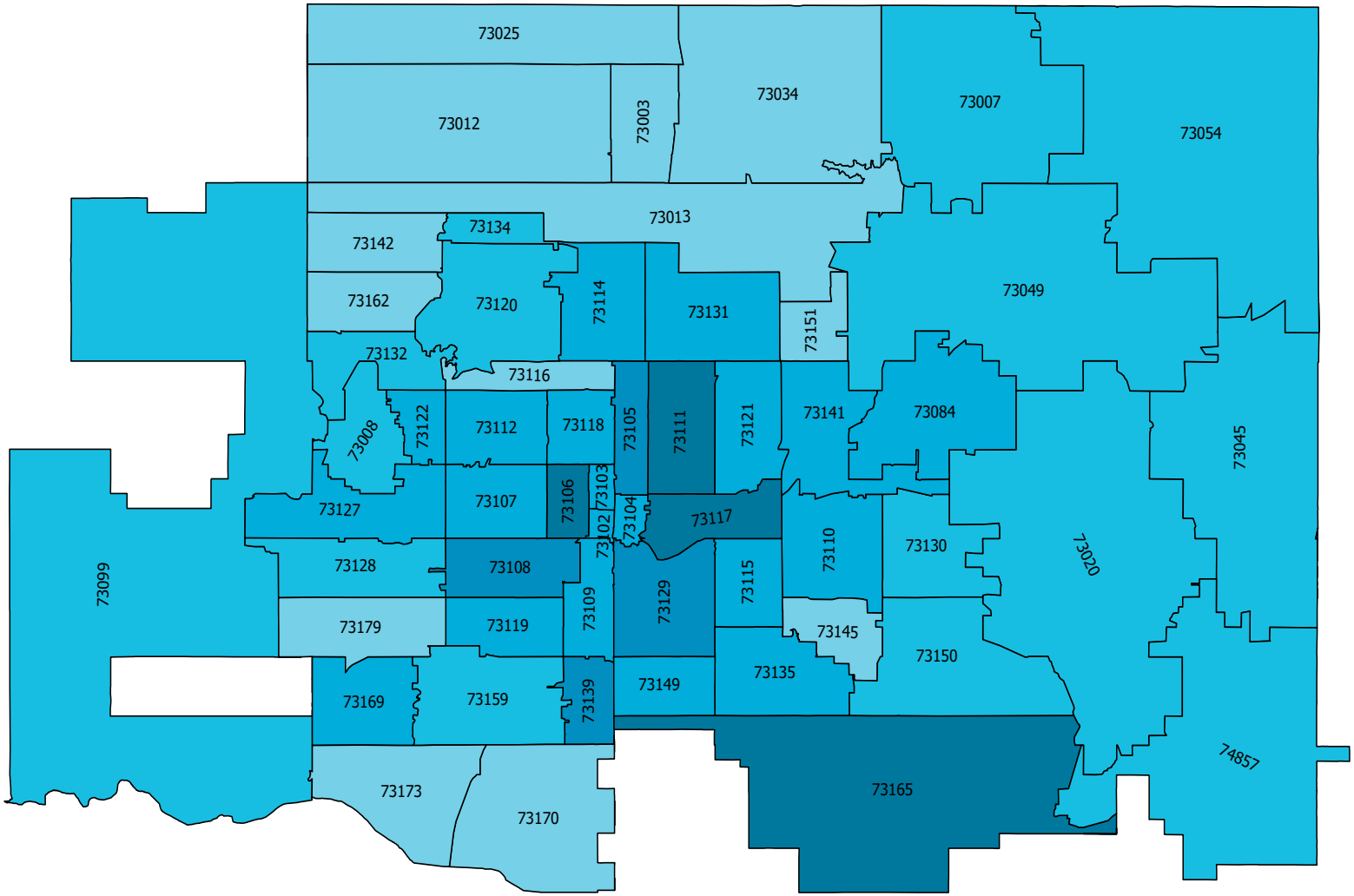
Annual Substance Abuse Visits Per 1,000 Population

Oklahoma City-County, 2016-2018



References:

- Substance Abuse and mental Health Services and Administration. (2020). Mental health and substance use disorders. https://www.samhsa.gov/find-help/disorders
- Substance Abuse and Mental Health Services Administration. (2017). Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52). https://www. samhsa.gov/data/



Lowest — Highest

SUBSTANCE ABUSE VISITS
Oklahoma City-County, 2016-2018

Rate per 1,000 population. Data Source: Oklahoma Mental Health and Substance Abuse Center 2016-2018. Note: Data only represents individuals receiving services through publicly funded behavioral health programs and does not include individuals whose services are funded by other means, such as private insurance or self-pay.

73003	2.85
73007	4.13
73008	6.35
73012	1.53
73013	1.96
73020	4.24
73025	1.18
73034	2.51
73045	5.04
73049	5.08
73054	4.45

73084	9.24
73099	4.49
73102	8.07
73103	10.28
73104	10.69
73105	18.27
73106	26.52
73107	9.9
73108	13.77
73109	11.17
73110	7.61
73111	22.35
73112	7.63
73114	10.66
73115	9.26
73116	3.35
73117	30.31
73118	8.88
73119	8.91
73120	4.58
73121	8.13
73122	7.61
73127	10.31
73128	6.57
73129	14.71
73130	5.48
73131	9.42
73132	5.09
73134	3.81
73135	7.46
73139	14.95
73141	9.88
73142	2.64
73145	0.42
73149	11.2
73150	5.39
73151	1.18
73159	5.92
73162	2.82
73165	21.2
73169	8.73
73170	2.67
73173	2.53
73179	3.43
74857	5.38

CHILD ABUSE AND REMOVALS

This measure is the rate of child removal per 1,000 population by ZIP code for the years 2016-2018. Data was collected from the Oklahoma Department of Human Services (OKDHS).

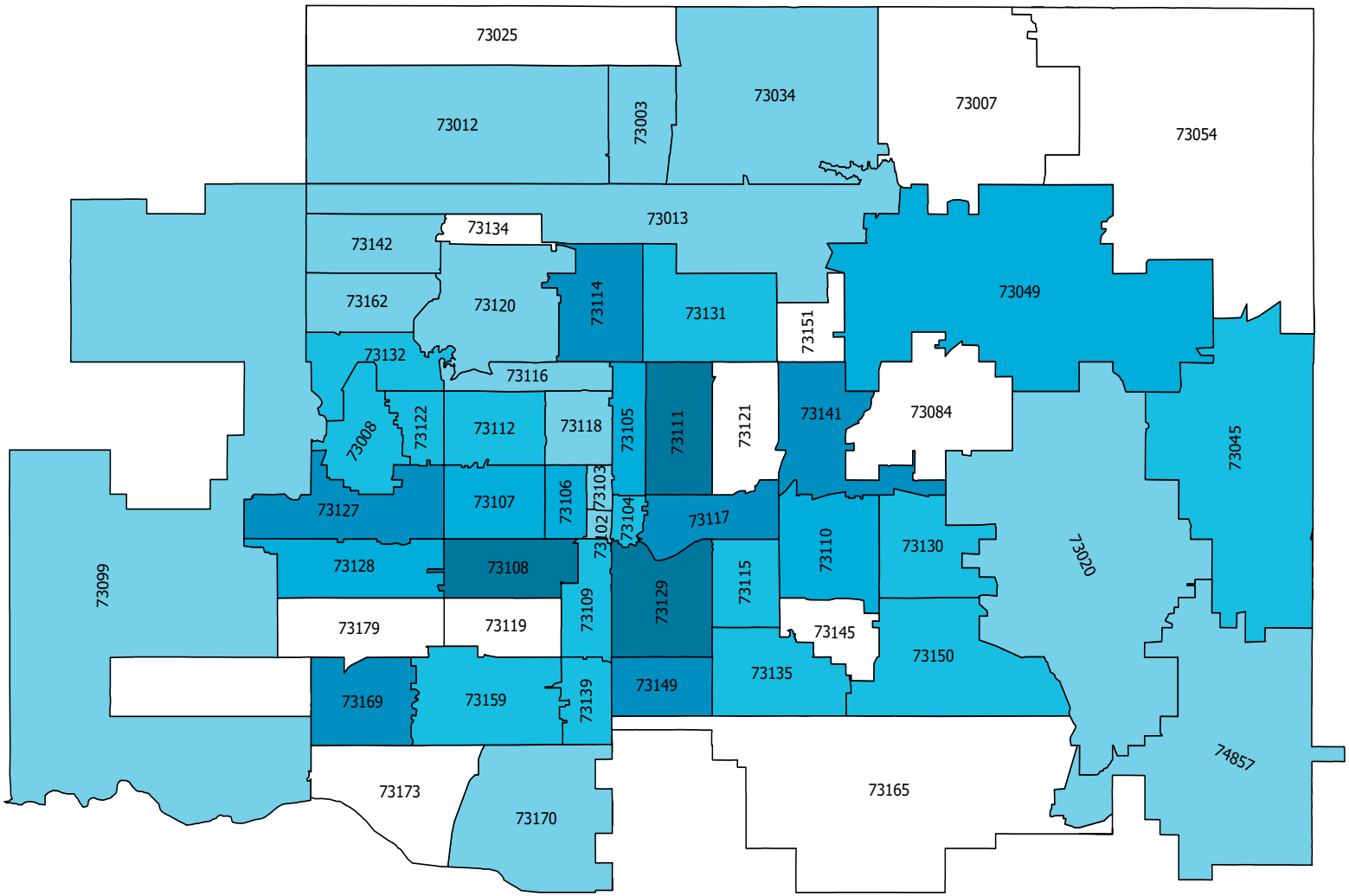
Why is it important?
Healthy and safe environments are important for child well-being and development. OKDHS assesses and investigates all accepted reports of alleged child abuse and neglect by the person responsible for the child's care. Investigations are conducted when the report contains allegations of serious threats to the child's safety, whereas assessments are conducted when the allegation of abuse or neglect does not constitute a serious or immediate threat to a child's health or safety (DHS, 2018).

How are we doing?
There were 5,795 confirmed child abuse cases in Oklahoma County during 2016-2018. The average rate of confirmed child abuse and neglect cases is 13.7 per 1,000 population in Oklahoma County on an annual basis during 2016-2018. In the state of Oklahoma, during the 2017 fiscal year, threat of harm was the most frequent type of neglect that occurred. The map presented in this section shows ZIP code level data for the number of children who are removed from home and brought into DHS custody. Data is omitted from ZIP codes if the number cases is fewer than five. ZIP codes 73111, 73108, 73129, and 73117 have highest rates of child removals from the home.

Confirmed Child Abuse Cases by Race Per 1,000 Population, 2016-2018

- **55.6%** Caucasian
- **10.0%** Black/African American
- **33.3%** American Indian/ Alaska Native
- **0.2%** Native Hawaiian/ Pacific Islander
- **0.8%** Asian

Reference: Office of Performance Outcomes and Accountability and Child Welfare Services in collaboration with DHS Design Services. (2018). DHS annual report 2018. http://www.okdhs.org/OKDHS%20Report%20Library/S18019_DHS2018AnnualReport_ccr_11012018.pdf



* No data available
**Data too low to count/compare

CHILD REMOVAL RATES
Oklahoma City-County,
2016-2018

Rate per 1,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018 and Centers for Disease Control and Prevention.

73003	0.32
73007	**
73008	0.90
73012	0.15
73013	0.22
73020	0.59
73025	**
73034	0.33
73045	0.96
73049	1.39
73054	**
73084	*
73099	0.06
73102	0.58
73103	0.41
73104	0.88
73105	1.39
73106	1.34
73107	1.32
73108	2.71
73109	1.04
73110	1.45
73111	3.07
73112	0.87
73114	1.99
73115	1.06
73116	0.18
73117	2.01
73118	0.62
73119	*
73120	0.51
73121	*
73122	0.65
73127	1.79
73128	1.59
73129	2.35
73130	0.83
73131	0.65
73132	0.76
73134	**
73135	0.98
73139	0.95
73141	1.80
73142	0.22
73145	*
73149	1.97
73150	0.79
73151	*
73159	0.77
73162	0.27
73165	**
73169	1.93
73170	0.08
73173	**
73179	**
74857	0.31

SUICIDE MORTALITY

This indicator represents the number of suicides per 100,000 population by ZIP code from 2016-2018. The rates are age-adjusted to account for differences in age distributions among our community.

Why is it important?
Suicide is a largely preventable cause of death. Recognizing signs of risk and getting people the help they need is crucial in reducing the number of deaths. Increasing public awareness about suicide and decreasing stigma surrounding mental health and its treatment may also improve outcomes. Widespread inclusion of mental health treatment in health plans may also help increase the use of these services and decrease the number of deaths. The local public health system can work collaboratively to identify those parts of the community at high risk and advocate for programs, policies, and services that target outreach and education to areas of highest need.

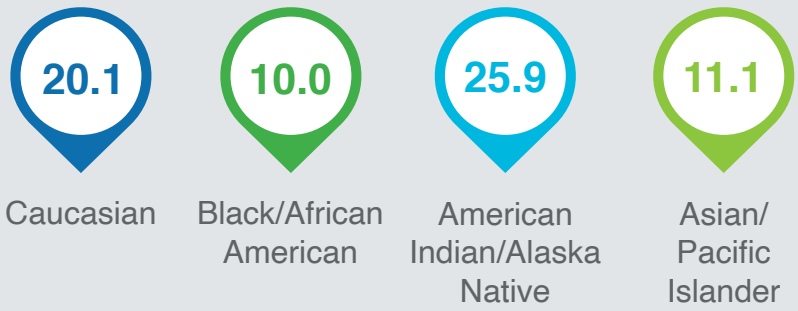
Suicide Mortality Rates Comparison
Oklahoma City-County, 2016-2018

Oklahoma City-County	Oklahoma State	United States
18.0	20.0	13.9

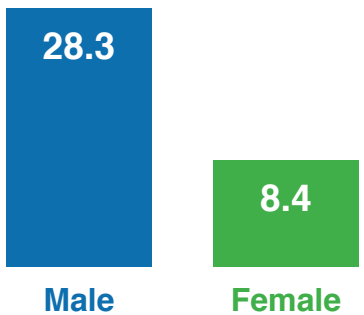
How are we doing?
In Oklahoma City-County, there were 489 deaths due to suicide in 2016-2018. The suicide rate for Oklahoma City-County during this time period was 18.0 per 100,000 people. This is lower than the state age-adjusted suicide rate of 20.0 per 100,000 but higher than the national rate of 13.9 per 100,000 population. Rates were highest among Whites, American Indian/Alaska Native, non-Hispanics, and males. The age-adjusted suicide mortality rate for males was 28.3 per 100,000 compared to 8.4 per 100,000 for females. The ZIP codes with the highest rates were 73150, 73128, and 73084.

Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018 and Centers for Disease Control and Prevention.

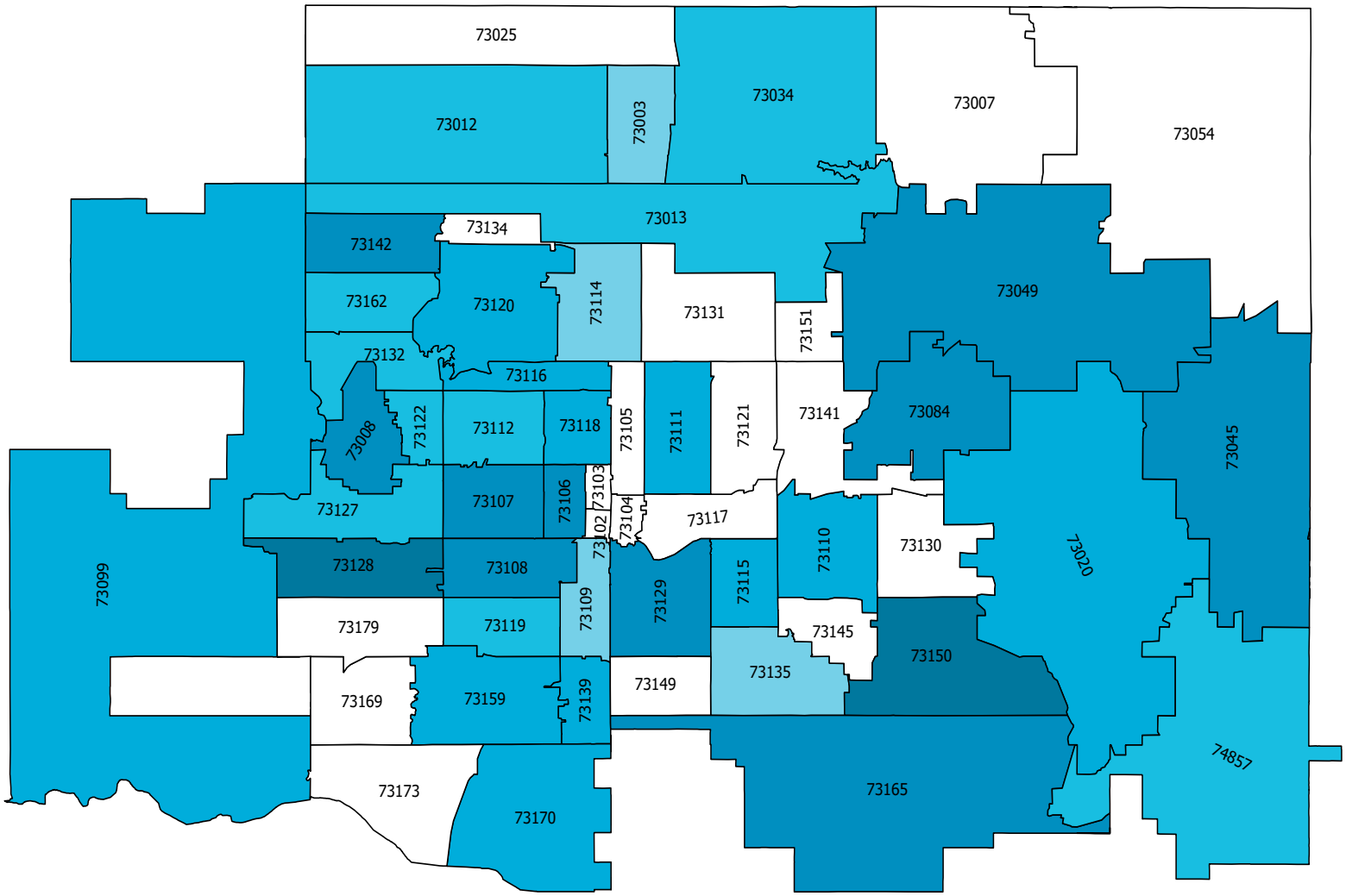
Age-Adjusted Suicide Mortality Rates by Race Per 100,000 Population
Oklahoma City-County, 2016-2018



Mortality Rates by Gender Per 100,000 Population
Oklahoma City-County, 2016-2018



Age-Adjusted Suicide Mortality Rates by Ethnicity Per 100,000 Population
Oklahoma City-County, 2016-2018



*No data available **Data too low to count/compare

SUICIDE MORTALITY RATES
Oklahoma City-County,
2016-2018

Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018 and Centers for Disease Control and Prevention.

73003	11.94
73007	**
73008	23.92
73012	13.79
73013	13.42
73020	23.03
73025	**
73034	14.47
73045	24.87
73049	25.77
73054	**
73084	30.30
73099	19.83
73102	**
73103	**
73104	**
73105	**
73106	27.94
73107	28.69
73108	24.79
73109	9.54
73110	20.58
73111	20.87
73112	14.03
73114	9.28
73115	19.98
73116	18.38
73117	**
73118	20.67
73119	15.42
73120	20.93
73121	**
73122	15.10
73127	17.75
73128	44.75
73129	25.31
73130	**
73131	**
73132	17.39
73134	**
73135	8.05
73139	21.58
73141	**
73142	25.38
73145	*
73149	**
73150	48.37
73151	**
73159	20.65
73162	16.33
73165	28.58
73169	**
73170	22.31
73173	**
73179	**
74857	17.30

Chapter 7 Healthcare Access

VARIABLES

Analysis	Data Source
1. SoonerCare Enrollment: stratified by ZIP code, ethnicity and gender	Oklahoma Health Care Authority State Fiscal Years 2016-2018 Data
2. Oklahoma City-County Hospital Utilization: stratified by ZIP code, ethnicity, gender and primary payer	Oklahoma Inpatient Discharge Data, 2016-2018
3. Electronic Surveillance System for Early Notification of Community-based Epidemics (ESSENCE) : stratified by ZIP code, gender and age	Oklahoma County ESSENCE Syndromic Surveillance System, 2016-2018

SOONERCARE MEMBER EMERGENCY DEPARTMENT VISITS

SoonerCare (Oklahoma Medicaid) provides health coverage for people who cannot afford medical bills and is jointly funded by the federal and state government. The Oklahoma Health Care Authority (OHCA) administers the program for the state of Oklahoma.

Why is it important?

Use of Emergency Department care for services that are not truly emergencies creates a serious burden within the health care system and adds costs to health care services. Research shows that at the national level Medicaid beneficiaries utilize the emergency department at nearly a twice the rate of those with private insurance (CMS, 2014). The Department of Health and Human Services (HHS) Centers for Medicare & Medicaid Services (CMS) expresses the importance of reducing unnecessary hospital emergency department use within healthcare systems. Understanding what parts of our community experience high emergency department use can help bring services, such as preventive care, education, and community-based programming to those areas with the goal of educating members on taking control of their health.

How are we doing?

SoonerCare served 26 percent of residents in Oklahoma County in 2018. In Oklahoma County, the annual average number of members enrolled in SoonerCare was 221,462 for the State Fiscal Years (SFY) 2016-2018. During SFY 2016-2018, 183,843 SoonerCare members in Oklahoma County visited emergency departments, with an average number of 61,281 emergency department visits per year. The Oklahoma City-County ZIP codes with the highest number of members enrolled in SoonerCare over the three years were 73119, 73099 and 73127. The ZIP codes with the lowest number of members enrolled in SoonerCare were 73145, 73151 and 73102. The highest annual average number of emergency department visits by SoonerCare members were in the 73119, 73129 and 73110 ZIP codes, while the lowest annual average number of emergency department visits by SoonerCare members were in the 73145, 73151 and 73173 ZIP codes. Of the Oklahoma County SoonerCare enrolled members during 2016-2018, 56 percent were Caucasian, and 21 percent were Black/African American. Additionally, an annual average of 62,548 members self-identified as Hispanic in Oklahoma County.

