2020 Demographic and Social Determinants of Health Report

AN ADDENDUM AND UPDATE TO THE 2017 CITY OF CINCINNATI HEALTH STATUS ASSESSMENT

OCTOBER 2020

This report is produced by the City of Cincinnati Health Department. For more information and updates, please call 513-357-7272 or visit http://www.cincinnati-oh.gov/health

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Chapter 1: Introduction

Purpose

The purpose of the Community Health Assessment (CHA) is to learn about the health of the population, identify contributing factors to higher health risks or poorer health outcomes, and determine what assets and resources are available to improve the population health status.

2020 CHA Update and Addendum

In 2017, the Cincinnati Health Department undertook this assessment process to develop a comprehensive CHA for the residents of Cincinnati. Over time, the health of the population and the broad range of factors that impact health may change. It is important to continually monitor and refresh the CHA to better understand the ongoing health of our community. This 2020 update is our continuous effort to assure the best and most current data and information is available for decision-making and health planning.

Ongoing Monitoring and Updating the CHA

All Ohio local health departments (LHDs) and tax-exempt hospitals are required by statute to submit assessments to the state on an established cycle (Ohio Revised Code 3701.981). This assures that the Community Health Assessment (CHA), the Community Health Needs Assessment (CHNA) required by tax-exempt hospitals, and the State Health Assessment (SHA) are in alignment. By October 1, 2020, all LHDs shall submit their CHA to ODH, submit again on October 1, 2023 and every three years thereafter. Tax-exempt hospitals will follow the same schedule for their CHNAs. With this 2020 update of our CHA, the Cincinnati Health Department is on track to meet these established intervals and will have a fully revised CHA every three years beginning October 2023.

Between the 3-year intervals established above, ongoing analyses will be conducted to assure that the most current data is available to better understand the health of Cincinnati residents. Ongoing monitoring includes refreshing existing data in the CHA, as well as furthering our analyses of specific neighborhood data and information with an emphasis on health inequities and socioeconomic factors.

Collaborative Process for Sharing and Analyzing Data

The CHA was developed through a collaborative process of collecting and analyzing data, involving many sectors of the community (local government, for-profits, non-profits, community foundations, health care providers, academia, and human service agencies); and ensuring representation of populations that are at higher health risk or have poorer health outcomes. All of these partners have committed to using the assessment, in which they have highlighted areas for improvement, identified resources, and set the stage to adopt priorities and policies and develop plans to address community health outcomes.

List of CHA/CHNA Stakeholders
- The Christ Hospital Health Network
- Cincinnati Children's Hospital Medical Center
- Lindner Center of HOPE
- Mercy Health – Anderson Hospital
- Mercy Health – Clermont Hospital
- Mercy Health – Fairfield Hospital
- Marcy Health – West Hospital
- Marcy Health – The Jewish Hospital

- UC Health – University of Cincinnati Medical Center
- UC Health – Daniel Drake Center for Post-Acute Care

Community Health Needs Assessment (CHNA)

The Cincinnati Health Department participates in an ongoing partnership of the Regional Community Health Needs Assessment (CHNA) group convened by the Health Collaborative of Cincinnati. Thirty-eight hospitals and 28 local health departments share data for the whole region as well as detailed county-level data. This approach provides another source of data describing health needs locally and regionally and recognizes the impact of the region on local health. CHD utilizes this partnership data to augment and inform its CHA and to support data analyses in specific areas, such as access to health care.

Data and Information Sources Contributing to the Assessment

Sources of data for this report include the Cincinnati Public Health Department, the Ohio Department of Health, Ohio Department of Job and Family Services, the Center for Disease Control and Prevention, the Bureau of the Census' American Community Survey, the Ohio Department of Public Safety, the Ohio Development Services Agency, the Ohio Mental Health and Addiction Services, the Health Resources and Services Association, the USDA Economic Research Service, and the Robert Wood Johnson Foundation.

Report Structure

This report illustrates the key health issues faced by City of Cincinnati residents along with relevant health disparities affecting community health. Data in this report are organized into topical areas, which can be located by referring to the table of contents. The structure of this report includes: this introduction and description of the process; a demographic discussion of the population; an analysis of the Social Determinants of Health; a community health status report based on four of the Foundational Public Health Areas (Communicable Disease, Chronic Disease, Maternal & Child Health and Access to Care); summaries of focus group sessions; and a summary of the key findings and conclusions. This report compiles primary (newly collected data) and secondary (existing) data to paint a detailed picture of the City and compares the area's status to state and national data where possible, drawing out critical areas of concern.

Contributing Causes of Health Challenges

The City of Cincinnati is a large, urban center in southwest Ohio with its share of health challenges. The city has seen some gains in reducing infant mortality, but there is a lot more work to do. Leading causes of death vary by gender and race, but we continue to see heart disease, cancer and injury deaths topping the list, with many opportunities to prevent these conditions. Drug overdoses and the opioid epidemic have a significant impact on our neighborhoods as well. Finally, there is a growing concern about mental and behavioral health and the stigma associated with seeking needed help.

A large and growing body of evidence tells us that many factors impact our health outcomes, especially socioeconomic status such as income and education and even the neighborhood we live in. This update to our Community Health Assessment (CHA) provides a deeper look at those factors that contribute to our health and well-being at a neighborhood level. Where we live has a significant impact on our health and tells us more about what we can do as a community to improve.

The CHA contains many color-coded neighborhood maps, identifying data specific to a particular neighborhood. This information will be invaluable for health department programs, CincyCHIP (our community health improvement plan), hospitals, healthcare and community organizations to better target high need areas. For example, those organizations that are concerned about heart disease will not only see heart disease deaths but identify the neighborhoods where those deaths are highest. The hypertension prevalence by neighborhood map compliments the heart disease map

allowing to more precisely know where to intervene about reducing hypertension, a contributing cause of heart disease. There is also a map for high cholesterol levels, another contributing cause. Overlaying maps for age, gender, race and ethnicity provides additional help in determining interventions in that are culturally appropriate for a particular neighborhood.

Reviewing the maps for this assessment, trends and patterns appear. For example, maps showing poverty levels across neighborhoods often mirror maps for access to care, life expectancy and maps for high risk factors related to disease and disability (such as food deserts or tobacco use). These issues are highlighted throughout the report.

Vision and Values Statements

In the development of the 2017 CHA, Cincinnati Public Health Department stakeholders developed vision and value statements. In 2020, the Health Department revised its Vision, Mission and Core Values as shown below. This guiding image of a healthy Cincinnati is supported by value statements that define what is important to this community as it carries out this public health vision.

VISION
The Cincinnati Health Department will be a public health leader for building and maintaining a healthy and safe community.

MISSION
To assure access to quality services and to improve community health and wellness.

CORE VALUES (GUIDING PRINCIPLES)

Collaboration
We believe in being an active member of our community, participating in conversations and engaging with each other productively and respectfully to achieve common goals.

Commitment
We foster a culture of compassion and mutual respect among our employees and clients and recognize diversity as a strength in our organization and community.

Accountability
We demonstrate the highest level of respect, integrity and professionalism, guided by our sense of trust and morality. We are dedicated to cultivating a sense of transparency both internally and with the general public.

Quality
We honor our mission by upholding excellence in personal, public health and patient care services. We strive to be the model for public health practice to continuously improve health and social equity for people of Cincinnati. We measure performance outcomes and social determinants of health through continuous quality improvement.

Health Equity & Access
We strive to eliminate disparities and assure that everyone has a fair and just opportunity to be healthy. We work toward the timely availability of personal health services to achieve the best health outcomes.

Definition of the Community Served

Map 1: Cincinnati, Ohio

The City of Cincinnati lies in the most southwestern county of the State of Ohio, Hamilton County. Both I-70 and I-71 are major north–south interstate highways running through the City of Cincinnati and Hamilton County. Hamilton County is primarily an urban county, with over 56% of its land area being developed.

The City of Cincinnati has a vibrant and diverse population, with strong healthcare, educational, and business institutions. It is the largest city in the region and is comprised of 52 distinct neighborhoods. As of 2019, there were 300,357 residents, of which 50.3% were Caucasian and 42.7% African American,[1] a racial distribution that differs from the surrounding areas in Hamilton County. Age, education and income distributions also differ between the City and the rest of the county. One two out of five Cincinnati children live in poverty, compared to just one out of five in the entire county.[2] These and other social and economic factors affect the health status of the residents (for example, see Figure 23). For this reason, a Cincinnati specific profile is included to identify unique Cincinnati needs and challenges.

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[1] American Community Survey, 2018: ACS 5-Year Estimates Data Profiles
[2] American Community Survey, 2018: ACS 5-Year Estimates Data Profiles

Chapter 2: Executive Summary - Significant Health Needs of the Community

Maternal and Infant Executive Summary

The HP2020 goal for maternal and child health is to improve the health and well-being of women, infants, children, and families. Maternal and infant health includes infant and maternal mortality, birth outcomes and related risk factors impacting preconception, pregnancy and infancy such as teen pregnancy.

Source: Miami County Park District

PUBLIC HEALTH IMPORTANCE: THE RISK OF MATERNAL AND INFANT MORTALITY AND PREGNANCY-RELATED COMPLICATIONS CAN BE REDUCED BY INCREASING ACCESS TO QUALITY PRECONCEPTION (BEFORE PREGNANCY), PRENATAL (DURING PREGNANCY), AND INTERCONCEPTION (BETWEEN PREGNANCIES) CARE

Healthy People 2020*

Figure 1: 5-year Infant Mortality Rate, 2012-2016

Infant Mortality, Rate per 1,000 Births, 2012-2016

- Cincinnati
- Hamilton County
- Ohio
- U.S.
- HP 2020 - 6.0

Year	Cincinnati	Hamilton County	Ohio	U.S.
2012	10.5	8.8	7.6	6.5
2013	12.0	8.8	7.4	6.3
2014	11.7	8.8	6.8	6.0
2015	10.7	9.2	7.2	6.0
2016	10.7	9.1	7.4	5.9
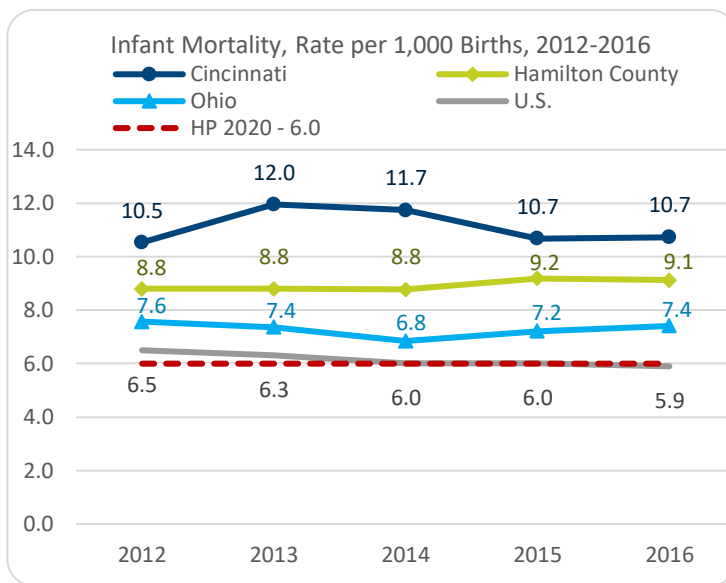
Source: Ohio Department of Health

Figure 2: Births to Cincinnati Mothers Who Received 1st Trimester Prenatal Care, 2014-2018

Preterm Live Births (<37 weeks gestation), 2014-2018

- Cincinnati
- Hamilton
- Ohio
- HP2020 - 9.4%

Year	Cincinnati	Hamilton	Ohio
2014	12.7%	10.8%	10.2%
2015	11.8%	10.6%	10.3%
2016	12.1%	10.8%	10.4%
2017	11.8%	11.2%	10.4%
2018	11.7%	10.5%	10.2%
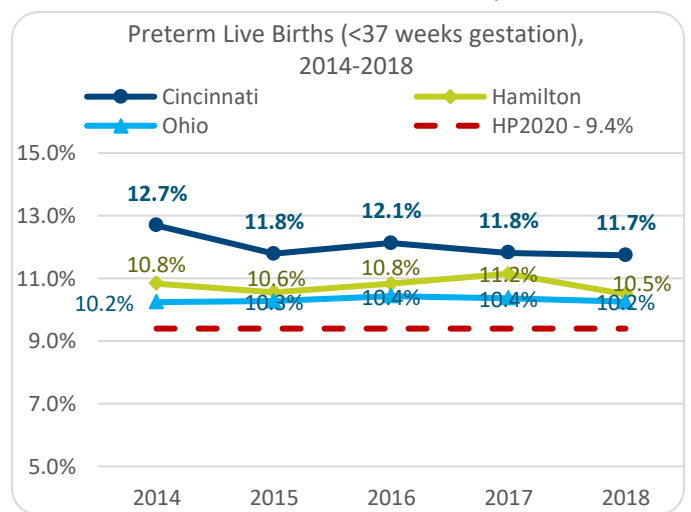
Source: Ohio Department of Health

Figure 3: 5-year Infant Mortality Rate by Race, 2012-2016

Infant Mortality Rate, per 1,000 Births,
- - - White Infant Mortality Rate
―――― Black Infant Mortality Rate

Black: 14.0 | 14.3 | 15.1 | 15.2 | 15.6
White: 6.1 | 5.3 | 5.5 | 5.8 | 5.3

2013   2014   2015   2016   2017
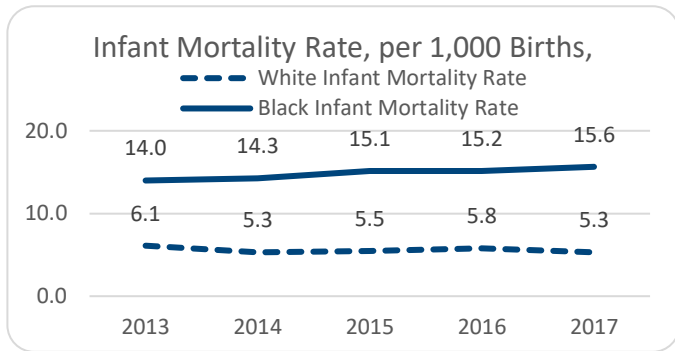
Source: Ohio Department of Health

Figure 4: Identifying Social Disparities for Low Birth Weight Newborns, 2014-2018

Low Birth Weight, 5-year Average (2014-2018)
Cincinnati ■ Hamilton ■ Ohio ■ - - - Linear (HP2020 - 7.8%)

Category	Cincinnati	Hamilton	Ohio
White, Non-Hisp	8.0%	6.9%	7.3%
Black, Non-Hisp	15.0%	14.4%	13.9%
Hispanic	8.4%	8.1%	8.1%
Married	7.2%	6.7%	6.7%
Unmarried	14.2%	12.5%	11.0%
<20	13.8%	11.6%	10.2%
20-39	11.2%	9.3%	8.4%
40+	16.0%	12.6%	11.5%
< H.S.	14.2%	12.7%	11.1%
H.S. +	10.9%	8.9%	8.1%
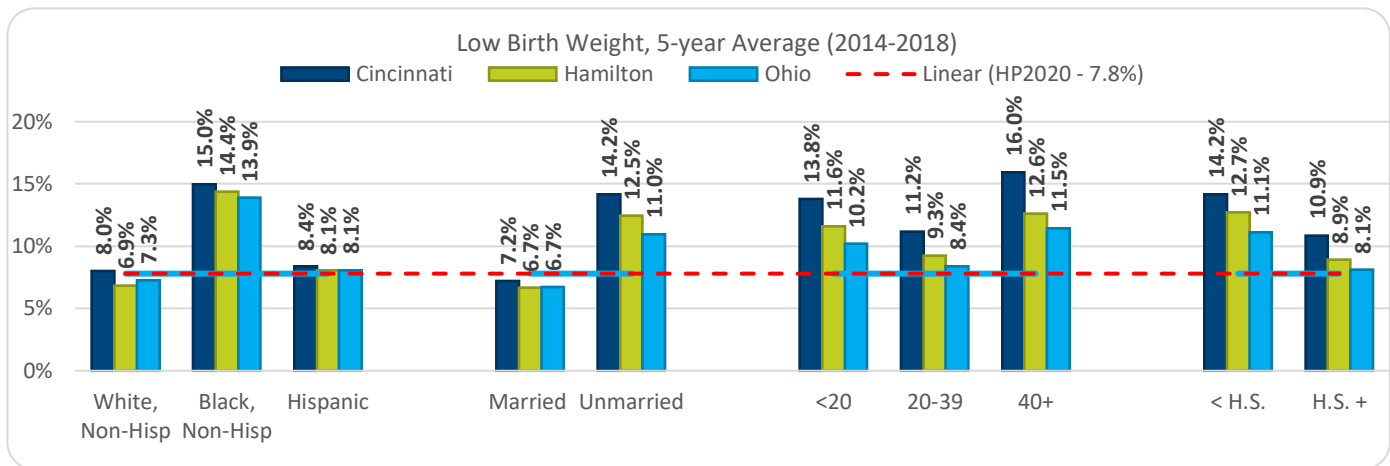
Source: Ohio Department of Health

Figure 5: Preterm Births, Identifying Social Disparities, 2014-2018

Preterm Births, 5-year Average (2014-2018)
Cincinnati ■ Hamilton ■ Ohio ■ - - - Linear (HP2020 - 7.8%)

Category	Cincinnati	Hamilton	Ohio
White, Non-Hisp	9.7%	9.1%	9.5%
Black, Non-Hisp	14.2%	14.0%	14.1%
Hispanic	10.6%	10.2%	10.4%
Married	8.7%	8.7%	9.0%
Unmarried	14.0%	12.9%	12.1%
<20	12.3%	11.7%	10.8%
20-39	11.9%	10.6%	10.2%
40+	17.5%	15.0%	14.5%
< H.S.	14.2%	13.4%	11.7%
H.S. +	11.5%	10.3%	10.1%
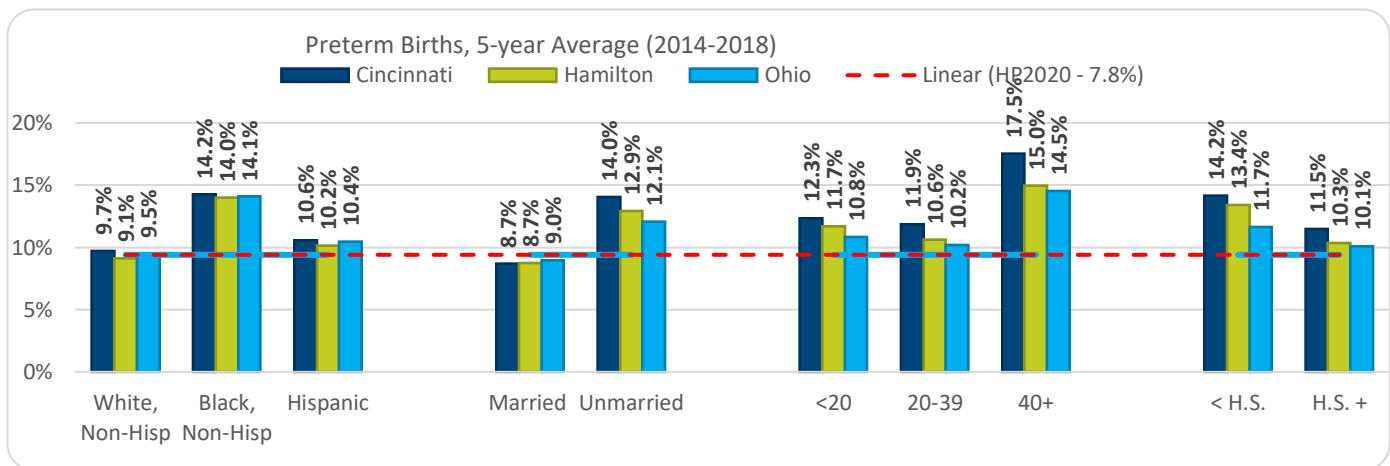
Source: Ohio Department of Health

Key Research Findings

According to the literature, socioeconomic status and poverty are predictors of infant mortality. Nationally, Blacks/African Americans have a significantly higher rate of low birth weight and preterm birth babies (Refer to Figures 4 and 5, which are predictors for infant mortality and infant mortality is higher among this group (Refer to Figures 1 and 3.) Infant mortality is also higher among mothers in the youngest and oldest age groups (Refer to Figures 1 and 3). In

addition, geographic differences are witnessed where preterm births are highest in the Northside and East Price Hill neighborhoods and low birth weight newborns are more prevalent in the College Hill, Avondale, and East Price Hill neighborhoods (Refer to Maps 54 and 55).

Health Disparities

Figure 6: 1st Trimester Care, Identifying Health Disparities in Cincinnati, 5-year Average (2014-2018)

Births to Mothers Who Received First Trimester Care, 5-year Average (2014-2018)
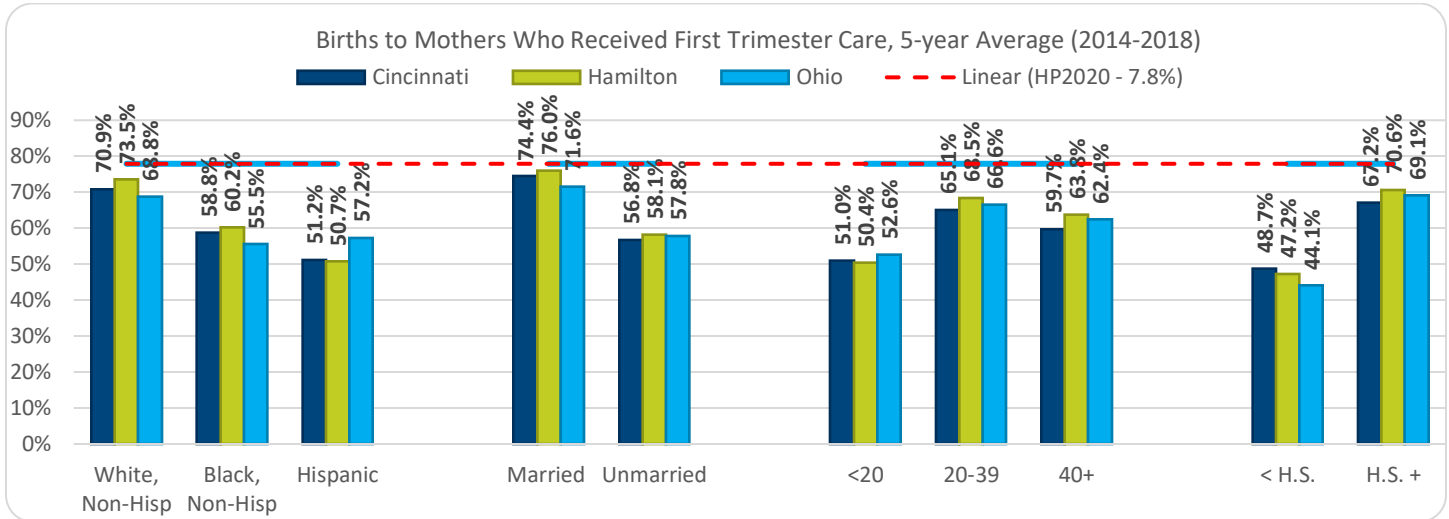
Source: Ohio Department of Health

Key Research Findings

Disparities can also be witnessed in obtaining early prenatal care. In Cincinnati both Black and Hispanic mothers are less likely to seek 1st trimester prenatal care than are white mothers. Unmarried mothers, young mothers, and mothers who have not completed high school are also less likely to seek early prenatal care. Neighborhoods where a third of mothers do not seek prenatal care include Clifton, Avondale, Walnut Hills, and Spring Grove Village (Refer to Map 53).

Chronic Disease Executive Summary

According to the CDC, about half of all adults had one or more chronic health conditions and one of four adults had two or more chronic health conditions and two of the top ten causes of death account for almost half (48 percent) of the deaths in the United States – heart disease and cancer.

Figure 7: Top 3 Leading Causes of Death in Cincinnati, 2014-2018, 5-Year Rate, 2014-18

Top 3 Leading Causes of Death, 2014-2018
Age-Adj Rate/100,000 Adults 20 Years of Age or Older

	2014	2015	2016	2017	2018
Diseases of heart	264.8	251.6	271.9	265.2	248.8
Malignant neoplasms	250.6	270.2	246.9	248.4	231.4
Accidents (unintentional injuries)	82.8	105.1	100.0	141.4	107.8
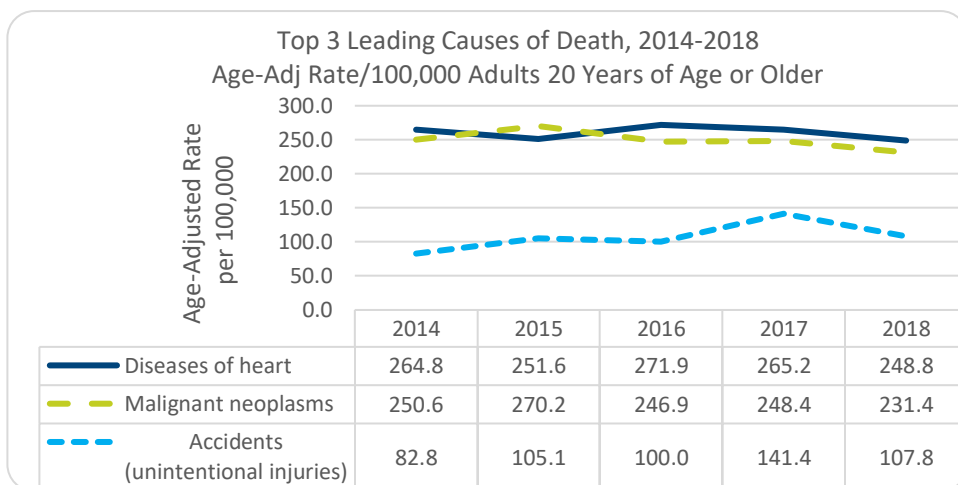
Source: Ohio Department of Health

Key Research Findings: Chronic diseases, including obesity, cardiovascular disease, and cancer, stand out as concerns for Cincinnati. Obesity and hypertension, for example, are highly prevalent conditions in Cincinnati, affecting more than one-third of the population. See Figures 8 & 9 identifying health disparities for the top three leading causes of death for adults in Cincinnati..

Figure 8: Top 3 Leading Causes of Adult Death, Identifying Health Disparities in Cincinnati, 5-year Rate 2014-2018

Top 3 Leading Causes of Adult Death, 5-year Rate (2014-18)

■ Malignant neoplasms ■ Diseases of heart ■ Accidents (unintentional injuries)

* - Indicates rates have been suppressed for counts < 10 or where population counts are not available, rates based on counts < 20 are considered unreliable
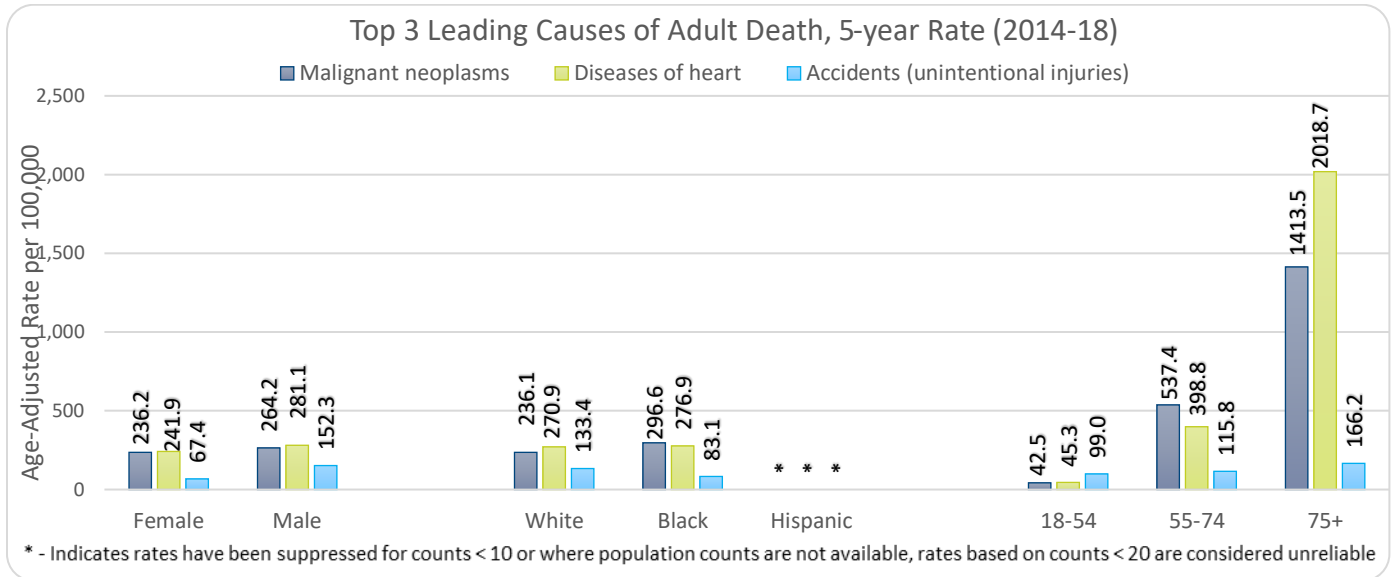
Source: Ohio Department of Health

Figure 9: Top 3 Leading Causes of Adult Death, Identifying Health Disparities in Cincinnati, 5-year Rate 2014-2018

Top 3 Leading Causes of Death, Identifyimg Health Disparities in Cincinnati, 5-year Rate 2014-2018

■ Female Black ■ Female White ■ Male Black ■ Male White
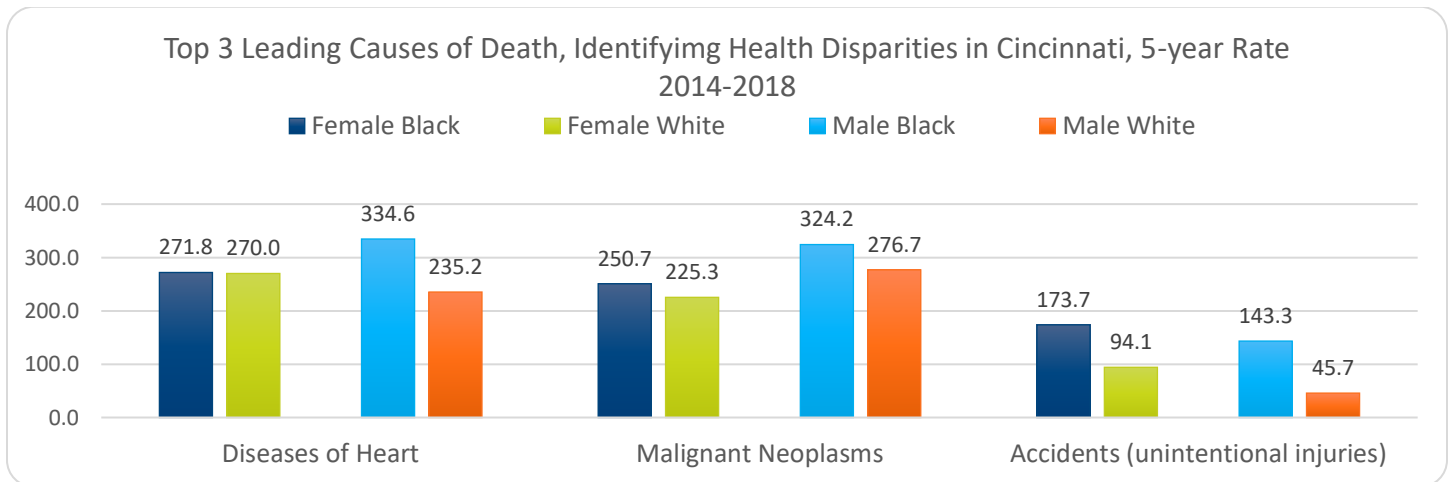
Source: Ohio Department of Health

Figure 10: Cancer Incidence, Identifying Health Disparities 2014-2018

Top 3 Adult Cancers by Site, 5-year Rate (2014-2018)

■ Breast   ■ Prostate   ■ Lung and Bronchus

* - Indicates rates have been suppressed for counts < 10 or where population counts are not available, rates based on counts < 20 are considered unreliable
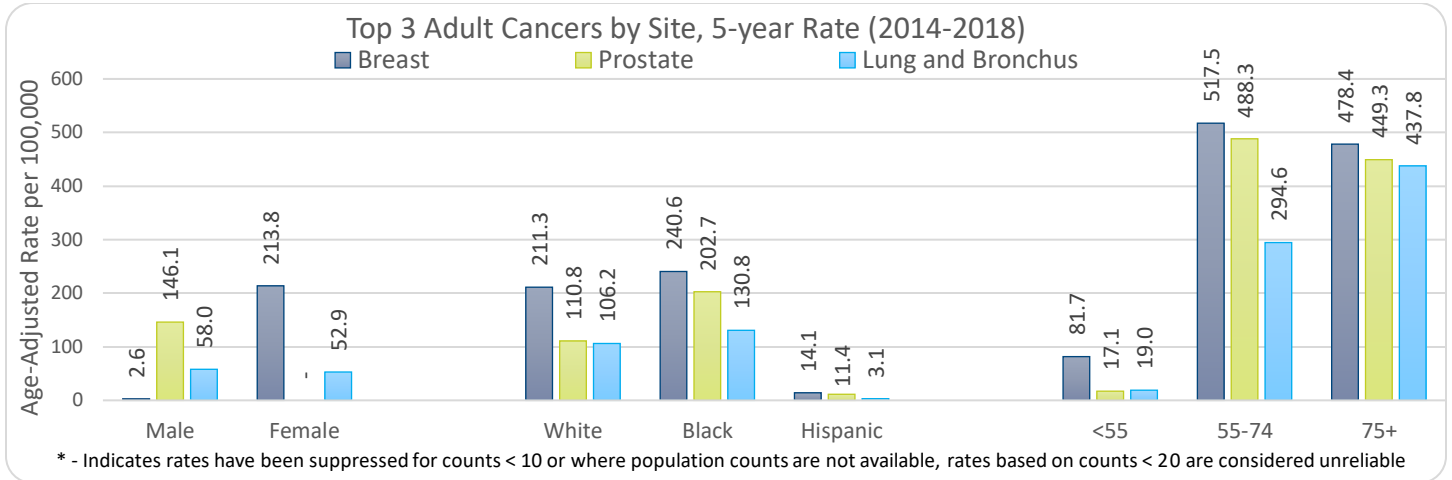
Source: Ohio Department of Health

Figure 11: Lung Cancer Incidence, Identifying Health Disparities 2014-2018

Lung and Bronchus Cancer, Identifying Social Disparities, 5-year Rate, 2014-18
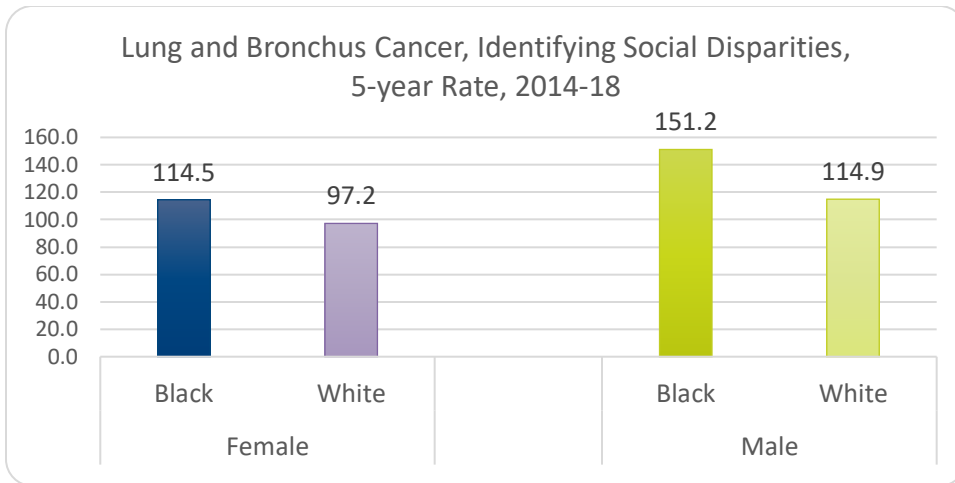
Source: Ohio Department of Health

Mental Health and Addiction Executive Summary

Key Research Findings

Nationally, 5% of the adult population needs mental health services. In 2018, 23,335 Hamilton County adults received mental health services, which equates to 6% of the adult population. While Ohio and its counties face many behavioral health challenges, including strained access to care and high prevalence of depression, the opiate epidemic has taken a toll on communities and their resources.

Figure 12: Mental Health Unduplicated Client Count, FY2016-18
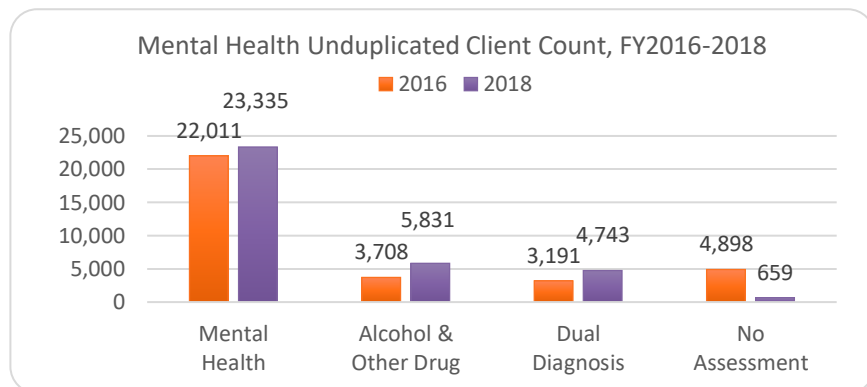
Mental Health Unduplicated Client Count, FY2016-2018

■ 2016   ■ 2018

Source: Ohio Department of Mental Health and Addiction Services

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Adult accidental drug overdoses are over twice the rate for Cincinnati adult males than females. This is also true for white adults and adults between the ages of 35-54. Adults in Cincinnati who have less than a college education are 3x as more likely to overdose than adults who do have a college education.

Figure 13: Accidental Drug Overdose, Hamilton County Adults 20 Years of Age or Older, 2015-2019

Accidental Deaths, Adults 20 Years of Age or Older, 2015-2019

	2015	2016	2017	2018	2019
‒ • • Accidents (Age-Adj)	64.6	62.9	83.9	71.5	67.6
——— Accidents (Death Rate)	65.3	64.2	84.7	73.0	70.8
‒ ‒ Accid Drug Overdose (Death Rate)	41.4	39.2	54.5	43.8	43.2
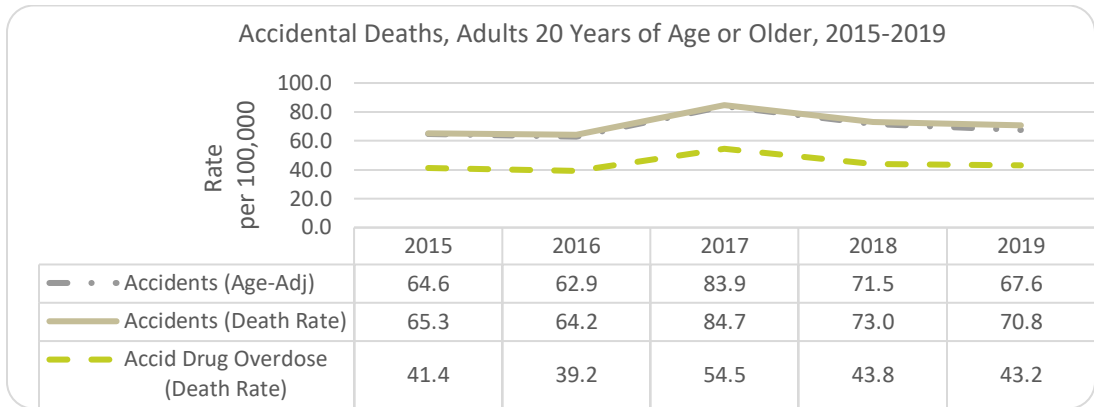
Source: Ohio Department of Health

Health Disparities

Figure 14: Unintentional Drug Overdose, Adults 20 Years of Age or Older, 10-year Age-Adjusted Rate (2010-2019)

Adult Accidental Drug Overdose, 10-year Rate 100,000 (2010-19)

Hamilton County | Ohio

	Hamilton County	Ohio
Total	35.4	28.1
Female	21.8	18.4
Male	49.8	37.9
White Non-Hispanic	41.9	29.8
Black	22.0	31.7
Hispanic	13.3	16.4
20-34	10.8	10.6
35-54	20.0	14.6
55+	4.5	2.9
< College	26.3	21.9
College +	7.8	6.0

* Indicates rates have been suppressed for counts < 10 or where population counts are not available, rates based on counts < 20 are considered unreliable
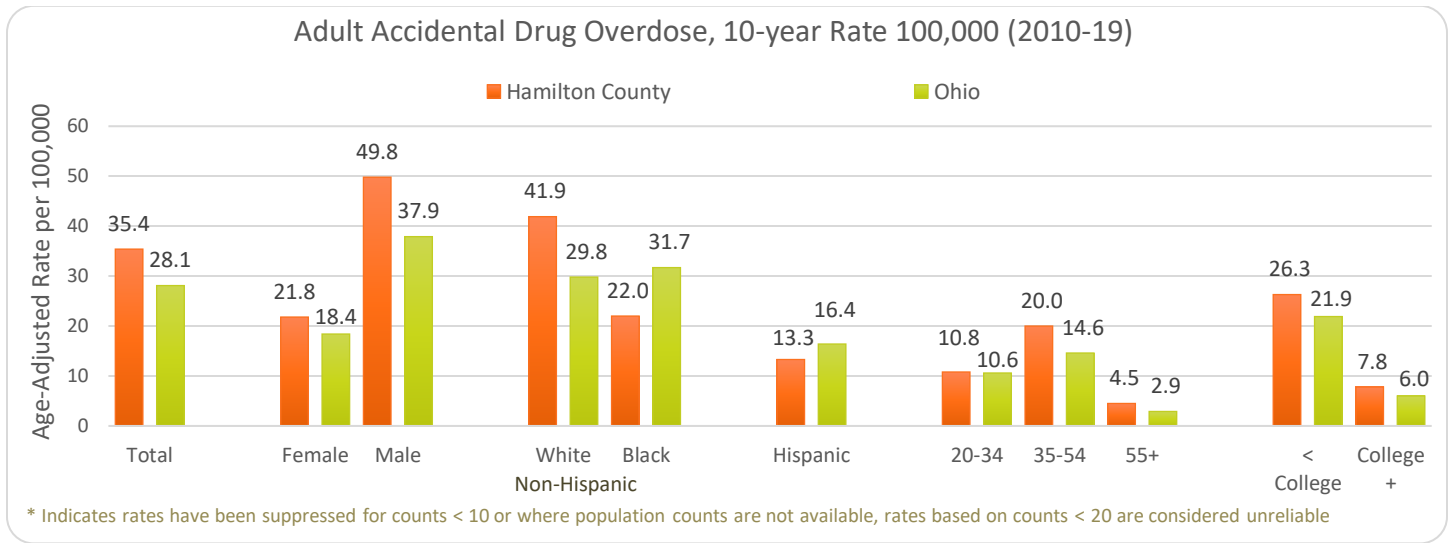
Source: Ohio Department of Health

Chapter 3: Demographics of the Population and Social Determinants of Health

Demographic Determinants of the Population

All information presented in this section is presented for the City of Cincinnati unless specified otherwise.

A large and growing body of evidence shows that sociodemographic factors – such as age, race, and ethnicity – and socioeconomic status (SES), such as income and education, can influence health outcomes.

Figure 15: Hamilton County Population Trends, 2010-2040

Population Trends, 2010-2050

2010	2017	2020	2030	2040	2050
802,374	808,703	790,600	785,900	786,070	783,890
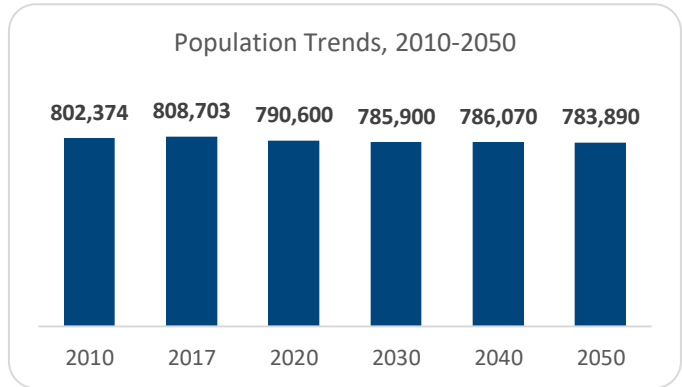
Source: American Community Survey, 2013-2017
Ohio Development Services Agency

Figure 16: Hamilton County Youth Population Projections, 2010-2050

Youth Population Trends, 2010-2050

Legend: 0-4 | 5-9 | 10-14 | 15-19 | YOUTH, % POPULATION

	2010	2017	2020	2030	2040	2050
0-4	53,269	53,606	54,070	51,750	53,210	53,800
5-9	51,301	51,881	52,040	52,210	51,440	50,830
10-14	51,823	51,445	50,900	52,840	51,410	50,770
15-19	57,712	52,793	52,640	55,410	57,220	57,320
YOUTH, % POPULATION	27%	26%	27%	27%	27%	27%
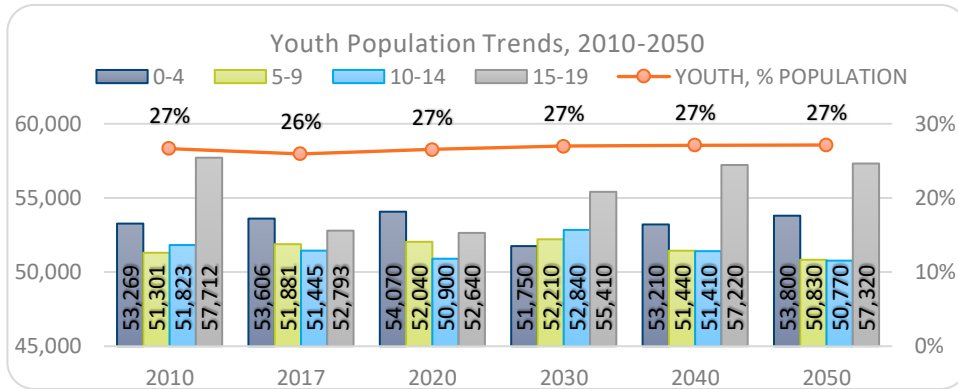
Source: American Community Survey, 2013-2017
Ohio Development Services Agency

Figure 17: Hamilton County Senior Population Projections, 2010-2050

Senior Adult Population Trends, 2010-2050

Legend: 65-69 | 70-74 | 75-79 | 80-84 | 85+ | SENIORS, % POPULATION

Year	65-69	70-74	75-79	80-84	85+	%
2010	29,865	23,465	20,356	16,791	16,386	13%
2017	37,818	26,835	19,645	14,588	18,206	14%
2020	43,960	31,860	20,450	14,170	17,250	16%
2030	44,590	40,370	30,070	19,070	17,740	19%
2040	34,110	31,670	30,570	24,060	23,980	18%
2050	33,920	28,270	24,920	19,980	27,630	17%
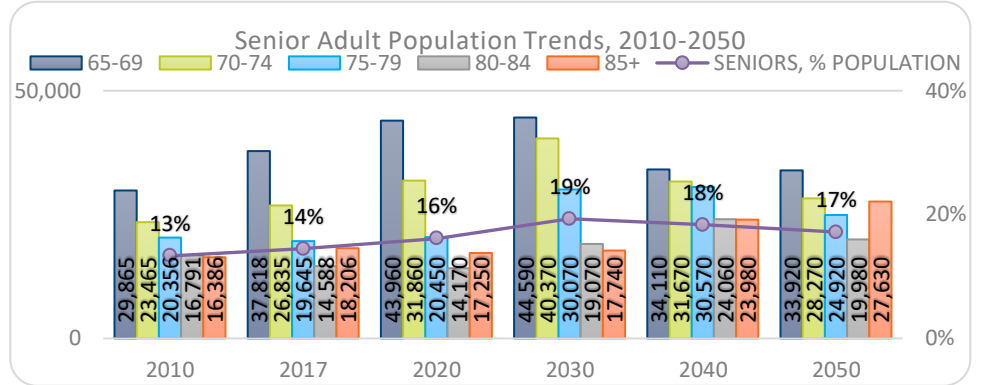
Source: American Community Survey, 2013-2017 and the Ohio Development Services Agency

Map 2: Cincinnati Population by Census Tract, 2018

Cincinnati Population by Census Tract, 2018

Legend

- Cincinnati City Boundary
- Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Persons
- 750 - 1,499
- 1,500 - 2,499
- 2,500 - 2,999
- 3,000 - 4,499
- 4,500 - 6,471
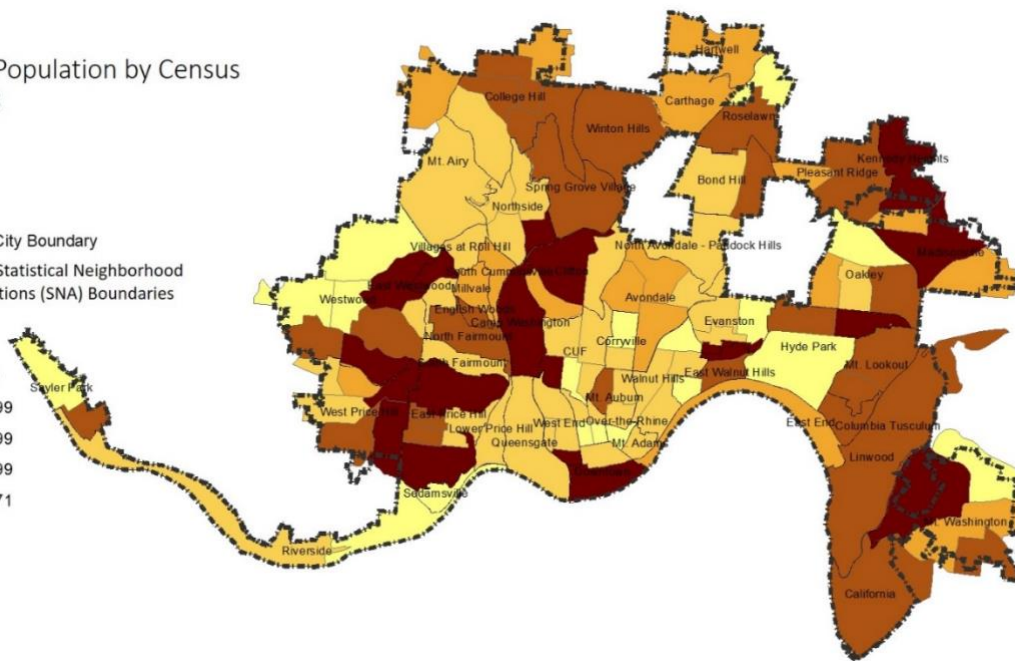
Source: American Community Survey, 2013-2017

Figure 18: Race

Race

- African American, 42.7%
- White, 50.3%
- Amer Indian/Alaska Native, 0.1%
- Asian, 2.0%
- Native Hawaiian/Oth Pacific Islander, 0.1%
- Some other race, 1.2%
- Two or more races, 3.6%
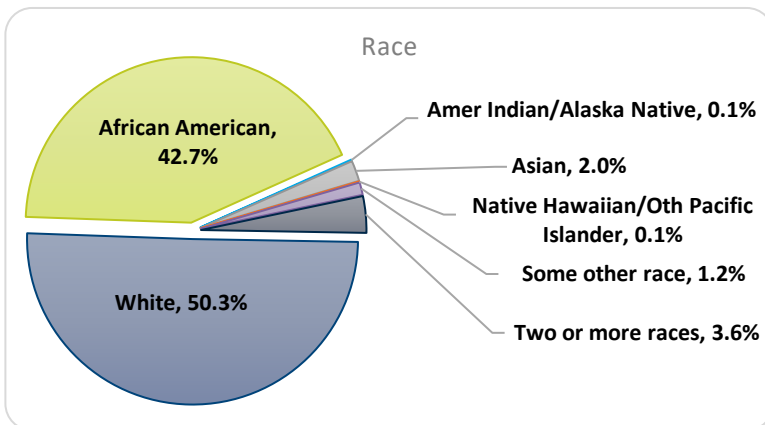
Source: American Community Survey, 2013-2017

Figure 19: Ethnicity

Hispanic or Latino Origin

- Hispanic or Latino, 3.7%
- Not Hispanic, 96.3%
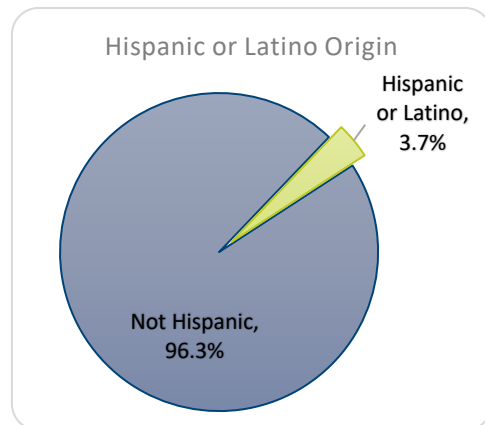
Source: American Community Survey, 2013-2017

Map 3: African Americans Population in the City of Cincinnati by Census Tract, 2018
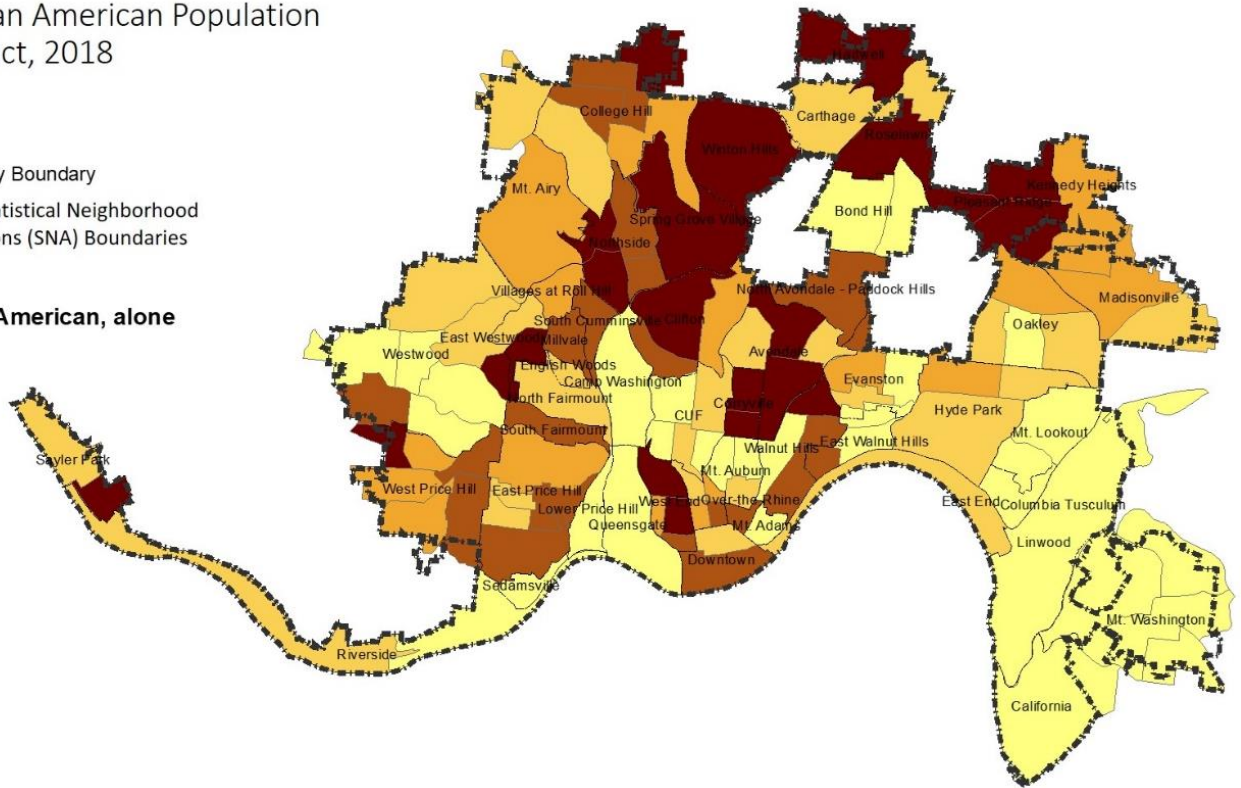
Source: American Community Survey, 2014-2018

Figure 20: Disabled Population
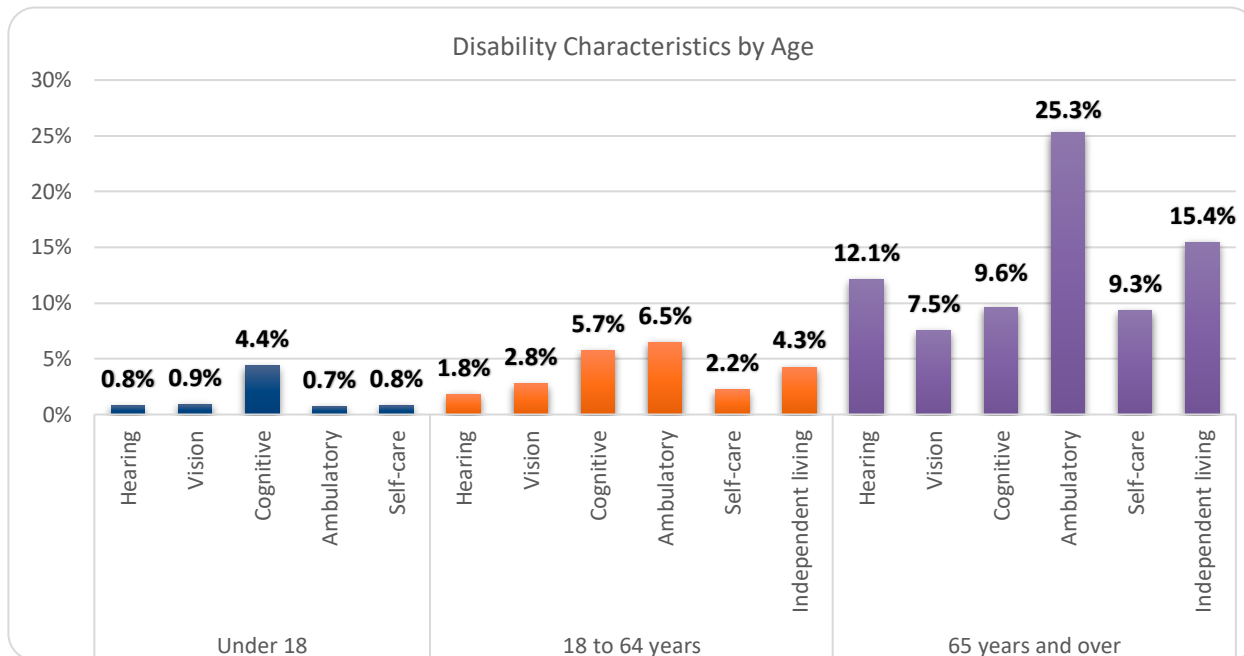
Source: American Community Survey, 2013-2017

Social Determinants of Health[3]

Social determinants of health (SDOH) are conditions in the environment in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. There are five parts of the HP 2020 SDOH definition which will be touched upon in this chapter: economic stability, education, social and community context, health and health care, and neighborhood and the built environment. Health and Health Care will also be further discussed in Chapter 6.

Economic Stability

Figure 21: Regional Establishment Employment Change Summary, 2001-2029

Region	2020 Jobs	2026 Jobs	Change	% Change
Cincinnati Zip Codes	648,859	660,283	11,424	1.8%
United States	205,832,807	218,094,423	12,261,616	6.0%
Ohio	7,174,246	7,381,812	207,566	2.9%
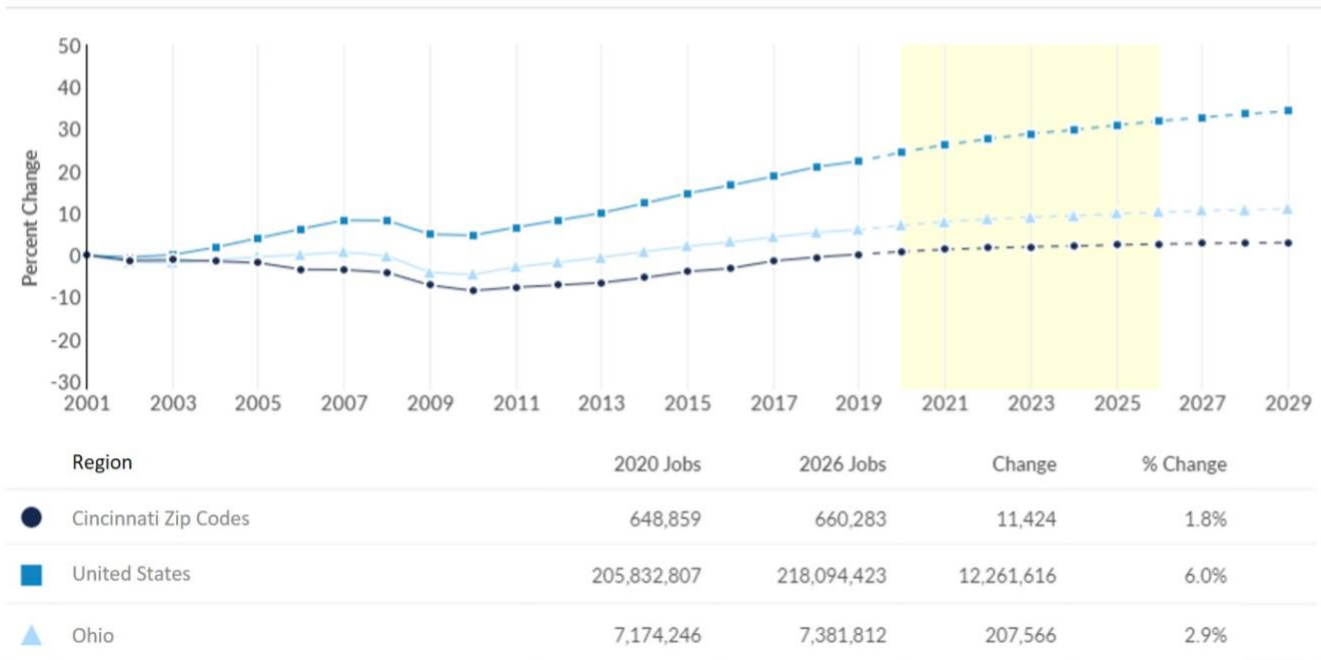
Source: Economic Modeling Specialists Intl.

Figure 22: Annual Unemployment, 2014-2018

	2015	2016	2017	2018	2019
Cincinnati	5.0	4.9	4.8	4.5	4.2
Ohio	4.9	5.0	5.0	4.5	4.1
United States	5.3	4.9	4.4	3.9	3.7
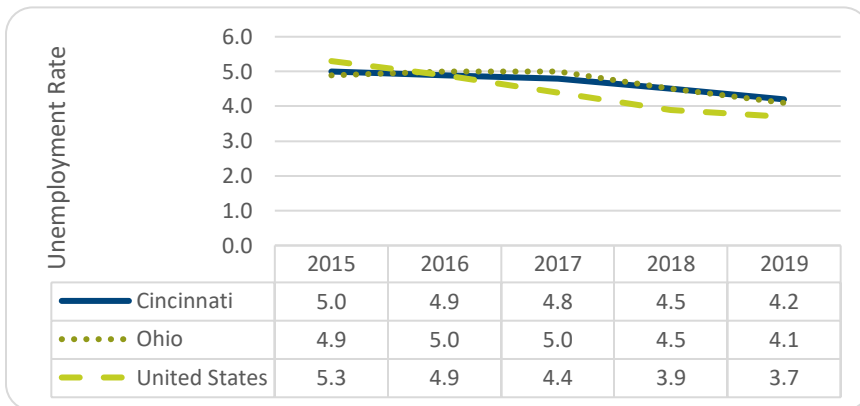
Key Research Findings: The job growth rate for zip codes in Cincinnati (presented above) has lagged in comparison to the state and national rates for most years from 2001 to 2019, with its forecasted rate to sustain a pace of 1.8% growth to 2029. Associated with that, Cincinnati's unemployment rate has been similar to Ohio's and higher than the U.S. rate from 2014-2018.

Source: Ohio Dept. of Job & Family Services, Local Area Unemployment Statistics (LAUS) Program

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[3] Healthy People (HP) 2020 Social Determinants of Health

Figure 23: Per Capita and Median Household Income

Income

- Cincinnati
- Ohio
- United States

$60,293
$54,533
$38,542
$29,156 $30,304 $32,621

Per Capita Income   Median Household Income
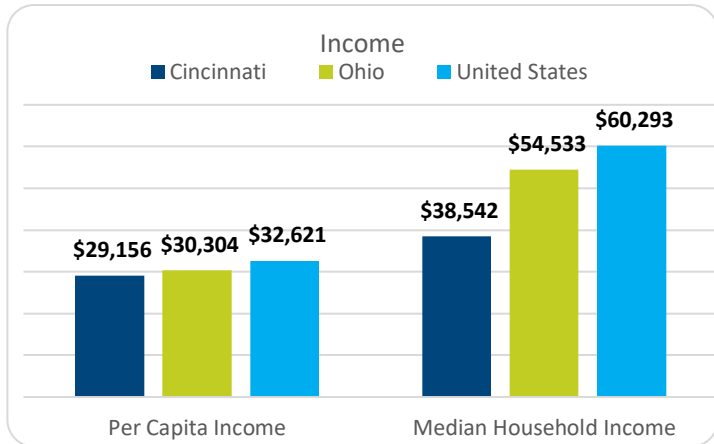
Source: American Community Survey, 2013-2017

Public Health Importance: A person's health is linked to their economic and educational status. Economic stability is influenced by employment, food insecurity, housing instability, and poverty.

HP2020'

Figure 24: Persons below the Poverty Level by Age

Percentage of the Population below the Poverty Level

- Cincinnati
- Ohio
- United States

40.4%
27.2%
25.2%
14.5% 14.1%   20.8% 19.5%   13.9% 13.2%   14.2% 9.3% 8.1%

Below poverty level	Below poverty level	Below poverty level	Below poverty level
All people	<18 Years	18 to 64	65+ Years
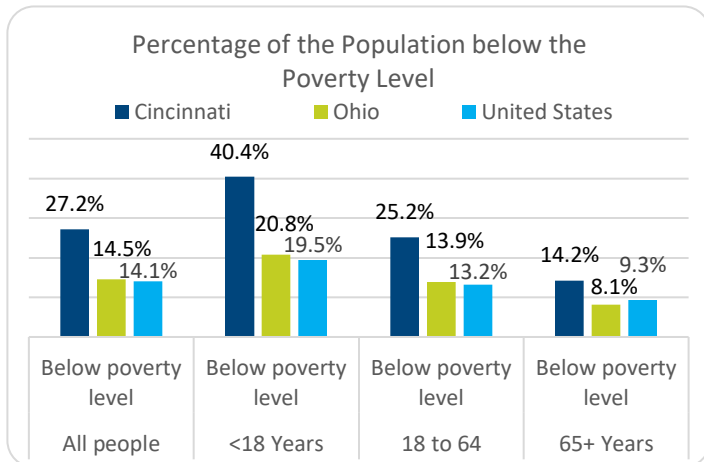
Source: American Community Survey, 2013-2017

Figure 25: Family Poverty

Percentage of Familes below the Poverty Level

- Cincinnati
- Ohio
- United States

40.0%	
34.3%	
30.0%	
20.0%	17.6% 15.9%
10.0%	6.7% 4.6% 5.1%
0.0%	
Families with Children	Families with No Children
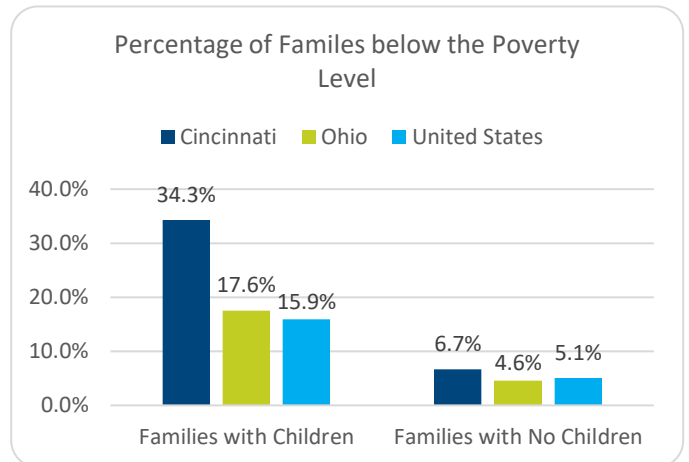
Source: American Community Survey, 2013-2017

Map 4: Persons – Percent below the Poverty Level by Census Block Group

Percentage of the Population below the Poverty Level by Census Tract, 2018

Legend

Cincinnati City Boundary
Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Census Tract
Percent below Poverty

- 0% or none
- 0.1-14.9%
- 15.0-34.9%
- 35.0-49.9%
- 50.0-74.7%

Key Research Findings:
As seen in Figure 24 the percentage of persons living below the poverty level 27.2% and affects a higher percentage of children than adults. Poverty is highest in Census Tracts found in the Pleasant Ridge, Avondale, Mount Airy, Northside, Clifton, Corryville, CUF, Mount Auburn, and West End neighborhoods (Refer to Map 4.)

Source: American Community Survey, 2013-2017

Figure 26: Percentage of Individuals Qualifying for Most Public Assistance Programs
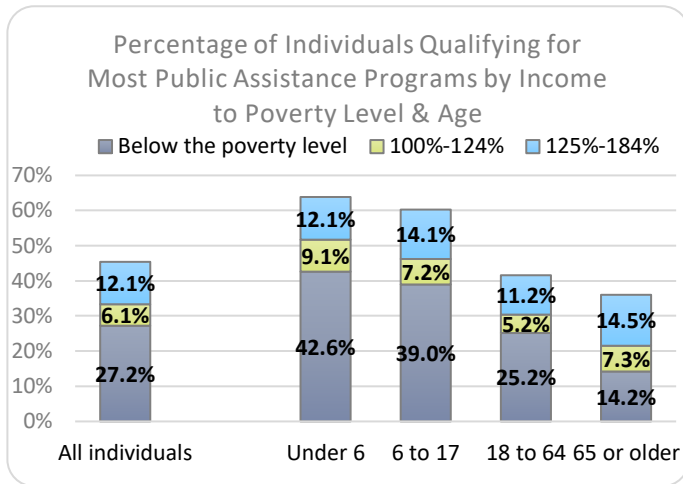
Source: American Community Survey, 2013-2017

Figure 27: Percentage of Households Qualifying for Most Public Assistance Programs
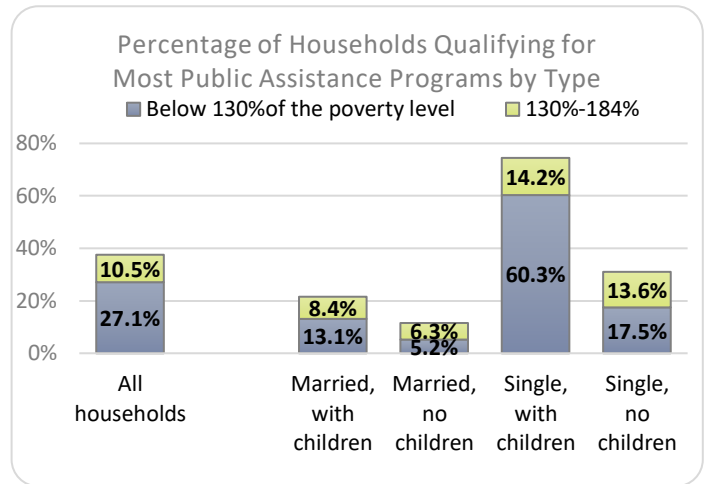
Source: American Community Survey, 2013-2017

Key Research Findings: Figure 26 presents percentages for individuals qualifying for public benefits, whereas Figure 27 presents data for households. Among all individuals qualifying for public assistance, 10.2% are below the poverty level, 3.4% are at the poverty level or a little higher, and 8.8% are at 125%-184% of the poverty level. Among all households, a greater proportion of those qualifying for public assistance programs are single heads of households.

Figure 28: Percentage of All Households That Are Housing Cost Burdened
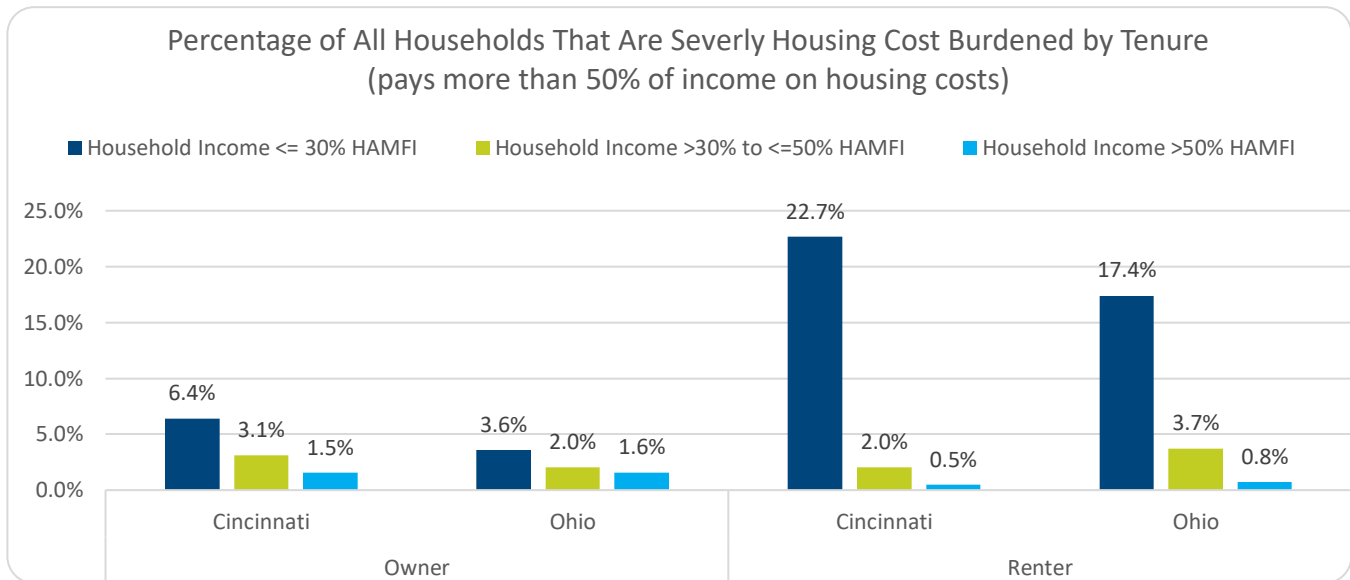
Housing Urban Development (HUD) adjusted median family incomes (HAMFI)

Source: U.S. Department of Housing and Urban Development (HUD) Office of Policy Development and American Community Survey (ACS) Comprehensive Housing Affordability Strategy data for the 2012-2016 period

Figure 29: Homeless Children and Youth, SY 2013-2017

Percent of the Total K-12 Student Enrollment Who Are Homeless, SY14-18

—— Cincinnati Public Schools   - - - Ohio

- 15%
- 9.6%
- 10%
- 7.4%
- 5.8%
- 5%
- 4.2%
- 1.4%
- 0%
- 1.0%   1.2%   1.2%   1.4%   1.5%
- 2014-15   2015-16   2016-17   2017-18   2018-19

Source: Ohio Department of Education

Key Research Findings: A higher percentage of children and youth in Cincinnati face homelessness and food insecurity than witnessed in Ohio or the U.S. (Refer to Figures Figure 29 and 31)
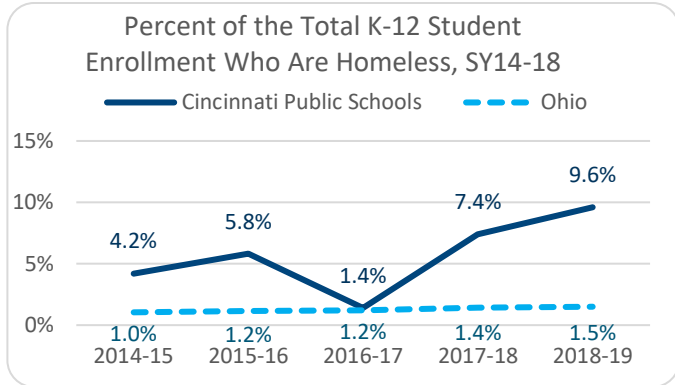
Figure 30: Overall Food Insecurity Rate, 2015-2017

Overall, Food Insecurity

—— Hamilton County   - - - Ohio   ····· United States

- 23%
- 18.3%   17.8%   17.2%
- 18%
- 15.1%   14.5%   14.5%
- 13%
- 12.9%   12.5%   12.5%
- 8%
- 2015   2016   2017

Source: Ohio Department of Education

Figure 31: Child, Food Insecurity Rate, 2015-17

Child, Food Insecurity

—— Hamilton County   - - - Ohio   ····· United States

- 25%
- 21.9%   20.3%   19.9%
- 20%
- 21.1%   20.3%   19.6%
- 17.9%   17.5%   17.0%
- 15%
- 10%
- 2015   2016   2017
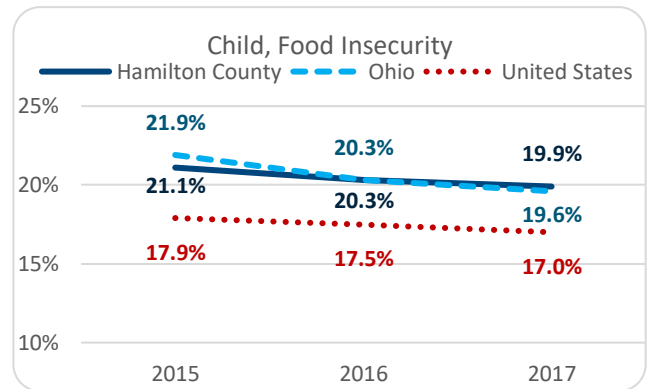
Source: Ohio Department of Education

Education

PUBLIC HEALTH IMPORTANCE: LEVEL OF EDUCATION IS ONE OF THE GREATEST PREDICTORS OF INDIVIDUAL HEALTH. EARLY CHILDHOOD EDUCATION PROVIDES A FOUNDATION FOR CHILDREN'S ACADEMIC SUCCESS, HEALTH, AND GENERAL WELL-BEING. HIGHER EDUCATIONAL ATTAINMENT ALLOWS FOR BETTER PAYING JOBS WITH RESOURCES LIKE HEALTH BENEFITS, PAID LEAVE, RETIREMENT ACCOUNTS, EASIER ACCESS TO HEALTHY FOODS AND SERVICES, AND MORE TIME FOR EXERCISE.

Figure 32: Kindergarten Readiness Assessment, SY 2015-16

Kindergarten Readiness Assessment, SY2018-2019

Demonstrating (270-298) — Approaching (258-269) — Emerging (202-257)

Cincinnati Public Schools: 39.7%, 34.0%, 26.3%
Hamilton County: 43.5%, 34.1%, 22.4%
State of Ohio: 40.9%, 36.4%, 22.7%
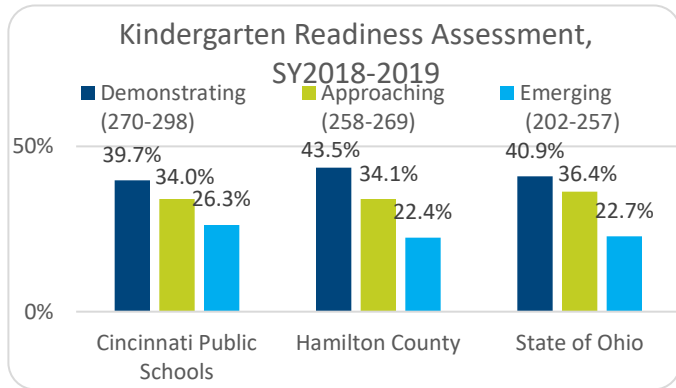
Source: Ohio Department of Education

Figure 33: Average Social and Physical Well-being & Motor Development, SY 2015-16

KRA Average Social and Physical Well-being & Motor Development Scores, SY2018-2019

Physical Well Being & Motor Dev. — Social Foundations

Cincinnati Public Schools: 271.1, 272.9
Hamilton County: 272.2, 275.5
State of Ohio: 271.5, 274.6
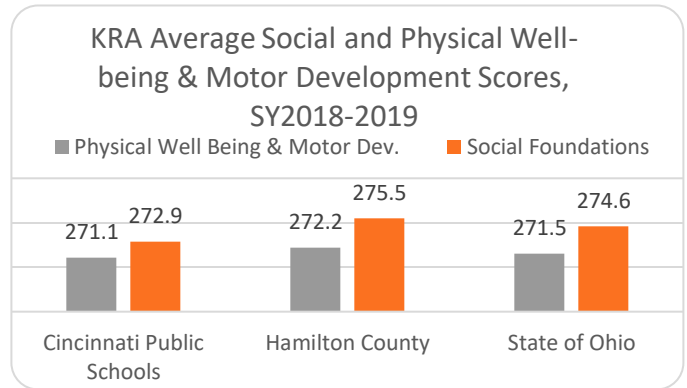
Source: Ohio Department of Education

Figure 32 shows that 40% of Cincinnati Public Schools' kindergartners were assessed as kindergarten ready (demonstrating the criteria assessed). Figure 33 presents Social Foundations and Physical Well-being assessment scores for Kindergartners. Social Foundations includes social emotional skills and approaches toward learning.
Source: Image by Iris Hamelmann from Pixabay
https://pixabay.com/photos/kindergarten-children-play-fun-504672/

Figure 34: School Enrollment SY 2009-2017

K-12 Student Enrollment, SY2014-18

Cincinnati Public Schools

2014-15: 33,530.2
2015-16: 33,999.3
2016-17: 34,421.4
2017-18: 34,816.4
2018-19: 35,977.2
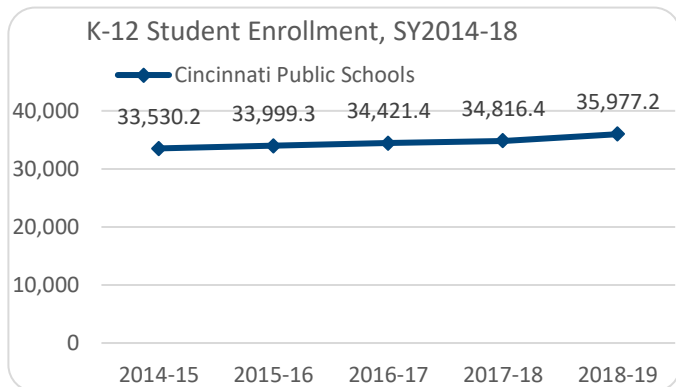
Source: Ohio Department of Education

Figure 35: 4-Year High School Graduation Rate, SY 2012-2016

4-Year Graduation Rate, SY2013-2017

— Cincinnati Public Schools 4-Year Graduation Rate
--- Ohio 4-Year Graduation Rate

100%   83.6%   83.0%   82.2%   82.2%
                                          77.9%

                                          85.3%
50%   71.2%   72.9%   72.8%   74.7%

0%
        2013-14   2014-15   2015-16   2016-17   2017-18

Source: Ohio Department of Education
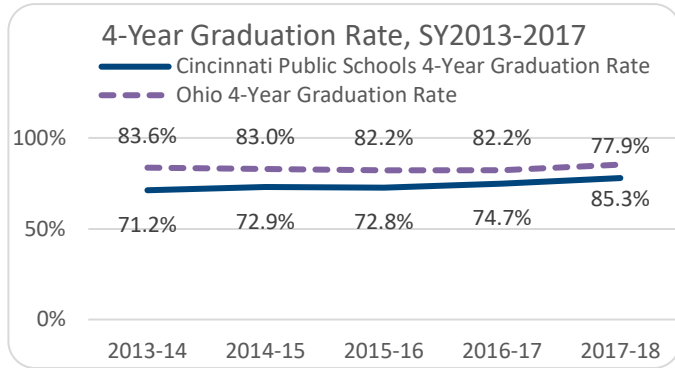
Key Research Findings: Figure 35 shows that Cincinnati high schools have closed the gap in 4-year high school graduation rates in comparison to the Ohio average. Figure 36 shows that a higher proportion of the adult population in Cincinnati has college degrees versus the average for Ohio and the U.S.; however, a higher percentage of Cincinnati adults have some college education.

Figure 36: Educational Attainment for the Population 25 Years of Age or Older

Educational Attainment, Adults Ages 25 and Over

	Cincinnati	Ohio	United States
Graduate/prof degree	15.2%	10.5%	12.1%
Bachelor's degree	20.9%	17.3%	19.4%
Associate's degree	7.4%	8.6%	8.4%
Some college, no degree	19.4%	20.5%	20.6%
High school graduate, GED, or alternative	24.6%	33.3%	27.1%
No high school diploma, GED, or alternative	12.4%	9.9%	12.3%
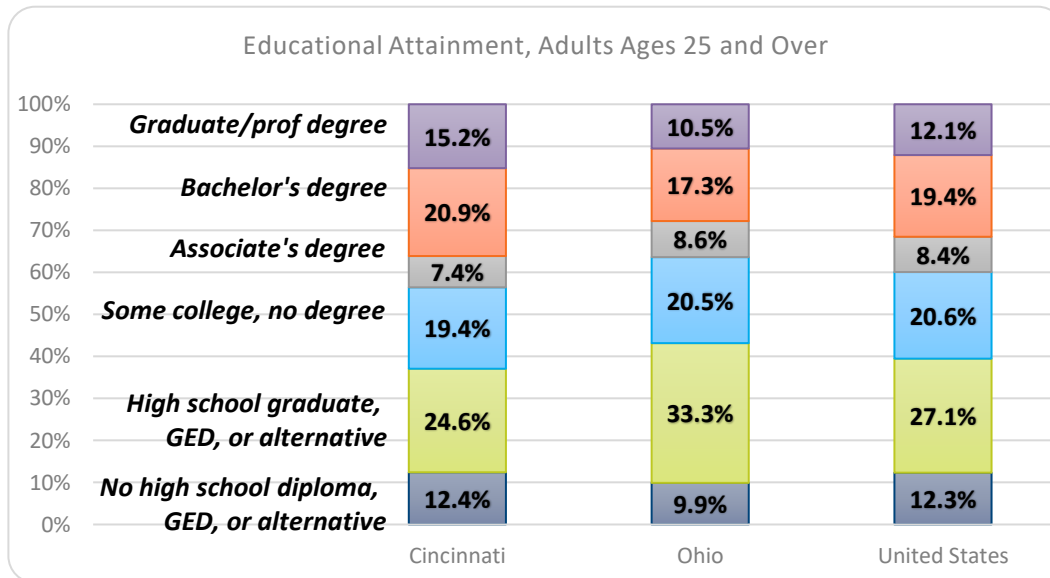
Source: American Community Survey, 2013-2017

Neighborhood and the Built Environment

Public Health Importance: The built environment includes all of the physical aspects of where we live and influences a person's level of physical activity. Access to healthy foods, quality of housing, environmental conditions, and crime and violence comprise the HP 2020 list for this determinant.

Figure 37: Housing Problems Overview

Housing Problems Overview
- Household has at least 1 of 4 Housing Problems
- Household has none of 4 Housing Problems

Owner — Cincinnati: 26.3%, 72.8%; Ohio: 19.9%, 79.5%
Renter — Cincinnati: 47.9%, 47.8%; Ohio: 44.5%, 52.9%
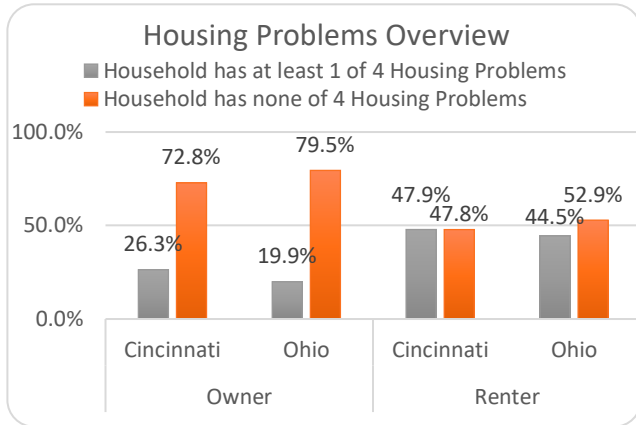
The four housing problems are: incomplete kitchen facilities, incomplete plumbing facilities, more than 1 person per room, and cost burden greater than 30%.

Source: U.S. Department of Housing and Urban Development (HUD) Office of Policy Development and American Community Survey (ACS) Comprehensive Housing Affordability Strategy data for the 2012-2016 period

Figure 38: Land Use/Land Cover
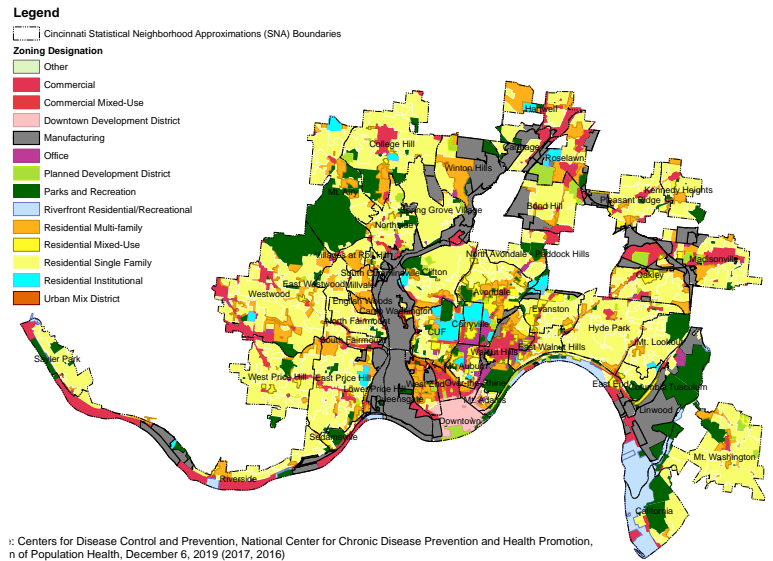
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, n of Population Health, December 6, 2019 (2017, 2016)

Refer to Map 57: Cincinnati Land Use/Land Cover in Appendix E: Identifying Geographic Disparities in the Social Determinants of Health for better detail.
Source: City of Cincinnati

Figure 39: Means of Transportation to Work

Means of Transportation to Work for Workers 16+
- Public transportation 6.9%
- Other 12.5%
- Car, truck, or van 80.7%

Source: American Community Survey, 2013-2017

Figure 40: Air Quality Index

Air Quality Index, Healthy and Moderate Days, 2014-2019

	2014	2015	2016	2017	2018
Good Days	115	190	199	190	173
Moderate Days	234	169	155	170	184
Unhealthy for Sensitive Groups Days	16	5	12	5	7

Source: Environmental Protection Agency

Key Research Findings: The US Department of Housing and Urban Development (HUD) identifies four types of housing problems. Figure 37 presents the percentage of households that have at least 1 of the 4 problems and the percentage that have none of the 4 problems. Data are compared between the City of Cincinnati and Ohio and are compared for homeowners versus renters. There is wider prevalence of these housing problems among renter occupied homes and the largest concentration of renter occupied housing can be found in the Avondale, CUF, East Westwood, English Woods, Millvale, Mt. Auburn, Villages at Roll Hill, Walnut Hills, West End, Winton Hills.

Social and Community Context

Social and Community Context is part of the Social Determinants of Health definition. This section looks at households that may experience isolation due to language barriers, voter turnout as a measure of social engagement, and incarceration trends as a measure of community safety.

Public Health Importance: "Social isolation predicts morbidity and mortality from cancer, cardiovascular disease, and a host of other causes."   Civic participation, incarceration, and social cohesion are the main elements for this determinant.

U.S. Department of Health and Human Services, Administration for Children and Families 2010

Figure 41: Social Isolation – Limited English-Speaking Households

Limited English Speaking Households
Percentage of All Households

- Cincinnati: 1.7%
- Ohio: 1.4%
- United States: 4.5%
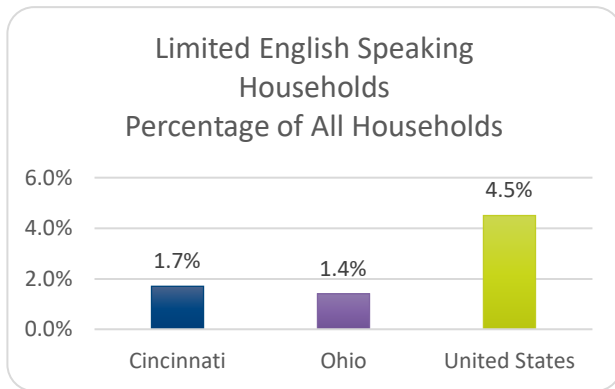
Source: American Community Survey, 2013-2017

Figure 42: Language Spoken at Home

Limited English Speaking Households
Percentage of Households by Language Spoken at Home

- Spanish
- Asian and Pacific Island languages
- Other Indo-European languages
- Other languages

Cincinnati: Spanish 19.6%, Other Indo-European 12.4%, Asian and Pacific Island 18.4%, Other 25.4%
Ohio: Spanish 17.5%, Other Indo-European 14.4%, Asian and Pacific Island 23.3%, Other 19.5%
United States: Spanish 22.3%, Other Indo-European 15.4%, Asian and Pacific Island 25.7%, Other 17.2%

Source: American Community Survey, 2013-2017

Figure 43: Incarceration Trends

Incarceration Trends, 2011-2015
Rate per 100,000 Residents 15-64

- Hamilton County
- Ohio avg
- U.S. avg

U.S. avg: 341.3, 341.1, 326.1
Hamilton County: 312.2, 325.8, 302.4, 320.0, 317.4
Ohio avg: 227.0, 236.7, 227.8

Years: 2013, 2014, 2015, 2016, 2017
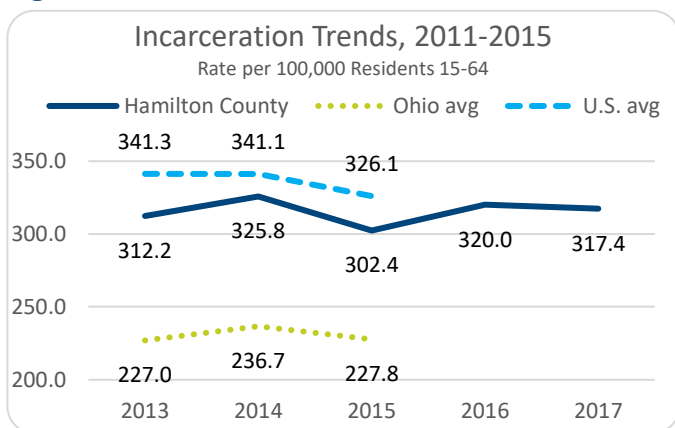
Source: Vera Institute

Health and Health Care

Public Health Importance: Uninsured people receive less medical care and less timely care, they have worse health outcomes, and lack of insurance is a financial burden for them and their families (Urban Institute urban.org).

Figure 44: Health Insurance Coverage by Age
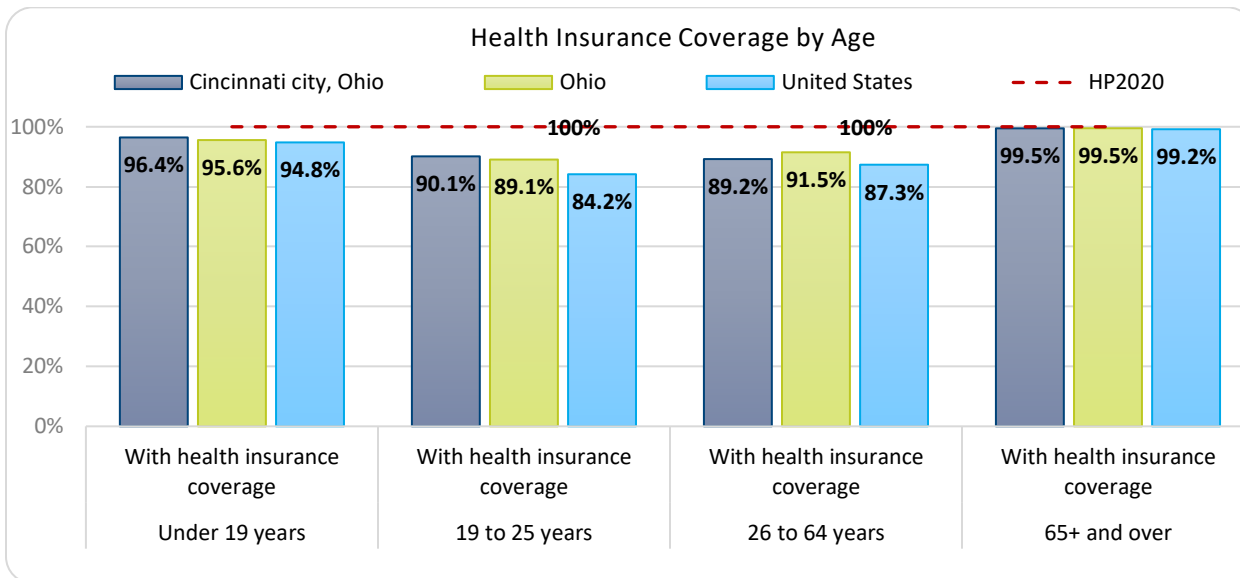
Source: American Community Survey, 2013-2017

Figure 45: Medical Insurance Coverage for the Population under the Age of 19
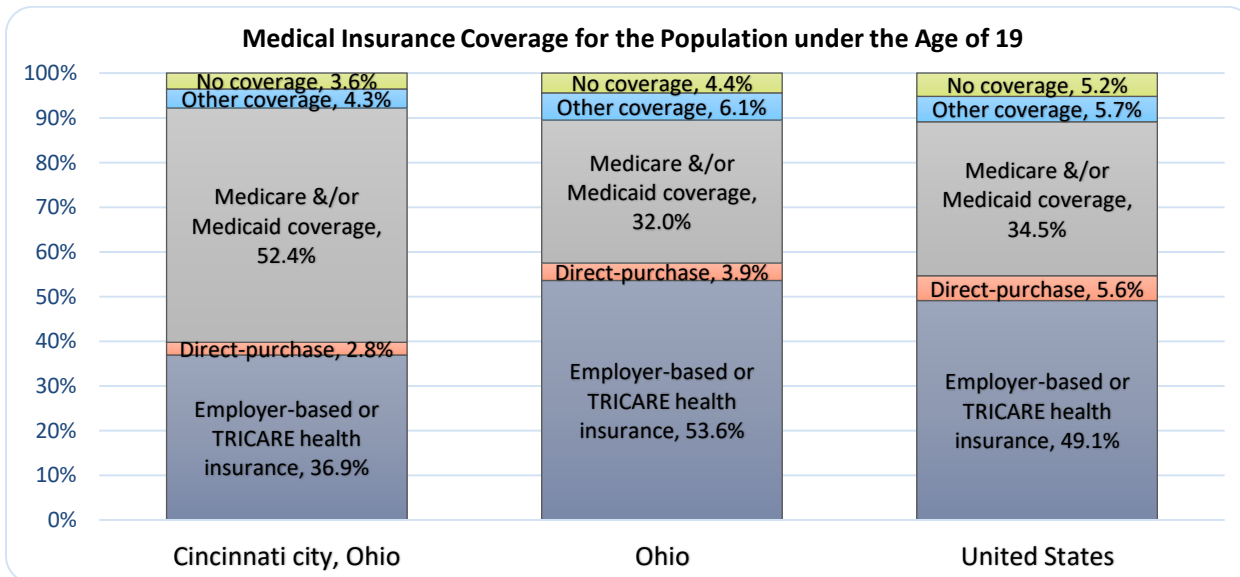
Source: American Community Survey, 2013-2017

Figure 46: Medical Insurance Coverage for the Population 19 Years of Age or Older

Medical Insurance Coverage for the Population 19 Years of Age or Older
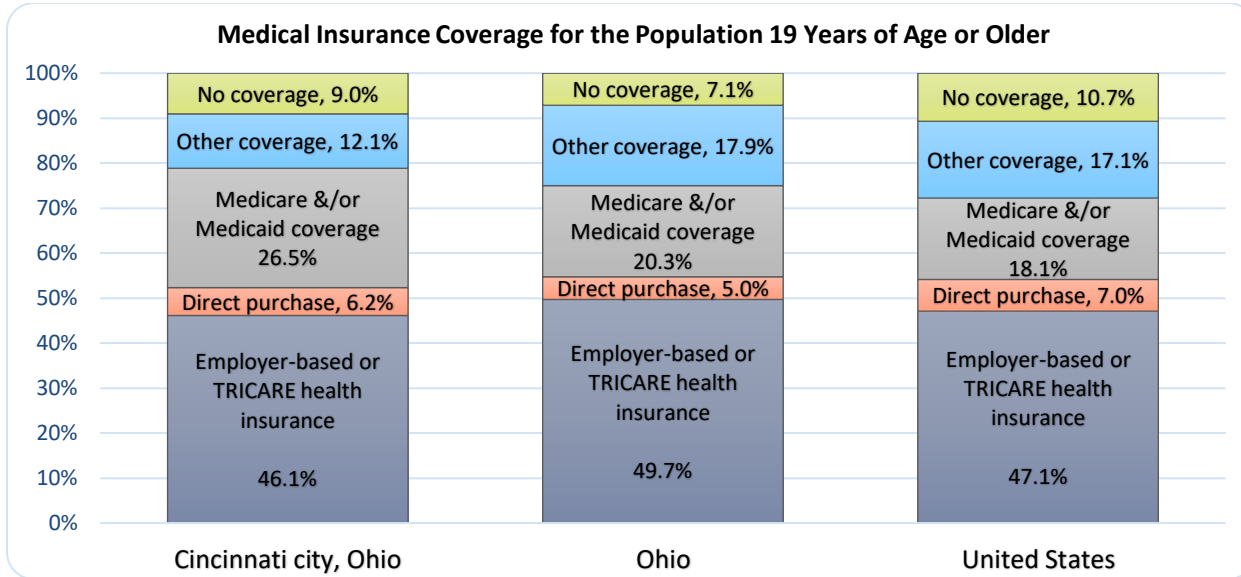
Source: American Community Survey, 2013-2017

Chapter 4: Population Health

Population health is defined as the health outcomes of a group of individuals, including the distribution of such outcomes within the group. This section of the report will present health outcomes for groups of individuals in the County including the distribution within groups.