The OHCA ranked Oklahoma County first with the largest number of unduplicated enrollees (205,927) in 2018, and 40th for percent of population enrolled in SoonerCare (26 percent), similar to the percent of the state population (25 percent) enrolled in SoonerCare. (OHCA Annual 2019 Report).

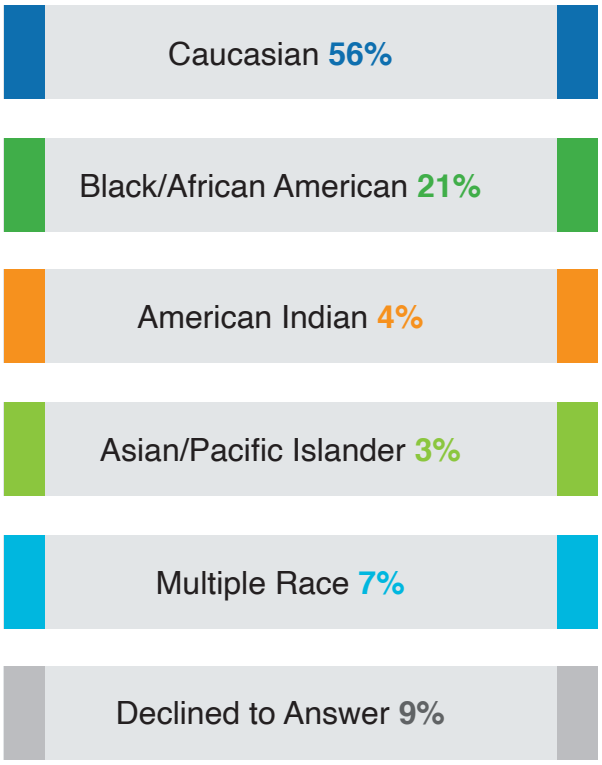
Data Source: Oklahoma Health Care Authority State Fiscal Years 2016-2018 data

References:

- Centers for Medicare and Medicaid Services. (2014). Reducing nonurgent use of emergency departments and improving appropriate care in appropriate settings. CMS Informational Bulletin. https://www.medicaid.gov/federal-policy-guidance/downloads/cib-01-16-14.pdf
- Oklahoma Health Care Authority. (2019). OHCA SFY 2019 annual report appendix. https://oklahoma.gov/content/dam/ok/en/okhca/documents/a0301/24442.pdf

Average Annual Medicaid Enrollment by Race

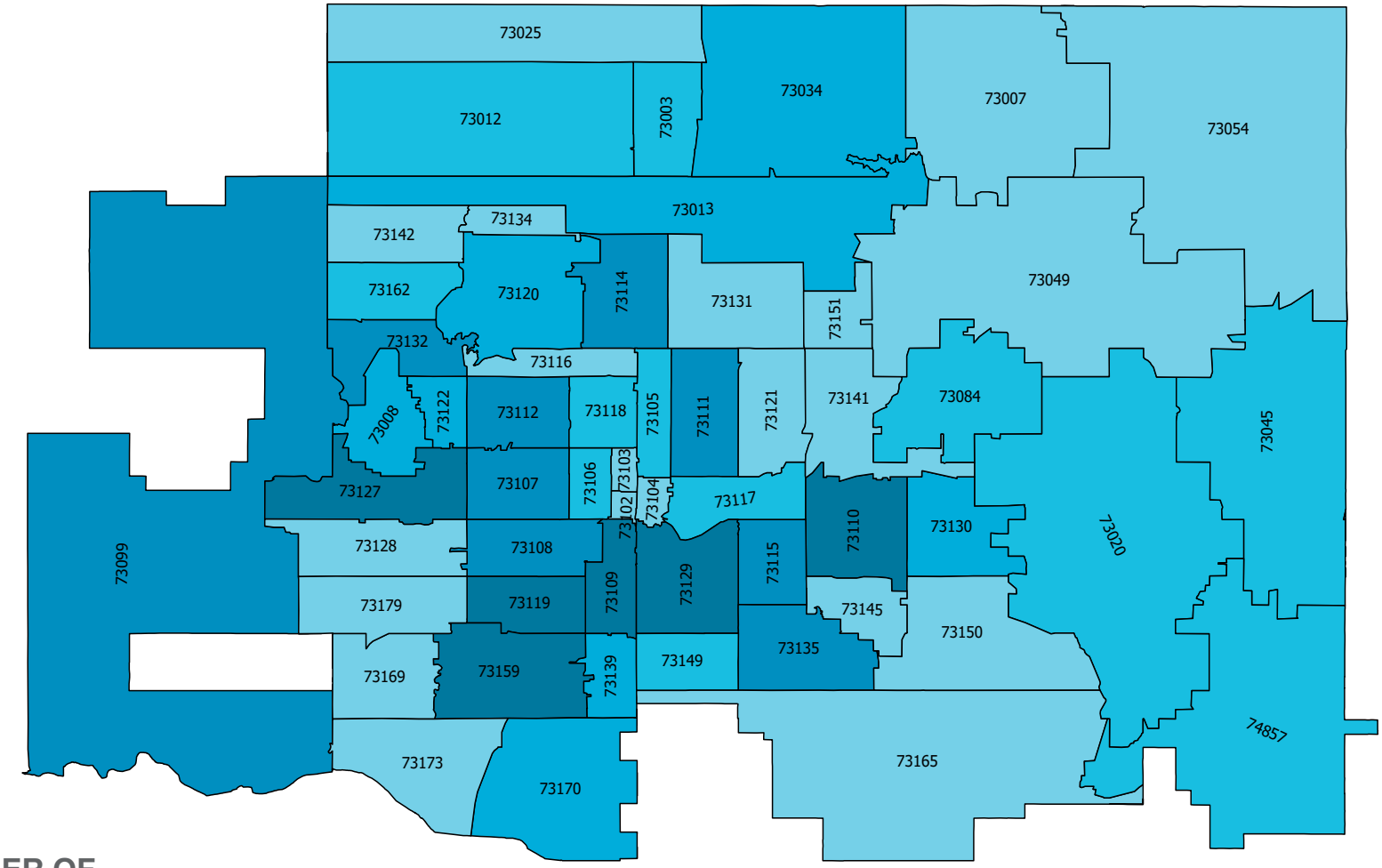
Oklahoma County, 2016-2018 SFY



Medicaid Enrollment by Gender

Oklahoma County, 2016-2018 SFY

Year	Male	Female
SFY 2016	96,194	126,940
SFY 2017	94,692	124,124
SFY 2018	96,639	125,796
SFY 2016-2018 Percent Enrollment	43%	57%



AVERAGE NUMBER OF SOONERCARE ED VISITS PER YEAR

Oklahoma City-County, 2016-2018

Lowest — Highest

73003	926	73054	319								
73007	113	73084	857	73109	3,138	73119	4,890	73132	1,999	73151	15
73008	1,570	73099	2,834	73110	3,378	73120	1,445	73134	229	73159	3,010
73012	642	73102	51	73111	2,143	73121	277	73135	2,268	73162	971
73013	1,313	73103	136	73112	2,032	73122	1,185	73139	1,648	73165	253
73020	930	73104	168	73114	2,542	73127	3,303	73141	264	73169	202
73025	153	73105	563	73115	2,323	73128	334	73142	483	73170	1,132
73034	1,173	73106	972	73116	216	73129	3,393	73145	11	73173	50
73045	687	73107	2,187	73117	1,012	73130	1,450	73149	748	73179	232
73049	368	73108	2,434	73118	842	73131	66	73150	225	74857	628

Data Source: Oklahoma Health Care Authority State Fiscal Years 2016-2018 Data

OKLAHOMA CITY-COUNTY INPATIENT HOSPITAL UTILIZATION

Hospital utilization rates indicate which pockets of the community may have increased needs for health services. These trends can help identify areas that may require in-depth investigation regarding cost, quality, access, or provider output (Centers for Disease Control and Prevention). The hospital utilization indicator helps estimate the use of acute care hospitals in Oklahoma City-County during 2016-2018. This indicator reveals the number of hospital discharges per 1,000 population. A discharge is defined as the completion of any continuous period of stay of one night or more in a hospital as an inpatient (National Health Interview Survey definition).

Why is it important?
Areas with a greater number of primary care providers usually have lower rates of hospitalization for conditions that are more easily treatable on an out-patient basis. If access to high-quality primary care is increased, a community may be able to reduce preventable hospitalizations.

How are we doing?
The overall hospital discharge rate during 2016-2018 was 115.9 discharges per 1,000 people. Of the discharged patients, 64.7 percent were white, and 18.5 percent were Black/African American. For insurance, 36.4 percent had Medicare, 27.1 percent had commercial insurance, 28.5 percent had Medicaid, and 2.1 percent were Veterans Affairs/Military patients.

Data Source: Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information, Oklahoma Inpatient Discharge Data 2016-2018.

Hospital Discharge Primary Payer
Oklahoma County, 2016-2018

36.4%
Medicare

27.1%
Commercial Insurance

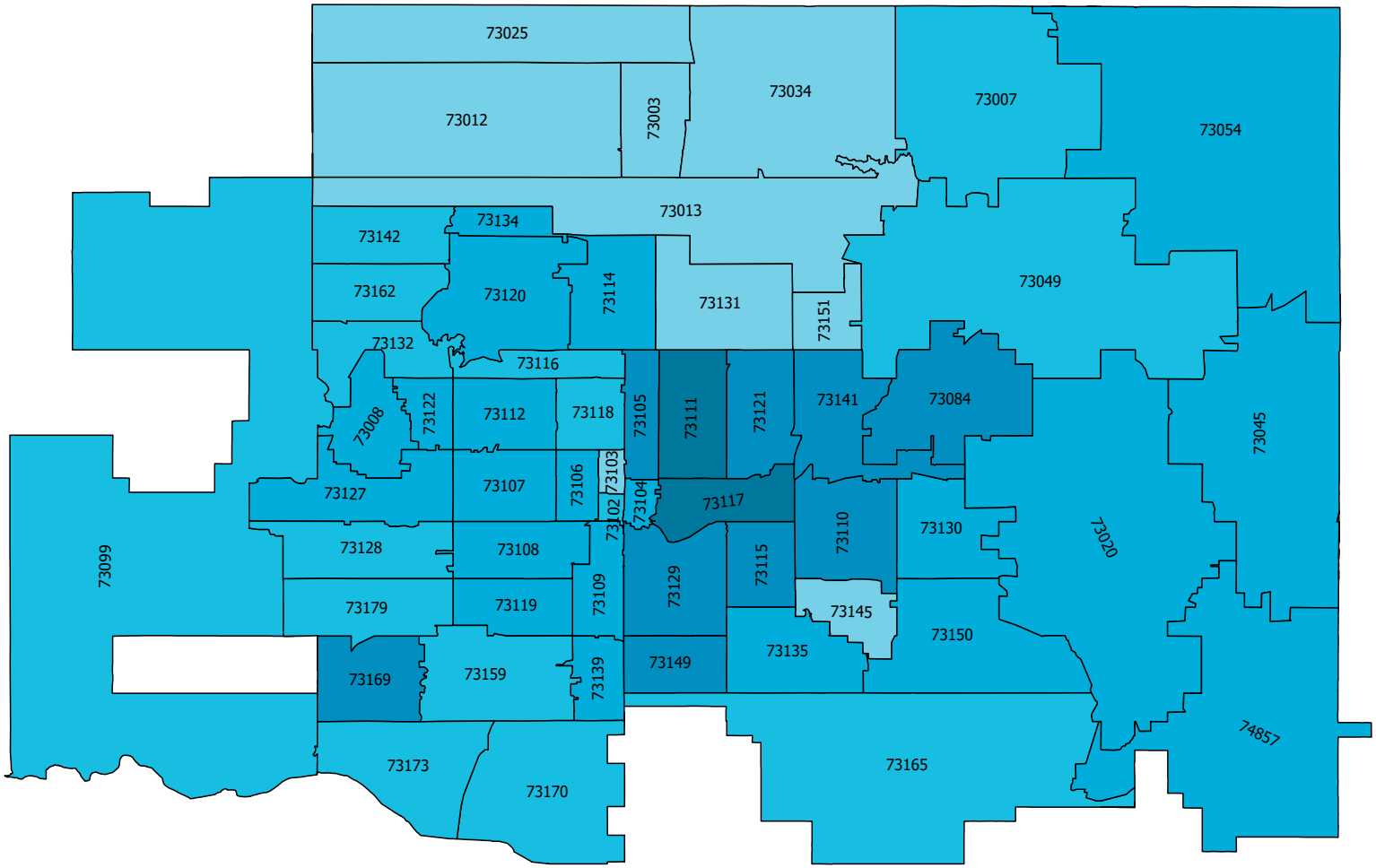
25.8%
Medicaid

6.9%
Uninsured/Self-Pay

2.1%
Veterans Affairs/Military

1.4%
Other

0.4%
Workers Compensation



INPATIENT HOSPITAL DISCHARGE RATES

Oklahoma City-County, 2016-2018

Lowest — Highest

73003	86.8	73054	121.1								
73007	90.5	73084	154.2	73109	130.3	73119	125.4	73132	109	73151	76.4
73008	123.6	73099	102.4	73110	144.7	73120	112	73134	114	73159	108.9
73012	72.4	73102	96.1	73111	212.1	73121	142.4	73135	117.5	73162	97.9
73013	82.6	73103	85.3	73112	114.3	73122	112.8	73139	124.8	73165	100.8
73020	113.3	73104	121.9	73114	124.2	73127	130.2	73141	151.3	73169	151
73025	72.5	73105	138.3	73115	145.6	73128	106.3	73142	89.9	73170	97
73034	79.5	73106	112.9	73116	100.9	73129	137.3	73145	75.7	73173	98.3
73045	129	73107	116	73117	185	73130	131.6	73149	143.9	73179	96.7
73049	107.9	73108	130.8	73118	104.4	73131	76.9	73150	122.1	74857	122.9

Rate per 1,000 population. Data Source: Oklahoma Inpatient Discharge Data, 2016-2018

ESSENCE EMERGENCY DEPARTMENT SURVEILLANCE ENCOUNTERS

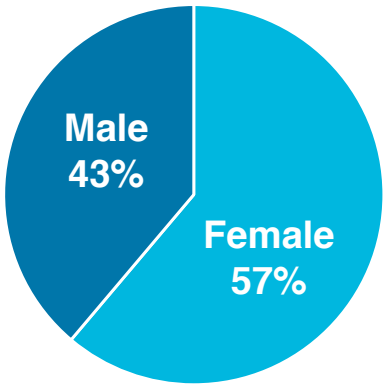
Being able to track the primary complaints of patients who report to the emergency department is a way to understand what is happening in a community. Electronic Surveillance System for Early Notification of Community-based Epidemics (ESSENCE) is a system in which several Oklahoma City-County area hospitals send daily electronic transfers of chief emergency room complaints to the Oklahoma City-County Health Department. This indicator presents the number of emergency room visits to acute care hospitals by Oklahoma City-County residents per 1,000 population from 2016-2018.

Why is it important?
ESSENCE monitors population-level early signs of impending illness, such as fever, rash, and diarrhea, and alerts physicians to potential outbreaks and bioterrorism events, including COVID cases, before large numbers of patients become sick. ESSENCE data includes ZIP codes and provides one source of emergency department use in Oklahoma City-County. This information is important in understanding emergency department use for the general population and one use of syndromic surveillance within the Oklahoma City-County public health system.

How are we doing?
There were 358,169 emergency department encounters for Oklahoma City-County residents captured through the ESSENCE system for an approximate rate of 127 per 1,000 population. Females, 57.3 percent, accounted for more visits than males, 42.7 percent. More than 25 percent of visits were individuals under the age of 10. ZIP codes with the highest average number of visits were 73119, 73109, 73129, 73111 and 73034.

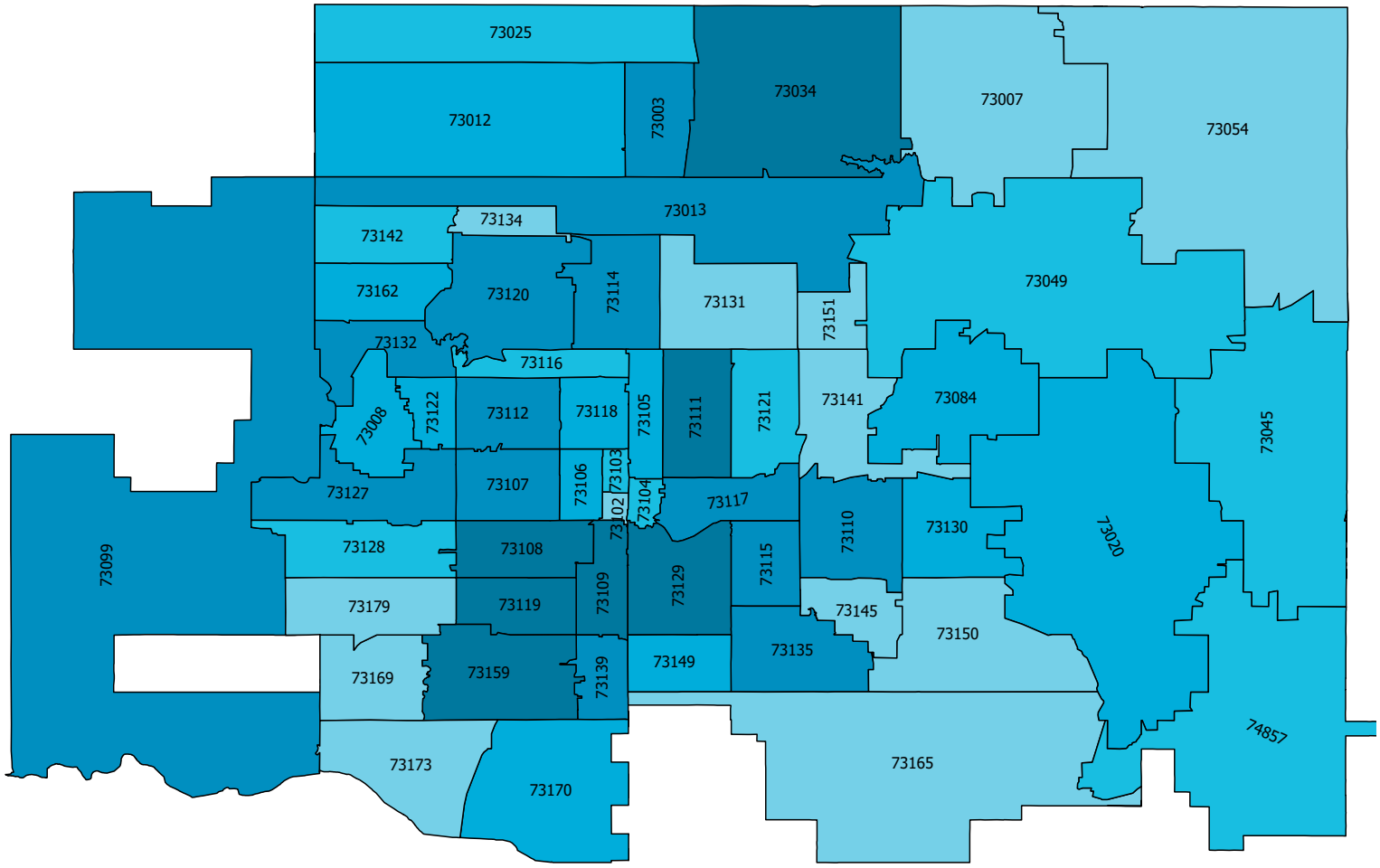
Data Source: Oklahoma County ESSENCE Syndromic Surveillance System, 2016-2018

ESSENCE Emergency Room Visits by Gender
Oklahoma City-County, 2016-2018



ESSENCE Emergency Room Visits by Age Group
Oklahoma City-County, 2016-2018

Age	Male	Female
00-09	49,304	42,506
10-19	17,895	23,554
20-29	16,865	37,905
30-39	16,022	30,692
40-49	14,016	20,330
50-59	16,136	18,197
60-69	11,219	13,703
70-79	6,539	9,539
80+	4,848	8,888



AVERAGE NUMBER OF ESSENCE ED VISITS PER YEAR

Oklahoma City-County, 2016-2018

Lowest — Highest

73003	9,878	73054	1,279								
73007	633	73084	3,410	73109	21,467	73119	29,723	73132	7,399	73151	213
73008	5,768	73099	7,928	73110	10,768	73120	7,557	73134	915	73159	15,443
73012	5,041	73102	975	73111	18,106	73121	1,960	73135	10,996	73162	4,123
73013	10,936	73103	1,383	73112	10,734	73122	3,869	73139	10,638	73165	977
73020	3,708	73104	2,708	73114	8,882	73127	11,769	73141	896	73169	640
73025	1,948	73105	5,102	73115	9,906	73128	1,585	73142	1,806	73170	5,883
73034	15,956	73106	6,394	73116	1,729	73129	21,155	73145	850	73173	336
73045	2,083	73107	10,752	73117	7,524	73130	4,399	73149	4,578	73179	896
73049	1,371	73108	15,028	73118	4,974	73131	642	73150	763	74857	1,787

Data Source: Oklahoma County ESSENCE Syndromic Surveillance System, 2016-2018

Chapter 8 Environment

VARIABLES

Analysis	Data Source
1. Grocery store availability	City of OKC Planning Parcel Data, 2018 U.S. Census ACS, 2014-2018 5-year estimates
2. Percent of households spending more than 30% of household income on rent or mortgage	U.S. Census ACS, 2014-2018 5-year estimates
4. Percentage of population with no vehicle access	City of OKC Planning Parcel Data, 2018 U.S. Census ACS, 2014-2018 5-year estimates
5. Average number of food establishment violations issued by OCCHD	Oklahoma City-County Health Department Food Safety & Environmental Health, 2016-2018

GROCERY STORE AVAILABILITY

Grocery store accessibility provides an overview of nutritional food availability in the community. The City of Oklahoma City provided data for this indicator. The indicator is presented as the percent of the population within one mile of a supermarket at the ZIP code level.

Why is it important?

Food deserts are areas with limited availability of supermarkets with fresh fruit, vegetables, and other healthful whole foods (USDA, 2021). These areas also include populations without access to transportation who rely on local stores without healthy food options (USDA, 2010). Measuring grocery store availability within a community can help identify areas where focused interventions can take place. Local public health efforts, such as Wellness Now and Healthy Living along with community partnerships, can identify resources that impact social inequalities and assure policies and programs are in place to address decreased grocery store accessibility.