Behavioral Risk Factors

Examples of behavioral risk factors include tobacco use, alcohol consumption, obesity, physical inactivity, and unsafe sexual activity.

PUBLIC HEALTH IMPORTANCE: RISK FACTORS INCLUDE ANY PARTICULAR BEHAVIOR OR BEHAVIOR PATTERN WHICH STRONGLY YET ADVERSELY AFFECTS HEALTH. IT INCREASES THE CHANCES OF DEVELOPING A DISEASE, DISABILITY, OR SYNDROME.

Centers for Disease Control and Prevention

Figure 47: Cincinnati Adult Behavioral Risk Factors, 2017
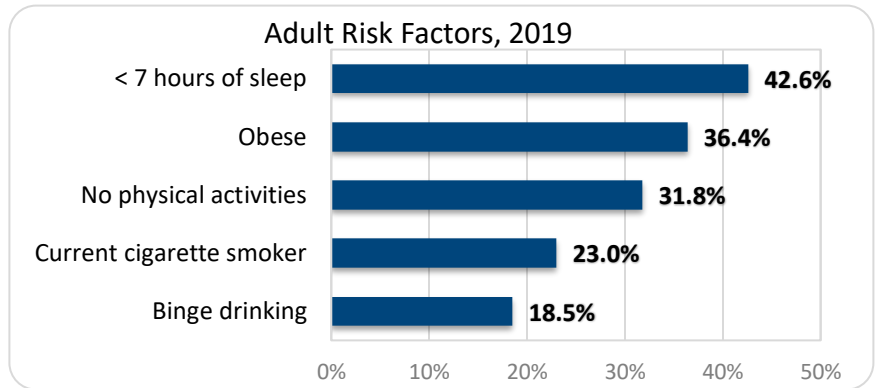
Adult Risk Factors, 2019

- < 7 hours of sleep: 42.6%
- Obese: 36.4%
- No physical activities: 31.8%
- Current cigarette smoker: 23.0%
- Binge drinking: 18.5%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Figure 48: Cincinnati Youth Behavioral Risk Factors, 2019

Hamilton County Youth (Ages 12-17) Health and Well-being Related Behaviors, SY2015-16

- < 8 hours of sleep on average school night: 71.5%
- Not physically active for a minimum 60 minutes/day on 5+ days of past 7: 38.2%
- Overweight or Obese: 21.5%
- Played video/comp games or used a comp. for other than school work 3+ hours/day on an avg. school day: 20.9%
- Watched 3 or more hours per day of TV on an average school day.: 9.4%
- < 60 minutes of physical activity in the past 7 days: 5.7%

Data may not be generalizable to the entire county, region, or state, and are representative only of the students that participated.

Source: Ohio Department of Health, OHYES! Ohio Healthy Youth Environments Survey

Figure 49: Comparison of the Top 3 Adult Behavioral Risk Factors in Cincinnati, Ohio & US, 2019
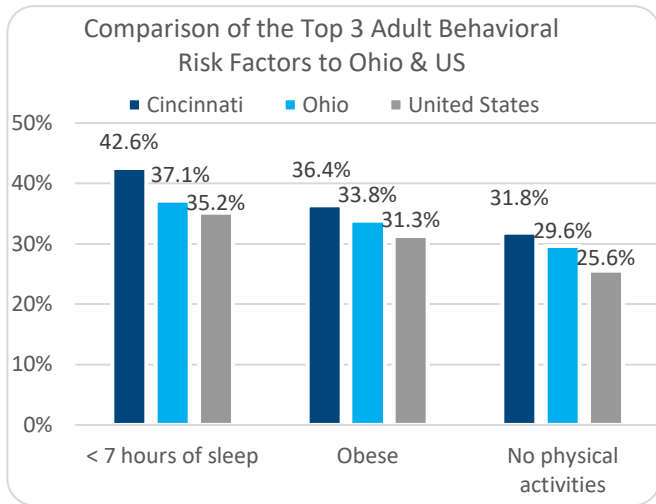
Comparison of the Top 3 Adult Behavioral Risk Factors to Ohio & US

■ Cincinnati ■ Ohio ■ United States

- < 7 hours of sleep: 42.6%, 37.1%, 35.2%
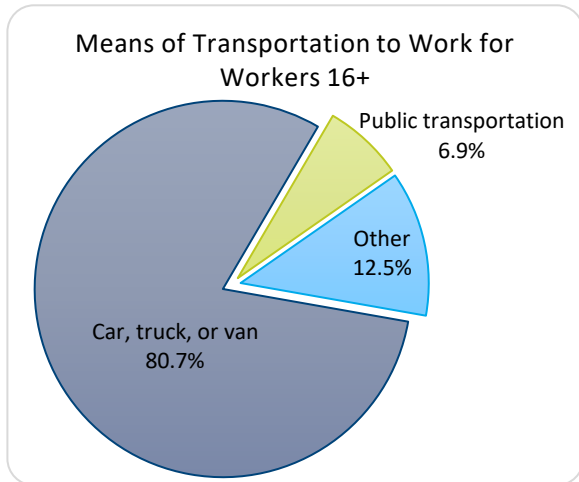- Obese: 36.4%, 33.8%, 31.3%
- No physical activities: 31.8%, 29.6%, 25.6%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)
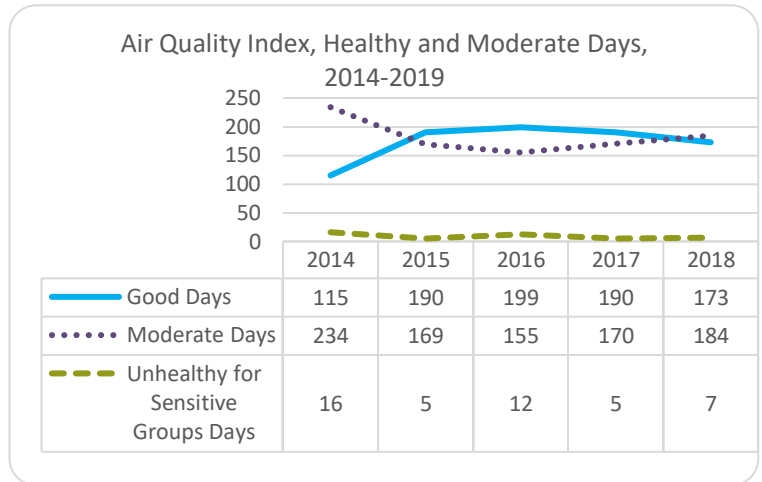
Figure 50: Comparison of the Top 3 Youth Behavioral Risk Factors in Cincinnati & Ohio, SY2018-19
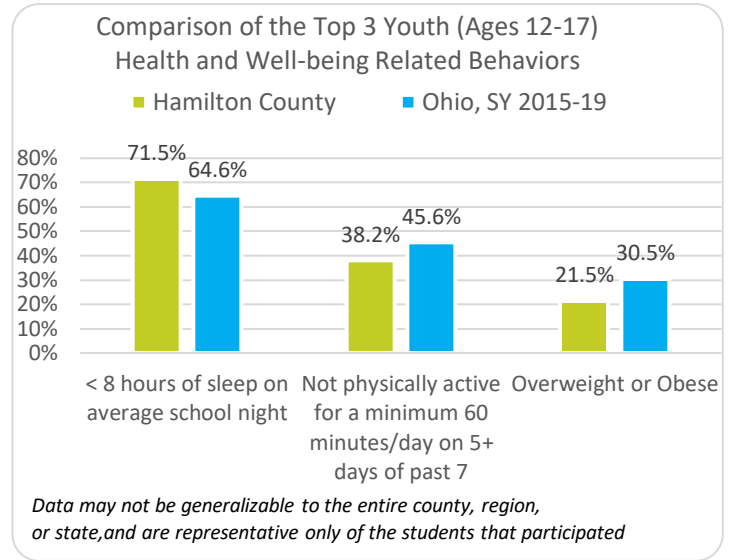
Comparison of the Top 3 Youth (Ages 12-17) Health and Well-being Related Behaviors

■ Hamilton County ■ Ohio, SY 2015-19

- < 8 hours of sleep on average school night: 71.5%, 64.6%
- Not physically active for a minimum 60 minutes/day on 5+ days of past 7: 38.2%, 45.6%
- Overweight or Obese: 21.5%, 30.5%

Data may not be generalizable to the entire county, region, or state, and are representative only of the students that participated

Source: Ohio Department of Health, OHYES! Ohio Healthy Youth Environments Survey

Key Research Findings: Figure 49 and 50 presents the top three adult and youth behavioral risk factors. Sleep deprivation is more prevalent among Cincinnati adults than in Ohio and the U.S. Youth receiving less than the recommended 8 hours of sleep in also higher for Hamilton County youth than Ohio youth. Figure 49 indicates a higher rate of obese adults and adults getting no physical activity in Cincinnati versus that prevalence for Ohio or the U.S. Conversely, a lower rate of youth who are overweight/obese or not getting a minimum of 60 minutes of exercise five days a week in Hamilton County

Figure 51: Ohio Adults - Adverse Childhood Experiences, 2019

No data available at time of publication

Figure 52: Hamilton County Youth - Adverse Childhood Experiences, 2019
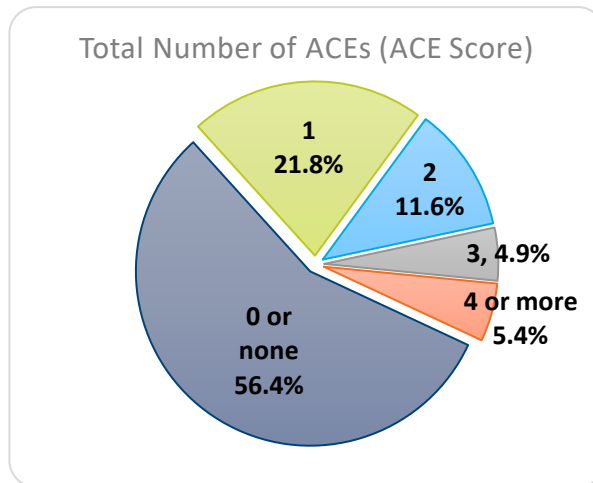
Total Number of ACEs (ACE Score)

- 1: 21.8%
- 2: 11.6%
- 3, 4.9%
- 4 or more: 5.4%
- 0 or none: 56.4%

Source: Ohio Department of Health, OHYES! Ohio Healthy Youth Environments Survey

Key Research Findings: Figures 51 and 52 present results for Adverse Childhood Experiences (ACEs) for adults and youth. ACEs are potentially traumatic events that occur in childhood such as experiencing violence, abuse, or neglect; or witnessing violence in the home. The higher your ACE score, the higher your risk of health and social problems. As your

ACE score increases, so does the risk of disease, and social and emotional problems. Research shows that an ACE score of four or more ACEs is a threshold above which there is a particularly higher risk of negative physical and mental health outcomes. Data in Figure 52 may not be generalizable to the entire county, region, or state, and are representative only of the students that participated in the survey.

Figure 53: Cincinnati Youth Reporting Adverse Childhood Experiences, SY 2018-2019

Hamilton Youth Experienceing Adverse Childhood Experiences, SY2015-16

Parent/adult swore at you, insult you, or put you down	23.7%
Parents were unmarried, divorced, or separated	16.5%
Lived with someone depressed, mentally ill, or suicidal	16.1%
Lived with someone who was a problem drinker, alcoholic, used illegal drugs/abused prescription meds	12.8%
Parent/adult hit, beat, or physically hurt respondent	6.2%
Lived with someone who was incarcerated/served time	4.8%
Parents/adults hit, beat, or physically hurt each other	4.2%
Ever experienced sexual abuse or coercion	N/A

Source: Ohio Department of Health, OHYES! Ohio Healthy Youth Environments Survey

Maternal, Infant, and Child Health Issues

PUBLIC HEALTH IMPORTANCE: MATERNAL AND INFANT HEALTH INCLUDES INFANT AND MATERNAL MORTALITY, BIRTH OUTCOMES AND RELATED RISK FACTORS IMPACTING PRECONCEPTION, PREGNANCY AND INFANCY SUCH AS TEEN PREGNANCY.

Centers for Disease Control and Prevention

Figure 54: 5-year Infant Mortality Rate, 2014-2018

Infant Mmortality, Rate per 1,000 Births, 2012-2016

Cincinnati — Hamilton County — Ohio — U.S.

	2012	2013	2014	2015	2016
Cincinnati	10.5	12.0	11.7	10.7	10.7
Hamilton County	8.8	8.8	8.8	9.2	9.1
Ohio	7.6	7.4	6.8	7.2	7.4
U.S.	6.5	6.3	6.0	6.0	5.9
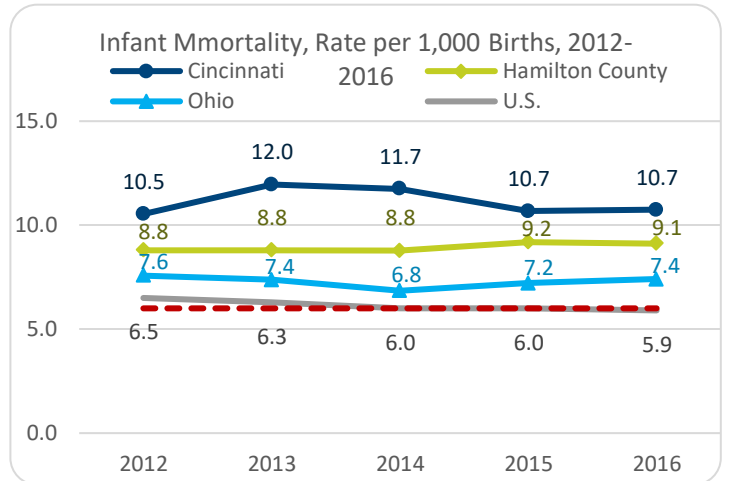
Source: Ohio Department of Health

Figure 55: Preterm Live Births, 2014-2018

Preterm Live Births (<37 weeks gestation), 2014-2018

Cincinnati — Hamilton — Ohio — HP2020 - 9.4%

	2014	2015	2016	2017	2018
Cincinnati	12.7%	11.8%	12.1%	11.8%	11.7%
Hamilton	10.8%	10.6%	10.8%	11.2%	10.5%
Ohio	10.2%	10.3%	10.4%	10.4%	10.2%
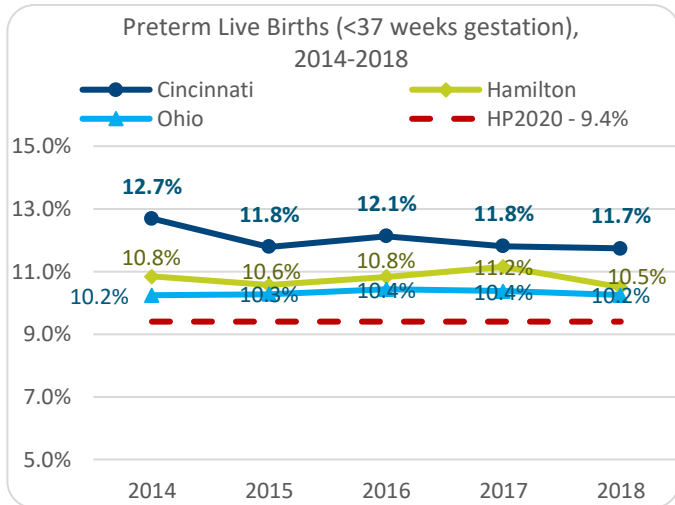
Source: Ohio Department of Health

Figure 56: Low Birth Weight, 2014-2018

Low Birth Weight, 2014-2018

Cincinnati — Hamilton — Ohio — HP2020 - 7.8%

	2014	2015	2016	2017	2018
Cincinnati	12.0%	10.9%	11.8%	11.5%	11.8%
Hamilton	9.4%	9.2%	9.8%	9.6%	9.5%
Ohio	8.5%	8.5%	8.7%	8.7%	8.5%
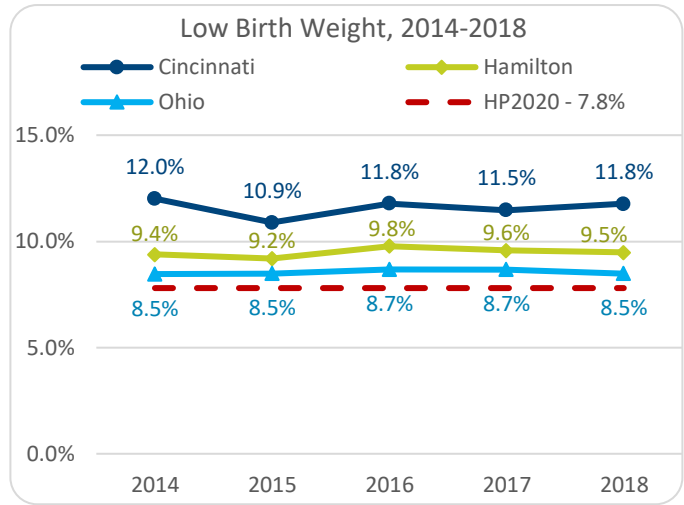
Source: Ohio Department of Health

Key Research Findings: While Cincinnati does not present relatively high percentages of preterm births or low birth weight births, the City does have an infant mortality rate that outpaces the rate for Ohio and is much higher than the Healthy People 2020 target. In Cincinnati and in Ohio, low birth weight is more common among births to Black/African American mothers and women age 40+. Breastfeeding and receiving prenatal care are protective factors for infant mortality.

Figure 57: Births to Teen Mothers, 2014-2018

Births Rates per 1,000 Teen Females (Ages 15-19), 2014-2018

- Cincinnati
- Hamilton
- Ohio
- HP2020 Target - 36.2

Cincinnati: 36.7, 33.0, 31.1, 27.0, 26.3
Hamilton: 27.0, 24.9, 22.5, 21.7, 20.4
Ohio: 25.1, 23.3, 21.7, 20.8, 18.9

Years: 2014, 2015, 2016, 2017, 2018
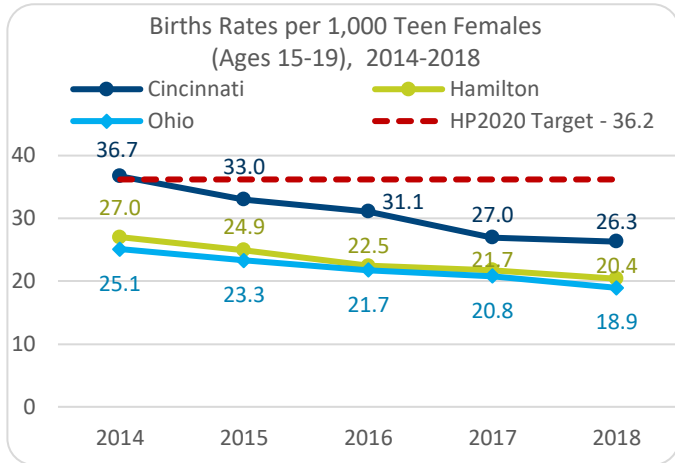
Source: Ohio Department of Health

Figure 58: 1st Trimester Care, 2014-2018

Births to Mothers Who Received First Trimester Care, 2014-2018

- Cincinnati
- Hamilton
- Ohio
- HP2020 - 77.9%

Hamilton: 64.2%, 67.2%, 68.4%, 68.7%, 68.3%
Ohio: 63.0%, 64.8%, 66.1%, 66.5%, 67.9%
Cincinnati: 58.6%, 62.8%, 64.1%, 65.0%, 66.7%

Years: 2014, 2015, 2016, 2017, 2018
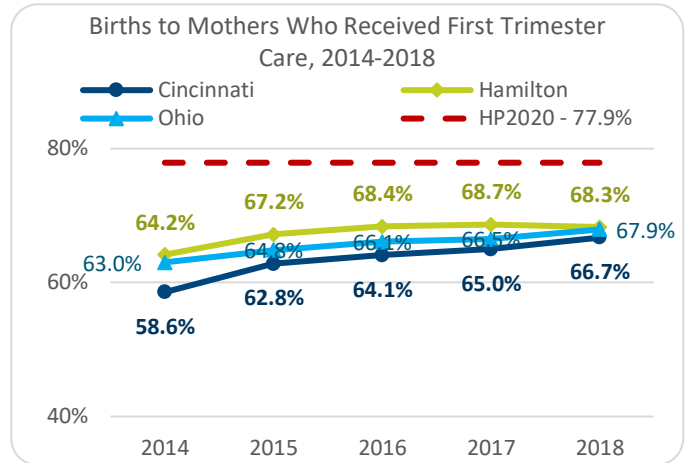
Source: Ohio Department of Health

Figure 59: Breast Feeding at Hospital Discharge, 2014-2018

Breastfeeding at Discharge, 2014-2018

- Cincinnati
- Hamilton
- Ohio
- HP2020 - 81.9%

Ohio: 71.1%, 71.5%, 72.8%, 73.4%, 75.6%
Hamilton: 66.4%, 66.8%, 71.0%, 73.0%, 74.2%
Cincinnati: 58.6%, 60.0%, 66.3%, 68.4%, 71.7%

Years: 2014, 2015, 2016, 2017, 2018
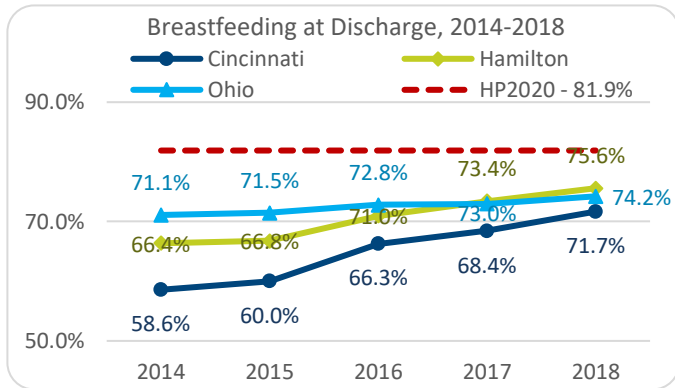
Source: Ohio Department of Health

Image by 5540867 from Pixabay

Childhood Immunizations

Figure 60: Pupils with Incomplete Immunizations and No Exemption on File, 2018

Pupils with Incomplete Immunizations & No Exemption on File, 2018

- Cincinnati City Schools
- Ohio
- HP2020

Kindergarten: Cincinnati City Schools 50.8%, Ohio 8.0%
7th Grade: Cincinnati City Schools 42.8%, Ohio 10.2%
12th Grade: Cincinnati City Schools 48.6%, Ohio 13.3%
HP2020, 5.0%
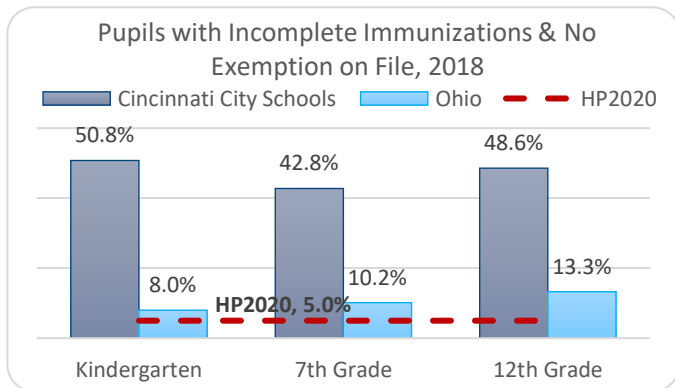
Source: Ohio Department of Health

PUBLIC HEALTH IMPORTANCE: ON-TIME VACCINATION THROUGHOUT CHILDHOOD IS ESSENTIAL BECAUSE IT HELPS PROVIDE IMMUNITY BEFORE CHILDREN ARE EXPOSED TO POTENTIALLY LIFE-THREATENING DISEASES.

Centers for Disease Control and Prevention

Infectious and Chronic Diseases

Infectious Diseases

Despite their burdens, costs, and complications, and the fact that they are largely preventable, STDs remain a significant public health problem in the United States. This problem is largely unrecognized by the public, policymakers, and health care professionals. STDs cause many harmful, often irreversible, and costly clinical complications, such as:

- Reproductive health problems
- Fetal and perinatal health problems
- Cancer
- Facilitation of the sexual transmission of HIV infection[4]

PUBLIC HEALTH IMPORTANCE: MANY STDS GO UNDETECTED AND UNTREATED, BUT STDS THAT DO NOT SHOW SYMPTOMS CAN STILL CAUSE HARM AND SPREAD TO OTHERS. UNTREATED STDS CAN LEAD TO INFERTILITY IN WOMEN; THEY CAN ALSO COMPLICATE PREGNANCY AND LEAD TO SERIOUS HEALTH CONSEQUENCES FOR A MOTHER AND HER BABY. HAVING AN STD ALSO INCREASES A PERSON'S RISK OF CONTRACTING HIV THROUGH SEXUAL CONTACT.

Source: HP2020

Figure 61: Sexually Transmitted Disease (rate per 100,000), 2014-2018

Sexually Transmitted Infections, 2014-2018
Rates are shown per 100,000 persons

	2014	2015	2016	2017	2018
HAMILTON Chlamydia	799.2	847.9	856.8	844.0	855.6
HAMILTON Gonorrhea	283.0	336.6	354.8	415.9	441.5
HAMILTON Syphilis	35.0	30.2	24.3	30.4	39.1
OHIO Chlamydia	468.4	489.9	521.8	526.8	543.4
OHIO Gonorrhea	138.3	143.1	176.8	205.8	216.3
OHIO Syphilis	10.5	11.7	13.9	16.4	16.4
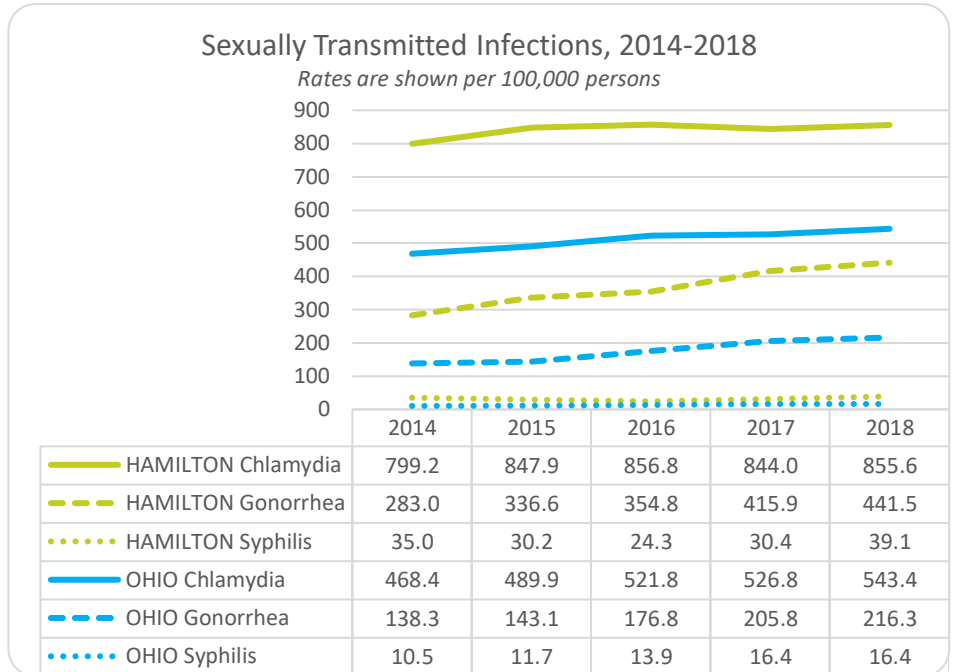
Source: Ohio Department of Health

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[4] St. Louis ME, Wasserheit JN, Gayle HD, editors. Janus considers the HIV pandemic: Harnessing recent advances to enhance AIDS prevention. Am J Public Health. 1997; 87:10-12. Pulled from HP2020. https://www.healthypeople.gov/2020/topics-objectives/topic/sexually-transmitted-diseases

Chronic Diseases

Chronic disease includes heart disease, stroke, diabetes, cancer, chronic obstructive pulmonary disease/chronic lower respiratory disease, 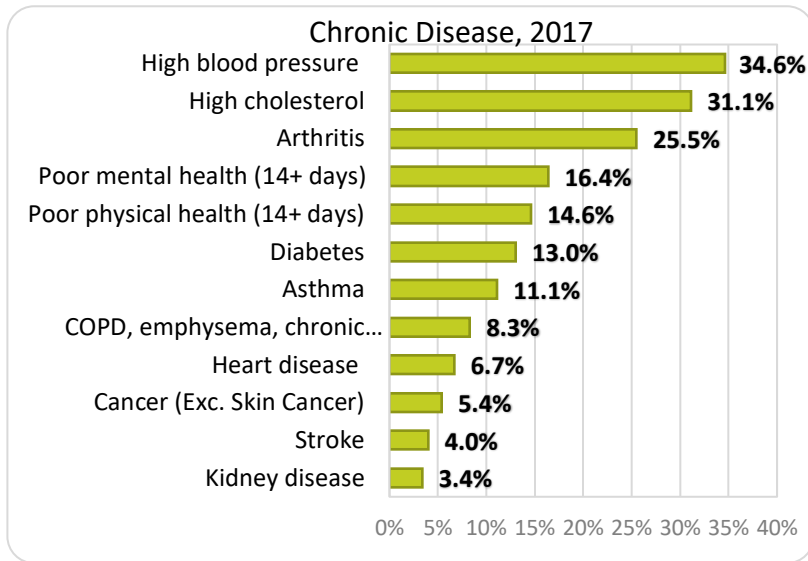asthma, and arthritis. It also includes related clinical risk factors (obesity, hypertension and high cholesterol), as well as behaviors closely associated with these conditions and risk factors (nutrition, physical activity and tobacco use). Refer to the Behavioral Risk Factors section earlier in the chapter for more information.

Figure 62: Chronic Disease, 2017

Chronic Disease, 2017

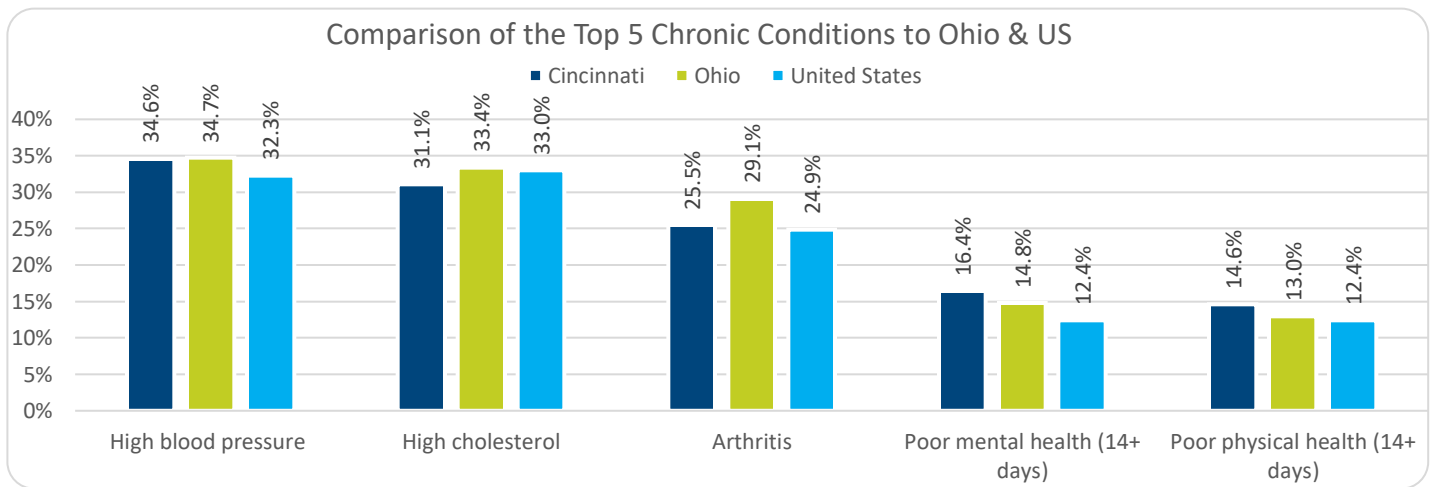| Condition	%
High blood pressure	34.6%
High cholesterol	31.1%
Arthritis	25.5%
Poor mental health (14+ days)	16.4%
Poor physical health (14+ days)	14.6%
Diabetes	13.0%
Asthma	11.1%
COPD, emphysema, chronic…	8.3%
Heart disease	6.7%
Cancer (Exc. Skin Cancer)	5.4%
Stroke	4.0%
Kidney disease	3.4%

PUBLIC HEALTH IMPORTANCE: ABOUT HALF OF ALL ADULTS IN THE U.S. HAVE ONE OR MORE CHRONIC HEALTH CONDITIONS AND ONE OF FOUR ADULTS HAVE TWO OR MORE CHRONIC HEALTH CONDITIONS. TWO OF THE TOP TEN CAUSES OF DEATH ACCOUNT FOR ALMOST HALF (48 PERCENT) OF THE DEATHS IN THE UNITED STATES – HEART DISEASE AND CANCER.

Centers for Disease Control and Prevention

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Figure 63: Comparison of the Top Five Chronic Conditions in Cincinnati to Ohio and the US, 2017

Comparison of the Top 5 Chronic Conditions to Ohio & US

■ Cincinnati ■ Ohio ■ United States

Condition	Cincinnati	Ohio	United States
High blood pressure	34.6%	34.7%	32.3%
High cholesterol	31.1%	33.4%	33.0%
Arthritis	25.5%	29.1%	24.9%
Poor mental health (14+ days)	16.4%	14.8%	12.4%
Poor physical health (14+ days)	14.6%	13.0%	12.4%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)
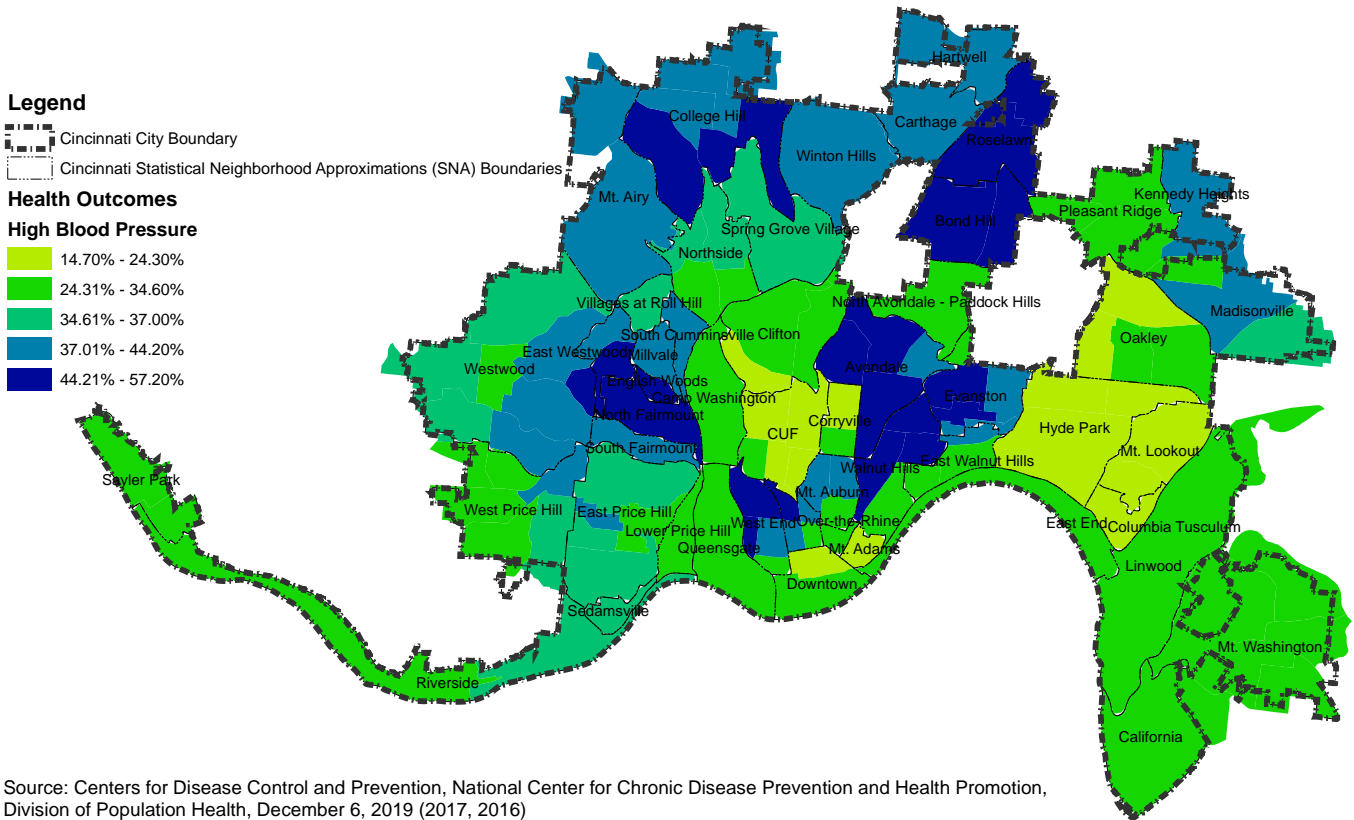
Key Research Findings: City of Cincinnati residents have comparatively higher rates of high blood pressure, poor physical, and poor mental health than the rates for Ohio and the U.S. Refer to Figure 63. Disparities are also consistently evident among residents in Census Tracts of the Roselawn, Bond Hill, College Hill, West End, and Avondale neighborhoods. In addition, higher rates are also can generally be found for Cincinnati residents 55 years of age or older and those residents living in households earning less than $15,000 per year.

Map 5: High Blood Pressure, Identifying Geographic Disparities, 2017

Legend

- ⬚ Cincinnati City Boundary
- ⬚ Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Health Outcomes

High Blood Pressure

- 14.70% - 24.30%
- 24.31% - 34.60%
- 34.61% - 37.00%
- 37.01% - 44.20%
- 44.21% - 57.20%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)
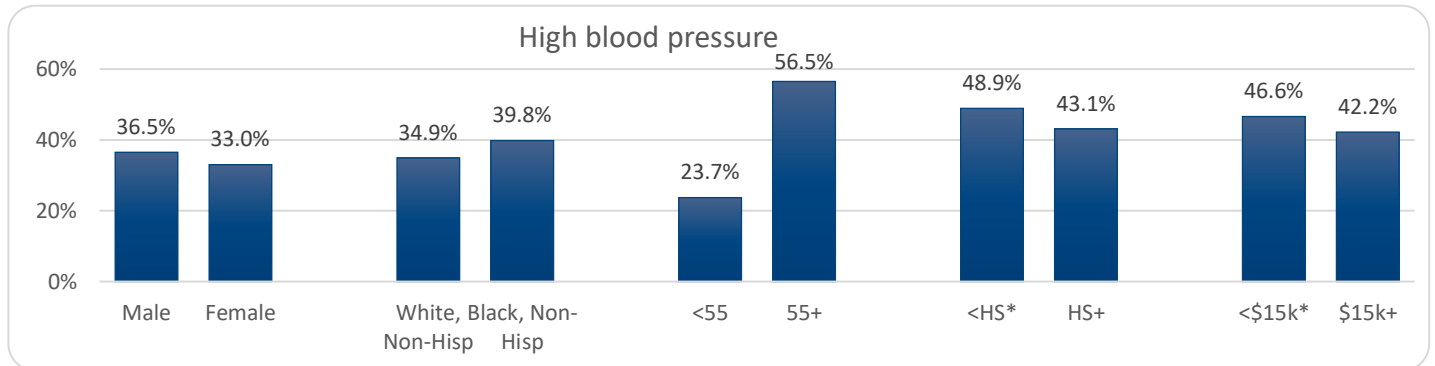
Figure 64: High Blood Pressure, Identifying Health Disparities, 2017 (Ohio – local data unavailable)

High blood pressure

Category	Value
Male	36.5%
Female	33.0%
White, Non-Hisp	34.9%
Black, Non-Hisp	39.8%
<55	23.7%
55+	56.5%
<HS*	48.9%
HS+	43.1%
<$15k*	46.6%
$15k+	42.2%

Source: Centers for Disease Control and Prevention

Map 6: High Blood Cholesterol, Identifying Geographic Disparities, 2017

Legend

⬚ Cincinnati City Boundary

⬚ Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Health Outcomes

High Cholesterol

- 14.00 - 20.60
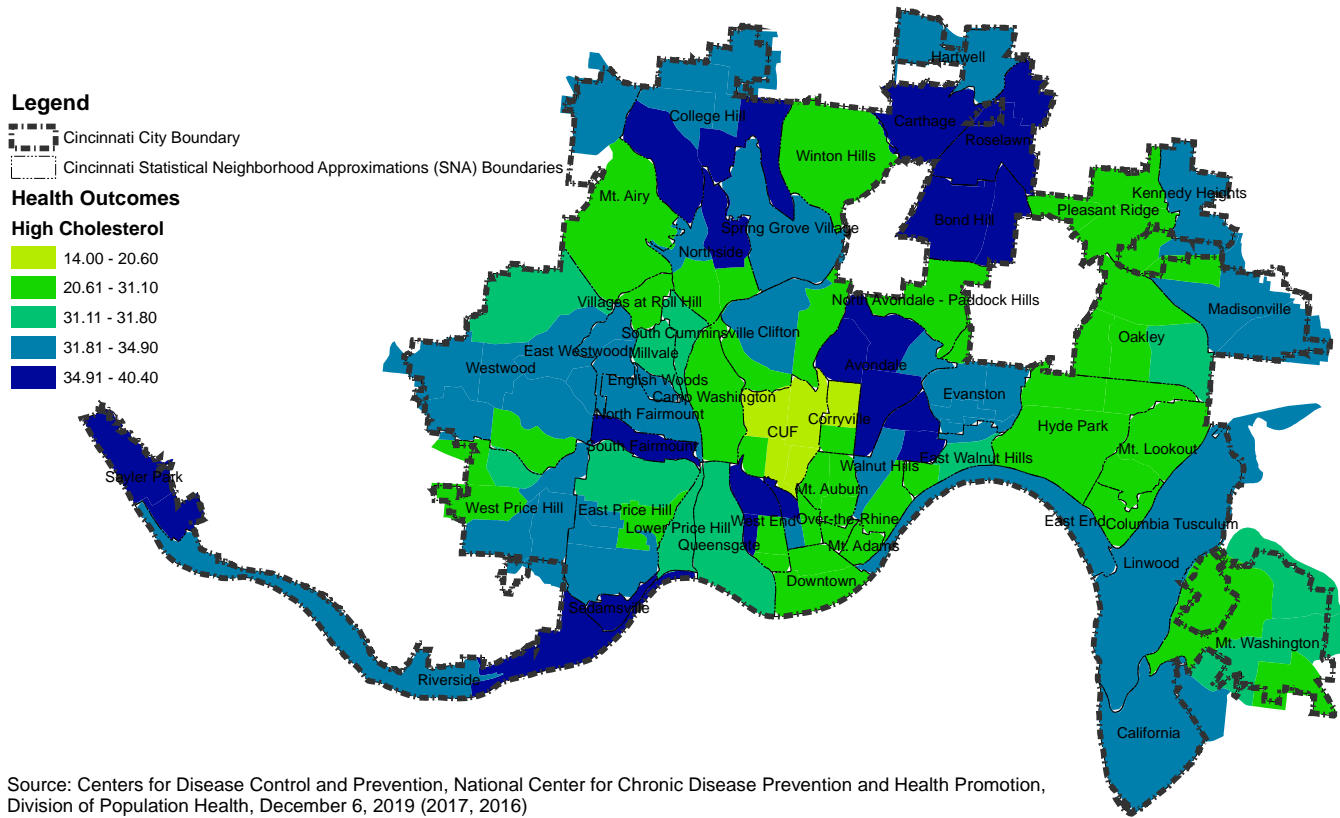- 20.61 - 31.10
- 31.11 - 31.80
- 31.81 - 34.90
- 34.91 - 40.40

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Figure 65: High Blood Cholesterol, Identifying Health Disparities, 2017 (Ohio – local data unavailable)
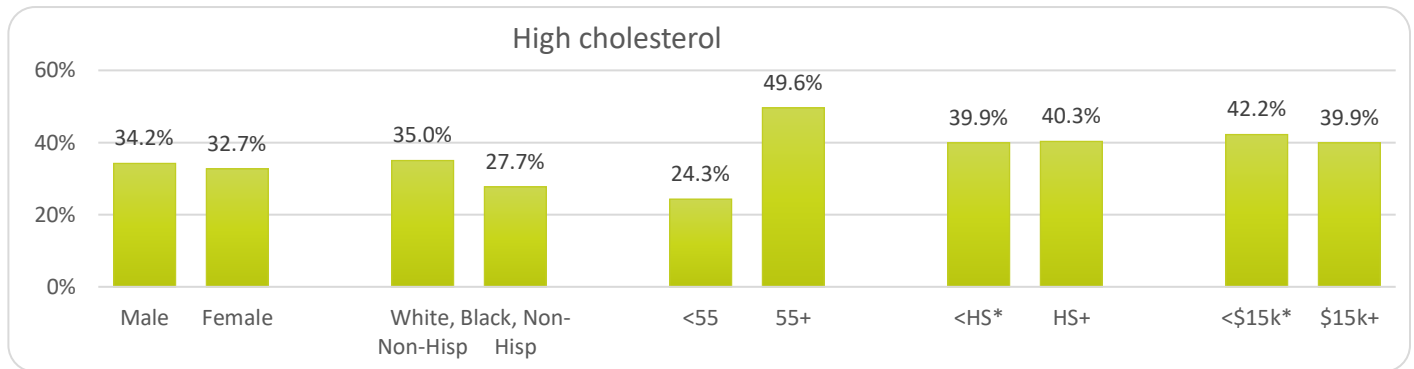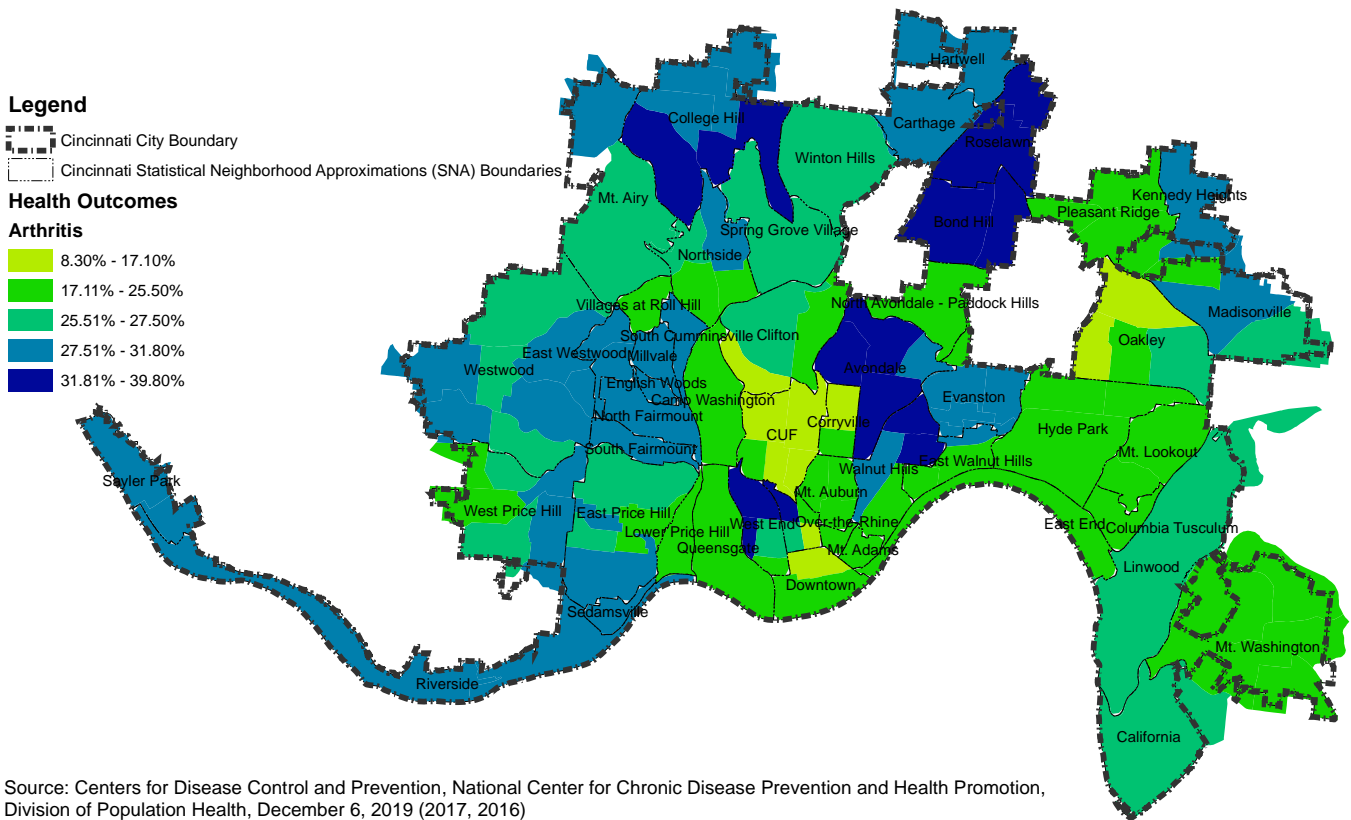
High cholesterol

Category	Value
Male	34.2%
Female	32.7%
White, Black, Non-Non-Hisp	35.0%
Hisp	27.7%
<55	24.3%
55+	49.6%
<HS*	39.9%
HS+	40.3%
<$15k*	42.2%
$15k+	39.9%

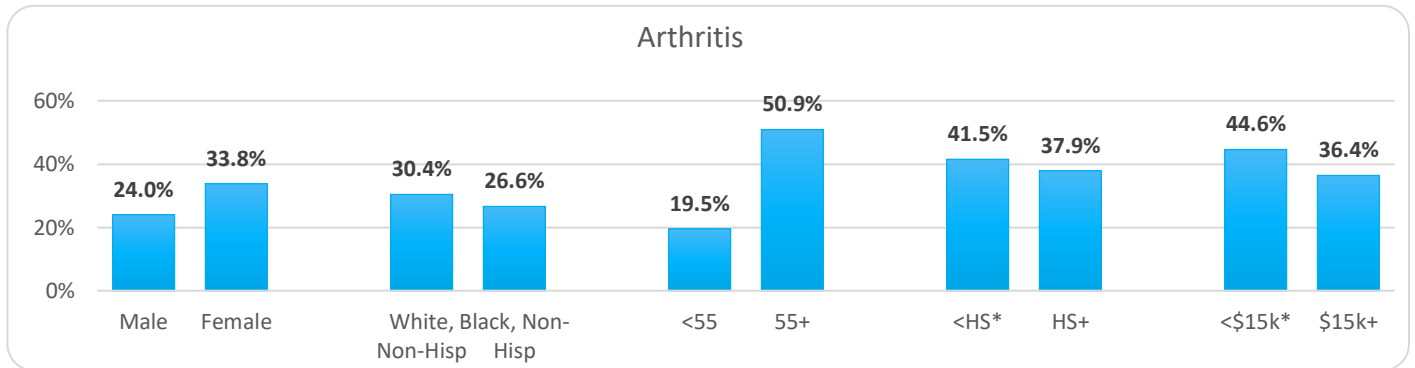Source: Centers for Disease Control and Prevention

Image by Steve Buissinne from Pixabay

Map 7: Arthritis, Identifying Geographic Disparities, 2017

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Figure 66: Arthritis, Identifying Health Disparities, 2017 (Ohio – local data unavailable)

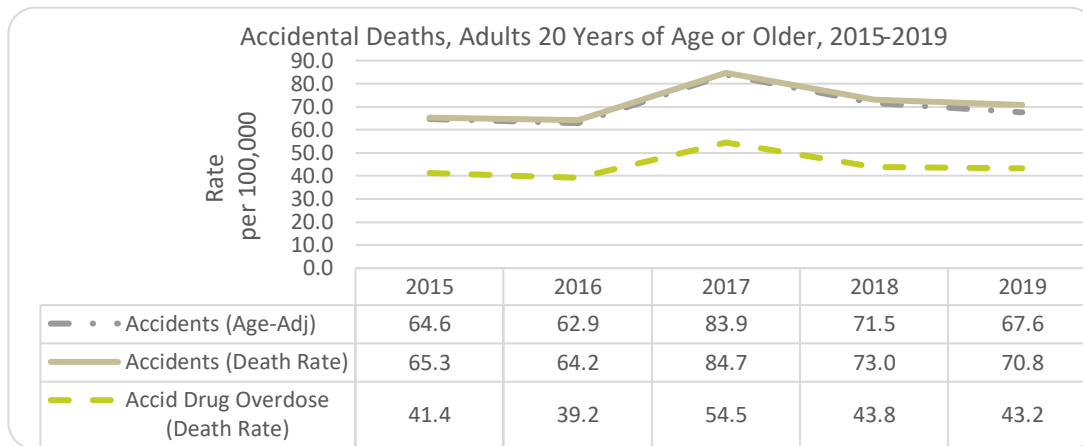Source: Centers for Disease Control and Prevention

Key Research Findings: When reviewing high blood pressure and high blood cholesterol for Cincinnati adults, disparities can also be witnessed among males and Black, Non-Hispanic residents. However, when reviewing arthritis diagnoses, females and White, Non-Hispanic residents have a higher rate of arthritis incidence. Neighborhoods with higher arthritis incidence include Over-the-Rhine, Avondale, Walnut Hills, Bond Hill, Roselawn, and College Hill.

Injury and Injury Prevention

Figure 67: Accidents and Accidental Drug Overdose, Adults 20 Years of Age or Older, 2014-2018

Accidental Deaths, Adults 20 Years of Age or Older, 2015-2019

	2015	2016	2017	2018	2019
Accidents (Age-Adj)	64.6	62.9	83.9	71.5	67.6
Accidents (Death Rate)	65.3	64.2	84.7	73.0	70.8
Accid Drug Overdose (Death Rate)	41.4	39.2	54.5	43.8	43.2

Source: Ohio Department of Health

Key Research Findings

Accidental deaths include motor vehicle accidents, falls, and poisoning and are completely preventable. Drug overdoses are also considered accidental deaths and the rate of mortality from drug overdose drives the accidental death rate in Cincinnati. Refer to Figure 67.
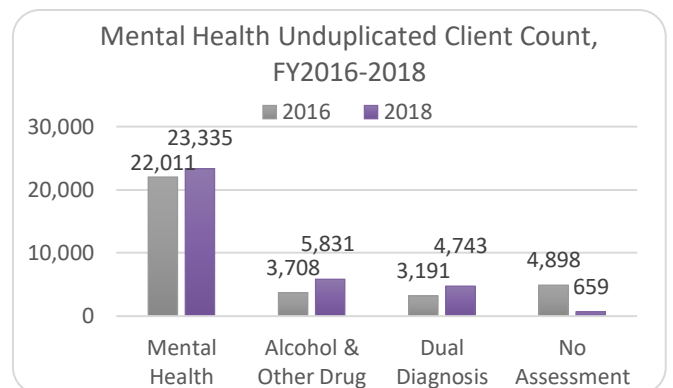
Mental Health and Substance Use Disorders

Mental health includes our emotional, psychological, and social well-being. It affects how we think, feel, and act. It also helps determine how we handle stress, relate to others, and make choices.

Figure 68: Hamilton County Mental Health Unduplicated Client Count, FY2017

Mental Health Unduplicated Client Count, FY2016-2018

■ 2016 ■ 2018

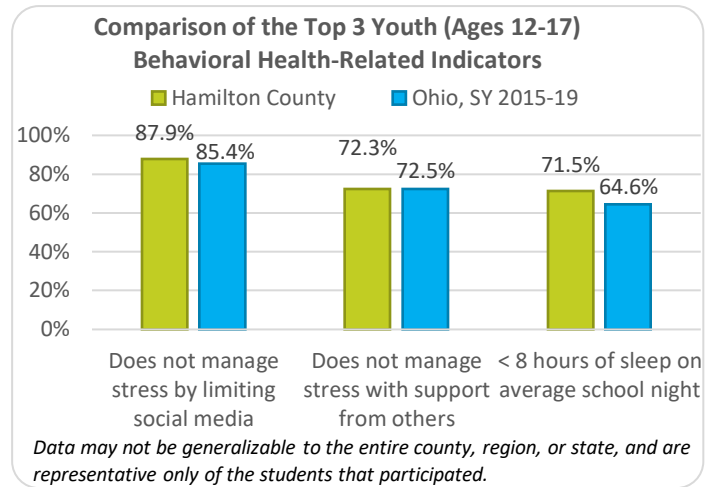|	Mental Health	Alcohol & Other Drug	Dual Diagnosis	No Assessment
2016	22,011	3,708	3,191	4,898
2018	23,335	5,831	4,743	659

Source: Ohio Department of Mental Health and Addiction Services

Figure 69: Hamilton County Mental Health Youth Survey Results, SY2015-2016

Hamilton County Youth (Ages 12-17) Health and Well-being Related Behaviors, SY2015-16

Behavior	Percent
Does not manage stress by limiting social media	31.6%
Does not manage stress with support from others	23.2%
< 8 hours of sleep on average school night	21.0%
Does not manage stress by avoiding people…	17.6%
Anxious as measured by the PHQ1	15.7%
Gambled in the past 12 months	13.8%
Excessive gambling in the past 12 months	5.0%
In the past year felt sad or hopeless almost every day…	0.0%
Depressed as measured by the PHQ2	0.0%
Severe Psychological Distress Level as measured by the…	0.0%

Data may not be generalizable to the entire county, region, or state, and are representative only of the students that participated.

Source: Ohio Department of Health, OHYES! Ohio Healthy Youth Environments Survey

Figure 70: Hamilton County Mental Health Youth Survey Results, SY2018-2019
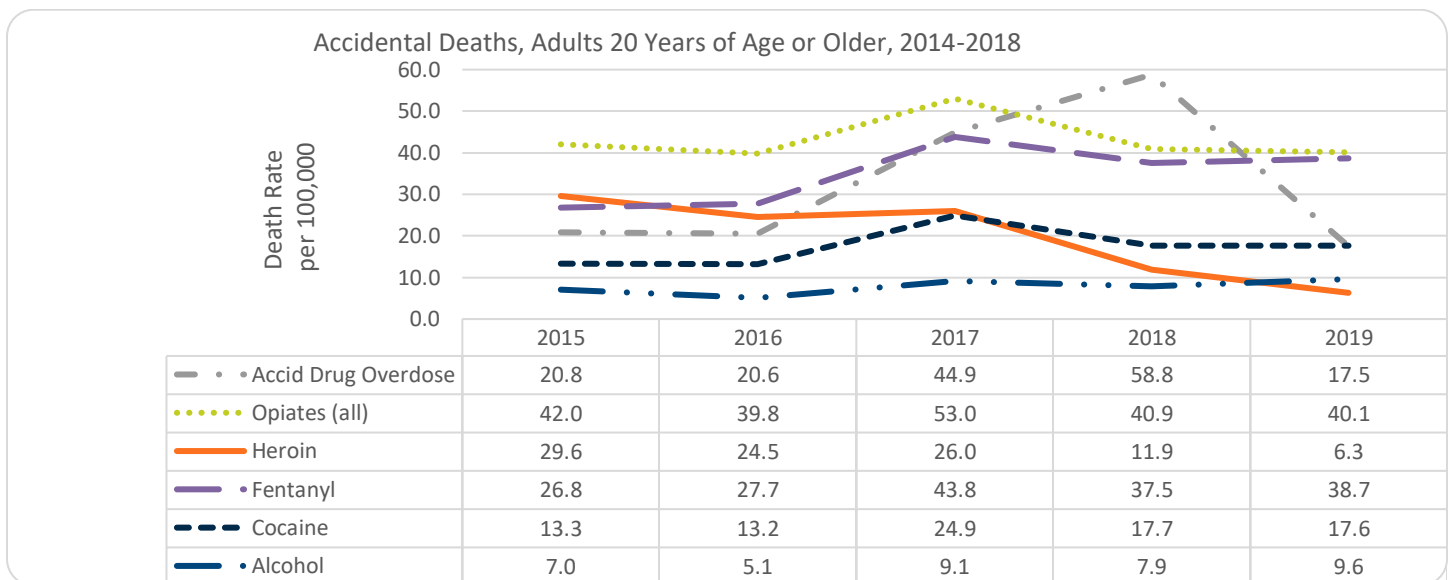
Comparison of the Top 3 Youth (Ages 12-17) Behavioral Health-Related Indicators

Legend: ■ Hamilton County ■ Ohio, SY 2015-19

Indicator	Hamilton County	Ohio, SY 2015-19
Does not manage stress by limiting social media	87.9%	85.4%
Does not manage stress with support from others	72.3%	72.5%
< 8 hours of sleep on average school night	71.5%	64.6%

Data may not be generalizable to the entire county, region, or state, and are representative only of the students that participated.

Source: Ohio Department of Health, OHYES! Ohio Healthy Youth Environments Survey

Key Research Findings:

About 1 in 5 to 1 in 4 youth surveyed in Hamilton County on the OHYES survey appear to struggle with anxiety and depression.

Figure 71: Accidental Drug Overdose, Selected Substances, Hamilton County Adults 20 Years of Age or Older, 2014-2018

Accidental Deaths, Adults 20 Years of Age or Older, 2014-2018

Death Rate per 100,000

	2015	2016	2017	2018	2019
Accid Drug Overdose	20.8	20.6	44.9	58.8	17.5
Opiates (all)	42.0	39.8	53.0	40.9	40.1
Heroin	29.6	24.5	26.0	11.9	6.3
Fentanyl	26.8	27.7	43.8	37.5	38.7
Cocaine	13.3	13.2	24.9	17.7	17.6
Alcohol	7.0	5.1	9.1	7.9	9.6

Key Research Findings

Mental Health: Linked to physical health, mental health can affect work productivity, quality of life, social interaction, diseases, treatments, and outcomes. People who maintain positive mental health are more likely to succeed in life, and more likely to increase their chances of living longer, healthier lives.

Alcohol Use: Excessive alcohol consumption is associated with numerous health problems. Unintentional injuries, such as motor vehicle crashes, falls, burns, and drowning are often tied to alcohol use. Intentional injuries associated with alcohol use include firearm injuries, sexual assaults, and domestic violence. Long-term health risks include liver disease, depression, anxiety, high blood pressure, stroke, heart attack, cancer, and uncontrollable diabetes. Pregnant women who drink risk having a child born with fetal alcohol spectrum disorders.

Tobacco use: Smoking is linked to almost half a million deaths each year in the U.S. Smoking can cause cancer almost anywhere in the body and increases the risk of developing heart disease and stroke. Women who smoke while pregnant are at an increased risk for having a preterm baby, stillbirth, and infant death.

Addiction: Drug use and misuse continue to create public health challenges in the United States, leading to overdose deaths, HIV and hepatitis C infections, and other chronic health conditions (APHA Policy Statement).

Chapter 5: Description of Health Disparities and High-Risk Populations

Health disparities are preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations.[5] Populations can be defined by factors such as race or ethnicity, gender, education or income, disability, geographic location (e.g., rural or urban), or sexual orientation. Health disparities are inequitable and are directly related to the historical and current unequal distribution of social, political, economic, and environmental resources.

Maternal and Infant Health Disparities

Premature Birth

FACTORS THAT CONTRIBUTE TO POORER HEALTH OUTCOMES: BABIES BORN PREMATURELY CAN SUFFER FROM MANY LIFELONG MEDICAL CONDITIONS THAT AFFECT THEIR HEART, LUNGS, INTESTINES, KIDNEYS, AND EYES. AS THESE BABIES MATURE, DEVELOPMENTAL DELAYS AND LEARNING DISABILITIES OFTEN APPEAR.

March of Dimes

Figure 72: 1st Trimester Prenatal Care, Identifying Disparities in Cincinnati, 5-year Average (2014-2018)
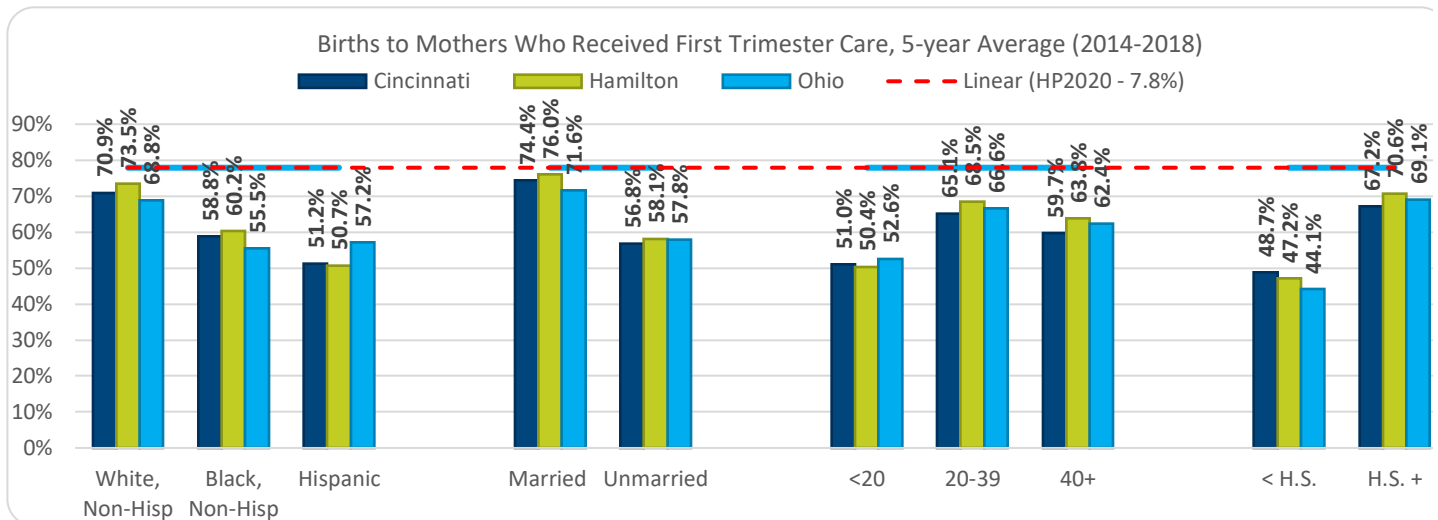
Source: Ohio Department of Health

Key Research Findings

Although there is little difference between Cincinnati and the county when securing 1st trimester care, differences in trends can be seen for African Americans and Hispanics. This is also true for young mothers, unmarried mothers, and mothers without high education. Disparities can also be seen among Cincinnati's neighborhoods, where mothers in the Avondale, California, Camp Washington, East Price Hill, East Walnut Hills, West End, and Winton Hills are the least likely to obtain 1st trimester prenatal care (Refer to **Error! Reference source not found.**).

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[5] CDC. Community Health and Program Services (CHAPS): Health Disparities Among Racial/Ethnic Populations. Atlanta: U.S. Department of Health and Human Services; 2008

Figure 73: Preterm Live Births (<37 weeks gestation), Identifying Health Disparities in Cincinnati, 5-year Average (2014-2018)
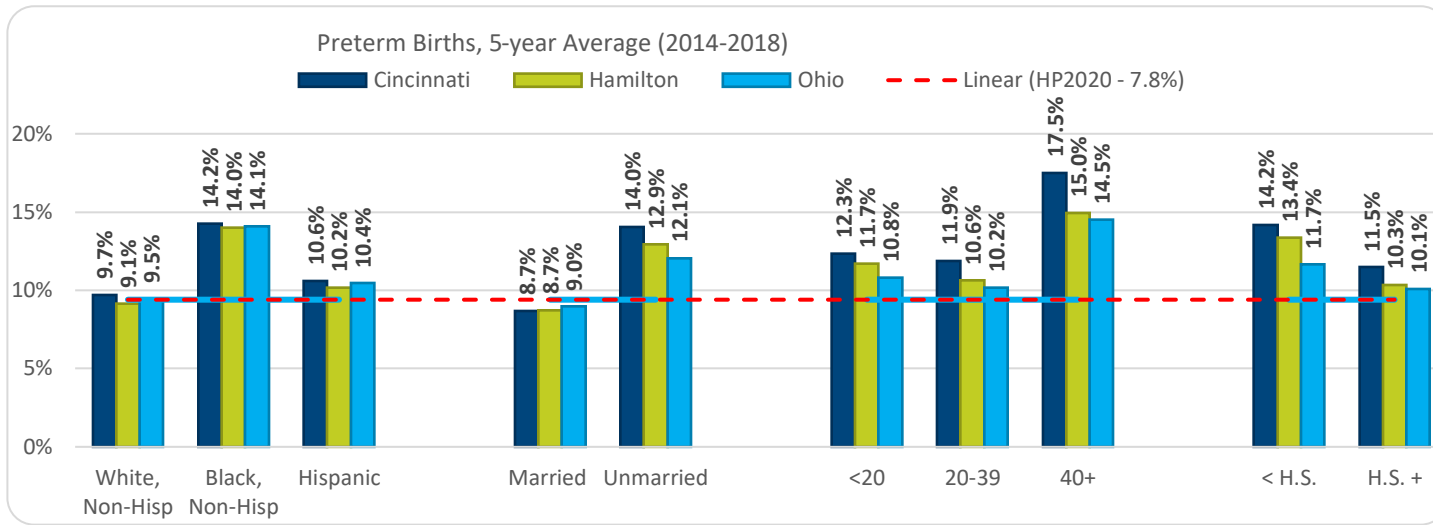
Source: Ohio Department of Health

Figure 74: Low Birth Weight Births, Identifying Health Disparities in Cincinnati, 5-year Average (2014-2018)
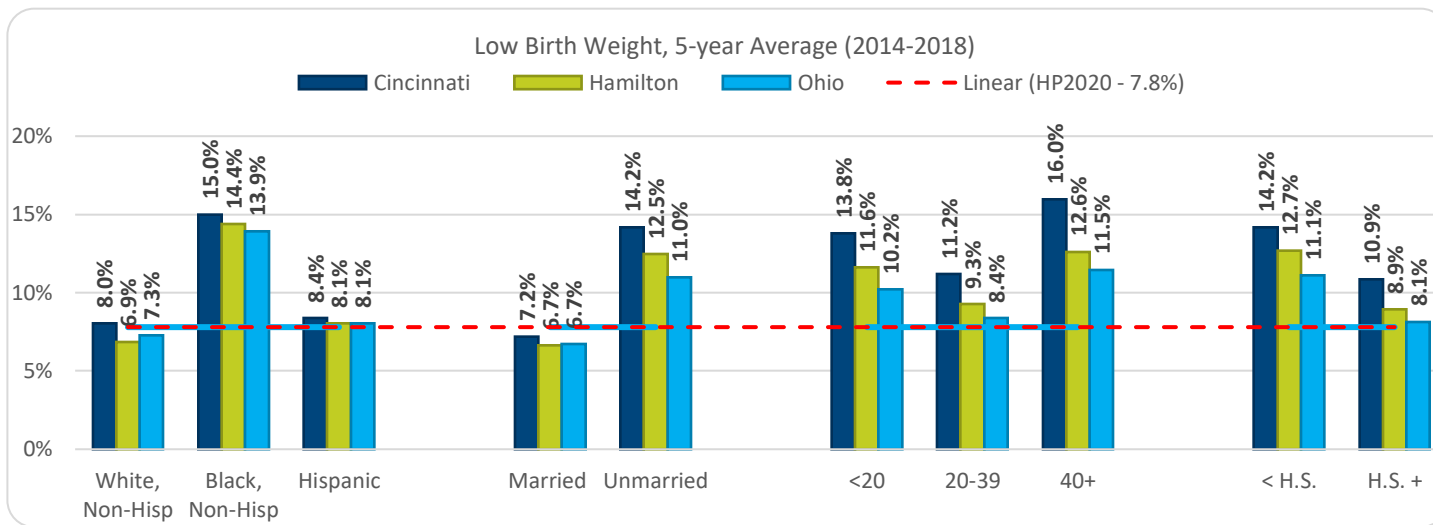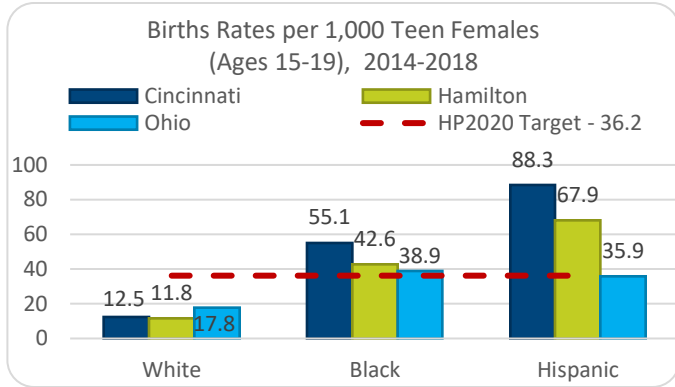

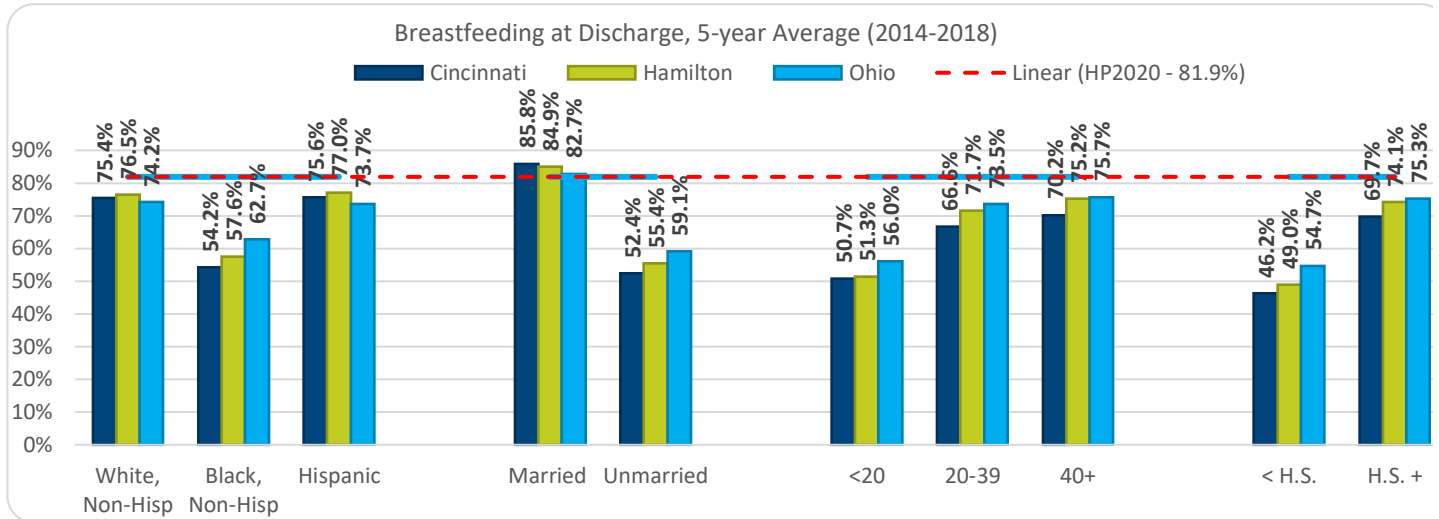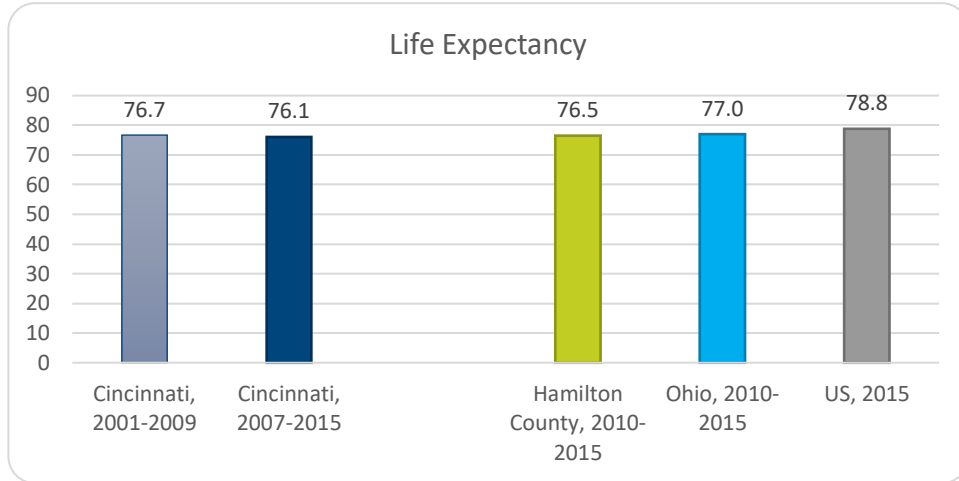Source: Ohio Department of Health

Key Research Findings

Studying health disparities for maternal and infant health reveals trends of wider prevalence of preterm birth and low birth weight for African Americans and for mothers over the age of 40. Breastfeeding and first trimester care are less common for African Americans, unmarried mothers, and younger mothers.

Figure 75: Births to Teen Mothers, Identifying Disparities in Cincinnati, 5-year Average (2014-2018)

Births Rates per 1,000 Teen Females
(Ages 15-19), 2014-2018

Cincinnati | Hamilton
Ohio | HP2020 Target - 36.2

	White	Black	Hispanic
Cincinnati	12.5	55.1	88.3
Hamilton	11.8	42.6	67.9
Ohio	17.8	38.9	35.9

Source: Ohio Department of Health

Figure 76: Mothers Breastfeeding at Hospital Discharge, Identifying Disparities in Cincinnati, 5-year Average (2014-2018)

Breastfeeding at Discharge, 5-year Average (2014-2018)

Cincinnati | Hamilton | Ohio | Linear (HP2020 - 81.9%)

	White, Non-Hisp	Black, Non-Hisp	Hispanic	Married	Unmarried	<20	20-39	40+	< H.S.	H.S. +
Cincinnati	75.4%	54.2%	75.6%	85.8%	52.4%	50.7%	66.6%	70.2%	46.2%	69.7%
Hamilton	76.5%	57.6%	77.0%	84.9%	55.4%	51.3%	71.7%	75.2%	49.0%	74.1%
Ohio	74.2%	62.7%	73.7%	82.7%	59.1%	56.0%	73.5%	75.7%	54.7%	75.3%

Source: Ohio Department of Health

Figure 77: Infant Mortality by Race, Rate per 1,000 Births, 2012-2016

Infant Mortality by Race, Rate per 1,000 Births, 2012-2016

Cincinnati, White | Hamilton County, White | Ohio, white | Cincinnati, Black
Hamilton County, Black | Ohio, Black | HP 2020 - 6.0

	2012	2013	2014	2015	2016
Cincinnati, White	5.6	5.9	5.7	5.2	11.1
Hamilton County, White	6.6	5.2	4.3	5.1	6.3
Ohio, white	6.4	6.1	5.3	5.5	5.8
Cincinnati, Black	12.0	15.1	14.8	14.9	11.4
Hamilton County, Black	13.3	14.4	17.1	16.9	14.3
Ohio, Black	13.9	14.0	14.3	15.1	15.2
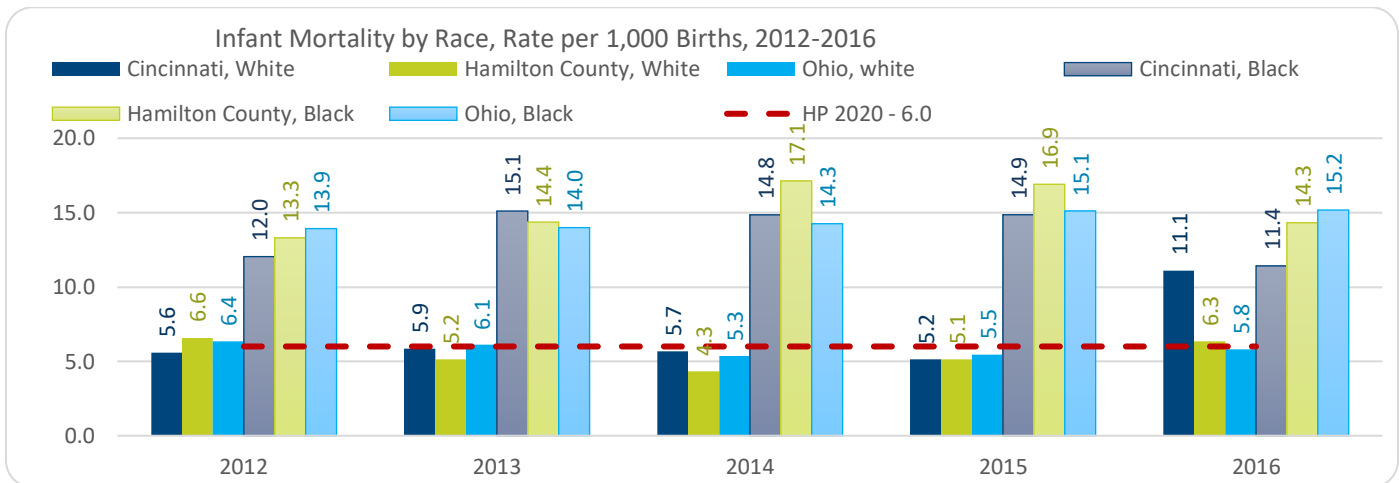
Life Expectancy

According to Healthy People 2020, life expectancy is a summary mortality measure often used to describe the overall health status of a population and as presented below is the average number of years a population from birth would be expected to live.

Figure 78: Comparison of Life Expectancy (in Years) for Cincinnati Residents to Hamilton County, Ohio, and the US

Life Expectancy

Category	Value
Cincinnati, 2001-2009	76.7
Cincinnati, 2007-2015	76.1
Hamilton County, 2010-2015	76.5
Ohio, 2010-2015	77.0
US, 2015	78.8

Hamilton County and Ohio Life Expectancy – Source: National Center for Health Statistics - Mortality Files. Pulled from: 2020 County Health Rankings, Life expectancy.

Cincinnati Life Expectancy – Source: Updated Life Expectancy by Neighborhood in Cincinnati, 2007-2015. Pulled from Source: Ohio Department of Health, Vital Statistics and Cincinnati Health Department Office of Vital Records and Statistics, 2007-2015; National Center for Health Statistics. Health, United States, 2016: With Chartbook on Long-term Trends in Health. Hyattsville, MD. 2017.

Figure 79: Life Expectancy (in Years), Identifying Social Disparities, 2007-2015
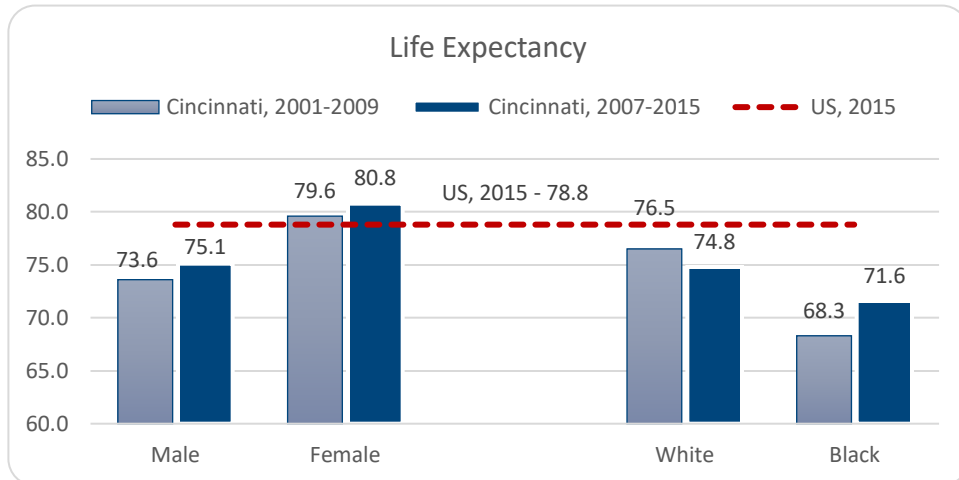
Life Expectancy

Legend: Cincinnati, 2001-2009 | Cincinnati, 2007-2015 | US, 2015

US, 2015 - 78.8

Category	Cincinnati, 2001-2009	Cincinnati, 2007-2015
Male	73.6	75.1
Female	79.6	80.8
White	76.5	74.8
Black	68.3	71.6

Source: Updated Life Expectancy by Neighborhood in Cincinnati, 2007-2015. Pulled from Source: Ohio Department of Health, Vital Statistics and Cincinnati Health Department Office of Vital Records and Statistics, 2007-2015; National Center for Health Statistics. Health, United States, 2016: With Chartbook on Long-term Trends in Health. Hyattsville, MD. 2017.

Key Research Findings:

In Cincinnati, an infant born between 2007-2015 is expected to live about 76 years and 1 month, on average (Refer to Figure 78. Females are expected to outlive males in Cincinnati by two and half years on average (Figure 79). The life expectancy for African American residents in Cincinnati is expected to be 3.2 shorter than Caucasians (Figure 79).

Life Expectancy in Cincinnati neighborhoods varies greatly, from 62.8 to 87.8 years. The neighborhoods with the poorest life expectancy outcomes are clustered around the downtown and southern industrial areas of the city and include Over-the-Rhine, Corryville, East Price Hill, Walnut Hills, Avondale, Camp Washington, North Fairmont, English Woods, Linwood, South Sedamsville/Riverside, Lower Price Hill, Fairmont, and Queensgate (Refer to the following maps).

Map 8: Life Expectancy, Identifying Geographic Disparities, 2007-2015
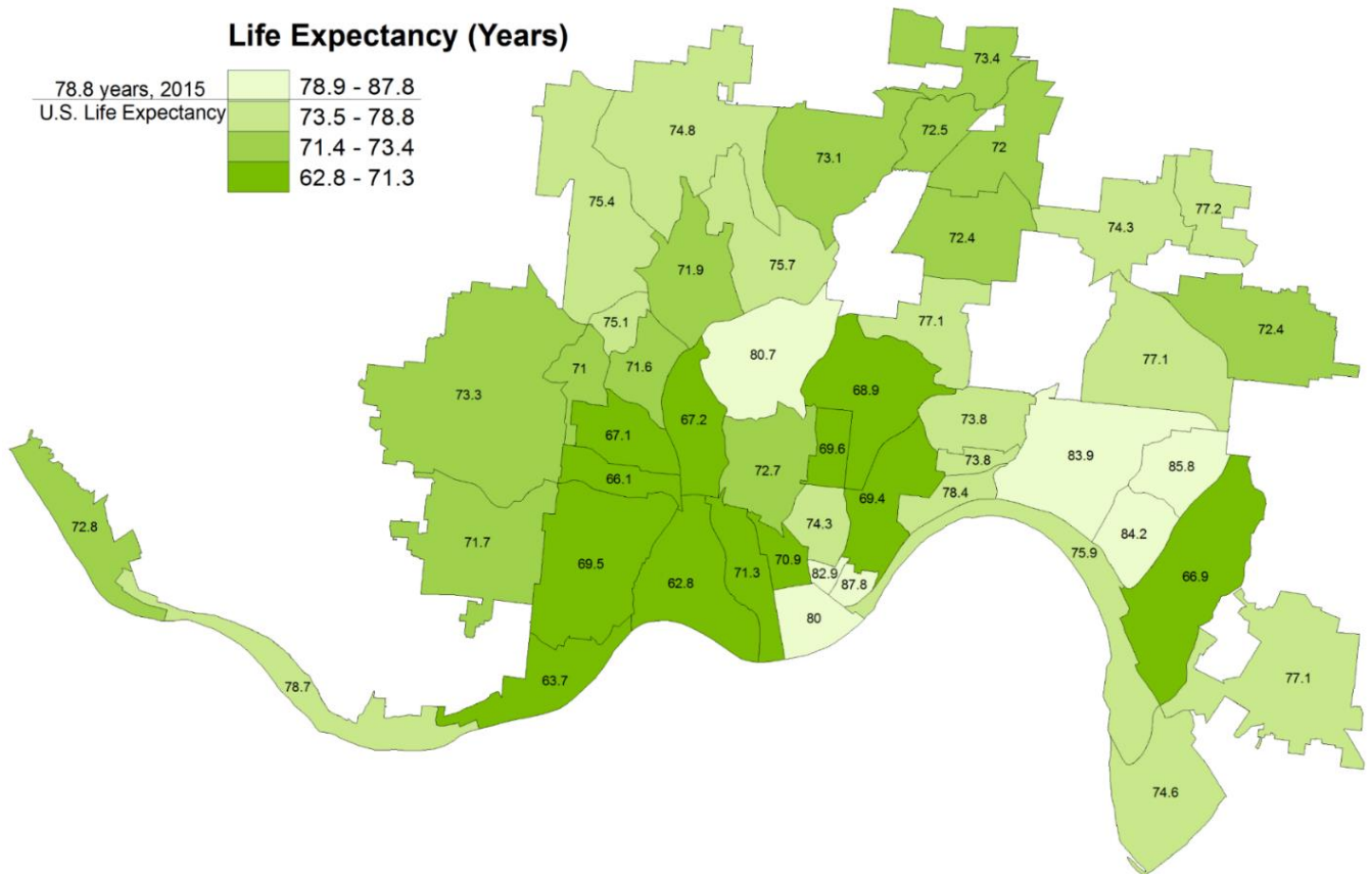
Life Expectancy (Years)

78.8 years, 2015 U.S. Life Expectancy	78.9 - 87.8
	73.5 - 78.8
	71.4 - 73.4
	62.8 - 71.3

Source: Ohio Department of Health, Vital Statistics and Cincinnati Health Department Office of Vital Records and Statistics, 2007-2015.

Infectious and Chronic Disease Health Disparities

Infectious Diseases

PUBLIC HEALTH IMPORTANCE: THE CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC) ESTIMATES THAT THERE ARE APPROXIMATELY 20 MILLION NEW STD INFECTIONS EACH YEAR—ALMOST HALF OF THEM AMONG YOUNG PEOPLE AGES 15 TO 24. BECAUSE MANY CASES OF STDS GO UNDIAGNOSED—AND SOME COMMON VIRAL INFECTIONS, SUCH AS HUMAN PAPILLOMAVIRUS (HPV) AND GENITAL HERPES, ARE NOT REPORTED TO CDC AT ALL—THE REPORTED CASES OF CHLAMYDIA, GONORRHEA, AND SYPHILIS REPRESENT ONLY A FRACTION OF THE TRUE BURDEN OF STDS IN THE UNITED STATES.

Source: HP2020

Figure 80: New Chlamydia Cases in Ohio by Sex (rate per 100,000), 2014-2018

New Chlamydia Cases in Ohio by Sex (rate per 100,000), 2014-2018

Male — Female

	2014	2015	2016	2017	2018
Female	681.4	702.3	706.6	708.9	719.2
Male	264.2	286.2	329.5	337.3	360.4

Source: Ohio Department of Health

Figure 81: New Chlamydia Cases in Ohio by Age Cohort (rate per 100,000), 2014-2018

New Chlamydia Cases in Ohio by Age Cohort (rate per 100,000), 2014-2018

20-34 — 35+

	2014	2015	2016	2017	2018
20-34	1487.6	1559.9	1645.8	1647.7	1719.8
35+	47.3	53.2	59.7	63.7	69.6

Source: Ohio Department of Health

Figure 82: New Gonorrhea Cases in Ohio by Sex (rate per 100,000), 2014-2018

New Gonorrhea Cases in Ohio by Sex (rate per 100,000), 2014-2018

Male — Female

	2014	2015	2016	2017	2018
Female	152.3	149.4	182.7	214.3	228.2
Male	124.9	137.2	171.2	197.6	204.9
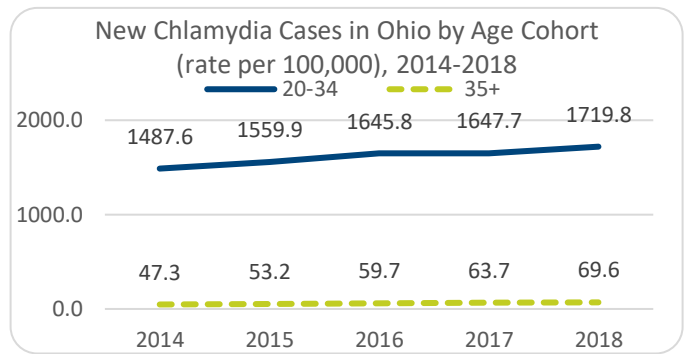
Source: Ohio Department of Health

Figure 83: New Gonorrhea Cases in Ohio by Age Cohort (rate per 100,000), 2014-2018

New Gonorrhea Cases in Ohio by Age Cohort (rate per 100,000), 2014-2018

15 - 19 — 20 - 24 — 25 - 29

	2014	2015	2016	2017	2018
20 - 24	679.4	689.8	803.3	910.7	935.6
15 - 19	502.1	485.3	564.4	646.9	682.9
25 - 29	384.1	419.9	532.8	606.3	605.5
	216.7	236.2	316.4	370.3	413.7
	33.7	37.7	52.8	67.0	73.6
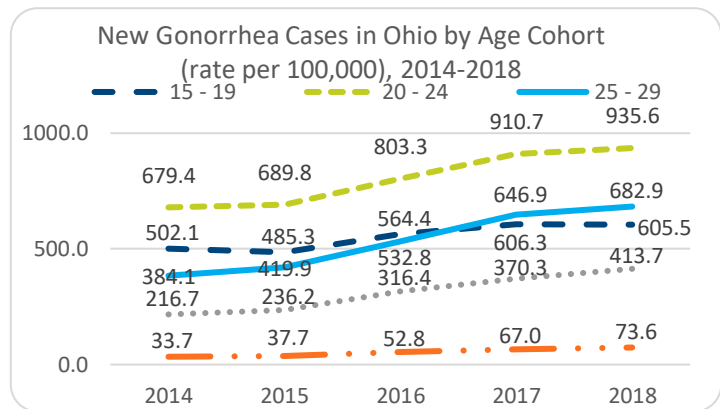
Source: Ohio Department of Health

Figure 84: New Syphilis Cases in Ohio by Sex (rate per 100,000), 2014-2018

New Syphilis Cases in Ohio by Sex
(rate per 100,000), 2014-2018

—— Male   — — Female

	2014	2015	2016	2017	2018
Male	16.2	18.3	23.1	27.8	26.9
Female	4.7	4.7	5.0	5.6	6.3
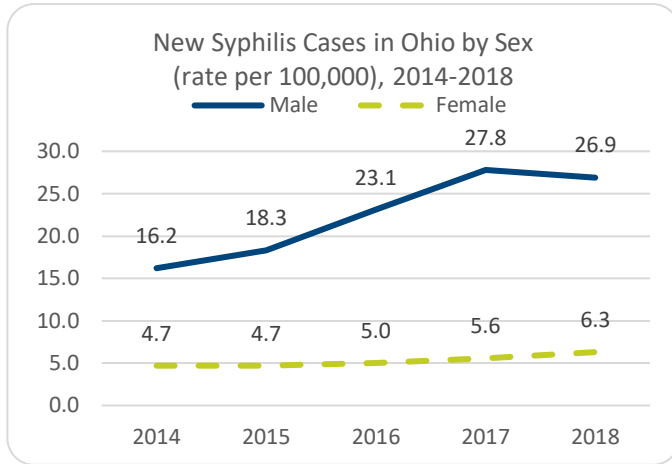
Source: Ohio Department of Health

Figure 85: New Syphilis Cases in Ohio by Age Cohort (rate per 100,000), 2014-2018

New Syphilis Cases in Ohio by Age Cohort
(rate per 100,000), 2014-2018

—— 20-34   — — 35+

	2014	2015	2016	2017	2018
20-34	32.2	32.6	37.9	46.9	46.5
35+	6.5	8.6	10.4	11.6	11.4
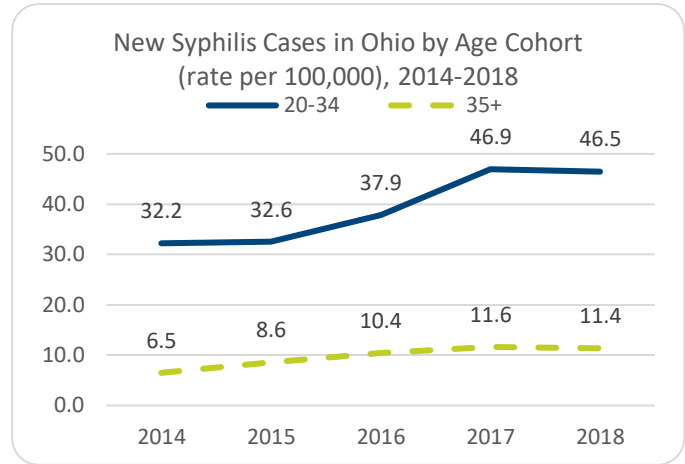
Source: Ohio Department of Health

Key Research Findings

To study health disparities for STD's, data are presented for Ohio since such analysis is not possible at the County level due to data suppression requirements. Ohio age and sex comparisons indicate greater prevalence among younger adults and females. New gonorrhea diagnoses indicate a recent decline in the County. Age and sex comparisons for Ohio show steep inclines for those aged 20-34 and show rates for males outpacing that for females.

Chronic Diseases

Several protective factors that have registered substantial average increases (e.g., physical activity among adults, high blood pressure control, and human papillomavirus vaccination among adolescent females) have stalled in recent years.[6] Many protective factors, even those with impressive relative gains, still represent only a minority of the U.S. population (e.g., control of high cholesterol at 29.5%).

FACTORS THAT CONTRIBUTE TO POORER HEALTH OUTCOMES: AGE-ADJUSTED RATES FOR MOST OF THE LEADING CAUSES OF DEATH ARE DECLINING, BUT IN SOME CASES, THE NUMBER OF DEATHS IS INCREASING ... HEART DISEASE, CANCER, OR ACCIDENTS ARE THE LEADING CAUSES OF PREMATURE DEATH.

Gardner JW, et al. Epidemiology

Map 9: Adult Obesity, Identifying Geographic Disparities, 2017

Legend

Cincinnati City Boundary
Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Unhealthy Behaviors
Adult Obesity

- 14.10% - 19.70%
- 19.71% - 36.39%
- 36.40% - 30.00%
- 30.01% - 35.60%
- 35.61% - 42.00%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

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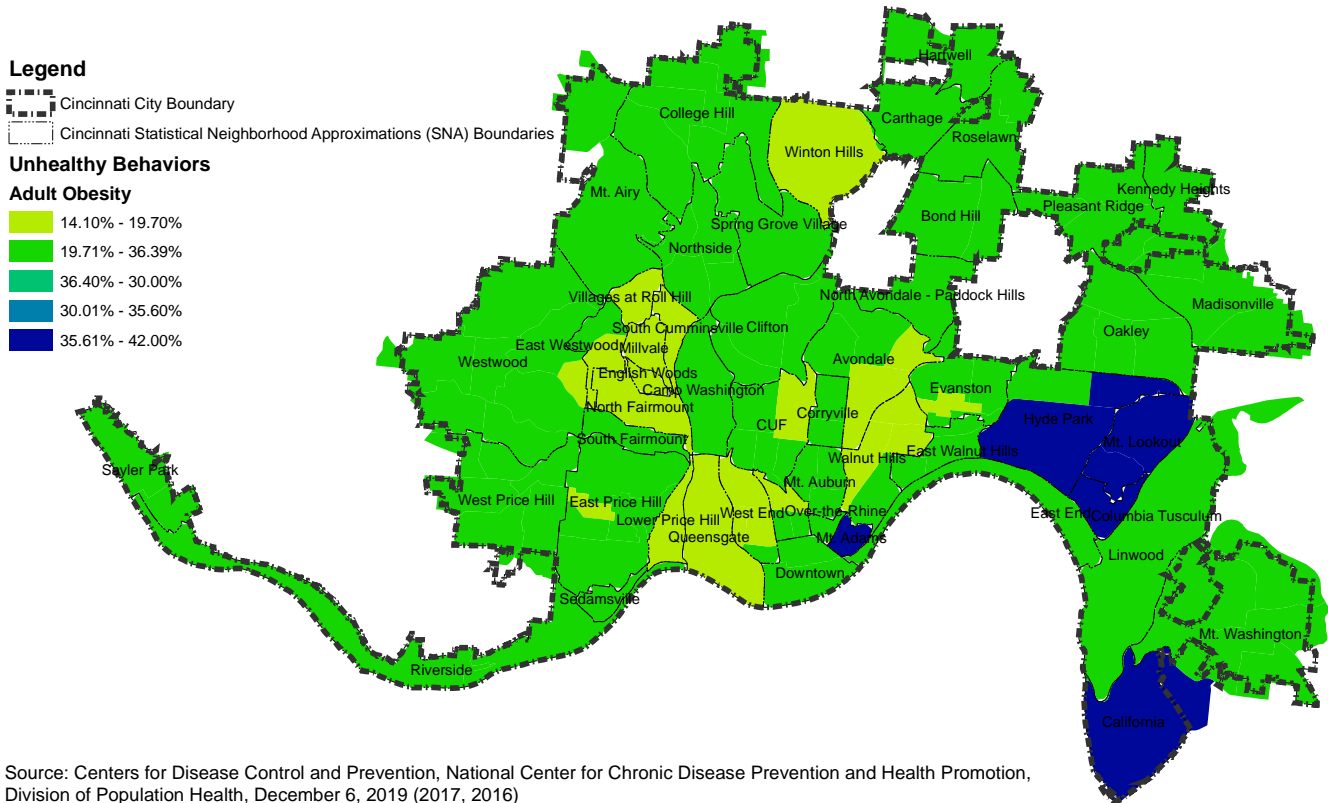
[6] CDC National Health Report: leading causes of morbidity and mortality and associated behavioral risk and protective factors--United States, 2005-2013.