How are we doing?

According to the Oklahoma Food Bank, in 2017, 25.2% of the population in Oklahoma County lived in a low supermarket access area (Oklahoma Food Banks, 2017). Of the ZIP codes in Oklahoma City-County, 18 had less than five percent of the population living within 1 mile of a supermarket. The ZIP codes with the highest percentage of the population living within one mile of a supermarket are 73102, 73103, 73145. The median percentage living within one mile of a supermarket in the City-County jurisdiction is nearly 37 percent.

References:

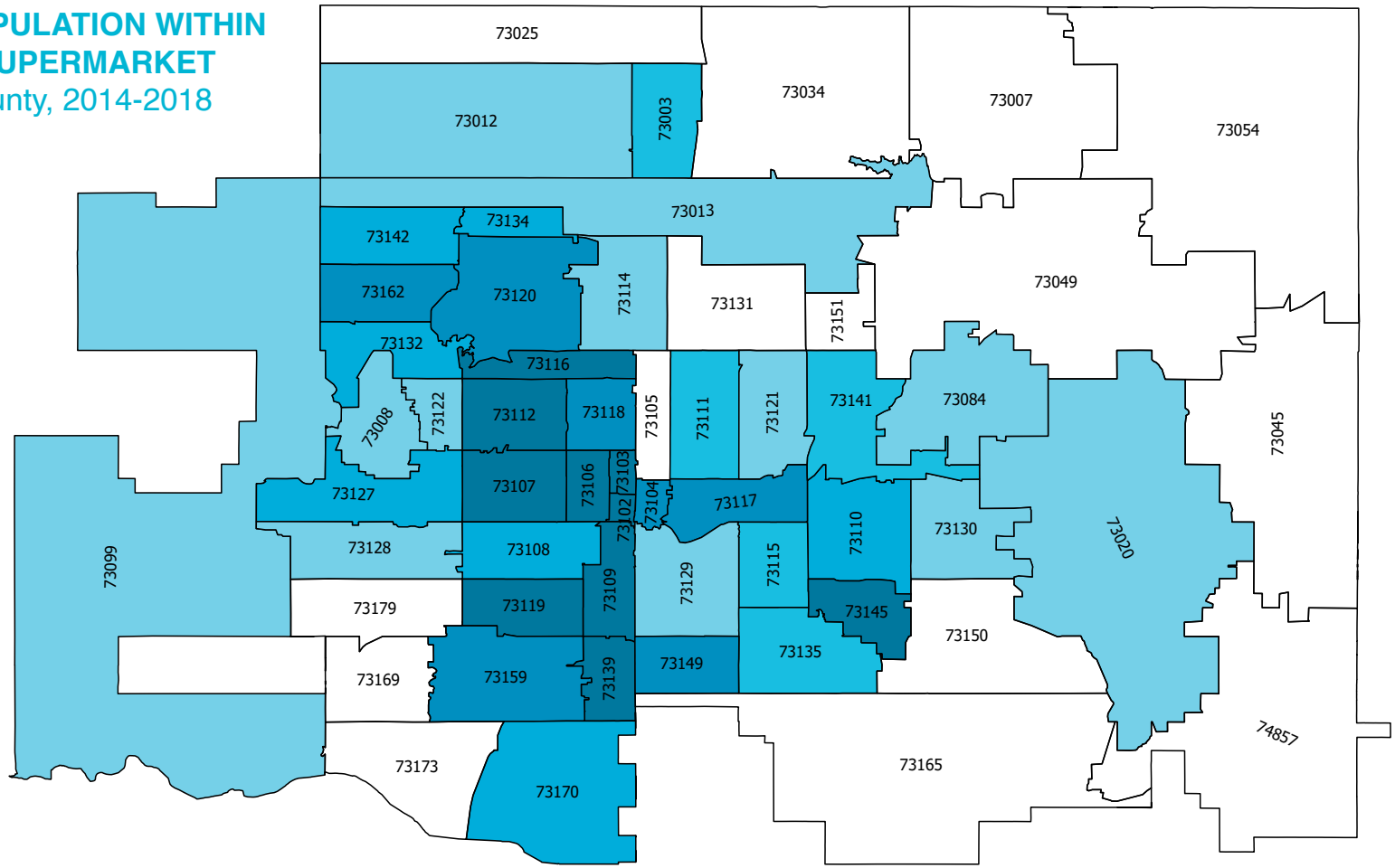
- United States Department of Agriculture. Access to Affordable, Nutritious Food Is Limited in "Food Deserts". https://www.ers.usda.gov/amber-waves/2010/march/access-to-affordable-nutritious-food-is-limited-in-food-deserts/
- Oklahoma Food Banks. (2017). An Overview of Food Deserts in Oklahoma: June 2017

Data Source:

- City of OKC Planning Parcel Data, 2017
- USDA (2021). Food Access Research Atlas. U.S. Department of Agriculture Economic Research Service. https://www.ers.usda.gov/data-products/food-access-research-atlas/documentation/

PERCENT OF POPULATION WITHIN ONE MILE OF A SUPERMARKET

Oklahoma City-County, 2014-2018



Lowest — Highest — N/A

*No data available

73003	42.0%	73054	*	73109	98.6%	73119	93.0%	73132	58.6%	73151	*
73007	*	73084	17.1%	73110	53.6%	73120	72.0%	73134	59.7%	73159	81.1%
73008	21.6%	73099	6.3%	73111	43.5%	73121	17.8%	73135	33.4%	73162	82.4%
73012	14.9%	73102	100.0%	73112	95.8%	73122	23.4%	73139	94.9%	73165	*
73013	14.1%	73103	100.0%	73114	4.3%	73127	53.1%	73141	40.9%	73169	*
73020	4.1%	73104	70.7%	73115	40.1%	73128	11.4%	73142	58.0%	73170	63.2%
73025	*	73105	*	73116	91.9%	73129	15.9%	73145	100.0%	73173	*
73034	*	73106	95.2%	73117	71.9%	73130	4.0%	73149	80.7%	73179	*
73045	*	73107	94.2%	73118	83.7%	73131	*	73150	*	74857	*
73049	*	73108	65.5%								

Data Source: U.S. Census ACS 2014-2018 5-year population estimates

HOUSING SECURITY

This measure indicates the percent of households, with a mortgage or rent, that spend 30 percent or more of household income on housing.

Why is it important?
According to the U.S Department of Housing and Urban Development, when households spend more than 30% of their monthly income on rent or mortgage, their housing is considered unaffordable (HUD, n.d.). Families with unaffordable housing move more frequently and have less consistent access to health care (Bailey et. al, 2015). They also have competing costs with medical care, thus creating a situation where there is lower priority on food and housing spending (Bailey et al., 2015). The local public health system can work with corporations and community members to address housing options in the community. This includes creating affordable housing and safe environments for new communities.

Percent of Households Spending 30% or More of Household Income on Rent, 2018

40.5%
Oklahoma City-County

44.6%
Oklahoma State

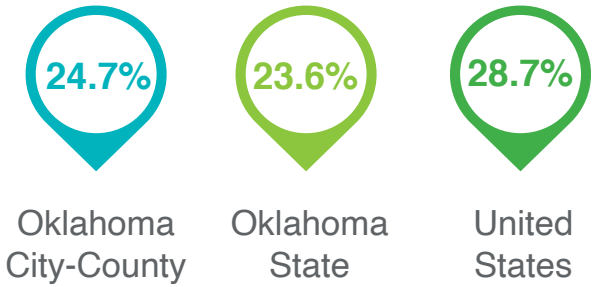
50.2%
United States

References:

- United States Housing Act of 1937. (Pub L No.93-383, 88 Stat 653). Retrieved from: http://portal.hud.gov/hudportal/documents/huddoc?id=DOC_12568.pdf
- Baily, K. T., Cook, J. T., Ettinger de Cuba, S., Casey, P. H, Chilto, M., Coleman, S. M., Cutts, D. B., Heeren, T. C., jacobs, R. R., Black, M. M., & Frank, D. A. (2015). Development of an index of subsidized housing availability and its relationship to housing insecurity. Housing Policy Debate, 26(1). https://doi.org/10.1080/10511482.2015.10150

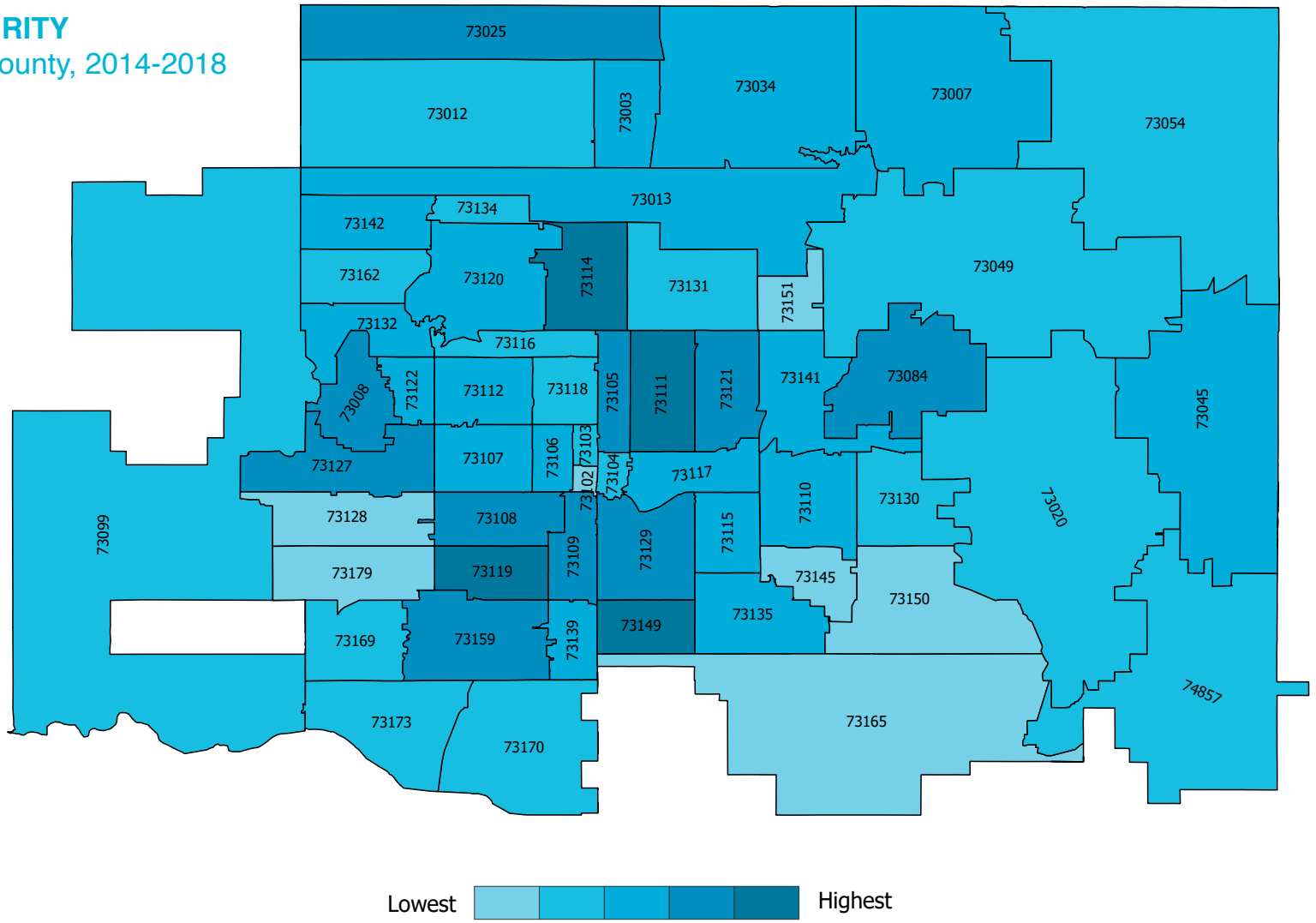
Data Source: U.S. Census ACS 2014-2018 5-year estimates

Percent of Households Spending 30% or More of Household Income on Mortage, 2018



How are we doing?
In Oklahoma City-County, 24.7 percent of the households with a mortgage spend at least 30 percent of their income on a mortgage, which is slightly higher than the state percentage of 23.6 and slightly lower than the United States percentage of 28.7. Oklahoma City-County has a slightly lower percentage of residents spending 30 percent of their income on rent compared to the state of Oklahoma (40.5 percent and 44.6 percent, respectively), which is lower than the national rate of 50.2 percent. Overall, nearly 33 percent of our Oklahoma City-County households spend at least 30 percent of the household income on housing. The ZIP codes with the highest percent of households spending more than 30 percent of their income on housing are 73119, 73111, and 73114.

HOUSING SECURITY
Oklahoma City-County, 2014-2018



73003	37.1%	73054	26.7%								
73007	35.2%	73084	39.2%	73109	40.3%	73119	50.0%	73132	35.1%	73151	13.0%
73008	38.0%	73099	29.7%	73110	36.6%	73120	34.4%	73134	31.1%	73159	38.0%
73012	30.6%	73102	21.4%	73111	48.2%	73121	40.1%	73135	36.1%	73162	30.8%
73013	34.8%	73103	29.6%	73112	34.7%	73122	37.2%	73139	35.2%	73165	9.8%
73020	29.1%	73104	24.6%	73114	45.8%	73127	41.8%	73141	37.6%	73169	28.5%
73025	40.5%	73105	41.9%	73115	34.5%	73128	17.4%	73142	33.9%	73170	29.7%
73034	34.1%	73106	35.8%	73116	28.4%	73129	40.4%	73145	17.0%	73173	22.9%
73045	33.1%	73107	35.3%	73117	37.3%	73130	30.3%	73149	44.0%	73179	16.8%
73049	24.6%	73108	41.0%	73118	29.8%	73131	29.7%	73150	18.6%	74857	28.3%

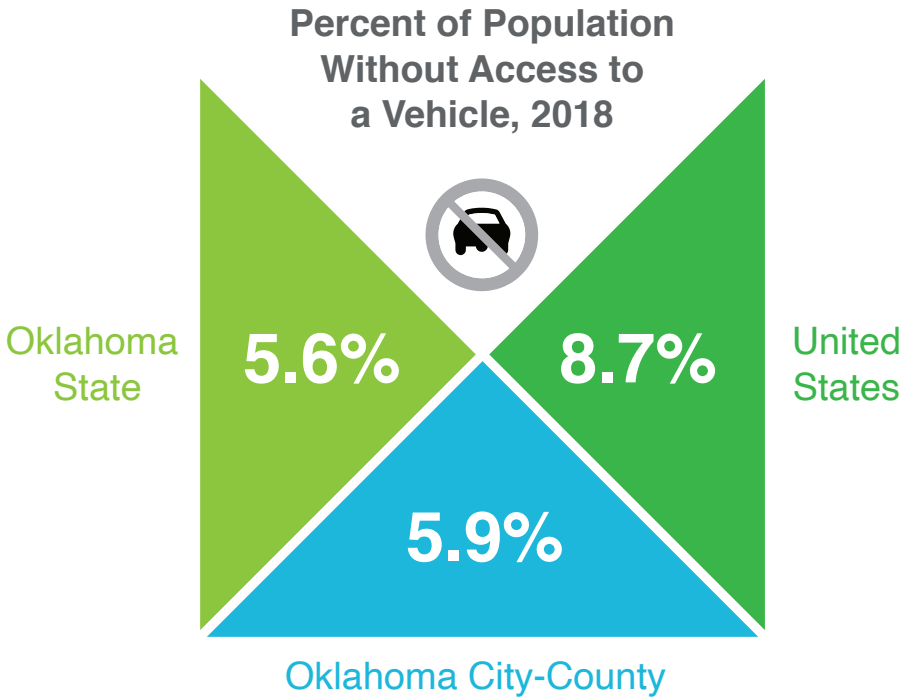
Data Source: U.S. Census ACS 2014-2018 5-year estimates

TRANSPORTATION SECURITY

This indicator presents overall transportation security as a combination of the population's access to a motor vehicle and/or public transit. The greater the transportation security percentage, the greater the access to primary and secondary transportation options in that ZIP code. Populations that do not have access to a motor vehicle in a location with no available public transit have the lowest transportation security.

Why is it important?
Transportation insecurity is a condition in which one is unable to regularly move from place to place in a safe and timely manner because one lacks material, economic or social resources (Alix et al., 2018). Lack of transportation security can result in reduced access to healthy foods, medical care, employment, and can create social isolation and added stress. Having access to or owning a vehicle is not the only indicator of transportation security as some individuals rely on public transportation.

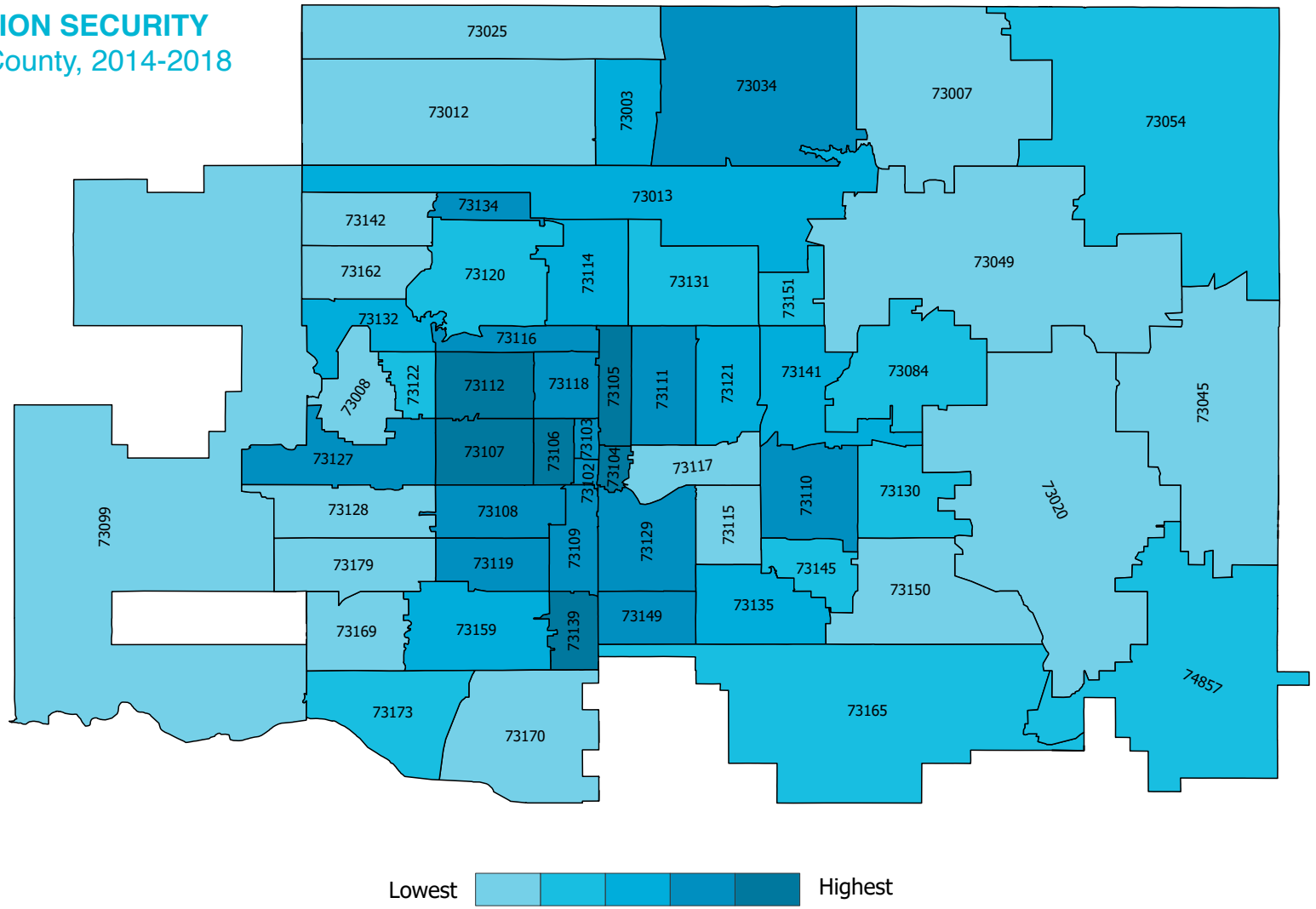
How are we doing?
On average, 5.9 percent of the population in Oklahoma City-County does not have access to a vehicle, which is similar to the state at 5.6 percent but lower than the percentage reported for the United States of 8.7 percent. Additionally, an average of 32.6 percent of the population lives within a quarter mile of a transit stop in Oklahoma City-County. When looking at overall transportation security, the zip codes with the greatest transportation security are 73104, 73107 and 73106. Zip codes with lowest transportation security include 73045, 73142, and 73115.



References:
Gould-Werth, A., Griffin, J., & Murphy, A. K. (2018). Developing a new measure of transportation insecurity: An exploratory factor analysis. Survey Practice, 11(2). https://doi.org/10.29115/SP-2018-0024.

Data Source:
U.S. Census ACS 2014-2018 5-year estimates; City of OKC Planning Parcel Data, 2018

TRANSPORTATION SECURITY
Oklahoma City-County, 2014-2018



Lowest — Highest

73003	77.8%	73054	74.3%								
73007	72.9%	73084	75.9%	73109	84.7%	73119	85.3%	73132	81.0%	73151	75.0%
73008	72.6%	73099	73.1%	73110	82.1%	73120	76.7%	73134	84.9%	73159	80.6%
73012	74.0%	73102	85.0%	73111	83.6%	73121	78.0%	73135	78.1%	73162	72.8%
73013	78.3%	73103	83.3%	73112	87.5%	73122	75.5%	73139	87.1%	73165	74.3%
73020	73.6%	73104	90.9%	73114	79.5%	73127	84.6%	73141	78.1%	73169	73.1%
73025	73.8%	73105	87.3%	73115	72.4%	73128	74.0%	73142	72.1%	73170	72.6%
73034	82.1%	73106	90.2%	73116	85.0%	73129	82.6%	73145	75.0%	73173	74.5%
73045	71.6%	73107	90.4%	73117	73.3%	73130	74.2%	73149	83.8%	73179	73.9%
73049	73.7%	73108	83.9%	73118	83.7%	73131	75.8%	73150	73.2%	74857	74.7%

Data Source: U.S. Census ACS 2014-2018 5-year estimates

Food Safety & Environmental Health

This indicator is defined as the percentage of inspections with a foodborne illness risk factor violation observed by OCCHD Food Safety and Environmental Health (FS&FE) during a routine or compliance inspection over the years 2016-2018. Examples of foodborne illness risk factors include improper food temperatures, poor employee health and hygiene, food from unsafe sources, and contaminated utensils and equipment.