Figure 86: Leading Causes of Adult Death in Cincinnati, Identifying Health Disparities, 5-year Rate (2014-2018)

Top 5 Leading Causes of Death, 2014-2018
Age-Adj Rate/100,000 Adults 20 Years of Age or Older

	2014	2015	2016	2017	2018
Diseases of heart	264.8	251.6	271.9	265.2	248.8
Malignant neoplasms	250.6	270.2	246.9	248.4	231.4
Accidents (unintentional injuries)	82.8	105.1	100.0	141.4	107.8
Cerebrovascular diseases	81.5	75.4	85.3	82.7	60.5
Chronic lower respiratory diseases	51.3	66.4	51.7	60.0	48.6
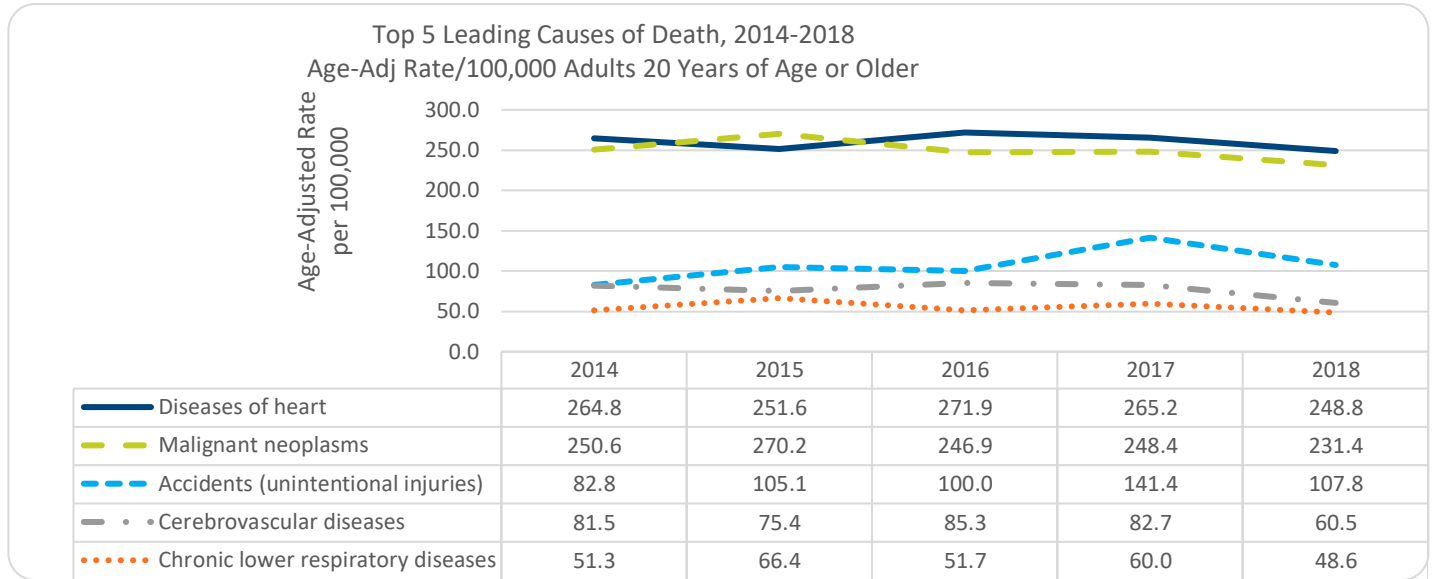
Source: Ohio Department of Health

Cancer

FACTORS THAT CONTRIBUTE TO POORER HEALTH OUTCOMES: DAILY HABITS LIKE SMOKING, POOR DIET, AND LITTLE PHYSICAL ACTIVITY INCREASE THE RISK FOR CANCER. EDUCATION, HOUSING, INCOME AND OCCUPATION ARE FACTORS THAT CAN CONTRIBUTE TO CANCER. FOR EXAMPLE, STOMACH AND CERVICAL CANCERS ARE HIGHER IN LOWER SOCIOECONOMIC GROUPS, AS IS LUNG CANCER.

American Cancer Society

Figure 87: Top 3 Adult Cancers in Cincinnati by Site, Identifying Health Disparities, 5-year Rate (2014-2018)
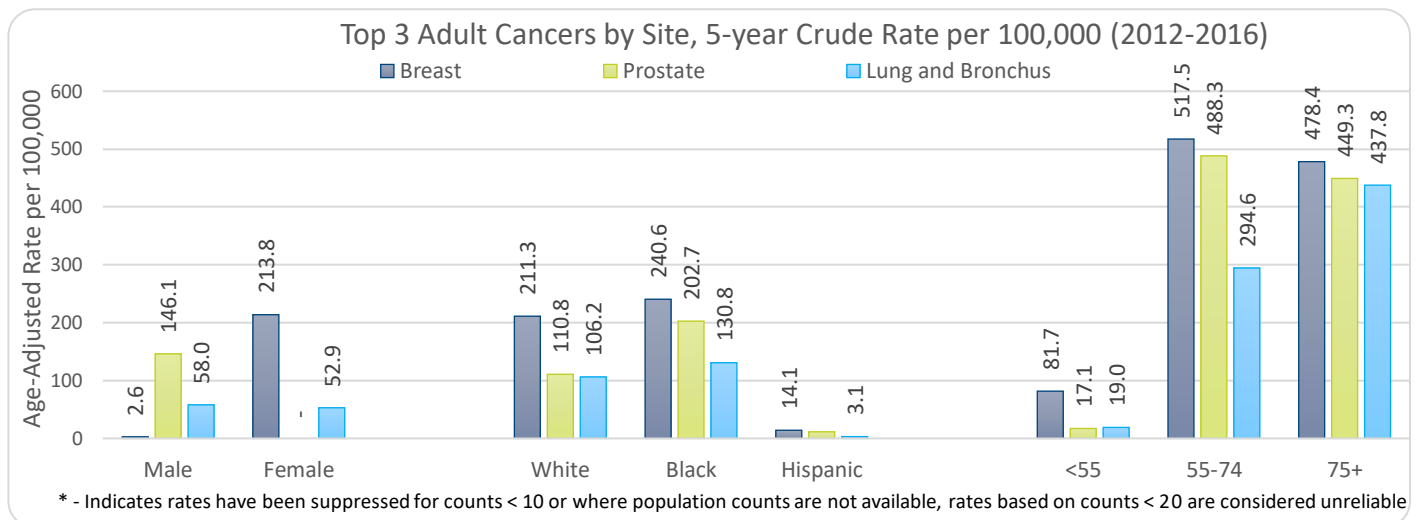
Top 3 Adult Cancers by Site, 5-year Crude Rate per 100,000 (2012-2016)

* - Indicates rates have been suppressed for counts < 10 or where population counts are not available, rates based on counts < 20 are considered unreliable

45

Source: Ohio Department of Health

Map 10: Lung Cancer, Identifying Geographic Disparities, 5-year Crude Rate per 100,000 Adults, 2014-2018

Legend

⬚ Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Lung Cancer

5-yr rate/100k
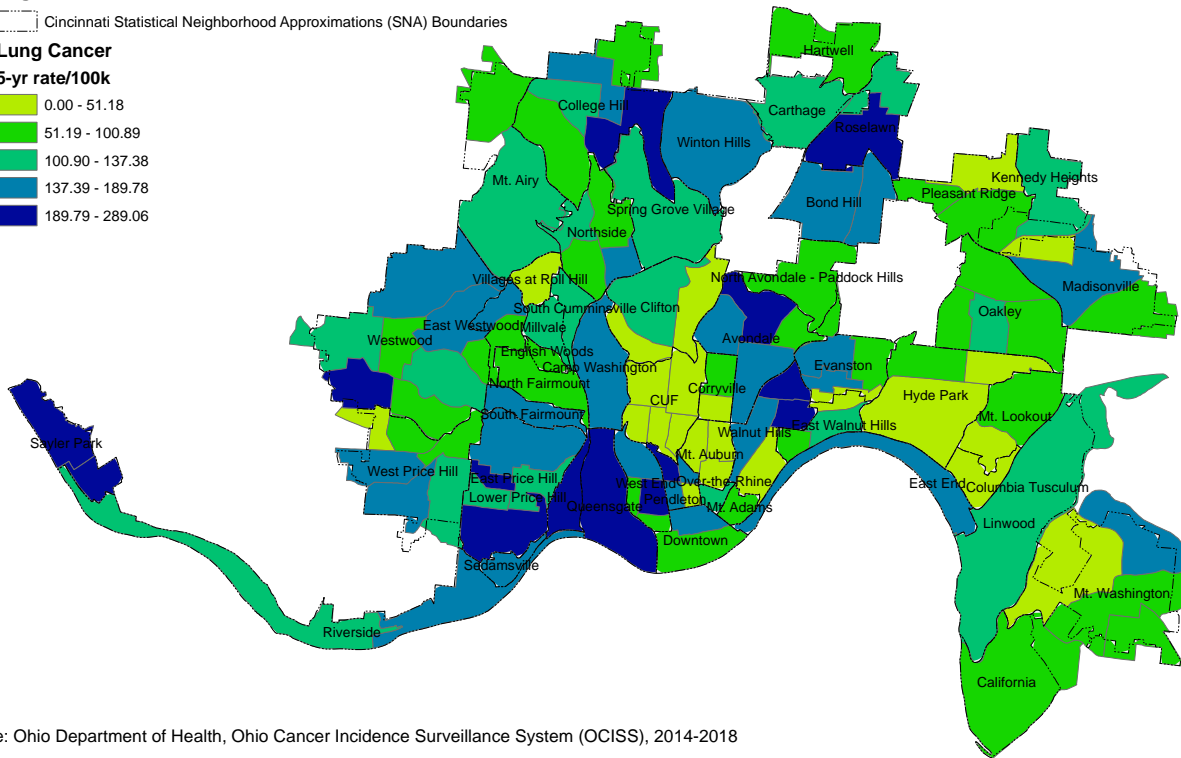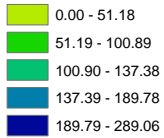
- 0.00 - 51.18
- 51.19 - 100.89
- 100.90 - 137.38
- 137.39 - 189.78
- 189.79 - 289.06

Source: Ohio Department of Health, Ohio Cancer Incidence Surveillance System (OCISS), 2014-2018

Map 11: Female Breast Cancer, Identifying Geographic Disparities, 5-year Crude Rate per 100,000 Adults, 2014-2018

Legend

⬚ Cincinnati City Boundary

⬚ Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Breast Cancer (female)

5-yr rate/100k
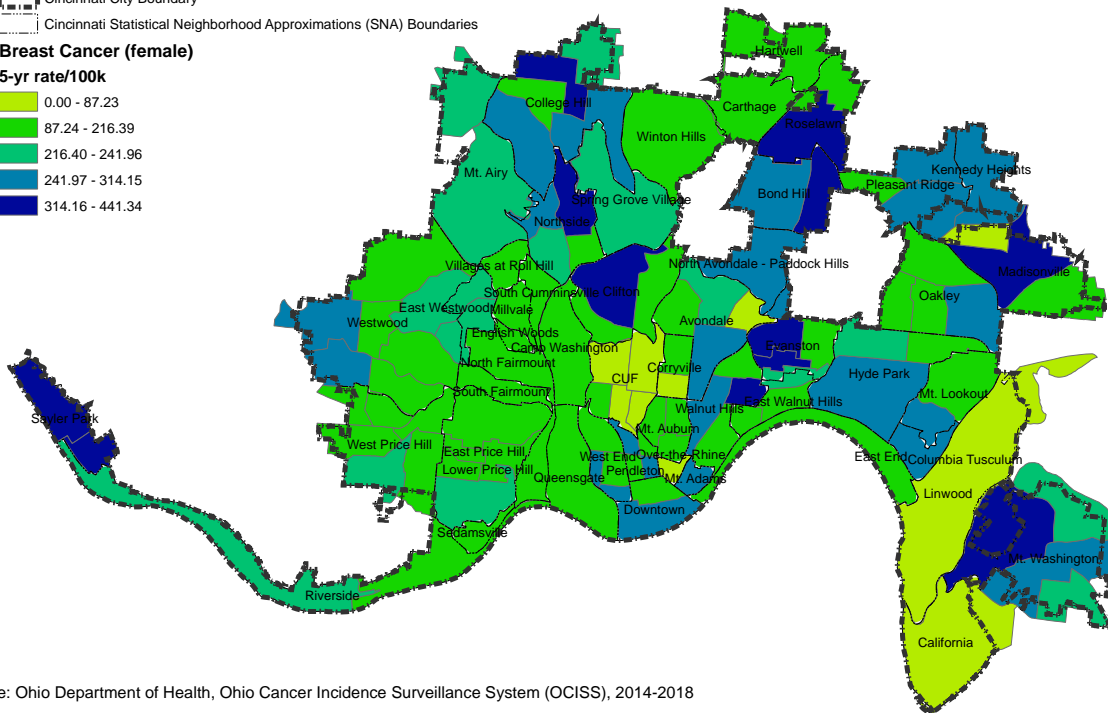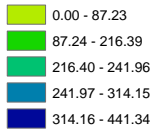
- 0.00 - 87.23
- 87.24 - 216.39
- 216.40 - 241.96
- 241.97 - 314.15
- 314.16 - 441.34

Source: Ohio Department of Health, Ohio Cancer Incidence Surveillance System (OCISS), 2014-2018

Map 12: Prostate Cancer, Identifying Geographic Disparities, 5-year Crude Rate per 100,000 Adult Males, 2014-2018
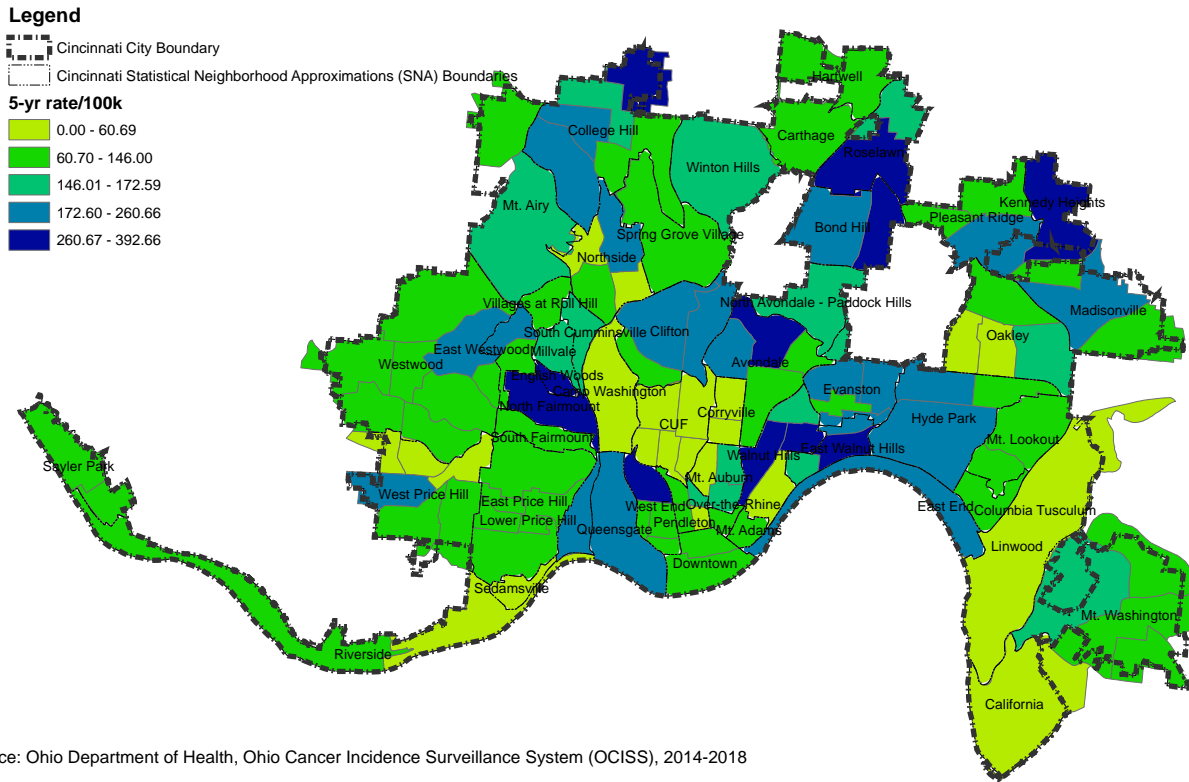
Legend
- Cincinnati City Boundary
- Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

5-yr rate/100k
- 0.00 - 60.69
- 60.70 - 146.00
- 146.01 - 172.59
- 172.60 - 260.66
- 260.67 - 392.66

Source: Ohio Department of Health, Ohio Cancer Incidence Surveillance System (OCISS), 2014-2018

Key Research Findings

High blood pressure is higher among residents age 55+ and those with less education. Cancer rates are much higher among older adults. Lung and bronchus cancer is more common among males.

Mental Health and Addiction Disparities

Mental Health

Map 13: Adults Sleeping Fewer than 7 Hours per Night, Identifying Geographic Disparities, 2017
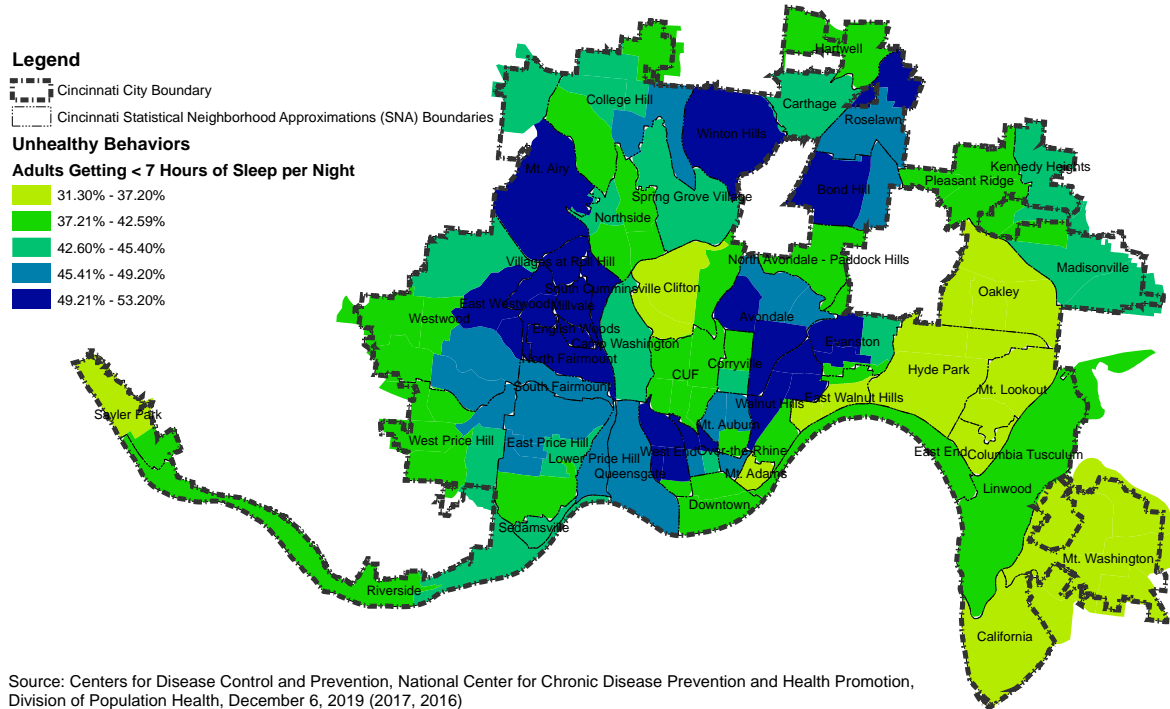
Legend

Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Unhealthy Behaviors

Adults Getting < 7 Hours of Sleep per Night

31.30% - 37.20%

37.21% - 42.59%

42.60% - 45.40%

45.41% - 49.20%

49.21% - 53.20%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Source: 2019 County Community Health Assessment Survey

Addiction

Map 14: Current Smoking among Adults, Identifying Geographic Disparities, 2017
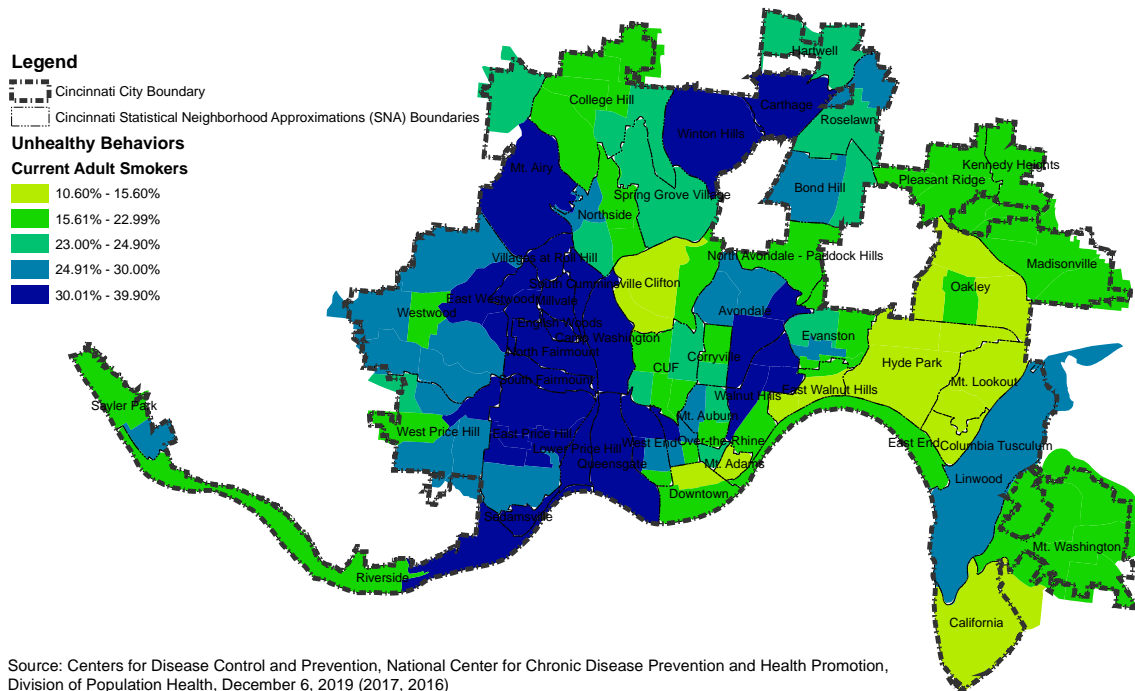
Legend

Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Unhealthy Behaviors

Current Adult Smokers

10.60% - 15.60%

15.61% - 22.99%

23.00% - 24.90%

24.91% - 30.00%

30.01% - 39.90%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Figure 88: Tobacco Use, Identifying Health Diparities among Ohio Adults, <insert year>

No data available at time of publication

Figure 89: Tobacco Use, Identifying Health Disparities among Hamilton County and Ohio Youth, 2015
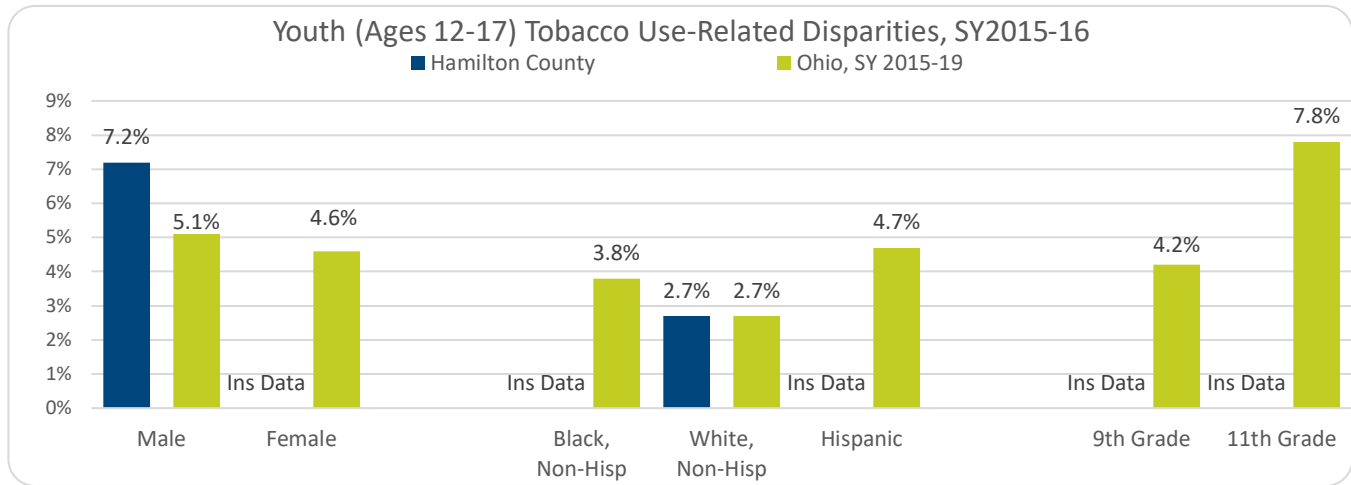
Youth (Ages 12-17) Tobacco Use-Related Disparities, SY2015-16
- Hamilton County
- Ohio, SY 2015-19

	Male	Female	Black, Non-Hisp	White, Non-Hisp	Hispanic	9th Grade	11th Grade
Hamilton County	7.2%			2.7%			
Ohio	5.1%	4.6%	3.8%	2.7%	4.7%	4.2%	7.8%

(Ins Data shown for Female Hamilton County, Black Non-Hisp Hamilton County, Hispanic Hamilton County, 9th Grade Hamilton County, 11th Grade Hamilton County, and White Non-Hisp Ohio)

Source: Ohio Department of Health, OHYES! Ohio Healthy Youth Environments Survey

Key Research Findings

A study of the mental health and addiction disparity patterns shows that minorities, younger adults, those with lower educational attainment, and lower income have higher rates of: adverse childhood experiences, sleep deprivation, tobacco use, and binge drinking.

Image by Gerd Altmann from Pixabay

Figure 90: Adult Alcohol Use, Identifying Disparities in Ohio, 2019

No data available at time of publication

Source: Centers for Disease Control and Prevention

Figure 91: Youth Alcohol Use, Identifying Disparities in Hamilton County, 2015

Youth (Ages 12-17) Drinking Behaviors

■ Drank alcohol in past 30 days   ■ First drank more than few sips alcohol before age 13   ■ Binge Drinking in the past 30 days
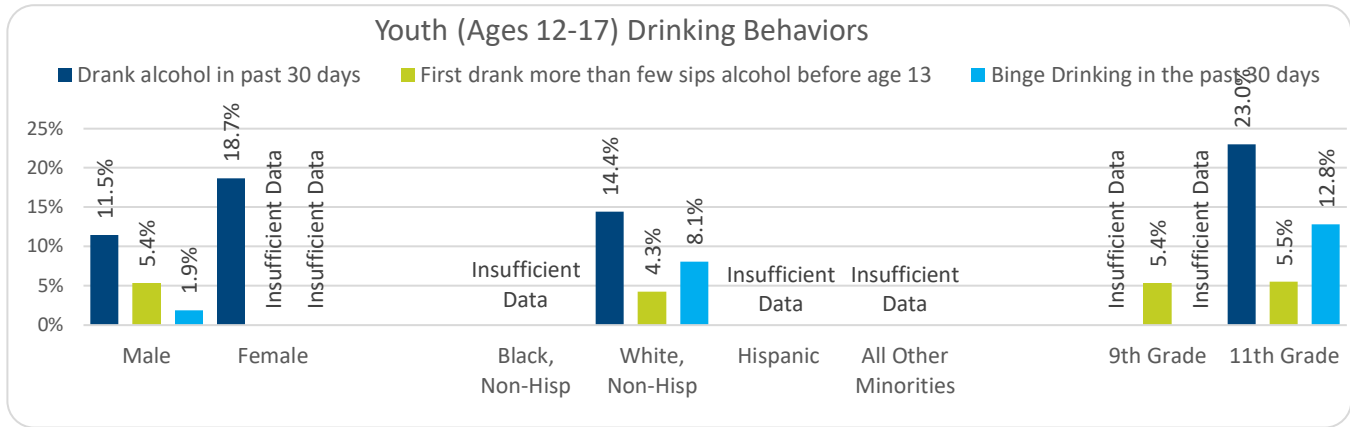
Source: 2019 County Community Health Assessment

Image by sammisreachers from Pixabay

Figure 92: Unintentional Drug Overdose, Hamilton County Youth 10-19 Years of Age, 10-year Age-Adjusted Rate (2010-2019)

Youth (Ages 10-19) Unintentional Drug Overdose, 10-year Age-Adjusted Rate per 100,000

■ Hamilton County   ■ Ohio

* Indicates rates have been suppressed for counts < 10 or where population
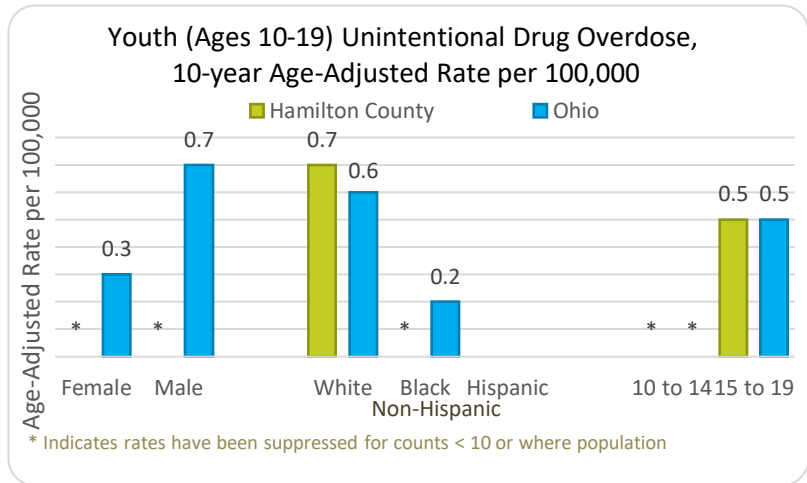
Source: Ohio Department of Health

Figure 93: Unintentional Drug Overdose, Hamilton County Adults 20 Years of Age or Older, 10-year Age-Adjusted Rate (2009-2018)

Adult Accidental Drug Overdose, 10-year Rate (2010-19)

■ Hamilton County   ■ Ohio

* Indicates rates have been suppressed for counts < 10 or where population counts are not available, rates based on counts < 20 are considered unreliable
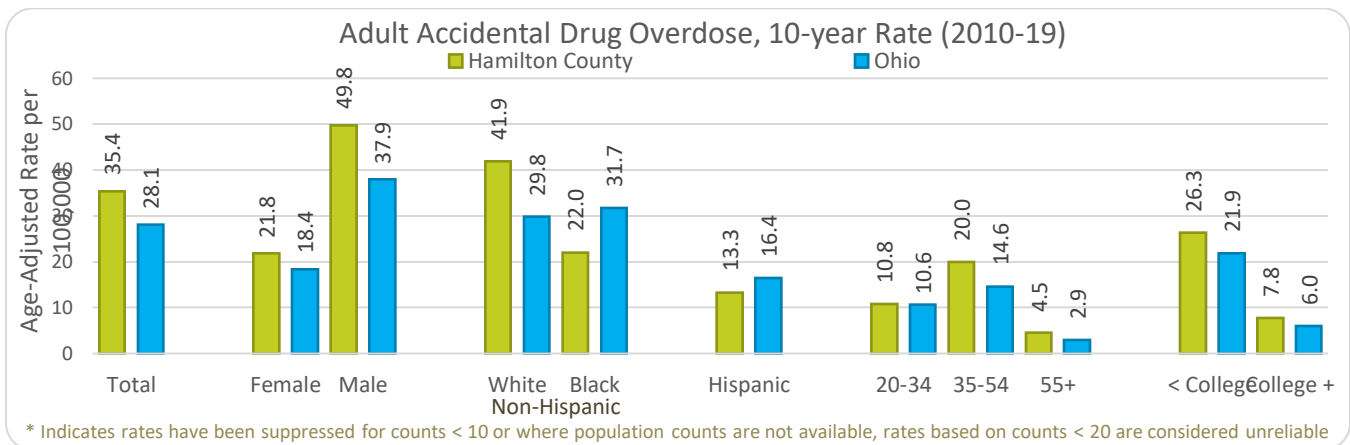
Source: Ohio Department of Health

Environmental Factors

Built Environment

Food Access

FACTORS THAT CONTRIBUTE TO POORER HEALTH OUTCOMES: NEIGHBORHOODS WITHOUT ACCESS TO QUALITY, HEALTHY FOOD FREQUENTLY RELY ON WHAT IS AVAILABLE AT LOCAL CONVENIENCE STORES. MANY OF THE FOODS PROVIDED IN CONVENIENCE STORES ARE HIGH IN CALORIES AND LOW IN NUTRITION, CONTRIBUTING TO FUTURE HEALTH COMPLICATIONS SUCH AS OBESITY, DIABETES, HEART DISEASE, AND HYPERTENSION.

Healthy People 2020

Figure 94: Food Access, Low Income and Low Access Census Tracts, 2015
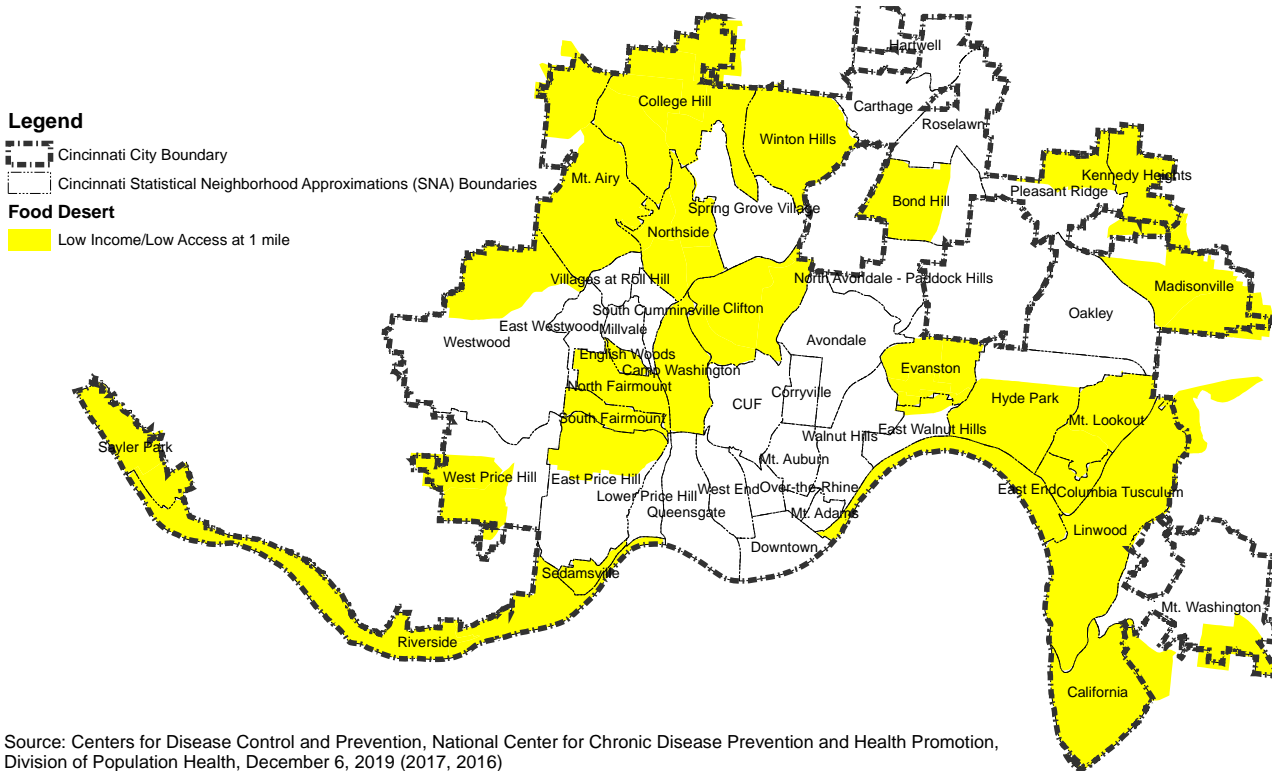
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Source: United States Department of Agriculture, Economic Research Service, Food Access Research Atlas

Research Findings

Low-income census tracts are census tracts where a significant number or share of residents is more than 1 mile (urban) or 10 miles (rural) from the nearest supermarket. There are 31 Cincinnati County Low Income/Low Access Census Tracts highlighted in the map. These food deserts lack stores that sell healthy and affordable food. The lack of store access in these communities may contribute to poor diet, obesity, and other diet-related illness.

Chapter 6: Resource Distribution and Community Assets

Access to Health Care

Access to quality medical professionals and facilities is crucial in maintaining and promoting good health, preventing and managing various disease states, reducing avoidable and preventable sickness and death, and providing equality in health care for all. Perceived and true barriers to accessing providers and care may include geographic location, socioeconomic status, insurance coverage status, high cost of treatment, lack of service availability, sex, race, ethnicity, disability status, sexual orientation, and lack of cultural competence in care. These barriers enable unmet health needs to continue, further contributing to future health complications.

Figure 95: Hamilton County Health Care Professional Shortage Areas

Primary Care Health Professional Shortage Areas   8

Source: HRSA.gov

Dental Health Professional Shortage Areas   11

Source: HRSA.gov

Mental Health Professional Shortage Areas   5

Source: HRSA.gov

Source: HRSA.gov

Figure 96: Clinicians per 100,000 Population, 2017

Clinicians/100,000 Population, 2017

■ Hamilton ■ Ohio

Primary Care Physician/100k: 110.22 (Hamilton), 76.22 (Ohio)
Resident Primary Care/100k: 38.09 (Hamilton), 15.44 (Ohio)
Nurse Practitioner/100k: 148.44 (Hamilton), 83.67 (Ohio)
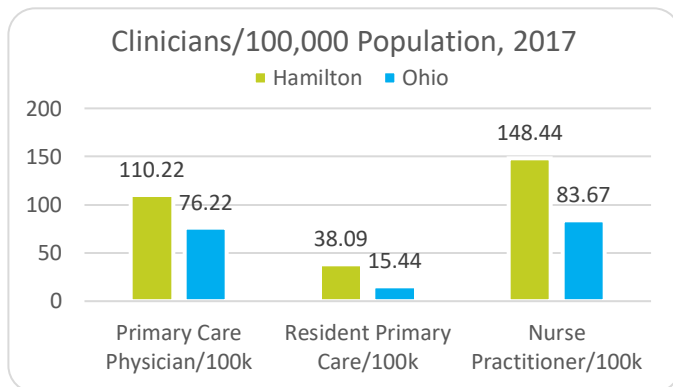
Source: HRSA.gov

Figure 97: Ob-Gyn & Pediatricians per 100,000 Population, 2017

Ob-Gyn & Pediatricians/100k Population, 2017

■ Hamilton ■ Ohio

Ob-Gyn, DO/100k: 1.84 (Hamilton), 1.81 (Ohio)
Ob-Gyn, MD/100k: 25.44 (Hamilton), 11.14 (Ohio)
Peditrician, DO/100k: 1.23 (Hamilton), 1.45 (Ohio)
Peditrician, MD/100k: 48.17 (Hamilton), 18.07 (Ohio)
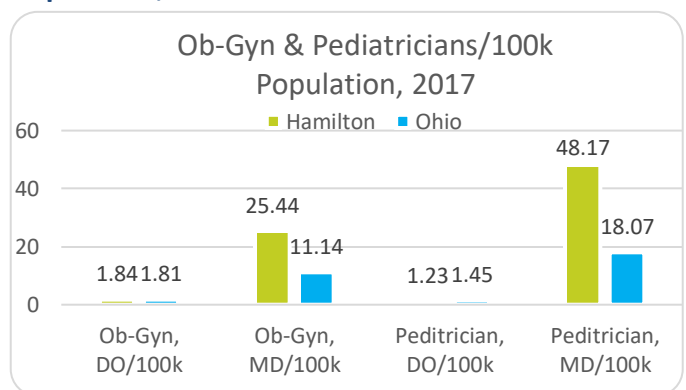
Source: HRSA.gov

Figure 98: Adult Care Clinicians per 100,000 Population, 2017

Adult Care Clinicians/100,000 Population, 2017

- Ohio
- Hamilton

Category	Ohio	Hamilton
Internal Medicine, MD/100k	35.37	66.11
Internal Medicine, DO/100k	3.47	1.23
General Practice, MD/100k	0.91	1.11
General Practice, DO/100k	1.19	0.12
Family Medicine, MD/100k	25.94	29
Family Medicine, DO/100k	6.93	3.19
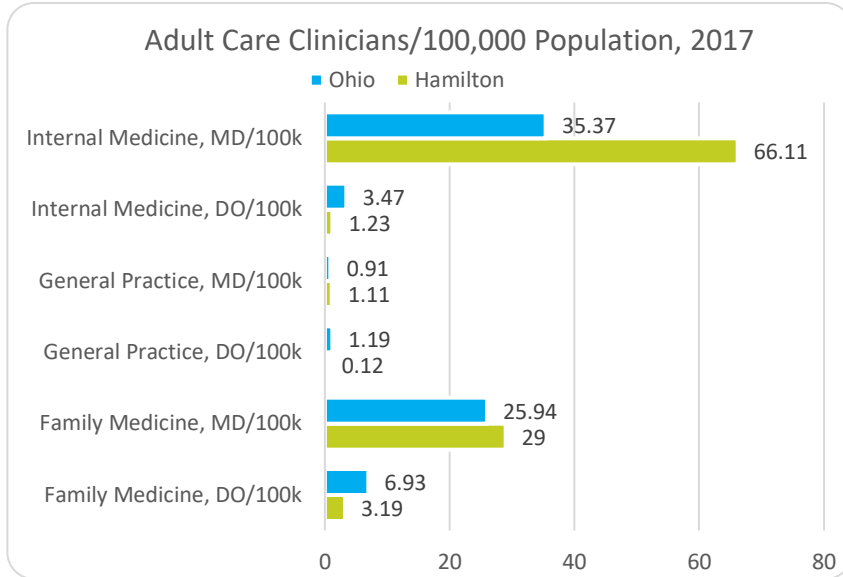
Source: HRSA.gov

Figure 99: Dentists per 100,000 Population, 2017

Clinicians/100,000 Population, 2017

- Hamilton
- Ohio

	Hamilton	Ohio
Dentist/100k	62.67	52.72
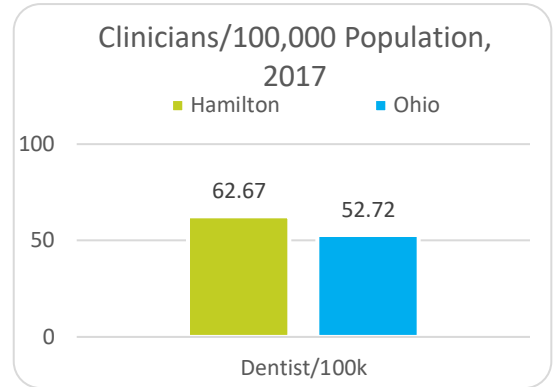
Source: HRSA.gov

Health Insurance

The increasing size and prevalence of high deductibles and copayments in private health plans, including employer-based plans, are leading many people with low and moderate incomes to avoid or delay needed health care.

PUBLIC HEALTH IMPORTANCE: HEALTH INSURANCE IS IMPORTANT FOR SEVERAL REASONS. UNINSURED PEOPLE RECEIVE LESS MEDICAL CARE AND LESS TIMELY CARE, THEY HAVE WORSE HEALTH OUTCOMES, AND LACK OF INSURANCE IS A FINANCIAL BURDEN FOR THEM AND THEIR FAMILIES.

Urban Institute

Figure 100: Health Insurance Coverage by Age, 2017

Health Insurance Coverage by Age

- Cincinnati city, Ohio
- Ohio
- United States
- HP2020

	Cincinnati city, Ohio	Ohio	United States
With health insurance coverage — Under 19 years	96.4%	95.6%	94.8%
With health insurance coverage — 19 to 25 years	90.1%	89.1%	84.2%
With health insurance coverage — 26 to 64 years	89.2%	91.5%	87.3%
With health insurance coverage — 65+ and over	99.5%	99.5%	99.2%

Source: American Community Survey, 2013-2017

53
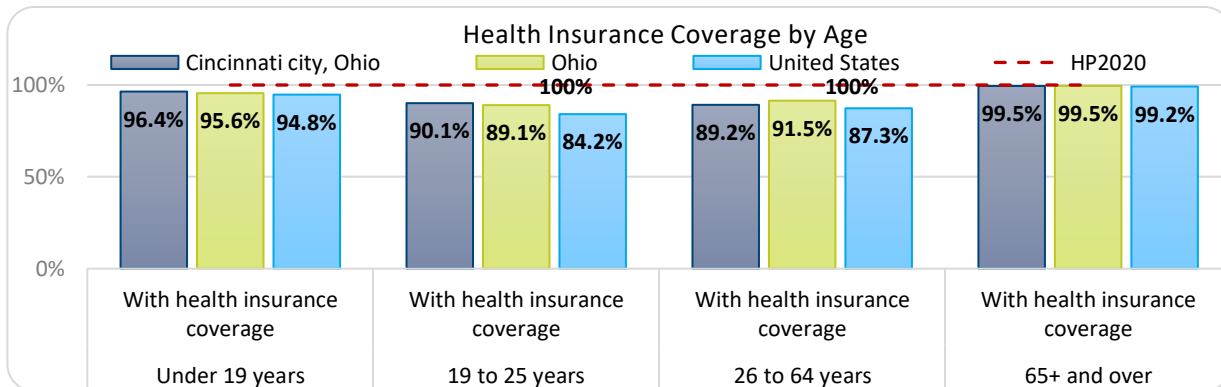
Figure 101: Health Insurance Coverage for the Population under the Age of 19, 2017

Medical Insurance Coverage for the Population under the Age of 19

	Cincinnati city, Ohio	Ohio	United States
No coverage	3.6%	4.4%	5.2%
Other coverage	4.3%	6.1%	5.7%
Medicare &/or Medicaid coverage	52.4%	32.0%	34.5%
Direct-purchase	2.8%	3.9%	5.6%
Employer-based or TRICARE health insurance	36.9%	53.6%	49.1%
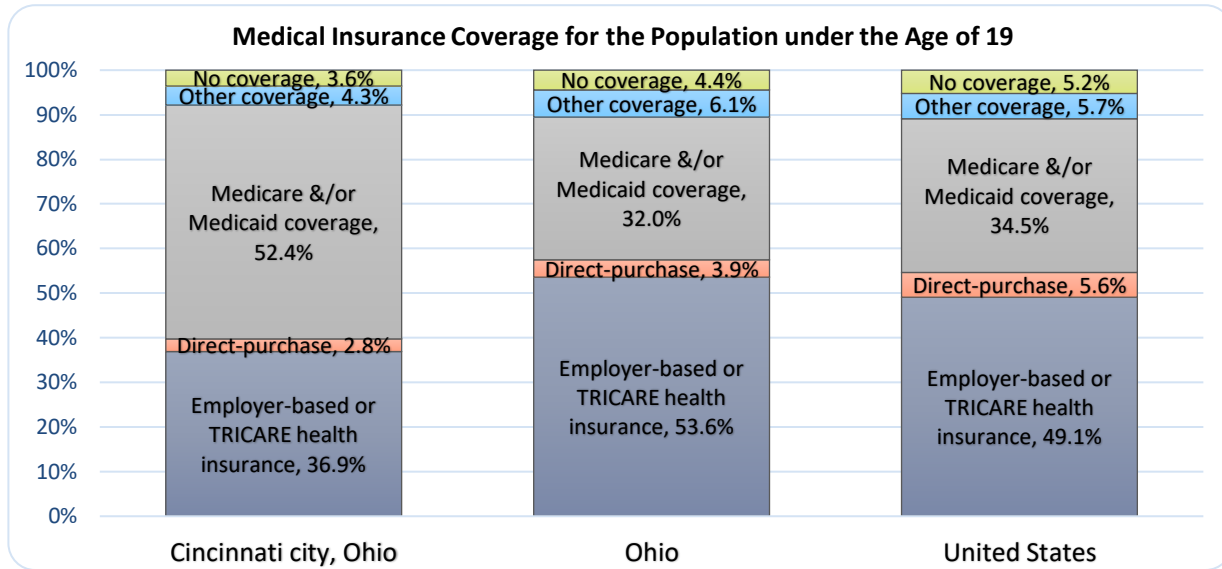
Source: American Community Survey, 2013-2017

Figure 102: Health Insurance Coverage for the Population 19 Years and Older, 2017

Medical Insurance Coverage for the Population 19 Years of Age or Older

	Cincinnati city, Ohio	Ohio	United States
No coverage	9.0%	7.1%	10.7%
Other coverage	12.1%	17.9%	17.1%
Medicare &/or Medicaid coverage	26.5%	20.3%	18.1%
Direct purchase	6.2%	5.0%	7.0%
Employer-based or TRICARE health insurance	46.1%	49.7%	47.1%
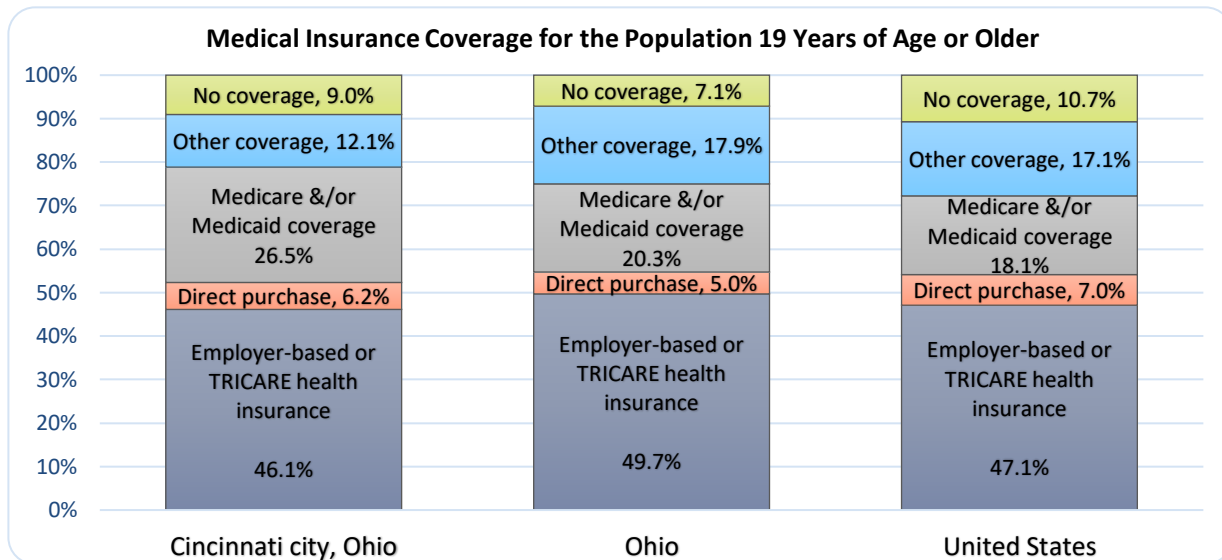
Source: American Community Survey, 2014-2018

Figure 103: Health Insurance Coverage for the Population 19 Years and Older, Identifying Disparities in Cincinnati, 2017

Has health care coverage

Legend: ▢ Has health care coverage   ▰▰▰ HP2020 Target - 100%

Male	Female	White	Black	Hispanic	<55	55+	<HS	HS+	<$25k	$25k+
90.5%	93.9%	93.8%	91.2%	72.5%	88.6%	96.2%	82.5%	92.4%	90.2%	93.0%
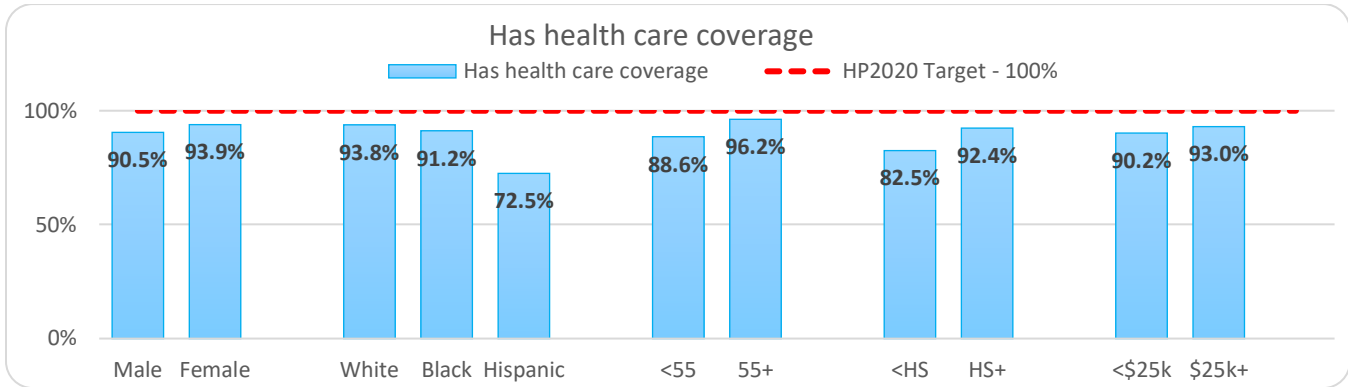
Source: American Community Survey, 2014-2018

Map 15: Adults Lacking Health Insurance among Adults 18-64, Identifying Geographic Disparities, 2017

Legend

⌐⌐ Cincinnati City Boundary

.... Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Prevention

Adults 18-64 Lacking of Health Insurance

- ▢ 4.60% - 8.10%
- ▢ 8.11% - 12.99%
- ▢ 13.00% - 15.50%
- ▢ 15.51% - 19.70%
- ▢ 19.71% - 25.10%
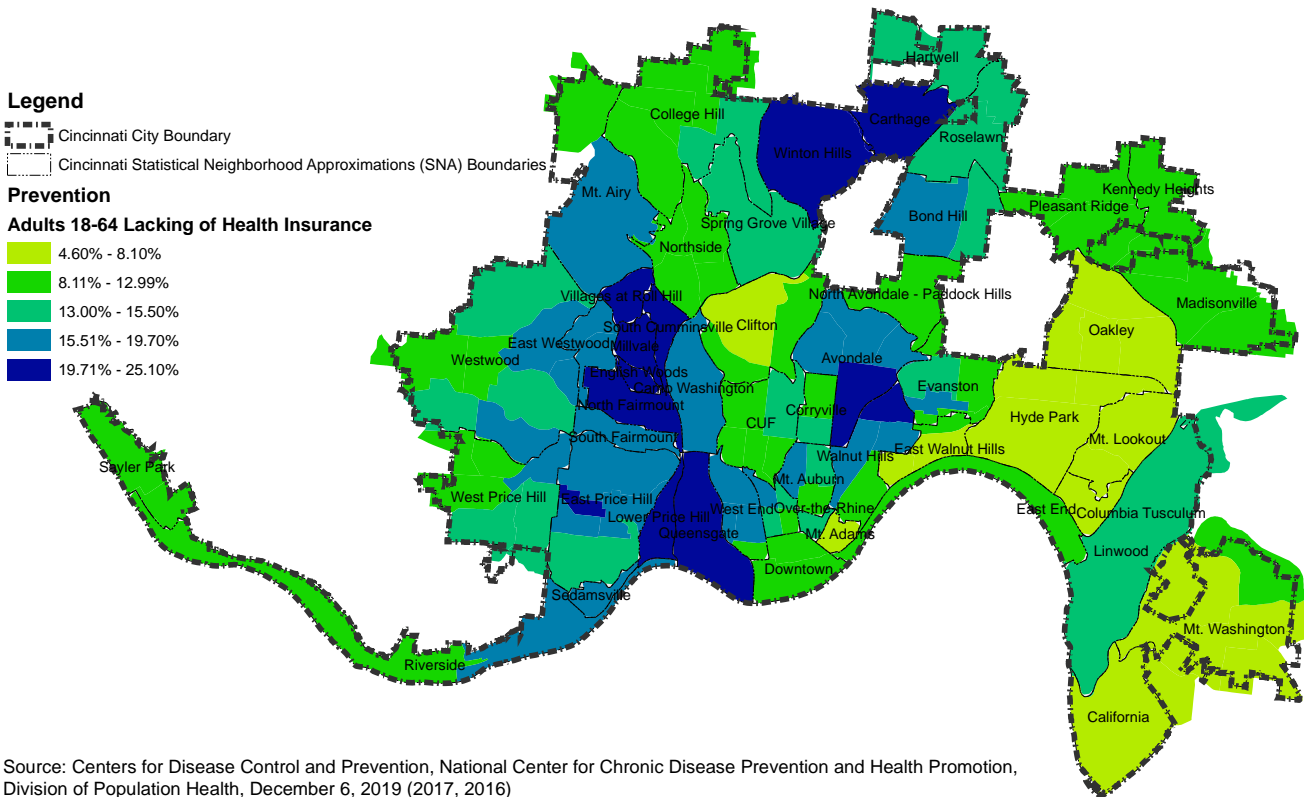
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Key Research Findings

According to survey results as well as the Census Bureau, City challenges in health insurance coverage occur for Hispanics, non-citizens (59.6%), those with less than a high school education, those who are unemployed, those with lower income and those in poverty, as well as for adults under the age of 55. These relationships impact access to health care. Neighborhoods with the highest non-coverage include Walnut Hills, Carthage, Avondale, Villages at Roll Hill, South Cumminsville, English Woods, North Fairmont, Lower Price Hill, and Evanston.