Why is it important?
Most food service establishments are inspected by OCCHD's FE&EH Sanitarians once or twice a year or more, depending on their food preparation processes. Inspections are conducted unannounced which allows the inspector to see the normal service before their presence is made known. If an inspector observes general sanitation and maintenance issues or anything that can contribute to foodborne illnesses, they will mark a violation and provide education to the employees. Most violations will not shut down an establishment but give notice to correct the issue. Food service inspections also take place at special events, such as the Oklahoma State Fair.

How are we doing?
In Oklahoma City-County during 2016-2018, 26.5% of inspections had at least one foodborne illness risk factor violation. There were 28,280 routine and compliance inspections of 6,097 food facilities from 2016-2018. The ZIP codes with the highest percentage of inspections with a foodborne illness risk factor violation included 73119, and 73139.

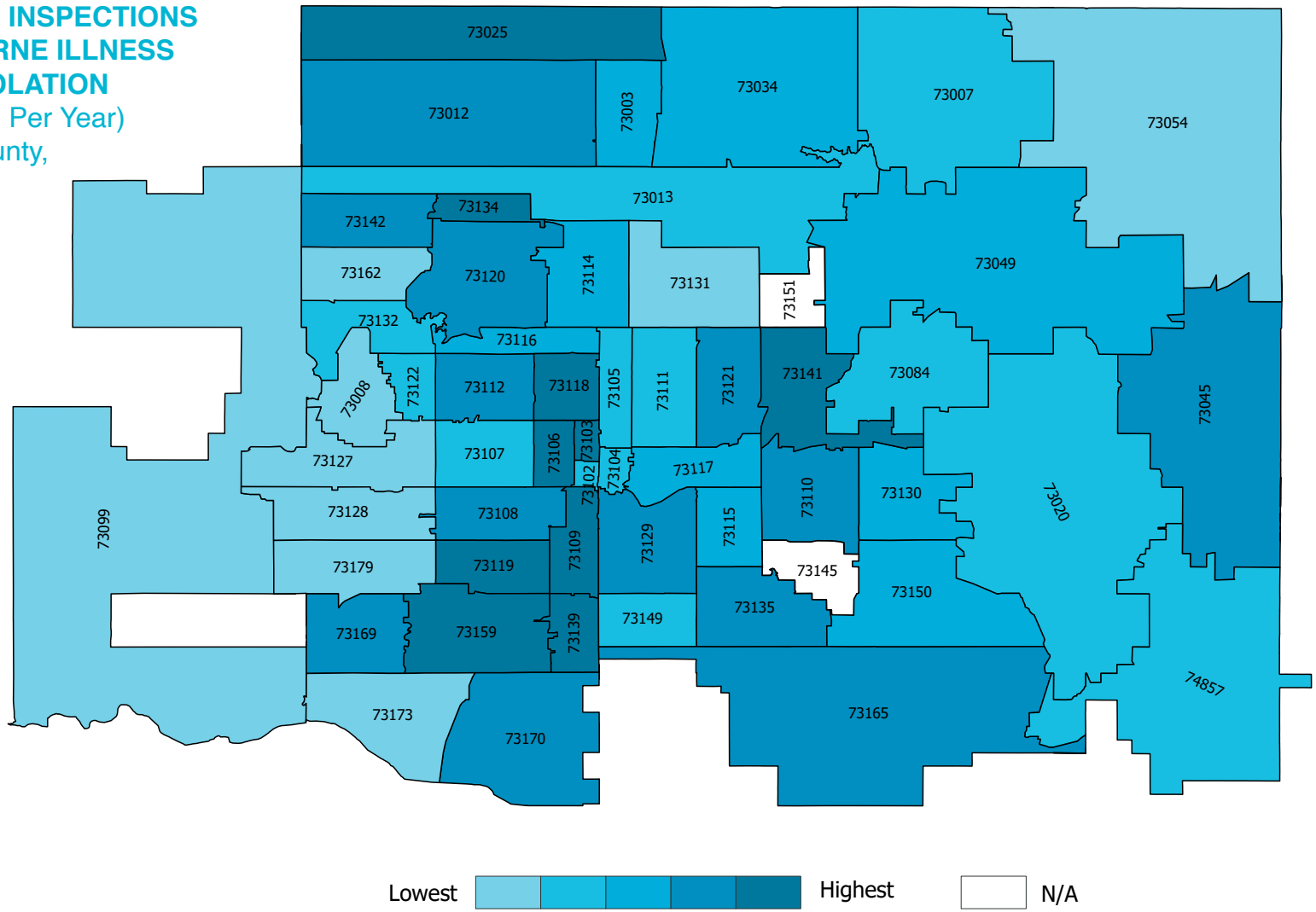
Inspectors at the health department also respond to a wide variety of facility and nuisance complaints. These complaints are submitted to the health department from community members and are addressed by the health department. There was also an average of 594 food establishment related complaints per year in the city-county jurisdiction. Most complaints (79.4%) were related to food sanitation and personal hygiene while handling food.

In addition to investigating complaints and addressing violations, the inspectors at OCCHD offer various types of classes and training to licensed food service establishments. The trainings are free and can be offered on site to ensure the community is best protected from foodborne illness. These classes include food safety and sanitation, good hygiene, childcare food safety, the inspection process, foodborne illness, and swimming pool safety.

Data Source:Oklahoma City-County Health Department Food Safety and Environmental Health Division, 2016-2018.

PERCENTAGE OF INSPECTIONS WITH A FOODBORNE ILLNESS RISK FACTOR VIOLATION

(Issued by OCCHD Per Year)
Oklahoma City-County,
2016-2018



*No data available

73003	24.5%	73054	14.3%								
73007	19.2%	73084	23.1%	73109	36.1%	73119	38.8%	73132	20.3%	73151	*
73008	14.8%	73099	15.1%	73110	28.3%	73120	28.1%	73134	35.9%	73159	36.1%
73012	27.1%	73102	19.8%	73111	23.2%	73121	27.3%	73135	29.7%	73162	16.3%
73013	22.8%	73103	32.4%	73112	29.8%	73122	23.0%	73139	37.6%	73165	29.3%
73020	22.0%	73104	20.1%	73114	24.6%	73127	17.9%	73141	35.1%	73169	29.4%
73025	36.6%	73105	22.5%	73115	23.9%	73128	13.2%	73142	27.9%	73170	27.8%
73034	25.7%	73106	34.5%	73116	26.7%	73129	27.2%	73145	*	73173	7.7%
73045	27.5%	73107	22.4%	73117	26.5%	73130	25.2%	73149	20.7%	73179	9.3%
73049	25.6%	73108	26.9%	73118	32.7%	73131	16.3%	73150	25.6%	74857	23.1%

Data Source: Oklahoma City-County Health Department Food Safety & Environmental Health, 2016-2018


3. R. MIDDLE
4. R. RING

Chapter 9 Crime

VARIABLES

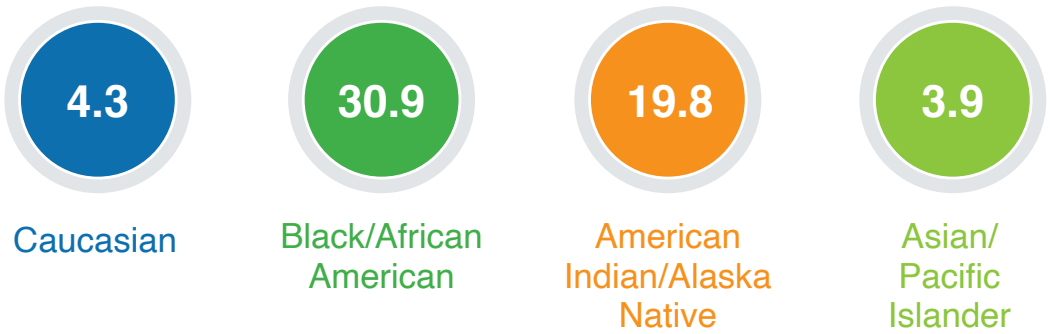
Analysis	Data Source
1. Age-adjusted Homicide Mortality Rates by ZIP Code, Gender and Race	Oklahoma State Department of Health Vital Statistics Death Records 2016-2018
2. Oklahoma City Aggravated Assaults per 1,000 population 2016-2018 by ZIP Code	Oklahoma City Police Department Aggregate Data 2016-2018
3. Age adjusted, Gun-related Mortality Rates by ZIP Code, Gender and Race	Oklahoma State Department of Health Vital Statistics Death Records 2016-2018

HOMICIDE MORTALITY

This indicator signifies the number of homicides per 100,000 population from 2016-2018. The rates were age adjusted to account for differences in age distributions among our community.

Why is it important?
Exposures to violence and its norms can lead to further community violence. Homicide is an extreme outcome of the broader public health problem of social violence. The local public health system has the opportunity to improve community awareness and system changes along with developing or advocating for programs, services, and policies that aim to reduce violence through targeted community campaigning and education. Working with local agencies to target violence through community organization and planning, as well as engaging local law enforcement in these efforts, will be critical to impacting crime rates in our community.

Age-Adjusted Mortality Rates by Race, 2016-2018



Age-Adjusted Mortality Rates by Gender, 2016-2018

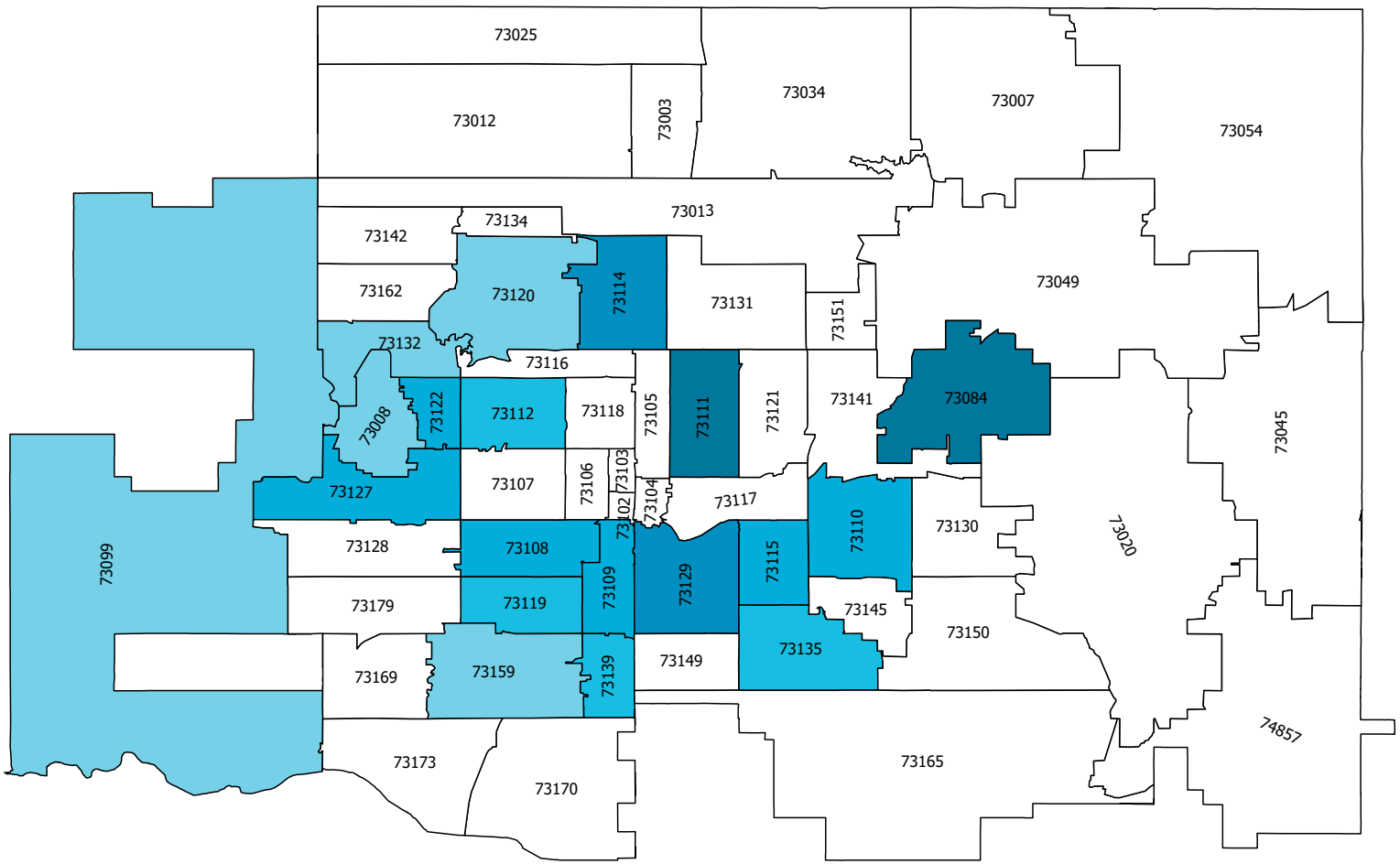
Male **15.1**
Female **3.4**

How are we doing?
In Oklahoma City-County, there were 257 deaths due to homicide in 2016-2018. The age-adjusted homicide rate was 9.2 deaths per 100,000 in Oklahoma City-County during 2016-2018. This was higher than the national rate of 6.1 per 100,000 and the state rate of 8.1 per 100,000. Rates were highest among the Black/African American population, non-Hispanic population, and males. The ZIP codes with the highest rates were 73084, 73111, and 73114.

Data Source:
- Oklahoma State Department of Health Vital Statistics Death Records, 2016-2018 and Center for Disease Control and Prevention.
- Oklahoma City Police Department Aggregate Data 2016-2018.

Mortality Rates Comparison
2016-2018

Oklahoma City-County	Oklahoma State	United States
9.2	8.1	6.1



*No data available **Data too low to count/compare

HOMICIDE MORTALITY RATES
Oklahoma City-County, 2016-2018

Rate per 100,000 population. Data Source: Oklahoma City Police Department Aggregate Data 2016-2018

73003	**
73007	*
73008	10.79
73012	**
73013	**
73020	**
73025	*
73034	**
73045	*
73049	*
73054	**

73084	56.32
73099	4.44
73102	*
73103	**
73104	**
73105	**
73106	**
73107	**
73108	18.71
73109	15.79
73110	16.98
73111	52.62
73112	12.29
73114	33.43
73115	16.87
73116	**
73117	**
73118	**
73119	14.54
73120	8.25
73121	**
73122	17.93
73127	15.89
73128	**
73129	24.46
73130	**
73131	**
73132	10.77
73134	**
73135	13.28
73139	12.84
73141	**
73142	**
73145	*
73149	*
73150	*
73151	*
73159	9.23
73162	*
73165	*
73169	*
73170	**
73173	**
73179	*
74857	**

AGGRAVATED ASSAULTS

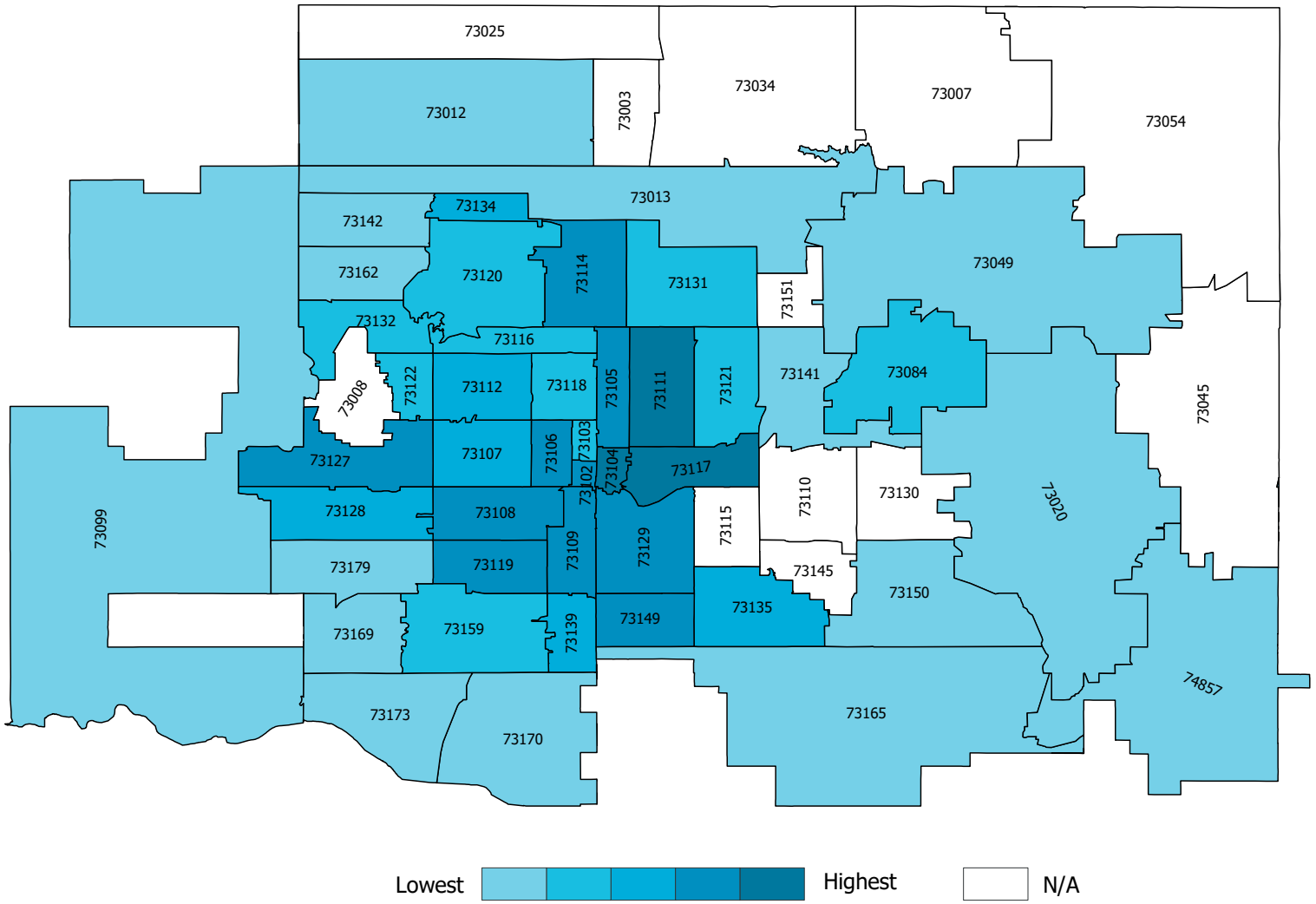
This indicator is presented as the number of aggravated assaults per 1,000 population during 2016-2018.

Why is it important?
The Oklahoma Bureau of Investigation defines an aggravated assault as "the unlawful attack or an attempt to attack through force or violence to do physical injury to another" (OSBI, 2018). Aggravated assaults are another status of community violence. The local public health system, to include local law enforcement, can drive policies and strategies toward a healthier community by identifying the areas with higher violence to target prevention programs.

How are we doing?
In Oklahoma City, there were 8,153 incidents of aggravated assault during 2016-2018. The Oklahoma State Bureau of Investigation reported more than 37,743 aggravated assaults statewide and 12,080 in Oklahoma County during 2016-2018. It can be estimated that Oklahoma City accounted for more than 20 percent of the aggravated assault charges during these 3 years. In Oklahoma City, there was an estimated average of 290 aggravated assault victims per 100,000 population during the same time. In Oklahoma City, the ZIP codes with the highest aggravated assault numbers are 73104, 73111, and 73117.

References: Oklahoma Bureau of Investigation (OSBI) Uniform Crime Report 2018.

Data Source: Oklahoma City Police Department Aggregate Data 2016-2018.



73003	*
73007	*
73008	**
73012	0.3
73013	0.4
73020	0.2
73025	*
73034	*
73045	*
73049	0.9
73054	**
73084	2.7
73099	0.6
73102	7
73103	3.4
73104	18.3
73105	7.5
73106	9
73107	5.7
73108	10.1
73109	7.3
73110	*
73111	13.6
73112	4.1
73114	7.6
73115	*
73116	2.4
73117	13.3
73118	3.6
73119	6.6
73120	2.4
73121	2.9
73122	2.3
73127	7.8
73128	6.1
73129	9.2
73130	*
73131	3.2
73132	3.2
73134	4.1
73135	4
73139	5.4
73141	1.7
73142	1.8
73145	*
73149	6.8
73150	2.1
73151	*
73159	2.7
73162	1.3
73165	1
73169	1.6
73170	0.9
73173	0.7
73179	1.6
74857	1.7

*No data available **Data too low to count/compare

TOTAL NUMBER OF AGGRAVATED ASSAULTS

Oklahoma City-County, 2016-2018

Rate per 100,000 population. Data Source: Oklahoma City Police Department Aggregate Data 2016-2018

GUN-RELATED MORTALITY

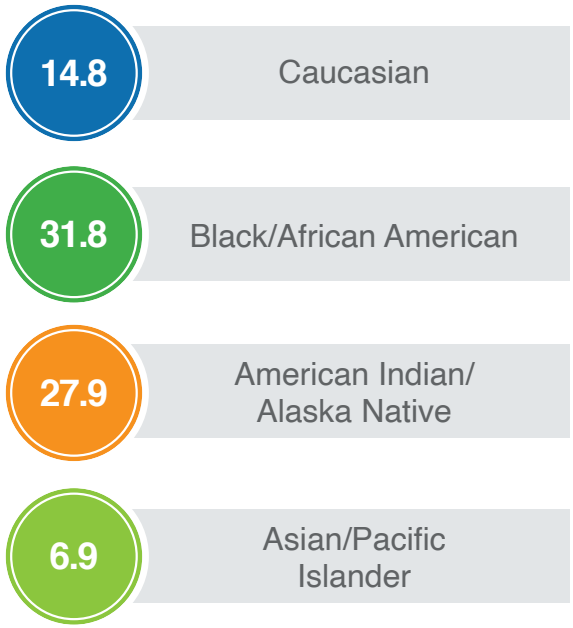
Gun-related mortality is any death due to firearms, including homicide, suicide and accidental death. Along with homicide and aggravated assault data, gun-related mortality is another indicator to community violence. This indicator represents the number of gun-related deaths per 100,000 population from 2016-2018. The rates were age adjusted to account for differences in age distributions among our community.

Why is it important?
The local public health system, including community members and local officials, can utilize this information to begin developing policies and strategies toward improving gun safety in our community. Public health providers and residents can work with local law enforcement and city planners to identify key areas in the community to target prevention programs and begin to treat violence as a disease. Additionally, providers can work with gun advocacy organizations to provide adequate safety training to licensed users.

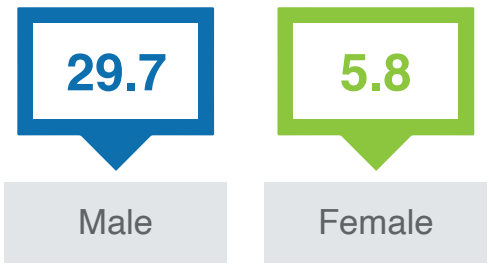
How are we doing?
In Oklahoma City-County, there were 478 deaths related to firearms between 2016-2018. The age-adjusted, gun-related mortality rate was 17.3 deaths per 100,000. The firearm-related mortality rate was 17.3 per 100,000, which was slightly lower than the state rate of 17.9 and higher than the national rate of 11.9. Rates were highest among non-Hispanics, Black/African Americans and males. The ZIP codes with the highest rates were 73084, 73111, and 73106.

Data Source: Oklahoma State Department of Health Vital Statistics Death Records, 2016-2018 and Center for Disease Control and Prevention.

Age-Adjusted Firearm Mortality Rates by Race, 2016-2018

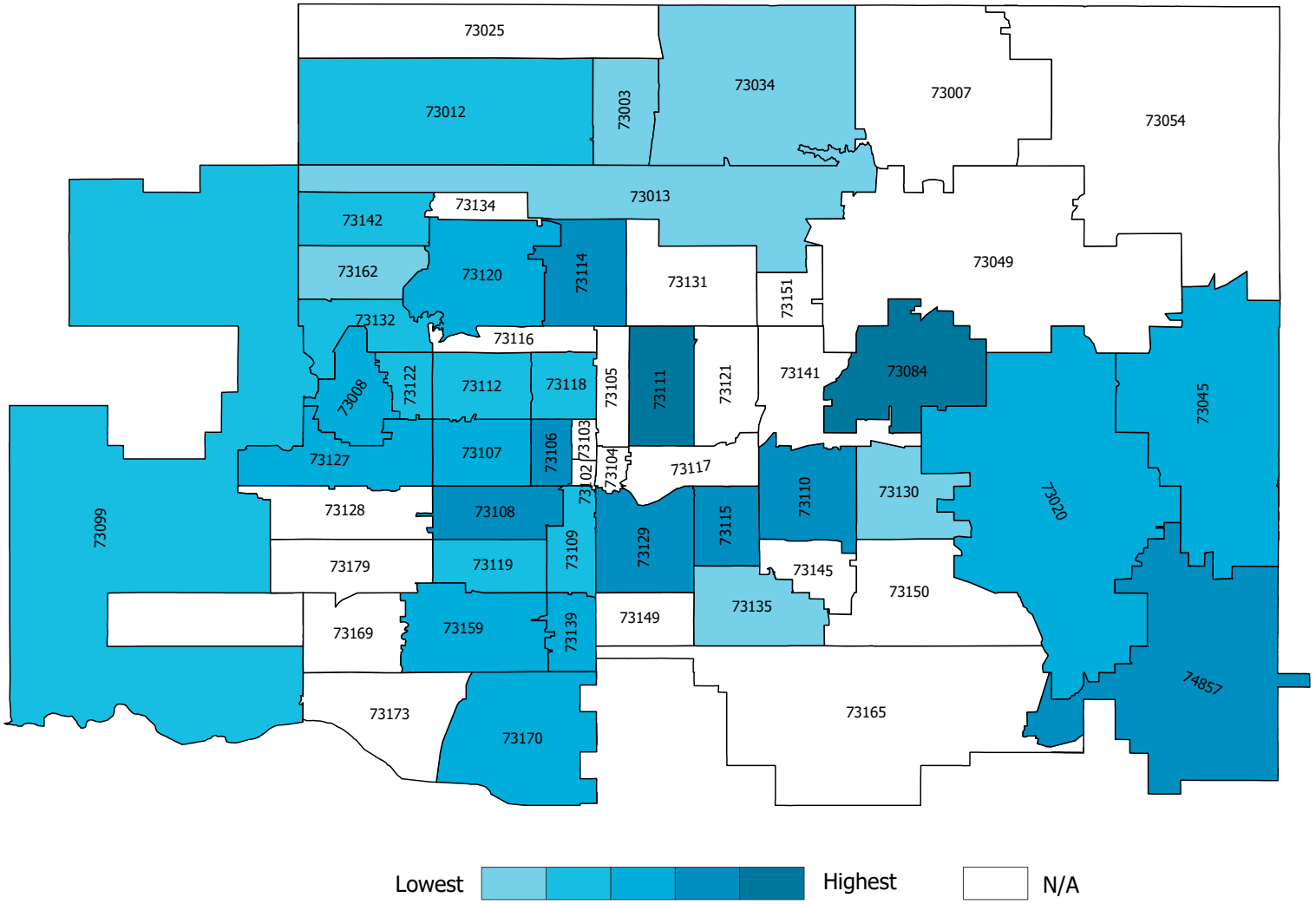


Age-Adjusted Firearm Mortality Rates by Gender, 2016-2018



Firearm Mortality Comparison, 2016-2018

Oklahoma City-County	Oklahoma State	United States
17.3	17.9	11.9



*No data available **Data too low to count/compare

Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Death Records 2016-2018

GUN-RELATED MORTALITY RATES
Oklahoma City-County, 2016-2018

73003	7.20
73007	**
73008	20.72
73012	14.39
73013	10.32
73020	19.85
73025	**
73034	11.21
73045	19.01
73049	**
73054	**
73084	70.55
73099	14.26
73102	*
73103	**
73104	**
73105	**
73106	29.27
73107	18.23
73108	23.37
73109	17.93
73110	23.71
73111	57.38
73112	15.53
73114	24.22
73115	28.94
73116	**
73117	**
73118	15.86
73119	17.83
73120	20.67
73121	**
73122	15.22
73127	21.29
73128	**
73129	28.46
73130	7.37
73131	**
73132	17.78
73134	**
73135	10.77
73139	22.40
73141	**
73142	15.53
73145	*
73149	**
73150	**
73151	**
73159	19.36
73162	9.18
73165	**
73169	*
73170	19.35
73173	**
73179	**
74857	24.08

Chapter 10 Overall Wellness Score

VARIABLES

Analysis	Data Source
1. Years of Potential Life Lost	Oklahoma State Department of Health Vital Statistics Death Records 2016-2018
2. Overall Life Expectancy	Oklahoma State Department of Health Vital Records 2016-2018 and the Centers for Disease Control and Prevention National Center for Health Statistics
3. Health Index Profile	• U.S. Census ACS 2018 5-Year Population Estimates • Oklahoma State Department of Health 2016-2018 Oklahoma County Birth and Death Certificate Records • Oklahoma State Department of Health STD Surveillance Department, 2016-2018 • Public Health Investigation and Disease Detection of Oklahoma (PHIDDO) Oklahoma City-County 2016-2018 Disease Surveillance Data • Oklahoma Mental Health and Substance Abuse Center, 2016-2018 Data • Oklahoma Health Care Authority State Fiscal Years 2016-2018 Data • City of OKC Planning Parcel Data, 2018

YEARS OF POTENTIAL LIFE LOST (YPLL) IN OKLAHOMA COUNTY

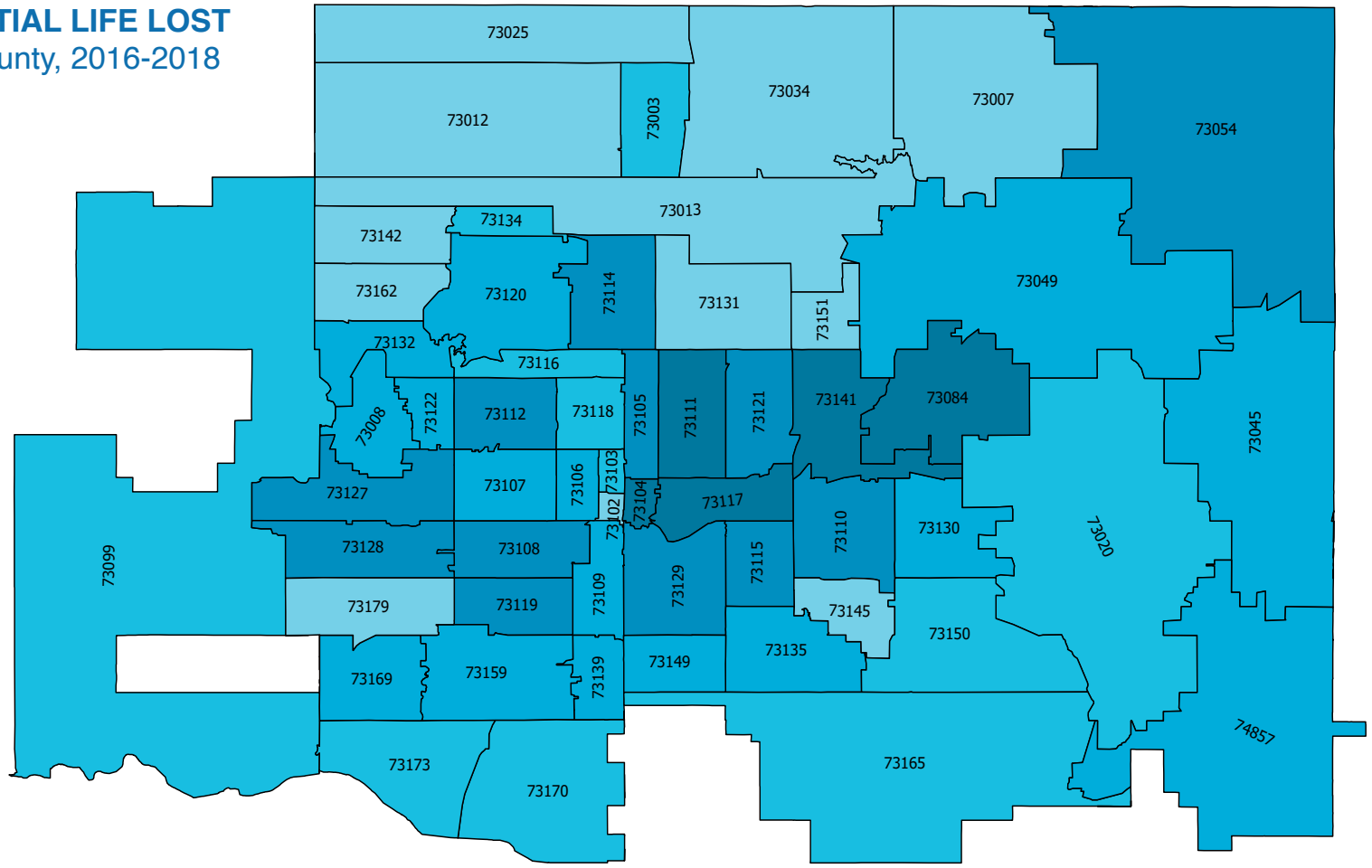
An important measurement we can use to look at the overall health of a community is Years of Potential Life Lost (YPLL). YPLL describes premature death (before the age of 65) in Oklahoma County. The measurement indicates the three-year cumulative years of life lost per 100,000 population. This score is standardized and ranked by ZIP code and shows which parts of the Oklahoma City-County area have more or less premature death before the age of 65.

Why is it important?
The local public health system uses this statistic to focus attention on preventable deaths (County Health Rankings). Resources can then be targeted toward public health programs that will contribute to extended years of life where there is greater likelihood of premature deaths. Public Health works to reduce the years of potential life lost (YPLL) number because YPLL means younger persons (those under age 65) are dying. In contrast, mortality rates are mostly made up by elderly deaths. Knowing the YPLL data allows the local public health system to see areas of the community impacted by premature death and helps them identify chronic health problems and other concerns that need to be addressed. YPLL is only one piece to the burden of chronic disease in Oklahoma City-County and should be used in conjunction with the other indicators in this publication to help in planning and programming for changes.

How are we doing?
During the years 2016-2018, the ZIP code with the highest premature death rate was 73111 with 36,597 years of potential life lost per 100,000 population. In 2018, County Health Rankings ranked Oklahoma County as number 26 out of 77 Oklahoma counties in length of life. The overall rate in Oklahoma was 9,300 years of potential life lost per 100,000 population. The ZIP code with the lowest premature mortality rate was 73102 with 4,534 years of potential life lost per 100,000 population. The ZIP code with the highest premature mortality rate was 73111 with 36,597 years of potential life lost per 100,000 population.

Data Source: Oklahoma State Department of Health Vital Statistics Records 2016-2018,

RATE OF POTENTIAL LIFE LOST
Oklahoma City-County, 2016-2018



Rate per 100,000 population. Data Source: Oklahoma State Department of Health Vital Statistics Records 2016-2018

73003	10,761	73054	19,727								
73007	8,064	73084	26,846	73109	18,617	73119	19,821	73132	15,464	73151	9,431
73008	16,201	73099	12,883	73110	19,755	73120	16,265	73134	11,699	73159	16,639
73012	6,925	73102	4,534	73111	36,597	73121	23,935	73135	17,911	73162	8,978
73013	8,069	73103	12,378	73112	20,712	73122	18,276	73139	17,307	73165	13,062
73020	12,851	73104	29,307	73114	21,873	73127	21,700	73141	31,052	73169	17,179
73025	7,024	73105	21,824	73115	20,189	73128	20,115	73142	8,614	73170	10,537
73034	8,112	73106	16,251	73116	13,198	73129	21,469	73145	6,483	73173	13,662
73045	14,815	73107	18,641	73117	32,403	73130	14,933	73149	18,521	73179	6,004
73049	16,396	73108	20,257	73118	13,665	73131	8,653	73150	12,354	74857	17,976

OVERALL LIFE EXPECTANCY

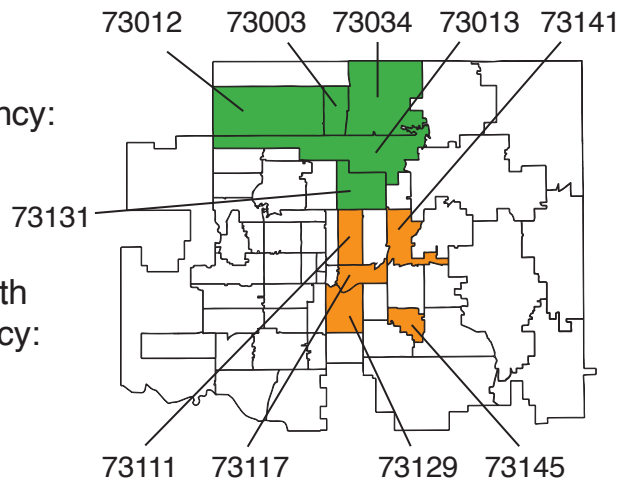
A person's life expectancy is how long a person would be expected to live after they had reached a given age. Most often life expectancy is calculated at birth, as has been done in this report. Life expectancy is calculated for three-year totals (2016-2018) for life expectancy at birth by ZIP code. The overall average life expectancy for the Oklahoma City-County jurisdiction is 75.3 years.

Top five zip codes with the ***highest*** life expectancy:

73131, 73012, 73013, 73034 and 73003

Bottom five zip codes with the ***lowest*** life expectancy:

73145, 73141, 73111, 73117 and 73129



Why is it important?

Life expectancy trends at the local level, in combination with other social determinants of health, helps in making decisions about what kinds of programs and education are most appropriate for specific communities to improve health outcomes and conditions that would lead to longer life expectancy in the future.

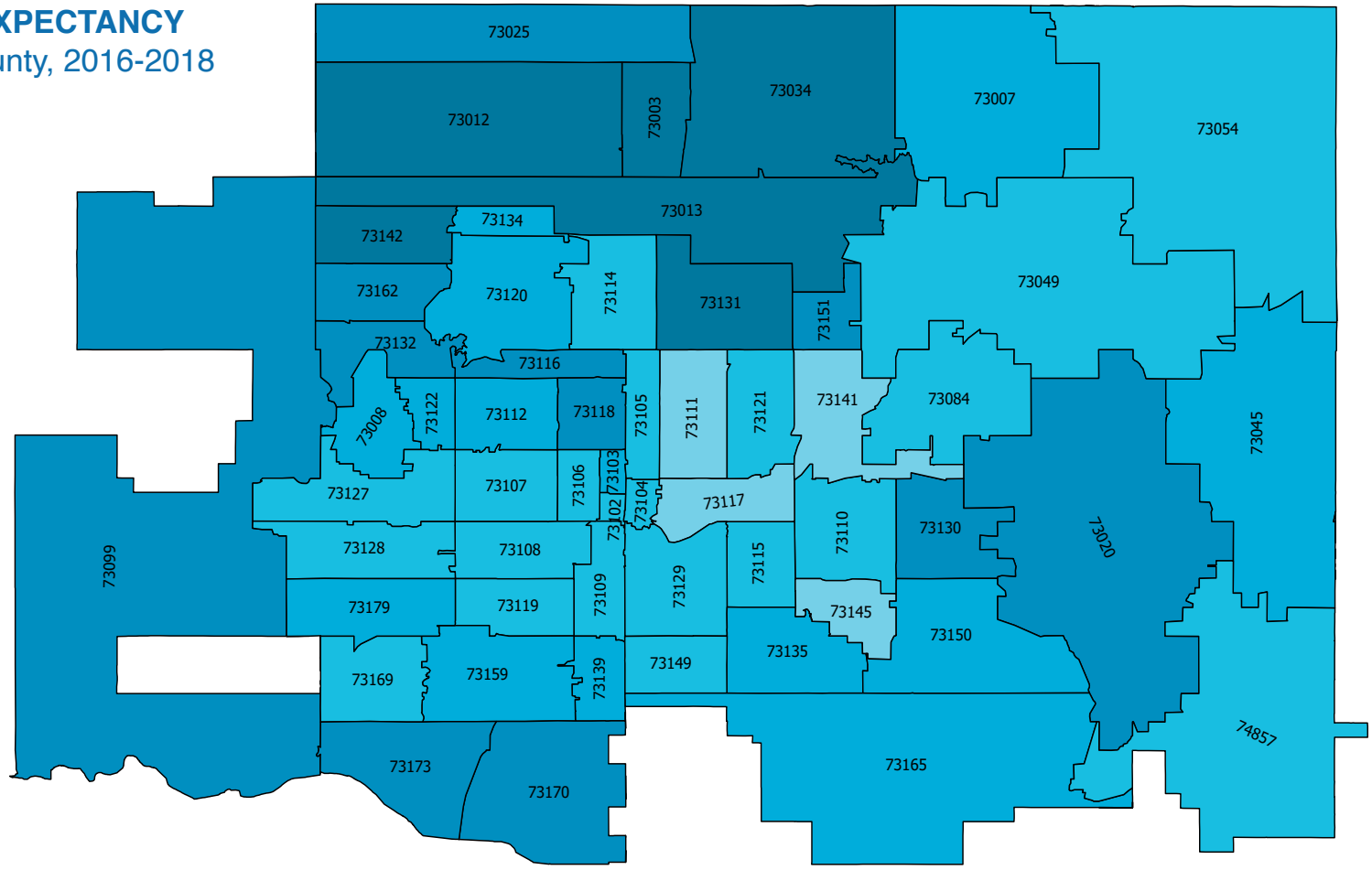
How are we doing?

According to the Centers for Disease Control and Prevention National Center of Health Statistics, the life expectancy for the United States population in 2018 was 78.7 years, an increase of 0.1 year from 2017. The average life expectancy in Oklahoma City-County (75.3 years) is 3.4 years shorter than the U.S. population life expectancy. Life expectancy at the ZIP code level in Oklahoma County ranges from 62.6 years to 83.2 years, with a median of 75.5 years.

The ZIP codes 73131, 73012, 73013, 73034 and 73003 had the best life expectancies in 2016-2018, while ZIP codes 73145, 73141, 73111, 73117 and 73129 had the worst life expectancies.

Data Source: Oklahoma State Department of Health Vital Records 2016-2018 and the Centers for Disease Control and Prevention National Center of Health Statistics.

AVERAGE LIFE EXPECTANCY
Oklahoma City-County, 2016-2018



Data Source: Oklahoma State Department of Health Vital Records 2016-2018

73003	80.53	73054	73.73								
73007	76	73084	72.31	73109	72.75	73119	72.04	73132	78.01	73151	79.67
73008	75.2	73099	77.62	73110	73.66	73120	76.94	73134	76.5	73159	76.59
73012	81.82	73102	71.99	73111	68.13	73121	74.42	73135	76.3	73162	79.73
73013	81.14	73103	76.38	73112	75.33	73122	75.58	73139	76.12	73165	75.3
73020	77.96	73104	72.81	73114	72.48	73127	73.25	73141	66.05	73169	73.3
73025	78.95	73105	74.22	73115	73.78	73128	73.82	73142	80.35	73170	79.04
73034	80.95	73106	74	73116	79.48	73129	70.95	73145	62.62	73173	77.97
73045	76.16	73107	73.43	73117	68.19	73130	77.49	73149	72.77	73179	75.87
73049	74.3	73108	72.11	73118	77.95	73131	83.2	73150	76.27	74857	73.61

HEALTH INDEX PROFILE

The health index was created in collaboration with the Tulsa Health Department, the Oklahoma City-County Health Department and the City of Oklahoma City Planning Office. This index allows for comparisons within and between both city-county jurisdictions. The index focuses on nine factors that impact health burdens: education, income, maternal and child health, mental health, mortality, healthcare access, crime, and infectious disease and built environment. When looking at this information at a ZIP code level, targeted interventions and plans can be implemented to address the various concerns that affect the health or a community.