Health Care Utilization

Health Care Facilities and Professionals

HEALTH PROFESSIONALS PLAY A CENTRAL AND CRITICAL ROLE IN IMPROVING QUALITY HEALTH CARE FOR THE POPULATION. THEY PROVIDE ESSENTIAL SERVICES THAT PROMOTE HEALTH, PREVENT DISEASES, AND DELIVER HEALTH CARE SERVICES TO INDIVIDUALS, FAMILIES AND COMMUNITIES. HEALTH CARE FACILITIES SHOULD REFLECT THE NEEDS AND VALUES OF THE COMMUNITIES IN AND AROUND THEM. EFFECTIVE HOSPITALS ARE DESIGNED FOR THEIR USERS, WITH ATTENTION TO THE NEEDS OF SPECIAL POPULATIONS, SUCH AS CHILDREN AND THE ELDERLY.

Encyclopedia of Behavioral Medicine

Figure 104: Access to Health Care Professionals, Cincinnati Adults, 2017
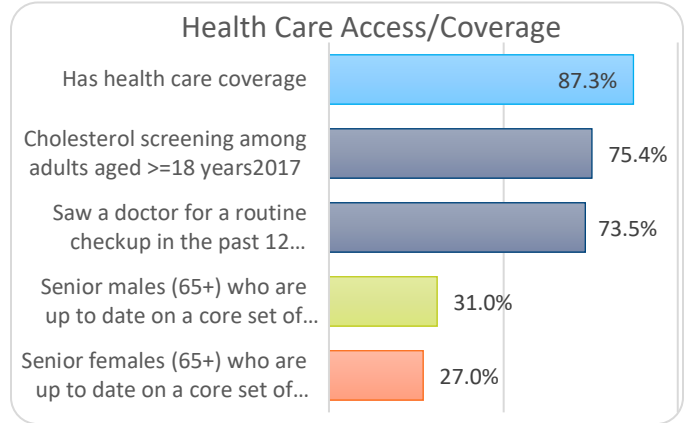
Health Care Access/Coverage

Has health care coverage	87.3%
Cholesterol screening among adults aged >=18 years2017	75.4%
Saw a doctor for a routine checkup in the past 12…	73.5%
Senior males (65+) who are up to date on a core set of…	31.0%
Senior females (65+) who are up to date on a core set of…	27.0%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 16: Routine Checkup within the Past Year among Adults, Identifying Geographic Disparities, 2017

Legend

Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Prevention

Routine Checkup within the Past Year

	62.50% - 68.00%
	68.01% - 73.49%
	73.50% - 74.20%
	74.21% - 77.80%
	77.81% - 82.10%
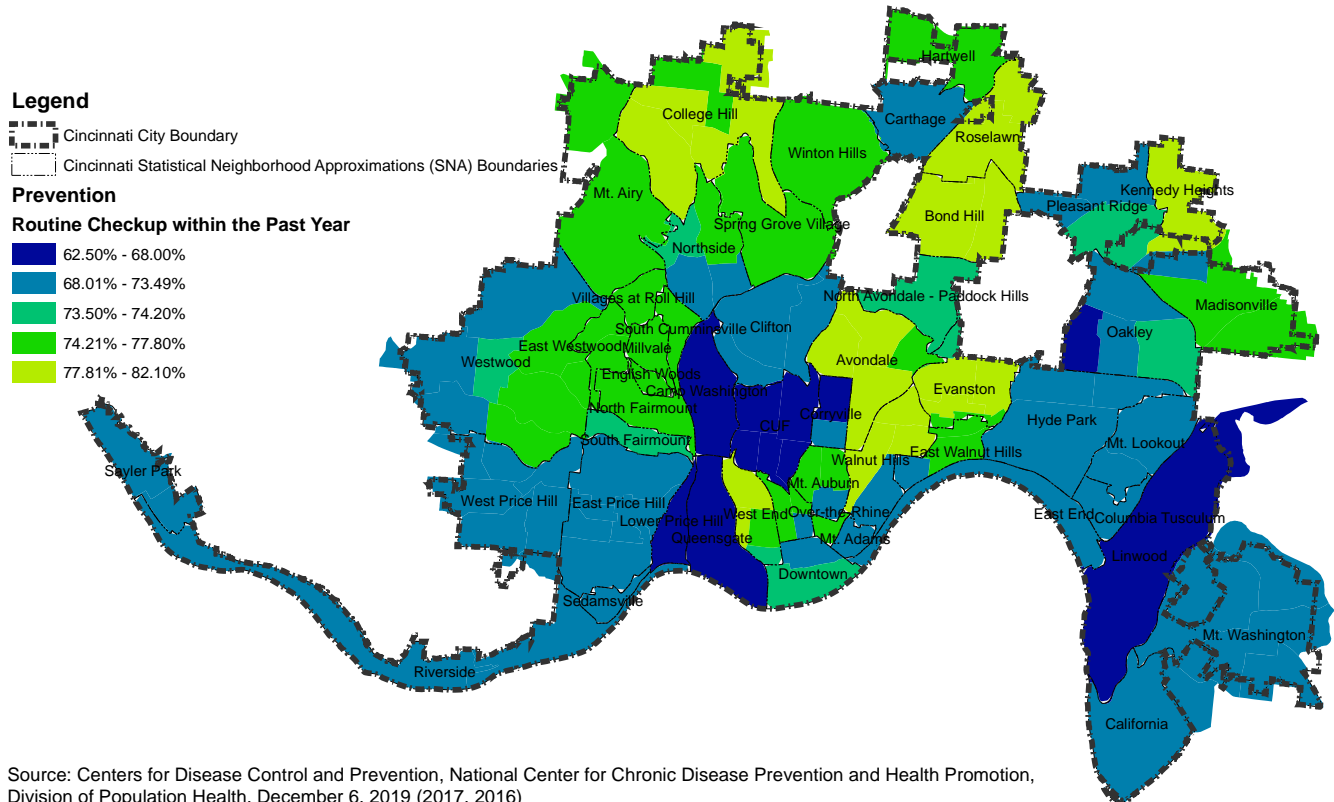
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 17: Routine Dental Checkup within the Past Year among Adults, Identifying Geographic Disparities, 2017
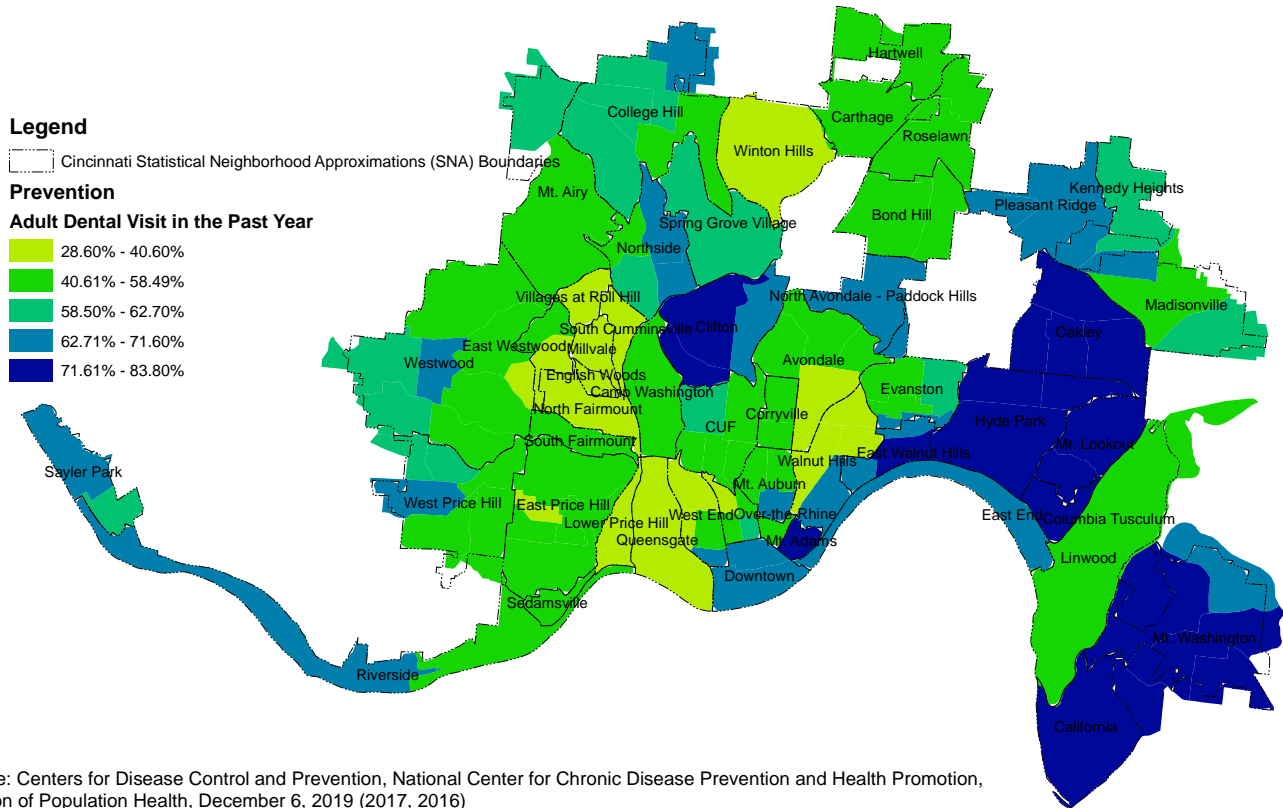
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Figure 105: Hamilton County Youth, Ages 12-17, Access to Health Care Professionals, SY 2017
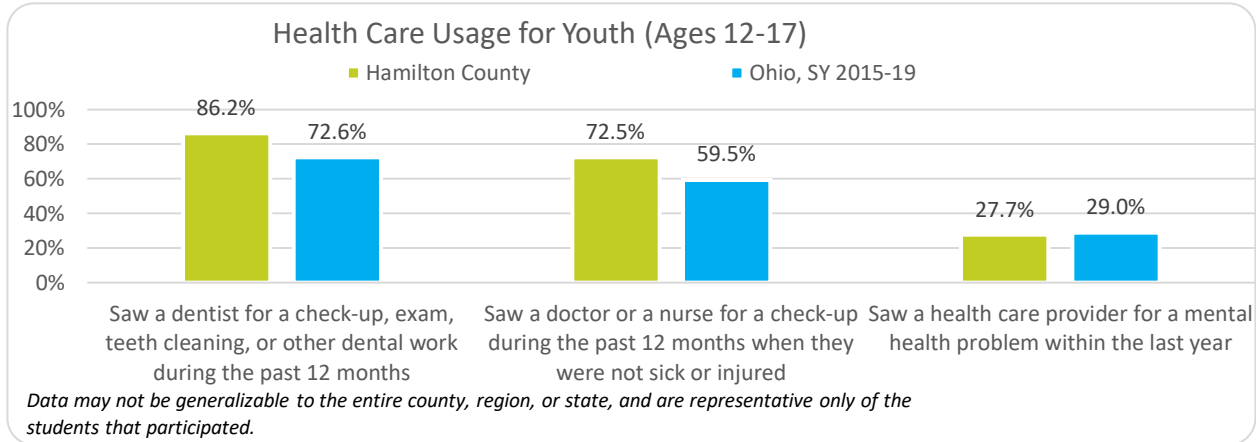
Source: Ohio Department of Health, OHYES! Ohio Healthy Youth Environments Survey

Key Research Findings: According to CDC 500 Cities small area estimates for clinical preventive service use, only 73.5% of Cincinnati adult residents saw a doctor and 58.5% saw a dentist for a routine checkup within the past year. The greatest disparities in routine medical care exists in the Camp Washington, CUP, Corryville, Lower Price Hill, Queensgate, Linwood, and southwest Oakley neighborhoods, where less than 68% of residents saw a doctor for a routine checkup within the past year. Geographic disparities can be seen in routine dental care as well in the California, Clifton, East Walnut Hills, Hyde Park, Mt. Adams, Mt. Lookout, Mt. Washington, and Oakley neighborhoods.

Similarly, only 72.5% of Hamilton County youth reported seeing a doctor for a routine checkup within the past year.

Figure 106: Health Care Providers, 2016
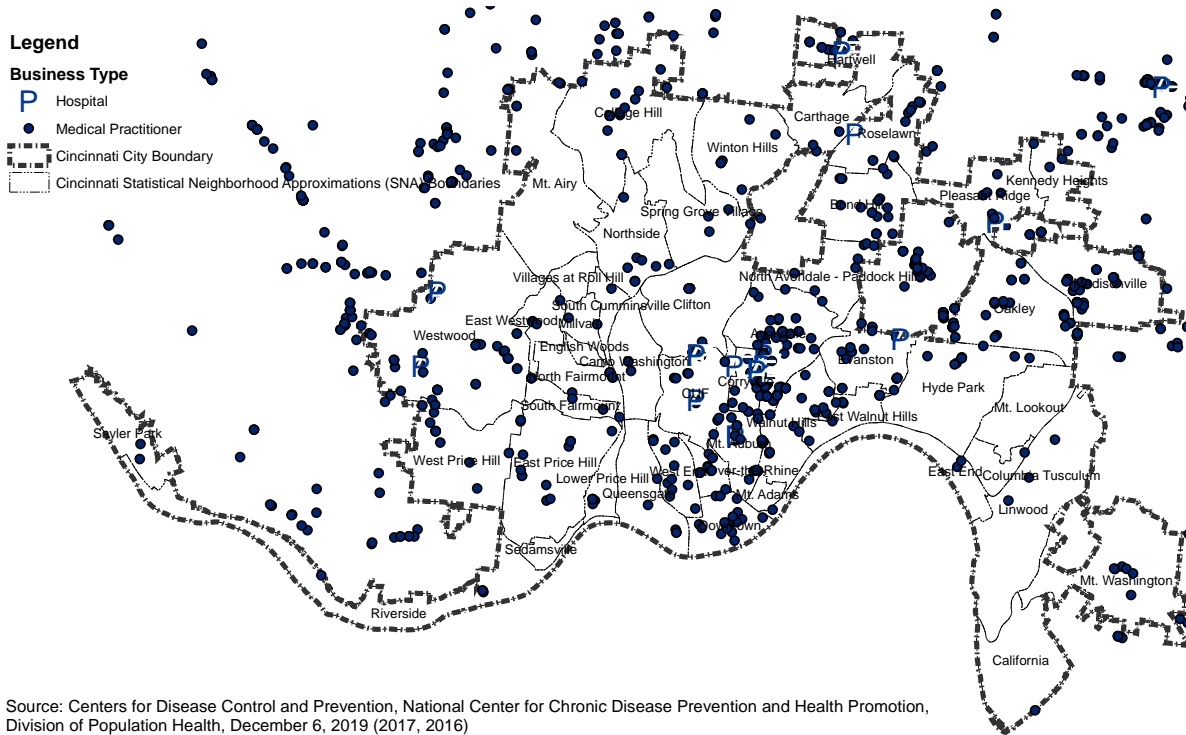
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)
Source: Ohio Department of Health, Ohio OneSource

Figure 107: Licensed Mental Health Service Providers, 2016
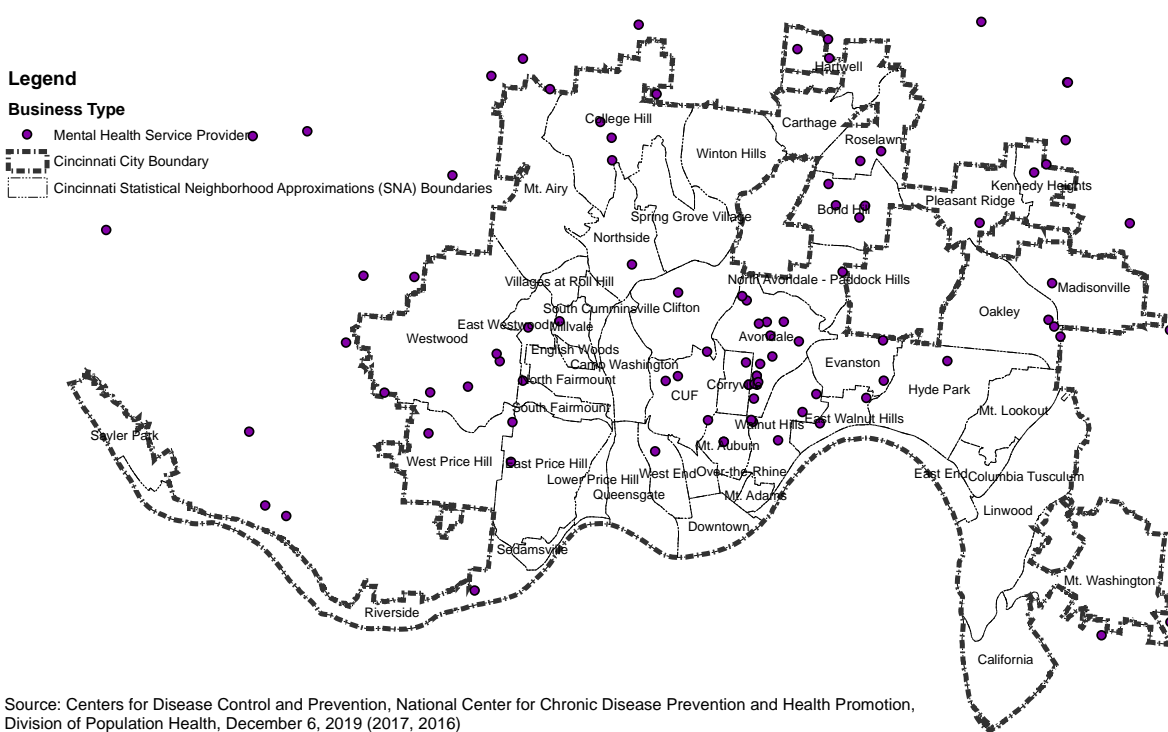
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)
Source: Ohio Department of Health, Ohio OneSource

Chapter 7: Discussion and Conclusion

Summary of Favorable and Unfavorable Data Trends and Comparisons

| Unfavorable County Trends or Comparisons to the State and/or Nation (actual data point or HP2020)	Favorable County Trends or Comparisons to the State and/or Nation (actual data point or HP2020)
Maternal and Infant/Child Health • **First trimester care** • **Preterm births** • **Low birth weight** • **Infant mortality**	Maternal and Infant/Child Health • Breast feeding is on the rise • Births to mothers ages 15-19 is decreasing • School immunization rates (compared to the state and HP2020) • Third grade oral care
Chronic Disease • **Overweight and obesity** • **High blood pressure** • **High blood cholesterol** • **Arthritis** • **Cancers: Prostate, breast, lung & bronchus, colon & rectum, melanoma of skin** • **Mortality: Heart disease and accidental death** **Risk Factors: Syphilis & Gonorrhea rates; sleep deprivation (youth & adult); health insurance coverage for those 19-25 years, for African Americans, for Hispanics, non-citizens, those in poverty, the unemployed, those with less than high school education; shortage areas & low number of doctors per 100,000; seeing doctor or dentist for routine check ups**	Chronic Disease Protective Factors: health insurance coverage for children, those 26-64, & 65+); youth seeing a dentist, a doctor for checkups, and seeing a mental health care provider Risk Factors: Chlamydia rate; drinking alcohol; cigarette smoking
Mental Health and Addiction **Risk Factors: Youth who don't reach out for support to manage stress; Youth who report early onset alcohol use; sleep deprivation (youth & adult); sedentary lifestyle** **Youth reporting access to a mental health care provider**	Mental Health and Addiction • Depressive disorder Risk Factors: youth cigarette smoker & chewing tobacco;

Filtering Unfavorable Data Trends and Comparisons

Unfavorable County Trends AND Comparisons to the State AND Nation (actual data point or HP2020)
Maternal and Infant/Child Health • **Breastfeeding (slight trend improvement in County)**

- **Infant mortality**

Chronic Disease

- **Overweight & obesity**
- **Sleep deprivation**
- **High blood pressure**
- **Lung & bronchus cancer**
- **Risk Factors: health insurance coverage disparities which can lead to other risk factors**

Mental Health and Addiction

- **Youth who don't reach out for support to manage stress**
- **Youth who report early onset alcohol use**
- **Sleep deprivation (youth & adult)**

Appendix A: Identifying Geographic Disparities in Adult Health Outcomes

Data were provided by the Centers for Disease Control and Prevention (CDC), Division of Population Health, Epidemiology and Surveillance Branch. There are 27 measures at the census tract level. There are 7 measures (all teeth lost, dental visits, mammograms, Pap tests, colorectal cancer screening, core preventive services among older adults, and sleep less than 7 hours) in this 2019 release from the 2016 BRFSS that were the same as the 2018 release. The census tract shapefile was extracted from the Census 2010 Tiger/Line database and modified to remove portions of census tracts that were outside of city boundaries.

Map 18: Adult Asthma, Identifying Geographic Disparities, 2017
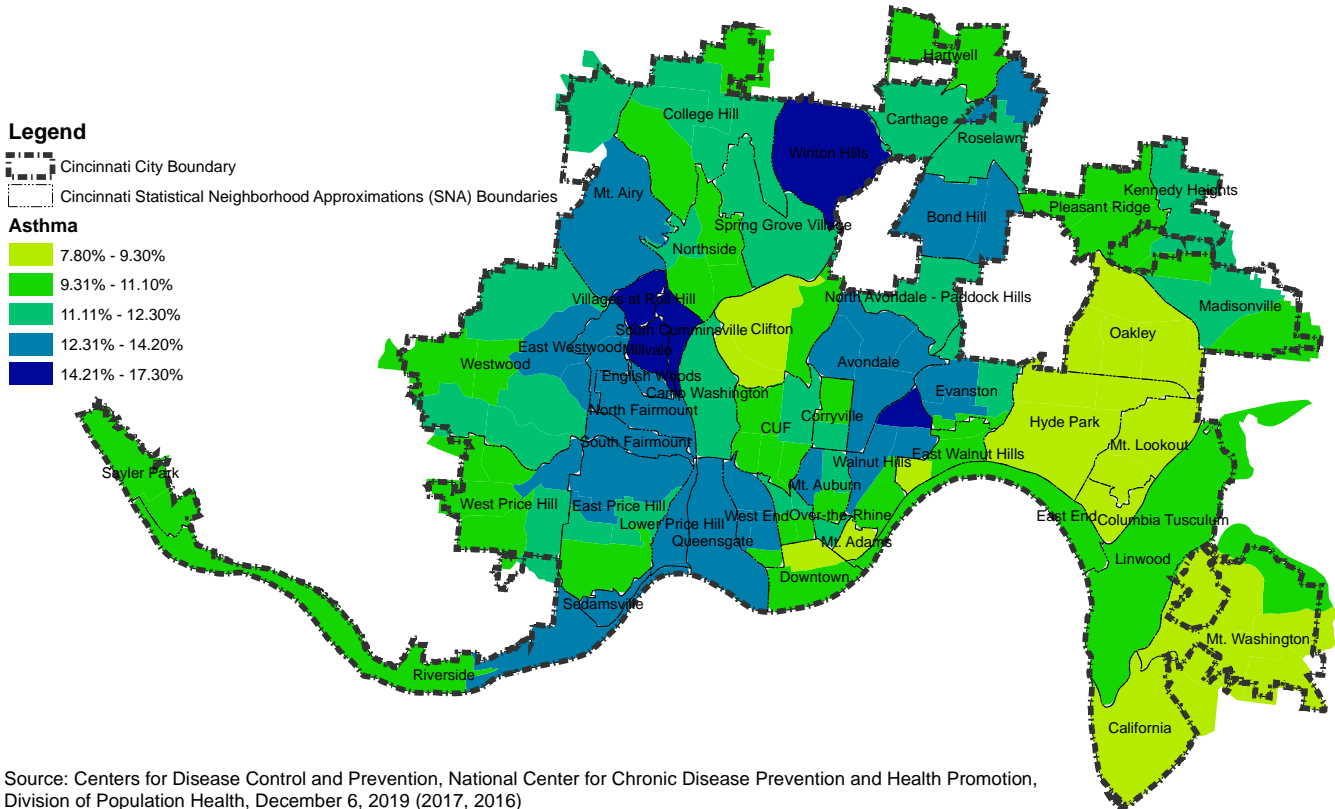
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 19: Arthritis, Identifying Geographic Disparities, 2017

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 20: Cancer, Identifying Geographic Disparities, 2017

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)
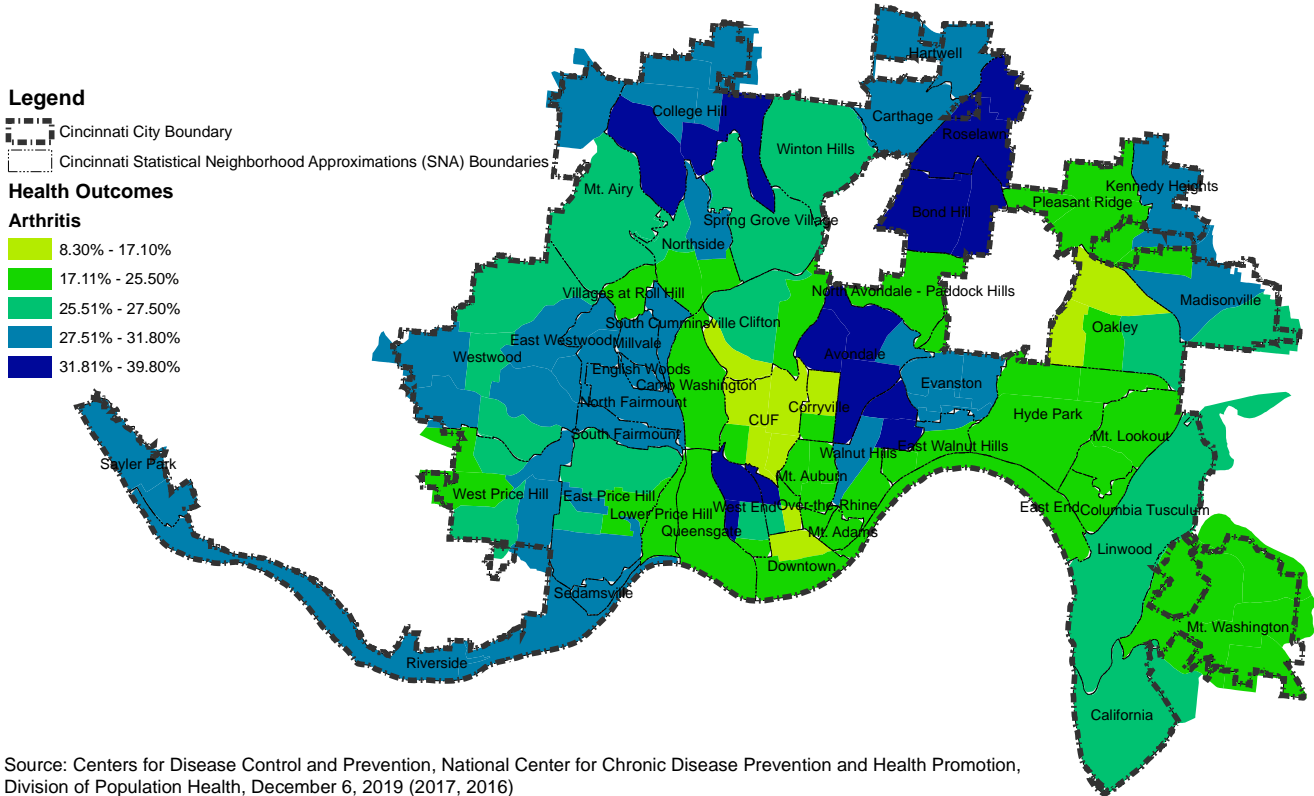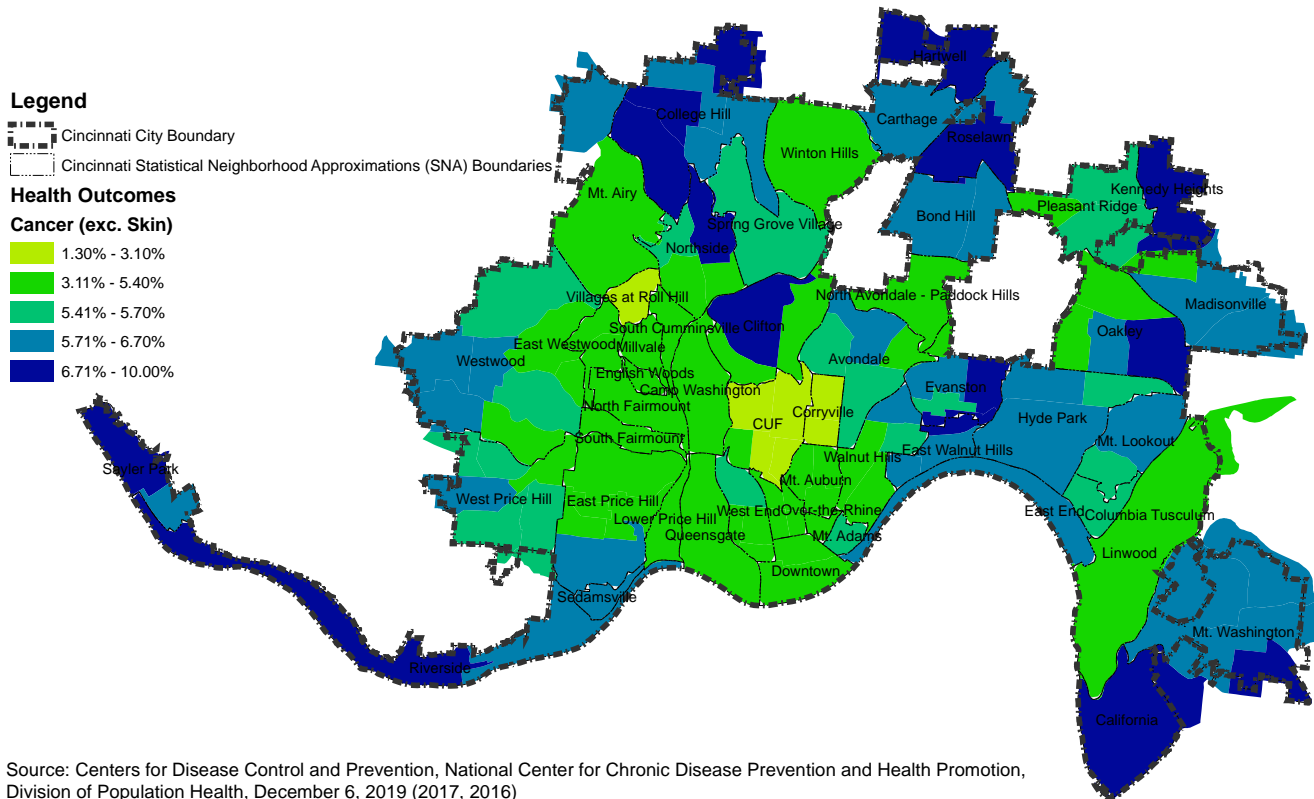
Map 21: COPD, Emphysema, and Chronic Bronchitis, Identifying Geographic Disparities, 2017
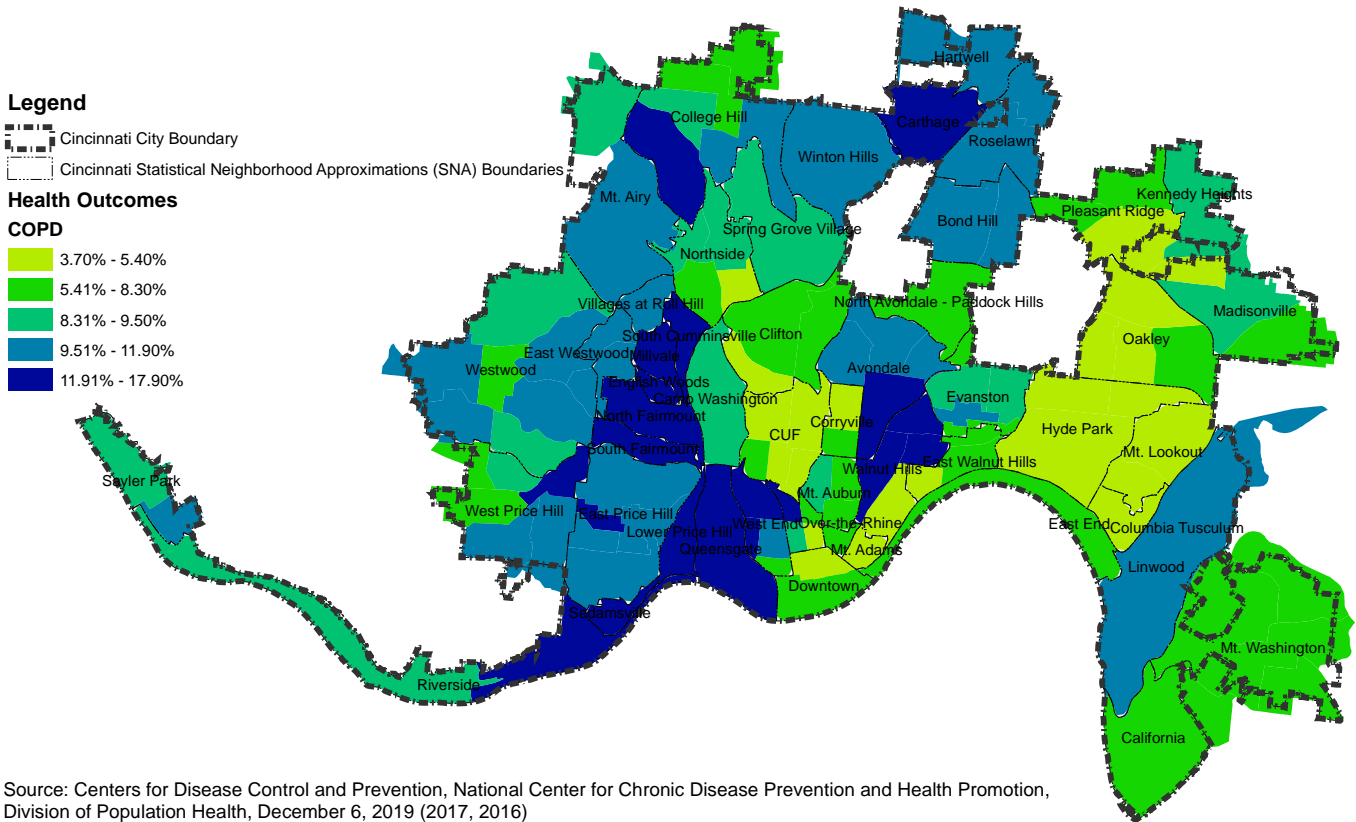
Legend

Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Health Outcomes

COPD

3.70% - 5.40%

5.41% - 8.30%

8.31% - 9.50%

9.51% - 11.90%

11.91% - 17.90%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 22: Coronary Heart Disease, Identifying Geographic Disparities, 2017
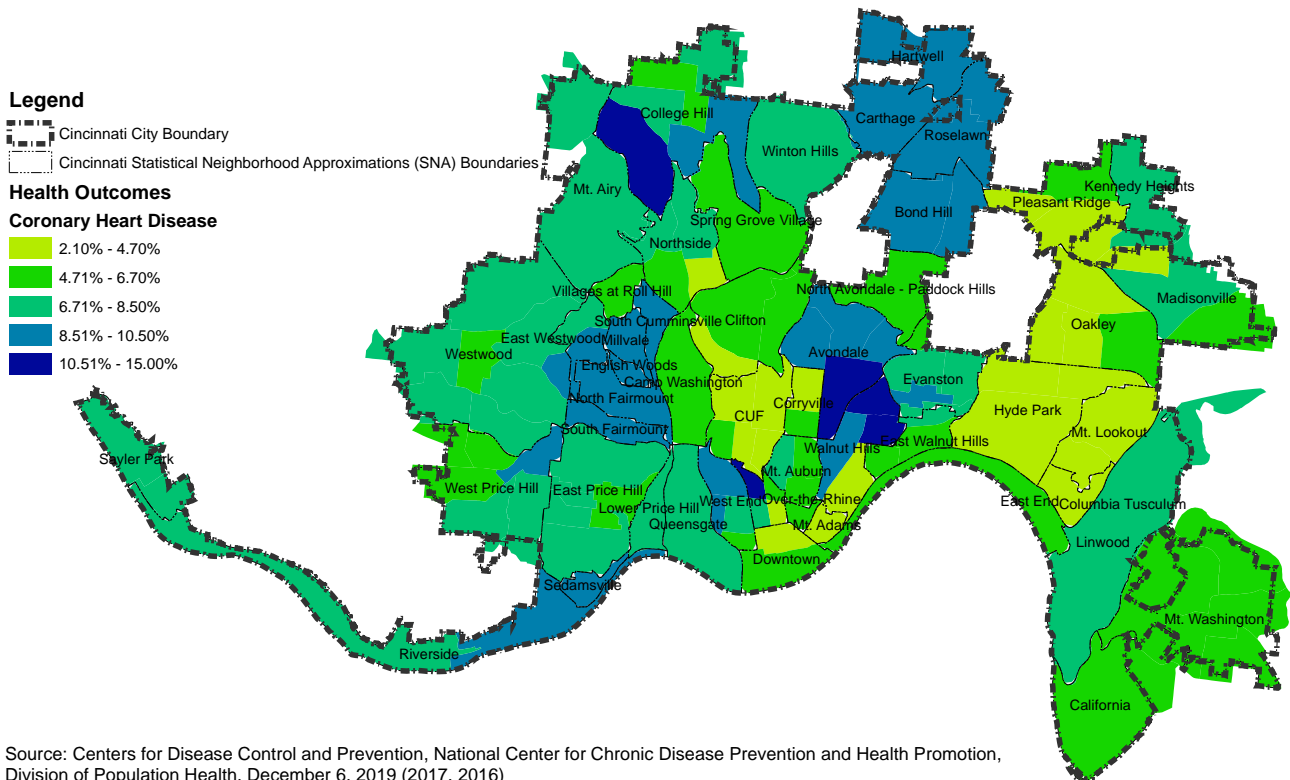
Legend

Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Health Outcomes

Coronary Heart Disease

2.10% - 4.70%

4.71% - 6.70%

6.71% - 8.50%

8.51% - 10.50%

10.51% - 15.00%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 23: Diabetes, Identifying Geographic Disparities, 2017

Legend

Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Health Outcomes

Diabetes

- 3.80% - 8.10%
- 8.11% - 13.00%
- 13.01% - 15.40%
- 15.41% - 19.70%
- 19.71% - 30.00%
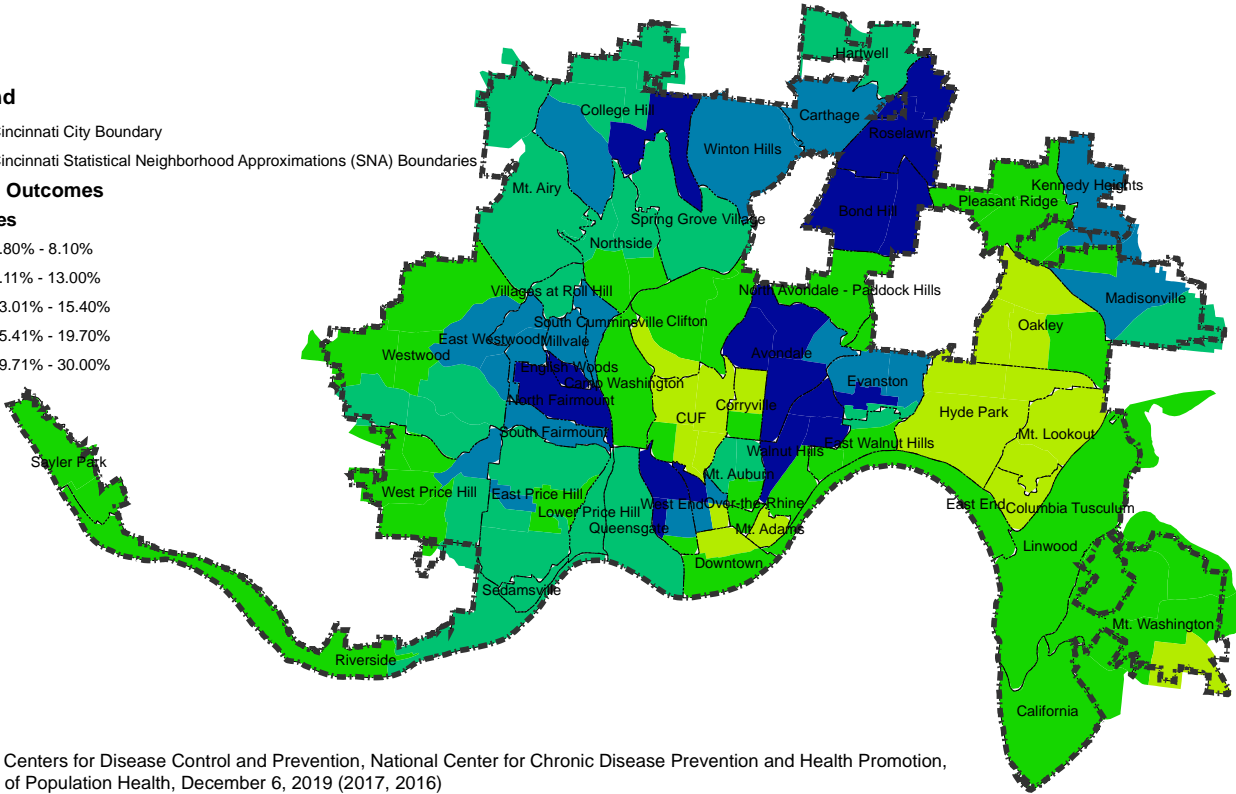
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 24: High Blood Pressure, Identifying Geographic Disparities, 2017

Legend

Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Health Outcomes

High Blood Pressure

- 14.70% - 24.30%
- 24.31% - 34.60%
- 34.61% - 37.00%
- 37.01% - 44.20%
- 44.21% - 57.20%
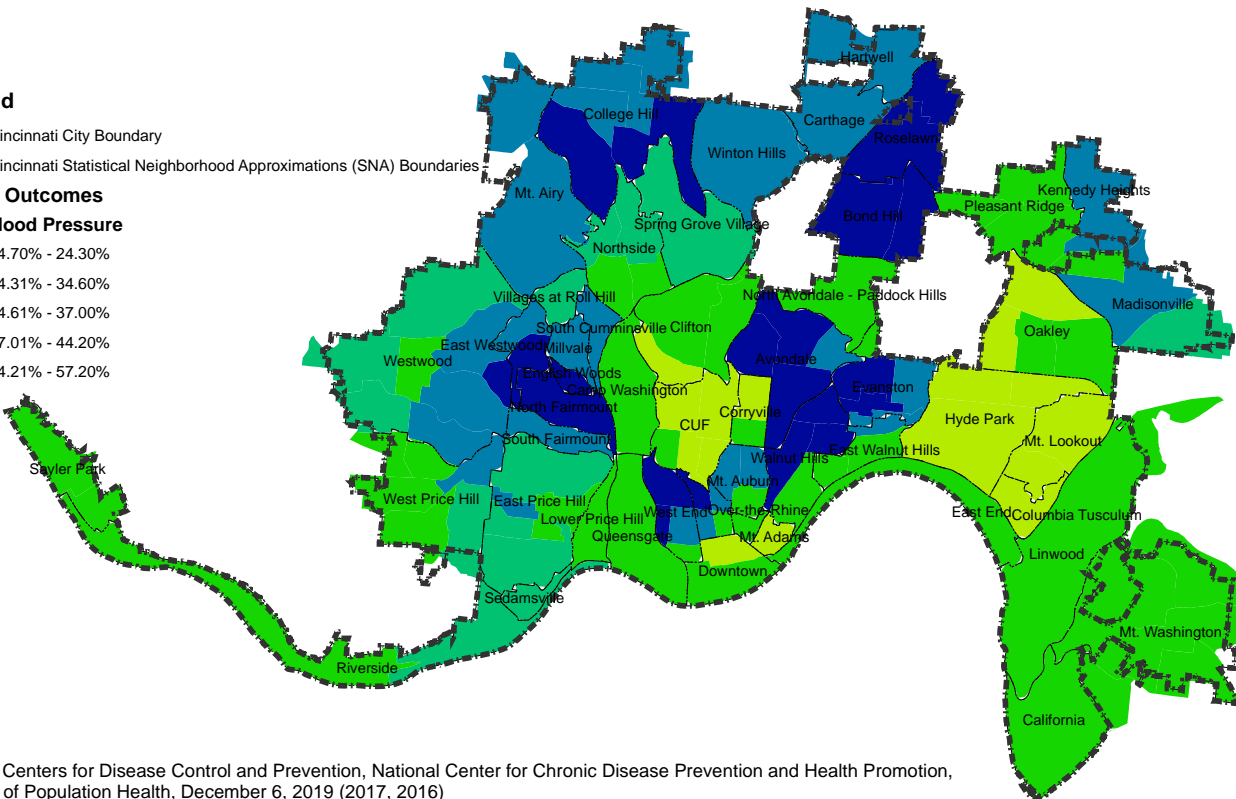
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 25: High Cholesterol, Identifying Geographic Disparities, 2017
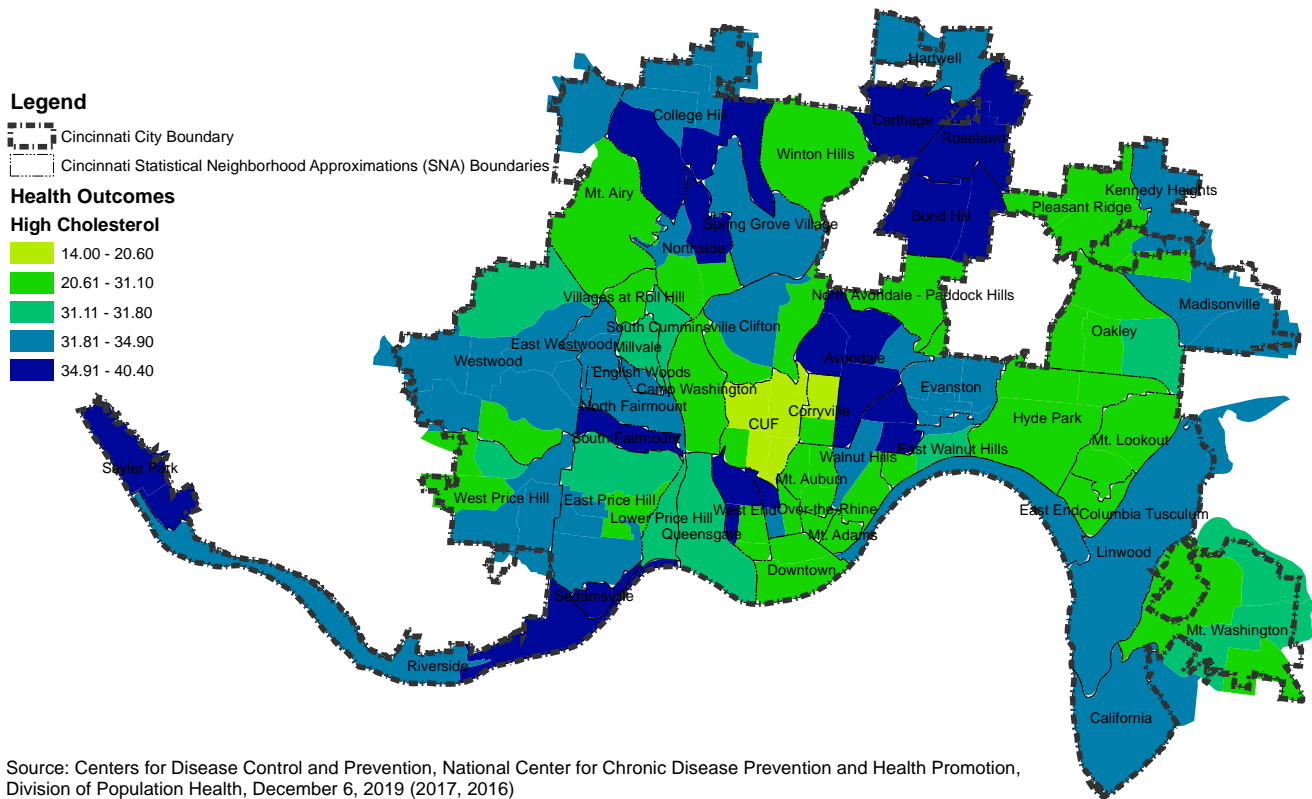
Legend