The Health and Wellness Index Scores of Oklahoma City-County range from 5 to 54.7, with an average score of 24.0. The higher the health index score, the greater the health burden. The map and table presented describe the highest ranking ZIP codes to the lowest ranking ZIP codes on a scale of 1 (highest ranking) to 56 (lowest ranking).

Baseline measurement is updated with every wellness score publication.

Top 5 Zip Codes	Lowest Scoring Zip Codes
73151	73108
73025	73129
73131	73111
73173	73119
73179	73109

County Strengths

Of the nine indicators assessed, those with the most consistency across ZIP codes, identified as strengths are:

1. Healthcare Access
Programs such as My Heart that assists patients with chronic diseases to obtain free medications and doctor visits or the Community Health Worker Hospital program that connects uninsured and frequent emergency department users with resources for primary care, are being implemented throughout Oklahoma City-County.

2. Built Environment
Through initiatives like MAPS, Oklahoma City has seen increased bike and walking trails, and through efforts led by OCCHD, we are realizing the power of integrating many traditional and non-traditional health services to work together in one location.

3. Infectious Disease
Effective monitoring of disease outbreaks and sanitation across the county helps track and mitigate the spread of disease. Ensuring health measures are followed in various industries such as food establishments and childcare facilities helps keep diseases from emerging and spreading in the community.

Multifaceted Approach to Improvement

Of the nine indicators assessed, those with the most variation between ZIP codes, identified as county-wide opportunities for improvement include:

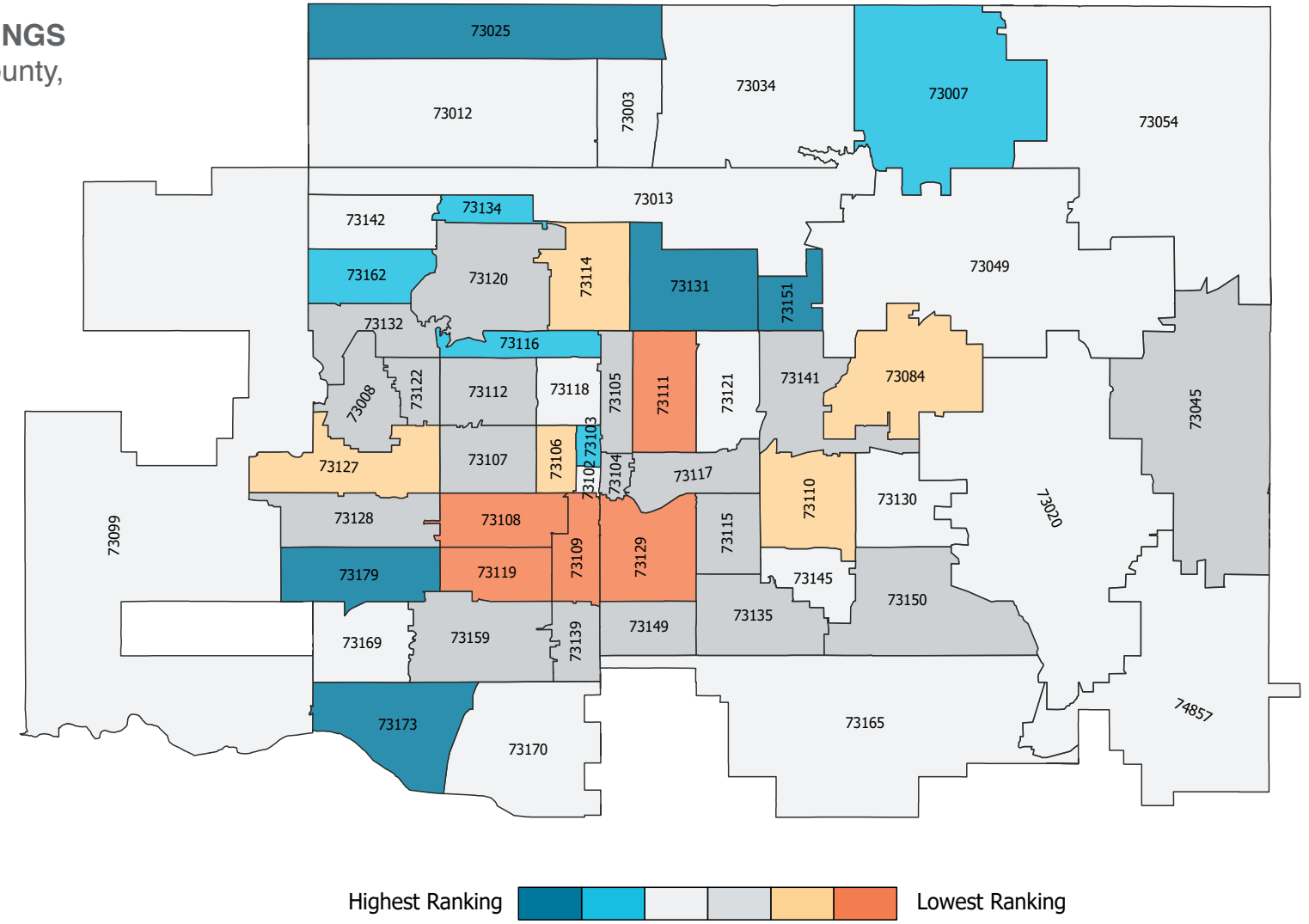
Mental Health
Through multi-faceted approaches across the County, various organizations are working to reduce the stigma of mental illness and improve treatment options and access across the community. The Oklahoma-City County Health Department has supported this effort by implementing Spanish-language Mental Health First Aid classes at the Southern Oaks location, in addition to routinely training Oklahoma County staff in Mental Health First aid.

Crime
The Oklahoma City-County Health Department has supported the criminal justice reform efforts led by the business community and locally elected officials through its participation in the Criminal Justice Reform Advisory Task Force, and currently staffs two Community Health Workers in the Oklahoma County Court Services division, working to reduce recidivism among drug court participants.

Education
The Oklahoma City-County Health Department supports primary, secondary and higher education institutions throughout the County as programs that provide tools that help lift residents out of poverty and positively impact social determinants of health. The OCCHD works closely with the largest school district in the County, the Oklahoma City Public School District (OKCPS) through placement of health and wellness specialists in classrooms who train children on whole school whole community whole child model that positively impact health outcomes and prevent disease.

Additionally, OCCHD is now placed in two now-closed OKCPS school sites offering clinical and outreach services.

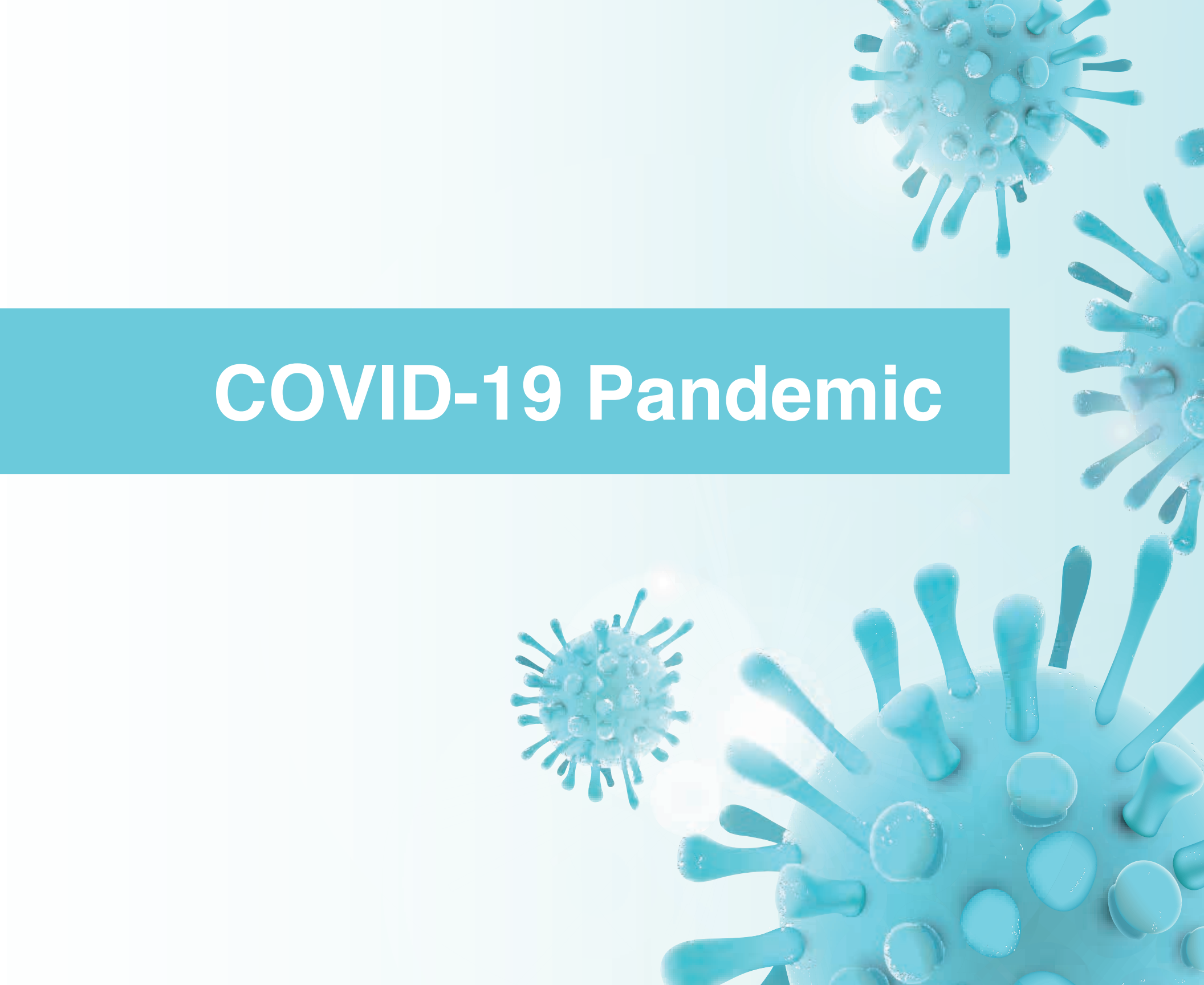
HEALTH INDEX
ZIP CODE RANKINGS
Oklahoma City-County,
2016-2018



Data Source: See page 153.

73003	25	73054	14								
73007	8	73084	51	**73109**	52	**73119**	53	73132	32	**73151**	1
73008	33	73099	21	73110	47	73120	35	73134	7	73159	43
73012	12	73102	27	**73111**	54	73121	20	73135	41	73162	9
73013	15	73103	6	73112	39	73122	30	73139	45	73165	19
73020	22	73104	37	73114	50	73127	48	73141	36	73169	17
73025	2	73105	29	73115	40	73128	38	73142	18	73170	23
73034	16	73106	49	73116	10	**73129**	55	73145	13	**73173**	4
73045	31	73107	46	73117	44	73130	11	73149	42	**73179**	5
73049	24	**73108**	56	73118	26	**73131**	3	73150	34	74857	28

COVID-19 Pandemic

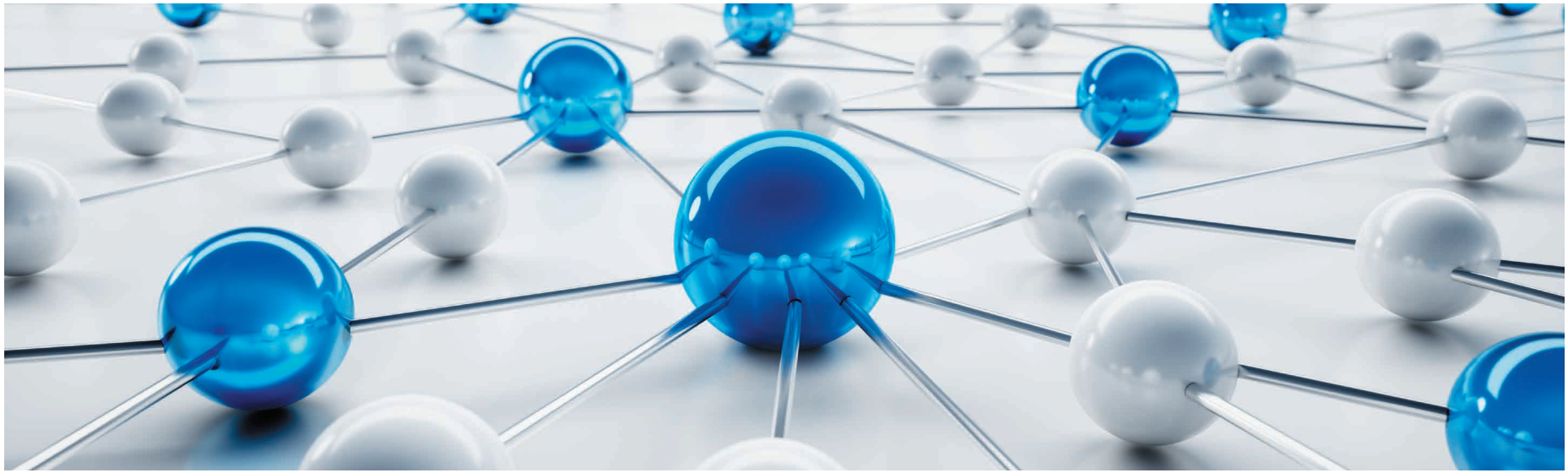


Pandemics and COVID-19

COVID-19 has become a part of our daily lives and is impacting all aspects of health and well-being. While COVID-19 was not on the scene while much of the data for this wellness report was being gathered, the world was first being introduced to this new illness in late 2019.

In 1918, Oklahoma experienced the effects of the deadly Spanish flu. This pandemic killed more than 670,000 people in the U.S., including an estimated 7,350 Oklahomans between October 1918 and April 1919.

The COVID-19 pandemic has been unique in many ways. including the ability to spread quickly, severe symptomology and high rate of hospitalizations. Like other viruses, variants have emerged that affect vaccine efficacy, therapeutic treatments, and immunity from previous infection. The COVID-19 pandemic is also one of the first times in history where scientific advancement has provided the ability to develop vaccines and treatments to combat a severe disease outbreak in such a short period of time



HISTORY OF SARS nCoV-2 virus and COVID-19

In December 2019, several cases of viral pneumonia from an unknown form of virus were reported by medical officials in Wuhan, China. The World Health Organization (WHO) began working with Chinese officials to investigate the situation. By January 9, 2020, WHO reported that the outbreak in China was being caused by a novel coronavirus—what would come to be known as SARS-nCo-V-2 (See Glossary for definition). By January 30, 2020, the WHO declared the outbreak a Public Health Emergency of International Concern (PHEIC). Two short months later, on March 11, the WHO declared COVID-19 (corona virus infectious disease 2019) a pandemic—a disease that had spread across multiple countries.

Symptoms of COVID-19

Once a person has become infected with the SARS nCoV-2 virus that causes COVID-19 disease, they may begin to show symptoms of the disease between 2-14 days after infection. Not all people will have symptoms of the disease even though they are infected, but those individuals are still able to pass COVID-19 on to other people.

The most common symptoms of COVID-19 are:

- fever or chills
- cough
- shortness of breath or difficulty breathing
- fatigue
- muscle or body aches
- headache
- new loss of taste or smell
- sore throat, congestion or runny nose
- nausea or vomiting and diarrhea

This list does not include all symptoms, so if you are concerned, you should always check with your health care provider.

You can protect yourself from COVID-19 by following these prevention measures:

- Wash your hands frequently or use an alcohol-based hand sanitizer
- Wear a mask
- Watch your distance so that you maintain at least six feet distance from the person next to you to avoid close contact.
- Get the COVID-19 vaccine.

Why does this information matter?

Covid-19 affects not only physical health, but all aspects of life. One of the significant effects of COVID-19 is the mental health impacts that have occurred as a result. COVID-19 has caused a great deal of disruption leading to anxiety, stress, stigma, and xenophobia (a fear of people from other countries and places). Because of the various lockdowns and quarantines, many people are experiencing feelings of isolation, loneliness, and depression.

COVID-19 has also affected the world from an economic standpoint. Short-term economic effects include loss of income due to job loss related to shut-downs and industries not having normal business traffic. The travel industry and restaurants, for example, have been hard-hit as a result of the pandemic, leaving workers in these industries furloughed or earning a small fraction of their normal incomes. In the long run, human capital and whole industries may suffer from the deterioration of the very infrastructure that sustains them, further complicating the economic landscape.

A Story of COVID-19 Response

in Oklahoma City-County

March 6, 2020

Friday afternoon. The first COVID-19 case is confirmed in Tulsa. OCCHD, as well as Tulsa and the State of Oklahoma, enters Incident Command Structure (ICS)[1]

March 19, 2020

First COVID-19 death in Oklahoma City

Dec. 3, 2020

1,024 new cases in one-day—the largest 1-day total to date

Dec. 14, 2020

First Vaccines given as part of Phase 1 (Long-term care residents, Health care workers, Front-line public health care workers, Licensed EMTs and Paramedics)

Jan. 7, 2021

OCCHD launches VaxOKC.com, its own portal to help ease registration for vaccinations and also included Spanish translation

A standardized hierarchical structure that allows cooperation and a coordinated response among multiple agencies, both within and outside of government, to address emergency situations and coordinate response activities without compromising the decision-making authority of local command (https://www.nationalservice.gov/sites/default/files/olc/moodle/ds_online_orientation/viewf265.html?id=3139&chapterid=908#:~:text=The%20Incident%20Command%20System%20(ICS,making%20authority%20of%20local%20command)

Feb. 26, 2021

10,855 people vaccinated in Oklahoma county—the most in one day.

March 29, 2021

Phase 4 (All Oklahoma Residents age 16 and older) began.

April 4, 2021

33 new cases—the fewest new cases since June 10, 2020.

June 30, 2021

38% of OK-County residents are fully vaccinated

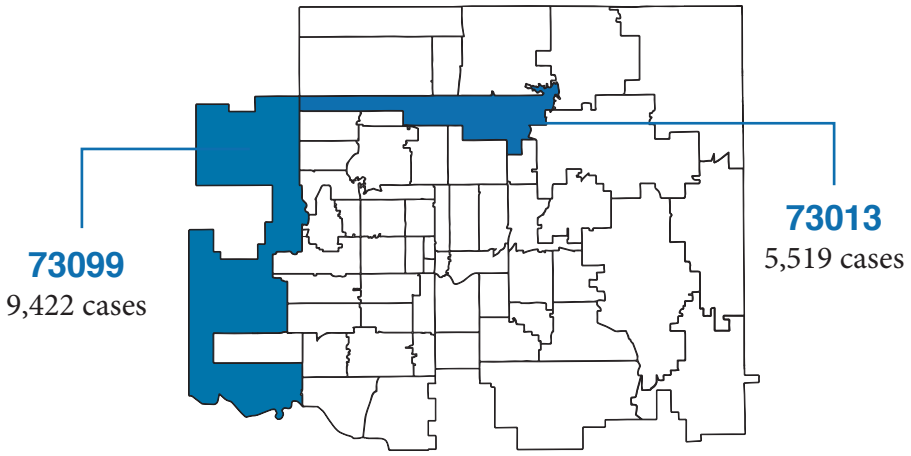
COVID-19 in Oklahoma and Oklahoma City-Oklahoma County

Between March 12, 2020, and May 31, 2021, there were 85,904 cases of COVID-19, 1,304 deaths and 2,994 hospitalizations. The incidence of COVID-19 cases, deaths and hospitalizations varied throughout Oklahoma County by ZIP code based on a variety of different factors and social determinants.

Among the various ZIP codes in Oklahoma-City County, the highest number of cases were in 73099, and 73013 with 9,422 and 5,519 cases, respectively. The ZIP codes with the most hospitalizations were 73099 and 73110 with 219 and 210 hospitalizations, respectively. The ZIP code with the most deaths were 73170 and 73099 with 94 and 83 deaths, respectively.

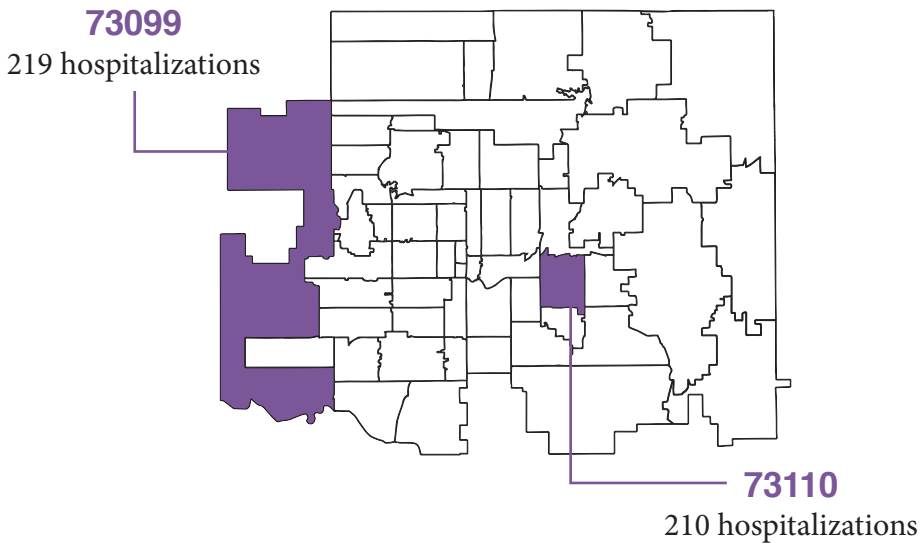
Highest Number of COVID-19 Cases

March 12, 2020 to May 31, 2021



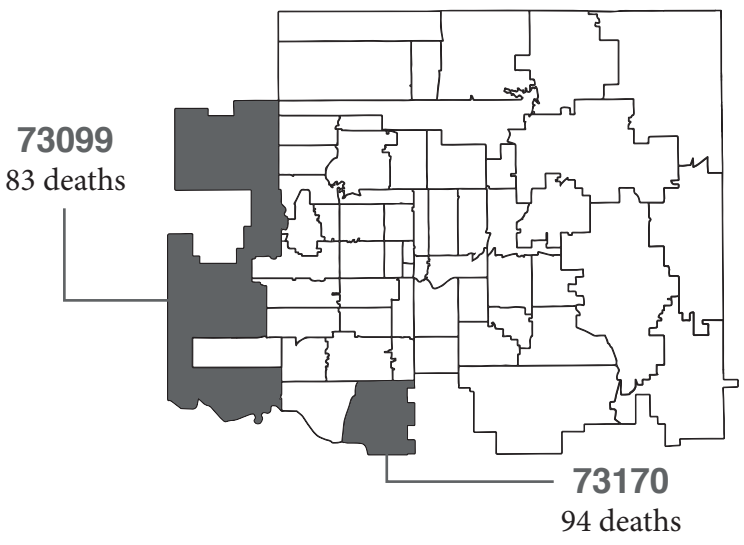
Highest Number of COVID-19 Hospitalizations

March 12, 2020 to May 31, 2021



Highest Number of COVID-19 Deaths

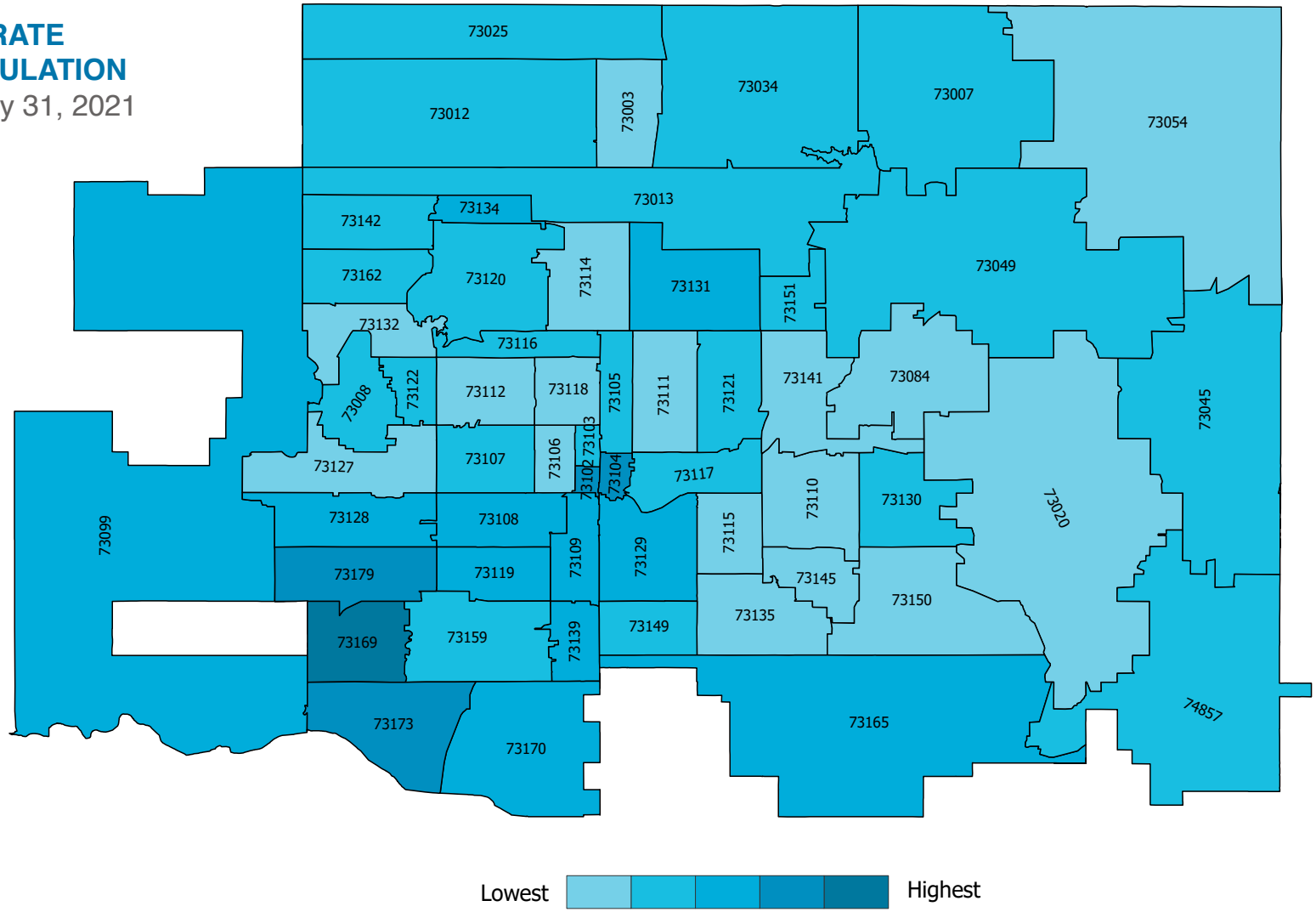
March 12, 2020 to May 31, 2021



Oklahoma County: March 12, 2020 - May 31, 2021		
Total Cases	**Total Deaths**	**Total Hospitalizations**
85,904 (Rate per 100,000: **10,773**)	**1,304** (Rate per 100,000: **164**)	**2,994** (Rate per 100,000: **375**)

COVID-19 CASE RATE PER 100,000 POPULATION

Mar 12, 2020 – May 31, 2021



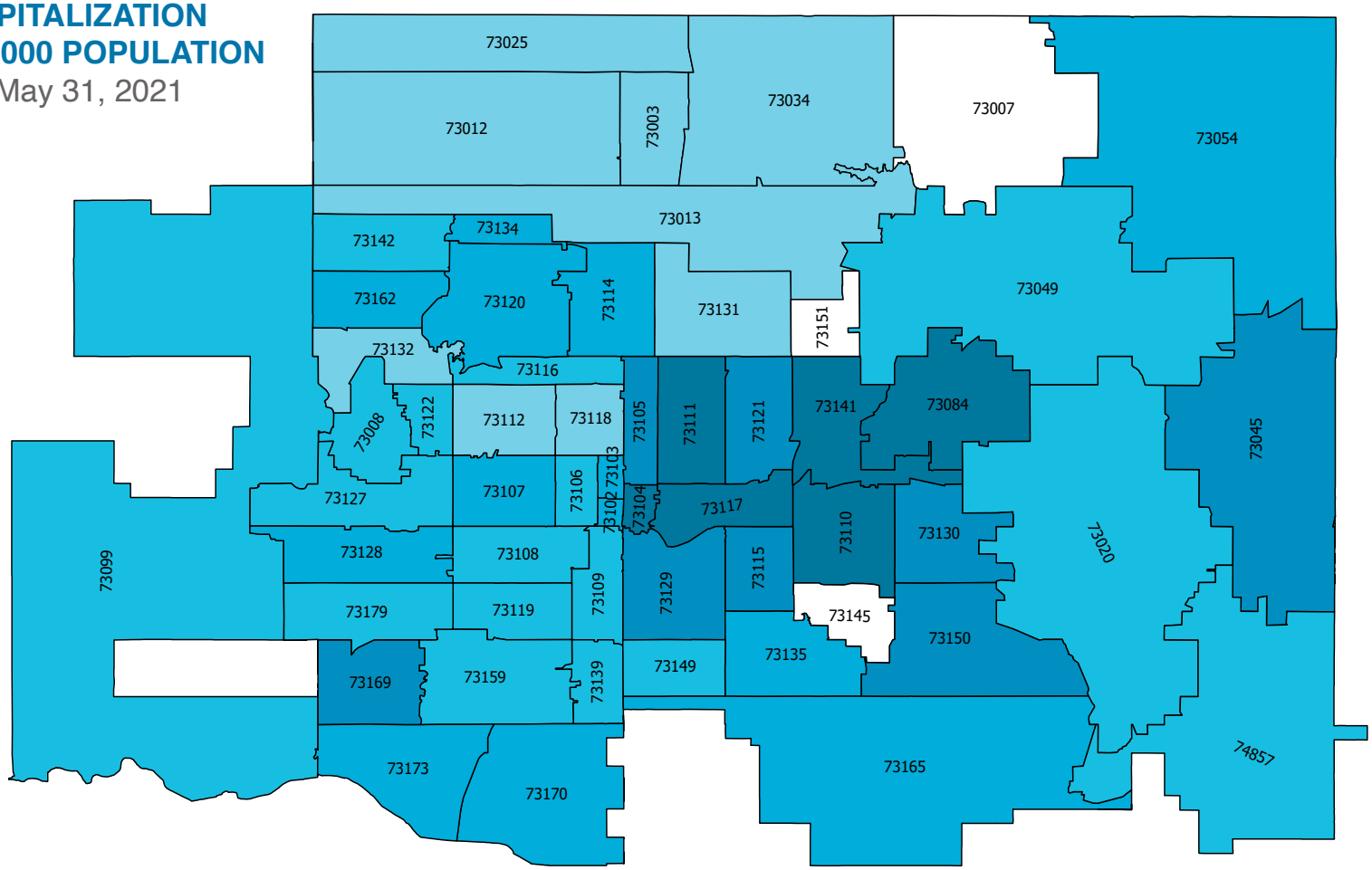
Lowest — Highest

73003	8,979	73054	9,214								
73007	11,164	73084	9,375	73109	11,865	73119	12,309	73132	9,216	73151	10,541
73008	9,980	73099	13,380	73110	9,277	73120	10,031	73134	13,682	73159	11,523
73012	10,082	73102	15,811	73111	9,244	73121	10,012	73135	9,402	73162	9,844
73013	10,186	73103	10,834	73112	8,634	73122	10,088	73139	11,899	73165	13,425
73020	9,530	73104	15,665	73114	9,577	73127	9,415	73141	9,192	73169	33,853
73025	11,495	73105	9,936	73115	8,855	73128	14,093	73142	10,878	73170	13,477
73034	10,105	73106	9,152	73116	10,849	73129	11,975	73145	7,893	73173	17,801
73045	10,718	73107	10,707	73117	9,776	73130	10,215	73149	10,511	73179	16,705
73049	10,077	73108	12,734	73118	9,103	73131	13,499	73150	9,128	74857	9,945

Data Source: Public Health Investigation and Disease Detection of Oklahoma (PHIDDO) Oklahoma City-County 2020-2021 Disease Surveillance Data.

COVID-19 HOSPITALIZATION RATE PER 100,000 POPULATION

Mar 12, 2020 – May 31, 2021



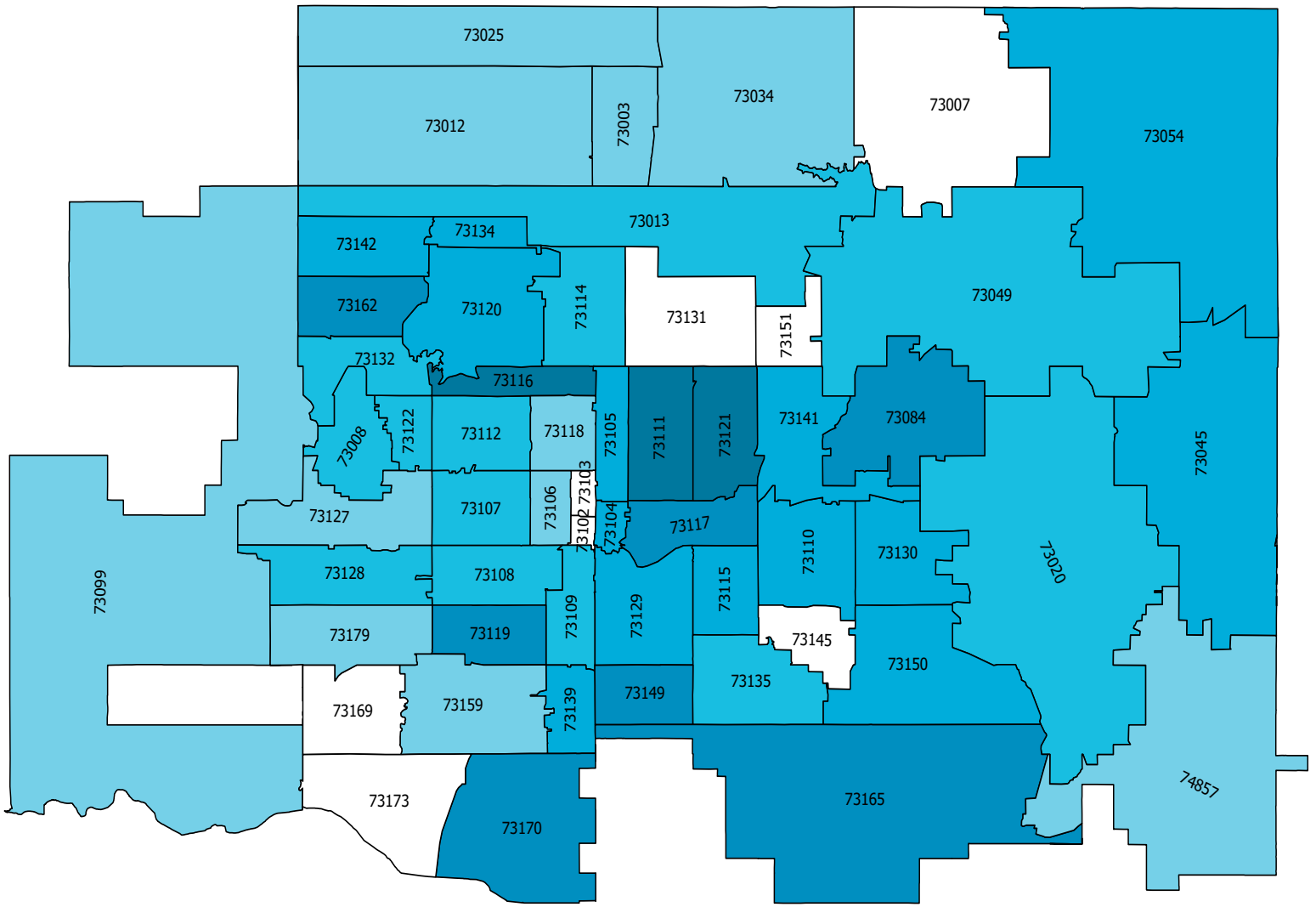
* No data to report

** Data too low to count/compare

Lowest — Highest — N/A

73003	255	73054	413								
73007	**	73084	739	73109	361	73119	360	73132	267	73151	*
73008	313	73099	311	73110	628	73120	414	73134	400	73159	297
73012	251	73102	454	73111	765	73121	532	73135	449	73162	402
73013	260	73103	457	73112	217	73122	319	73139	346	73165	423
73020	356	73104	654	73114	434	73127	313	73141	651	73169	480
73025	252	73105	514	73115	472	73128	407	73142	376	73170	433
73034	177	73106	338	73116	336	73129	483	73145	**	73173	425
73045	474	73107	393	73117	662	73130	568	73149	302	73179	367
73049	350	73108	343	73118	203	73131	196	73150	551	74857	364

Data Source: Public Health Investigation and Disease Detection of Oklahoma (PHIDDO) Oklahoma City-County 2020-2021 Disease Surveillance Data.



Lowest — Highest — N/A

*No data available

**Data too low to count/compare

COVID-19 DEATH RATE PER 100,000 POPULATION

Mar 12, 2020 – May 31, 2021

Data Source: Public Health Investigation and Disease Detection of Oklahoma (PHIDDO) Oklahoma City-County 2020-2021 Disease Surveillance Data.

73003	95
73007	*
73008	149
73012	89
73013	133
73020	147
73025	104
73034	102
73045	178
73049	133
73054	206
73084	222
73099	118
73102	**
73103	**
73104	204
73105	202
73106	75
73107	160
73108	151
73109	145
73110	185
73111	313
73112	149
73114	161
73115	200
73116	368
73117	221
73118	87
73119	249
73120	175
73121	295
73122	159
73127	98
73128	129
73129	190
73130	186
73131	**
73132	137
73134	171
73135	157
73139	201
73141	191
73142	182
73145	**
73149	226
73150	177
73151	**
73159	121
73162	230
73165	235
73169	**
73170	246
73173	**
73179	87
74857	107

COVID-19 and Race

COVID-19 has impacted racial minorities more harshly than the White population. In Oklahoma County, Hispanics and Native Americans have experienced higher rates of COVID-19 than other racial/ethnic groups at 8,549 and 8,276 per 100,000, respectively. Asian/Pacific Islander and Multiracial populations have the lowest reported case rates at 6,623 and 3,518 cases per 100,000, respectively. These two groups also have the lowest rates of COVID-19 hospitalizations and deaths of all racial/ethnic groups. The Black population has the highest rate of hospitalizations at 511 per 100,000, much higher than Whites at 366 per 100,000. Whites have the highest death rate in Oklahoma County at 180 per 100,000.

March 12, 2020 - May 31, 2021 Oklahoma County	Case Rate/ 100K	Hospitalizations/ 100K	Death Rate/ 100K
White	7,375	366	180
Black	7,974	511	152
American Indian	8,276	300	118
Asian/Pacific Islander	6,623	212	49
Multracial	3,518	158	49
Hispanic	8,549	334	91

COVID-19 and Vaccines

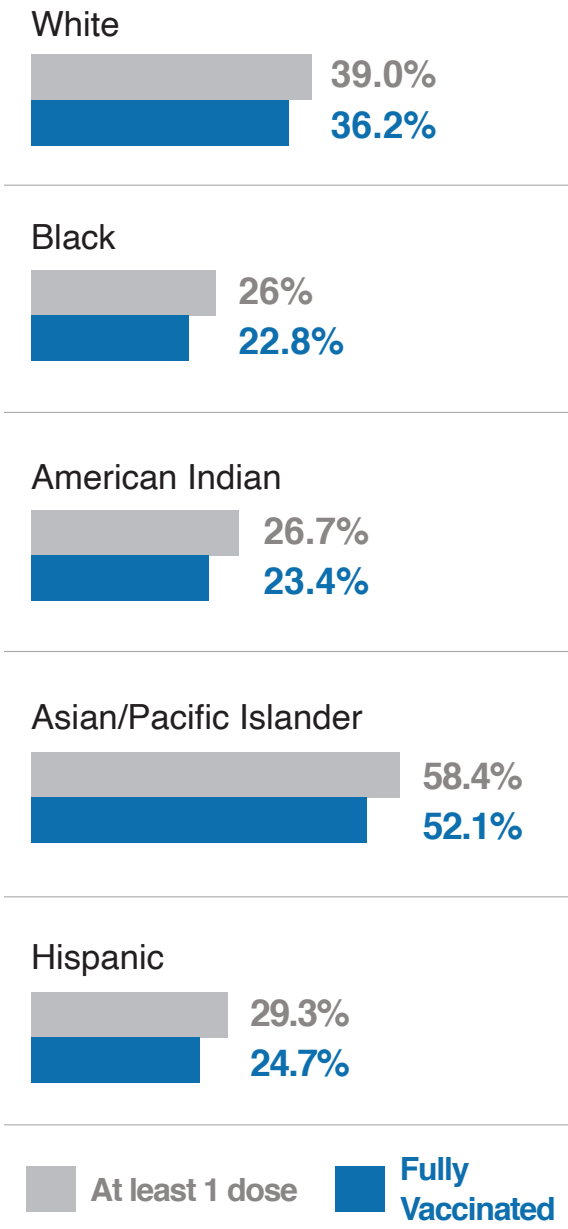
COVID-19 vaccination rates vary widely across racial/ethnic groups in Oklahoma County. Among those who have been vaccinated, Asian/Pacific Islanders are most likely to be vaccinated with 58.4% having received at least one dose of the vaccine and 52.1% being fully vaccinated.

Black/African American, American Indian, and Hispanic populations are all less likely to be vaccinated and have rates for both one dose and full vaccination in the twenties.

With regard to age, the older the individual, the more likely one is to be vaccinated. Of those age 65 or older, 71.7% are fully vaccinated and 80.3% have at least one dose, while among those 18-35 years of age, 33.7% are fully vaccinated and 39.4% have at least one dose.