- - - Cincinnati City Boundary
..... Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Health Outcomes

High Cholesterol

- 14.00 - 20.60
- 20.61 - 31.10
- 31.11 - 31.80
- 31.81 - 34.90
- 34.91 - 40.40

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 26: Kidney Disease, Identifying Geographic Disparities, 2017
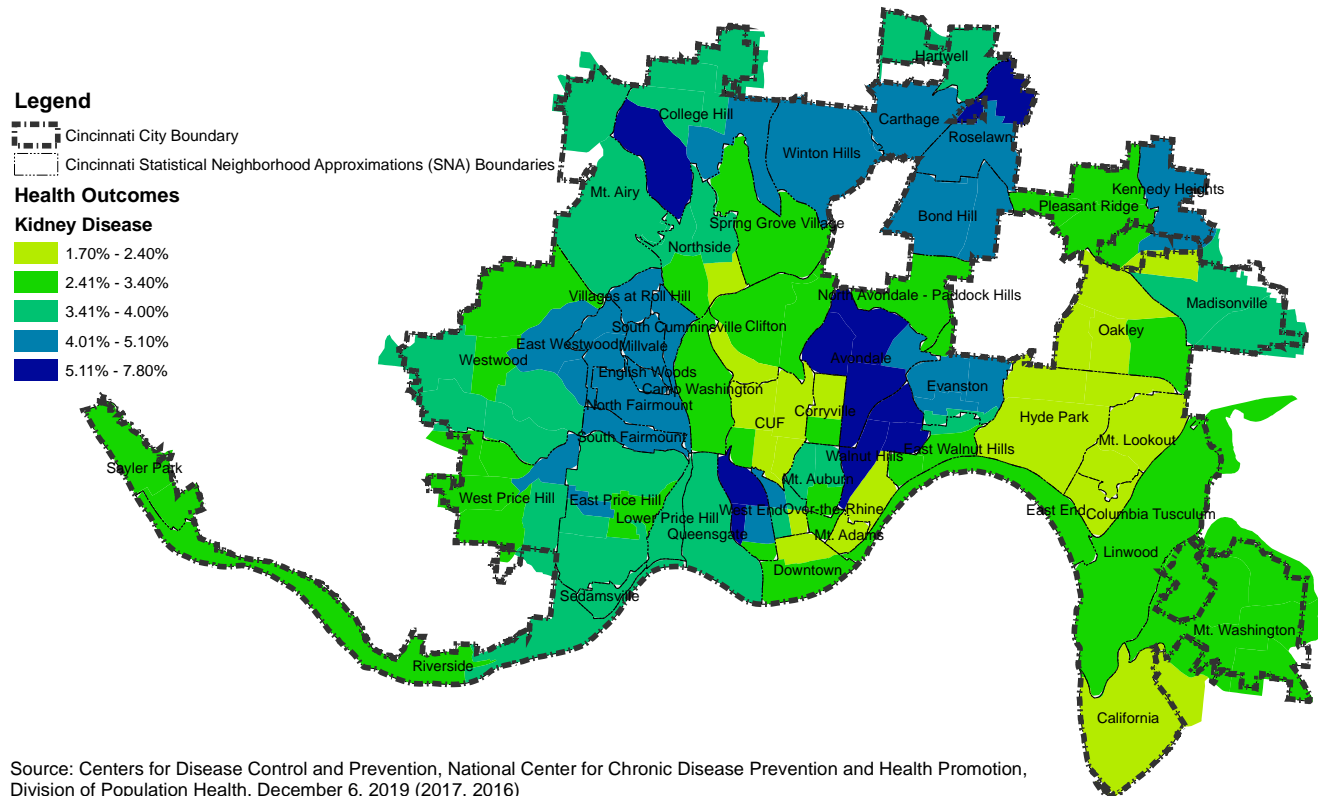
Legend

- - - Cincinnati City Boundary
..... Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Health Outcomes

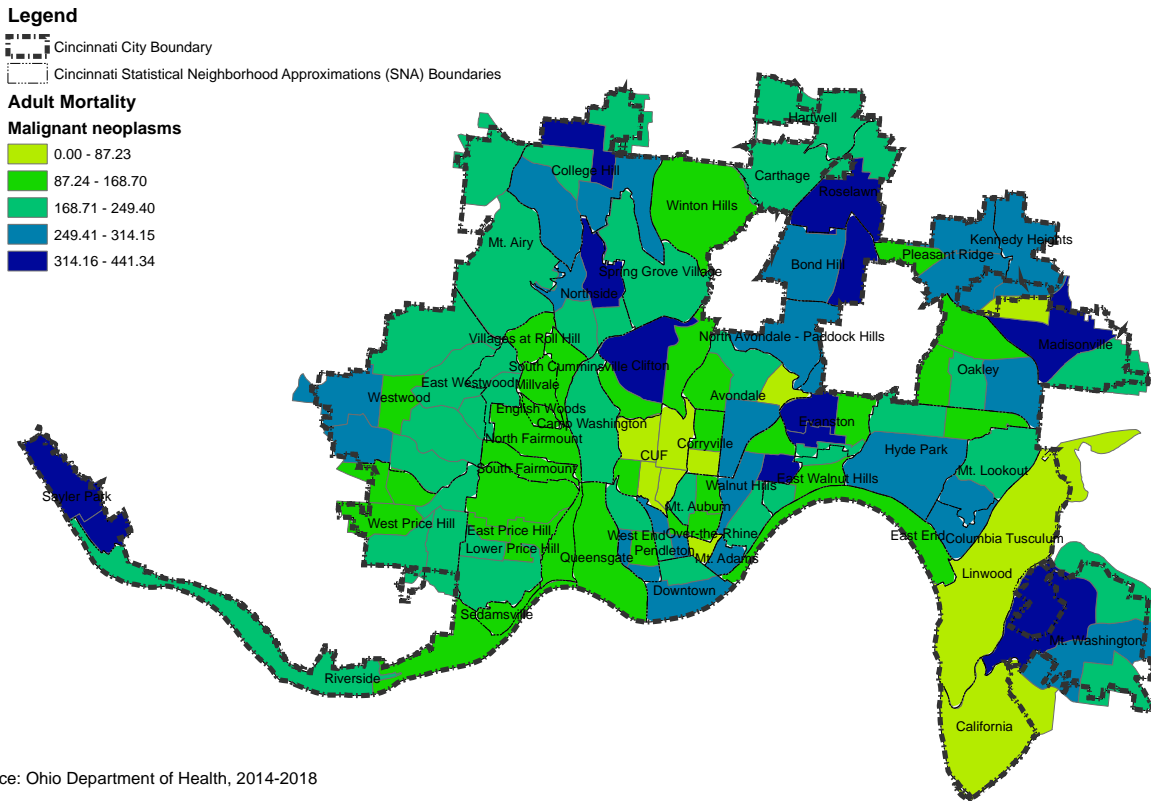**Kidney Disease**

- 1.70% - 2.40%
- 2.41% - 3.40%
- 3.41% - 4.00%
- 4.01% - 5.10%
- 5.11% - 7.80%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 27: Poor Mental Health (14+ days), Identifying Geographic Disparities, 2017

Legend

- Cincinnati City Boundary
- Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Health Outcomes

Mental Health Not Good 14+ Days

- 9.10% - 12.30%
- 12.31% - 16.40%
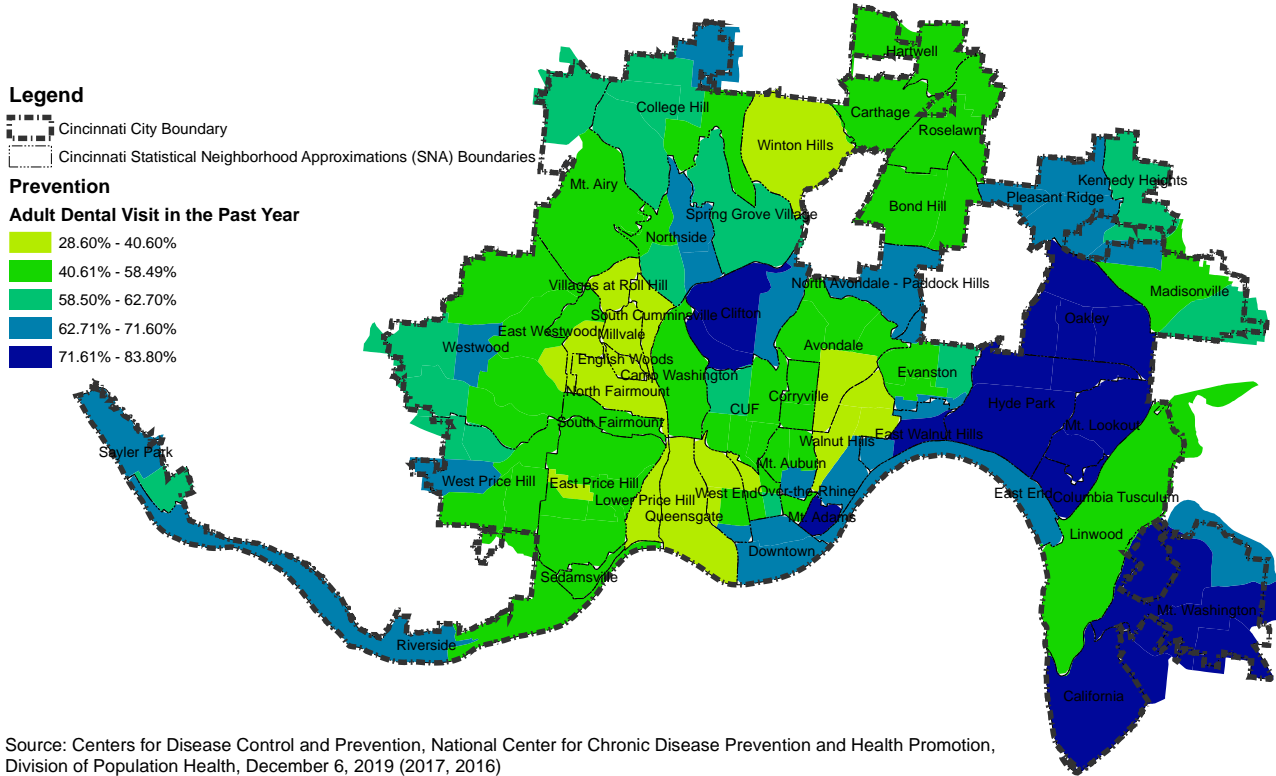- 16.41% - 19.10%
- 19.11% - 22.70%
- 22.7% - 29.90%
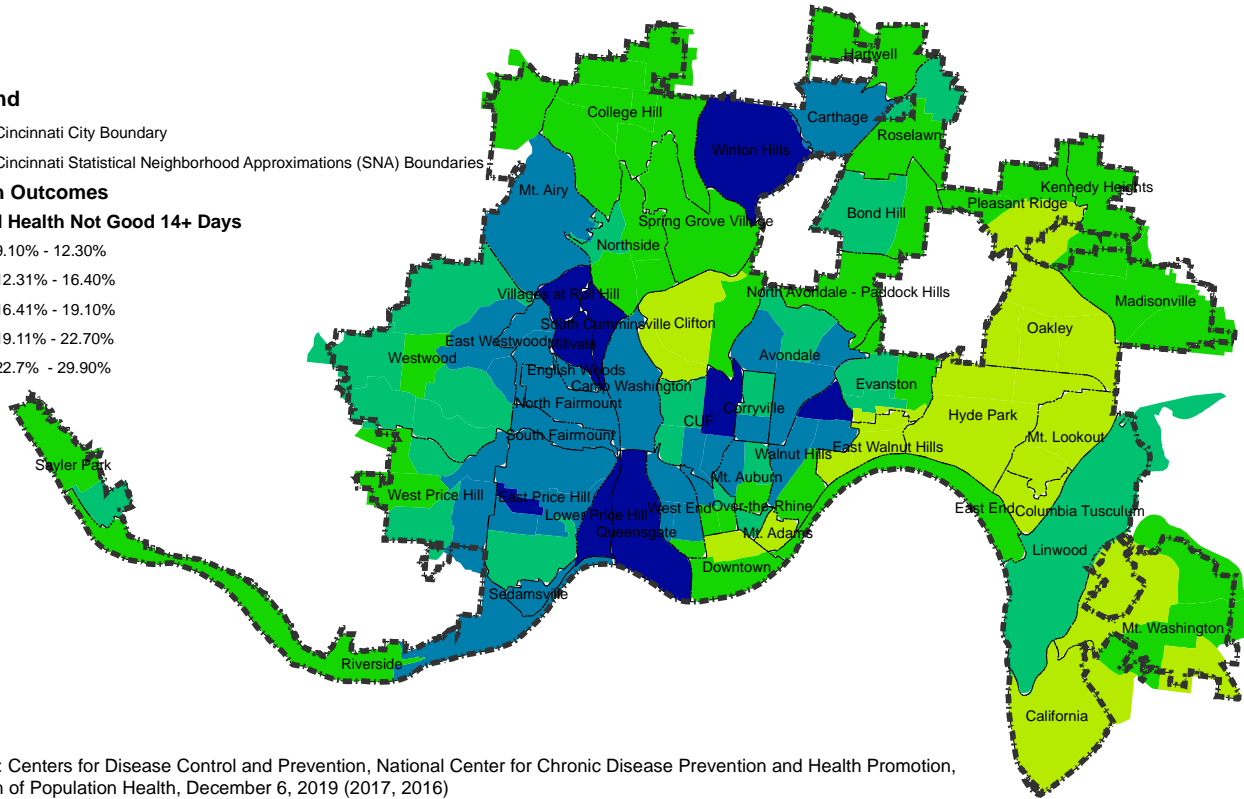
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 28: Poor Physical Health (14+ Days), Identifying Geographic Disparities, 2017

Legend

- Cincinnati City Boundary
- Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Health Outcomes

Physical Health Not Good 14+ Days

- 7.00% - 11.00%
- 11.01% - 14.60%
- 14.61% - 17.10%
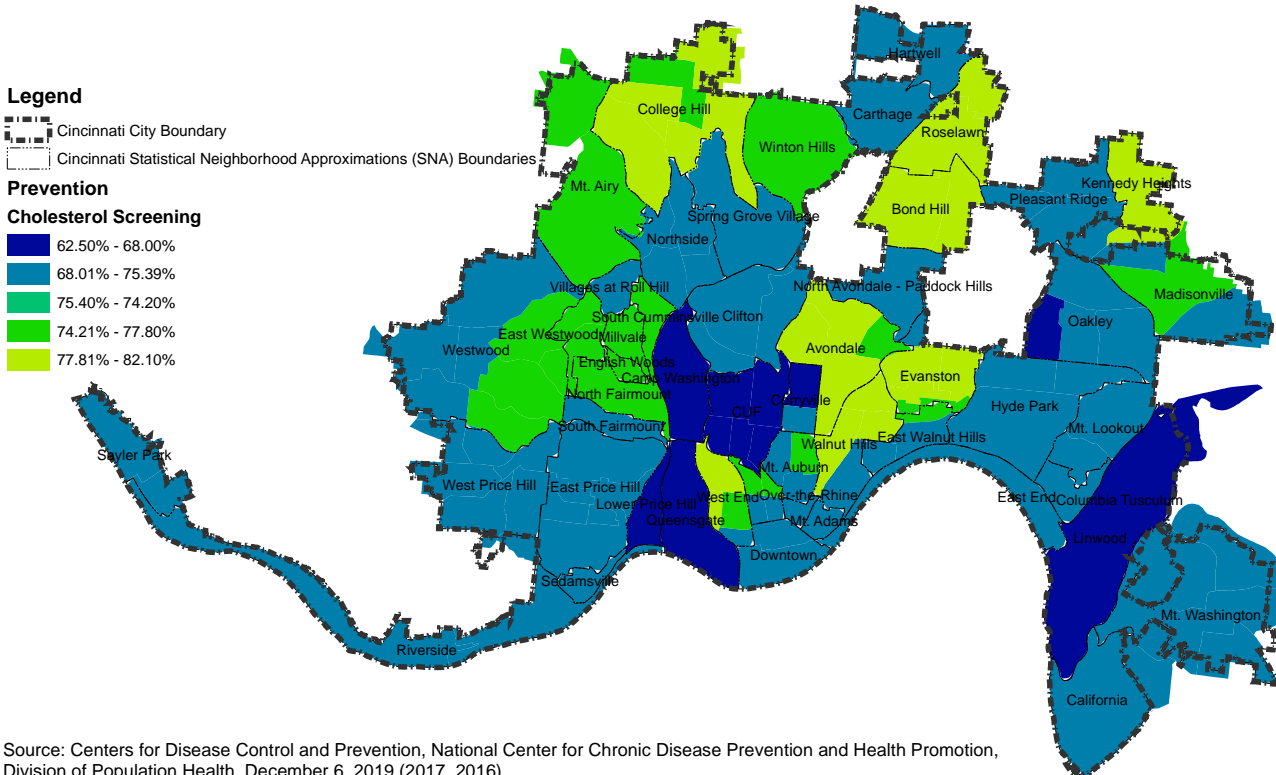- 17.11% - 20.00%
- 20.01% - 28.40%
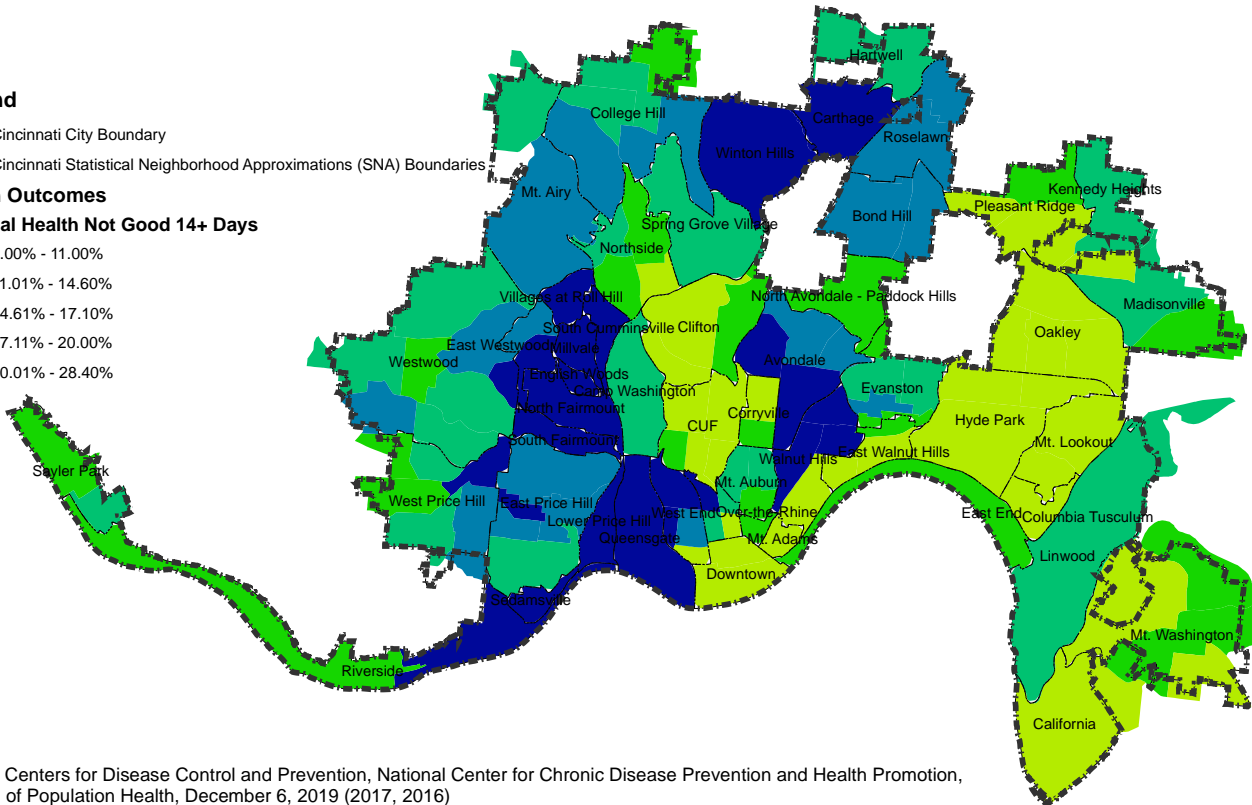
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 29: Stroke, Identifying Geographic Disparities, 2017
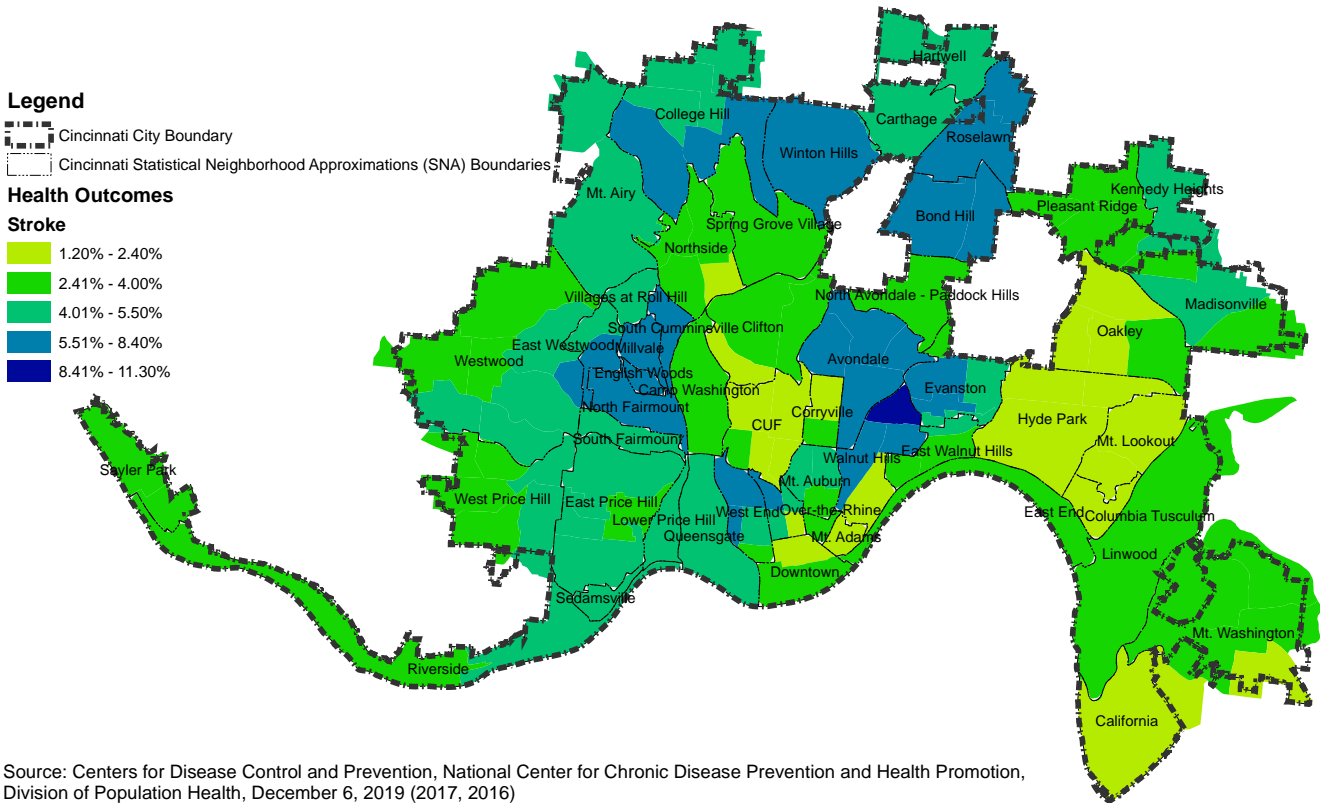
Legend

Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Health Outcomes

Stroke

- 1.20% - 2.40%
- 2.41% - 4.00%
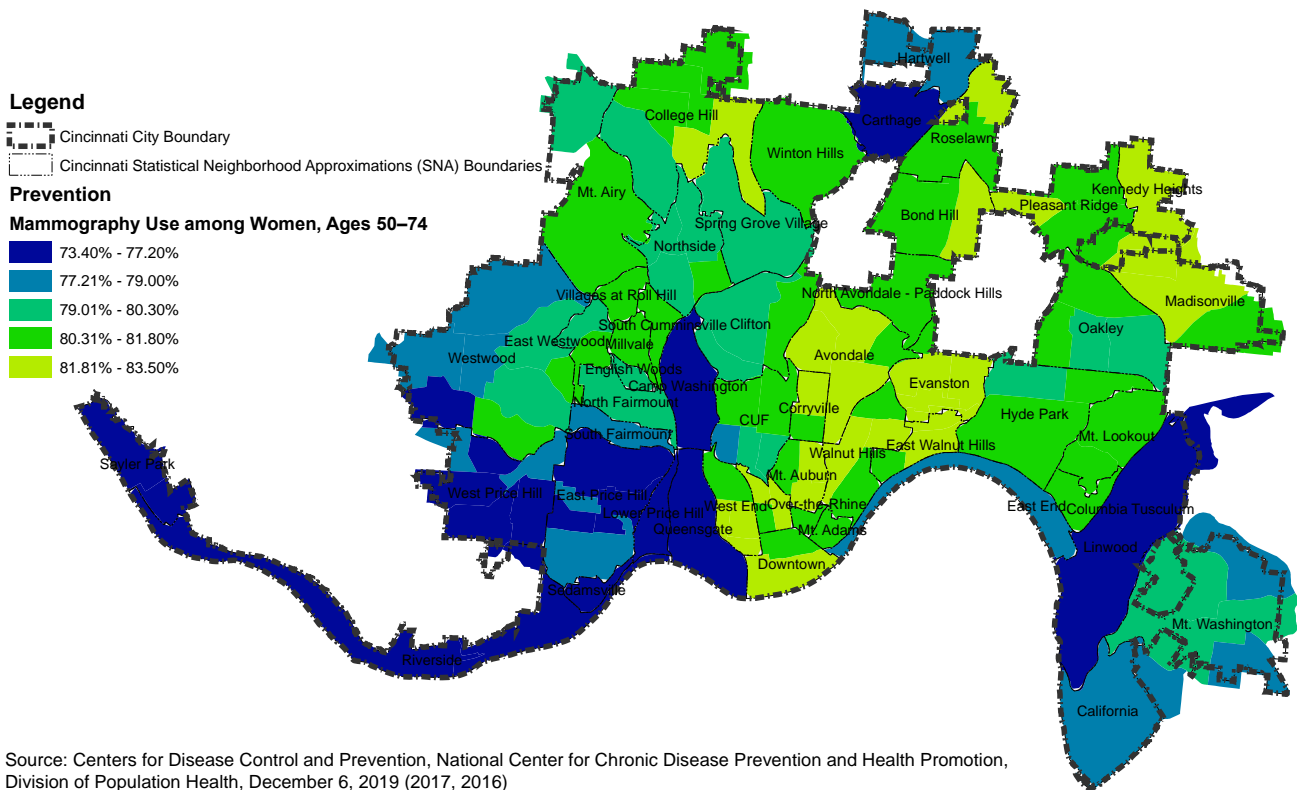- 4.01% - 5.50%
- 5.51% - 8.40%
- 8.41% - 11.30%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 30: Lost or Removed All Teeth, Identifying Geographic Disparities, 2017
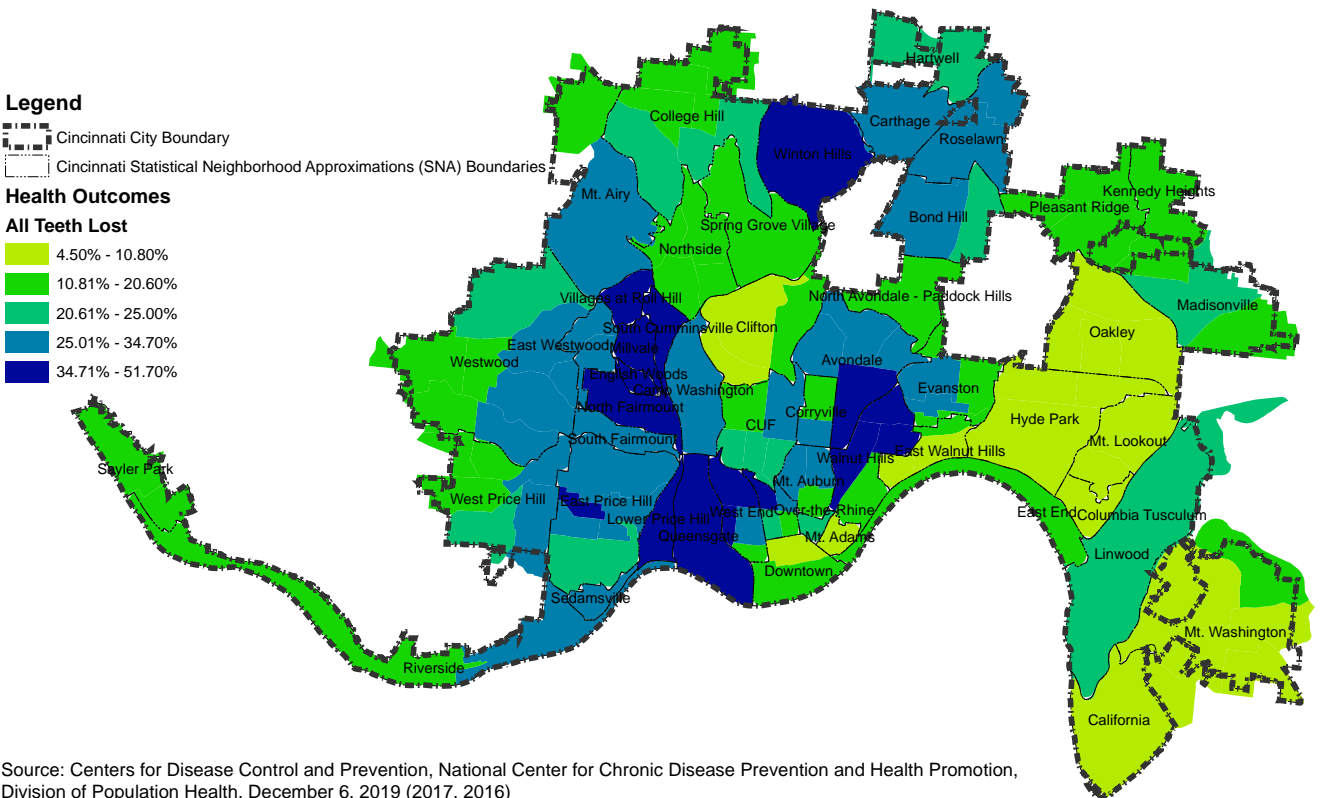
Legend

Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Health Outcomes

All Teeth Lost

- 4.50% - 10.80%
- 10.81% - 20.60%
- 20.61% - 25.00%
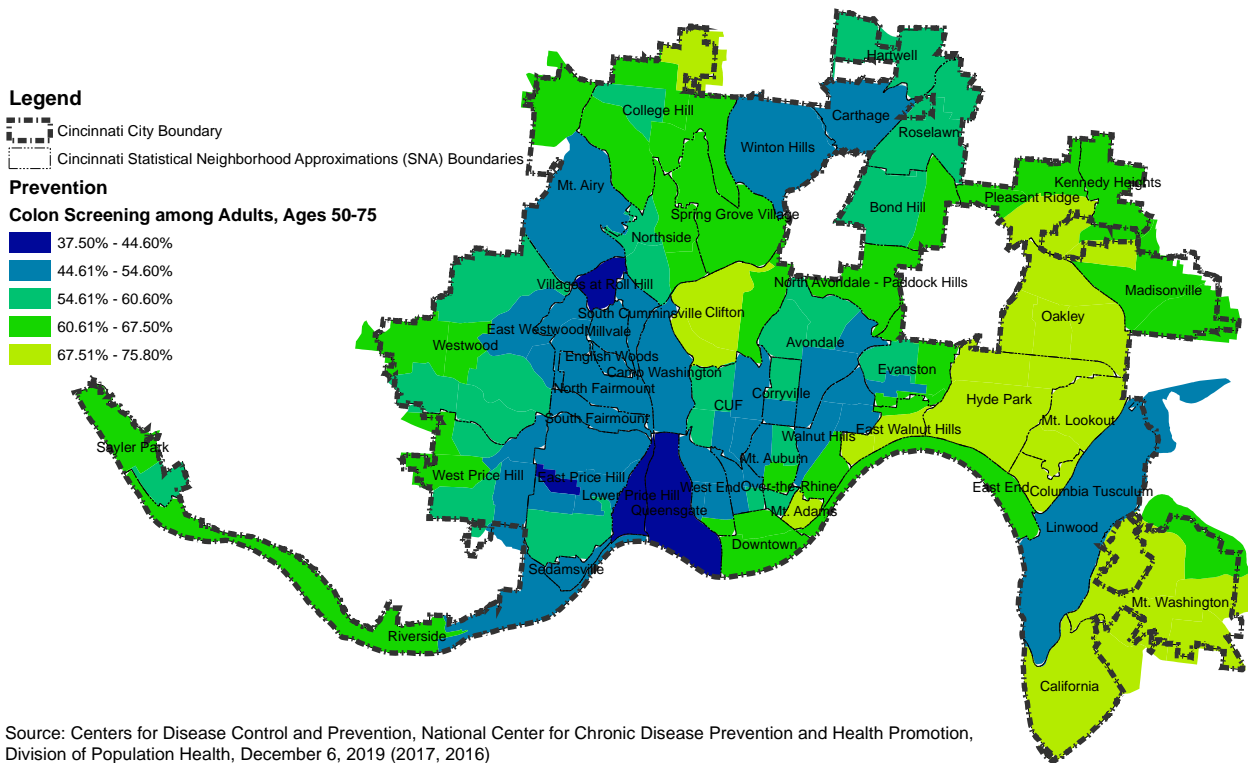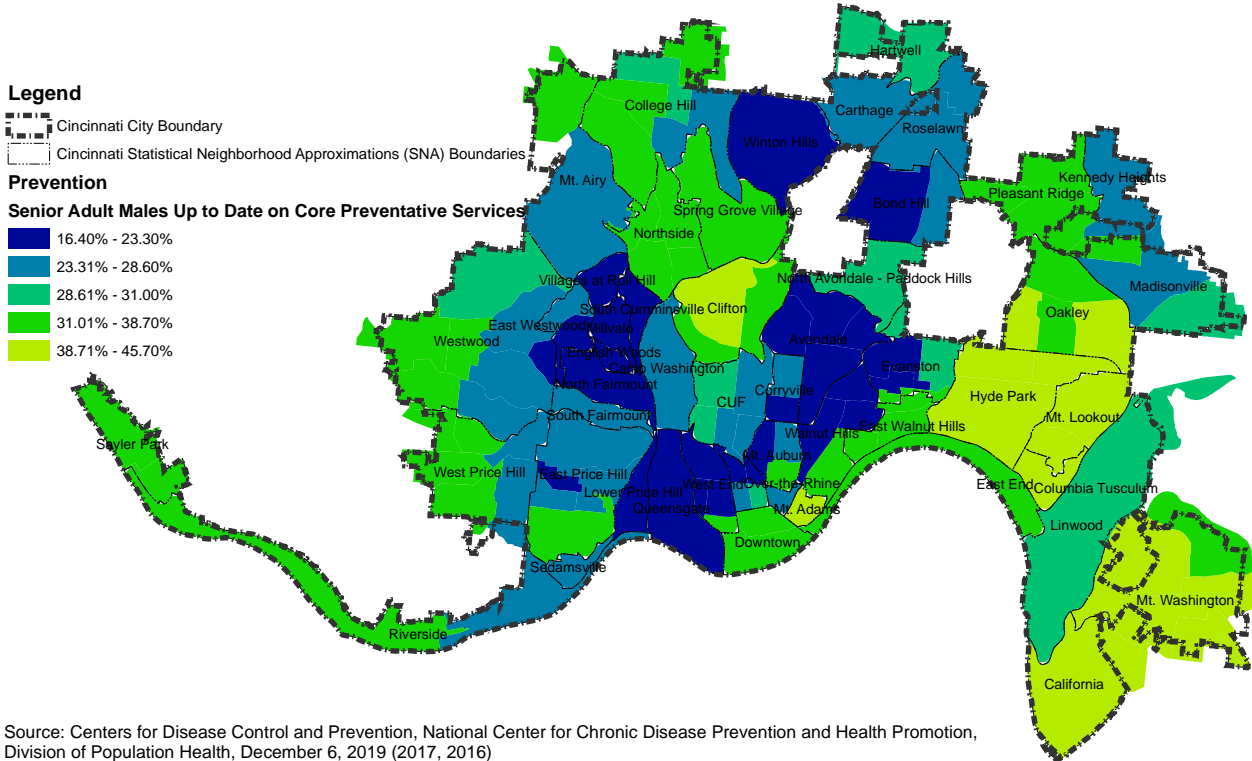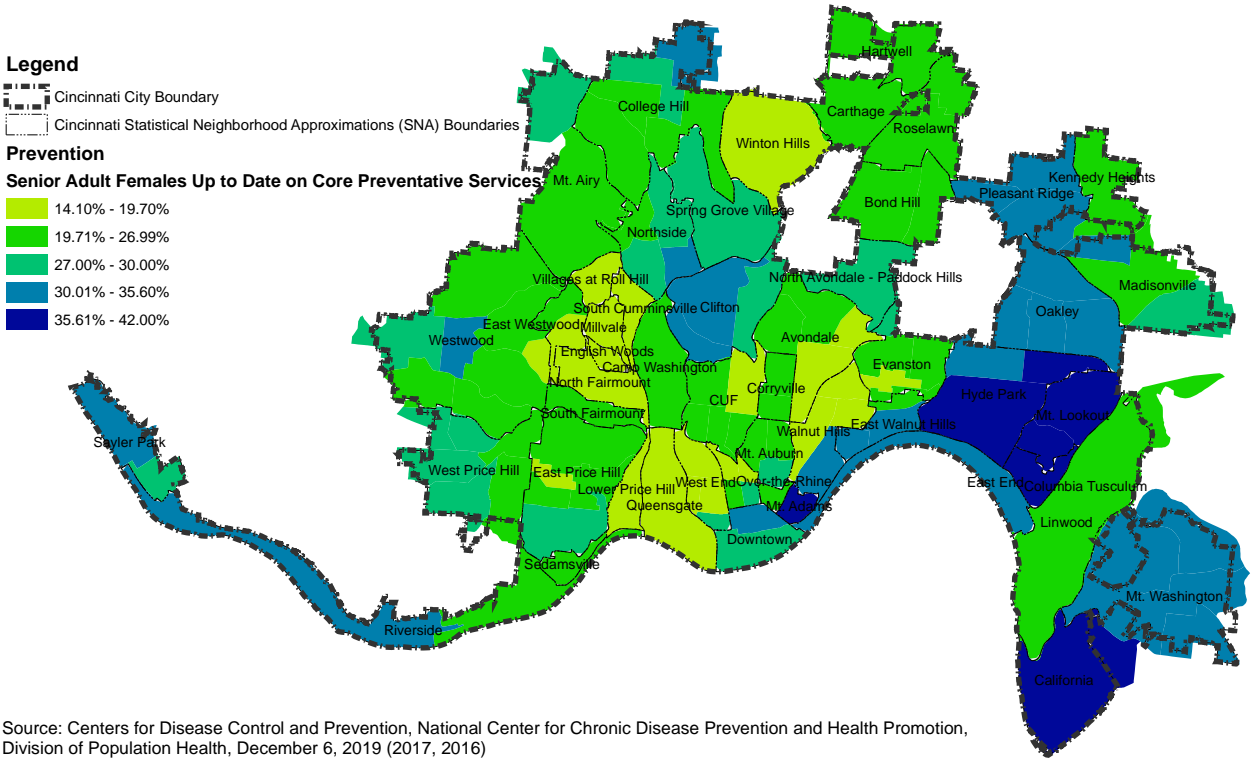- 25.01% - 34.70%
- 34.71% - 51.70%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 31: Breast Cancer (female), 5-year Rate per 100,000, 2014-2018

Legend

Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Cancer

Breast Cancer (female)

- 0.00 - 87.23
- 87.24 - 168.70
- 168.71 - 216.40
- 216.41 - 314.15
- 314.16 - 441.34
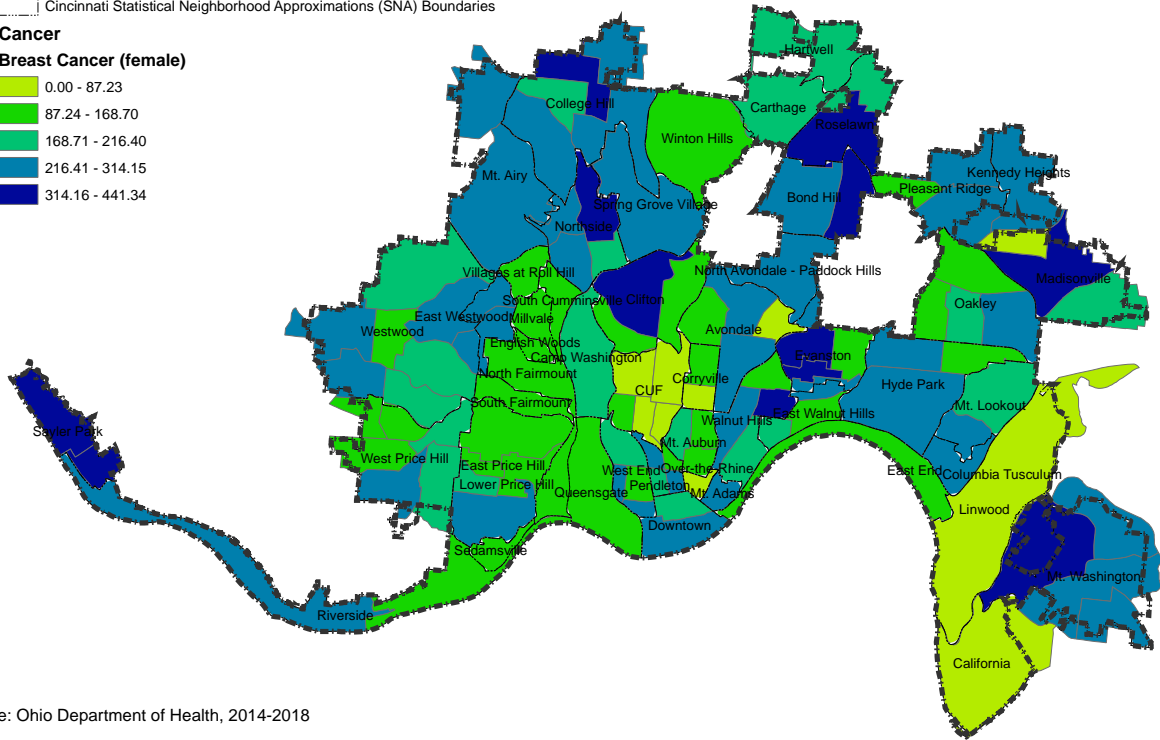
Source: Ohio Department of Health, 2014-2018

Map 32: Prostate Cancer, 5-year Rate per 100,000, 2014-2018

Legend

Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Cancer

Prostate Cancer

- 0.00 - 87.23
- 87.24 - 146.10
- 146.11 - 241.96
- 241.97 - 314.15
- 314.16 - 441.34
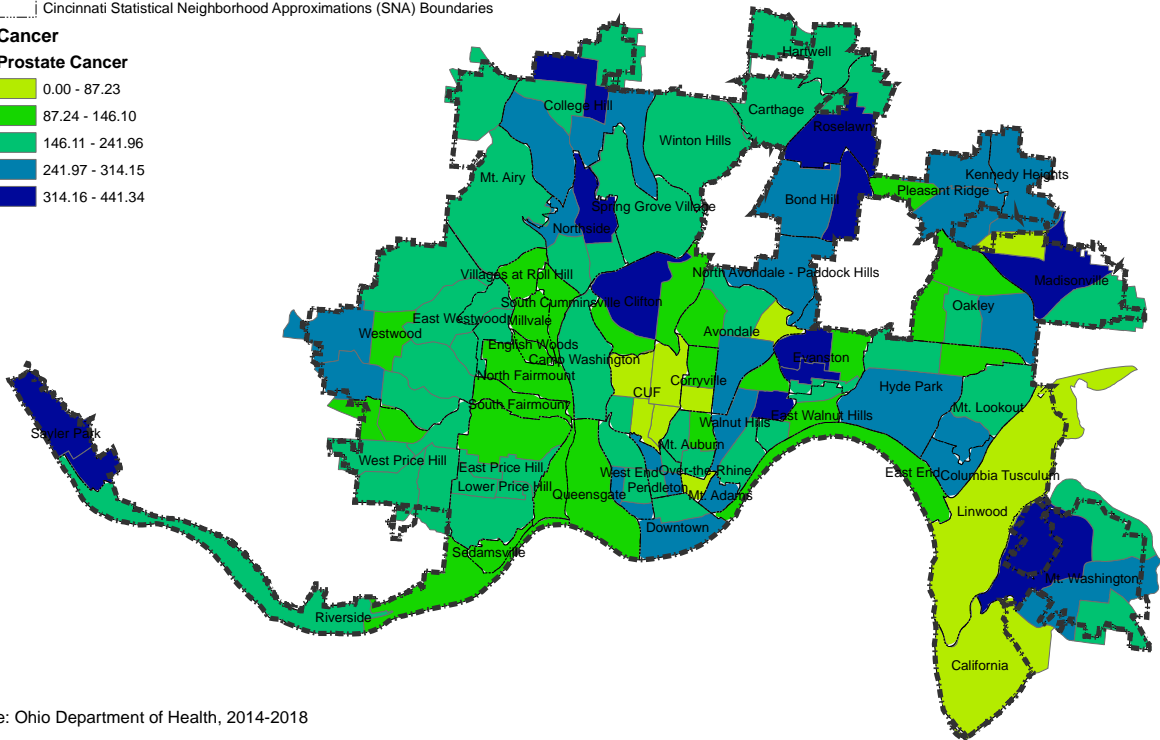
Source: Ohio Department of Health, 2014-2018

Map 33: Lung and Bronchus Cancer, 5-year Rate per 100,000, 2014-2018

Legend

- Cincinnati City Boundary
- Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Cancer

Lung and Bronchus Cancer

- 0.00 - 87.23
- 87.24 - 110.90
- 110.91 - 241.96
- 241.97 - 314.15
- 314.16 - 441.34
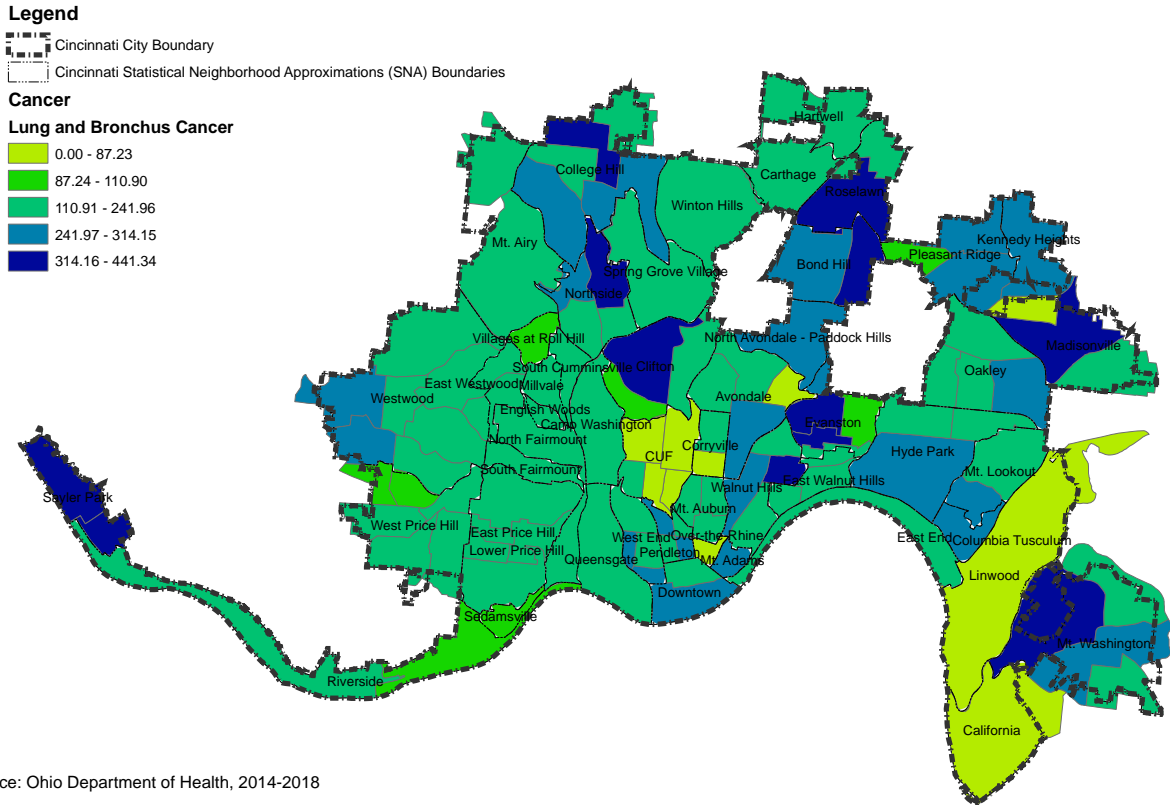
Source: Ohio Department of Health, 2014-2018