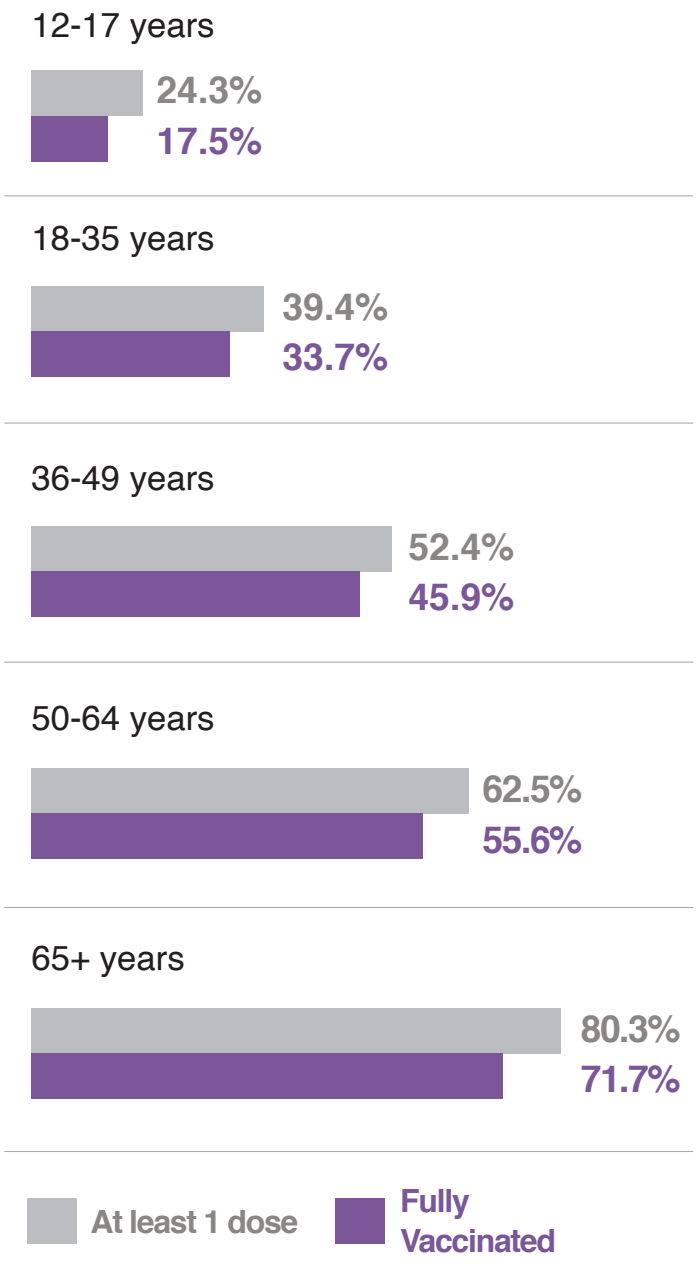
Percent of Total Population Vaccinated in Each Racial/ Ethnic Group

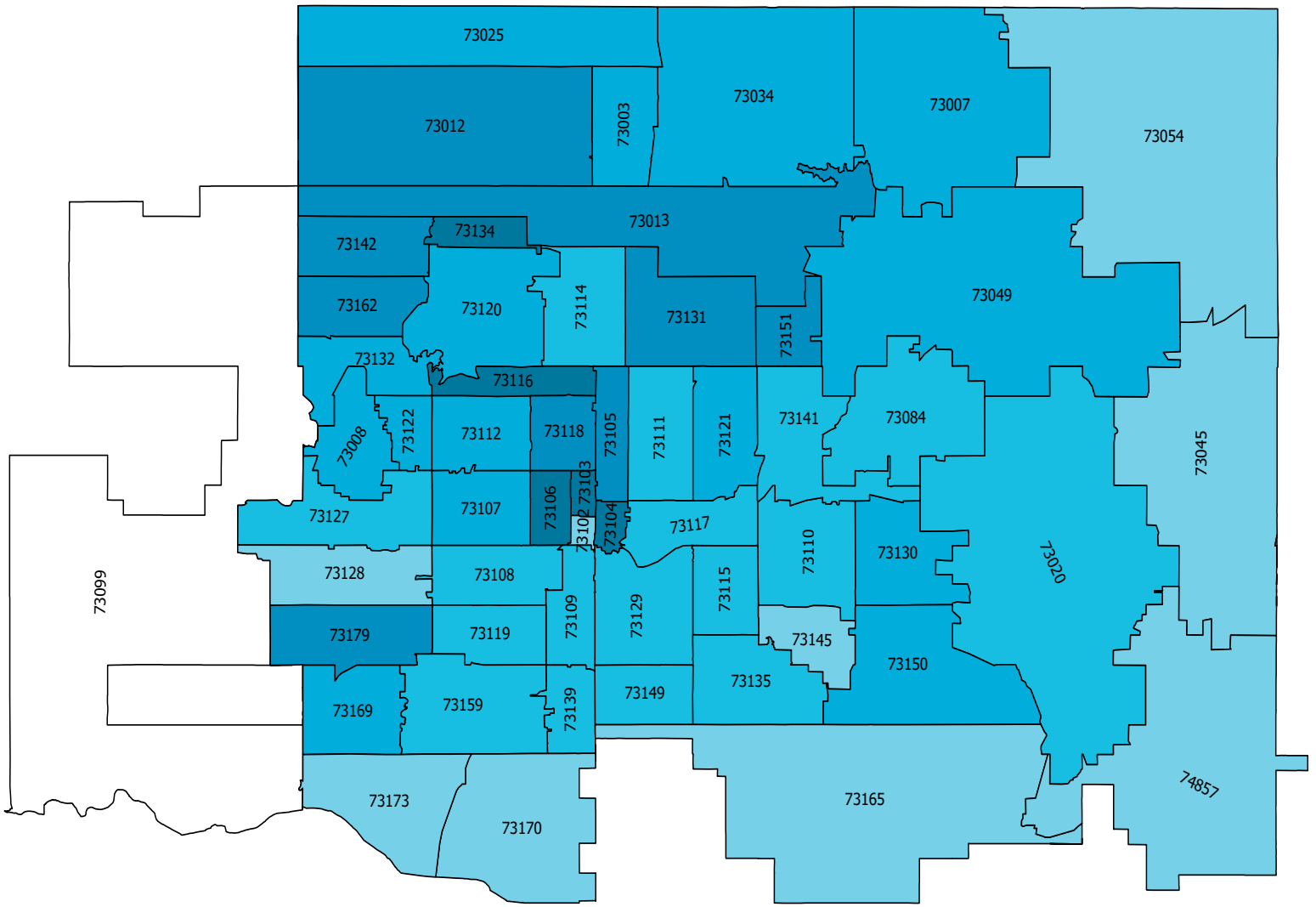
December 14, 2020 - June 30, 2021
Oklahoma County



Percent of Population Vaccinated in Each Age Group

December 14, 2020 - June 30, 2021
Oklahoma County





*No data available

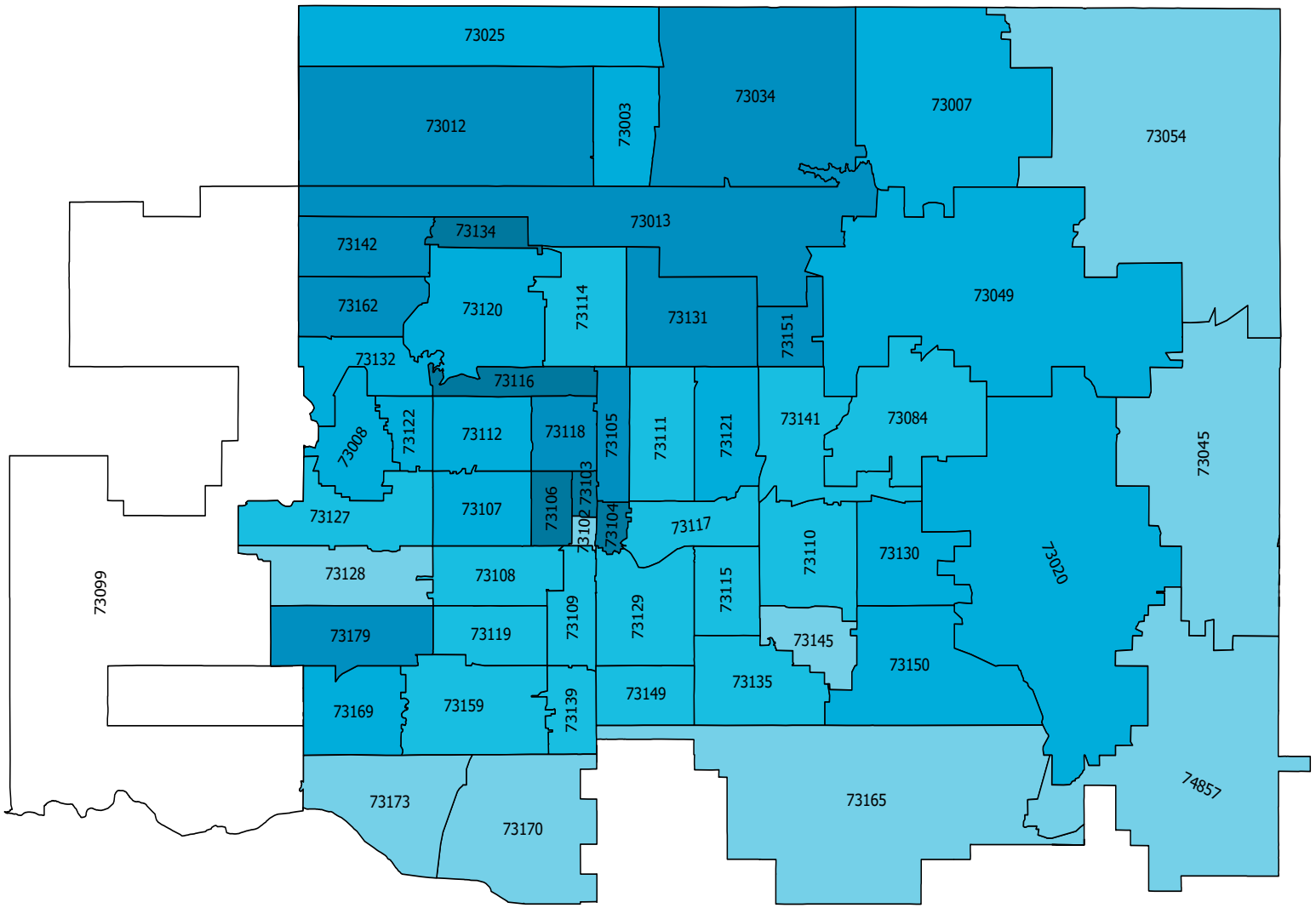
COVID-19 Vaccine - At Least One Dose

December 14, 2020 - June 30, 2021

Oklahoma City-County

Data Source: COVID-19 Vaccination Reporting Specification (CVRS) Dataset - Oklahoma State Immunization Information System (OSIIS), 2020-2021.

73003	43.5%
73007	45.0%
73008	39.4%
73012	48.2%
73013	51.1%
73020	38.1%
73025	43.9%
73034	46.7%
73045	23.2%
73049	41.7%
73054	21.5%
73084	34.9%
73099	*
73102	24.1%
73103	58.0%
73104	67.5%
73105	52.9%
73106	61.4%
73107	43.9%
73108	33.2%
73109	31.6%
73110	32.7%
73111	35.5%
73112	44.9%
73114	34.7%
73115	34.5%
73116	59.4%
73117	37.1%
73118	51.6%
73119	31.2%
73120	45.2%
73121	46.1%
73122	39.3%
73127	33.3%
73128	11.2%
73129	29.6%
73130	41.5%
73131	47.9%
73132	41.7%
73134	56.8%
73135	32.0%
73139	33.4%
73141	34.4%
73142	52.7%
73145	17.6%
73149	31.6%
73150	41.5%
73151	54.0%
73159	30.2%
73162	53.2%
73165	5.8%
73169	42.1%
73170	7.3%
73173	11.7%
73179	52.4%
74857	4.1%



*No data available

COVID-19 Vaccine - Fully Vaccinated

December 14, 2020 - June 30, 2021

Oklahoma City-County

Data Source: COVID-19 Vaccination Reporting Specification (CVRS) Dataset - Oklahoma State Immunization Information System (OSIIS), 2020-2021.

73003	38.9%
73007	40.8%
73008	34.2%
73012	43.5%
73013	45.8%
73020	34.3%
73025	38.9%
73034	41.9%
73045	18.9%
73049	38.1%
73054	17.5%
73084	29.7%
73099	*
73102	21.1%
73103	51.7%
73104	59.1%
73105	45.5%
73106	52.3%
73107	37.2%
73108	26.7%
73109	26.8%
73110	28.5%
73111	29.9%
73112	39.3%
73114	30.1%
73115	29.8%
73116	53.1%
73117	31.1%
73118	45.8%
73119	25.5%
73120	39.0%
73121	40.8%
73122	33.7%
73127	27.9%
73128	9.0%
73129	24.7%
73130	37.2%
73131	43.7%
73132	36.8%
73134	50.1%
73135	27.9%
73139	28.5%
73141	29.5%
73142	47.6%
73145	13.6%
73149	26.9%
73150	37.5%
73151	48.5%
73159	23.8%
73162	47.6%
73165	5.1%
73169	36.8%
73170	6.2%
73173	9.2%
73179	46.6%
74857	3.6%

Communication

The COVID-19 pandemic highlighted inequities in communities around the world, and in Oklahoma County. From COVID testing and tracing to the vaccination campaign, OCCHD made a concerted effort to communicate timely and accurate information to underserved and marginalized communities, as well as the general public throughout Oklahoma County.
Oklahoma County, encompassing the Oklahoma City metropolitan area, is the largest population center in the state. This population density adds complexities to communicating efficient public health messaging, and increases the need for strong, grassroots partnerships and organic, segmented marketing toward specific demographic groups.

Through traditional and non-traditional media, the OCCHD and its partners provided clear, focused messaging to encourage testing, tracing, mitigation and vaccination among the population in Oklahoma County.

The OCCHD launched multiple digital platforms to aid in the response efforts, including an online assessment tool that provided daily monitoring of symptomatic individuals; case management to follow up, monitor, and manage individuals for continued risk; and aggregated data to inform key decisions such as testing site locations and mitigation measures such as mask ordinances and social distancing guidelines for specific communities.
Once vaccine became available, the OCCHD launched an Oklahoma-County specific vaccine portal, VaxOKC.com, where all appointments available through OCCHD and its partner organizations could be accessed.
The agency used sewage surveillance, cluster mapping and vaccination by zip codes to determine vaccine POD locations.
Additionally, the agency used innovative tools such as social media influencer marketing to message to the hard-to-reach 18-35 year-old demographic concerning the importance of vaccine uptake.

Outreach

OCCHD worked closely with more than 75 partner organizations across the region toward ensuring equitable access to the vaccine.

Examples include the

1. Public and Private School Districts
2. Colleges/Career Techs/Universities
3. Faith Communities
4. Neighborhood/District Associations
5. Community/Ethnic Associations
6. Chambers of Commerce/Employers
7. Entertainment Districts/Museums

Additionally, OCCHD partnered with high volume/high profile events throughout the COVID-19 pandemic, persuading large public events/activities toward enacting mitigation measures to decrease possible outbreaks.

OCCHD and its partners held vaccine PODs for the African-American, Asian, Disabled and Latinx communities, among others. The agency provided the Disability Law Center and the Developmental Disabilities Council of Oklahoma direct access to a sign-up link so their clients could make appointments at a vaccine clinic held at Oklahoma City Community College. The sign-up link listed questions about accommodations clients would need when they arrived for their appointments. Optional accommodations included a quiet space or a wheelchair.

At the clinic, OCCHD helped accommodate residents with mobility challenges by offering a drive-up vaccination station. The Oklahoma National Guard and volunteers from the Oklahoma Medical Reserve Corp were a crucial part of the drive-up option.

OCCHD successfully used digital media, word of mouth strategies and faith-based partnerships to plan PODs targeting the African American and Latinx populations. Additionally, the agency partnered with the Guatemalan, Peruvian and Mexican consulates; the Asian District Cultural Association; and the Diversity Center of Oklahoma City to reach underserved communities.

What We Have Learned So Far

OCCHD had a plan for a health crisis, and when COVID-19 occurred, the agency put its plan into place. Many of the plans functioned as scripted. The OCCHD learned it has great flexibility as an agency. The organization was able to restructure itself to use existing employees to address the concerns most critical at the height of the pandemic, such as testing and vaccination. Many in-person programs were shifted to virtual services or adjusted to less frequent services to allow employees to put full efforts into addressing the COVID-19 crisis.

While many of our plans went as prescribed, there were other lessons that were learned from this pandemic that can be used in future health emergencies and agency operations. One lesson learned is the importance of community input surrounding communication channels. OCCHD often communicated information about various events taking place and received feedback that there were still many in a given community who were unaware of the event. We learned that we did not always use the most efficacious communication channel for a given community, despite our best intentions and efforts. Working in a more focused manner with communities about how to share information may have helped to spread the information in a more effective way.

COVID-19 is an ever-changing health issue. We have learned that we cannot let our guard down. The virus changes quickly and new variants arise. As this report is going to press, we are facing the Delta variant and many new cases of COVID-19 and new challenges. We know that COVID-fatigue is real — for our community members and for our front line workers. Yet we know that we must stay vigilant in order to keep the community safe and meet the needs of Oklahoma City/County. That is what we are here to do. That is our commitment to you.

OCCHD's mobile Public Health Response Command Center has been stationed at various COVID-19 response events throughout the course of the pandemic.

OCCHD team meets in the on-site Command Center to discuss the COVID-19 health crisis and enable the Incident Command Structure (ICS) for the agency.

OCCHD has hosted drive-thru events for community members to receive free disposable masks and hand sanitizer.

OCCHD has hosted drive-thru COVID-19 testing at various locations throughout the community.

OCCHD utilizes their mobile vaccine vans to hold vaccination clinics in various areas throughout the community.

OCCHD Executive Director, Patrick McGough vaccinated OKC Mayor, David Holt.

OCCHD hosts vaccination clinics throughout the community.

OCCHD has tailored COVID-19 messaging throughout the pandemic for various media platforms, including television, radio, social media, bus benches and billboards. Messaging has covered informative topics such as how to protect yourself from COVID-19, where to get a COVID-19 test, how to schedule a COVID-19 vaccine appointment and other campaigns to inform the public.

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GLOSSARY

American Community Survey (ACS)
ACS is a nationwide survey that collects population and housing data every year.

Average (Mean)
The sum of all values divided by the number of values recorded. The mean is therefore a measure of the "average" value.

Accidents (Unintentional Injuries)
ICD-10 codes V01 – X59, Y85 – Y86

Age-Adjusted Mortality
A summary of age-specific death rates standardized to one age distribution (such as the 2000 United States standard population). The age-adjusted mortality rate therefore is considered to be a fictitious rather than actual mortality rate. However, since the summary method has the effect of removing the influence of age from the overall mortality picture, it allows more meaningful comparisons to be made between populations with different age distributions.

All-Cause Mortality
Number of deaths over a specific time period, can also be expressed as a mortality rate per 100,000 population.

ArcGIS
ESRI mapping software used by OKC-County Dept. to present data in a location-based analysis.

Behavioral Risk Factor Surveillance System (BRFSS)
BRFSS, which is supported by the CDC, is the world's largest, on-going telephone health survey system. It tracks health conditions and behaviors in adults (18+ years of age) in all 50 states as well as many local areas. Information is gathered on issues such as health care access, alcohol use, cholesterol awareness, nutrition and obesity. This information is used by health care professionals to track health risks, identify new problems, prevent disease and improve treatment.

Birth Rate
The total number of births per unit of population reported during a given time interval, often expressed as the number of births per 1,000 persons.

Cancer (Malignant Neoplasms)
ICD-10 codes C00 – C97

CDC
Centers for Disease Control and Prevention

Chronic Liver Disease/Cirrhosis
ICD-10 codes K70, K73 – K74

Chronic Lower Respiratory Diseases (CLRD)
ICD-10 codes J40 – J47

County Health Rankings
The County Health Rankings & Roadmaps program is a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. It is conducted annually and measures vital health factors to provide a snapshot about how health is influenced by where we live, learn, work and play.

Crude Birth Rate
The ratio of total live births to total population, usually expressed as the number of live births per 1,000 populations per year.

Crude Mortality Rate
The total number of deaths per unit of population reported during a given time interval, often expressed as the number of deaths per 100,000 persons.

Descriptive Statistics
Descriptive statistics are used to summarize and describe data. They show patterns and general trends, without any effort to test hypotheses.

Diabetes (mellitus)
A disorder that impairs the body's ability to produce enough insulin to regulate glucose resulting in elevated blood and urine sugar.

Electronic surveillance system for early notification of community-based epidemics (ESSENCE)
ESSENCE is a system through which several Oklahoma City-County area hospitals send daily electronic transfers of emergency room chief complaints to the OCCHD.
The purpose is to monitor population-level early signs of impending disease, such as fever, rash, and diarrhea, and alert physicians to potential outbreaks and bioterrorism events before large numbers of patients become sick. ESSENCE data includes ZIP codes and was used to estimate Emergency Department use in various areas of the county.

Firearm Related Mortality
Also known as gun related. ICD-10 codes W32 – W34, X72 – X74, X93 – X95, Y22 – Y24, Y35

Heart Attack
ICD-10 codes I214, I219, I22

Heart Disease
ICD-10 codes I00 – I09, I11, I13, I20 – I51

Hispanic Origin
Based on self-identification by respondents. People of Hispanic origin are those who indicated that their origin was Mexican, Puerto Rican, Cuban Central or South American, or some other Hispanic origin. People of Hispanic origin may be of any race.

Hypertension
ICD-10 codes I10, I11.0, I11.9, I12.0, I12.9, I13.0, I13.1, I13.11, I13.2

Homicide (Assault)
ICD-10 codes X85 – Y09, Y87.1

ICD Codes
The International Classification of Diseases and Related Health Problems (ICD) was designed to promote international comparability in the collection, processing, classification and presentation of disease and death statistics. It is a collaborative effort of the World Health Organization and ten international centers. ICD codes translate verbal descriptions of diseases and procedures into numbers. There have been 10 versions of ICD, with the tenth version currently used to track death statistics (e.g., it is used to code cause of death on death certificates). The ninth version is still used for disease statistics (e.g., hospital discharge diagnoses).

IDU
Intravenous drug use

Incidence Rate
A measure of the number of new cases of disease occurring in a specific population over a specific period of time, usually a year.

Indicator
A measure of health status or a health outcome.

Infant Death
Infants who died

Infant Mortality Rate
The total number of infant deaths in the first year of life reported per unit of population during a given time interval, often expressed as the number of infant deaths per 1,000 live births.

Infectious Disease
A disease caused by the entrance into the body of organisms (such as bacteria or viruses) that then grow and multiply there; often used synonymously with communicable disease.

Influenza/Pneumonia
ICD-10 codes J10 – J18

Life Expectancy
The number of additional years of life expected at a specified point in time.

Local Public Health System
Traditional and non-traditional providers of services that impact our health outcomes and meet the health needs of our community.

Low Birth Weight (LBW)
Weight at birth of less than 2,500 grams (about 5.5 pounds).

Lung Cancer (Trachea, Bronchus, and Lung)
ICD-10 codes C33 – C34

Median
The point at which exactly half of the data are above and half are below.

Mortality
The event or rate of death.

NCHS (National Center for Health Statistics)
The NCHS of the CDC is the United States' principal health statistics agency. Data are gathered from multiple sources, such as vital and medical records, surveys, and testing; compiled; and disseminated to guide policies for the improvement of the nation's health.

Non-Hispanic
All people whose ethnicity is not Hispanic. Race and ethnicity are separate concepts, so the racial categories of White, Black, American Indian/Alaska Native and Asian/Pacific Islander all contain some people of Hispanic origin.

OCCHD
Oklahoma City-County Health Department

OSDH
Oklahoma State Department of Health

Per Capita Income
The total income for a geographic region divided by the number of people living in that region.

Race
Based on self-identification by respondents.

Rate
The frequency with which an event occurs in a defined population for a specified amount of time. Rates are usually calculated per 100, 1,000, or 100,000 populations. The larger the population, the more reliable and meaningful the data.

Sexually Transmitted Disease (STD)
Infections passed from one person to another through sexual contact. Includes bacteria, parasites, yeast and viruses.

SoonerCare
Oklahoma Medicaid. A health coverage program funded jointly by the federal and state government.

Stroke (Cerebrovascular Disease)
ICD-10 codes I60 – I69

Suicide (Intentional Self-Harm)
ICD-10 codes X60 – X84, Y87.0

Urban Hardship Index
Adopted from Nathan and Adams, the Rockefeller Institute's Intercity Hardship Index looks at economic conditions relative to one another and to themselves and one another over time. A higher hardship index score signifies worse economic conditions.

Years of Potential Life Lost (YPLL)
A statistical measure used to determine premature death. YPLL is calculated by subtracting an individual's age at death from a predetermined life expectancy, usually 75 years of age.

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