Map 34: Colon and Rectum Cancer, 5-year Rate per 100,000, 2014-2018

Legend

- Cincinnati City Boundary
- Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Cancer

Colon and Rectum Cancer

- 0.00 - 21.65
- 21.66 - 41.77
- 41.78 - 56.20
- 56.21 - 79.00
- 79.01 - 134.41
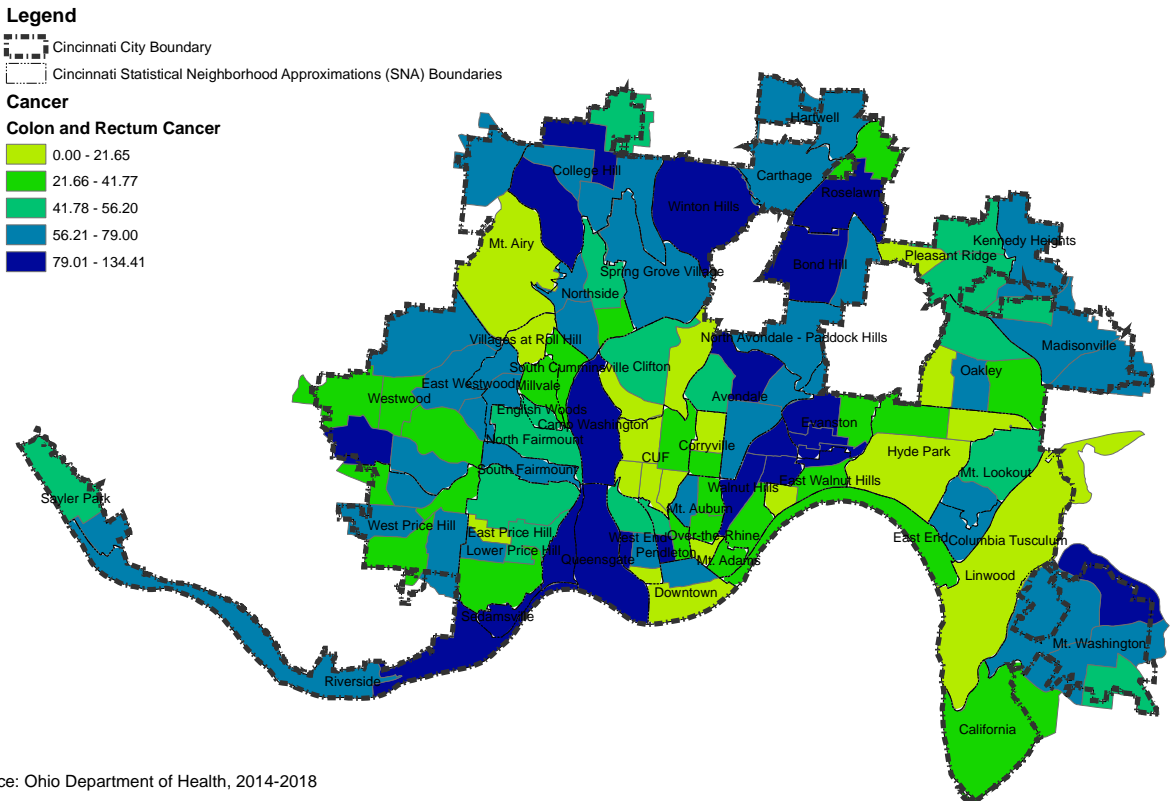
Source: Ohio Department of Health, 2014-2018

Map 35: Melanoma of Skin, 5-year Rate per 100,000, 2014-2018

Legend

Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Cancer

Melanoma

	0.00 - 12.40
	12.41 - 33.70
	33.71 - 55.69
	55.70 - 107.10
	107.11 - 179.72
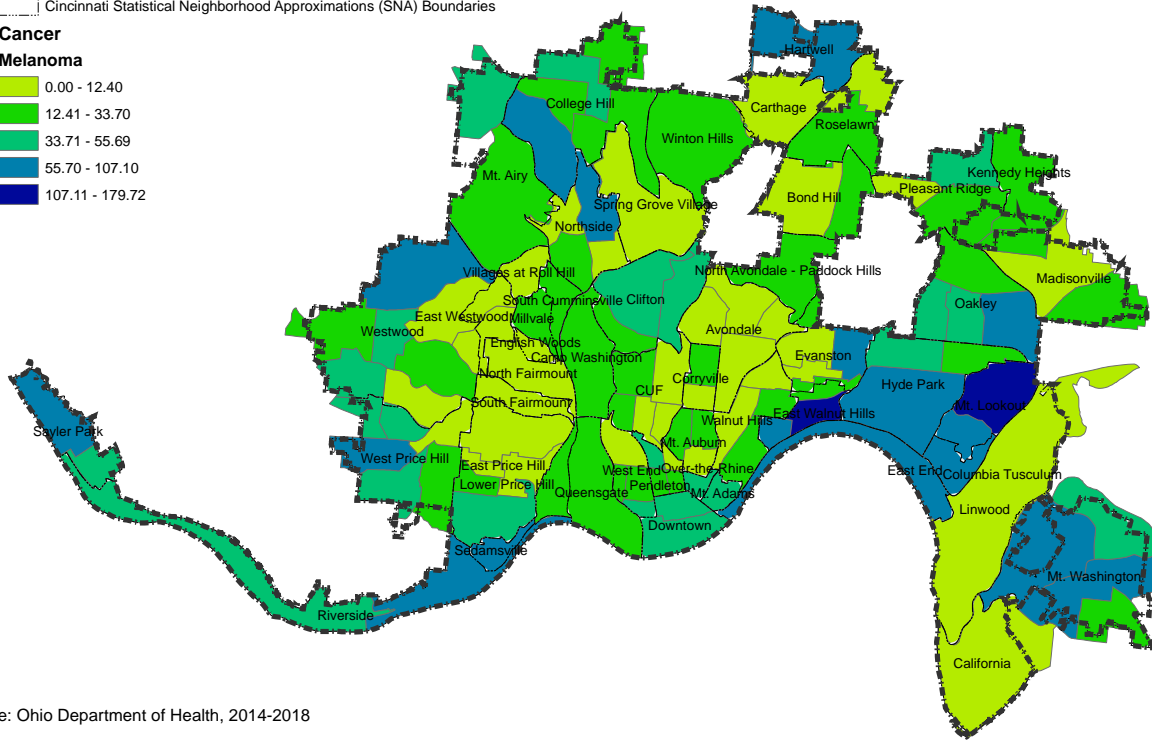
Source: Ohio Department of Health, 2014-2018

Map 36: Adult Mortality, Diseases of Heart, 5-year Rate per 100,000, 2014-2018

Legend

Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Adult Mortality

Diseases of the heart

	0.00 - 84.18
	84.19 - 260.40
	260.41 - 323.82
	323.83 - 511.55
	511.56 - 702.02
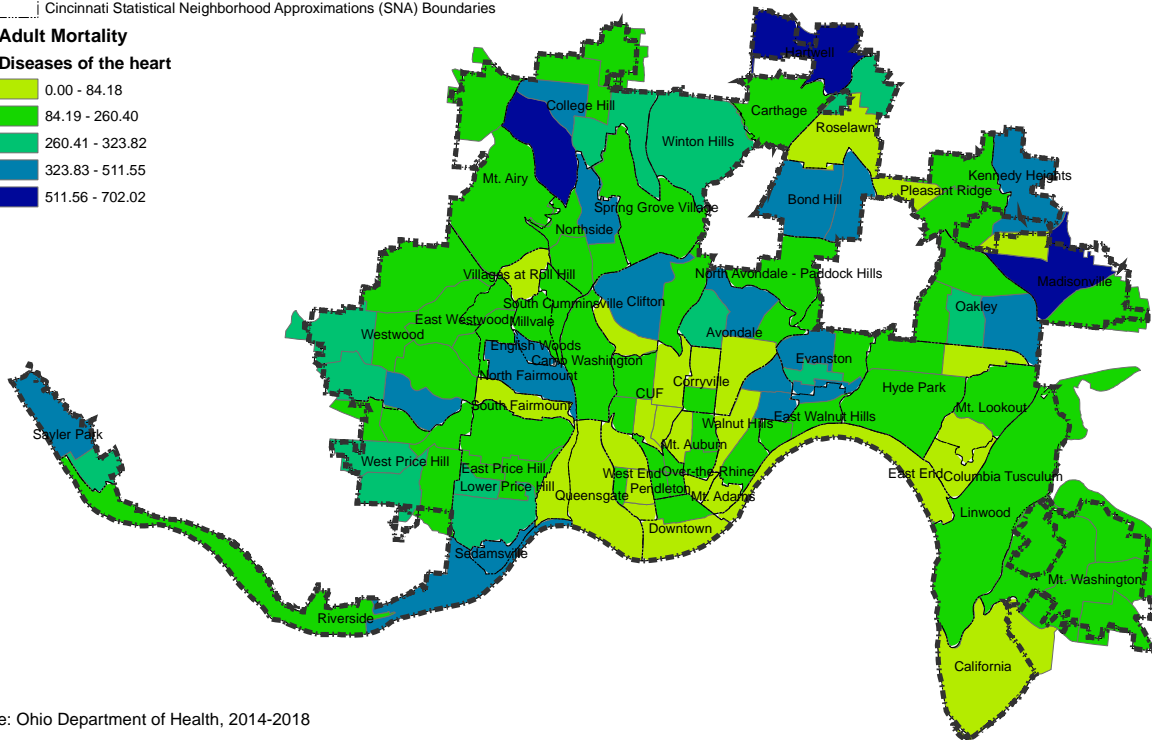
Source: Ohio Department of Health, 2014-2018

Map 37: Adult Mortality, Malignant Neoplasms, 5-year Rate per 100,000, 2014-2018

Legend

- - - Cincinnati City Boundary

.... Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Adult Mortality

Malignant neoplasms

- 0.00 - 87.23
- 87.24 - 168.70
- 168.71 - 249.40
- 249.41 - 314.15
- 314.16 - 441.34

Source: Ohio Department of Health, 2014-2018

Map 38: Adult Mortality, Accidents (unintentional injuries), 5-year Rate per 100,000, 2014-2018

Legend

- - - Cincinnati City Boundary

.... Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Adult Mortality

Accidents (unintentional injuries)

- 0.00 - 28.85
- 28.86 - 70.62
- 70.63 - 107.50
- 107.51 - 181.43
- 181.44 - 316.02
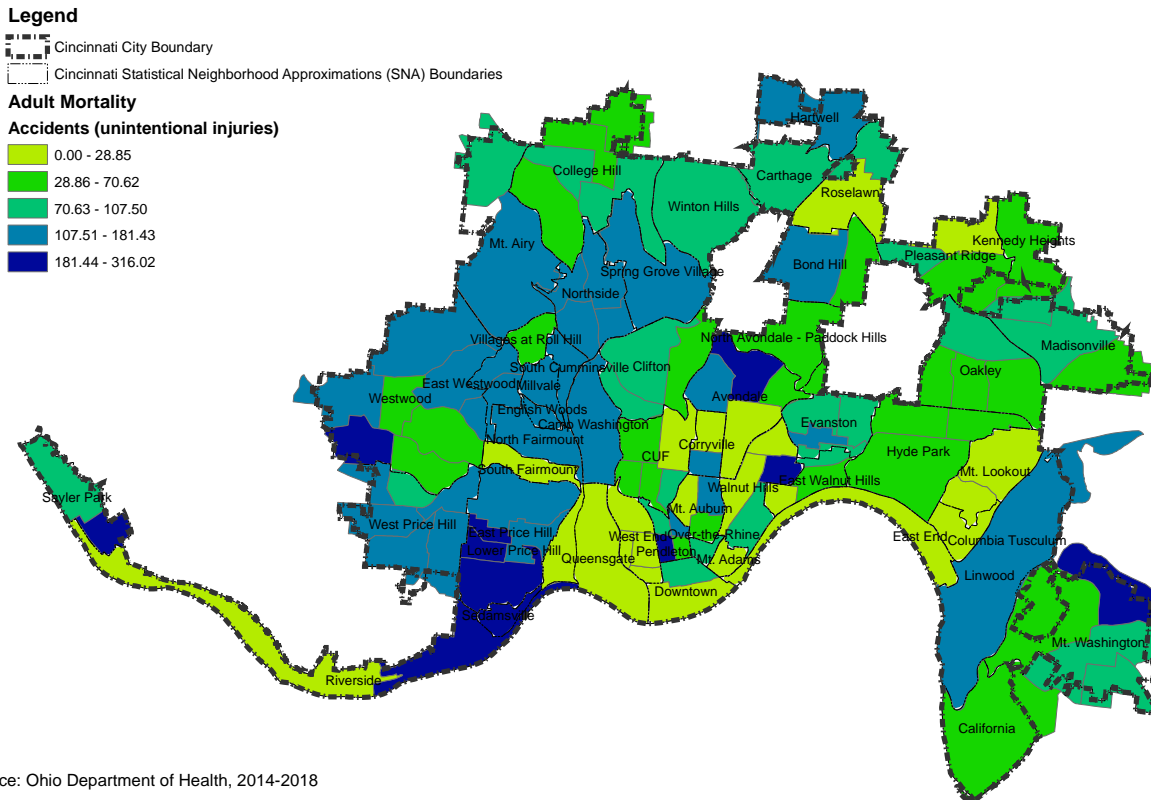
Source: Ohio Department of Health, 2014-2018

Appendix B: Identifying Geographic Disparities in Adult Chronic Health Prevention

Map 39: Adults Lacking Health Insurance among Adults 18-64, Identifying Geographic Disparities, 2017

Legend

Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Prevention

Adults 18-64 Lacking of Health Insurance

- 4.60% - 8.10%
- 8.11% - 12.99%
- 13.00% - 15.50%
- 15.51% - 19.70%
- 19.71% - 25.10%
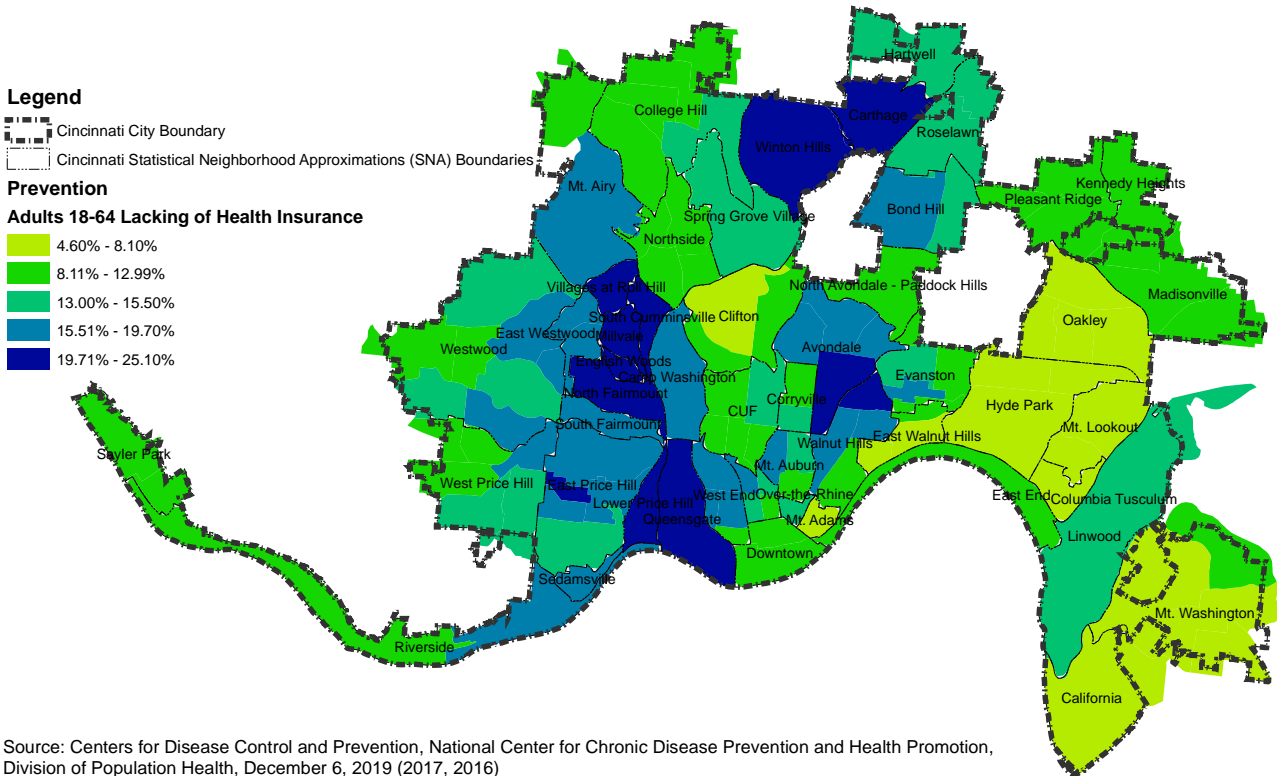
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 40: Routine Checkup within the Past Year among Adults, Identifying Geographic Disparities, 2017

Legend

Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Prevention

Routine Checkup within the Past Year

- 62.50% - 68.00%
- 68.01% - 73.49%
- 73.50% - 74.20%
- 74.21% - 77.80%
- 77.81% - 82.10%
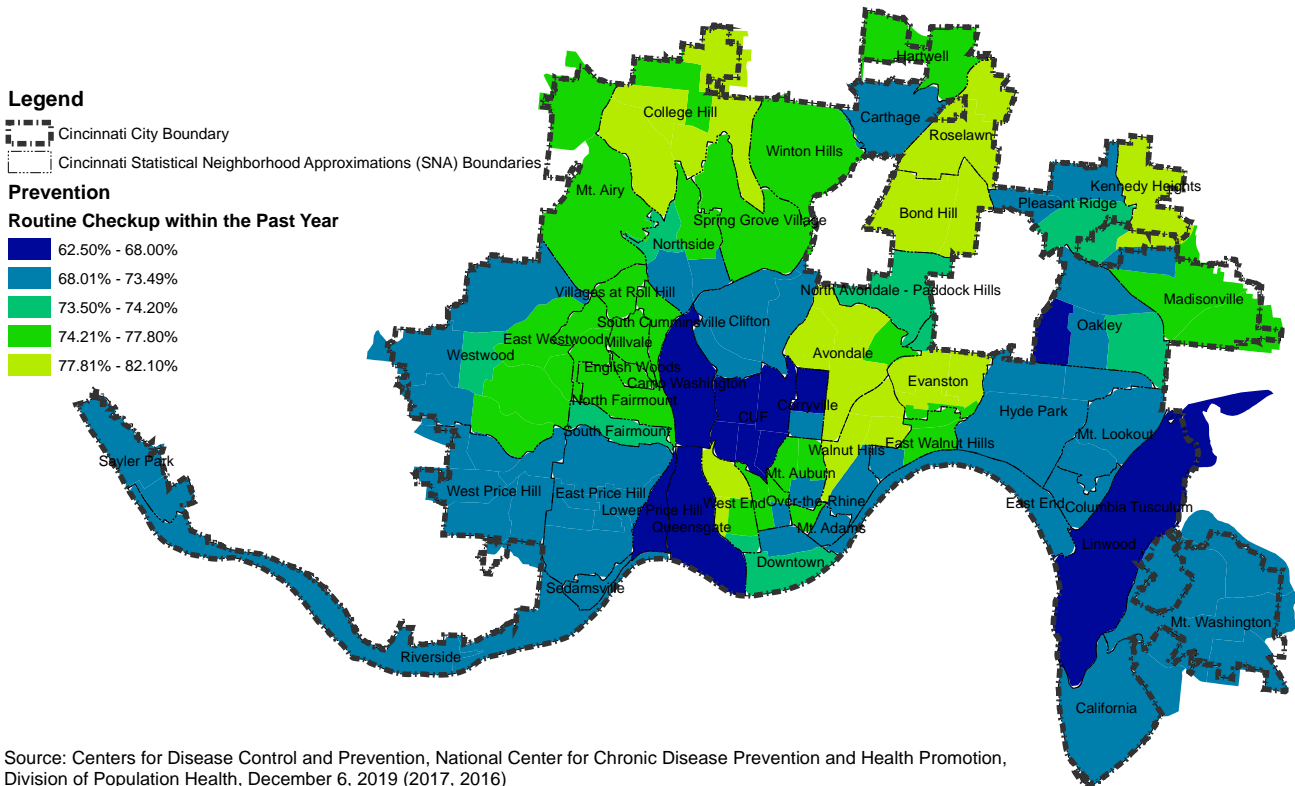
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 41: Routine Dental Checkup within the Past Year among Adults, Identifying Geographic Disparities, 2017

Legend

- - - - Cincinnati City Boundary

········ Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Prevention

Adult Dental Visit in the Past Year

- 28.60% - 40.60%
- 40.61% - 58.49%
- 58.50% - 62.70%
- 62.71% - 71.60%
- 71.61% - 83.80%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 42: Cholesterol Screening within the Past Year among Adults, Identifying Geographic Disparities, 2017

Legend

- - - - Cincinnati City Boundary

········ Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Prevention

Cholesterol Screening

- 62.50% - 68.00%
- 68.01% - 75.39%
- 75.40% - 74.20%
- 74.21% - 77.80%
- 77.81% - 82.10%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 43: Mammography Use among Women, Ages 50–74, Identifying Geographic Disparities, 2017

Legend

- - - Cincinnati City Boundary
· · · Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Prevention

Mammography Use among Women, Ages 50–74

- 73.40% - 77.20%
- 77.21% - 79.00%
- 79.01% - 80.30%
- 80.31% - 81.80%
- 81.81% - 83.50%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 44: Colon Screening among Adults, Ages 50-75, Identifying Geographic Disparities, 2017

Legend

- - - Cincinnati City Boundary
· · · Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Prevention

Colon Screening among Adults, Ages 50-75

- 37.50% - 44.60%
- 44.61% - 54.60%
- 54.61% - 60.60%
- 60.61% - 67.50%
- 67.51% - 75.80%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 45: Senior Adult Males Up to Date on Core Preventative Services, Identifying Geographic Disparities, 2017
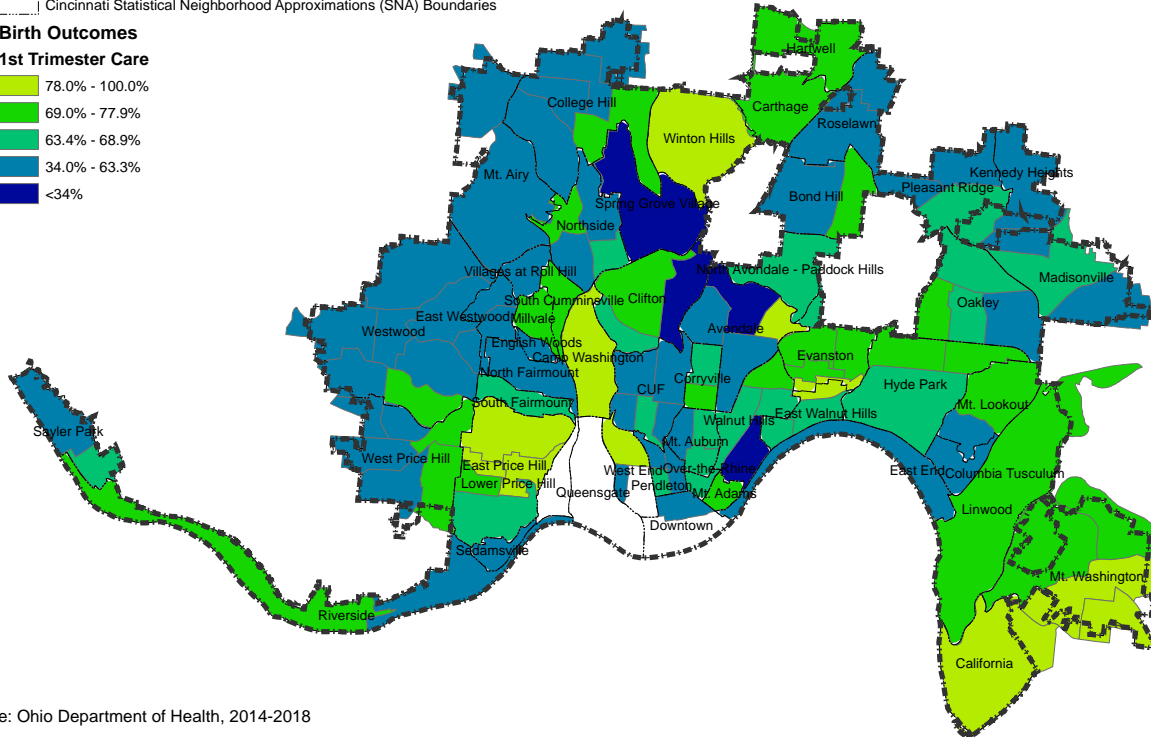

Legend

- Cincinnati City Boundary
- Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Prevention

Senior Adult Males Up to Date on Core Preventative Services

- 16.40% - 23.30%
- 23.31% - 28.60%
- 28.61% - 31.00%
- 31.01% - 38.70%
- 38.71% - 45.70%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 46: Senior Adult Females Up to Date on Core Preventative Services, Identifying Geographic Disparities, 2017

Legend

- Cincinnati City Boundary
- Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Prevention

Senior Adult Females Up to Date on Core Preventative Services

- 14.10% - 19.70%
- 19.71% - 26.99%
- 27.00% - 30.00%
- 30.01% - 35.60%
- 35.61% - 42.00%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Appendix C: Identifying Geographic Disparities in Adult Unhealthy Behaviors

Map 47: Binge Drinking among Adults, Identifying Geographic Disparities, 2017
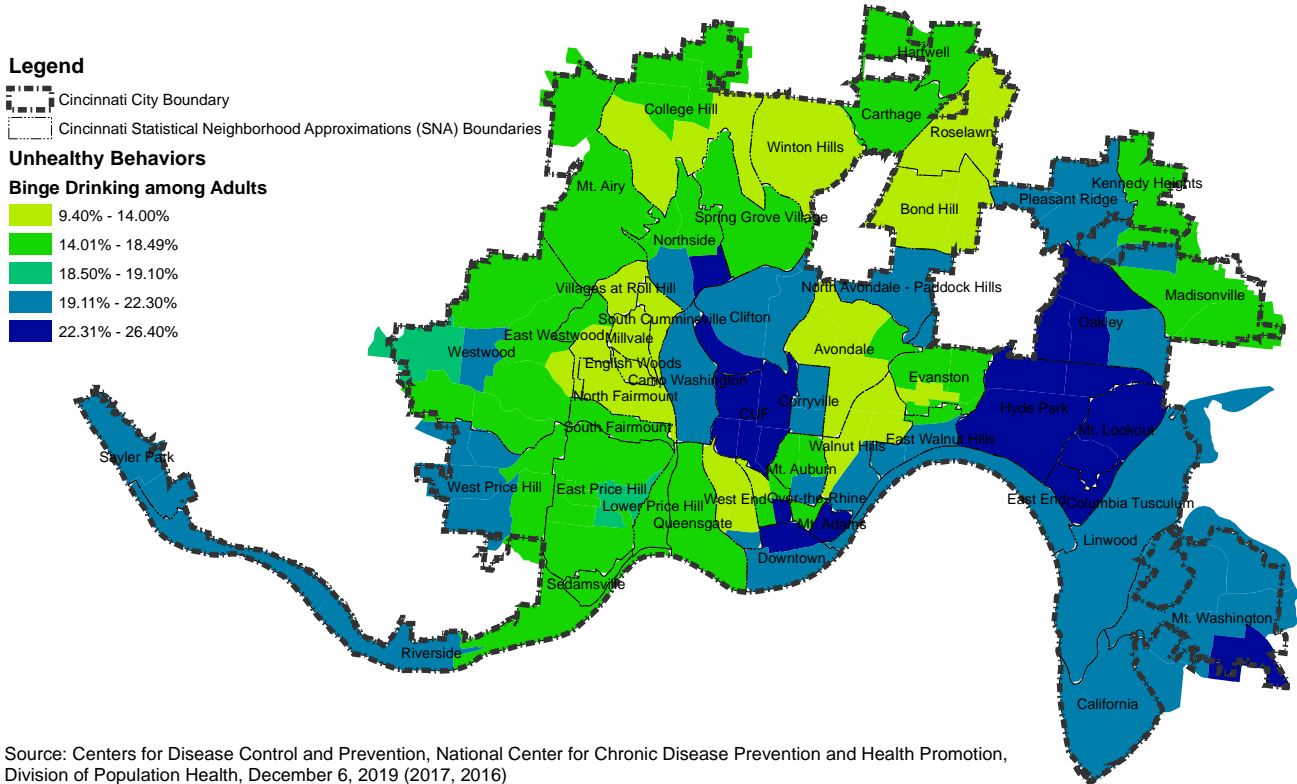
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 48: Current Smoking among Adults, Identifying Geographic Disparities, 2017
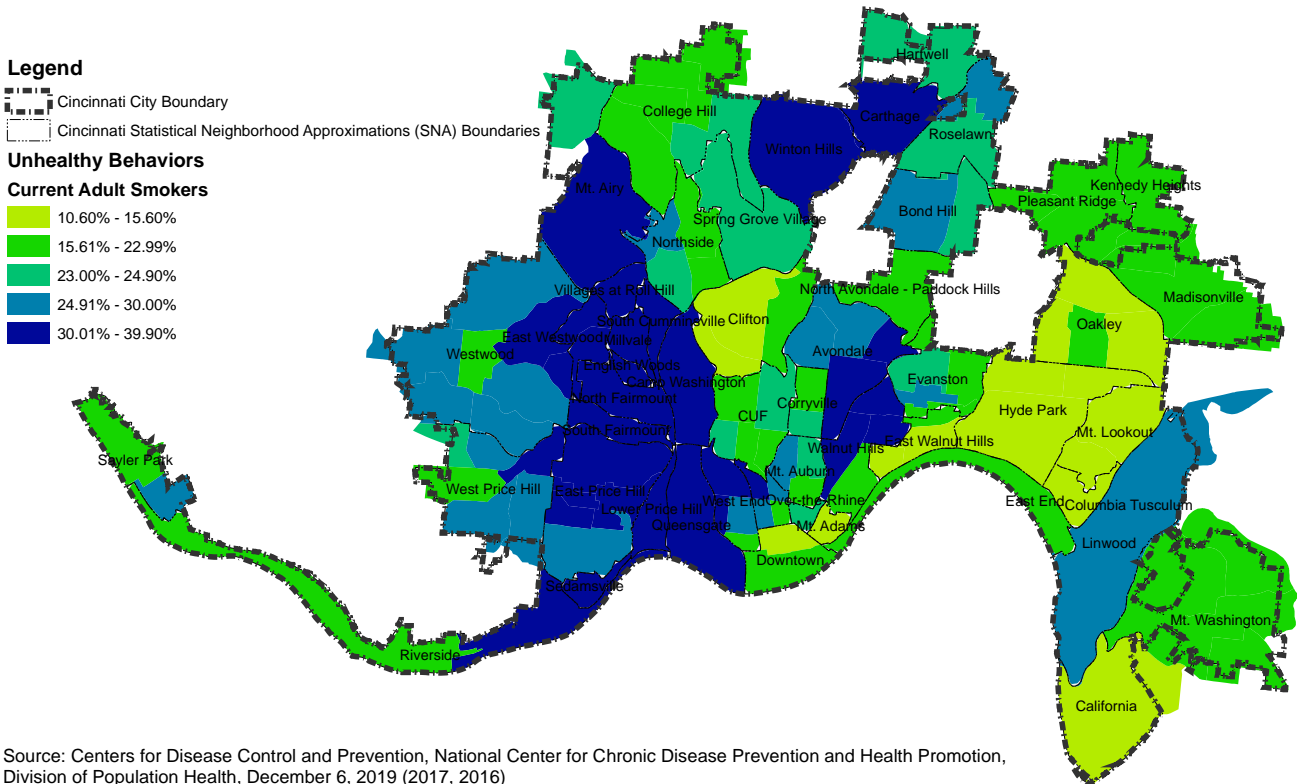
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 49: Lack of Leisure-Time Physical Activity among Adults, Identifying Geographic Disparities, 2017

Legend

- - - Cincinnati City Boundary
.... Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Unhealthy Behaviors

Adults Lacking Physical Activity

- 16.20% - 22.20%
- 22.21% - 31.99%
- 32.00% - 35.10%
- 35.11% - 41.80%
- 41.81% - 53.60%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 50: Adult Obesity, Identifying Geographic Disparities, 2017

Legend

- - - Cincinnati City Boundary
.... Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Unhealthy Behaviors

Adult Obesity

- 14.10% - 19.70%
- 19.71% - 36.39%
- 36.40% - 30.00%
- 30.01% - 35.60%
- 35.61% - 42.00%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Map 51: Adults Sleeping Fewer than 7 Hours per Night, Identifying Geographic Disparities, 2017

Legend

Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Unhealthy Behaviors

Adults Getting < 7 Hours of Sleep per Night

- 31.30% - 37.20%
- 37.21% - 42.59%
- 42.60% - 45.40%
- 45.41% - 49.20%
- 49.21% - 53.20%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, December 6, 2019 (2017, 2016)

Appendix D: Identifying Geographic Disparities in Maternal and Child Health Outcomes

Map 52: Births to Teen Mothers Ages 15-19, Rate /1,000 Teen Females, 2014-2018

Legend

Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Teen Births/1,000

0.0 - 5.0

5.0 - 13.0

13.0 32.2

32.2 - 46.0

46.0 - 95.0
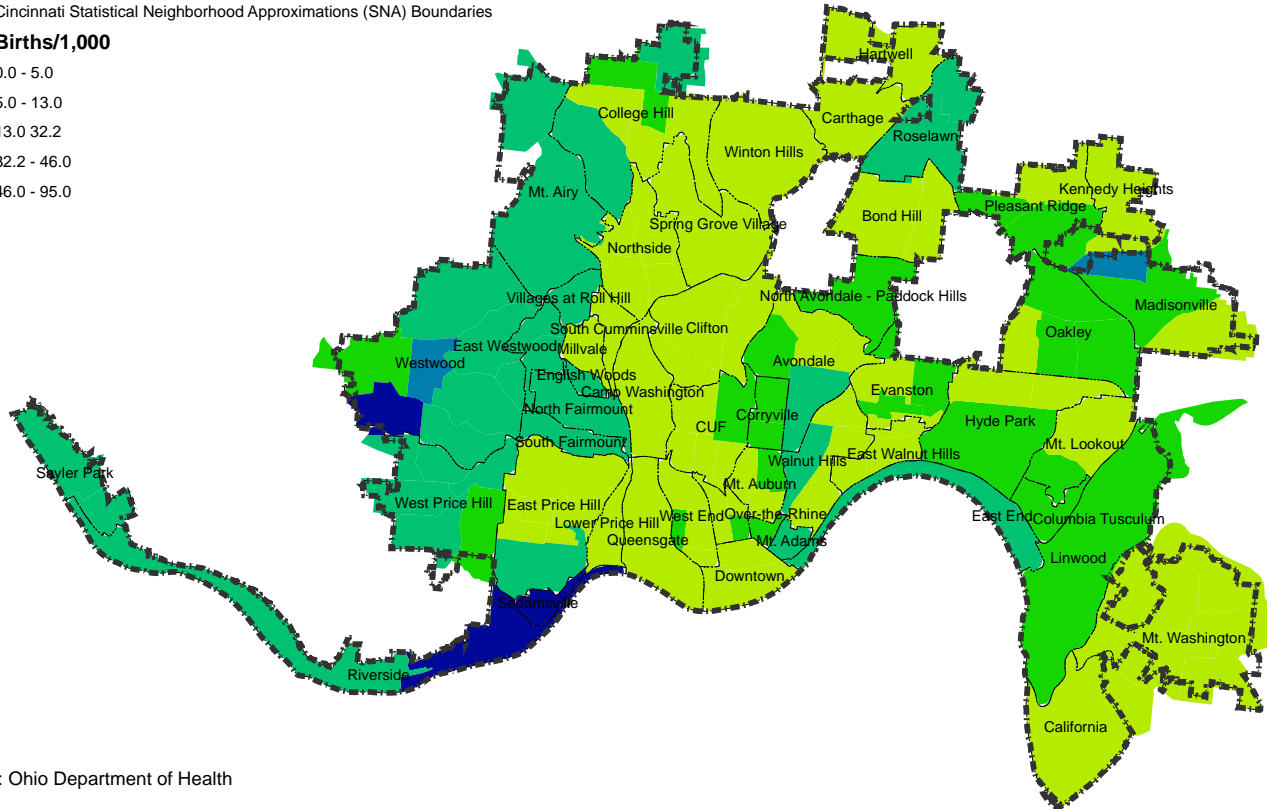
Source: Ohio Department of Health

Map 53: Percentage of Mothers Receiving 1st Trimester Care, 2014-2018

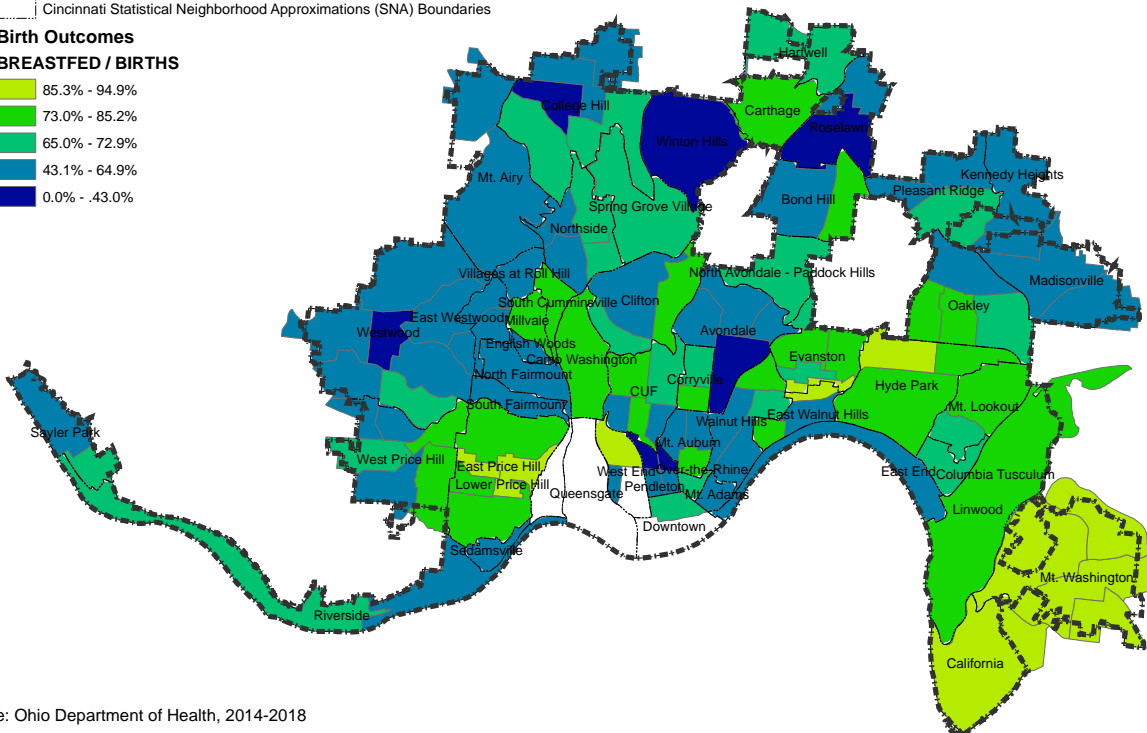**Legend**

- - - Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Birth Outcomes

1st Trimester Care

- 78.0% - 100.0%
- 69.0% - 77.9%
- 63.4% - 68.9%
- 34.0% - 63.3%
- <34%

Source: Ohio Department of Health, 2014-2018

Map 54: Percentage Preterm Births, 2014-2018

Legend

- - - Cincinnati City Boundary

Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Birth Outcomes

Preterm Births

- 0.0% - 3.7%
- 3.8% - 12.9%
- 13.0% - 13.7%
- 13.8% - 19.2%
- 19.3% - 30.8%
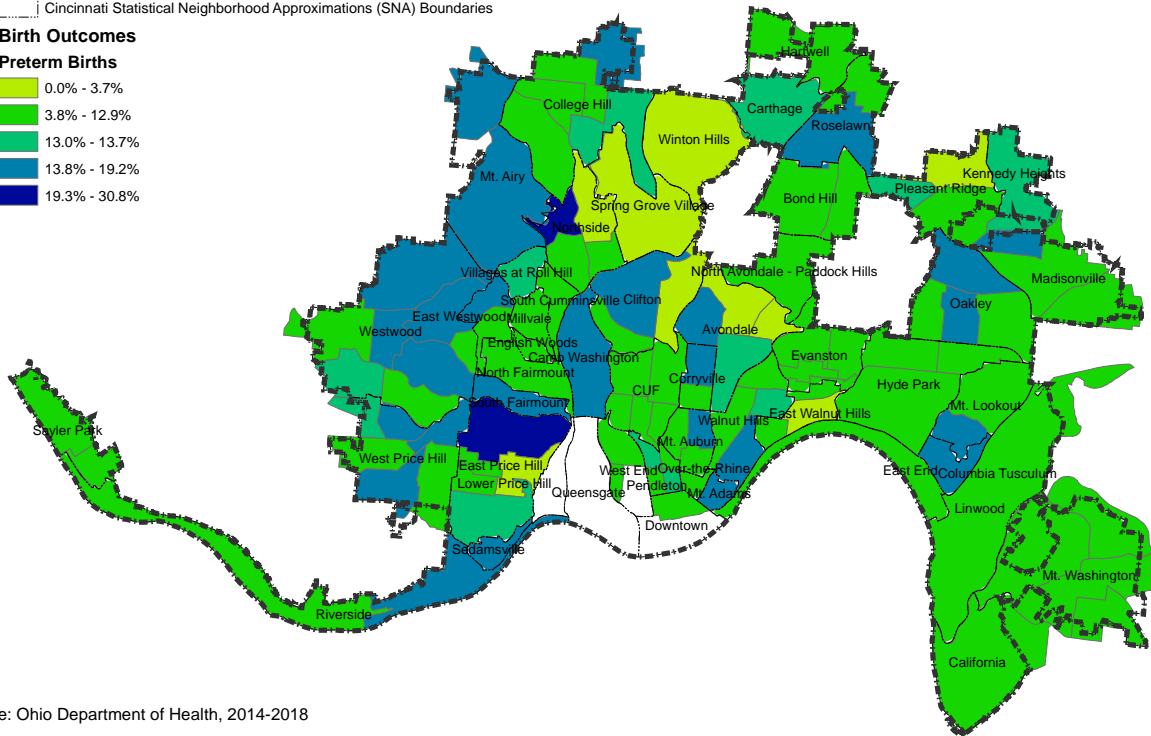
Source: Ohio Department of Health, 2014-2018

Map 55: Percentage Low Birth Weight Infants, 2014-2018

Legend

▪▫▪ Cincinnati City Boundary

⌐¬ Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Birth Outcomes

Low Birth Weight

▪	0.00000000 - 0.039215686
▪	0.039215687 - 0.096654275
▪	0.096654276 - 0.138211382
▪	0.138211383 - 0.188118812
▪	0.188118813 - 0.250000000
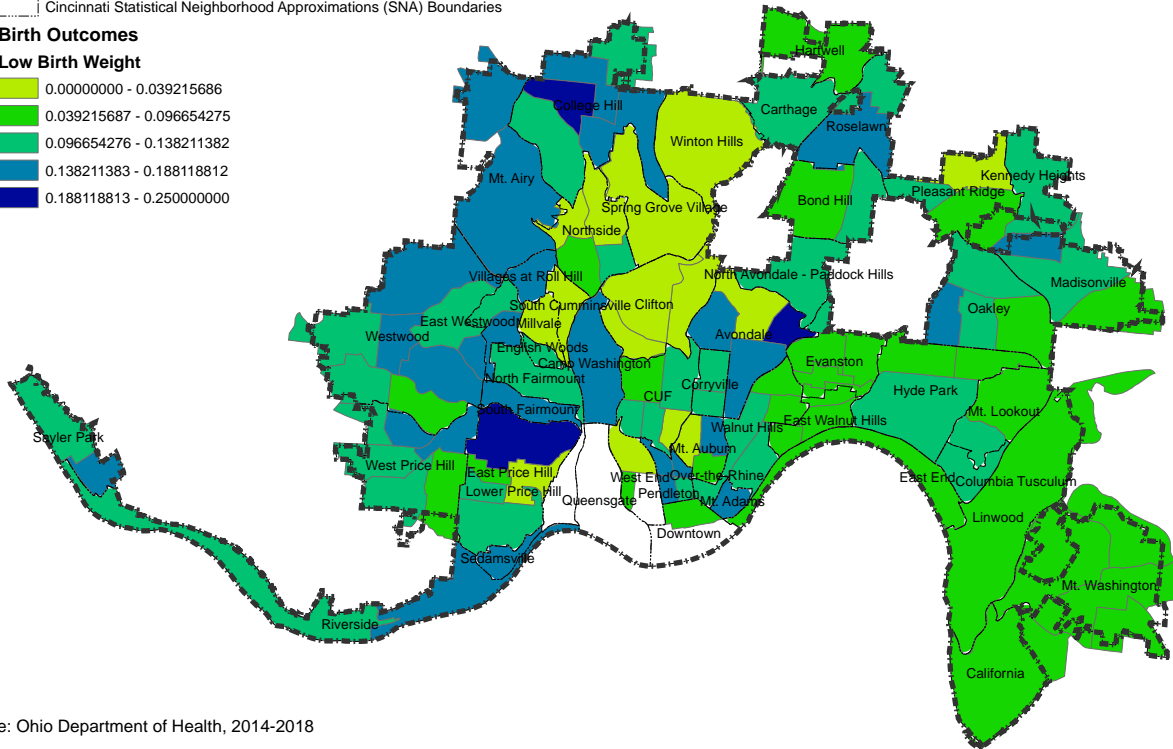
Source: Ohio Department of Health, 2014-2018

Map 56: Breastfed Infants, 2014-2018

Legend

▪▫▪ Cincinnati City Boundary

⌐¬ Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Birth Outcomes

BREASTFED / BIRTHS

▪	85.3% - 94.9%
▪	73.0% - 85.2%
▪	65.0% - 72.9%
▪	43.1% - 64.9%
▪	0.0% - .43.0%

Source: Ohio Department of Health, 2014-2018

Appendix E: Identifying Geographic Disparities in the Social Determinants of Health
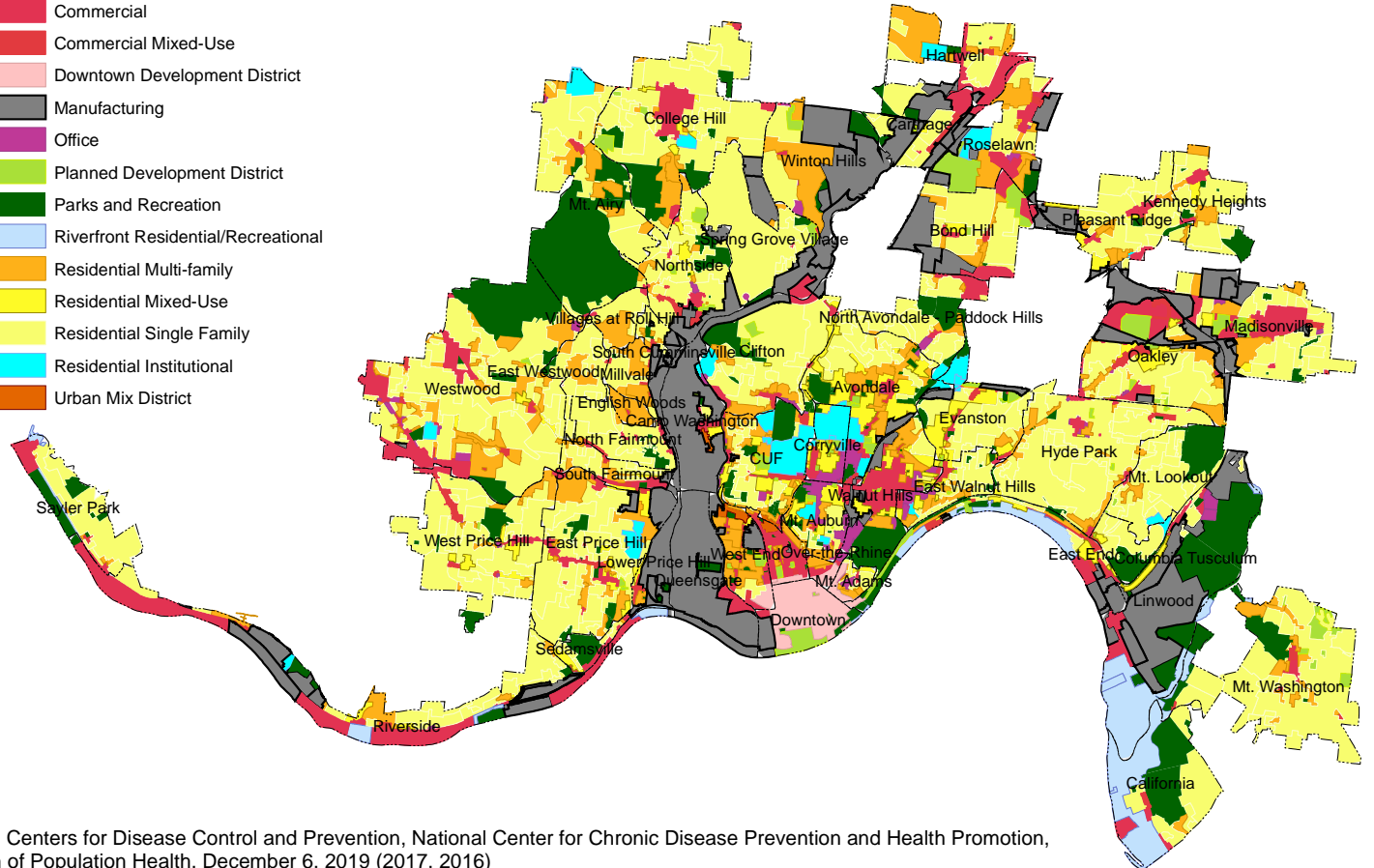## Map 57: Cincinnati Land Use/Land Cover

Legend

⬚ Cincinnati Statistical Neighborhood Approximations (SNA) Boundaries

Zoning Designation

🟩 Other
🟥 Commercial
🟥 Commercial Mixed-Use
🟪 Downtown Development District
⬛ Manufacturing
🟪 Office
🟩 Planned Development District
🟩 Parks and Recreation
🟦 Riverfront Residential/Recreational
🟧 Residential Multi-family
🟨 Residential Mixed-Use
🟨 Residential Single Family
🟦 Residential Institutional
🟧 Urban Mix District

Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, n of Population Health, December 6, 2019 (2017, 2016)